SCORPENA

alpha

User's Guide

SCORPENA
alpha

Modes:
- SCUBA-diving;
- Freediving;
- Gauge;
- Spearfishing;
- Training;
- Watch.

Air & Nitrox:
Oxygen 21%-56%

RU **Interface languages:**
- Russian;
- English;
- Spanish;
- Chinese.

Manual software updates

Sound, light and vibration alarms based on:
- time;
- depth;
- surface interval.

Depth of use - 100 m

Lithium-ion battery
with 300+ charge
cycles

Synchronization
with mobile devices
(OS Android, iOS) via
the DiveStory app

Battery life:
- up to 25 dives in dive
mode;
- up to 3 months in
standby mode

Alarm clock,
Timer

Fast USB charging
(85% in 1 hour)

Weight - 95 g

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CONTENTS

1. DESCRIPTION AND PURPOSE OF THE DEVICE

Scorpena Alpha is a dive computer, which measures, counts, calculates, shows, and saves in Logbook all the main parameters of each dive: depth, duration, water temperature, as well as specific parameters depending on the selected diving mode, including the time of decompression stops for diving.

The device has the following modes for different types of diving:
- Open-circuit scuba diving (SCUBA);
- Freediving - breath-hold diving (FREE);
- Training - for breath-hold swimming trainings in the pool (TRAINING);
- Spearfishing (HUNT);
- Gauge - intended only for measuring diving depth and time (GAUGE);
- Planning - scuba diving planning (PLAN);
- Timer - stopwatch (TIMER);
- Logbook - records date, time, duration, depth, dive profile and water temperature (LOG).

The device can also be used in everyday life as a regular watch with the date and day of the week.

2. CHARGING THE DEVICE

Before you start exploring the device and before each dive, we recommend checking the dive computer's charge level, which is displayed at the top of the screen in the form of a battery, darkened in proportion to the charge level.

The device can be charged via a USB port (type A) with current parameters of 5V, 1A using a cable and a clip that is attached to the back cover of the device. The cable and charging clip are enclosed in the box with the device. The charging indicator flashes while charging. When the battery icon becomes completely dark and stops flashing, the device is charged. Please note that it is advisable to charge the device only from the charger and not from the computer in order to avoid incorrect or slow charging.

3. CONTROL BUTTONS

The device is controlled by buttons located on the sides.

The POWER button turns the device on and off and exits the Menu.

The right top button (UP) moves the cursor up the Menu lines. This button also opens Quick Settings, where you can configure date, date format, time, time zone (UTC), time format (12/24h), auto mode, log start depth, language, and auto lock.

The right middle button (MODE) provides quick access to the main Menu with the following modes: Scuba diving, Freediving, Training, Spearfishing, Gauge, Planning, Timer, Log, Settings, and Synchronization. Pressing it again confirms the selection.

The right down button (DOWN) moves the cursor down the Menu lines. This button also opens the parameters of dive history and system information.

4. GETTING STARTED

To activate the device, press and hold the POWER button for 2-3 seconds. The dive computer turns on and the screen lights up. The display shows the time, date, day of the week and the diving mode that is selected as the main one.

If the dive computer is not used for 30 seconds, it will automatically go into a standby mode. Then the backlight on the screen goes out. You can activate the backlight by pressing any button.
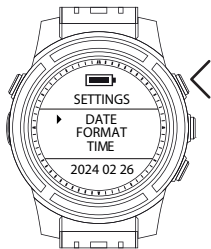
If Scorpena Alpha device is not used for 5, 10 or 30 minutes, depending on auto power off settings, it will go into a sleep mode.

If the computer is not in use for 24 hours in a sleep mode, it will go into an automatic shutdown status and shut down completely.
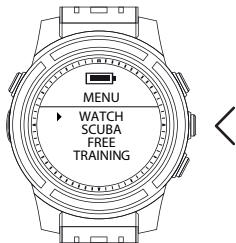
If you are not going to use the device for a long period of time, turn it off yourself by holding the POWER button for a couple of seconds to prolong battery life.

MON OC

13:43

2024.02.26

Press and hold to turn on

SETTINGS

▶ DATE
FORMAT
TIME

2024 02 26

Access to Quick Settings

MENU

▶ WATCH
SCUBA
FREE
TRAINING

Quick access to Menu

LAST
DIVE

2021.03.06 11:54
NO FLY   0.00
NO DIVE   0.00
SI   99:59

Dive History & System Information

5. CHECKING AND UPDATING THE SOFTWARE VERSION

To get the most out of the device's functionality, you must install the latest software version.

To do this, download and install the free DiveStory app to your mobile device (running on iOS or Android) from the AppStore or Google Play.

Data is transmitted between the mobile device and the dive computer via Bluetooth, so make sure it is turned on the mobile device. Geolocation must also be turned on.

Use MODE button on the device to open the Menu, and DOWN button to move the cursor down to the line SYNC and press MODE button again to activate the mode. While the data is being transmitted, a dotted line will flash on the device's display.

Open the DiveStory app on your mobile device. Click the "+" in the upper right corner and wait for *Scanning* sign to appear. Then click on the line that appears with the name of your device. If you want the dive computer to automatically connect to this mobile device from now on, press *Yes*, if not - *No, thanks*. This setting can be changed later using the *Auto Connect* slider in the lower right corner of the mobile device's screen.

When the connection between the devices is established, a screen with the serial number of your device will appear in the app. To update the software, press the blue *Upgrade Firmware* line. A download indicator will appear. Please wait for the download to finish, this will mean that the software is installed, and the device can be used in full.

6. MENU: FEATURES AND SETTINGS

6.1. QUICK SETTINGS

To adjust the device or to change the main settings, press UP button and enter Quick Settings. This section displays the main parameters of the device settings. To switch from one parameter to another, move the cursor with UP/DOWN buttons. The selected parameter can be opened by pressing MODE button. You can exit the section by pressing POWER button.

By default, the cursor is set on a date **(DATE)**. To set the current date, press MODE button. Flashing numbers will appear. You can change the date by pressing UP and DOWN buttons, increasing or decreasing the date number by 1. Confirm the set value by pressing MODE button.

Press DOWN to set the date format **(FORMAT)**. This setting allows to change the order in which day, month, and year are displayed: "day-month-year", "year-month-day" or "month-day-year". Use MODE button to confirm the selection.

Use DOWN button to set the time **(TIME)**. Use MODE button to move to

the right along the numbers and UP/DOWN buttons to find the desired values and confirm with MODE button. Please note that the device does not automatically switch to daylight saving time. It needs to be set up manually.

Moving down, set the time zone **(UTC)** according to your location. Set range is UTC -12 ~ +12. If you change the time zone, please manually adjust the time settings accordingly.

DOWN button allows you to select the time format **(12/24H)** to be displayed in 12- or 24-hour mode. Confirm your selection by pressing MODE button.

Auto mode **(AUTO MODE)** allows to set the automatic default dive mode computer access immediately at a depth of at least 1 meter. An icon with the abbreviated name of the mode will appear at the top of the main screen in right corner. If you are diving using various modes, you can switch the mode manually before each dive in the Menu. Use MODE button to confirm the selection.

By pressing DOWN button once again, you can adjust the depth in

meters, from which the device starts recording each of your dives into the Logbook **(LOG START).** By default, it's set to 1 m, with a changing step of 0.5 m. Use UP/DOWN buttons to select the desired depth and confirm it with MODE button.

The **LANGUAGE** parameter allows you to select the one you need: Russian, English, Spanish or Chinese, saving it by pressing MODE button.

Blocking function allows to lock all buttons **(AUTO LOCK)**. By default, the feature is disabled. By pressing DOWN button, you can choose the time after which all the buttons will be locked: 30, 20 or 10 seconds. Confirm the desired value with MODE button. A lock icon will appear on the main screen when function is enabled.

You can unblock the buttons by double-pressing POWER button. The lock icon will disappear from the main screen.

Exit the entire Quick Settings section with POWER button.

6.2. MAIN SECTIONS OF THE MENU

You can access the Menu with MODE button and select the required mode by scrolling through the modes with UP and DOWN buttons. Once you've found the desired diving mode, open it with MODE button. Exit the section by pressing POWER button.

WATCH MODE The display shows the battery charge, time, date and day of the week, as well as the selected auto mode, which can be adjusted to a convenient format in Quick Settings.
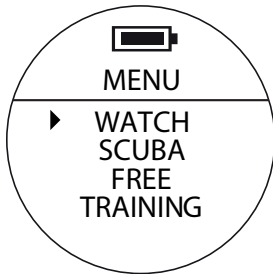
If the dive computer is not used for 30 seconds, it will automatically go into a standby mode. Then the backlight on the screen goes out. You can activate the backlight by pressing any button.

If the dive computer is not used for 5, 10 or 30 minutes, depending on the automatic shutdown time settings, it will go into a sleep mode.

If the computer is not in use for 24 hours in a sleep mode, it will go into an automatic shutdown status and shut down completely. If you are not going to use the device for a long time, turn it off yourself by by holding POWER button for a couple of seconds to prolong battery life.

SCUBA DIVING MODE (SCUBA) – open-circuit scuba diving.

The mode can be started by pressing MODE button. To select this mode, scroll down to the name of the mode with DOWN button and open it with MODE button.

MENU

WATCH
▸ SCUBA
FREE
TRAINING
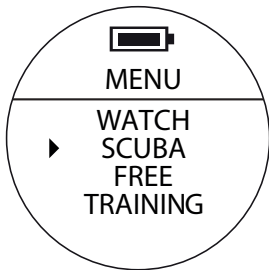
SCUBA DIVING MODE SETTINGS

Scuba diving mode opens with a preview menu, from which you can go to the Scuba diving mode settings and set the desired parameters according to the dive objectives. To do this, press UP button.

While moving the cursor with UP/DOWN buttons, stop at the parameter, which value is set by default, but must be changed due to the nature of the dive.

Press MODE button and the parameter value will start flashing. Use UP/DOWN buttons to select the desired value and confirm it with MODE button.

In the same way, find all the necessary parameters and change their values.

If you are satisfied with the default value, go to the next one by pressing DOWN button.

In the Scuba diving mode settings, you can configure the following:

1) Oxygen-nitrogen mixture (NITROX)

Default: 21%
Setup range: 21% to 56%
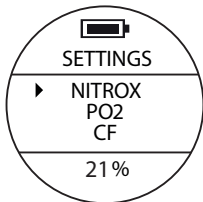
Please make sure you have measured the EANx gas of the cylinder you are about to dive with and correctly input that value in your computer. Before using NITROX, you MUST have received proper training and a certification that qualifies you to use such gas. Diving with Oxygen enriched mixes carries an additional layer of risk.

2) Partial oxygen pressure in gas mixture (PO2)

Default: 1.4
Setup range: 1.2-1.6
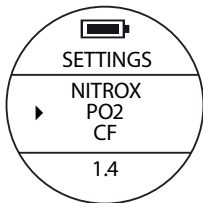
If the set PO2 value is changed, the dive computer will recalculate the maximum diving depth and display the values of the non-decompression limit (NDL) in accordance with the previously set Nitrox values. Note that the PO2 value affects the MOD of your dive, and high PO2 values combined with a high percentage of Nitrox increase the risk of oxygen toxicity.

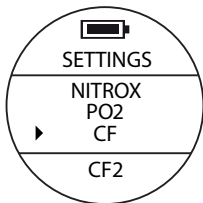**3) Conservative Factor (CF) -** the level of difficulty and intensity of diving:

CF1 - Conservative,
CF2 - Normal,
CF3 - Aggressive.

Default: CF2
Setup range: CF1 - CF3

SETTINGS

NITROX
PO2
▸ CF

CF2

Please make sure you fully understand that changing this setting will affect algorithm calculations and the related risks.

4) Scuba depth alarm (SDPTH-ALM)

If the function is enabled, an alarm will be activated when you reach the set depth.
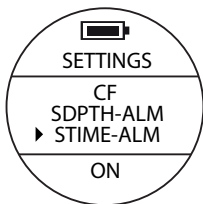
Default: ON
Setup range: ON/OFF
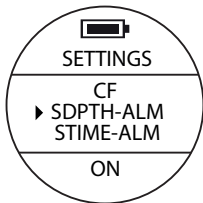
5) Scuba dive time alarm (STIME-ALM)

If the function is enabled, an alarm will be activated when you reach the preset time.

Default: ON
Setup range: ON/OFF

6) Scuba depth alarm setting (SDPTH-THD)

During a dive, when you reach the selected depth, alarm warning will activate: long beeping repeated two times with vibration.

Setup range: 0 - 99 m
Default: 40 m

7) Scuba dive time alarm setting (STIME-THD)

During a dive, when you reach the selected dive time, alarm warning will activate: long beeping repeated two times with vibration.
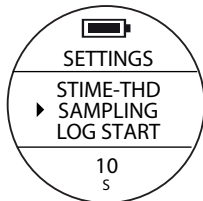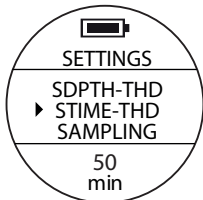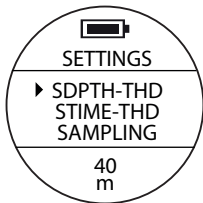
Default: 50 minutes
Setup range: 0 - 90 minutes

8) Sampling rate - depth measurement frequency (SAMPLING)

Default: 10 seconds
Setup range: 10 seconds / 20 seconds / 30 seconds / 60 seconds

This setting will automatically apply to Gauge mode.

SETTINGS

▶ SDPTH-THD
STIME-THD
SAMPLING

40
m

SETTINGS

SDPTH-THD
▶ STIME-THD
SAMPLING

50
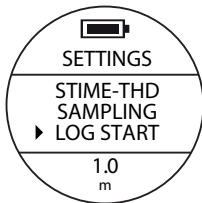min

SETTINGS

STIME-THD
▶ SAMPLING
LOG START

10
s

9) Log start depth setting (LOG START)

This is the depth at which the device starts recording each dive into the Logbook.

Default: 1.0 m
Setup range: 1.0 m, 1.5 m, 2.0 m, 2.5 m, 3.0 m

This setting will automatically apply to Freediving, Spearfishing and Gauge modes.

SETTINGS
STIME-THD
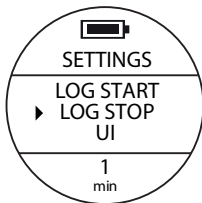SAMPLING
▸ LOG START
1.0
m

10) Log stop time setting (LOG STOP)

This is the time spent on the surface, after which the dive is no longer recorded in the Logbook.

Default: 1 min
Setup range: 1 min, 2 min, 5 min, 10 min.

SETTINGS
LOG START
▸ LOG STOP
UI
1
min

11) Preview mode & Scuba underwater mode user interface setting (UI)

Default value: NORMAL - the normal size of letters and numbers, the full amount of information on the screen.

Setup range: NORMAL / LARGE

```
      �( ▬▬▬ )
       SETTINGS
      LOG STOP
  ▶      UI
        EXIT
      NORMAL
```

LARGE mode misses some less significant values, but letters and numbers are larger in size and allow you to see the indicators you are looking for immediately. The screen is divided into 3 sectors.
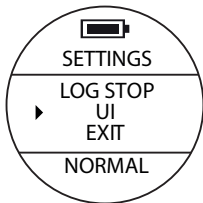
12) Exit the Scuba diving mode settings

Pressing MODE button returns to the Scuba diving mode preview menu. You can also use POWER button to exit.

SCREEN APPEARANCE IN THE SCUBA DIVING MODE AND DISPLAYED PARAMETERS BEFORE AND DURING THE DIVE

In the Settings, you can set the screen view: NORMAL - with the normal size of letter and numbers, or LARGE, which misses some less significant values, but letters and numbers are larger in size and allow you to see the indicators you are looking for immediately.
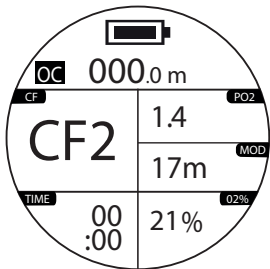
This guide shows and describes both screens.

1) Preview mode (before the dive)

The following metrics are displayed on the screen:

Top: battery charge level, the OC icon for the open circuit Scuba diving mode, the current diving depth.
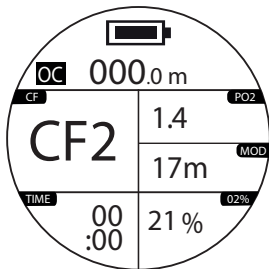
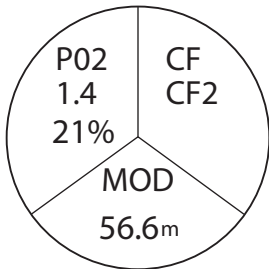*View with the normal size of letters and numbers.*

View with the normal size of letters and numbers.

Middle left: CF – Conservatism Factor, i.e., the level of difficulty and intensity of diving: CF1 - conservative, CF2 - normal, CF3 -aggressive. By default - CF2.

Middle right: PO2 - the current setting for the partial pressure of oxygen. By default - 1.4. Setup range - 1.2 - 1.6. Below on the right - MOD - recommended maximum operating depth.

Bottom right: 02% - the percentage of oxygen in the gas mixture. By default - 21%. Setup range: 21% - 56%.

Bottom left: Dive time in minutes.

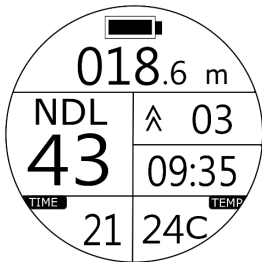*View with the large size of letters and numbers.*

Top: PO2 (partial pressure) and CF (conservatism factor) values.
Bottom: MOD - recommended maximum operating depth.

There are two ways to change the values of parameters that have a certain range: 1) without leaving the SCUBA mode, press UP button and enter the mode's settings; 2) use MODE button to open the main Menu and scroll down to open the general Settings.

2) Underwater screen view

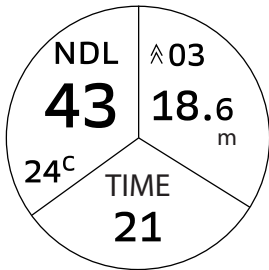**Top:** battery charge level and current depth.

View with the normal size of letters and numbers.

Middle left: NDL - the time of the non-decompression limit in minutes, after which the safety stop is required. If the time value is greater than 99 minutes, the number 99 will still remain on the screen.

Middle right of the upper field: UP arrow - the ascent speed in m/min. If the diver exceeds the speed of 10 m/min, alarm warning will be activated (short beeping repeated) with vibration. DOWN arrow - descent speed in m/min. If the arrow icon is missing, the diver is stationary.

Middle right in the lower field: current astronomical time.

Below: duration of the dive in minutes and the water temperature.

View with the large size of letters and numbers.

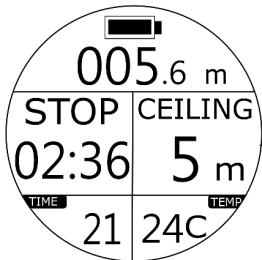**On the left:** NDL - time of the non-decompression limit and water temperature.

On the right : the ascent/descent speed in m/min and the current depth.

Below: duration of the dive in minutes.

3) Screen view, when the non-decompression limit (NDL) is not exceeded, and a safety stop is required

Above: battery charge and current depth.

Middle right: the upper limit of the depth at which the safety stop is required. When the diver reaches this depth, the STOP sign appears on **the**

View with the normal size of letters and numbers.

left and a countdown of the safety stop in minutes and seconds starts. It is necessary to stay at this depth for the specified time, making sure that you have enough air and there are no other risks.

If diver do not complete a safety stop and ascent, the alarm warning with vibration will be activated (short repeated beeping), and this dive will end according to the Log Stop settings.

The bottom parameters display the duration of the dive in minutes and the water temperature.

NDL

48

24ᶜ

⌃03

5.6 m

STOP

02:36

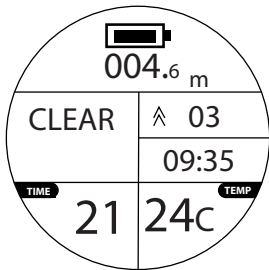*View with the large size of letters and numbers.*

On the left: time of the non-decompression limit and water temperature.
On the right: the ascent speed and the current depth.
Below: safety stop countdown.

4) Screen view, when the non-decompression limit (NDL) is not exceeded and the stop has been completed

**Top:** battery charge and current depth.

View with the normal size of letters and numbers.

When the diver has completed the safety stop, a CLEAR indicator will appear **in the middle left** to indicate that a slow ascent to the surface can be performed. In the right field, the UP arrow shows the ascent speed in m/min. The DOWN arrow shows the descent speed in m/min. If there is no arrow icon - the diver is stationary.

Middle right in the lower field: current astronomical time.

Below: duration of the dive in minutes and the water temperature.
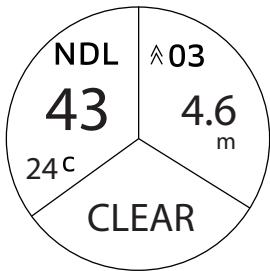
View with the large size of letters and numbers.

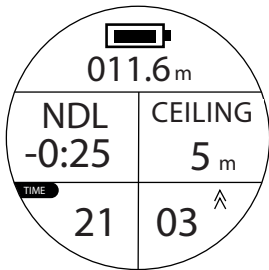**On the left:** time of the non-decompression limit and water temperature.
On the right: the ascent speed and the current depth.
Below: CLEAR - safe ascent indicator.

5) Screen view when the non-decompression limit (NDL) is exceeded for up to 3 minutes

Top: battery charge and current depth.
Middle left: the non-decompression time limit in minutes. When there are 4 minutes left, a repetitive warning beep with vibration appears.
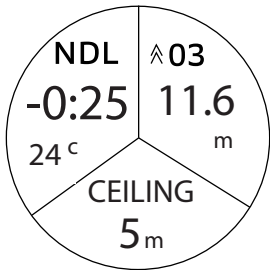
View with the normal size of letters and numbers.

The diver should slowly ascent and complete the dive. If the non-decompression limit is exceeded, the first 3 minutes will be displayed in minutes and seconds.

Middle right: the upper limit of the depth at ascent, at which the diver must stay for a decompression stop.

Below: duration of the dive in minutes and the ascent speed in m/min.
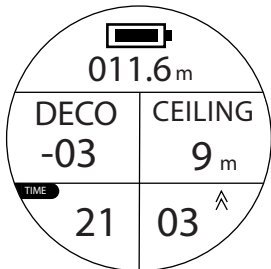
View with the large size of letters and numbers.

Left: the non-decompression time limit in minutes and the water temperature.

On the right: the ascent speed in m/min and the current depth.

Below: the upper limit of the depth at ascent, at which the diver must perform a decompression stop.

When there are 4 minutes left, a repetitive warning beep with vibration appears. The diver should slowly surface and complete the dive. If the non-decompression limit is exceeded, the first 3 minutes will be displayed in minutes and seconds.

6) Screen view when the non- decompression limit (NDL) is exceeded for more than 3 minutes


011.6 m	
DECO	CEILING
-03	9 m
TIME 21	03 ⌃

View with the normal size of letters and numbers.

Top: battery charge and current depth.

Middle left: the decompression time. When the time exceeds 3 minutes, it is displayed in minutes, and after 3 minutes, it is displayed in seconds.

On the right: the upper limit of the depth at ascent, at which the diver must stay for a decompression stop.

Below: duration of the dive in minutes and the ascent speed in m/min.
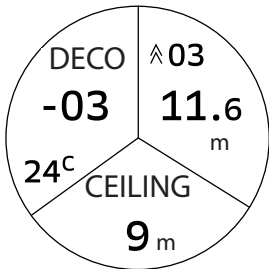
View with the large size of letters and numbers.

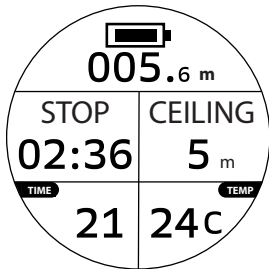**On the left** - the decompression time in minutes and the water temperature.
On the right - the ascent speed in m/min and the current depth.
Below - the upper limit of the depth at ascent, at which the diver must stay for a decompression stop.

7) Screen view when the non-decompression limit (NDL) and upper depth limit are exceeded

Top: battery charge and current depth.

Middle right: the upper limit of the depth at which the diver must make a decompression stop. When the diver reaches this depth, the STOP sign appears **on the left** and a countdown of the decompression stop starts. It is necessary to stay at this depth for the specified time, making sure that you have enough air and there are no other risks.

View with the normal size of letters and numbers.

If the diver does not perform a safety stop and continues to surface, a repetitive warning sound with vibration will appear and the dive will automatically stop being recorded into the Logbook.

The bottom parameters display the duration of the dive in minutes and the water temperature.
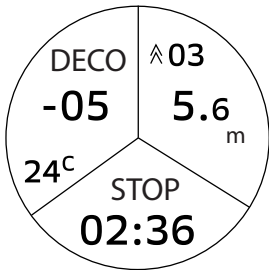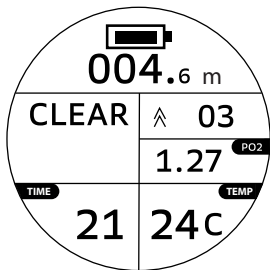
View with the large size of letters and numbers.

On the left: the decompression time in minutes and the water temperature.

On the right: the ascent speed in m/min and the current depth.

Below: the upper limit of the depth at ascent, at which the diver must stay for a decompression stop.

8) Screen view, when the non-decompression limit (NDL) is exceeded and the stop has been completed

View with the normal size of letters and numbers.

Top: battery charge and current depth.

When the diver has completed the safety stop, a CLEAR indicator will appear **in the middle left** to indicate that a slow ascent to the surface can be performed.

In the upper right field, the UP arrow shows the ascent speed in m/min.

Below is the variable value: if the accumulated PO2 partial pressure level exceeds your setting, it will be displayed on the screen. If the PO2 does not exceed the set value, the current time will be displayed on the screen in this field.

Lower field: duration of the dive in minutes and the water temperature.
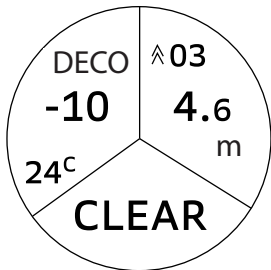
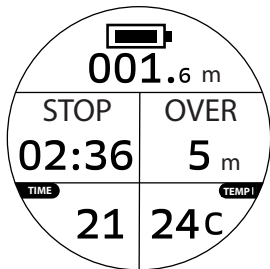DECO ⌃03
-10   4.6
       m
24ᶜ
CLEAR

View with the large size of letters and numbers.

On the left: the decompression time in minutes and the water temperature.
On the right: the ascent speed in m/min and the current depth.
Below: CLEAR – safe ascent indicator.

**9) Screen view if the depth at which a decompression stop should be made is reached, but no stop is made**

View with the normal size of letters and numbers.

Top: battery charge and current depth.

Middle left: the countdown of the decompression stop time; if the diver does not perform it, **on the right** a flashing OVER indicator will appear on the right along with a repeating beep signal with vibration. If the diver has enough air and there are no possible risks, it is necessary to stay at this depth according to the recommended countdown time.

**Bottom of the screen:** duration of the dive in minutes and the water temperature.
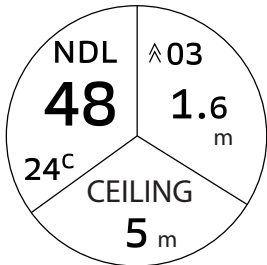
View with the large size of letters and numbers.

On the left: the non-decompression time limit (NDL) in minutes and the water temperature.

On the right: the ascent speed in m/min and the current depth.

Below: the upper limit of the depth at ascent, at which the diver must stay for a decompression stop.

10) End of Scuba diving mode
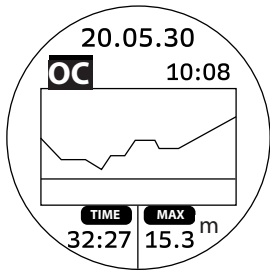
The screen will display the profile of the current dive for approximately one minute. At the top, there is a date, an icon for the OC (open circuit) Scuba diving mode, and the current astronomical time. Below the profile is the duration and maximum depth of the dive.

In the future, this and other dives can be viewed in the Logbook. You can get to the Logbook by pressing MODE button and going to the Menu.

Use DOWN button to scroll down to the Logbook (LOG).
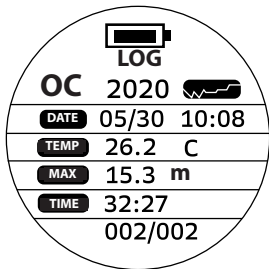
MODE button opens the parametrs of last dive. The screen displays the date, time, water temperature, maximum depth, duration of the dive and its sequential number.

By pressing MODE button again, you can view its profile. POWER button returns to the previous screen, where you can view other dives by scrolling with UP and DOWN buttons.

11. NO DIVING Reminder

If NO DIVING recommendation time countdown appears on the screen, DO NOT continue diving activities.

For exact NO DIVING recommendation time countdown please check the Dive History page.

Note: Scuba mode, Freediving and Plan mode will remain locked during NO DIVING recommendation time countdown.

12. NO FLY Reminder

If NO FLY sign shows on the screen, DO NOT take flights or head to high altitude environment. For exact NO FLY recommendation time countdown please check Dive History page.

Note: Scuba mode, Freediving and Plan mode will remain locked during NO FLY recommendation time countdown.

Decompression Diving Warning for Recreational Divers:

Decompression options provided by dive computer and presented in this user manual should only be used as emergency procedures when a NDL limit has been accidentally surpassed.

It is important to remember that decompression stops are driven by both depth and NDL violations. It is possible to see several decompressions stop indications at different CEILING depths and different times depending how severe the depth and NDL violations have been.

Decompression diving is not an activity that should be performed by recreational divers as a standard practice. Decompression diving requires extensive training, deep knowledge of diving physics and diving physiology and several pieces of extra gear and sufficient gas supply to safely perform the required decompression stops.

We strongly discourage recreational divers from performing decompression diving.

Freediving mode can be started by pressing MODE button from the main Menu. Move the cursor down to the name FREE and confirm with MODE button.

The Freediving mode opens with a preview window, which displays the following indicators:

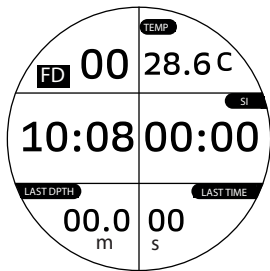**Top left:** sequence number of the dive;

Top right: water temperature;

Middle left: current astronomical time;

Middle right: surface interval;

Bottom left: the depth of the last dive;

Bottom right: duration of the last dive in seconds.

TEMP

FD 00 28.6 C

SI

10:08 00:00

LAST DPTH   LAST TIME

00.0   00
m   s

From the preview window, by pressing UP button, you can switch to the settings of dive time, depth and surface interval alarms, as well as log start depth.

During the dive, the screen displays:

Top: current depth;

Bottom left: water temperature;

Bottom right: duration of the dive: the countdown of the first minute is in seconds, then in minutes and seconds.
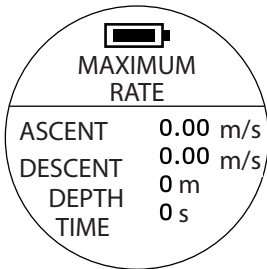
By pressing DOWN button, you can open the maximum values of the main indicators of dives performed in the last 11 hours **(MAXIMUM RATE)**:

ASCENT: Maximum ascent speed
DESCENT: Maximum descent speed
DEPTH: Maximum depth
TIME: Maximum descent time

Please note that after 11 hours, the data is automatically reset to zero.

Pressing DOWN button twice opens the average values of ascents and descents performed in the last 11 hours **(AVERAGE RATE)**:

ASCENT: Average ascent rate
DESCENT: Average descent speed

MAXIMUM RATE

ASCENT	0.00 m/s
DESCENT	0.00 m/s
DEPTH	0 m
TIME	0 s

AVERAGE RATE

| ASCENT | 0.00 m/s |
| DESCENT | 0.00 m/s |

NO DIVING notification displays a countdown to the time of the ban on diving in Freediving mode if the corresponding algorithms were violated in Scuba diving mode.

NO DIVING

00:59
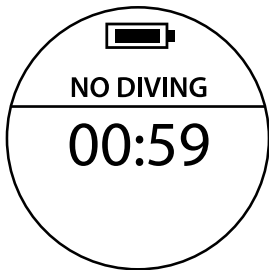
FREEDIVING MODE SETTINGS

1) Freediving time alarm setting (FTIME-ALM)

From the preview window, use UP button to go to Freediving mode settings. The cursor is on FTIME-ALM. After pressing MODE button, the option to select will start flashing at the bottom of the screen. By default the function is ON. You can turn off the setting with DOWN button and confirm it with MODE button.
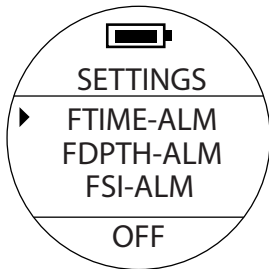
You can set up an alarm signal by pressing MODE button again. The sequence number of signal "Lv1" (the first of five) and a flashing value in the range from 0 to 360 seconds will appear at the bottom. The desired value is set by UP and DOWN buttons. Move to the next digit from left to right and confirm the selected value with MODE button.

Then, the menu of the second and subsequent signals automatically appears, which can be set in the same way. In the process of diving, after a set time, a triple-repeated long signal with vibration is triggered.

If you don't need to set all 5 signals, you can limit yourself to the required number by setting the following fields to 0 seconds and confirming with MODE button.

Setup range: ON (from 0 to 360 seconds) / OFF

To exit and proceed to the next settings, press POWER button.

2) Freediving depth alarm setting (FDPTH-ALM)

Press DOWN button to go to the dive depth warning signal (FDPTH-ALM). Press MODE button and the option will flash at the bottom of the screen. By default, it is ON. You can turn off the setting with DOWN button and confirm with MODE button.

```
        ┌────────────┐
       │    ▄▄▄▄▄▌   │
      │      SETTINGS     │
      │     FTIME-ALM     │
      │  ▶ FDPTH-ALM      │
      │      FSI-ALM      │
       │        OFF        │
        └────────────┘
```

You can set up an alarm signal by pressing MODE button. The sequence number of signal "Lv1" (the first of five) and a flashing value in the range from 0 to 99 meters will appear below. The desired value is set by UP and DOWN buttons. Move to the next digit from left to right and confirm the selected value with MODE button.

The menu of the second and subsequent signals will automatically appear and they can be set in the same way. In the process of diving, when the specified depth is reache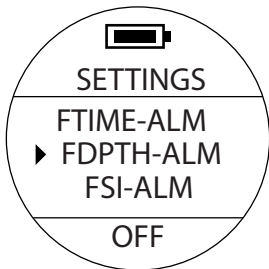d, a twice-repeated long signal with vibration is triggered. If you don't need to set all 5 signals, you can limit yourself to the required number by setting the following fields to 0 meters and confirming with MODE button.

Setup range: ON (0 to 99 meters) / OFF

To exit and proceed to the next settings, press POWER button.

3) Freediving time alarm setting (FSI-ALM)

Use DOWN button to switch to FSI-ALM. After pressing MODE button, the option for selection will start flashing at the bottom of the screen. You can turn off the setting with DOWN button and confirm with MODE button.

You can set up an alarm signal by pressing MODE button. The sequence number of signal "Lv1" (the first of five) and a flashing value in the range from 0 to 60 minutes will appear at the bottom.

The desired value is set by UP and DOWN buttons. Move to the next digit from left to right and confirm the selected value with MODE button. The menu of the second and subsequent signals will automatically appear and they can be set in the same way. If you don't need to set all 5 signals, you can limit yourself to the required number by setting the following fields to 0 minutes and confirming with MODE button.
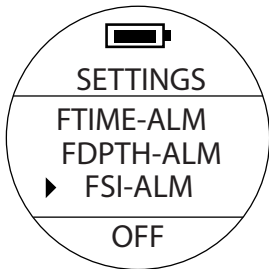
Setup range: ON (from 0 to 60 minutes) / OFF

To exit and proceed to the next settings, press POWER button.

4) Log start at depth setting (LOG START)

Press DOWN button to set the LOG START. This is the depth in meters, starting from which the information about the dive is recorded into the Logbook. When pressing MODE button, a flashing value appears. By default, it is set to 1 m. UP and DOWN buttons allow to set the desired value from 1 to 3 m with a step of 0.5 m, which can be confirmed by MODE button.

Note: this setting is automatically applied to Scuba diving and Gauge modes.

5) Exiting Freediving mode settings

To exit, use DOWN button and select the EXIT line. To confirm, press MODE button. You can also use POWER button to exit.

A Freediving preview window appears. By pressing DOWN button, you can get data on the maximum descent and ascent speed (m/s), depth (m) and dive time(s). Pressing DOWN button again will display the average ascent and descent speeds.

MAX

PL 00 | 28.6 C

SI

10:08 | 00:00

LAST DPTH | LAST TIME

00.0 | 00
m | s
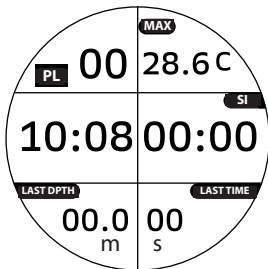
The main menu displays the following indicators:

Top: the dive number and water temperature;
Middle left: current astronomical time; **right**: surface interval.
Bottom: the depth (m) and duration of the last dive in seconds.

This mode's features are very similar to the Freediving mode. The difference is that in Training mode there are no vibration and no sound signals, and dives are not recorded to the Logbook.

SPEARFISHING MODE (HUNT)

This is a special mode that does not have vibration or sound signals so as not to scare off the desired prey. In addition, in this mode the screen backlight will be automatically turned off when diving. You can turn on the screen backlight for 3 seconds manually by pressing any button of the device.

The main menu displays the following real-time indicators:

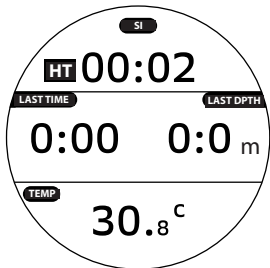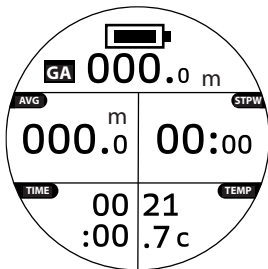**Top:** surface interval;
Middle left: time of the last dive;
Right: depth of the last dive;
Bottom: water temperature;

All dives are recorded into the Logbook.

SI
HT 00:02
LAST TIME   LAST DPTH
0:00   0:0 m
TEMP
30.8 c

This mode measures the depth and time of the dive in real time without calculating the non-compression limit of the dive. The main menu displays the following indicators:

Top: battery charge and current depth;

Middle left: average depth, which can be reset when diving by pressing DOWN button;

Middle right: stopwatch, which can be reset when diving by pressing DOWN button;

Bottom left: total duration of the dive in minutes;

Bottom right: water temperature.

In this mode, you can check the values of the non-decompression limit (NDL) and recommended maximum operating depth (MOD), which allows you to plan subsequent scuba dives.

Main screen:

Top left: oxygen percentage value, (O2%) by default it is 21%;
Top right: CF-Conservatism Factor:
CF-1 - Conservative
CF -2 - Normal
CF - 3 - Aggressive
Default: CF-2.

| 21%	CF2
DPTH	10 m
NDL	99 min
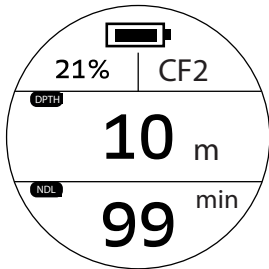
In the middle: recommended maximum operating depth (MOD).
Below: non-decompression limit (NDL) - in minutes. If the value is greater than 99 minutes, the screen will still show a value of 99.

After O2% and CF values are set, press UP button to change MOD and the non-decompression limit values will be recalculated accordingly.

Subsequent screens show the automatically adjusted parameters depending on the self-set values.
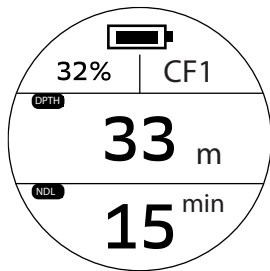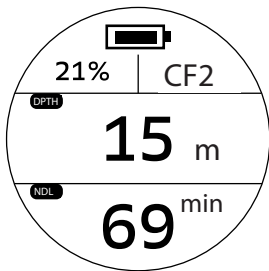
After reaching the maximum depth of the recreational dive of 40 m, the dive computer does not display subsequent changes in values. When the preset PO2 value is reached, a warning signal will be activated.

TIMER – STOPWATCH MODE

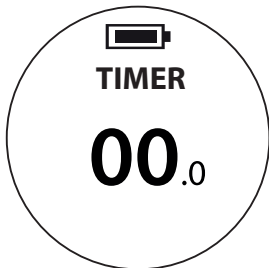It is started and stopped by UP button. Reset is done by MODE button.

Exit the mode by pressing POWER button.

LOGBOOK – DIVE HISTORY (LOG)

The top of the screen displays the abbreviation of the respective dive mode and its dive history is located below:

OC – Open-circuit scuba diving;

FD – Freediving;

GA – Gauge.

Please note that the data of dives performed in the Spearfishing mode (HT) will also be displayed on FD screen.

TIMER

00.0

LOG

OC	2020	
DATE	05/30	10:08
TEMP	26.2	C
MAX	15.3	m
TIME	32:27	
	002/002	
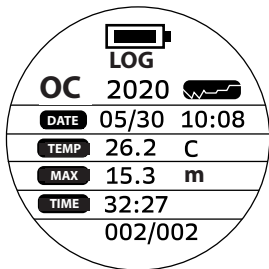
Below are the dive date and time, water temperature, maximum depth, and dive time. At the very bottom is the sequence number of the dive and the total number of dives recorded in the Logbook.

To find and view the required dive in the Logbook, use UP/DOWN buttons and open it with MODE button.

The memory capacity of the Logbook is 950 dives. It is calculated on the basis of 45-50 minutes per dive. The actual capacity of the Logbook may vary depending on the time of the dives performed.

20.05.30
FD   10:08

TIME **MAX**
32:27   15.3 **m**

LOG
WARNING
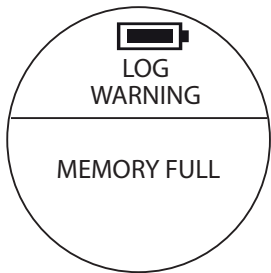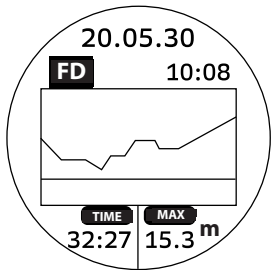
MEMORY FULL

The MEMORY FULL notification indicates that the dive computer's memory is full. At the same time, Scuba diving, Freediving, Spearfishing and Gauge modes are blocked. To unlock them, download the DiveStory app to your phone and sync the Logbook with your mobile device .

Then go to Settings and use the LOG CLEAR function to clear the Logbook.

We recommend that you regularly check the memory filling and unload the Logbook to avoid a malfunction of the device.
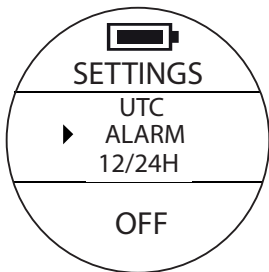
SETTINGS

In this mode, all configurable parameters from all modes of this device are duplicated. To enter this mode, go to the Menu and scroll down with DOWN button to the SETTINGS option. Use MODE button to enter the Settings mode.

By default, the Settings mode starts with the date, format, time, UTC, alarm, time format (12h/24h), auto mode, log start, language, and auto lock.

Nitrox, PO2, Conservatism Factor (CF), scuba time, depth and surface interval alarms (SDPTH-ALM, STIME-ALM, SDPTH-THD, STIME-THD), view and readability parameters (UI) are described in the Scuba diving mode settings section on page 19.

The parameters of Freediving mode alarms (FTIME-ALM, FDPTH-ALM, FSI-ALM) are described in detail on page 54.

In addition to the above-mentioned parameters, you can set the following in the Settings mode:

SETTINGS

UTC
▶ ALARM
12/24H

OFF

ALARM allows you to schedule a sound alarm for a certain time. Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

Default: OFF
Setup range: OFF / ON (00:00 - 23:59)

Use UP or DOWN buttons to select the desired time and confirm it with MODE button.

Note: Changing this setting only applies to settings of Watch mode. Alarm setting of diving mode will not be affected.

Units of measurement (UNIT). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

Default: M/C (Meters and Celsius)
Setup range: M/C, FT/F (Feet and Fahrenheit)

Use UP or DOWN buttons to select the desired one and confirm with MODE button.

Note that changing this setting will affect all modes. When you switch units of measurement, the values are rounded in the calculations.

Auto power off setting (POWER). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

Default: 5 minutes
Setup range: 5, 10 and 30 minutes

Use UP or DOWN buttons to select the desired value and confirm it with MODE button.

Note: Auto power off settings only applies to the settings of Watch mode. When using the dive computer in other modes, the screen will remain turned on.

Button volume setting (BUZZER). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

Default: ON
Setup range: ON/OFF

Use UP and DOWN buttons to select the
desired value and confirm it with the
MODE button.

```
       ▐████▌
      SETTINGS
        UNIT
        POWER
  ▶     BUZZER
        OFF
```
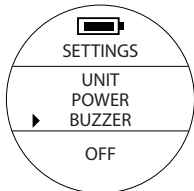
Backlight intensity setting (BACKLIGHT). Use UP/DOWN buttons to
select the desired setting. Press MODE to confirm. A flashing option for
selection will appear at the bottom.
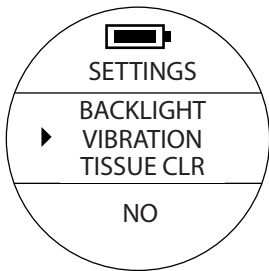
Default: 3
Setup range: 1 to 5

Use UP and DOWN buttons to select the desired value and confirm it
with MODE button.

Note: Higher brightness settings will consume more battery power and
will affect the running time of dive computer.

Vibration (VIBRATION). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing selection will appear at the bottom.

Default: No
Range: Yes/No

Select the desired value with UP and DOWN buttons and confirm with MODE button.

Note that changing this setting only applies to WATCH mode. For all other modes, the settings of the alarm signals will not be affected.

Residual nitrogen calculation clear (TISSUE CLR). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm , and the option for selection will flash at the bottom.
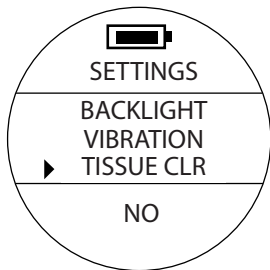
Default: No
Setup range: Yes / No

Use UP and DOWN buttons to select the desired value and confirm it with MODE button.

WARNING:

1. Please make sure you fully understand that changing this setting will affect algorithm calculations and the related risks. DO NOT USE this function if you are not a certified diving instructor or you are not suggested to do so by a certified diving instructor or facility.

2. If you are an instructor or you need to rent this dive computer to different students or customers, please make sure they DO NOT have diving activities within the pass 72 hours for maximum safety control.

3. If you are the person who are receiving this dive computer after using Clear residual nitrogen calculation function, please make sure you DO NOT have diving activities within the pass 72 hours for maximum safety control.

4. Do not use this function if you are not sure with related results. You are responsible for your own safety.

Logbook clear (LOG CLR). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.
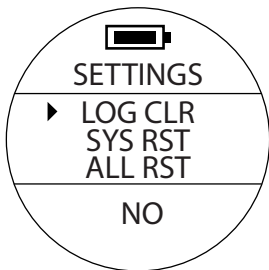
```
┌─────────────────────┐
│      ▬▬▬▬▬▶         │
│      SETTINGS       │
│ ──────────────────  │
│  ▶  LOG CLR         │
│     SYS RST         │
│     ALL RST         │
│ ──────────────────  │
│        NO           │
└─────────────────────┘
```
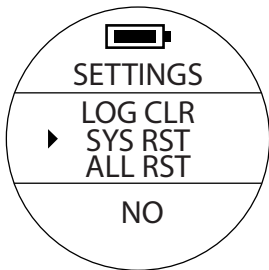
Default: No
Setup range: Yes / No

Use UP and DOWN buttons to select the desired value and confirm it with MODE button.

Please note that dive computer's memory should be cleared regularly.

However, once the Logbook is cleared, the data cannot be recovered. To avoid losing it, we recommend that you first transfer your data from your computer to your mobile device via the DiveStory app (see page 79). Clearing logs won't affect any existing settings and residual nitrogen calculation of previous dives existing on this dive computer will still be calculated.

System settings reset (SYS RST). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

SETTINGS

LOG CLR
▶ SYS RST
ALL RST

NO

Default: No
Setup range: Yes / No

Use UP and DOWN buttons to select the desired value and confirm it with MODE button.
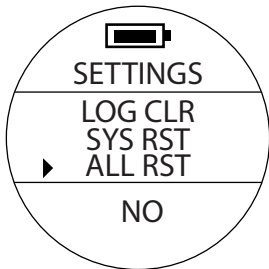
Note:
1. By resetting system, all the custom settings will be erased and all settings will be reset as default.
2. Residual nitrogen calculations will still be calculated and will NOT be cleared and reset; dive logs will NOT be cleared and reset either.

All settings reset and data clear (ALL RST). Use UP/DOWN buttons to select the desired setting. Press MODE to confirm. A flashing option for selection will appear at the bottom.

Default: No
Setup range: Yes / No

Use UP and DOWN buttons to select the desired value and confirm it with MODE button.

```
┌─────────────┐
│   ▭▭▬        │
│  SETTINGS   │
│─────────────│
│   LOG CLR   │
│   SYS RST   │
│ ▸ ALL RST   │
│─────────────│
│     NO      │
└─────────────┘
```

Note:

1. By resetting all, all the custom settings will be erased and all settings will be reset as default. All logs will be deleted permanently. There is no way to retrieve them.

2. Residual nitrogen records will be cleared and reset. Previous diving logs will NOT be calculated. Please make sure you fully understand that changing this setting will affect algorithm calculations and the related risks. DO NOT USE this function if you are not a certified diving instructor or you are not suggested to do so by a certified diving instructor or facility.

Comparison Table of Clearing Functions						
	NO DIVE	NO FLY	SI time Clear	Residual Nitrogen Calculation Clear	Dive Log Clear	Personal Settings Reset
TISSUE CLR Reset the current tissue saturation rate	●	●	●	●		
LOG CLR Clear Logbook					●	
SYS RST Reset all individual settings						●
ALL RST Reset to default factory settings	●	●	●	●	●	●

SYNCHRONIZATION (SYNC) is used to transfer data from a dive computer to a mobile device (running on iOS or Android). To do this, download and install the DiveStory app to your mobile device (smartphone or tablet) from the AppStore or Google Play. The Scorpena Alpha device transmits data via Bluetooth, so make sure it's turned on on your mobile device. Geolocation must also be turned on.

Use MODE button on the device to open the Menu and DOWN button to move the cursor down to the SYNC and press MODE button again to activate the mode. While the data is being transmitted, a dotted line will flash on the device's display.
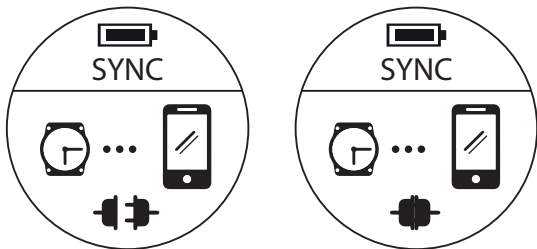
Open the DiveStory app on your mobile device. Click the "+" in the upper right corner and wait for *Scanning* to appear. Then click on the line that appears with the name of your device. If you want dive computer to automatically connect to this mobile device from now on, press *Yes*, if not - *No, thanks*. This setting can be changed in the future using the *Auto Connect* slider in the lower right corner.
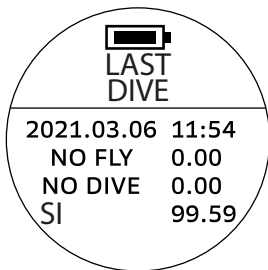
When the connection between the devices is established, a screen with the serial number of your device will appear in the app. To update the software, press the blue *Upgrade Firmware* line. A spinning circle will appear - a download indicator. Please wait for the download to finish - this will mean that the software is installed and the device can be used in full.

With the DiveStory app, you can also download and view your dive history by pressing the blue *Download Logs* line and then *Scan Now*. After a successful download, the *Download Done* notification and the number of downloaded dives will be displayed on the screen. They can be found in the *Dive Logs* section.

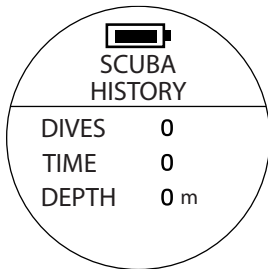By pressing the blue *Settings* line, you can change some of the general settings of the device.

By switching between tabs in the same section, you can set separate parameters for Scuba diving and Freediving modes.

```
                    ┌──────┐
                    LAST
                    DIVE
       ─────────────────────────
       2021.03.06  11:54
          NO FLY    0.00
          NO DIVE   0.00
       SI           99.59
```
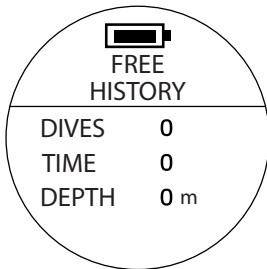
Pressing DOWN button opens the parameters of the last dive - date, time, NO FLY and NO DIVE reminders, as well as the surface interval (SI).

Subsequent presses of DOWN button will display a summary of the dive data in Scuba diving and Freediving modes, the battery charge level, the amount of memory used and the installed software version.

The SCUBA HISTORY screen shows the total number of dives performed in this mode, the total dive time and the maximum depth.

The FREE HISTORY screen shows the total number of dives, the maximum depth and the duration of the record dive in this mode.

Please note that the data of dives performed in the Spearfishing mode will also be displayed on this screen.
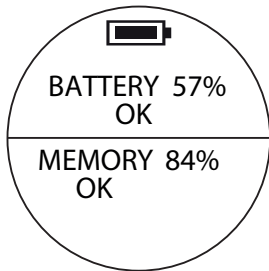
The next screen shows the current battery charge and the amount of memory used as a percentage.

The VERSION screen shows the hardware (HW) and software (SW) versions and the serial number (SN) of the device.

ABBREVIATIONS

Buttons		
POWER	ON/OFF, exit	Left button
MODE		Right middle button
UP		Top right button
DOWN		Bottom right button
Modes		
WATCH	Watch mode	
SCUBA (OC)	Scuba diving mode	
FREE (FD)	Freediving mode	
POOL / TRAINING (PL)	Training mode	
HUNT (HT)	Spearfishing mode	
GAUGE (GA)	Gauge mode	

Scuba Mode	
CF	Conservatism factor
SDPTH-ALM	Depth alarm
STIME-ALM	Time alarm
SDPTH-THD	Depth limit
STIME-THD	Time limit
NORMAL	The usual size of letters and numbers, the full amount of information is displayed on the screen
LARGE	Large size of letters and numbers, no insignificant indicators
OC	Scuba diving (open circuit)
TIME	Time spent underwater
MOD	Recommended maximum operating depth

PO2	Partial oxygen pressure
O2	Percentage of oxygen
NDL	Non-decompression limit
TEMP	Water temperature
STOP	Countdown of the decompression stop time
ASCENT	Ascent / Stopping depth
CLEAR	Safe ascent indicator
DECO	Decompression time
LOG	Logbook, dive history

Freediving, Spearfishing and Training modes	
TIME	Dive duration
FTIME-ALM	Time alarm
FDPTH-ALM	Depth alarm
FSI-ALM	Surface interval alarm

| **SI** | Surface interval |
| **TEMP** | Water temperature |

Gauge Mode

AVG	Average dive depth
STPW	Stopwatch timer
SYS RST	System reset
ALL RST	Reset all settings and clear all data