SCUBAPRO®

Aladin SPORT
User manual

I   Safety considerations

⚠ WARNING

You must carefully read and understand this entire manual before using your Scubapro Aladin SPORT.

Diving has many inherent risks. Even if you follow the instructions of this manual in a careful manner, it is still possible that you may be seriously injured or die from decompression sickness, oxygen toxicity or some other inherent risk of scuba with Nitrox or compressed air. Unless you are fully aware of these risks and are willing to personally accept and assume responsibility for those risks, do not use Scubapro Aladin SPORT.

Guidelines for the use of SPORT

The following guidelines for using SPORT are derived from the latest medical research and the recommendations of the American Academy of Underwater Sciences for diving with diving computers. Following these guidelines will greatly increase your safety while diving, but cannot guarantee that decompression sickness or oxygen toxicity will not occur.

- SPORT is designed for dives with compressed air (21% O_2) and Nitrox (22 to 50% O_2) only. Do not use SPORT for dives made with other mixed gases.
- It is absolutely necessary to check the set mixture before each dive and to compare it to the gas mixture currently used. Always remember: setting an incorrect mixture carries an inherent risk of decompression sickness and/or oxygen toxicity! Maximum deviation from the measured mixture must not exceed 1% O_2. An incorrect gas mixture can be lethal!
- Only use SPORT with open circuit breathing systems.
- Only use SPORT for diving with an independent breathing apparatus. SPORT is not designed for long term exposures with Nitrox.
- Always observe the visual and audible alarm signals. Avoid situations of increased risk which are marked with a warning sign in this operating manual.
- SPORT has a ppO_2 warning. The default limit is set at 1.4bar ppO_2 max. It can be changed between 1.2 and 1.6bar.
- Frequently check the "oxygen clock" (CNS O_2). Ascend and finish the dive if the CNS O_2 exceeds 75%.
- Never dive deeper than the Maximum Operating Depth (MOD) pertinent to the gas mixture in use.
- Always check the diving limits considering the oxygen content and standard sports diving procedures (decompression sickness, oxygen toxicity).
- In accordance with the recommended maximum diving limit of all instructional agencies, do not dive deeper than 40 metres/130 feet.
- The danger of nitrogen narcosis has to be taken into consideration. SPORT gives no warning about this.
- On all dives, with or without dive computer, make a safety stop for at least 3 minutes at 5 metres (15 feet).
- All divers using dive computers to plan dives and indicate or determine decompression status must use their own computer, which they take with them on all dives.
- If SPORT fails at any time during the dive, the dive must be terminated, and appropriate surfacing procedures (including a slow ascent and a 3 to 5 minute safety stop at 5m /15ft) should be initiated immediately.
- Comply with the ascent rate and carry out any decompression stop required. If the computer should fail for any reason, you must ascend at a rate of 10m / 30ft per minute or less.
- On any given dive, both divers in a buddy pair must follow the most conservative dive computer for that particular dive.
- Never dive without a buddy. SPORT does not substitute for a dive buddy.
- Only make dives that are appropriate to your level of dive training. SPORT does not increase your knowledge of diving.

- Always dive with back-up instruments. Make sure that you always use back-up instrumentation including a depth gauge, submersible pressure gauge, digital bottom timer or dive watch, and have access to decompression tables whenever diving with a dive computer.
- Avoid repeated ascents and descents (yo yo diving).
- Avoid repeated heavy workload while at depth.
- Plan the dives to be shorter if they are made in cold water.
- After finishing the decompression or at the end of a no-stop dive, the final stage of the ascent should be as slow as possible.
- You MUST be familiar with all signs and symptoms of decompression sickness before using SPORT! Seek IMMEDIATE treatment for decompression sickness should any of these signs or symptoms occur after a dive! There is a direct correlation between the effectiveness of treatment and the delay between the onset of symptoms and the treatment for decompression sickness.
- Only dive with Nitrox after you have been thoroughly instructed by a recognised institution.

Repetitive dives

- Do not start your next dive before your CNS O_2% status has dropped below 40%.
- When diving with Nitrox, make sure your surface interval is long enough (just like diving with compressed air). Plan for a minimum surface interval of two hours. Oxygen, too, needs sufficient time to leave the body.
- Match gas mixture to the intended dive.
- Do not attempt a repetitive dive if the no-dive warning ⊘ is visible on the display.
- Plan a day without diving once a week.
- If you have to change computers, wait at least 48 hours before carrying out your next dive.
- Diving after a reset of the remaining saturation (reset, see page 33, or battery replacement, see page 37) may lead you into potentially hazardous situations which could result in death or serious injury. After a reset of the remaining saturation do not dive for at least 48 hours.

Altitude and diving

- Do not dive at altitudes higher than 4000m (13000ft).
- After a dive do not rise to altitudes that SPORT prohibits via the flashing altitude range number (see page 27).

▲ 1 - 3

Flying after diving

- After diving, wait at least 24 hours prior to flying.

C E

Aladin SPORT dive instrument is compliant with the European Union directive 2014/30/EU.

Standard EN 13319: 2000

Aladin SPORT dive instrument is also compliant with the European standard EN 13319: 2000 (EN 13319: 2000 – Depth gauges and combined depth and time measuring devices – Functional and safety requirements, tests methods).

Introduction

Congratulations on purchasing SPORT and welcome to Scubapro. From now on you will enjoy the assistance of an extraordinary dive computer - equipped with Scubapro innovative technology - while diving.

We thank you for choosing SPORT and we hope you will enjoy safe dives in the future! Further information on Scubapro and Scubapro products can be found on our web page at www.scubapro.com.

To make this manual easier to read we will use the term "SPORT" as an abbreviation for "Aladin SPORT diving computer" throughout this booklet.

Safety considerations

Dive computers provide divers with data; they, however, do not provide the knowledge how this data should be understood and applied. Dive computers cannot replace common sense! You must therefore carefully read and understand this entire manual before using your SPORT.

Important remarks concerning signal words and symbols

This operating manual makes use of the following icons to indicate especially important comments:

Remarks   Information and tips which are important for optimal use of the functions of SPORT.

Danger!   Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
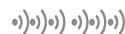
The following symbols are used in the operating manual:

Flashing display   -> Page reference e.g. ->6

Audible signals

•⁾⁾ 4s •⁾⁾   Audible attention signal   •⁾)•⁾)•⁾) •⁾)•⁾)•⁾)   •⁾)•⁾)•⁾) •⁾)•⁾)•⁾)   Audible alarm signal
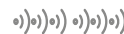
Instructions for manual input

◯◗   Press left push button
◖◗   Press and hold (1 second) left push button

◯◗   Press right push button
◯◗   Press and hold (1 second) right push button

◖◗   Press and hold (1 second) both push buttons

◯⁾   **Alternate displays**
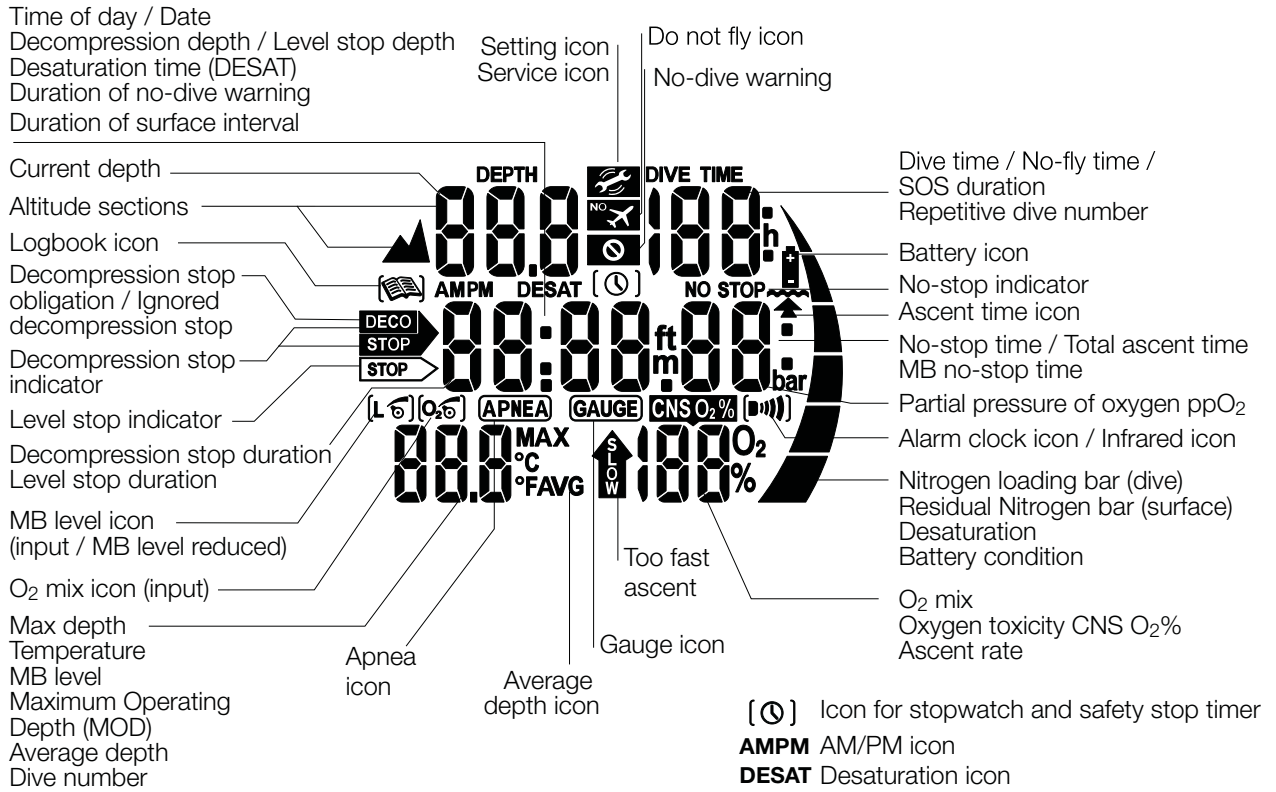By pushing ◯◗ during the dive you can scroll through alternate displays.

How to get back to the first display:
• scrolling with ◯◗ through the displays
• after 5 seconds: automatically if marked with ⏱
• after 5 seconds: directly by pushing 1x ◯◗

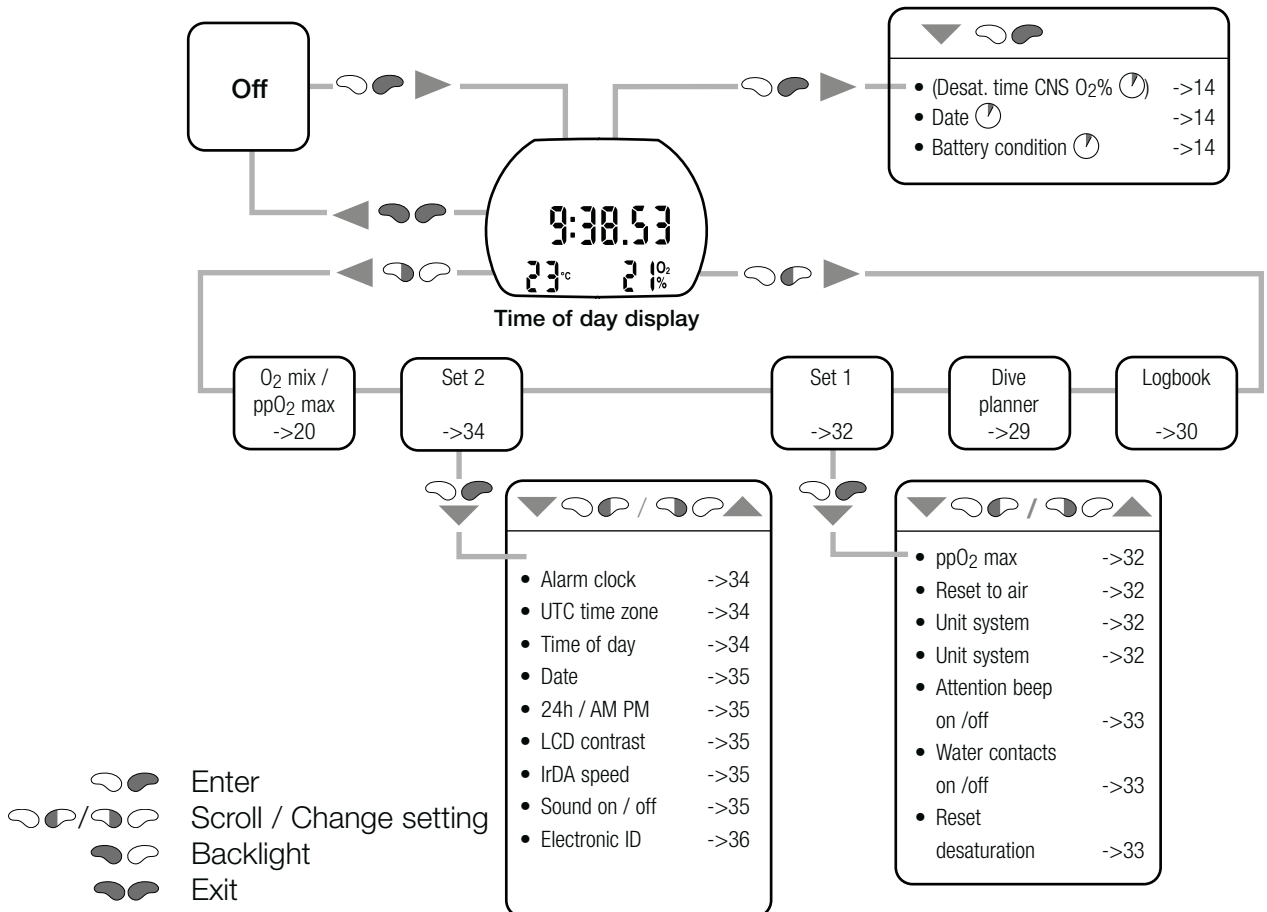E.g. Max depth ◯◗ > Temperature ◯◗ > Temperature, Time ⏱ ◯◗ > Max depth

⏱   Time out after 5 seconds without operation. Display switches back to original indication.

Quick reference

Time of day / Date
Decompression depth / Level stop depth
Desaturation time (DESAT)
Duration of no-dive warning
Duration of surface interval

Setting icon
Service icon

Do not fly icon
No-dive warning

Current depth
Altitude sections
Logbook icon
Decompression stop obligation / Ignored decompression stop
Decompression stop indicator
Level stop indicator
Decompression stop duration
Level stop duration
MB level icon (input / MB level reduced)
O2 mix icon (input)
Max depth
Temperature
MB level
Maximum Operating Depth (MOD)
Average depth
Dive number

Dive time / No-fly time / SOS duration
Repetitive dive number
Battery icon
No-stop indicator
Ascent time icon
No-stop time / Total ascent time MB no-stop time
Partial pressure of oxygen ppO2
Alarm clock icon / Infrared icon
Nitrogen loading bar (dive)
Residual Nitrogen bar (surface)
Desaturation
Battery condition
O2 mix
Oxygen toxicity CNS O2%
Ascent rate

Apnea icon
Average depth icon
Too fast ascent
Gauge icon

[⊘] Icon for stopwatch and safety stop timer
AMPM AM/PM icon
DESAT Desaturation icon

Operating scheme

"->" means "more information at page"

| Off |

9:38.53

23°C   21 O2%

Time of day display

| O2 mix / ppO2 max ->20 | Set 2 ->34 | Set 1 ->32 | Dive planner ->29 | Logbook ->30 |

- (Desat. time CNS O2% ⊘) ->14
- Date ⊘ ->14
- Battery condition ⊘ ->14

- Alarm clock ->34
- UTC time zone ->34
- Time of day ->34
- Date ->35
- 24h / AM PM ->35
- LCD contrast ->35
- IrDA speed ->35
- Sound on / off ->35
- Electronic ID ->36

- ppO2 max ->32
- Reset to air ->32
- Unit system ->32
- Unit system ->32
- Attention beep on /off ->33
- Water contacts on /off ->33
- Reset desaturation ->33

Enter
Scroll / Change setting
Backlight
Exit

Without operation the display switches automatically back to the time of day display and after 3 minutes the display switches off.

Display switched off

O₂ mix
[O₂ᵣ]

(clock icon)

Logbook
(book icon)

Diveplanner (PLn)

◀ / ▶   ◀ / ▶

O₂ mix column:

2 1 %O₂ ⊕ Oxygen
         ⊖ concentration

1.40 bar ⊕ ppO₂ max
         ⊖ (MOD)

Confirmation

Logbook column:

Page 1
Max depth — 28.9 35: — Dive time
Date of — 09.02.04 — Battery performance
the dive
1   2 %O₂ — O₂ mix.
⊕ Dive
⊖ number

Page 2
Altitude range — 2   1 — Repetitive divenumber
(if >0)
          10:32.50 — Starting time
Minimum
temperature — 25 °c   8 % — CNS O₂% at the end

Page 3
SOS — SoS Int —
if applicable — 2:35 — Surface interval if applicable

Exit

After the oldest dive:

Statistic information

Deepest — 28.9 26: — Longest
dive   dive
          23 h
Number — 53 — Cumulative
of dives   bottom time

Diveplanner column:

⊕ Surface
⊖ interval

No-stop dive

Add — No-stop time
          16: — No-stop time
30.0 MAX 21 %
⊕ Depth
⊖

Exit

II   System and operation

1   System description

SPORT displays all important dive and decompression data and has a memory which stores the full dive data. The data can be transmitted with an infrared interface (IrDA) and LogTRAK software to a Windows® personal computer.

LogTRAK software CD is included with the SPORT package. Infrared interfaces are available in PC.

Scubapro
SPORT

Infrared port

LogTRAK

Infrared Interface
(option)
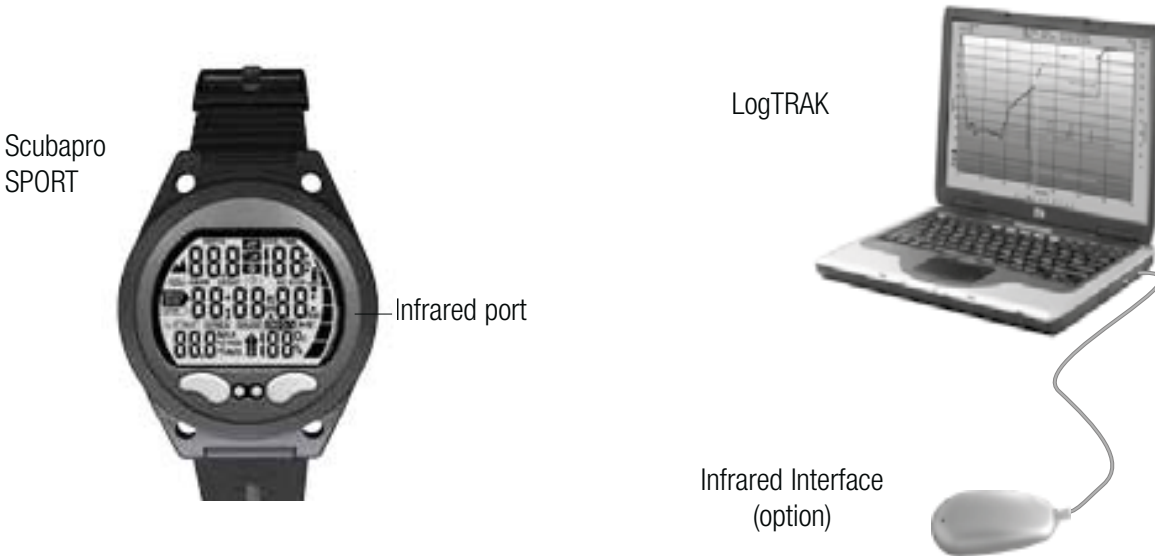
2   Operation

☞   On page 5 and 13 you will find an operating schematic.

2.1 Push buttons

SPORT can be operated with two push buttons (◡◠). Operation of the push buttons is divided into "press" (◖ /◗) and "press and hold (1 second)" (◖/◗).

At the surface:

◡◗/◖◠	• Switch on SPORT (**time of day display**)
◡◗	• Comparable to the ENTER or RETURN key of a keyboard
◡◗	• Enter into the displayed sub menu
◡◗	• Open the displayed setting
◖◗	• Confirm or enter the displayed value or setting
◡◠/◡◗	• Scroll through a menu
◡◠/◡◗	• Once entered with ◡◗ into a sub menu or setting:
	- Increase (◡◗) or decrease (◖◠) the indicated value
	- Change the setting
◖◠	• Switch on the backlight
◖◗	• Exit the current function or menu and switch to the **time of day display**
◖◗	• Switch off SPORT

Push buttons

Water contacts
(one located in front
and one on back,
however, inaccessible)

Under water:

◡◗	• Access alternate displays 🞅
◖◠	• Switch on the backlight
◡◠	• Activate the safety stop timer (dive mode only, in depths < 6.5m / 21ft)

2.2 Water contacts

On submerging in water the water contacts switch on SPORT automatically.

⚠️ **WARNING**

If you have chosen the option "Water contacts off" ("set 1", ->33), SPORT will turn on with a delay of up to 1 minute into the dive. This will affect functioning of the computer.
Make sure that the computer is on before starting the dive.

2.3 Introduction to Scubapro LogTRAK

LogTRAK is the software that allows Aladin SPORT to communicate with a Windows-based PC or Mac OS.
In order to take advantage of any of these features, you need to establish a communication between your PC and Aladin SPORT with a dongle.
To start the communication
1. Connect the dongle to your PC
2. Launch LogTRAK on your PC
3. Select the IrDa port where the dongle is connected
   Extras -> Options -> download

   Select the port that is used for Aladin SPORT dongle.
4. Place the Aladin SPORT on the dongle.

Download dive profiles

From LogTRAK, by selecting Dive -> Download Dives you can transfer the SPORT Logbook to your PC or Mac.
There are three main views each showing a specific part of your dive logs:
Profile shows the graphical data of the dive.
Details about the dive, where you can edit, for example, the equipment and tank information.
Location, shows your dive site on the world map.
The selection tabs for views are on the left side of the main window.

Change warnings/settings of the SPORT and reading the computer information

By selecting Extras -> Read Dive Computer settings you can enable/disable warnings that cannot be enabled or disabled by using the menus on the SPORT unit.

Read the chapter Warnings and alarms about the possible selections that you can modify on your SPORT.

You may also change the shown units between metric/imperial. Select Extras -> Options -> measurement units:
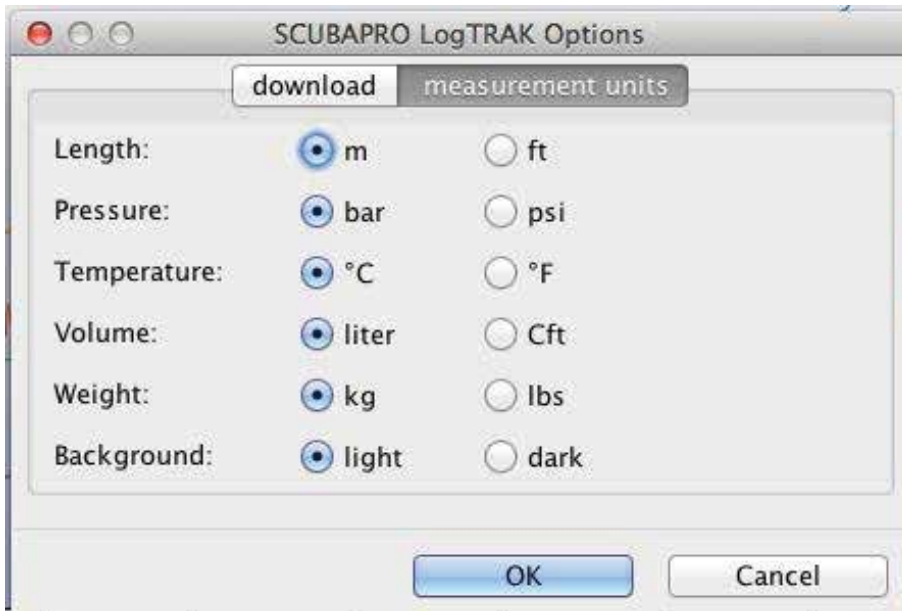
2.4 Switching on the display
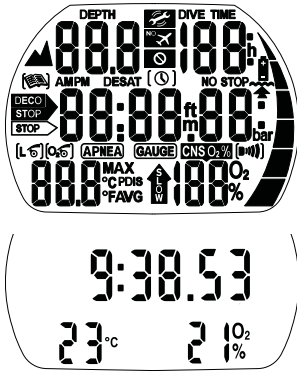
Time of day display

- automatically, on submerging in water* or when adaptation to atmospheric pressure is necessary;
- manually, by pushing ●◌ or ◌● . If switched on with ●◌ all segments light up for 5 seconds.
  Afterwards the display shows the time of the day, the O_2 mix and the temperature.

☞ This display is called **time of day display**. Most navigation descriptions start from this display. At the surface SPORT returns automatically to this display.

If there is a remaining saturation from the last dive or from a change of altitude, SPORT also displays the "do not fly" time, the "do not fly" icon, the current altitude range and the prohibited altitude range (->26).

☞ When SPORT is in state of rest no information is displayed but the atmospheric pressure is continuously monitored. If a change in altitude range is detected, SPORT switches on for 3 minutes automatically ->27.

* Only if the option "Water contacts on" ("set 1", ->33) is chosen. See warning ->10.

2.5 How to navigate SPORT at the surface

Starting from the **time of day display** you can enter into different menus.

Off

9:38.53
23°c   21 O_2%
Time of day display

- (Desat. time CNS O_2% ⏱)   ->14
- Date ⏱   ->14
- Battery condition ⏱   ->14

| O_2 mix / ppO_2 max ->20 | Set 2 ->34 | Set 1 ->32 | Dive planner ->29 | Logbook ->30 |

- Enter with ◌● into the function or sub menu.

- With ●● you can switch to the **time of day display**.

- After 3 minutes without operation SPORT returns to the **time of day display**.

Set 2 submenu:
- Alarm clock   ->34
- UTC time zone   ->34
- Time of day   ->34
- Date   ->35
- 24h / AM PM   ->35
- LCD contrast   ->35
- IrDA speed   ->35
- Sound on / off   ->35
- Electronic ID   ->36

Set 1 submenu:
- ppO_2 max   ->32
- Reset to air   ->32
- Unit system   ->32
- Unit system   ->34
- Attention beep on /off   ->33
- Water contacts on /off   ->33
- Reset desaturation   ->33

2.6 Checking the desaturation time

No-fly time

Do not fly icon

No-dive warning

Residual nitrogen bar

Desaturation time
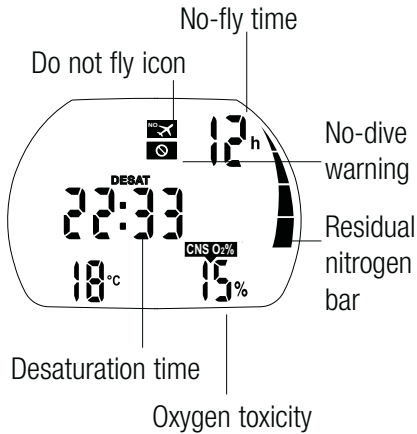
Oxygen toxicity

From the **time of day display** you can check the desaturation time* by pushing ◠◠. Desaturation time is determined either by oxygen toxicity, nitrogen saturation or the regression of microbubbles, depending on which requires the longer time.

The display switches back to the time of day display after 5 seconds without operation.

* Only displayed if there is a remaining saturation due to the last dive or change of altitude.

⚠ WARNING

For the calculations of the desaturation and no-fly time it is assumed that the diver breathes air while on the surface.

2.7 Checking the surface interval

LoG Int
6:10
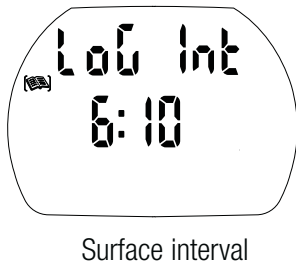
Surface interval

From the **time of day display** you can check the surface interval by pushing ◠◠ (logbook menu).

The surface interval is the time since the end of the last dive and is displayed as long as there is remaining saturation.

2.8 Displaying the date

23.03.04

Date

From the **time of day display** you can display the date by pushing 1x or 2x ◠◠ (depending on whether there is desaturation time left).

The display switches back to the **time of day display** after 5 seconds without operation.

2.9 Checking the battery condition

Battery condition / performance
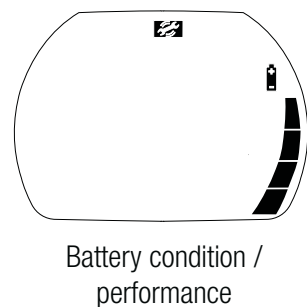
From the time of day display you can check the battery condition by pushing 2x or 3 x ◠◠ (depending on whether there is desaturation time left).

SPORT displays the estimated remaining battery performance for 5 seconds as a bar graph. If the bar graph shows 3 segments the battery warning appears ->15 and the battery has to be replaced ->37.

> ## ⚠ WARNING
>
> - If the bar graph shows 2 segments, the battery symbol will blink, on the surface and in dive mode, to alert the diver of a dangerous situation: the battery may not have enough energy to finish a dive.
> - Replace the battery when the steady battery symbol appears (3 segments)!

☞ The temperature influences the battery performance. In cold water it is lower than in warm water. If the battery shows 4 segments on the surface, it is possible for it to drop to 3 segments during the dive. If this is the case, the backlight will be temporarily disabled. See below.

Battery performance high enough for diving.

Battery warning appears. Backlight deactivated. Replace the battery! ->37

> ## ⚠ WARNING
>
> Flashing battery warning. Audible alarms and attention messages disabled! Backlight deactivated! Risk of computer malfunction. Do not let the battery reach this condition!

Bar graph interpretation

Diving not possible, dive planner and settings are disabled

SPORT marks dives started with 3 or less segments in the logbook with the battery symbol.
Logbook information is not lost even when the battery is removed for a long time.

2.10 Active backlight

The display of SPORT can be illuminated both on the surface and underwater.
The backlight can be activated by pushing 🔘◠. The light will turn off automatically after 6 seconds.
The backlight can only be activated if the computer display is on.

☞ Repeated activation of the backlight will reduce battery life.

2.11 Switching off the display

From the **time of day display** you can switch off SPORT by pushing ⬤⬤.
On the surface SPORT switches off automatically after 3 minutes without operation.

2.12 Alarm clock

The alarm clock goes off only at the surface.
If the alarm clock is "on", the time of day display shows [◀ı)].

When alarm is triggered: [◀ı)] flashes and special attention beeps are played for 30 seconds or until the user presses a button.

Setting the alarm clock: ->34 ("set 2")

3 SOS mode

Time remaining until
SOS mode switches
off automatically
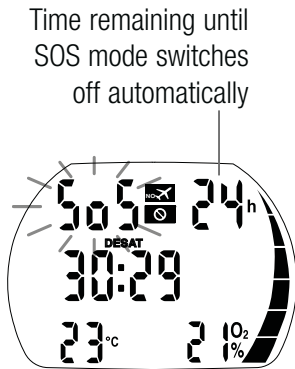
Activation: automatic
If the diver remains above a depth of 0.8m (3ft) for more than three minutes without observing a prescribed decompression stop, the computer will automatically switch into SOS mode after the dive.

Push ⬤⬤ to see the "SOS" sign and the remaining length of the SOS mode. The dive will be entered in the logbook with "SOS".

The SOS mode will be unlocked after 24 hours.

While in SOS mode, the computer cannot be used for diving.

Diving within 48 hours after the end of an SOS mode will result in shorter no stop times or longer decompression stops.

⚠ WARNING

- Serious injury or death may result if a diver does not seek immediate treatment should any signs or symptoms of decompression sickness occur after a dive.
- Do not dive to treat symptoms of decompression sickness!

III   Diving with SPORT

1   Terminology / Symbols

The information on the display of SPORT varies depending on the kind of dive and the dive phase.

1.1 General terminology / Display during no-stop phase

Current depth
In metres (feet)

Dive time
Duration of
the dive (min)

DEPTH   **DIVE TIME**
19.7   37:
NO STOP
24:
CNS O₂%
26.2MAX
3%

Nitrogen loading
bar

No-stop time
Remaining time
at a given depth
during which ascent
is allowed without
decompression
stop (min)

Max depth
Max depth
reached during
the dive

Oxygen toxicity
CNS O_2%

Ascent rate
(Only while
ascending)
85%

No-stop phase
Dive phase during which surfacing is allowed
without stop.

Decompression phase
Dive phase during which
surfacing is allowed only
after decompression
stops are completed.

Time ►

Depth

Current depth   24min

⚠

26.2m Max depth

37min dive time   No-stop time
Elapsed bottom time

⬭   (Max depth ◗◖ >) Temperature
            ◗◖ > Temperature🕐, O_2 mix🕐 and time of day🕐
            ◗◖ > (Max depth)…

1.2 Display during decompression phase

Decompression stop
All required decompression
stops must be observed.

DEPTH   **DIVE TIME**
34.7   25:
DECO
STOP   2: 6: 7:m
CNS O₂%
35.7MAX   **5**%

Decompression
stop depth
Deepest stage is
displayed.

Decompression stop
duration
Prescribed duration of the
decompression stop at the
displayed decompression
stage (minutes).

Total ascent time to surface (7min)

Time ►

Depth ▼

3m
6m   Deepest
decompression
stop depth
2min
Decompression
stop duration

35.7m

No-stop range   Decompression range

Total ascent time
Including decompression
stops in minutes.

1.3 Nitrox information (O_2 information)

For dives with compressed air in normal recreational diving, nitrogen is the decisive gas for the decompression calculations. When diving with Nitrox, the risk of oxygen toxicity rises with the increase of the fraction of oxygen and the increase of depth and can limit dive time and the maximum depth. SPORT includes this in the calculations and displays the necessary information:

O_2% mix Fraction of oxygen: The fraction of oxygen in the Nitrox mixture can be set between 21% (normal compressed air) and 50% in 1% increments. Your selected mix will be the basis for all calculations.

ppO_2 max Maximum allowed partial pressure of oxygen: the higher the fraction of oxygen in the mixture, the shallower the dive depth at which this value of the partial pressure of oxygen is reached. The depth at which ppO_2 max is reached is called Maximum Operating Depth (MOD).
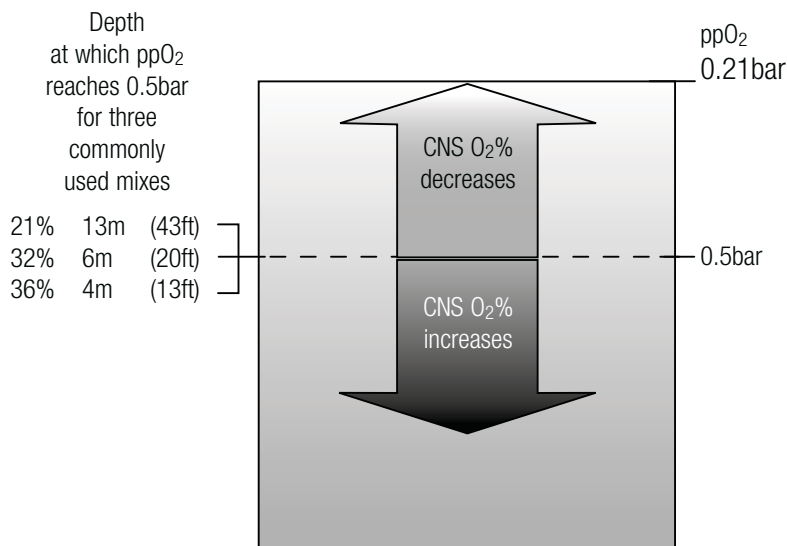When you enter the settings for the gas mixture, SPORT will display the ppO_2 max limit setting and the corresponding MOD. SPORT warns you audibly and visually once the depth is reached at which the ppO_2 reaches the maximum allowed value ->23.

☞ • Default setting of ppO_2 max is 1.4bar.
The value of ppO_2 max can be set by means of LogTRAK or with "set 1" between 1.2 and 1.6bar (->32). It can also be changed at the time of setting the gas mixture (->23).
• The CNS O_2% value/alarm is not influenced by the selected ppO_2 max setting.

CNS O_2% Oxygen toxicity: With the increased percentage of oxygen, the oxygen in the tissues, especially in the central nervous system (CNS), becomes important. If the partial pressure of oxygen rises above 0.5bar, the CNS O_2 value increases, if the partial pressure of oxygen is below 0.5bar, the CNS O_2 value decreases. The closer the CNS O_2 value is to 100%, the closer the limit where symptoms of oxygen toxicity can occur.

Depth
at which ppO_2
reaches 0.5bar
for three
commonly
used mixes

21%	13m	(43ft)
32%	6m	(20ft)
36%	4m	(13ft)

ppO_2
0.21bar

CNS O_2%
decreases

0.5bar

CNS O_2%
increases

⚠ WARNING

Nitrox diving may only be attempted by experienced divers after proper training from an internationally recognized agency.

2 Attention messages and alarms

SPORT draws the diver's attention to certain situations and warns the diver of unsafe diving practices. Attention messages and alarms are visual and / or audible.

☞ • The audible attention messages can be switched off in "set 1" ->33 or LogTRAK. With LogTRAK they can be switched off selectively.
• In addition, the sound can be turned off completely in "set 2" ->35.

⚠ WARNING

If you turn off the sound you will have no audible warnings. Without audible warnings you could inadvertently get into potentially hazardous situations which could result in death or serious injury.

⚠ WARNING

Serious injury or death may result from failing to immediately respond to alarms given by SPORT.

2.1 Attention messages

Attention messages are communicated to the diver visually by symbols, letters or flashing figures. In addition, two short audible sequences can be heard (in an interval of 4 seconds) in two different frequencies under water.

•)) 4s •)) (can be switched off)

Attention messages come up in the following situations (more information can be found on the listed pages):

|	Page
• Maximum Operating Depth / ppO$_2$ max is reached	23
• Oxygen toxicity reaches 75%	23
• No-stop time less than 3 minutes	24
• Prohibited altitude (surface mode)	28
• Entering decompression	25

2.2 Alarms

Alarms are given to the diver visually by flashing symbols, letters or figures. In addition, an audible sequence in one frequency can be heard during the whole duration of the alarm.

•))•))•)) •)•))•))   •)•))•)) •))•))•))

An alarm occurs in the following situations (more information can be found on the listed pages):

	Page
• Oxygen toxicity reaches 100%	23
• Ignored decompression	25
• Exceeding the prescribed ascent rate (Particular scale of beeps, ->22)	22
• Low battery alarm (without audible alarm): the battery icon appears if the battery has to be replaced.	15
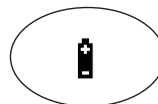
3 Preparation for the dive

You have to check the settings of SPORT especially before the first dive. All settings can be checked and changed directly at SPORT or via LogTRAK.
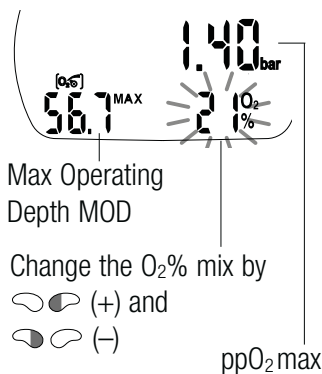
## 3.1 Setting the gas mixture and ppO$_2$ max [O$_2$]

> ⚠ **WARNING**
>
> Before every dive and after changing the tank, make sure that the settings for the gas mixture correspond with the current mixture used. An incorrect setting causes SPORT to miscalculate this particular dive. If the fraction of oxygen is set too low this can lead to oxygen poisoning without warning. If the value is set too high decompression sickness may occur. Inaccuracies in the calculations are carried over to repetitive dives.

or until [O$_2$]

Max Operating
Depth MOD

Change the O$_2$% mix by
(+) and
(−)

ppO$_2$ max

Change the ppO2 max by
(+) and (−)

To set the gas mixture, SPORT must be in user mode (time of day display).

1. Push or until the symbol for the setting of the O$_2$ mixture appears.

2. Confirm that you wish to change the displayed oxygen fraction by pushing .

3. Change the oxygen fraction in increments of 1% by pushing or . SPORT will display the current fraction of oxygen, the maximum partial pressure limit (ppO$_2$ max) and the MOD.

4. Confirm the selected percentage with .
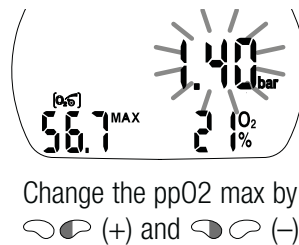
5. By pushing or you can change the ppO$_2$ max for the chosen fraction of oxygen down to 1.0bar. SPORT will now display the corresponding MOD for the new ppO$_2$ max.

6. Confirm your ppO$_2$ max settings with .

☞ • Without confirmation the display will disappear after 3 minutes and your entries will not be accepted.
  • Automatic reset of the O$_2$% mix to 21% can be set with "set 1" ->32 or LogTRAK between 1 and 48 hours or to "no reset" (default).

3.2 Preparation for the dive and function check
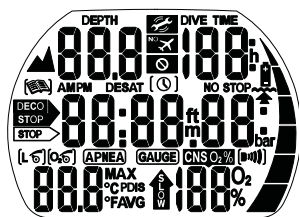
Switch on SPORT by pushing and check the test display: Are all elements of the display activated? Do not use SPORT if the display does not show all elements. When switching on SPORT with , the test display will not appear.

> ⚠ **WARNING**
>
> Check the battery capacity before each dive ->14.

4 Functions during the dive

4.1 Immersion

If the water contacts are deactivated (->33), switch on SPORT before immersion.

> ## ⚠️ WARNING
>
> If you have chosen the option "Water contacts off" ("set 1" or LogTRAK), SPORT will turn on with a delay of up to 1 minute into the dive. This will affect functioning of the computer. Make sure that the computer is on before starting the dive.

After immersion, starting at a depth of about 0.8m (3ft), all diving functions are monitored, i.e. depth and dive time displayed, maximum depth stored, saturation of tissues calculated, no-stop time or decompression prognosis determined, ascent rate controlled and displayed and the correctness of the decompression procedure supervised.

4.2 Dive time
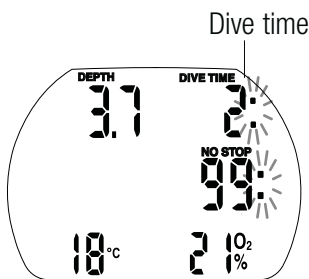
Dive time

The whole time spent below a depth of 0.8m (3ft) is displayed as dive time in minutes. The time above 0.8m (3ft) is counted as dive time only if the diver descends again below 0.8m (3ft) within 5 minutes.

While the dive time is running, the colons on the right of the figures are flashing in one second intervals. Maximum dive time displayed is 199 minutes.
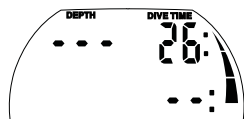
☞ If a dive lasts longer than 199 minutes the dive time display starts again at 0 minutes.

4.3 Current depth / O_2% mix
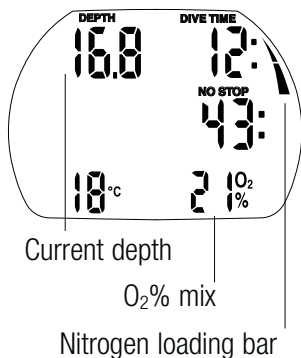
Current depth is given in 10cm increments in metric setting and 1ft increments in imperial setting.
At a diving depth of less than 0.8m (3ft) the display shows " – – – ".

The O_2% mix is diplayed as long as CNS O_2% = 0 and no ascent speed is indicated.

Current depth

O_2% mix

Nitrogen loading bar

☞ Depth measurement is based on salt water. Therefore, SPORT shows a slightly (3%) shallower depth than actual when diving in fresh water. No calculation however is affected.
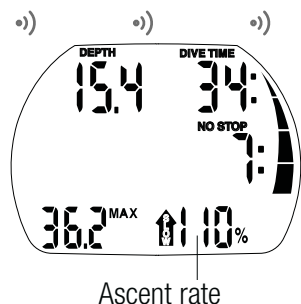
4.4 Maximum depth / Temperature
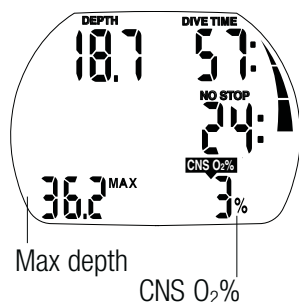
Maximum depth is only displayed if it exceeds the current depth by more than 1m (3ft) (maximum indicator function). If maximum depth is not displayed, SPORT shows the temperature.

Max depth

CNS O_2%

⬭ ◔◖ > Temperature, O_2 mix ◷
　◔◖ > Temperature ◷, Time ◷, O_2 mix ◷
　◔◖ > Max depth

4.5 Ascent rate

Optimal ascent rate varies depending on depth between 7 and 20m/min (23 and 67ft/min). It is displayed as a percent of the reference variable ascent rate. If the ascent rate is greater than 100% of the set value, the black arrow "SLOW" appears. If the ascent rate exceeds 140%, the arrow starts flashing. SPORT provides an audible alarm if the ascent rate is 110% or greater. The intensity of the alarm increases in direct proportion to the degree that the prescribed ascent rate is exceeded.

Ascent rate

⚠ WARNING

The prescribed ascent rate must be observed at all times! Exceeding the prescribed ascent rate can lead to microbubbles in the arterial circulation which can lead to serious injury or death due to decompression sickness.

- In case of an improper ascent SPORT may require a decompression stop even within the no-stop phase because of the danger of microbubble formation.
- The decompression duration necessary for the prevention of microbubbles can increase massively if the ascent rate is exceeded.
- From great depth a slow ascent may cause heightened saturation of tissues and an extension of both decompression duration and total ascent time.
  At shallow depth, a slow ascent may shorten the decompression duration.
- Display of the ascent rate has the priority over "CNS O_2".

⚠ WARNING

| Ascent rate	Visual alarm	Audible alarm
110%	⬆ SLOW	•)) •)) •)) •))
140%	⬆ SLOW (flashing)	•)) •)) •)) •))
160%	⬆ SLOW (flashing)	•))))) •))))) •))))) •)))))
180%	⬆ SLOW (flashing)	•))))))) •))))))) •))))))) •)))))))

Reduce ascent rate

Excessive ascent rates for longer periods are entered in the logbook.

The following ascent rates correspond to the 100% value in SPORT.

depth (m)	<6	<12	<18	<23	<27	<31	<35	<39	<44	<50	>50
speed (m/min)	7	8	9	10	11	13	15	17	18	19	20
depth (ft)	<20	<40	<60	<75	<88	<101	<115	<128	<144	<164	>164
speed (ft/min)	23	26	29	33	36	43	49	56	59	62	66

4.6 Partial pressure of oxygen (ppO$_2$ max) / Maximum Operating Depth (MOD)

Max Operating Depth MOD
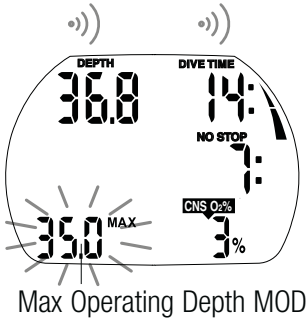
The maximum partial pressure of oxygen ppO$_2$ max (default 1.4bar) determines the Maximum Operating Depth (MOD). Diving deeper than the MOD will expose the diver to oxygen partial pressures higher than the set maximum level.

The ppO$_2$ max and consequently the MOD can be reduced manually (->20, setting the gas mixture, point 5).

In addition the maximum allowed ppO$_2$ can be set by means of LogTRAK or with "set 1" between 1.2 to 1.6bar ->32.


⚠ WARNING

The MOD is a function of ppO$_2$ max and the mixture used. If during the dive the MOD is reached or exceeded SPORT sends an audible attention message and the MOD is displayed (flashing) in the lower left corner.

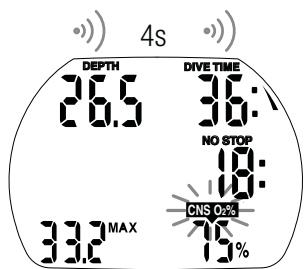Ascend to a depth shallower than the displayed MOD in order to diminish the danger of oxygen poisoning.

⚠ WARNING

The MOD should not be exceeded. Disregarding the warning can lead to oxygen poisoning.

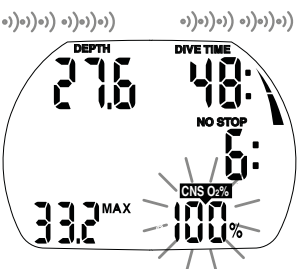### 4.7 Oxygen toxicity (CNS O$_2$%)
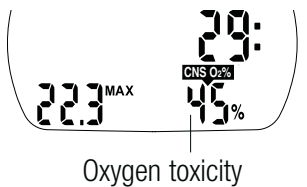
Oxygen toxicity

SPORT calculates oxygen toxicity based on depth, time and the gas mixture and displays it in the location of the ascent rate. The toxicity is expressed in 1% increments of a maximum tolerated value (O$_2$ clock).

The symbol "CNS O$_2$" is displayed together with the percentage.

⚠ WARNING

The MOD should not be exceeded. Disregarding the warning can lead to oxygen poisoning.

⚠ WARNING

When oxygen toxicity reaches 100%, an audible alarm goes off every 4 seconds. "CNS O$_2$" and the percentage value flash. Danger of oxygen toxicity!

Start procedure for terminating the dive.

☞
- During an ascent and if the CNS O_2% value does not increase anymore (due to a lower partial pressure of oxygen), the audible warning is suppressed.
- During the ascent, the display of the oxygen toxicity is replaced by the ascent rate. If the ascent is stopped, the display changes back to the indication of the CNS value.
- SPORT will display CNS O_2% values exceeding 199% with 199%.

4.8 Nitrogen loading bar graph

The nitrogen loading bar gives a graphical representation of how close to decompression you are. As you absorb nitrogen during the dive, more and more segments of the bar will light up. Depending on your depth, the segments can light up more or less rapidly.

1-3 segments (green area):
you are safely within the no-stop range.

4-5 segments (yellow area):
you are approaching decompression. When the no-stop time drops below 3 minutes the 5 segments will start flashing.*

6 segments (red area): you now have mandatory decompression obligation(s) which you must observe before reaching the surface.

* Depending on your profile, the no-stop time may drop below 3 minutes before the upper 5 segments are lit. In this case, only those segments that are lit will flash.

If you have entered decompression, the 6th segment will turn off as soon as you complete your last decompression obligation to indicate that you are no longer in decompression.
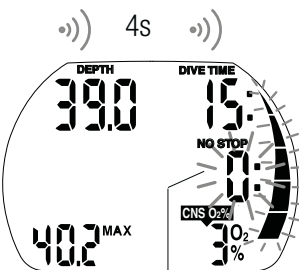
4.9 Decompression information

NO STOP and the no-stop time (minutes) are displayed if no decompression stops are necessary.
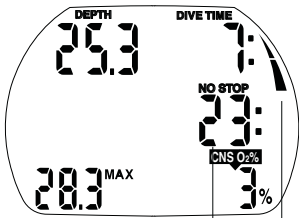
No-stop time
Nitrogen loading bar

☞
- No-stop display "99:" means remaining time of 99 minutes or more.
- No-stop time is influenced by the water temperature.

⚠ **WARNING**

If no-stop time drops below 3 minutes, an audible attention signal is activated, the no-stop value and the nitrogen loading bar begin to flash. If no-stop time is less than 1 minute, the no-stop display shows the flashing value "0".
In order to prevent a decompression dive, ascend slowly until the no-stop time is 5 minutes or more.

No-stop time less than 1 minute

⚠ **WARNING**

Dives that require decompression stops are not recommended.

Decompression values
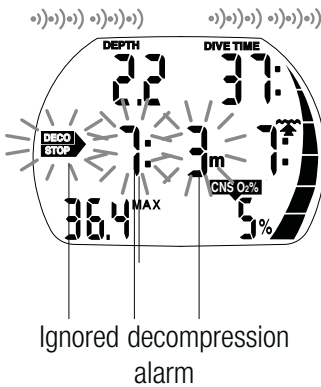
Decompression obligation

Decompression
stop duration

Decompression
depth
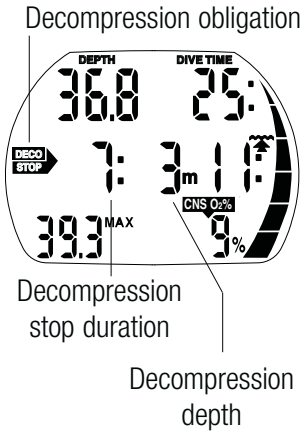
On entering the decompression phase, "NO STOP" disappears, the ▣▶ symbol appears and an attention beep goes off. The nitrogen loading bar stops flashing and the 6th segment lights up (red area). The deepest decompression stage in metres (feet) is displayed and the decompression stop duration of the displayed stage appears in minutes. The display "7: 3m (10ft)" means that a decompression stop of 7 minutes at a depth of 3m (10ft) has to be made.

When a decompression stop has been completed, the next (shallower) decompression stop is displayed. When all decompression stops have been completed, the ▣▶ symbol extinguishes, "NO STOP" and no-stop time reappear.

Deco stop depths deeper than 27m (90ft) are displayed as " – – : – – ".

Ignored decompression
alarm

> ⚠ **WARNING**
>
> The decompression alarm is activated if the decompression stop is ignored. The arrow ▣▶, the decompression stop duration and decompression stop depth begin to flash and an audible alarm goes off. Due to the formation of microbubbles, decompression can increase massively if a decompression stop is ignored. When the surface is reached during the decompression alarm, the arrow ▣▶, the decompression stop duration and decompression stop depth continue flashing, in order to point to the risk of a decompression accident. The SOS mode is activated 3 minutes after the dive if corrective action is not taken (->16).
> If the total (cumulative) duration of the decompression alarm is longer than one minute, it is entered in the logbook.
> Descend to the prescribed decompression stop depth immediately!

Total time of ascent
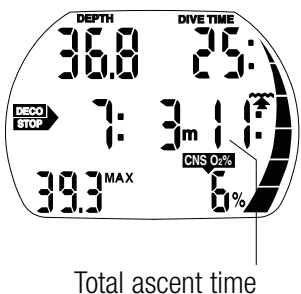
Total ascent time

As soon as decompression stops are necessary SPORT shows the total time of ascent. This includes the ascent time from the current depth to the surface and all decompression stop obligations.
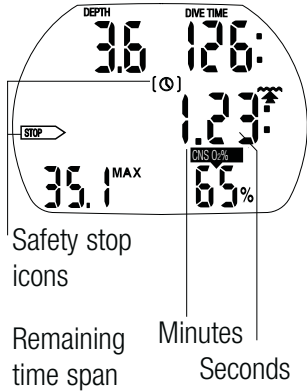
☞   The total time of ascent is calculated on the basis of the prescribed ascent rate. Total time of ascent can be subject to change if the ascent rate is not ideal (100%).
Ascent time greater than 99 minutes is displayed as " – – ".

> ⚠ **WARNING**
>
> On all dives with SPORT, make a safety stop for at least three minutes at a depth of 5m (15ft).

4.10 Safety stop timer

The safety stop timer displays the time span a diver should spend at the safety stop depth at the end of the dive. The timer is activated by the diver and counts back from 3 minutes to zero. It can be restarted any number of times.

The safety stop timer can be activated under the following conditions: depth < 6.5m (21ft), no-stop display 99 minutes.

Activate the safety stop timer by pressing ◖◗. The timer begins to count backwards and a bookmark will be created in the dive profile. If you press again, the timer will start again from the full value.

The safety stop timer will switch off automatically if the depth exceeds 6.5m (21ft) or the no-stop phase is shorter than 99 minutes.

Safety stop icons

Remaining time span   Minutes

Seconds

5 Functions at the surface

5.1 End of a dive
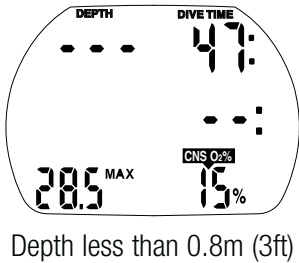
After reaching the surface (<0.8m/3ft) SPORT remains in dive mode for 5 minutes. The delay allows for surfacing for a short period for orientation.

After 5 minutes the dive is closed and it is entered into the logbook. The time of day is then displayed for 3 minutes, after which the computer turns off.

Depth less than 0.8m (3ft)
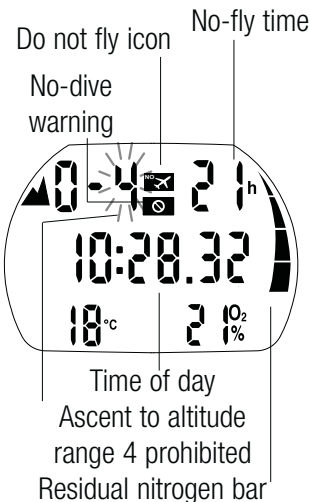
> ### ⚠ WARNING
> For the calculations of the desaturation and no-fly time it is assumed that the diver breathes air while on the surface.

5.2 Residual nitrogen bar graph

The segments in the residual nitrogen bar graph will gradually turn off as SPORT follows the offgassing of your tissues during your surface interval. There is a 1:1 equivalence in the meaning of the segments between diving and surface. Thus, on a repetitive dive the bar will resume from its status on the surface just prior to the dive. There are two exceptions however:

• the uppermost segment will stay lit until the desaturation time is completely extinguished. This is done to show that there is desaturation time left and that a dive started at this point will be logged as a repetitive dive. If the remaining desaturation time is very short, this segment could however at first disappear during the dive;

• during the 24 hours of an SOS-lock, all segments will stay on.

5.3 Desaturation time, No-fly time and No-dive warning

Do not fly icon   No-fly time

No-dive warning

5 minutes after a dive SPORT shows the time of day, the "do not fly time", the no-dive warning (if applicable), the current altitude range and the prohibited altitude range (->27).

No-fly time is the time in hours that should pass before a flight and is displayed and adjusted until the value becomes 0 hours.
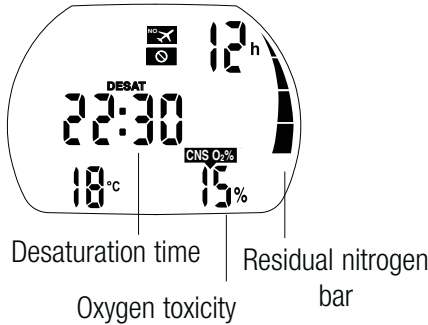
> ### ⚠ WARNING
> Flying while SPORT displays "do not fly" may lead to serious injury or death from decompression sickness.

Time of day

Ascent to altitude range 4 prohibited

Residual nitrogen bar

> ⚠ **WARNING**
>
> If the "no-dive" warning is visible during the surface interval, the diver should not undertake another dive.

To check the remaining desaturation time and oxygen toxicity press ◯●.

Desaturation time
Oxygen toxicity
Residual nitrogen bar

Desaturation time is determined either by oxygen toxicity, nitrogen saturation or the regression of microbubbles, depending on which requires the longer time.

To check the elapsed surface interval press ◯●.

Surface interval

⊘
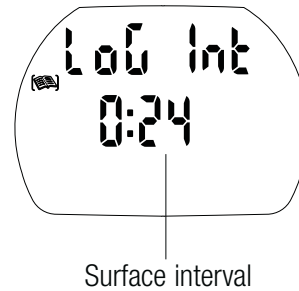
No-dive warning

If SPORT detects a situation of increased risk (due to the potential of microbubble accumulation from previous dives or a CNS O_2 level above 40%), the no-dive symbol will appear on the display. The duration of the no-dive warning is visible in the dive planner menu. SPORT recommends this as minimum surface interval in order to reduce the number of microbubbles and/or to reduce the CNS O_2 level below 40%.

☞ You should not undertake a dive as long as the no-dive warning message is displayed on the computer screen. If the warning is prompted by microbubble accumulation (as opposed to CNS O_2 over 40%) and you dive anyway, you will have shorter no-stop times or longer decompression times. Moreover, the duration of the no-dive warning at the end of the dive can increase considerably.

6 Diving in mountain lakes
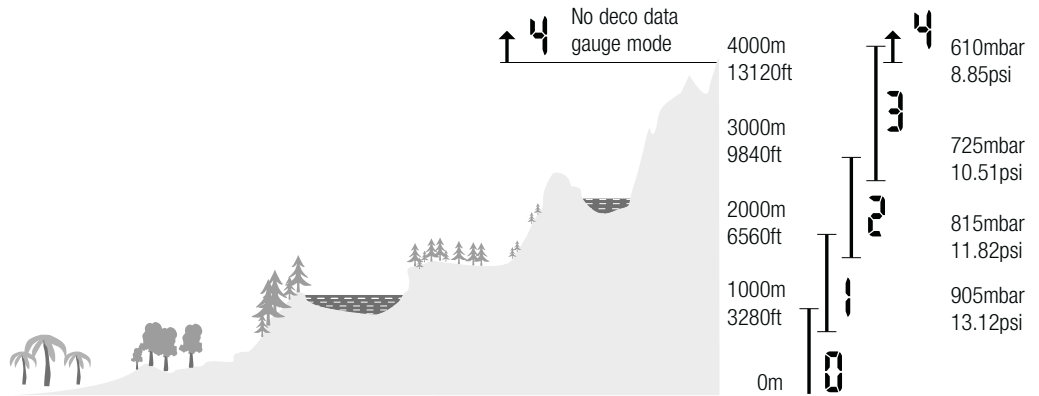
6.1 Altitude ranges

Altitude icon
Altitude range 2
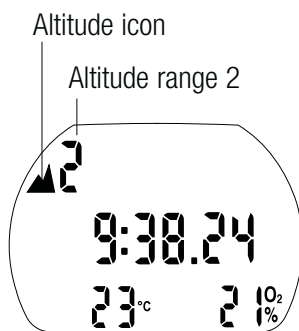
SPORT measures the atmospheric pressure every 60 seconds even while the display is switched off. If the computer detects a sufficient increase in altitude, it switches on automatically and indicates the new altitude range (1-4) and the desaturation time. Desaturation time indicated at this moment refers to adaptation time at this altitude. If the dive starts within this adaptation time, SPORT treats it as a repetitive dive, since the body is offgassing.
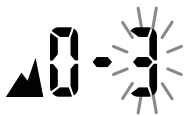
Altitude is divided into five ranges, which are influenced by barometric pressure. That is why the defined altitude ranges overlap on their fringes. If a mountain lake is reached, the altitude range is indicated at the surface (time of day display), in the logbook and in the dive planner by a stylised mountain and the current altitude range. Sea level to an altitude of approximately 1000m (3300ft) is not indicated. In the following diagram, you can see the approximate breakdown of the altitude ranges:

01234

Altitude ranges

		Switching at approx.
↑ 4 No deco data gauge mode	4000m 13120ft	↑ 4 610mbar 8.85psi
	3000m 9840ft	3 725mbar 10.51psi
	2000m 6560ft	2 815mbar 11.82psi
	1000m 3280ft	1 905mbar 13.12psi
	0m	0

6.2 Prohibited altitude

▲0 - 3

Ascent to altitude range 3 and 4 prohibited.
Max allowed altitude: 2650 m (8694ft).

⚠ WARNING

Flying while SPORT displays "do not fly" may lead to serious injury or death from decompression sickness.

	▲0 - 1	▲0 - 2	▲0 - 3	▲0 - 4
Max altitude:	850m 2790ft	1650m 5413ft	2650m 8694ft	4000m 13120ft

▲1 - 3

The ascent prohibition can also be displayed together with an altitude range: Example: You are at 1200m (3937ft) (altitude range 1) and you may ascend to range 2 only (2650m / 8694ft). You may not rise to the altitude range 3 or 4.

6.3 Decompression dives in mountain lakes

DEPTH   DIVE TIME
23.8   13:

25.6 MAX
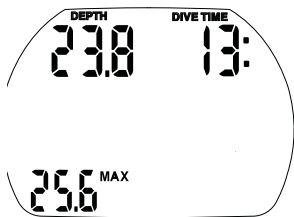
Dive at altitude range 4:
• no deco data
  (autom. gauge mode)

In order to assure optimal decompression even at higher altitudes, the 3m (10ft) decompression stage is divided into a 4m (13ft) stage and a 2m (7ft) stage in altitude ranges 1, 2 and 3. The prescribed decompression stop depths are, in sequence, 2m / 4m / 6m / 9m… (7ft / 13ft / 20ft / 30ft…).

If atmospheric pressure is below 620mbar (8.99psi) (altitude higher than 4100m / 13450ft above sea level), no decompression data is calculated and displayed (automatic gauge mode).
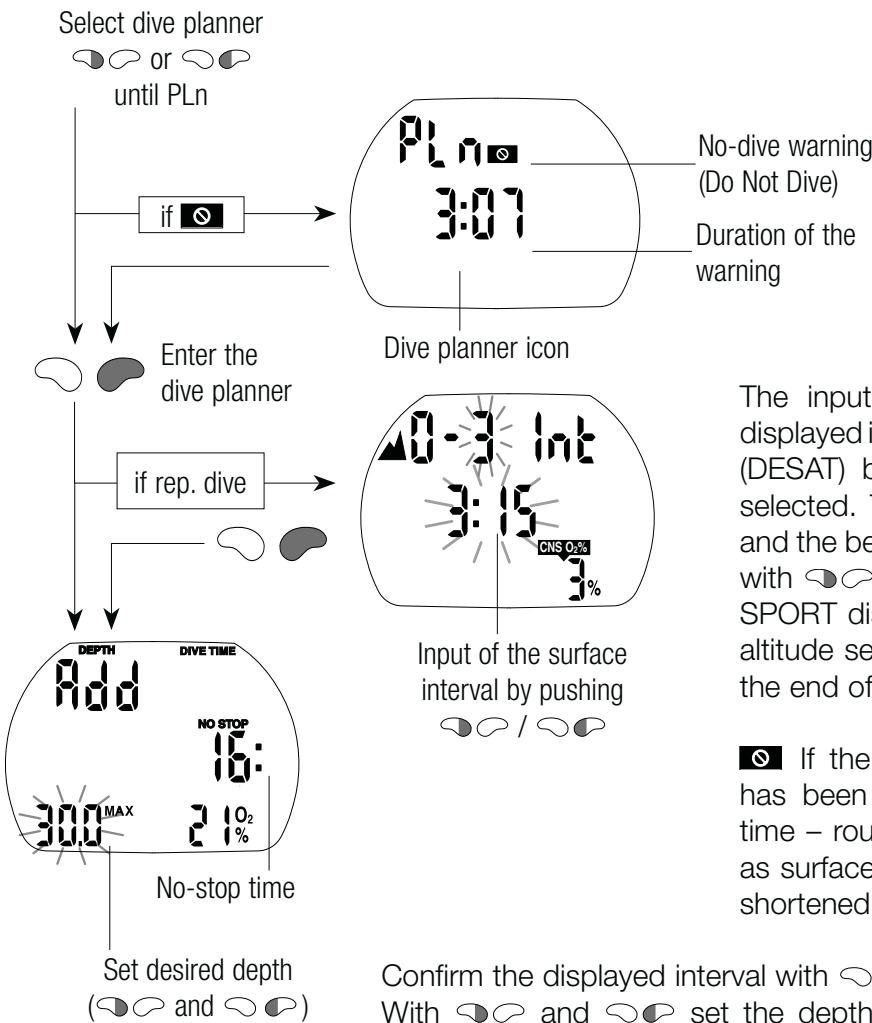In addition, the dive planner is not available anymore.

IV Dive planner

PLn: SPORT has a dive planner which allows the planning of no-stop dives.

Basis of the planning:
- selected fraction of oxygen and MOD
- water temperature of the most recent dive
- altitude range (if any)
- status of saturation at the time the dive planner is selected
- assuming a normal workload of the diver and observance of the prescribed ascent rates

1 Planning a no-stop dive

To select the dive planner SPORT must be in user mode (**time of day display**). Push ⌒⌒ or ⌒⌒ until the symbol for the dive planner PLn appears.

Select dive planner
⌒⌒ or ⌒⌒
until PLn

if ⊘

Enter the
dive planner

if rep. dive

Set desired depth
(⌒⌒ and ⌒⌒)

PLn⊘
3:07

No-dive warning
(Do Not Dive)

Duration of the
warning

Dive planner icon

Input of the surface
interval by pushing
⌒⌒ / ⌒⌒

No-stop time

⊘ The no-dive warning and its duration are displayed if SPORT detects an increased risk due to the accumulation of microbubbles.

Enter the dive planner with ⌒⌒.

The input window for the time interval is displayed if there was a remaining desaturation (DESAT) before the dive planner has been selected. This surface interval between now and the beginning of the dive can be changed with ⌒⌒ and ⌒⌒ in steps of 15 minutes. SPORT displays the $CNS\,O_2\%$ value and the altitude section to which you may not rise at the end of the selected surface interval.

⊘ If the no-dive warning and its duration has been displayed, SPORT proposes this time – rounded up to the next 15 minutes – as surface interval. If the proposed interval is shortened, the no-dive warning appears.

Confirm the displayed interval with ⌒⌒ (if applicable).
With ⌒⌒ and ⌒⌒ set the depth for which you want to know the no-stop time.

Depths deeper than the MOD for the selected gas (O_2 mix) are not displayed.
⊘ On page 27 you will find further information and safety considerations regarding the no-dive warning.

2 Leaving the dive planner

By pushing once or twice ⌒⌒ you can exit the dive planner. This also occurs after three minutes without operation.
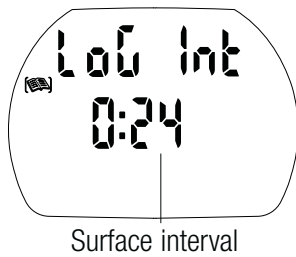
V   Logbook

1   Survey

A dive is entered in the logbook if the dive time is longer than 2 minutes. SPORT records the profiles of about 25 hours of diving. This information can be transferred to a PC with the standard infrared interface (IrDA) and the Windows® software LogTRAK. All dives in the memory can be displayed directly on the dive computer.

2   Operation

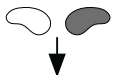From the **time of day** display you can select the logbook (📖) with ◵◔.

◵◔ until 📖   From the time of day display you can select the logbook (📖) with ◵◔.

Surface interval

If there was a remaining desaturation time (DESAT) before selecting the logbook, the time since the last dive (surface interval) is displayed.

Page 1

Logbook icon
Max depth

Dive time

Battery performance

O₂ mix

Dive number

Date of the dive

With ◵◔ you enter the logbook.
The most recent dive is displayed (dive number 1).
There are 3 pages for each dive.
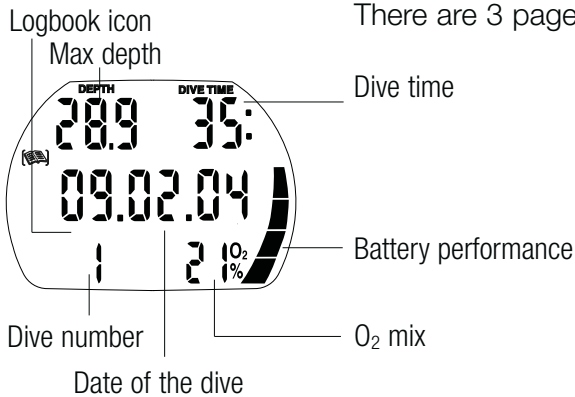
From here you can:
a) get more information about the displayed dive by pushing ◵◔.

b) select other dives.
Each time you push ◵◔ or ◵◔ causes a jump to the next or previous dive.
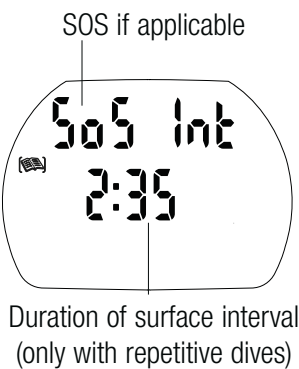At the end of the logbook SPORT displays statistic information ->31.

SPORT displays further information about the selected dive.

Page 2

Altitude range (if >0)

Repetitive dive number

Starting time

CNS value at the
end of the dive

Minimum temperature
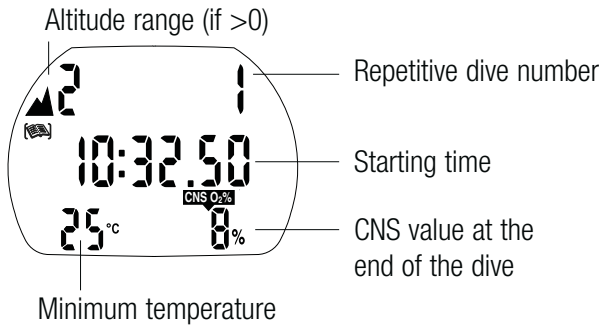
Push ◔◑ to get more information about the dive.

Page 3

SOS if applicable

If a dive is started within adaptation time (after a change of altitude),
the adaptation time is displayed instead of the surface interval.

Duration of surface interval
(only with repetitive dives)

Further possible information about the dive:

🙷 Too fast ascent* (page 1)

Ignored decompression stop* (page 1)

SoS Ignored decompression stop* (page 3)

▲2 Altitude range (page 2)

🖾 DESAT Desaturation was reset before
the dive by removing the battery
(page 1, 2)

🔋 Battery quality factor has been 3 bars or
less during the dive (page 1, 2, 3)

🚫 No-dive warning after the dive (page 1)

*Alarms during the dive

◔◑ gets you back to the dive list (first level screen within logbook). From here you can advance to the
next dive of interest and press ◔◑ to retrieve more information about that dive etc.

Statistic information

Deepest dive

Longest dive

Cumulative bottom time

Number of dives
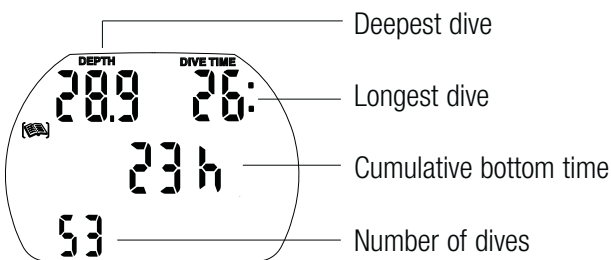
From the time of day display you can get the
following statistic information over all dives.
Push ◔◑, ◔◑ and ◔◑:

Leaving the logbook
By pushing once or twice ◔◑ you can exit the logbook.
The logbook closes automatically after 3 minutes without operation.

VI   Settings

1   Menu "set 1"

With menu "set 1" or LogTRAK you can configure the following items (dive functions):

Setting	Range	Default	Page
• Maximum partial pressure of oxygen (ppO$_2$ max)	1.2-1.6bar	1.4bar	32
• Time limit to reset the O$_2$% mix to air	no reset / 1 - 48hrs	no reset	32
• Unit system	metric/imperial		32
• Audible attention signals	on / off (LogTRAK: selective)	on	33
• Water contacts	on / off	on	33
• Reset desaturation	on / off	no reset	33
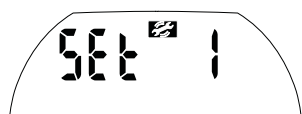
Starting from the time of day display push ◗◗ or ◗◗ until "set 1" appears.
Confirm that you wish to enter into the menu of "set 1" by pushing ◗◗.
Once entered into the menu you can scroll with ◗◗ and ◗◗ through the menu.

Setting the maximum partial pressure of oxygen (ppO$_2$ max)

ppO$_2$ max

1. Confirm that you wish to change the ppO$_2$ max by pushing ◗◗. The current value starts to flash.
2. Change the value in increments of 0.05bar by pushing ◗◗ or ◗◗.
3. Confirm the selected value with ◗◗.

Setting the time limit to reset the O$_2$% mix to air

Time limit to reset O$_2$ mix to air

1. Confirm that you wish to change the time limit of the reset by pushing ◗◗. The current setting starts to flash.
2. Change the time limit by pushing ◗◗ or ◗◗.
   (1 - 48hrs or no reset: "– – h")
3. Confirm the selected value with ◗◗.

Selecting the units
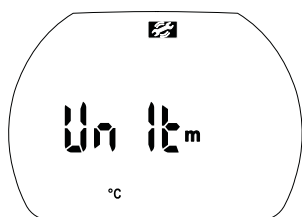
1. Confirm that you wish to change the units by pushing ◗◗. The selected units are displayed (m / ft / °C / °F).
2. Push ◗◗. "m" or "ft" starts to flash.
3. Switch with ◗◗ between "m" and "ft".
4. Confirm the selected unit with ◗◗. "°C" or "°F" starts to flash.
5. Switch with ◗◗ between "°C" and "°F".
6. Confirm the selected unit with ◗◗.

Switching the audible attention signals on and off
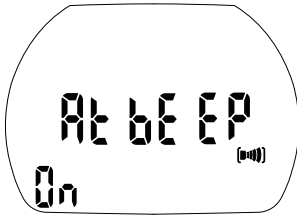
With this option you can switch off the audible attention signals only (the audible alarms remain active). Refer to page 19 to see this distinction.

1. Confirm that you wish to change the setting of the audible attention signals by pushing ▽●. "On" or "off" starts to flash.
2. Switch between "on" or "off" by pressing ▽●.
3. Confirm the setting with ▽●.

Switching the water contacts on and off
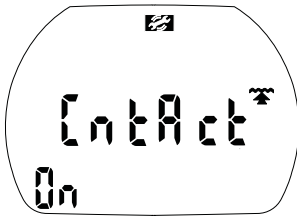
On submerging in water the water contacts switch on SPORT automatically.

> ### ⚠ WARNING
>
> If you chose the option "Water contacts off", SPORT will turn on with a delay of up to 1 minute into the dive. This will affect functioning of the computer.
> Make sure that the computer is on before starting the dive.

1. Confirm that you wish to change the setting of the water contacts by pushing ▽●. "On" or "off" starts to flash.
2. Switch between "on" or "off" by pressing ▽●.
3. Confirm the setting with ▽●.

Resetting the remaining saturation

> ### ⚠ WARNING
>
> Diving after a reset of the remaining saturation may lead you into potentially hazardous situations which could result in death or serious injury. After a reset of the remaining saturation do not dive for at least 48 hours. If you dive after resetting the remaining saturation the computer will miscalculate your decompression, which may result in serious injury or death.
> Reset the remaining saturation only if you know you will not be diving, flying or going to higher altitude for the next 48 hours.

Resetting the desaturation should only be done when there is a valid reason, e.g. loaning the computer to somebody who has not dived in 48 hours or more. When the computer itself has remaining saturation you must assume full responsibility for the consequences of resetting the remaining saturation.

1. Confirm that you wish to reset the displayed saturation by pushing ▽●. "On" starts to flash.
2. Switch between "on" or "off" by pressing ▽●.
3. Confirm the setting with ▽●. If you have selected "off", "Code" and "000" appear.
4. Set the first digit by pushing ▽● and ▽●. Confirm with ▽●.
   Repeat point 4 for the next 2 digits. If you entered the right code the desaturation will be reset to zero (desat off).

Code: 313

2 Menu "set 2"

With menu "set 2" or LogTRAK you can configure the following items:

Setting	Range	Default	Page
• Alarm clock	0 - 23h 59min, on/off	12:00, off	34
• UTC zone	±13hrs, increments: 15min		34
• Time of day	hours:minutes		34
• 24 or AM/PM setting	24 (off) / AM/PM (on)		35
• Date			35
• Display contrast	1 (low) -12 (high)	4	35
• IrDA speed (set 2 only)	low / high	low	35
• Sound	on / off	on	35
• Show SPORT electronic ID			36
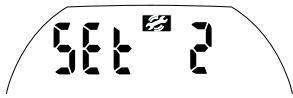
Starting from the time of day display push ◗◯ or ◯◖ until "set 2" appears.

Confirm that you wish to enter into the menu of "set 2" by pushing ◯●.

Once entered into the menu you can scroll with ◗◯ and ◯◖ through the menu.

Setting the alarm clock time
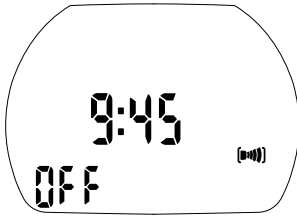
The alarm clock goes off only at the surface. "Sound" must be turned "on" in "set 2".
1. Confirm that you wish to set the alarm time by pushing ◯●.
   The hours start to flash.
2. Set the hours by pushing ◗◯ or ◯◖.
3. Confirm the setting with ◯●. The minutes start to flash.
4. Set the minutes by pushing ◗◯ or ◯◖.
5. Confirm the setting with ◯●. "On" or "off" starts to flash.
6. "On" indicates "activated" (time of day display shows [◗))]), "off" indicates "deactivated". Switch between "on" or "off" by pressing ◯◖.
7. Confirm the selected status with ◯●.

Setting the UTC offset (coordinated universal time)
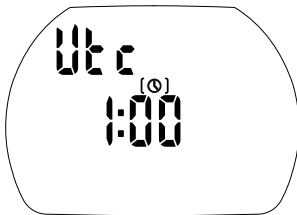
This setting allows you to quickly set the watch to a new time zone without affecting the actual time setting.
1. Confirm that you wish to set the UTC offset by pushing ◯●.
   The hours start to flash.
2. Set the hours by pushing ◗◯ or ◯◖ (±13hrs).
3. Confirm the setting with ◯●. The minutes start to flash.
4. Set the minutes in increments of 15 minutes by pushing ◗◯ or ◯◖.
6. Confirm the selected status with ◯●.

Adjusting the time of day
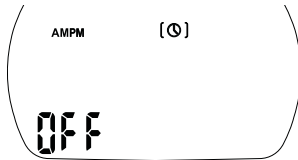
Time of day

You can adjust it to your time zone either in this menu or using the UTC offset (see above).
1. Confirm that you wish to adjust the time of day by pushing ◯●.
   The hours start to flash.
2. Set the hours by pushing ◗◯ or ◯◖.
3. Confirm the setting with ◯●. The minutes start to flash.
4. Set the minutes by pushing ◗◯ or ◯◖.
5. Confirm the setting with ◯●.

Selecting 24 hours or AM/PM setting

AMPM   [⊙]

OFF

1. Confirm that you wish to change the setting by pushing ◌●.
   "On" or "off" starts to flash.
2. Switch with ◌◐ between "on" (AM/PM) and "off" (24h).
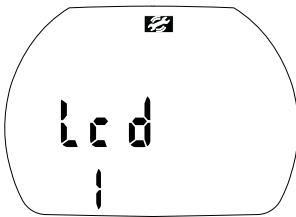3. Confirm the setting with ◌●.

The 24h - AM/PM setting influences the display of the date (see below).

Adjusting the date

Date (24h setting)

23.02.04

Day / Month / Year

Date (AM/PM setting)

2.23.04
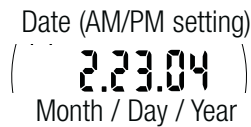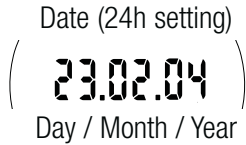
Month / Day / Year

1. Confirm that you wish to adjust the date by pushing ◌●.
   The first day (month) starts to flash.
2. Set the day (month) by pushing ◐◌ or ◌◐.
3. Confirm the setting with ◌●. The month (day) starts to flash.
4. Set the month (day) by pushing ◐◌ or ◌◐.
5. Confirm the setting with ◌●. The year starts to flash.
6. Set the year by pushing ◐◌ or ◌◐.
7. Confirm the setting with ◌●.

Adjusting the display contrast

✎

Lc d

1

1. Confirm that you wish to adjust the display contrast by pushing ◌●.
   The current setting starts to flash.
2. Set the contrast by pushing ◐◌ or ◌◐.
   Low contrast: (1), high contrast: (12)
3. Confirm the setting with ◌●.

Selecting the IrDA speed

Ir dA

Lo
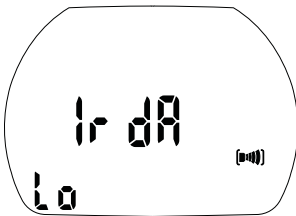
The default setting is low. For faster downloads you can set it to high, but
not all IrDA interfaces are compatible with high.
1. Confirm that you wish to change the IrDA speed by pushing ◌●.
   "Lo" (low) or "hi" (high) starts to flash.
2. Switch with ◌◐ between low and high.
3. Confirm the setting with ◌●.

Low: 9600bits / second   High: max 57 600bits / second

### Switching the sound on and off

---

⚠ **WARNING**

If you turn off the sound, the buzzer is effectively deactivated. You will have no audible warnings
(alarms and attention messages)! Without audible warning you could get into potentially
hazardous situations, which could result in death or serious injury.
You must assume full responsibility for turning off the sound.
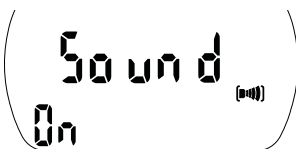
Sound

On

1. Confirm that you wish to change the setting by pushing ◌●. "On" or
   "off" starts to flash.
2. Switch with ◌◐ between "on" and "off".
3. Confirm the setting with ◌●. If you have selected "off", "Code" and
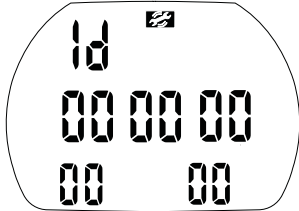   "000" appear.
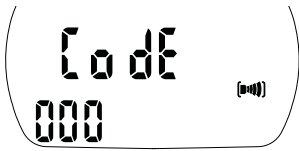
```
CodE    [◖◗]
000
```

4. Set the first digit by pushing ◔◗ and ◔◔. Confirm with ◔◗.
Repeat point 4 for the next 2 digits. If you entered the right code the sound will be turned off.
Code: 313

☞   Setting the "sound" to "off" applies also to surface functions (mountain alarm, wake-up alarm, change of altitude range).
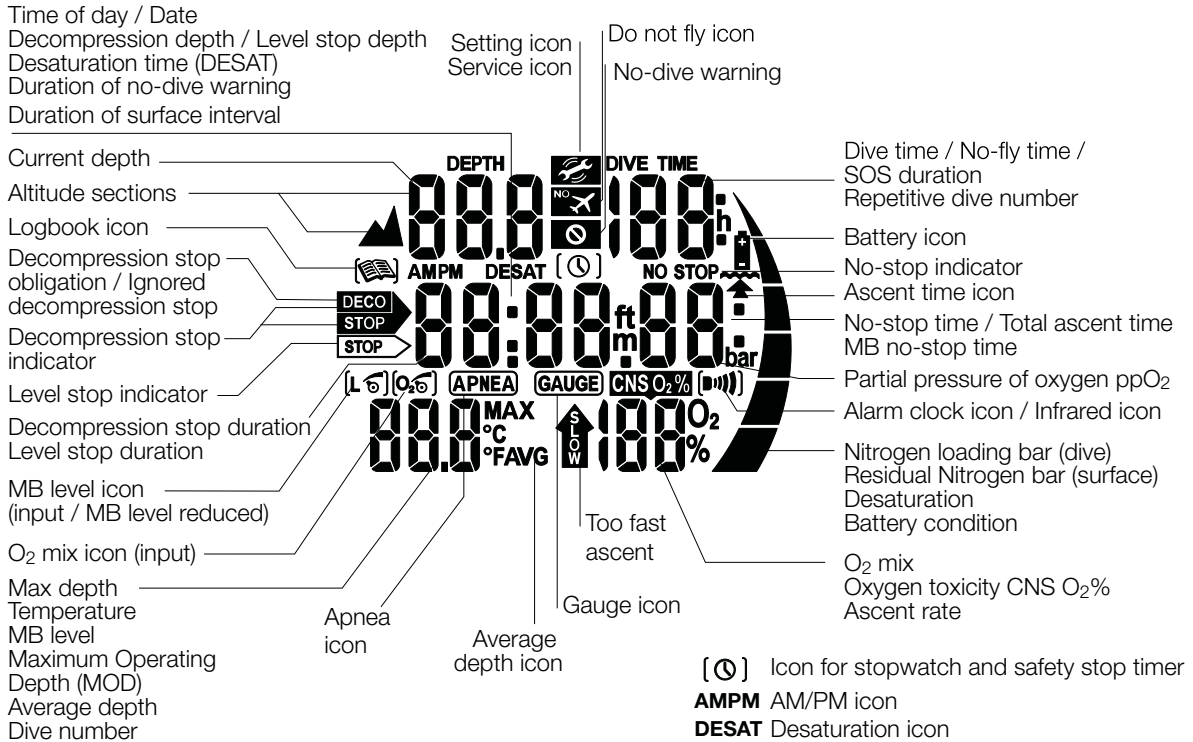
Showing the hardware electronic ID of SPORT

```
Id   ▨
00 00 00
00    00
```
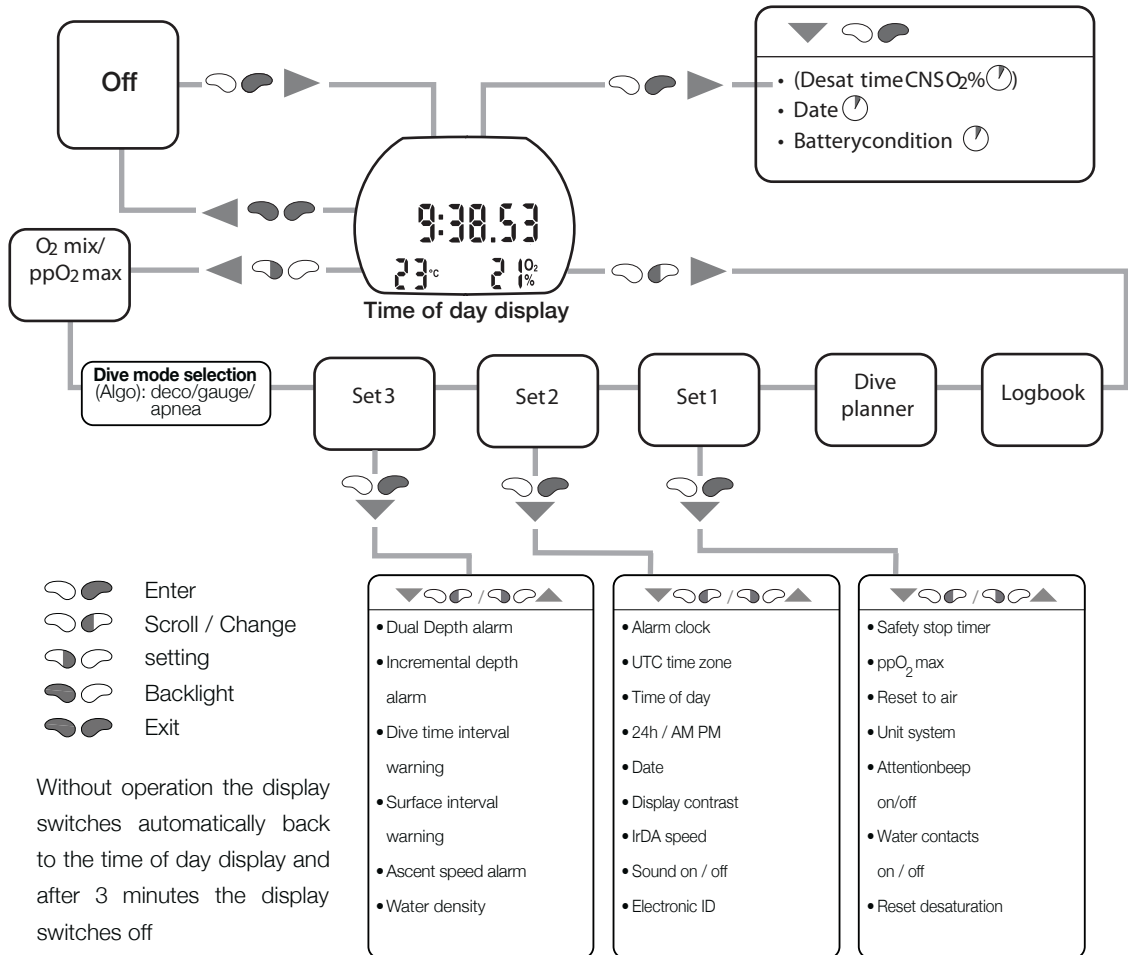ID Number

This number is needed when reporting problems or for other maintenance related issues.

VII Safety Stop Time / Gauge Mode / Apnea Mode
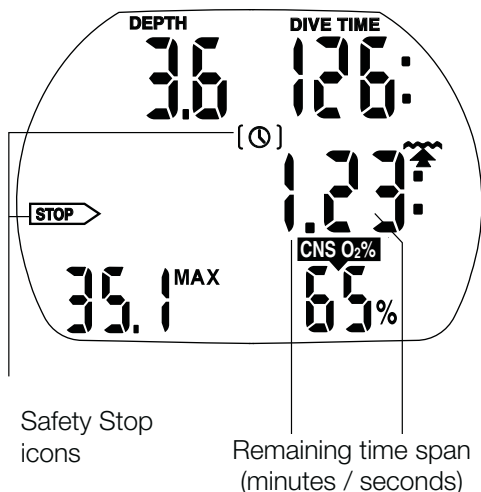
Quick reference

Time of day / Date
Decompression depth / Level stop depth
Desaturation time (DESAT)
Duration of no-dive warning
Duration of surface interval

Current depth
Altitude sections
Logbook icon
Decompression stop obligation / Ignored decompression stop
Decompression stop indicator
Level stop indicator
Decompression stop duration
Level stop duration
MB level icon (input / MB level reduced)
O2 mix icon (input)
Max depth
Temperature
MB level
Maximum Operating Depth (MOD)
Average depth
Dive number

Setting icon
Service icon

Do not fly icon
No-dive warning

Apnea icon

Average depth icon

Gauge icon

Too fast ascent

Dive time / No-fly time / SOS duration
Repetitive dive number
Battery icon
No-stop indicator
Ascent time icon
No-stop time / Total ascent time
MB no-stop time
Partial pressure of oxygen ppO2
Alarm clock icon / Infrared icon
Nitrogen loading bar (dive)
Residual Nitrogen bar (surface)
Desaturation
Battery condition
O2 mix
Oxygen toxicity CNS O2%
Ascent rate

[⊘] Icon for stopwatch and safety stop timer
AMPM AM/PM icon
DESAT Desaturation icon

Operating scheme

Off

Time of day display
9:38.53
23°c   21%O2

• (Desat time CNS O2% ⊘)
• Date ⊘
• Battery condition ⊘

O2 mix/ ppO2 max

Dive mode selection (Algo): deco/gauge/apnea

Set 3   Set 2   Set 1   Dive planner   Logbook

Enter
Scroll / Change setting
Backlight
Exit

Without operation the display switches automatically back to the time of day display and after 3 minutes the display switches off

Set 3
• Dual Depth alarm
• Incremental depth alarm
• Dive time interval warning
• Surface interval warning
• Ascent speed alarm
• Water density

Set 2
• Alarm clock
• UTC time zone
• Time of day
• 24h / AM PM
• Date
• Display contrast
• IrDA speed
• Sound on / off
• Electronic ID

Set 1
• Safety stop timer
• ppO2 max
• Reset to air
• Unit system
• Attention beep on/off
• Water contacts on / off
• Reset desaturation

1 Safety stop timer

⚠ **WARNING**

On all dives with Scubapro SPORT, make a safety stop for at least three minutes at a depth of 5m (15ft).

Safety Stop icons

Remaining time span (minutes / seconds)

The safety stop timer displays the time span a diver should spend at the safety stop depth at the end of the dive. The timer starts automatically when depth is shallower than 6.5 m and counts back from 3 minutes (default) to zero. It can be restarted manually any number of times. The duration of the timer can be set between 1 and 5 minutes.

The safety stop timer will be activated under the following conditions: depth <6.5 m (21ft), no-stop display 99 min, gauge mode is switched off, stop time is selected (1-5 min) at set 1 menu.

Activate the safety stop timer by pressing ◔◔. The timer begins to count backwards and a bookmark will be created in the dive profile. If you press again, the timer will start again from the full value.

The safety stop timer will switch off automatically if the depth exceeds 6.5 m (21 ft) or the no-stop phase is shorter than 99 minutes.

Setting the safety stop duration
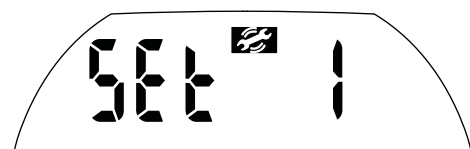
Starting from the time of day display push ◔◔ or ◔◔ until "set 1" appears.
Confirm that you wish to enter into the menu of "set 1" by pushing ◔◔.
Once entered into the menu you can scroll with ◔◔ and ◔◔ through the menu.
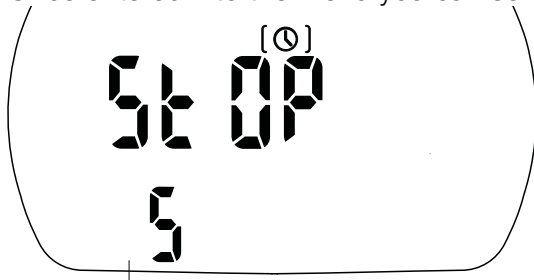
Duration of the safety stop

1. Confirm that you wish to change the duration of the safety stop by pushing ◔◔. The duration starts to flash.
2. Change the duration in increments of 1 minute or to off (inactive) by pushing ◔◔ or ◔◔.
3. Confirm the selected duration with ◔◔.

2   Gauge mode

⚠ WARNING

In gauge mode ALL audible and visual alarms and attention messages are turned off.

In gauge mode Aladin SPORT will display depth, dive time and max depth. By pressing ◔◕ you can scroll from the max depth to the temperature, to the average depth, to the time of day and back to the max depth. By pressing ◔◕ you can restart the stopwatch. This generates a bookmark. Gauge mode does not support the calculation of no-stop time or the supervision of decompression. Supervision of ppO_2 max and CNS $O_2\%$ will also be switched off. Aladin SPORT will display no information about microbubble development. The settings for the gas mixture, MOD and microbubble level cannot be set and the dive planner cannot be selected.

Switching the gauge mode on and off
Gauge mode can be switched on and off at the surface, when there is no desaturation and no-dive in gauge mode has been made in the last 48 hours.


⚠ WARNING

- Dives in gauge mode are performed at your own risk!
- After diving in gauge mode you must wait for at least 48 hours before using a decompression computer.

After diving in gauge mode, Aladin SPORT can not be used as dive computer for 48 hours.

Procedure:
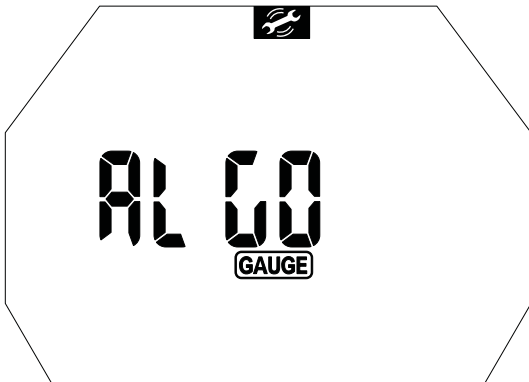
1. From the time of day display push ◔◕ or ◔◕ until the "ALGO" is displayed.
   (If Aladin SPORT shows " – – – " the gauge mode cannot be switched "on" or "off". Aladin SPORT shows " – – – " for 48 hours after a dive in gauge mode and as long as there is remaining desaturation after a dive in computer mode.)

2. Confirm with ◔◕ that you wish to activate or deactivate the gauge mode. "Deco", "Gauge" or "Apnea" starts flashing.

3. By pushing ◔◕ or ◔◕ the mode will scroll between: Gauge, Deco (SCUBA diving) or Apnea. Select: "Gauge".

4. Confirm your settings with ◔◕.

Without confirmation the display will disappear after 3 minutes and your entries will not be accepted.

Diving in gauge mode

The following information is displayed in gauge mode:

Current depth

Dive time

Stopwatch

Max depth / Temperature / Average depth (AVG)

Gauge icon
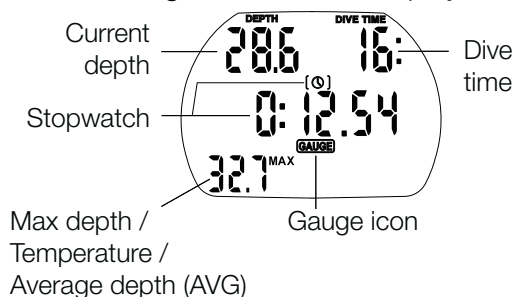
>Temperature

>Average depth (AVG)

>Temperature ⏱, Time ⏱

>Max depth

The **average depth** is continuously updated and represents the time averaged depth since the beginning of the dive.

You can **reset the average depth** at any time by pushing ▢▢. This generates also a bookmark.

Stopwatch

Stopwatch icon

Timing Hours
Minutes
Seconds

In gauge mode, after immersion, Aladin SPORT will automatically monitor the dive time and at the same time activate the stopwatch. The stopwatch will run for a maximum of 24 hours.

▢▢ Resets time and starts stopwatch from zero.

Each start (restart) of the stopwatch creates a bookmark.

After diving in gauge mode
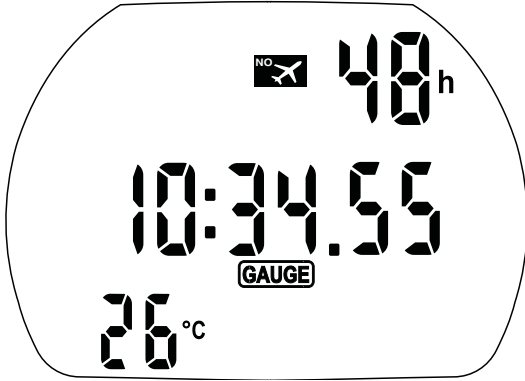
Remaining time during which Aladin SPORT
cannot be used in computer mode

Aladin SPORT shows the remaining time span during which it cannot be used in computer mode. Once the waiting period is over, the gauge mode can be switched off manually.

The no-fly time after diving in gauge mode is 48 hours.

Desaturation time will not be displayed.

3 Apnea mode

3.1 Switching the Apnea mode on and off
Apnea mode can be switched on and off like gauge mode, when there is no desaturation and no apnea dives have been made in the last 48 hours.

> ⚠ **WARNING**
>
> Apnea diving after SCUBA diving is not recommended. Check the latest recommendation from your Instructor or Diving organization.

> ⚠ **WARNING**
>
> Aladin SPORT doesn't track nitrogen intake to your body at Apnea mode. Therefore no fly time after Apnea diving is set to 48 hours. Also SCUBA diving after Apnea is recommended only after sufficient surface time. Check the latest recommendation from your Instructor or Diving organization.

Procedure:

1. From the time of day display push ◗◖ or ◗◖ until the "ALGO" is displayed.
   (If Aladin SPORT shows " – – – " the gauge mode cannot be switched "on" or "off". Aladin SPORT shows " – – – " for 48 hours after a dive in gauge mode and as long as there is remaining desaturation after a dive in computer mode.)

2. Confirm with ◗◖ that you wish to activate or deactivate the gauge mode. "Deco", "Gauge" or "Apnea" starts flashing.

3. By pushing ◔◔ or ◔◔ the mode will scroll between: Gauge, Deco (SCUBA diving) or Apnea. Select: "Gauge".
4. Confirm your settings with ◔◔.

Without confirmation the display will disappear after 3 minutes and your entries will not beaccepted

> ⚠ **WARNING**
>
> Scubapro highly recommends professional training in apnea or free diving techniques and physiology before conducting breath hold dives. No dive computer can replace the need for proper dive training. Insufficient or improper training may cause a diver to commit errors that can lead to serious injury or death.

> ⚠ **WARNING**
>
> Deep repetitive Apnea dives are not recommended; leave enough recovery time between your Apnea dives.

> ⚠ **WARNING**
>
> All breath hold dives include a risk of shallow water blackout, that is, a sudden loss of consciousness due to oxygen starvation.

Apnea diving is the most natural form of diving, known also as Free diving or Breath hold diving. Due to specific demands on Apnea diving, Aladin SPORT has now this mode integrated.
Apnea mode is comparable to gauge mode, it doesn't have a dive algorithm and all decisions are left to the diver. Therefore Scubapro recommends:

1. Never apnea dive alone.
2. Make only apnea dives which your education and physical condition allow.

In apnea diving fast descents and ascents are allowed. Therefore Aladin SPORT uses faster sampling of the depth for higher accuracy. Aladin SPORT updates display and maximum depth every 15 seconds, logbook is updated every second.

3.2 Diving in Apnea mode
The following information is displayed in Apnea mode:
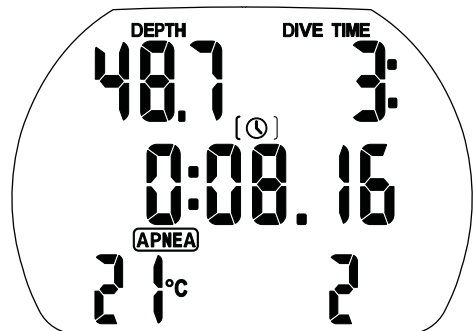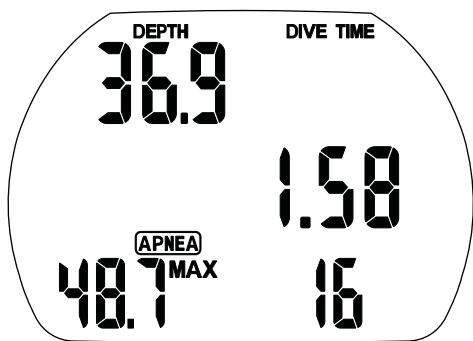
In Apnea mode the dive can be started manually by pressing �〰◗. This function allows fast sampling to start straight from the surface. Automatic start of the apnea dive will happen from depth of 0.8m/3ft. Once activated the Apnea mode will run 15 minutes after surfacing. This allows you to start a repetitive apnea dive with precise data in the logbook. Surface mode can be stopped with long press �〰◗.
Aladin SPORT Apnea mode has special alarms and functions tailored to Apnea diving and Apnea training. You can select multiple alarm functions at the same time. The alarm functions setup is explained in page -> 8.

3.3 Menu "set 3" (Apnea)

With menu "set 3" or LogTRAK you can configure the following items:

Setting	Range	Default
Dual Depth alarm	5-100m, 5-100m, on/off	10m (35ft), off 20m (65ft), off
Incremental depth alarm	5-100m, dn(down)/ up/ bth(both)/off	5.0m (20ft), off
Dive time interval warning	15s-10min, on/off	30s, off
Surface interval warning	15s-10min, on/off	1 min, off
Ascent speed alarm	0.1-5 m/s, (1-15 ft/s) on/off	1 m/s (3 ft/s), off
Water density	1.000-1.050 kg/l (Fresh water ~1.000, Ocean ~1.035)	1.025 kg/l

Starting from the time of the display push ◗◠ or ◠◗ until "set 3" appears.

Confirm that you wish to enter into the menu of "set 3" by pushing ◠◗.

Once entered into the menu you can scroll with ◗◠ and ◠◗ through the menu.
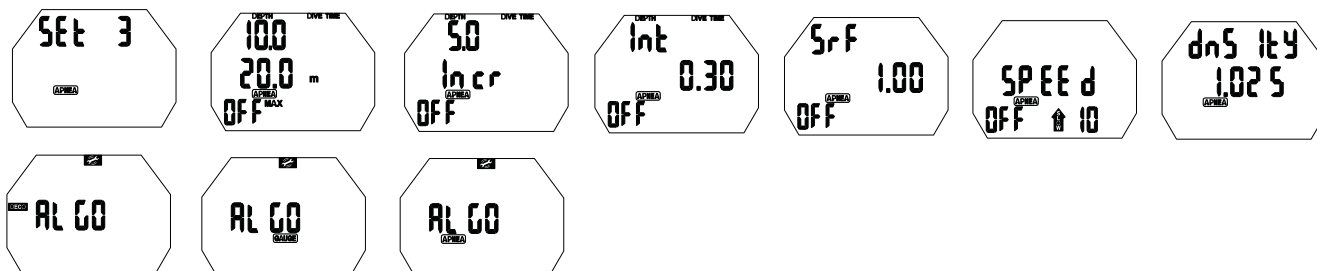
Setting the Dual Depth alarm

With this alarm you can set two independent depth alarms.

1. Confirm that you wish to change the settings of the Dual Depth alarm by pushing ◠◗. First depth value starts to flash.
2. Scroll first depth with ◗◠ or ◠◗.
3. Confirm the first depth alarm with ◠◗. Second depth alarm starts to flash.
4. Scroll second depth with ◗◠ or ◠◗.
5. Confirm the second depth alarm with ◠◗. On/off starts to flash.
6. Switch between on/off with ◠◗.
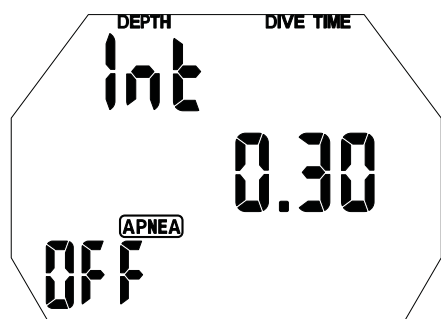7. Confirm the setting with ◠◗.

Setting the incremental depth alarm

With this alarm you can set repetitive depth alarms at given depth increments.
1. Confirm that you wish to change the settings of the incremental depth alarm by pushing ▽●.
   Increment value starts to flash.
2. Scroll value with ▽◐ or ▽◑.
3. Confirm the increment with ▽●. Up/Down/Both/Off starts to flash.
4. Switch between Up/Down/Both/Off with ▽◑.
5. Confirm the setting with ▽●.

Setting the dive time interval warning

With this alarm you can set time alarm that repeats on given intervals.
1. Confirm that you wish to change the settings of the dive time interval warning by pushing ▽●.
   Interval value starts to flash.
2. Scroll time value with ▽◐ or ▽◑.
3. Confirm the interval time with ▽●. On/off starts to flash.
4. Switch between on/off with ▽◑.
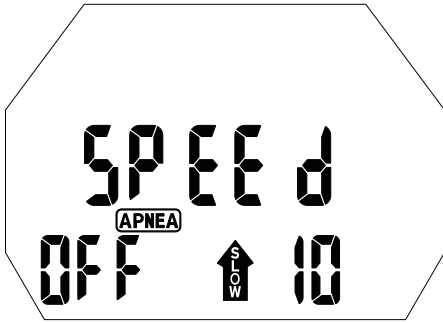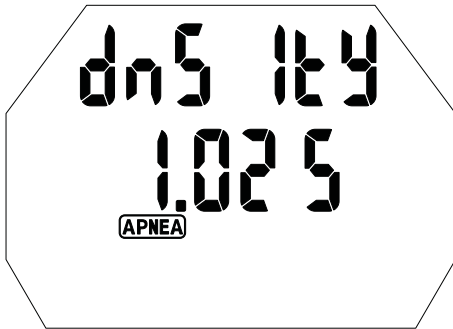5. Confirm the setting with ▽●.

Setting the Surface Interval warning
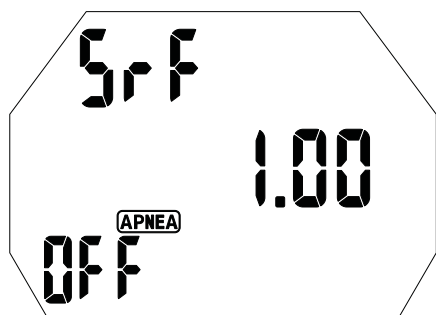
With this alarm you can set a time for recovery or start time for repetitive dive when training against given tables.
1. Confirm that you wish to change the settings of the Surface Interval warning by pushing ▽●.
   Time value starts to flash.
2. Scroll time value with ▽◐ or ▽◑.
3. Confirm the surface time with ▽●. On/off starts to flash.
4. Switch between on/off with ▽◑.
5. Confirm the setting with ▽●.

Setting the Ascent Speed alarm

```
SPEEd
[APNEA]
OFF  ⬆ 10
   SLOW
```

With this alarm you can set ascent speed alarm.

1. Confirm that you wish to change the settings of the Ascent Speed alarm by pushing ◔◕.
   Time value starts to flash.
2. Scroll ascent speed value with◔◔ or ◔◕.
3. Confirm the maximum ascent speed with ◔◕. On/off starts to flash.
4. Switch between on/off with ◔◕.
5. Confirm the setting with ◔◕.

Setting the Water Density

```
dnS lty
1.025
[APNEA]
```

With this setting you can get optimized accuracy on depth reading when you know the salinity of the water.

1. Confirm that you wish to change the settings of the Water Density by pushing ◔◕. Density value starts to flash.
2. Scroll density value with ◔◔ or ◔◕.
3. Confirm the setting with ◔◕.

VIII Appendix

1   Technical information

Operating altitude:	With decompression information: sea level up to approx. 4000m (13000ft); without decompression, above approx. 4000m (13000ft): automatic gauge mode (unlimited)
Max displayed depth:	120m (395ft), resolution between 0.8m and 99.9m: 0.1m, >99.9m: 1m. The resolution in feet is always 1 foot.
Decompression calculation depth range:	0.8 to 120m (3 to 395ft)
Maximum environment pressure:	13bar (189psi)
Clock:	Quartz clock, time, date, dive time display up to 199 minutes.
O_2 concentration:	Adjustable between 21%O_2 (compressed air) and 50% O_2
Operating temperature:	-10° to +50°C (14°F to 122°F)
Power supply:	CR2450, recommended brands: PANASONIC, DURACELL, RENATA, ENERGIZER, SONY, VARTA.
Life of the battery:	2-3 years or 200-300 dives. Actual life of the battery depends on the quantity of dives per year, the use of the backlight and the length of the dives. In cold water the life of the battery is reduced. Not all CR2450 batteries are the same, and low quality batteries can have very short life.

2   Maintenance

SPORT is virtually maintenance free. All you need to do is to rinse it carefully with fresh water after each use and to have the batteries changed when needed ->37. To avoid possible problems with your SPORT, the following recommendations will help assure that it will give you years of trouble free service:

⚠ WARNING

E3 E6

- Avoid dropping or jarring your SPORT.
- Do not allow your SPORT to be exposed to direct, intense sunlight.
- Rinse your SPORT thoroughly with fresh water after each dive.
- Do not store your SPORT in a sealed container; make sure there is free ventilation.
- If there are problems with the water contacts, use soapy water to clean SPORT and dry it thoroughly. The surface of your SPORT housing can be treated with silicone grease. Do not apply grease to the water contacts!
- Do not clean SPORT with liquids containing solvent (apart from water).
- Check the battery capacity before each dive ->15.
- If the battery icon appears, replace the battery ->37.
- Diving with a weak battery: SPORT may stop working during the dive, service icon and error code "E3" or "E6" appear. Close the dive and replace the battery ->37.
- On the surface: if service icon and error code "E3" appear, replace the battery ->37.
  All error codes other than E3: SPORT must not be used for any further dives. Take your dive computer to an authorized Scubapro dealer.

2.1 Replacing the battery (Battery kit includes battery and Teflon coated o-ring)

> ### ⚠ WARNING
>
> Removing the battery clears all physiological data including saturation. This means that for a repetitive dive the computer will not compute correctly. Diving after replacing the battery when there is desaturation time left on the computer can lead to serious injury or death from decompression sickness.
> Change the battery only under these conditions:
> • After a dive if you know you will not be diving, flying or going to higher altitude for the next 48 hours.
> • Before a dive if there is no desaturation time left on the computer.
> The change must be made with particular care in order to prevent water from seeping in. The warranty does not cover damages due to an improper replacement of the battery.

> ### ⚠ WARNING
>
> Never touch the metal surface of the battery with bare fingers.
> The two battery poles must never be short circuited.

Procedure:
To replace the battery you need a coin or a universal tool and a clean cloth.

> ### ⚠ WARNING
>
> • A leaking battery cap may lead to the destruction of SPORT by water seeping in or cause SPORT to switch off without prior notice.
> • Always open the battery compartment in a dry and clean environment.
> • Only open the battery compartment to replace the battery.

1. Dry SPORT with a soft towel.
2. Turn the battery cap with a coin or an universal tool.
3. Remove the battery cap.
4. Remove the o-ring carefully. Do not damage the sealing surfaces.
5. Remove the battery. Do not touch the contacts.

universal tool
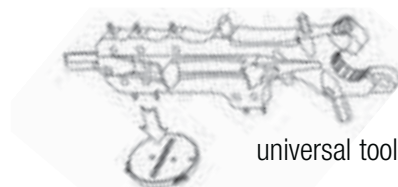
☞ Protect the environment and dispose the battery properly.

> ### ⚠ WARNING
>
> If you notice traces of seeping water, damages, or other defects on the o-ring, do not use SPORT for further dives. Take it to an authorized Scubapro dealer for check and repair.

6. Always insert a new o-ring when you replace the battery and dispose the old o-ring. Make sure that the new o-ring is in perfect condition, and that o-ring, o-ring groove and the sealing surfaces

are free of dust and dirt.
If necessary, clean the parts with a soft cloth. Fit the o-ring in the o-ring groove of the battery cap.

> ⚠ **WARNING**
>
> 7. Use only an original Scubapro o-ring. This o-ring is Teflon coated and does not require additional lubrication.
> 8. Do not lubricate the o-ring as the lubricant will chemically attack the battery cap.

> ⚠ **WARNING**
>
> 9. Check the proper polarity of the battery. SPORT can be damaged if you do not insert the battery correctly.
> Insert the new battery, with "+" pointing outwards, into the battery compartment.

After battery replacement SPORT will perform an automatic test (8s) and gives a short beep when the test is done.

> ⚠ **WARNING**
>
> 10. The battery cap can be installed with a ±120° offset. The alignment circles are there to ensure proper positioning of the cap. If the rotation is stopped before alignment, watertightness may not be ensured. If the rotation is forced beyond the alignment, the cap may break. Damage to SPORT due to improper placement of the battery cap is not covered by warranty.
>
> Alignment circles

Push the battery cap firmly down and turn it clockwise until the two circles are aligned.
11. Check SPORT by switching on 🌑🌀 ->13 .

3 Warranty

The warranty only covers dive computers which have been bought from an authorized Scubapro retailer. The warranty is given for a period of two years.

Repairs or replacements during the warranty period do not increase the warranty period.

In order to put forward a warranty claim: send the dive computer together with a dated receipt of the purchase to your authorized retailer or an authorized servicing point.

Scubapro reserves the right to determine the merits of a warranty claim and to determine whether the computer will be repaired or replaced.

Excluded are faults or defects due to:
• excessive wear and tear;
• exterior influences, e.g. transport damage, damage due to bumping and hitting, influences of weather or other natural phenomena;
• servicing, repairs or the opening of the dive computer by anybody not authorized by the manufacturer;
• pressure tests which do not take place in water;
• diving accidents;
• improper placement of the battery cap.

Your dive instrument is manufactured with high-quality components that can be recycled and reused. Nevertheless these components, if not properly managed in accordance with the regulations on waste electrical and electronic equipment, are likely to cause harm to the environment and/or to human health.

Customers living in the European Union can contribute to protecting the environment and health by returning old products to an appropriate collection point in their neighborhood in accordance with EU Directive 2012/19/UE. Collection points are in particular provided by some distributors of the products and local authorities. Products marked with the recycling symbol on the left must not be disposed of in normal household waste.

4 Index

SCUBAPRO