

# **VEO 4.0**

## **DIVE COMPUTER**

### **OPERATING MANUAL**

# CONTENTS

NOTICES	4	GAS MENU	31
<b>GETTING STARTED</b>	<b>6</b>	DIVE ALT 1	31
BASICS	7	DIVE ALT 2	31
ACTIVATION	7	DEEP STOP PREVIEW	32
BUTTONS	9	DEEP STOP MAIN	32
<b>DIVE FEATURES</b>	<b>11</b>	SAFETY STOP MAIN	32
DTR (DIVE TIME REMAINING)	12	SURFACING	33
NO DECOMPRESSION	12	DECOMPRESSION	35
O <sub>2</sub> MIN (OXYGEN TIME REMAINING)	12	DECOMPRESSION ENTRY	35
BAR GRAPHS	12	DECOMPRESSION STOP MAIN	35
VARI BAR GRAPH	13	CONDITIONAL VIOLATION (CV)	35
TLBG (TISSUE LOADING BAR GRAPH)	13	DELAYED VIOLATION 1 (DV 1)	36
DUAL ALGORITHM®	13	DELAYED VIOLATION 2 (DV 2)	36
CONSERVATIVE FACTOR	13	DELAYED VIOLATION 3 (DV 3)	36
DEEP STOP	13	VIOLATION GAUGE MODE DURING A DIVE	37
SAFETY STOP	14	VIOLATION GAUGE MODE ON THE SURFACE	37
LOW BATTERY WHILE ON THE SURFACE	14	HIGH PO <sub>2</sub>	37
LOW BATTERY DURING A DIVE	14	ALARM	37
AUDIBLE/VISUAL ALARM	15	PO <sub>2</sub> DURING DECOMPRESSION	37
<b>DIVE SURFACE MODE</b>	<b>16</b>	HIGH O <sub>2</sub> SAT (OXYGEN SATURATION)	38
ON THE SURFACE BEFORE A DIVE	17	WARNING	38
DIVE SURF MAIN MENU	17	ALARM	38
ALT 1 (LAST DIVE)	17	WARNING DURING DECOMPRESSION	38
ALT 2	17	ALARM DURING DECOMPRESSION	38
ALT 3	18	ALARM ON SURFACE	39
FLY/DESAT	18	<b>GAUGE MODE</b>	<b>40</b>
PLAN	18	ON THE SURFACE BEFORE A DIVE	41
LOG	19	GAUGE SURF MAIN MENU	41
SET F (GAS MIX)	20	INITIATING A DIVE	41
SET A (ALARMS)	21	GAUGE DIVE MAIN/ALT 1	42
1. AUDIBLE ALARM	21	GAUGE DIVE ALT 2	42
2. DEPTH ALARM	21	RUN TIMER	42
3. EDT (ELAPSED DIVE TIME) ALARM	22	DELAYED VIOLATION 3 (DV3)	43
4. TLBG (TISSUE LOADING BAR GRAPH) ALARM	22	<b>FREE MODE</b>	<b>44</b>
5. DTR (DIVE TIME REMAINING) ALARM	22	FREE DIVE MODE DETAILS	45
SET UTILITIES	23	ON THE SURFACE BEFORE A DIVE	46
1. WET ACTIVATION	23	ALT 1	46
2. UNITS (IMP/MET)	23	ALT 2	46
3. DEEP STOP	24	COUNTDOWN TIMER (CDT)	47
4. SAFETY STOP	24	SET FA (FREE ALARMS)	47
5. ALGORITHM	25	SET MODE (OPERATION MODE)	48
6. CONSERVATIVE FACTOR	25	SHARED SETTINGS	48
7. BLUETOOTH (BLUETOOTH COMMUNICATION)	26	1. ELAPSED DIVE TIME ALARM	48
8. GLO (BACKLIGHT) DURATION	26	2. DEPTH ALARMS 1-3	48
9. SAMPLING RATE	27	INITIATING A DIVE	49
SET T (TIME)	27	FREE DIVE MAIN	49
SET MODE (OPERATION MODE)	28	FREE DIVE ALT 1	49
HISTORY	28	FREE DIVE ALT 2	50
SN (SERIAL NUMBER)	29	HIGH NITROGEN ALARMS	50
<b>DIVE OPERATION</b>	<b>30</b>		
INITIATING A DIVE	31		
NO DECOMPRESSION DIVE MAIN	31		

<b>REFERENCE</b>	<b>51</b>
<b>UPLOADING/DOWNLOADING DATA</b>	<b>52</b>
<b>CARE AND CLEANING</b>	<b>52</b>
<b>INSPECTIONS AND SERVICE</b>	<b>52</b>
<b>BATTERY REPLACEMENT</b>	<b>52</b>
<b>ALTITUDE SENSING AND ADJUSTMENT</b>	<b>54</b>
<b>TECHNICAL DATA</b>	<b>55</b>

## NOTICES

### LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided. Register on line at [www.OceanicWorldwide.com](http://www.OceanicWorldwide.com)

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### PATENT NOTICE

U.S. patents have been issued to protect design features of our products. The list of patents issued and pending are available at [dive-patent.com](http://dive-patent.com).

### DECOMPRESSION MODEL

The programs within the Veo 4.0 simulate the absorption of nitrogen into the body by using a mathematical model. This model is merely a way to apply a limited set of data to a large range of experiences. The Veo 4.0 dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the Veo 4.0, just as using the U.S. Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."** Every diver's physiology is different, and can even vary from day to day. No machine can predict how your body will react to a particular dive profile.

**Welcome**

**to**

**OCEANIC**

**and**

**THANK YOU**

**for choosing the**

**Veo 4.0**

# GETTING STARTED

## BASICS

Welcome to your new VEO 4.0. The VEO 4.0 is an easy to use dive computer utilizing a two button interface. Divers may choose between three modes of functionality consisting of Dive, Gauge, and Free Modes. Though the VEO 4.0 is easy to use, you will get the most out of your new VEO 4.0 if you take some time to familiarize yourself with its displays and operation. Information has been organized into easy to follow sections to aid you in learning all you need to know. There is also a glossary at the end of this guide for any terms that may sound unfamiliar.

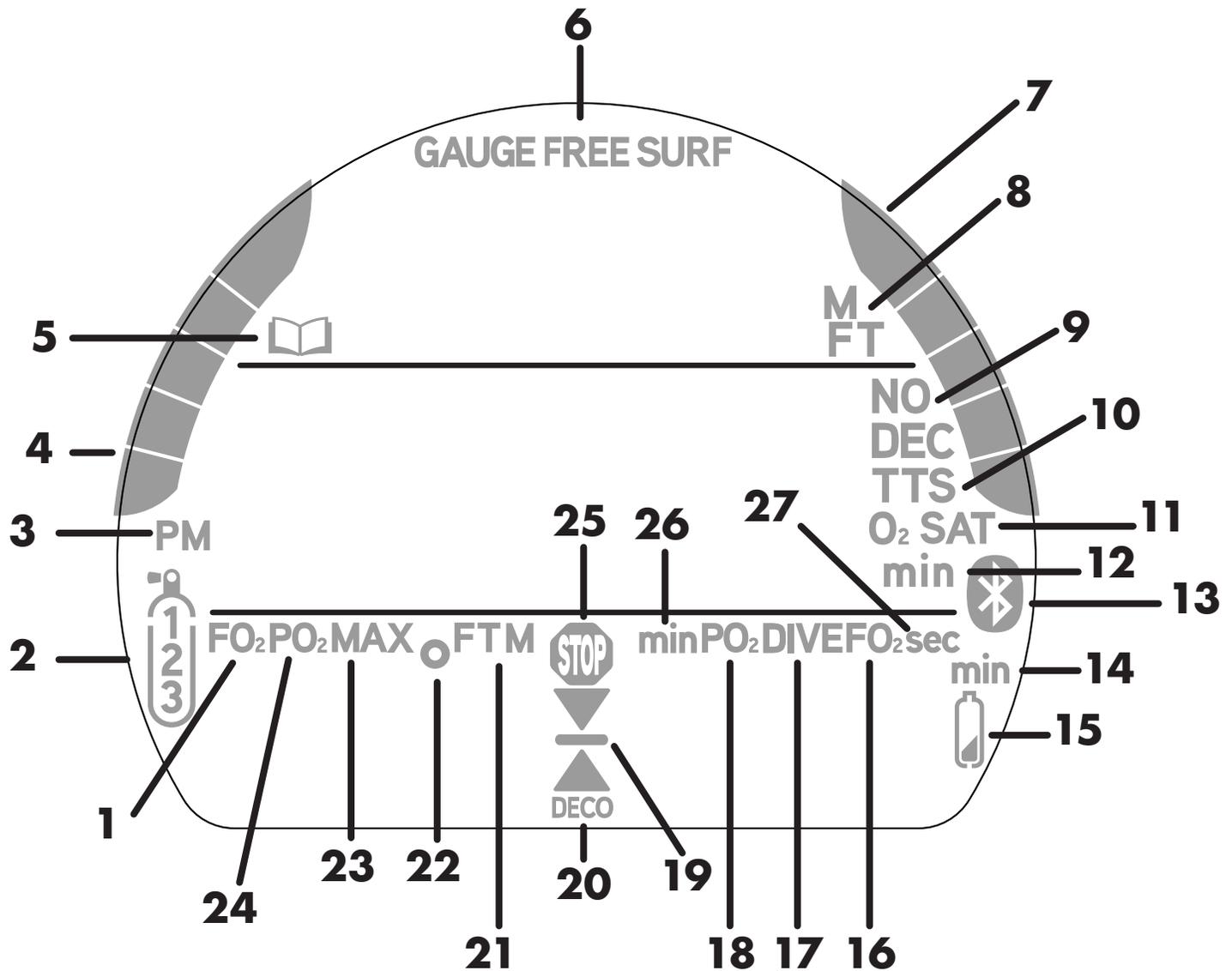
## ACTIVATION

To activate the VEO 4.0, press and release either button. The VEO 4.0 will also turn on if its metal contacts become wet. The Wet Act (water activation) feature may be disabled if that is your preference. Disabling the Wet Activation feature is described in the Dive Surface Mode chapter, p. 16.

- Upon activation The unit will enter a Diagnostic Mode. The VEO 4.0 checks the display and voltage at this time to ensure that everything is within tolerance.
- It will also check ambient barometric pressure, and calibrate present depth as 0 m (ft). When at 916 m (3001 ft), or higher, it will adjust depth for the higher altitude.
- After the Diagnostic check, the VEO 4.0 will display the surface screen in Dive Mode.

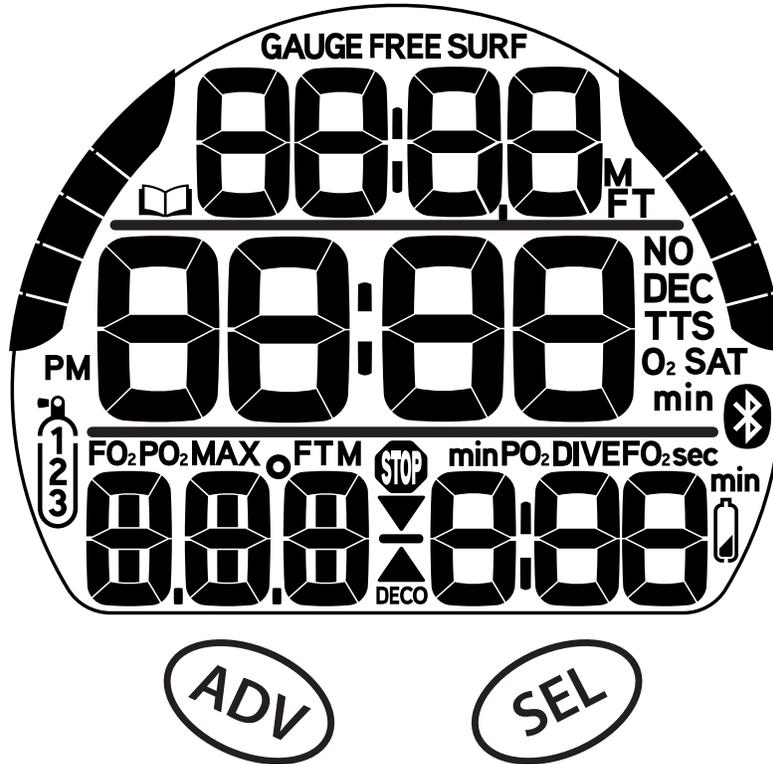
**△ NOTE: The VEO 4.0 has no off button or command. If no buttons are pressed or dives made within 10 minutes the computer will enter Sleep Mode. The screen and Bluetooth (if set ON) shut down, to save battery life, while in Sleep Mode. To wake the computer press any button. Additionally, the unit will completely shut itself off after 2 hours of inoperation. However, the VEO 4.0 will stay on, in Sleep Mode, for a 24 hour period after the dive, counting down FLY (time to fly) and SAT (desaturation time) if a dive has been made.**

# DISPLAY ICONS



1	Fraction of Oxygen
2	Gas #
3	Time ID
4	Tissue Loading Bar Graph
5	Logbook
6	Mode
7	Variable Ascent Rate
8	Depth ID (units)
9	Decompression (DEC) or No Decompression (NO DEC)
10	Time To Surface
11	Oxygen Sat (Saturation) or min
12	Minutes
13	Bluetooth is on

14	Minutes
15	Low Battery
16	Fraction of Oxygen
17	Dive Time (min) or #
18	Partial Pressure of Oxygen
19	Descend, Ascend, or Stop
20	Decompression Stop
21	Depth ID (units)
22	Temperature
23	Value is Max
24	Partial Pressure of Oxygen
25	Stop Triggered (Deep, Safety, or Deco)
26	Minutes
27	Seconds



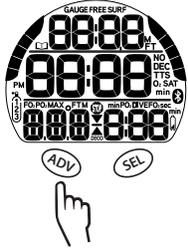
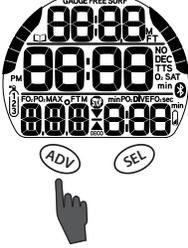
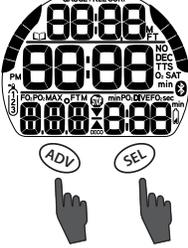
**BUTTONS**

The VEO 4.0 utilizes 2 control buttons called the ADV (Advance) and SEL (Select) buttons. They allow you to select mode options and access specific information. They are also used to enter settings, activate the backlight, and acknowledge the audible alarm. Throughout this manual they will be referred to as the ADV and SEL buttons.

Pressing different combinations of these buttons will navigate through different menus and options of the VEO 4.0. The symbols in the table below will illustrate how to proceed through the menus.

SYMBOL	MEANING
	PRESS BUTTON LESS THAN 2 SECONDS
	HOLD BUTTON GREATER THAN 2 SECONDS

## BUTTON FUNCTIONS

ACTION	FUNCTION
Press Button	<ul style="list-style-type: none"> <li>• to activate the VEO 4.0</li> </ul>
	<ul style="list-style-type: none"> <li>• to access Alt screens</li> <li>• to advance or step through menus</li> <li>• to toggle or change setpoints</li> <li>• to activate the backlight</li> </ul>
	<ul style="list-style-type: none"> <li>• to scroll quickly, changing setpoints</li> <li>• to scroll quickly through menu lead-in screens (selections)</li> </ul>
	<ul style="list-style-type: none"> <li>• to select, access, step forward through selections, or save a setting</li> <li>• to activate the backlight without leaving a surface or underwater main screen</li> </ul>
	<ul style="list-style-type: none"> <li>• to step backwards through selections or menu screens</li> </ul>
	<ul style="list-style-type: none"> <li>• to exit a menu directly to the main screen</li> </ul>

# DIVE FEATURES

**DTR (DIVE TIME REMAINING)**

The Veo 4.0 constantly monitors No Decompression status and O2 Accumulation, and will display whichever time is the least amount available as DTR on the No Decompression Dive Main screen. The Time being displayed will be identified by the NO DEC min (no decompression time) or O2 min icons.

**NO DECOMPRESSION**

No Decompression is the maximum amount of time that you can stay at your present depth before entering decompression. It is calculated based on the amount of nitrogen absorbed by hypothetical tissue compartments. The rates each of these compartments absorb and release nitrogen is mathematically modeled and compared against a maximum allowable nitrogen level.

Whichever compartment is closest to this maximum level is the controlling compartment for that depth. Its resulting value NO DEC min (no decompression time) will be displayed. It will also be displayed graphically as the TLBG Bar Graph, see Bar Graphs below.

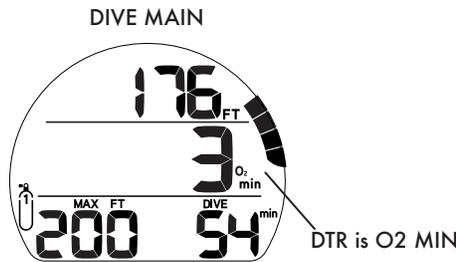
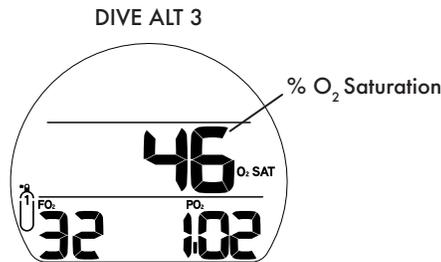
As you ascend, the TLBG Bar Graph segments will recede as control shifts to slower compartments. This is a feature of the decompression model that is the basis for multilevel diving, one of the most important advantages that Oceanic dive computers offer.



**O2 MIN (OXYGEN TIME REMAINING)**

When set for nitrox operation, O2 SAT (Oxygen Saturation) during a dive is displayed on an ALT screen as a percentage of allowed saturation identified by the O2 SAT icon. The limit for O2 SAT (100%) is set at 300 OTU (Oxygen Tolerance Units) per dive or 24 hour period. See the chart at the back of this manual for specific times and allowances. O2 SAT and O2 min values are inversely related; as the O2 SAT value increases the O2 min value decreases.

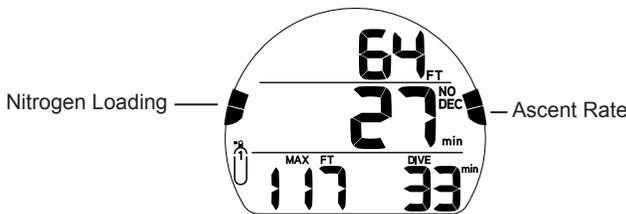
When the O2 min value becomes less than the No Decompression calculations for the dive, DTR (Dive Time Remaining) will be controlled by O2 SAT and the O2 min value will be displayed as the DTR on the Dive Main screen, identified by the O2 min icons.



**BAR GRAPHS**

The Veo 4.0 features two specific bar graphs.

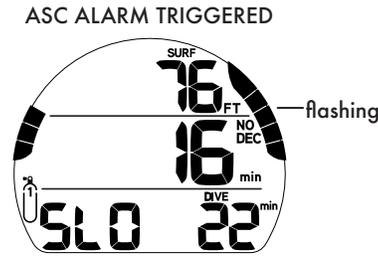
1. The one on the left represents nitrogen loading. It is referred to as the TLBG (Tissue Loading Bar Graph).
2. The one on the right represents ascent rate. It is referred to as the VARI Bar Graph.



**VARI BAR GRAPH**

The VARI Bar Graph provides a visual representation of ascent speed (i.e., an ascent speedometer). When the ascent is faster than the recommended 30 fpm (9 mpm), all segments flash and the message SLO (slow) flashes until the ascent is slowed.

# OF SEGMENTS	ASCENT RATE, FPM (MPM)
0	0 - 10 (0 - 3)
1	11 - 15 (3.1 - 4.5)
2	16 - 20 (4.6 - 6)
3	21 - 25 (6.1 - 7.5)
4	26 - 30 (7.6 - 9)
5	> 30 (> 9)



**TLBG (TISSUE LOADING BAR GRAPH)**

The TLBG represents your relative No Decompression or Decompression status. The first four segments represent No Decompression status and the fifth indicates a Decompression condition. As your Depth and Elapsed Dive Time increase segments are added. As you ascend segments recede, indicating that additional No Decompression time is available. The Veo 4.0 monitors multiple different nitrogen compartments simultaneously and the TLBG displays the one that is in control of your dive at any given time.

**DUAL ALGORITHM®**

The Veo 4.0 is configured with 2 algorithms which allows you to choose which set of NDLs (No Decompression Limits) will be used for nitrogen/oxygen calculations and displays relating to Plan Mode and DTR (Dive Time Remaining) for Dive Mode dives.

You can select DSAT or Z+ prior to new dives. Also, the selection can be changed after dives once Desaturation Time decreases to 0:00, otherwise the selection will lock in for 24 hours after the last dive.

DSAT was the original standard used by Oceanic in all of its dive computers until the dual function was implemented several years ago. It features NDLs that are based on exposures and test data which also formed validation for the PADI RDP. It imposes restrictions for repetitive Decompression dives which are considered more risky than general No Deco dives.

Z+ (the Pelagic Z+ algorithm) performance is based on Buhlmann ZHL-16c. It features NDLs that are considerably more conservative than the DSAT version especially at shallower depths.

To create even greater margins of safety with respect to decompression, a Conservative Factor as well as Deep and Safety Stops are available and can be activated for Dive Mode No Decompression dives.

**CONSERVATIVE FACTOR**

When the CF (Conservative Factor) is set On, the dive time remaining, No Decompression/Oxygen Time Remaining, which are based on the algorithm and used for N<sub>2</sub>/O<sub>2</sub> calculations and displays relating to Plan Mode, will be reduced to the values available at the altitude level that is 3,000 ft (915 m) higher than the actual altitude at activation. Refer to the charts in the back of this manual for dive times.

**DEEP STOP**

When the DS (Deep Stop) selection is set ON, it will trigger after descending deeper than 80 ft (24 m). The Veo 4.0 then calculates (continually updating) a Stop Depth equal to 1/2 the Max Depth.

**NOTE:** The Deep Stop feature only works in Dive mode while within No Decompression times.

- While 10 ft (3 m) deeper than the calculated Deep Stop, you will be able to access a Deep Stop Preview screen that will display the current calculated Deep Stop Depth/Time.
- Upon initial ascent to within 10 ft (3 m) below the calculated Stop Depth, a Deep Stop screen displaying a Stop Depth at 1/2 the Max Depth will appear with a countdown timer beginning at 2:00 (min:sec) and counting down to 0:00. If you descend 10 ft (3 m) below, or ascend 10 ft (3 m) above, the calculated Stop Depth for 10 seconds during the countdown, the No Decompression Main will replace the Deep Stop Main display and the Deep Stop feature will be disabled for the remainder of that dive. There is no penalty if the Deep Stop is ignored.
- In the event that you enter Decompression, exceed 190 ft (57 m), or a High O<sub>2</sub> SAT (Oxygen Saturation) condition, ≥ 80%, occurs, the Deep Stop will be disabled for the remainder of that dive.
- The Deep Stop is disabled during a High PO<sub>2</sub> Alarm condition, ≥ set point.

**SAFETY STOP**

Upon ascent to within 5 ft (1.5 m) deeper than the SS depth set for 1 second on a No Decompression dive in which Depth exceeded 30 ft (9 m) for 1 second, a beep will sound and a SS at the depth set will appear on the Dive Main display with a countdown beginning at the SS time set and counting down to 0:00.

- If the SS was set for OFF, the display will not appear.
- In the event that you descend 10 ft (3 m) deeper than the Stop Depth for 10 seconds during the countdown, or the countdown reaches 0:00, the No Decompression Main screen will replace the SS Main screen which will reappear upon ascent to within 5 ft (1.5 m) deeper than the Safety Stop depth set for 1 second.
- In the event that you enter Decompression during the dive, complete the Decompression obligation, then descend below 30 ft (9 m); the SS Main will appear again upon ascent to within 5 ft (1.5 m) deeper than the SS depth set for 1 second.
- If the diver ascends to within 3 ft (0.91 m) from the surface for 10 seconds, the SS is to be canceled.
- There is no penalty if you surface prior to completing the SS or choose to ignore it.

If set for Timer On

Upon ascending to 20 FT (6 M) for 1 second on a No Deco dive in which Depth exceeded 30 FT (9 M) for 1 second, 1 beep will sound and a Run Timer will appear (if set On) displaying 0:00 (min:sec) until started.

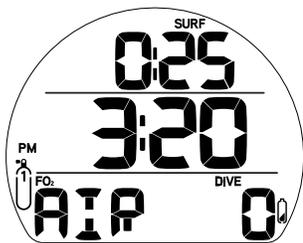
- If the SS was set for Off or On, the Timer display will not appear.
- If you descend deeper than 30 FT (9 M) for 10 seconds, the No Deco Main will replace the Timer screen which will reappear upon ascent to 20 FT (6 M) for 1 second.
- If you ascend above 3 FT (0.91 M) for 10 seconds, or enter Deco, or a High O2 alarm condition occurs (100%), while the SS Timer is active, the SS Timer will be disabled for the remainder of that dive.

**LOW BATTERY WHILE ON THE SURFACE**

 **WARNING: DO NOT dive with a low battery.**

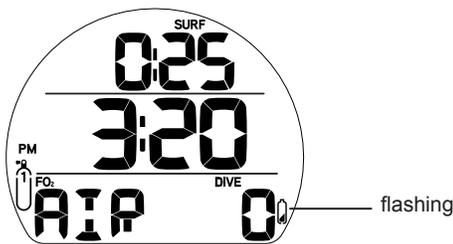
Warning Level

- The Veo 4.0 functions continue but the backlight is disabled.
- The battery icon appears solid.



Alarm Level

- Battery icon shall flash once per second for 5 seconds, then the unit will shut off until the battery is replaced.



**LOW BATTERY DURING A DIVE**

Warning Level

- The Veo 4.0 functions continue but the backlight is disabled.
- The battery icon appears solid upon entry into Surface Mode.

Alarm Level

- The Veo 4.0 functions continue but the backlight is disabled.
- Upon entry into Surface Mode, the battery icon flashes, then the unit will shut off until the battery is replaced.

## AUDIBLE/VISUAL ALARM

While operating in Dive or Gauge Mode, the audible alarm will emit 1 beep per second for 10 seconds when alarms strike, unless it is set to Off. During that time, the audible alarm can be acknowledged and silenced by pressing the SELECT button.

An LED warning light, on the front of the housing, is synchronized with the audible alarm and flashes as the audible alarm sounds. It will turn off when the alarm is silenced. The audible and LED alarms will not be active if the audible alarm is set to OFF (a Set Alarms setting).

Free Dive Modes have their own alarms which emit multiple beeps multiple times which cannot be acknowledged or set to OFF.

### Events that emit (10) beeps >> each sound for 1/2 sec with 1/2 sec silence between beeps:

- DIVE, GAUGE - Ascent Rate too fast.
- DIVE, GAUGE - Depth Alarm.
- DIVE, GAUGE - Elapsed Dive Time Alarm.
- DIVE - Dive Time Remaining Alarm.
- DIVE - Tissue Loading Bar Graph Alarm.
- DIVE - entry into Decompression.
- DIVE - Conditional Violation.
- DIVE - Delayed Violations 1, 2.
- DIVE, GAUGE - Delayed Violation 3.
- DIVE, GAUGE - entry into Violation Gauge Mode.
- DIVE - PO2 Alarm.
- DIVE - O2 Warning and Alarm.
- DIVE - Gas Switch Alarm.

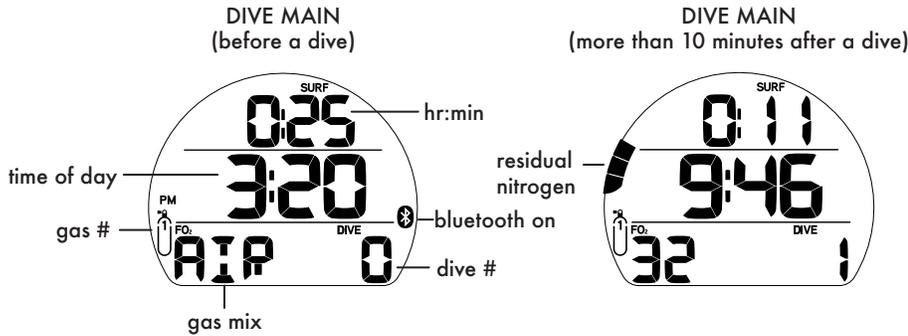
### Events that emit (3) short beeps:

- FREE - CDT Alarm.
- FREE - Elapsed Dive Time Alarm (3 beeps every 30 seconds if set On).
- FREE - Tissue Loading Bar Graph Alarm.
- FREE - Violation, entry into Decompression.
- FREE - DA1 to DA3 Alarms.

# DIVE SURFACE MODE

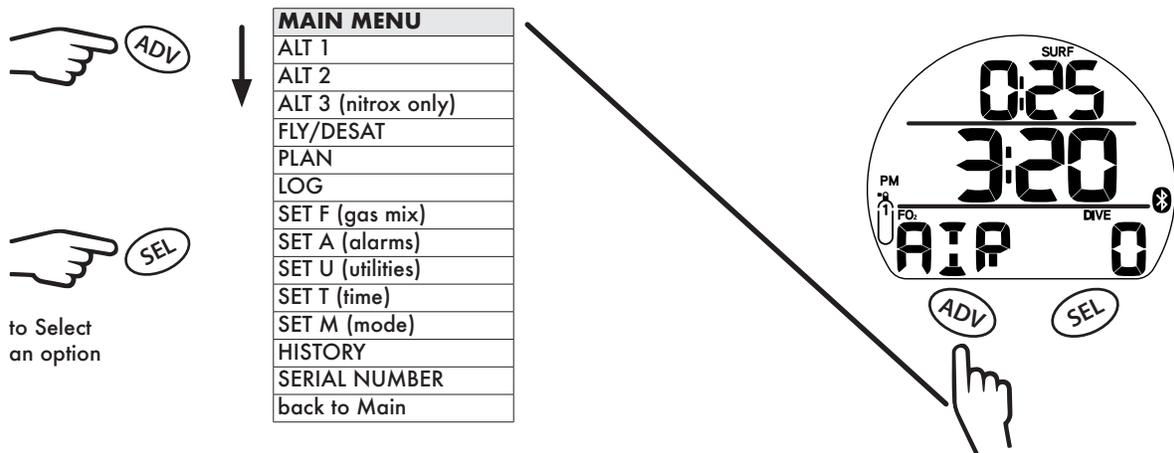
**ON THE SURFACE BEFORE A DIVE**

The Dive Main screen will display the SURF (Surface Time) and the selected FO2 of the breathing gas. The surface time displayed is the time since activation or the surface interval after a dive.



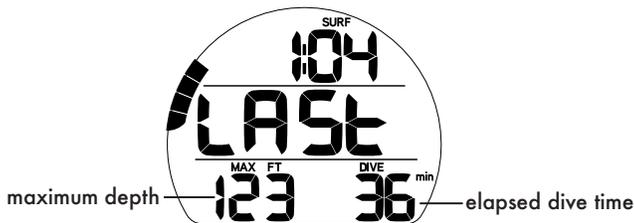
**DIVE SURF MAIN MENU**

To view VEO 4.0 logs, change settings, or switch modes you must navigate through the Surf Main Menu. Enter the menu by pressing the ADV button. When you reach the end of the menu the VEO 4.0 will return to the Dive Surface Main screen. You may hold the ADV button to scroll quickly through the selections. Some screens simply display data. While other screens are lead-ins to sub menus and settings. Press the SEL button to choose menus or options from the Main Menu when available. All Main Menu screens and options will be discussed in the order they appear in the menu below.



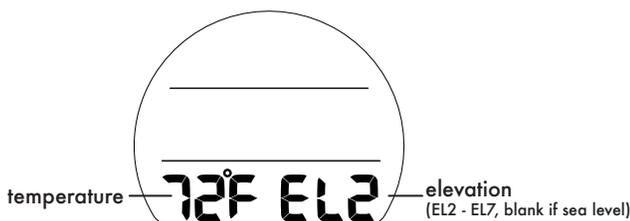
**ALT 1 (LAST DIVE)**

The ALT 1 screen displays essential data from the last dive. If there has been no dive within the current activation cycle, dashes will display for the max depth and elapsed dive time.



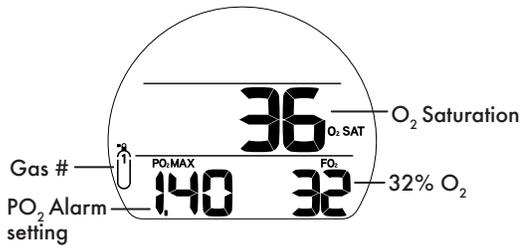
**ALT 2**

The ALT 2 screen displays temperature and current elevation readings.



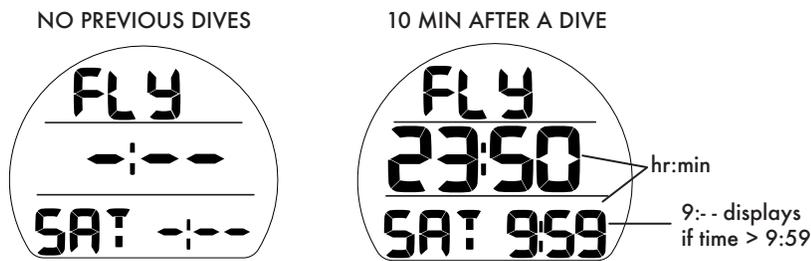
**ALT 3**

The ALT 3 screen displays only after a nitrox dive. It displays the current oxygen saturation level, PO2 Alarm setting, and the current gas mix.



**FLY/DESAT**

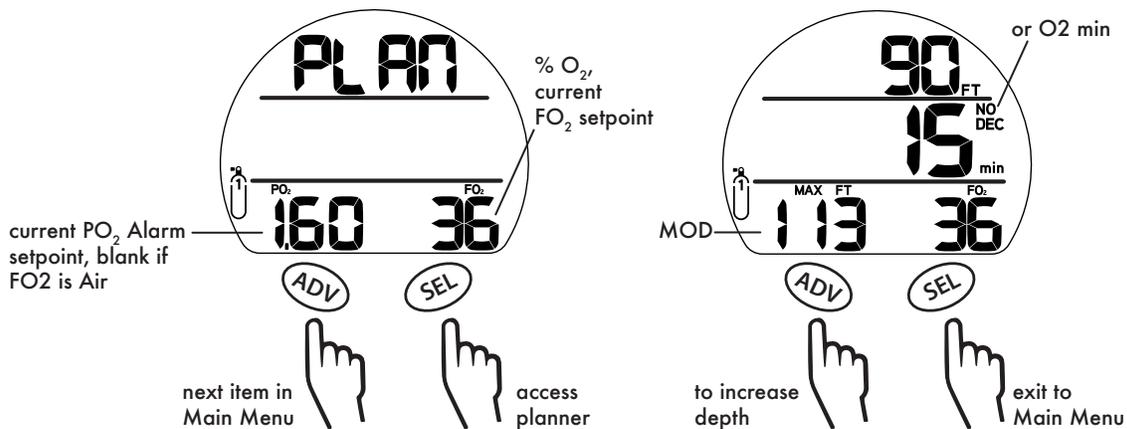
The FLY/DESAT screen displays the Time to Fly and the DESAT (desaturation) countdown. The Time to Fly countdown shall begin counting from 23:50 to 0:00 (hr:min), 10 minutes after surfacing from a dive. The DESAT counter shall provide calculated time for Tissue Desaturation at sea level taking into consideration the CF (Conservative Factor) if it was set on. It shall begin counting down 10 minutes after surfacing from Dive or Free Mode dives counting down from a maximum of 23 to 10 (hr only), then 9:59 to 0:00 (hr:min). When the DESAT countdown reaches 0:00 (hr:min), which will generally occur prior to the FLY countdown reaching 0:00 (hr:min), it will remain on the display as 0:00 until the Fly count down reaches 0:00.



**PLAN**

This mode calculates dive depth and time limits. To do so, it accounts for any residual nitrogen, oxygen, surface intervals, the programmed gas mix, and PO2 alarm setting. Either NO DEC (No Decompression) or O2 min limits are displayed, depending on whether nitrogen or oxygen levels will be the limiting factor. The time limit will display in minutes.

**△ NOTE:** Depths exceeding the MOD (Maximum Operating Depth), if nitrox, or that have less than 1 minute allowed dive time will not be displayed.

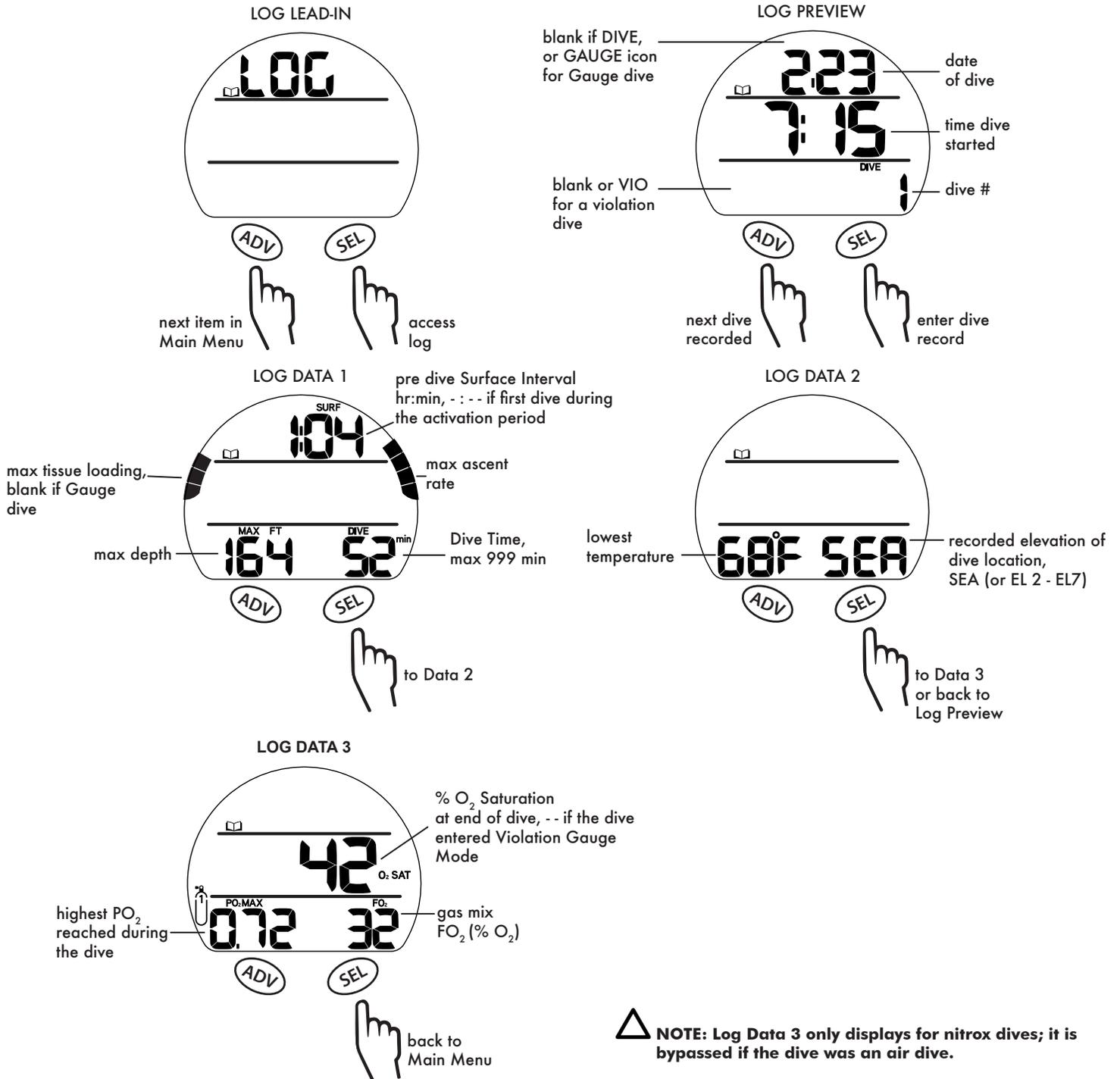


**LOG**

Pressing the SEL button while viewing the LOG Lead-in screen accesses the dive log. The log stores Information from the latest 24 Dive and/or Gauge mode dives for viewing.

- > If no dives are recorded, the message NONE YET 0 DIVE will be displayed in the log.
- > After exceeding 24 dives, the most recent dive is stored while the oldest is deleted.
- > Dives are numbered from 1 to 24 starting each time a dive is activated in either Dive (or Gauge) mode. After the post dive 24 hour period has elapsed and the unit shuts off, the first dive of the next activation period will be recorded as dive #1.
- > In the event that dive time (DIVE-T) exceeds 999 min, the data at the 999 interval is recorded in the Log upon surfacing of the unit.

**NOTE:** New data will automatically overwrite the oldest data in memory when the memory becomes full. The Veo 4.0 Log and Diverlog + Download data is stored separately in different partitions of the memory. The Log only stores a short summary of each dive. Alternately, the Diverlog + Download function stores much larger files for each dive. For this reason, it is normal to see dives stored in the Veo 4.0's onboard Log that have already been overwritten in the Diverlog + Download Partition. If you do not remember to log or download your dives, they will be lost when the memory overwrites. See the Diverlog + Download section of this manual for instructions on downloading dives.



**SET F (GAS MIX)**

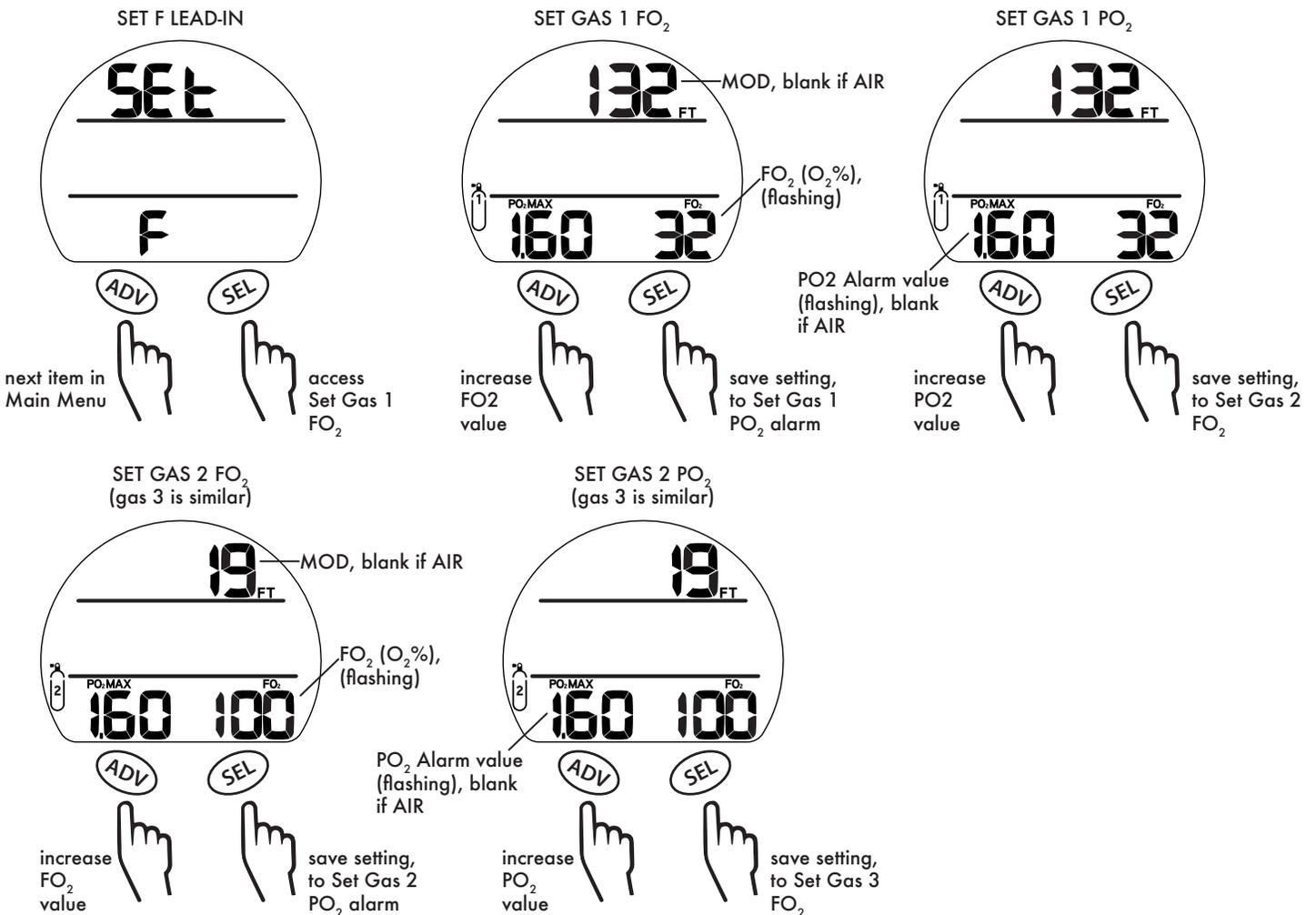
Within this submenu you can change the two available gas mixes from air to any nitrox mix between 21 - 100 FO2 (% O2), PO2 Alarm settings, and whether to use 1, 2, or 3 gases. Nitrox mixes are displayed with their corresponding MOD (Maximum Operating Depth) and the current PO2 Alarm setting for the selected gas. Default settings are FO2 Air with no PO2 alarm value for Gas 1, and OFF for Gas 2 and 3. Settings revert to the defaults when 24 hours elapse without conducting a dive. If you set a nitrox mix value for any gas the PO2 alarm value will default to 1.60 until changed.

Pressing the SEL button while viewing the Set Gas Lead-in screen accesses the Set Air/EAN (Enriched Air Nitrox) screen. Within this screen you can select whether to use Air or Nitrox gas mixes. If Air is selected, the VEO 4.0 will return you to the Set Gas Lead-in screen in the menu. If EAN is selected, the VEO 4.0 will allow you to choose a gas FO2 (%O2) between 21-100%, PO2 Alarm settings, and whether to use 1, 2, or 3 gases. Additionally, the VEO 4.0 allows for each gas to have individual PO2 alarm settings. Within the Set Gas PO2 Alarm 1, 2, and 3 screens the the current PO2 Alarm setting and corresponding MOD (Maximum Operating Depth) are displayed.

**NOTE:** Once a gas is set for nitrox, the other gases that are set for AIR will automatically be set to 21%. The AIR option will not be displayed as an FO2 setting until 24 hours elapse after the last dive.

**NOTE:** When FO2 is set for AIR, oxygen related data (such as PO2, % O2) will not be displayed at any time during the dive, on the surface, or in Plan Mode. Though these oxygen values will be tracked internally for use in any subsequent nitrox dives.

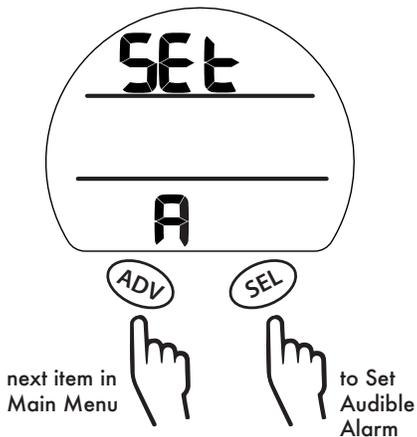
**NOTE:** Gas 1 cannot be set to OFF.



**SET A (ALARMS)**

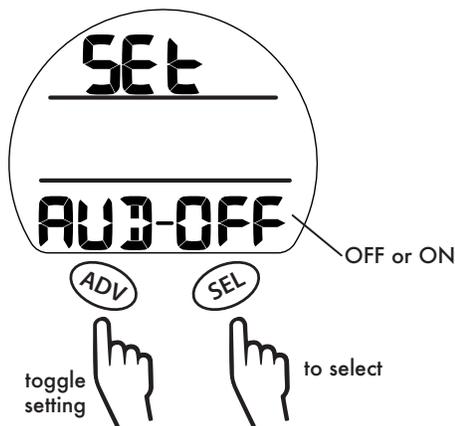
Within this submenu you can customize the following five alarm settings. Within this menu you can customize the following five alarm settings.

SET A LEAD-IN



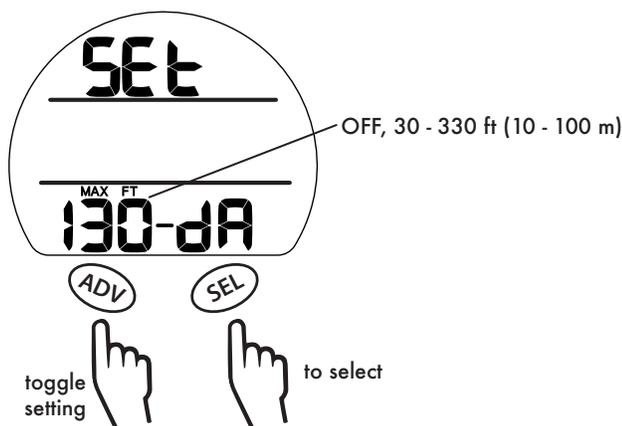
**1. AUDIBLE ALARM**

The Audible Alarm feature allows you to set audible alarms ON or OFF.



**2. DEPTH ALARM**

The Depth Alarm feature allows you to set a maximum depth alarm.

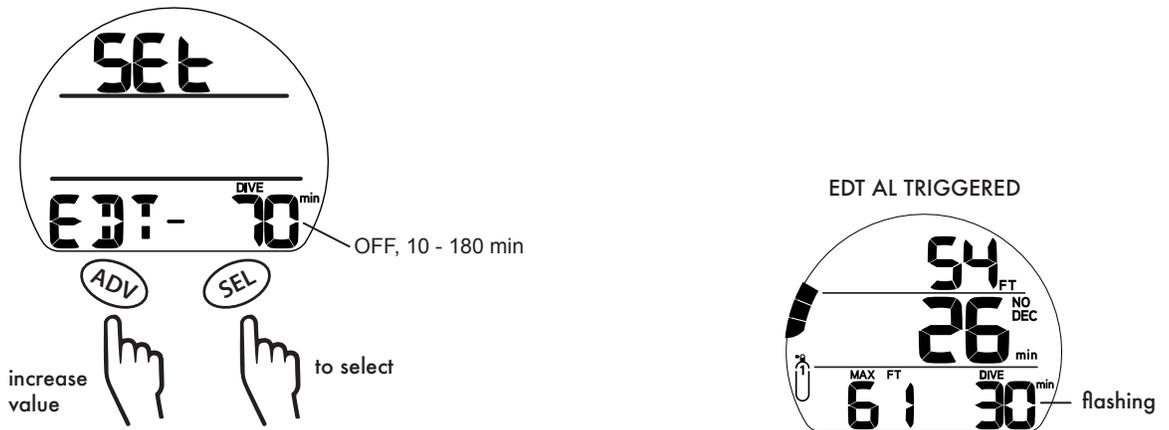


DEPTH AL TRIGGERED



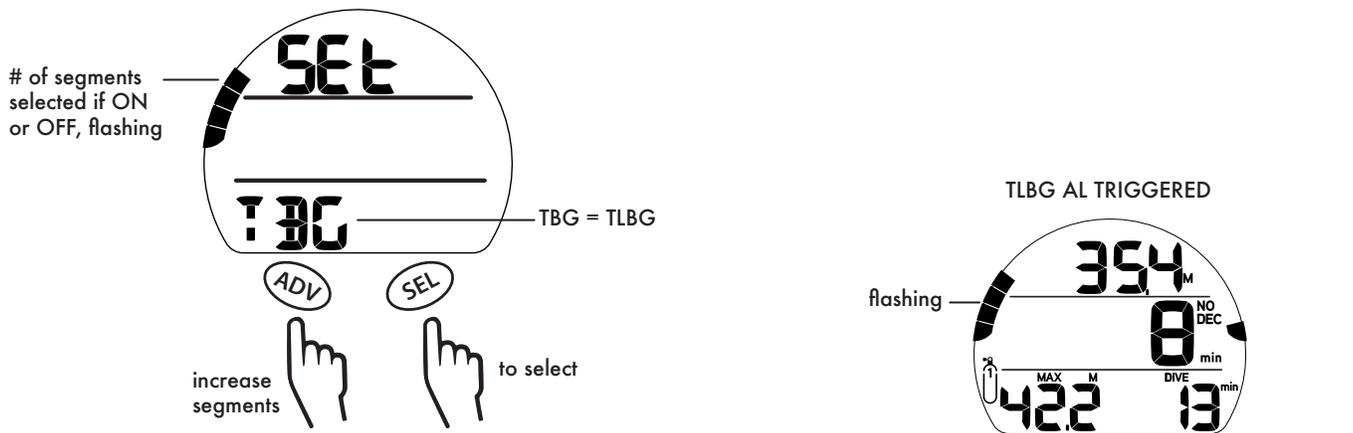
### 3. EDT (ELAPSED DIVE TIME) ALARM

This feature allows you to set an alarm to go off at a predetermined amount of dive time.



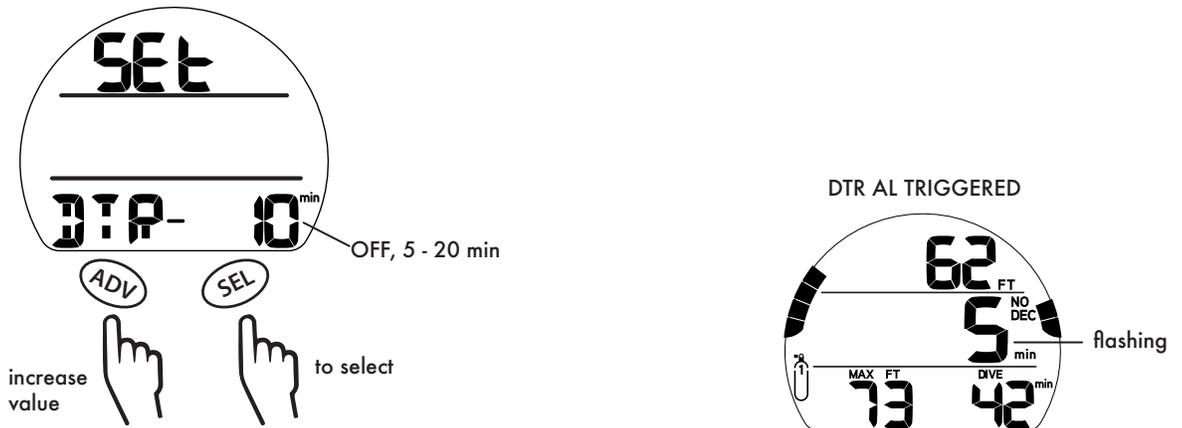
### 4. TLBG (TISSUE LOADING BAR GRAPH) ALARM

This feature allows you to set an alarm to go off at a predetermined number of TLBG segments.



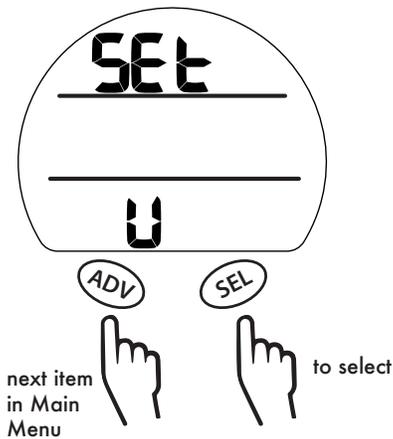
### 5. DTR (DIVE TIME REMAINING) ALARM

This feature allows you to set an alarm to go off with a designated reserve of dive time remaining.



**SET UTILITIES**

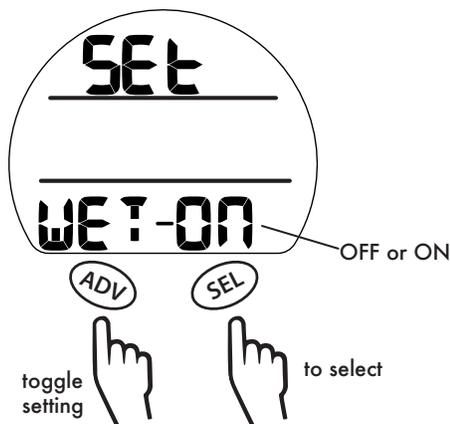
Within the Set Utilities menu you can customize the following nine operational functions.



**1. WET ACTIVATION**

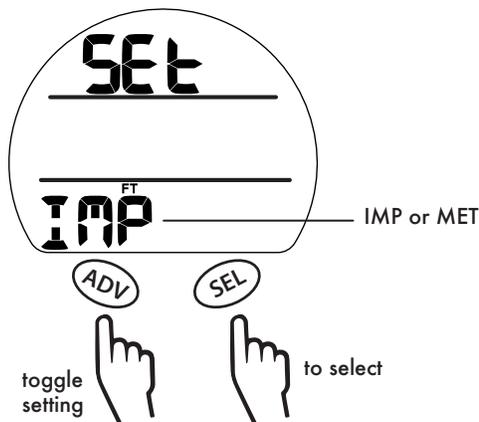
The Wet Activation feature allows you to turn OFF water contact activation.

**⚠ WARNING:** With Wet Activation turned OFF, you must remember to manually activate the Dive Mode before any dive.



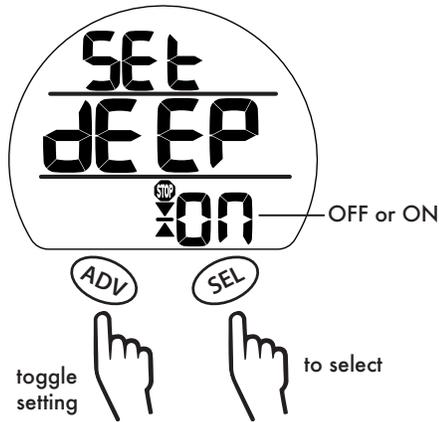
**2. UNITS (IMP/MET)**

The Units feature allows you to select whether IMP (imperial) or MET (metric) units of measure will be displayed.



### 3. DEEP STOP

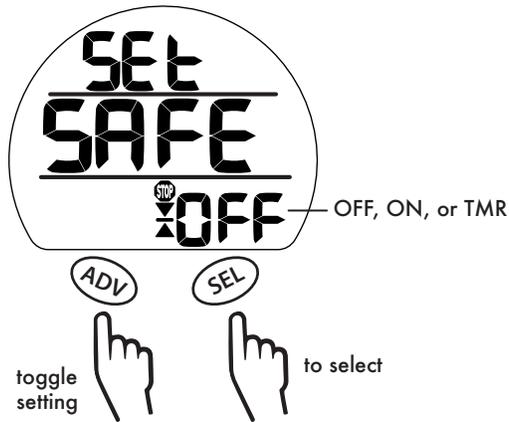
The Deep Stop feature can be set ON or OFF.



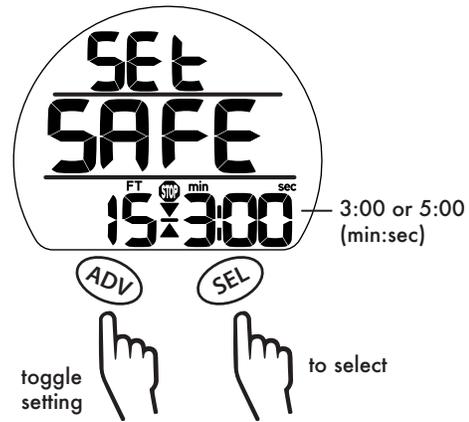
### 4. SAFETY STOP

The Safety Stop feature can be set ON, OFF, or TMR (timer). If ON is selected, you may choose from an available 3 or 5 min Safety Stop at depths of 10, 15, or 20 ft (3, 4, 5, or 6 m). If TMR (timer) is selected, a manual timer will be available instead of the automatic Safety Stop count down.

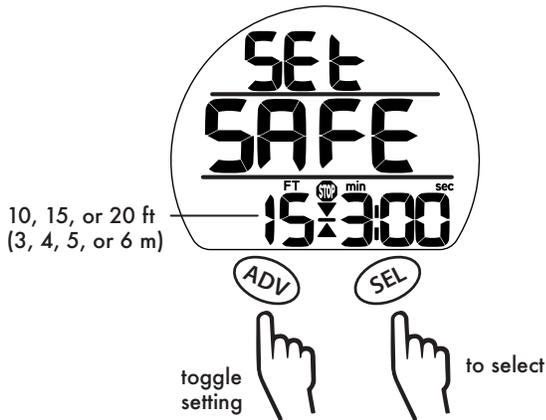
SET SAFETY STOP



SET SAFETY STOP TIME



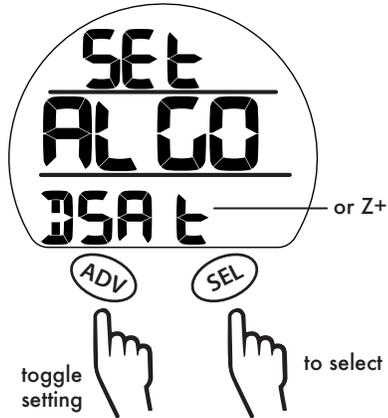
SET SAFETY STOP DEPTH



**5. ALGORITHM**

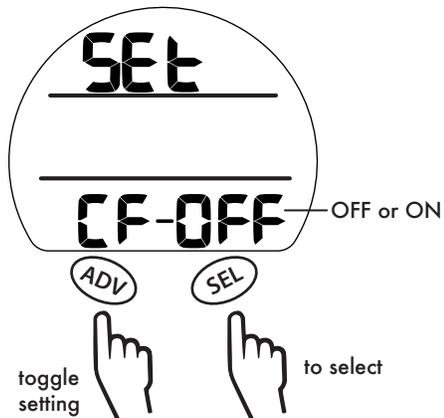
This feature allows the choice of using the Z+ or DSAT algorithms, for nitrogen and oxygen calculations. See p. 13 for further Dual Algorithm details.

**△ NOTE:** Changing the algorithm is blocked during 24 hours after Dive Mode dives unless Desat time decreases to 0:00.



**6. CONSERVATIVE FACTOR**

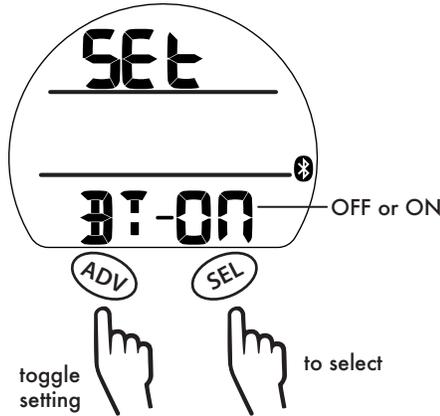
The Conservative factor tables feature can be set ON or OFF.



**7. BLUETOOTH (BLUETOOTH COMMUNICATION)**

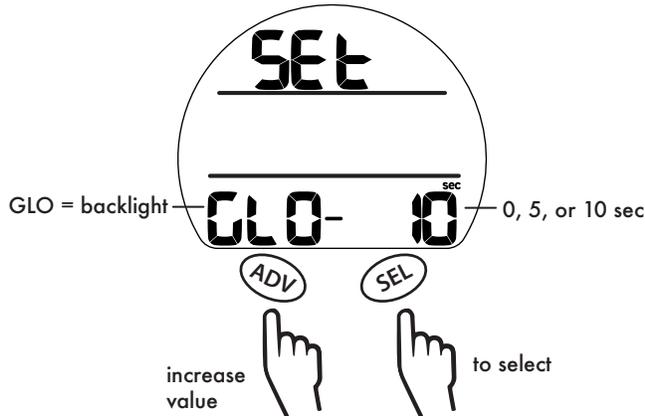
Within this screen the Bluetooth may be turned ON or OFF. When ON is selected, dashes will display sequentially at the top of the screen indicating that Bluetooth is initiating. When Bluetooth is turned on it will operate in sniffing mode (searching for compatible devices) while on the surface and the Veo 4.0 is not in Standby Mode. Communication with your Veo 4.0 must be initiated with your mobile device using Diverlog+ software.

**△ NOTE:** When Bluetooth is ON the Bluetooth icon will be displayed when on the surface with the screen activated. Bluetooth is temporarily deactivated when the Veo 4.0 enters Sleep Mode (screen is turned off) or a dive is started. The Veo 4.0 returns to "sniffing" mode when the Veo 4.0 returns to Surface Mode after a dive or a button is pushed to wake the computer from Sleep Mode on the surface. You will notice the Bluetooth icon flashing as the Bluetooth function is reinitiating.



**8. GLO (BACKLIGHT) DURATION**

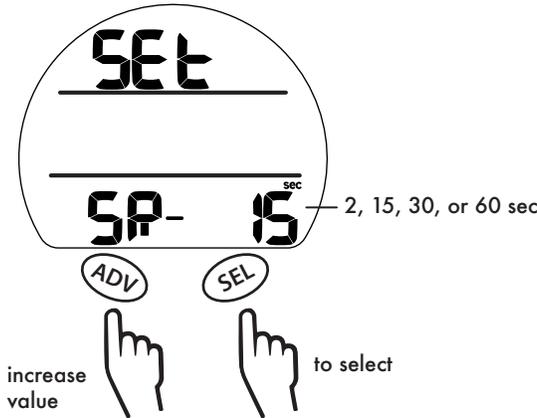
This setting is the duration the backlight stays on after releasing the buttons.



**9. SAMPLING RATE**

The Sample Rate controls how frequently the Veo 4.0 stores a data snapshot for Diverlog + Download during a dive. Setting options are 2, 15, 30, or 60 second intervals. Shorter intervals will provide a more precise record of your dives.

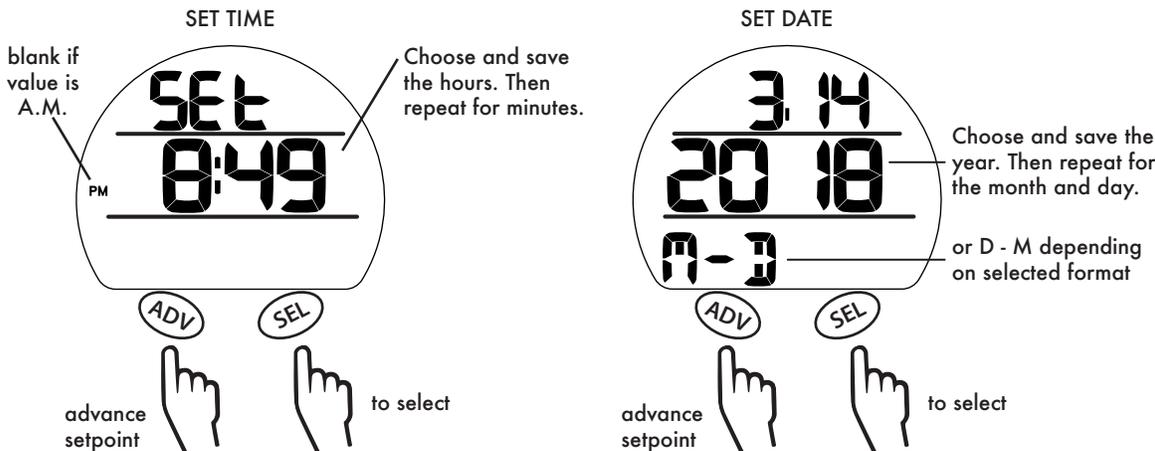
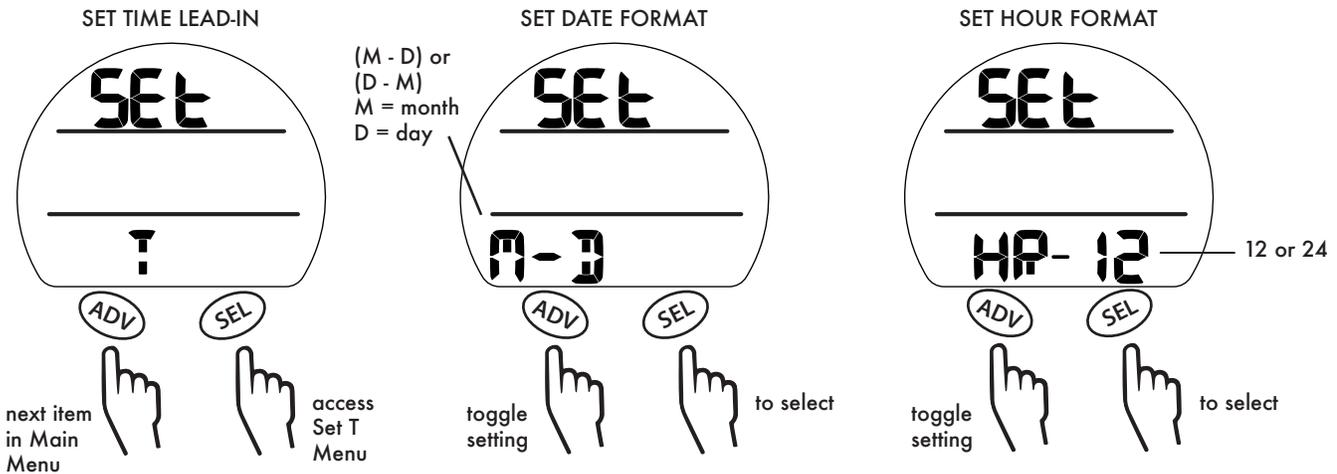
**NOTE:** New data will automatically overwrite the oldest data in memory when the memory becomes full. The Veo 4.0 Log and Diverlog + Download data are stored separately in different partitions of the memory. The Log only stores a short summary of each dive. Alternately, the Diverlog + Download function stores much larger files for each dive. Depending on the chosen settings and dive durations, it is possible to see dives stored in the Veo 4.0's onboard Log that have already been overwritten in the Diverlog + Download Partition. Choosing a longer Sample Rate interval will consume less memory per dive. Remember to download your dives more frequently if you are using a shorter Sample Rate interval.



DIVE & GAUGE DOWNLOAD MEMORY CAPACITY	
SAMPLE RATE (seconds)	MAXIMUM HOURS
2	4
15	32
30	64
60	128

**SET T (TIME)**

Pressing the SEL button while viewing the Set TIME Lead-in screen accesses the Set TIME Sub Menu. Within this menu you can set the time formats, date, and time of day.

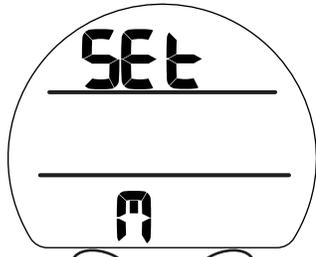


**SET MODE (OPERATION MODE)**

Set Mode allows you to choose between Dive, Gauge, and Free (free diving) Modes of operation.

**NOTE:** Once a dive is conducted in Gauge Mode, the Veo 4.0 shall operate with limited functions without any decompression or oxygen monitoring functions. A 24 hour surface interval shall be required for the unit to operate as a full function dive computer in Dive or Free Mode.

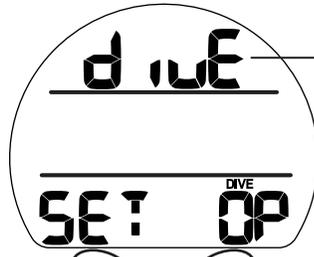
SET MODE LEAD-IN



next item in Main Menu

access Set Mode

SET MODE



divE, GAUGE, or FREE

toggle setting

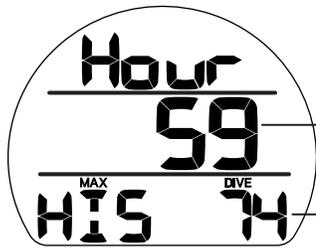
to select

**HISTORY**

History is a summary of all basic data recorded during Dive and Gauge mode dives.

**NOTE:** Dives made in Free mode are not shown in History or the Log Mode. Free dive data is only visible using the Download software.

HISTORY LEAD-IN (HISTORY DATA 1)



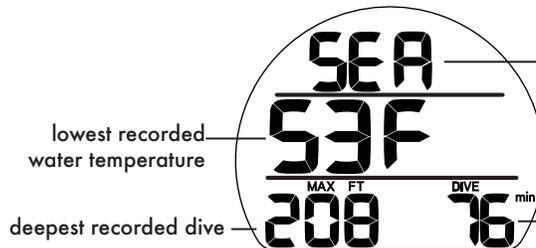
total dive hours, 0 - 19999

total # of dives, 0 - 999

next item in Main Menu

access History Data 2

HISTORY DATA 2



highest altitude recorded for a dive

lowest recorded water temperature

deepest recorded dive

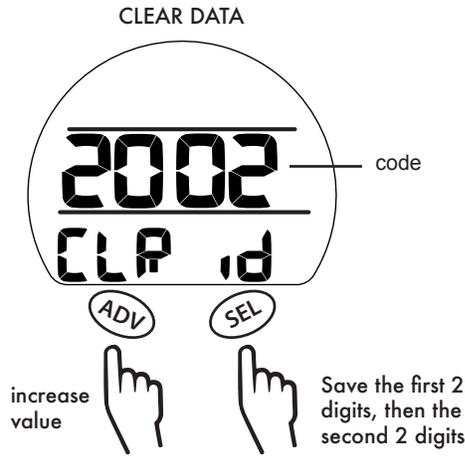
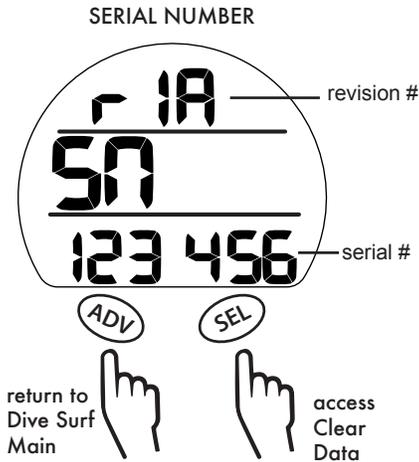
longest dive time

to History Lead-in

**SN (SERIAL NUMBER)**

Information displayed on the Serial Number screen should be recorded and kept with your sales receipt; it will be required in the event that your Veo 4.0 requires factory service. The Veo 4.0 is configured with hidden feature that clears nitrogen and oxygen calculations. This is intended for facilities using the Veo 4.0 for rental or training activities, not for general use by individual divers. The feature is hidden to prevent accidental use. If you enter the Clear Data screen by accident, you may exit without change by holding the SEL button for 2 seconds.

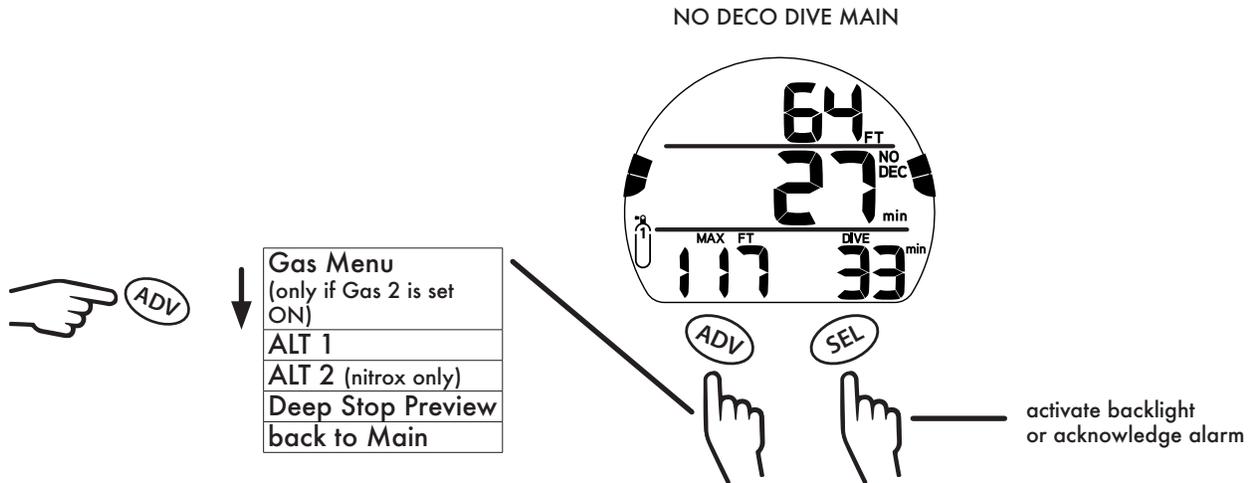
**⚠ WARNING: Reset after a dive and subsequent use for a repetitive dive conducted by the same diver could result in serious injury or death.**



# DIVE OPERATION

**INITIATING A DIVE**

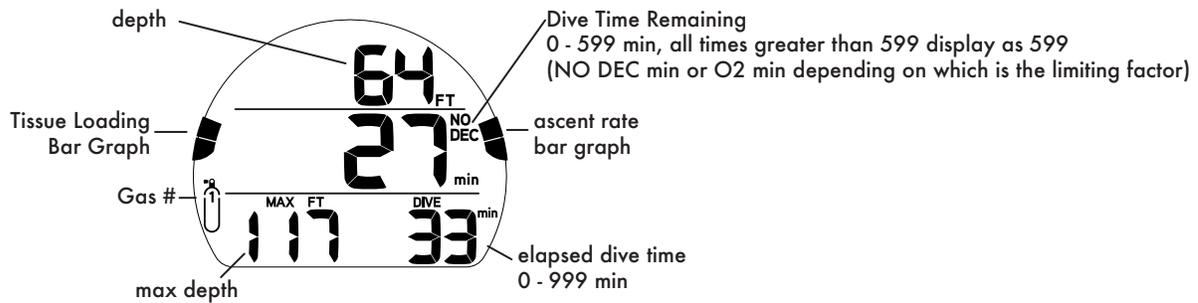
With the Veo 4.0 in Dive mode, a dive will commence upon descending to 5 ft (1.5 m) for at least 5 seconds. Below is a diagram to help you navigate Dive mode functions.



**NO DECOMPRESSION DIVE MAIN**

From the Main screen you can see all critical dive parameters. During a dive an audible alarm may sound and the priority of information displayed may change. This is to indicate a safety recommendation, warning, or alarm. The following information in this chapter demonstrates and describes an uneventful dive, in terms of safety. Alarms are described in the Complications section of this chapter.

**NOTE:** Before diving with the Veo 4.0 take time to familiarize yourself with both normal and alarm conditions of operation.

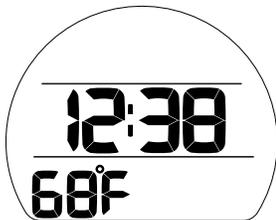


**GAS MENU**

The Gas Menu allows you to manually switch gases during the dive. The Gas Menu Lead-in screen is bypassed if your Veo 4.0 has Gas 2 set to OFF. See the following section "Gas Switches" for further details on this feature.

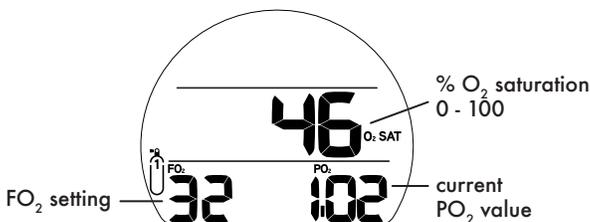
**DIVE ALT 1**

This screen simply tells you the current time of day and ambient temperature.



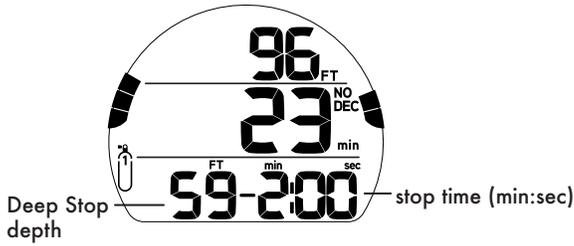
**DIVE ALT 2**

The ALT 2 screen displays information pertaining to nitrox; it is bypassed if the Veo 4.0 is set for air.



**DEEP STOP PREVIEW**

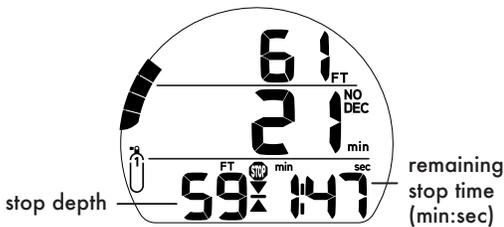
If Deep Stop was set to ON in the Utilities Menu, the Deep Stop preview screen is available after exceeding 80 ft (24 m) of depth. The Deep Stop is always at a depth half that of your maximum depth during the dive. This preview screen keeps track of that depth for you.



**DEEP STOP MAIN**

If triggered, the Deep Stop will activate upon ascending to within 10 ft (3 m) below the calculated Deep Stop depth. The stop time will be displayed and count down to 0:00 as long as you stay within 10 ft (3 m) above or below the stop. While Deep Stop Main is displayed, you may access up to 3 ALT displays by pressing the ADV button to cycle through them. They are similar to the No Decompression Main, Dive ALT 1, and Dive ALT 2 displays, respectively. See Deep Stop in the Dive Features chapter for further details.

**△ NOTE: The Veo 4.0 does not penalize for a missed Deep Stop.**



**SAFETY STOP MAIN**

If triggered, the Safety Stop will activate upon ascent to within 5 ft (1.5 m) deeper than the Safety Stop depth on a No Deco dive. The stop time will then countdown to 0:00. While Safety Stop Main is displayed, you may access up to 3 ALT displays by pressing the ADV button repeatedly. They are similar to the No Deco Main, Dive ALT 1, and Dive ALT 2 displays, respectively. See Safety Stop in the Dive Features chapter for further details.

**△ NOTE: The Veo 4.0 does not penalize for a missed Safety Stop.**

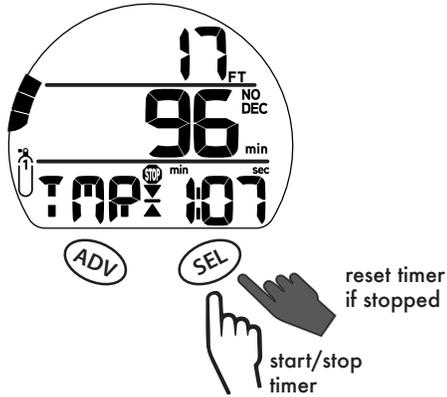


**If set for Timer:**

Upon ascending to 20 ft (6 m) for 1 second on any No Deco dive in which Depth exceeded 30 ft (9 m) for 1 second, a Run Timer shall appear (the graphic TMR with Run Time counting up from 0:00 to 9:59 (min:sec) then 10 to 999 (min) will be displayed instead of a set Stop Depth/Time.

In the event that the diver descends deeper than 30 ft (9 m) for 10 seconds, the No Deco Main screen is to replace the Timer screen which is to reappear upon ascent again to 20 ft (6 m) for 1 second.

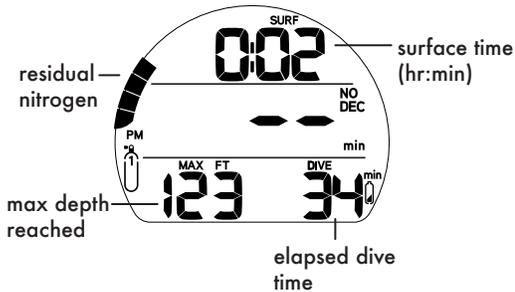
In the event that the diver ascends above 10 ft (3 m) for 10 seconds, or enters Deco, or a High O2 alarm condition occurs (100%), while the Timer is active, the Timer is to be disabled for the remainder of that dive.



**SURFACING**

Upon ascending to 3 ft (0.9 m) the Veo 4.0 transitions to Dive Surface mode.

**△ NOTE: The Veo 4.0 requires a 10 minute surface interval to record a subsequent dive as a separate dive in the Log. Otherwise, the dives will be combined and recorded as a single dive in the Veo 4.0 memory.**



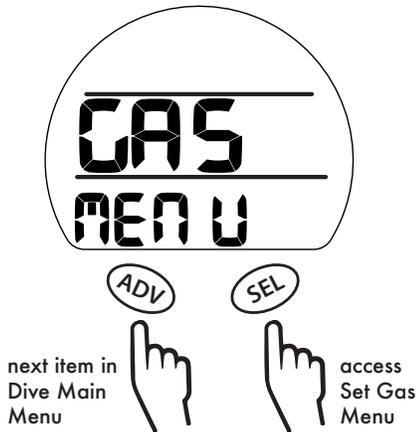
## GAS SWITCHES

**⚠ WARNING: Historically, many accidents and near misses have occurred by switching to the wrong gas at the wrong depth. DO NOT attempt gas switch decompression dives without proper education and training to do so from an internationally recognized training agency.**

### Overview

- All dives begin with GAS 1.
- The GAS defaults to # 1 after 10 minutes on the surface.
- Gas switches can only be made when a Dive Main screen is displayed.
- Gases cannot be switched while on the surface.
- The Gas Switch Menu cannot be accessed during the sounding of alarms.
- If an alarm strikes while in the Gas Switch Menu, the switch operation is terminated (reverting to the Dive Main screen).

GAS MENU LEAD-IN



GAS MENU



If the current PO<sub>2</sub> value is greater than 1.6, then a warning not to switch will display. The Veo 4.0 will maintain the current gas without switching. The diver may override the Veo 4.0 and force the gas switch by pressing the SELECT button during the "dont CHNG TO-" message.

**⚠ WARNING: Switching to gases with a PO<sub>2</sub> above 1.6 has a high risk of oxygen poisoning, convulsions, and drowning. Doing so should always be avoided. It is intended as a last resort option because of the likelihood of injury or drowning. Always dive within your training, experience, and skill level.**

DON'T SWITCH WARNING



If in decompression and a better gas is available based on your PO<sub>2</sub> alarm settings, your Veo 4.0 will prompt you to switch gases. You may confirm the gas switch by pressing SEL while the gas switch prompt screen is displayed. If not confirmed the, the Veo 4.0 will restore the Dive Main screen without switching gases. You may still switch gases manually after the prompt clears if you choose to do so.

GAS SWITCH PROMPT



## COMPLICATIONS

The preceding information has described standard dive operations. Your new Veo 4.0 is also designed to help you to the surface in less than ideal situations. The following is a description of these situations. Take some time to familiarize yourself with these operations before diving your Veo 4.0.

### DECOMPRESSION

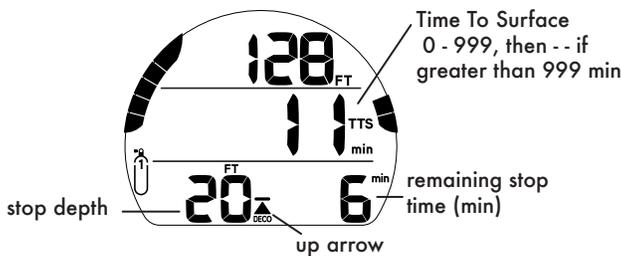
Decompression (deco) mode activates when theoretical No Decompression time and depth limits are exceeded. Upon entry into decompression, the audible alarm will sound and the alarm LED will flash. The full Tissue Loading Bar Graph and Up Arrow icon will flash until the audible is silenced.

- Once within 10 ft (3m) below the required Stop Depth (stop zone), the Full Stop icon (both Arrows with Stop Bar) will be displayed solid.

To fulfill your decompression obligation, you should make a safe controlled ascent to a depth slightly deeper than, or equal to, the required stop depth indicated and decompress for the stop time indicated. The amount of decompression credit time that you receive is dependent on Depth, with slightly less credit given the deeper you are below the Stop Depth indicated. You should stay slightly deeper than the required Stop Depth indicated until the next shallower Stop Depth appears. Then you can slowly ascend to that indicated Stop Depth but not shallower.

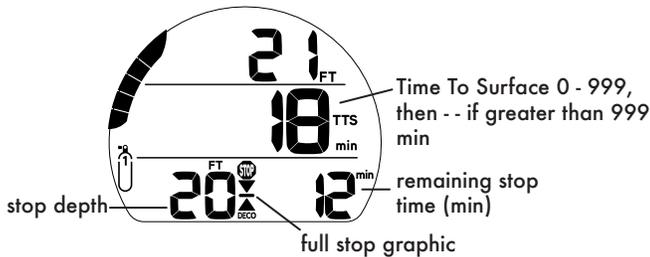
### DECOMPRESSION ENTRY

Upon entry into decompression (deco) the audible alarm will sound and the alarm LED will flash until the audible is silenced. The up arrow, DECO, and full Tissue Loading Bar Graph icons will flash. Additionally, the stop depth, stop time, and the TTS (Time To Surface) values will be displayed. TTS includes stop times at all required Decompression Stops plus vertical ascent time based on the max ascent rate allowed.



### DECOMPRESSION STOP MAIN

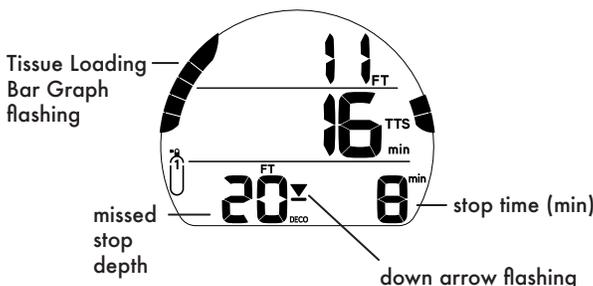
Decompression (deco) Stop Main will display upon ascending to within 10 ft (3 m) below the Decompression Stop depth. The full stop graphic (opposed arrows with stop bar) will be displayed solid. While Decompression Stop Main is displayed, you may access up to 3 ALT displays by pressing the ADV button to cycle through them. They are similar to the No Decompression Main, Dive ALT 1, and Dive ALT 2 displays, respectively.



### CONDITIONAL VIOLATION (CV)

Upon ascent above the required Decompression (deco) Stop depth, operation will enter Conditional Violation during which time no off gassing credit will be given. The Audible alarm will sound and the alarm LED will flash. The full Tissue Loading Bar Graph and down arrow will flash until the audible alarm is silenced, then the Tissue Loading Bar Graph will be solid.

- The down arrow continues to flash until descending below the required Stop Depth (within stop zone), then the full stop graphic (opposed arrows with stop bar) will be on solid.
- If you descend deeper than the required Decompression Stop before 5 minutes elapse, Decompression operation will continue with no off gassing credit given for time above the Stop. Instead, for each minute above the Stop 1½ minutes of penalty time will be added to the required Stop Time.
- The added penalty (decompression) time will have to be worked off before obtaining off gassing credit.
- Once the penalty time is worked off, and off gassing credit begins, required Decompression Stop Depths and Time will decrease toward zero. The Tissue Loading Bar Graph will recede into the No Decompression zone, and operation will revert to No Decompression mode.

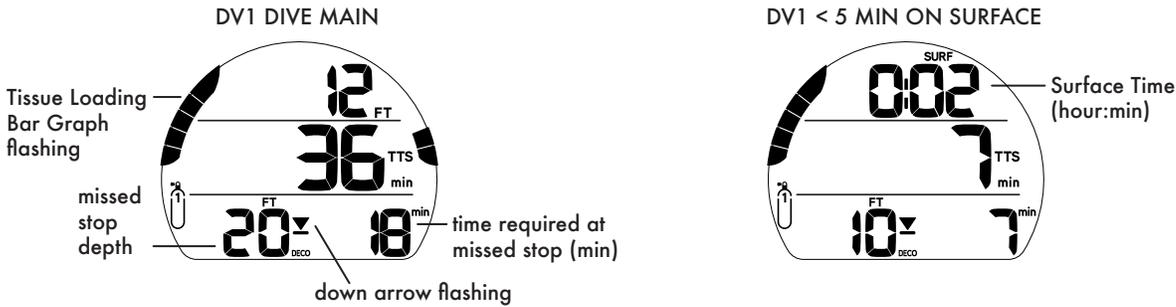


**DELAYED VIOLATION 1 (DV 1)**

If you remain shallower than a Decompression Stop Depth for more than 5 minutes, operation will enter DV1\* which is a continuation of CV with penalty time still being added. Again, the audible alarm will sound and the full Tissue Loading Bar Graph will flash until it is silenced. ALT screens are accessed and appear similar to Decompression ALT screens.

\*The difference is that 5 minutes after surfacing from the dive, operation will now enter Violation Gauge Mode.

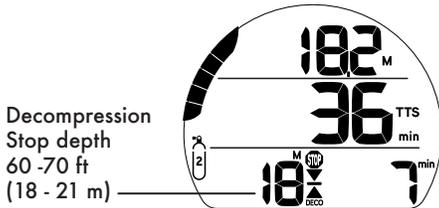
- The down arrow continues to flash until descending below the required Stop Depth, then the full stop graphic will be on solid.
- If the DV1 status is ignored, the Veo 4.0 will enter DV1 Surface mode for 5 minutes upon surfacing from the dive. The down arrow, Decompression Stop depth/time, and Surface Time will be displayed. After 5 minutes on the surface in DV1 mode, the unit will enter VGM (Violation Gauge Mode).



**DELAYED VIOLATION 2 (DV 2)**

If the calculated Decompression obligation requires a Stop Depth between 60 ft (18 m) and 70 ft (21 m), operation will enter DV2. The audible alarm will sound and the alarm LED will flash. The full Tissue Loading Bar Graph will flash until the audible is silenced.

- The up arrow flashes if 10ft (3 m) deeper than the required Stop Depth.
- Once within 10 ft (3 m) of and below the required Stop Depth, the full stop graphic (opposing arrows with stop bar) will be displayed solid.

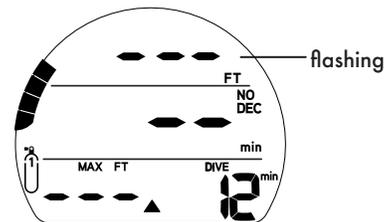


**DELAYED VIOLATION 3 (DV 3)**

If you descend deeper than the maximum functional depth\*, the audible alarm will sound, the alarm LED will flash, and the up arrow will flash. Additionally, Current Depth will only indicate dashes signifying that you are too deep.

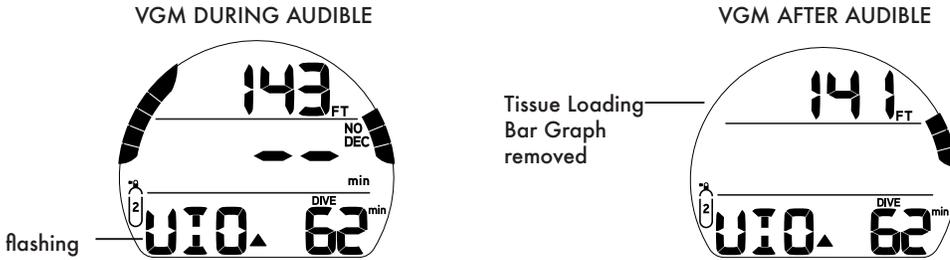
\*The maximum functional depth (330 ft / 100 m) is the depth at which the Veo 4.0 can properly perform calculations or provide accurate display information.

Upon ascending above the maximum functional depth, current depth will be restored. However, the log for that dive will display dashes for max depth.



**VIOLATION GAUGE MODE (VGM) DURING A DIVE**

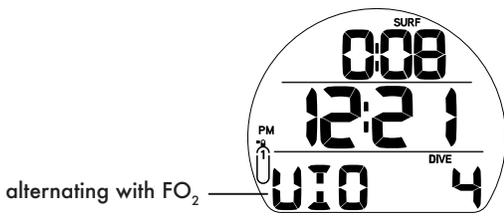
During Dive mode dives, operation will enter VGM when Decompression requires a Stop Depth greater than 70 ft (21 m). It will also enter VGM if Deco is activated during a dive in Free mode, described later. Operation would then continue in VGM during the remainder of that dive and for 24 hours after surfacing. VGM turns the VEO 4.0 into a digital instrument without any decompression or oxygen related calculations or displays. Upon activation of VGM, the audible alarm will sound and the alarm LED will flash. The message VIO (violation) with the up arrow will flash. After the audible alarm becomes silent (10 seconds), the NO DEC (No Decompression) and Tissue Loading Bar Graph will not display for the rest of the dive.



**VIOLATION GAUGE MODE (VGM) ON THE SURFACE**

The message VIO (violation) is displayed until 24 hours elapse with no dives. During that 24 hours, VGM lockout does not allow access to the Set Gas, Plan, Desat, and Free mode features/screens. All Watch functions will be allowed.

- The Fly countdown timer provides the time remaining before normal operation can resume with full features and functions.
- In the event that a dive is made during the 24 hour lockout period, a full 24 hour surface interval must then be served before all functions are restored.

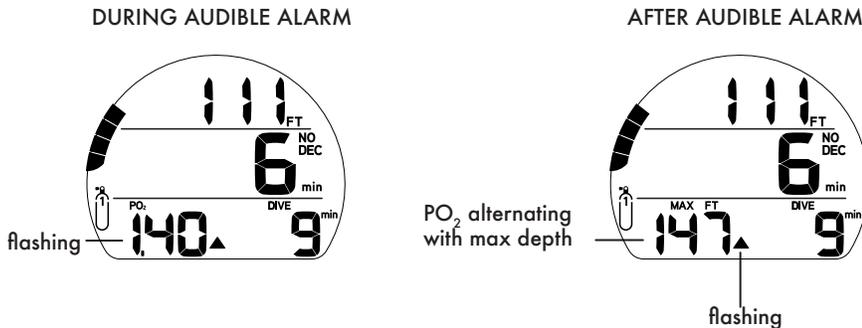


**HIGH PO<sub>2</sub>**

Alarm >> at Set Point value, except in Deco then at 1.60 only

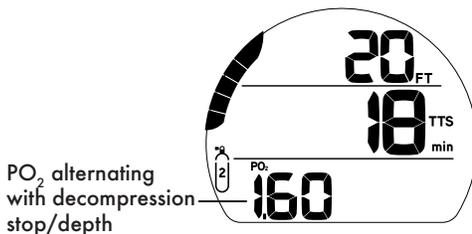
**Alarm**

If PO<sub>2</sub> continues to increase and reaches the alarm set point, the audible alarm sounds again. The PO<sub>2</sub> value will flash in place of max depth during the audible alarm. After the audible alarm is silenced, the PO<sub>2</sub> will alternate with max depth. Additionally, the up arrow will flash continually until PO<sub>2</sub> decreases below the alarm set point.



**PO<sub>2</sub> During Decompression**

The PO<sub>2</sub> alarm setting does not apply when in Decompression. If PO<sub>2</sub> reaches 1.60 while at a Decompression Stop, the PO<sub>2</sub> value (1.60) with icon will alternate with decompression stop depth/time until the PO<sub>2</sub> value decreases below 1.60.



**HIGH O<sub>2</sub> SAT (OXYGEN SATURATION)**

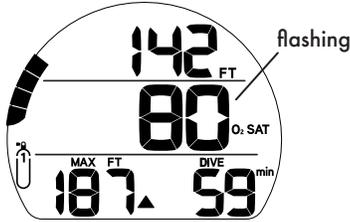
Warning >> at 80 to 99% (240 OTU)

Alarm >> at 100% (300 OTU)

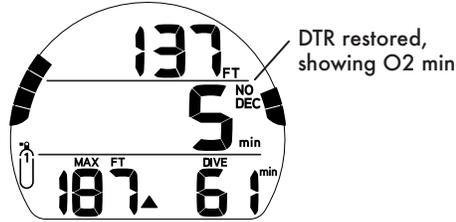
**Warning**

When O<sub>2</sub> reaches the Warning Level, the audible alarm sounds and the O<sub>2</sub> SAT (saturation) value will flash in place of the DTR (Dive Time Remaining). The DTR will be restored when the audible alarm is silenced.

DURING AUDIBLE ALARM

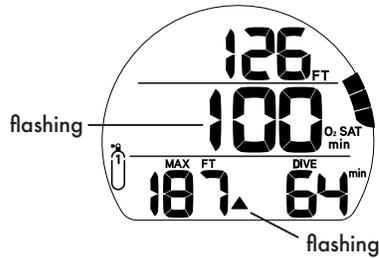


AFTER AUDIBLE ALARM



**Alarm**

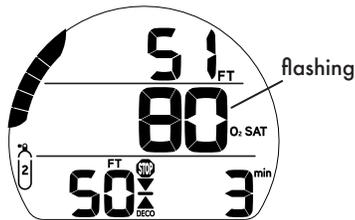
If O<sub>2</sub> SAT reaches the Alarm level, the audible alarm sounds. At the same time, the up arrow and the O<sub>2</sub> SAT value will flash in place of DTR until surfacing.



**Warning During Decompression**

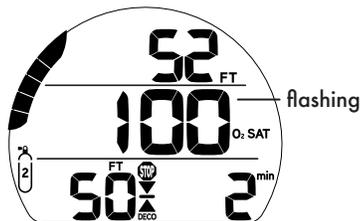
When O<sub>2</sub> SAT reaches the Warning Level, the audible alarm sounds and the O<sub>2</sub> SAT value will flash in place of TTS (Time To Surface). The TTS will be restored when the audible alarm is silenced.

DURING AUDIBLE ALARM



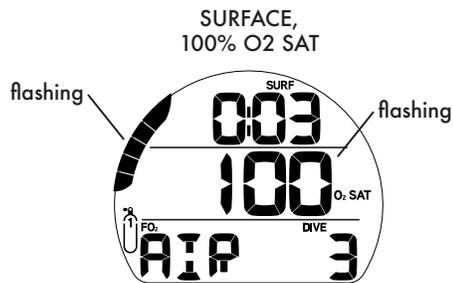
**Alarm During Decompression**

When O<sub>2</sub> SAT reaches the Alarm Level, the audible alarm sounds and the O<sub>2</sub> SAT value will flash in place of TTS (Time To Surface) until surfacing.



**Alarm On Surface**

- If O2 SAT is 100% upon surfacing while in No Decompression, O2 SAT 100% will flash until the O2 SAT value decreases below 100%.
- If you surface due to 100% O2 without having completed the Decompression obligation, the full TLBG and O2 value (100) will flash with O2SAT icons for the first 10 minutes, then operation will enter Violation Gauge Mode.

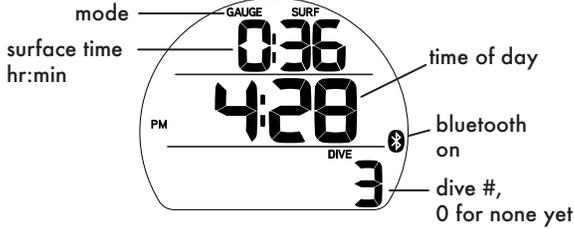


# GAUGE MODE

**ON THE SURFACE BEFORE A DIVE**

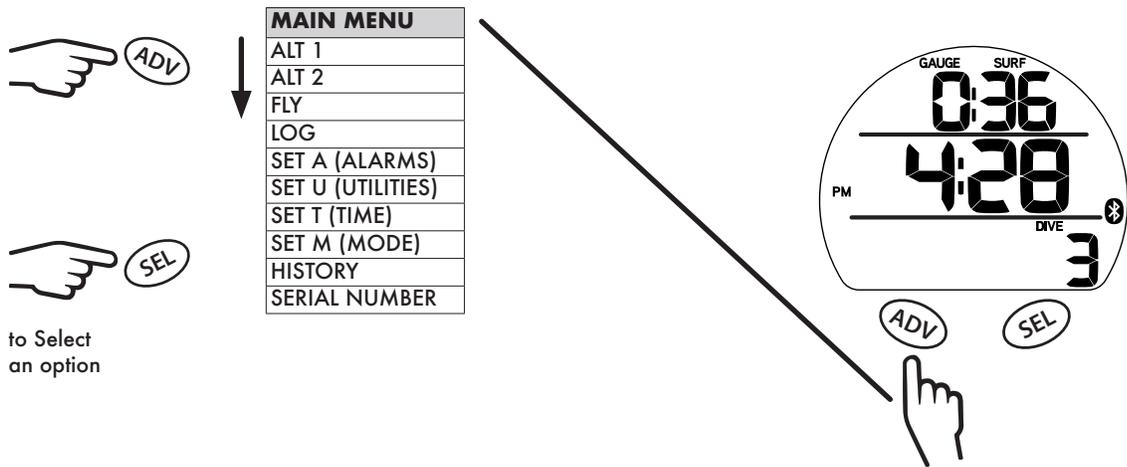
The Gauge Surface Main screen displays the surface interval, time of day, and number of completed dives.

GAUGE SURF MAIN



**GAUGE SURF MAIN MENU**

To view Veo 4.0 logs, change settings, or switch modes you must navigate through the Surf Main Menu. Enter the menu by pressing the ADV button. When you reach the end of the menu the Veo 4.0 will return to the Dive Surface Main screen. You may hold the ADV button to scroll quickly through the selections. Some screens simply display data. While other screens are lead-ins to sub menus and settings. Press the SEL button to choose menus or options from the Main Menu when available.

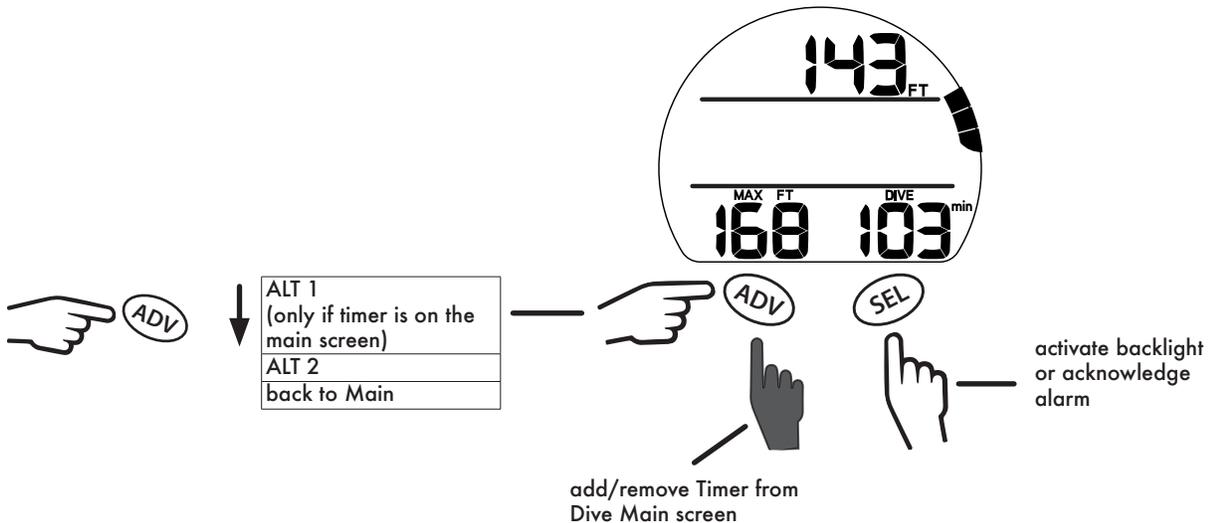


**NOTE:** The Gauge Surface Main, ALT screens, and Menu options are similar to those described previously for Dive Mode. See the Dive Surface Mode chapter for further details.

**INITIATING A DIVE**

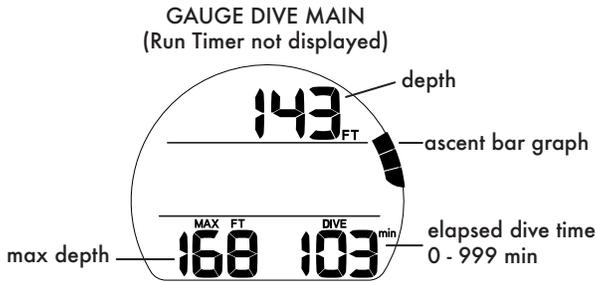
With the Veo 4.0 in Gauge Mode, a dive will commence upon descending to 5 ft (1.5 m) for longer than 5 seconds. Below is a diagram to help you navigate Gauge Dive Mode functions. The dive will end and revert to Surface Mode upon ascent to 3 ft (0.9 m) of depth for at least 1 second.

GAUGE DIVE MAIN



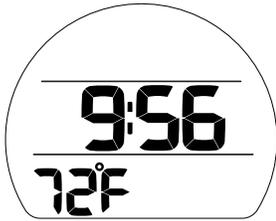
**GAUGE DIVE MAIN/ALT 1**

This is the Main Dive screen or the Alt 1 screen if the Timer function is added to the Main screen. This screen provides basic information including depth, dive time, and ascent rate during the dive.



**GAUGE DIVE ALT 2**

This screen simply tells you the current time of day and ambient temperature.

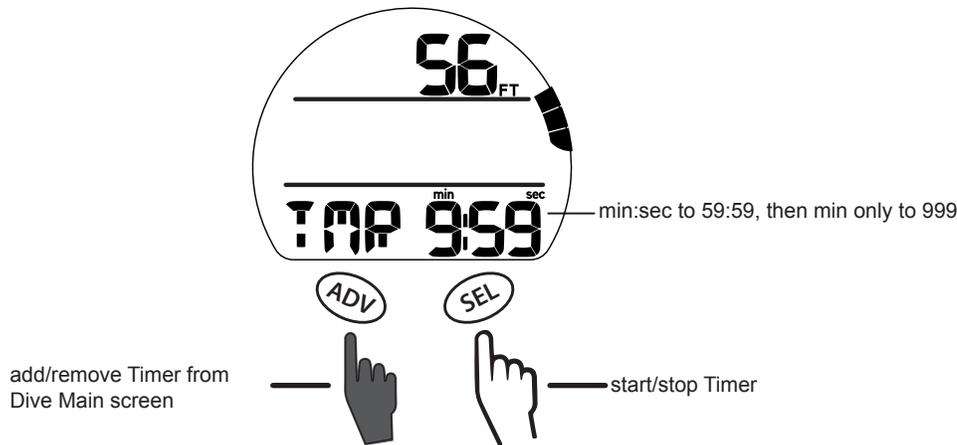


**RUN TIMER**

The Timer function can be used throughout the dive. To add or remove the Timer from the Main display hold the Alt button for 2 seconds. The Timer will cancel upon surfacing.

**NOTE:** Once the Run Timer is added and started, it can be removed and continue to run in the background until it is again added. Though it can only be started and stopped while it is being displayed.

**NOTE:** Keep in mind that while the Timer is on the Main screen, Max Depth and Elapsed Dive Time will be found on the Alt 1 screen only. They will be restored to the Main screen if the diver removes the Timer from the Main screen by holding the ADV button for 2 seconds. Additionally, Alarms will take priority over the Timer function and will display in its place during the alarms.



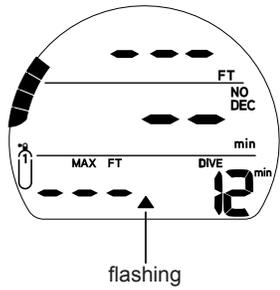
**DELAYED VIOLATION 3 (DV3)**

If you descend deeper than the maximum functional depth\*, the audible alarm will sound and the alarm LED will flash. At the same time, the up arrow will flash and depth will only indicate dashes signifying that you are too deep. The max depth will also be represented by dashes.

\*The maximum functional depth (330 ft / 100 m) is the depth at which the Veo 4.0 can properly perform calculations or provide accurate display information.

Upon ascending above the maximum functional depth, current depth will be restored, however, max depth will continue to be displayed as dashes for the remainder of that dive. The Log for that dive will also display dashes for max depth.

**△ NOTE: Once the Run Timer is added and started, it can be removed and continue to run in the background until it is again added. Though it can only be started and stopped while it is being displayed.**



# FREE MODE

### FREE DIVE MODE DETAILS

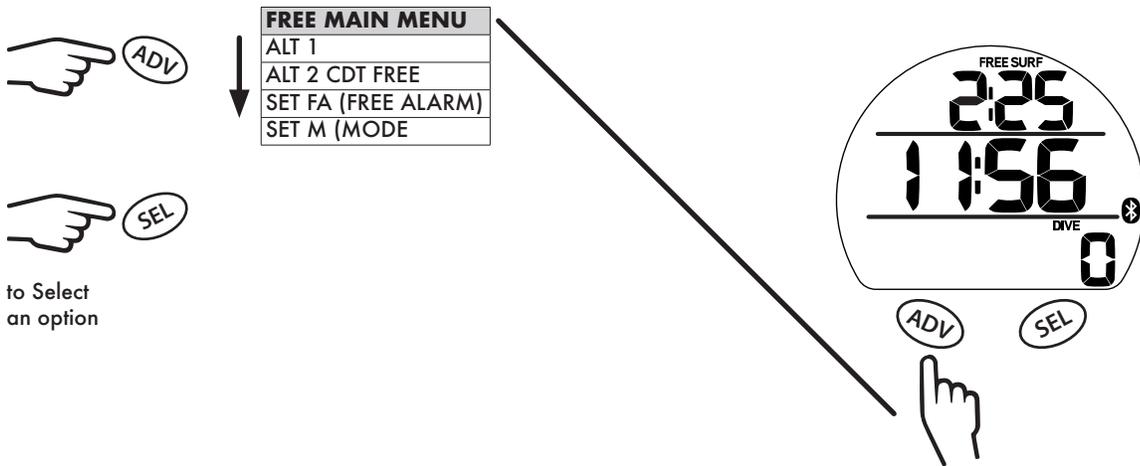
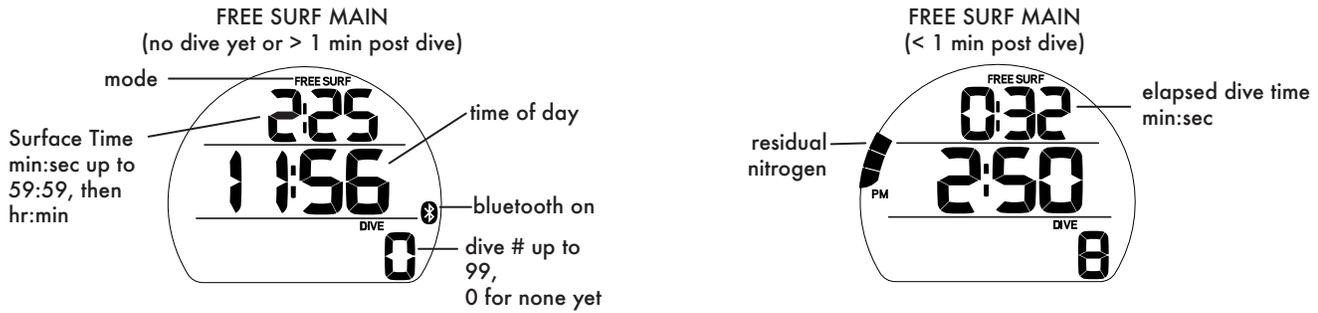
- Although breathing apparatus is not utilized for free dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO<sub>2</sub> of Air.
- Since a user has the option of alternating between SCUBA and free dive activities within a 24 hour period, nitrogen calculations and the displayed value of No Decompression Dive Time Remaining are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and off-gassing status.
- The mathematical models currently used in the Veo 4.0 are based on no decompression/decompression multilevel repetitive dive schedules.
- These algorithms do not take into account the physiological changes associated with the high pressures that competitive type free diving can expose a diver to.

### WARNINGS:

- **Ensure that you know which operating mode is selected (Dive, Gauge, or Free) prior to commencing any dive.**
- **Conducting Free dives within a 24 hour period after conducting SCUBA dives, combined with the effects of multiple rapid free dive ascents, increases your risk of decompression sickness. Such activities may result in accelerated entry into decompression which could cause serious injury or death.**
- **Combining competitive type free dive activities that involve multiple descents/ascents with activities utilizing SCUBA during the same 24 hour period is not recommended. Presently, there is no data relating to such activities.**
- **It is highly recommended that anyone planning to become involved in competitive type free dive activities obtain proper instruction and training from a recognized free diving trainer. It is imperative that the physiological affects be understood and the diver is physically prepared.**

**ON THE SURFACE BEFORE A DIVE**

There are two Free Surface Main screens. The first screen displays when no dives have been made or greater than one minute after surfacing. The second screen displays only during the first minute after a dive.



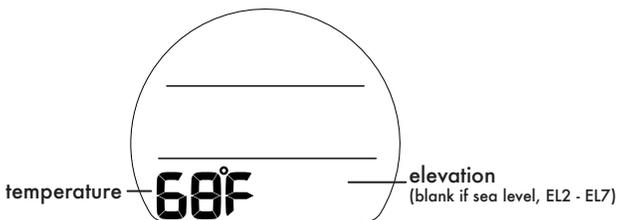
**ALT 1**

This screen displays data from the previous dive.



**ALT 2**

This screen displays current time of day, temperature, and elevation.

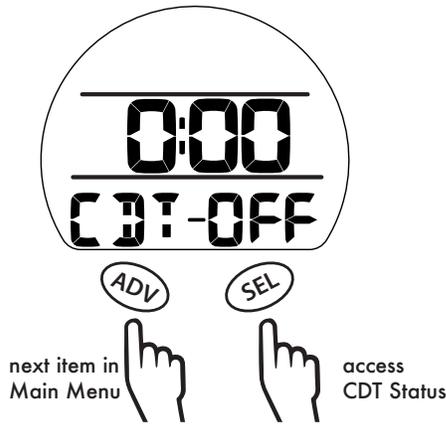


**COUNTDOWN TIMER (CDT)**

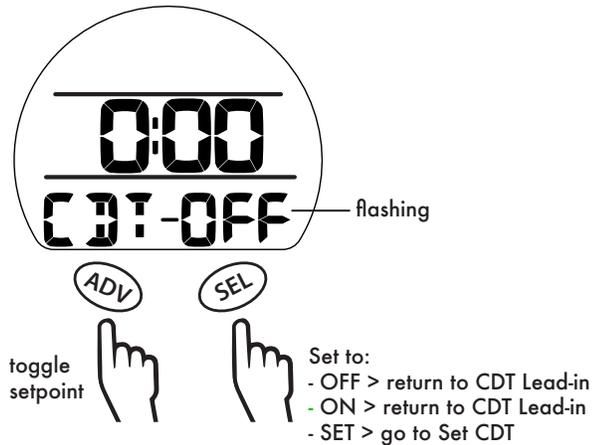
While on the surface, the CDT can be set, started, and stopped. Once set and started, it continues to run in the background when a dive is started and becomes available as an ALT display. When a set Countdown Time reaches 0:00, the audible alarm will sound. During which time, the graphic CDT will be flashed on the Surface or Dive Main screens until the audible alarm is silent.

**△ NOTE:** Setting the CDT does not start the countdown. You must select ON in the CDT Status screen to start the CDT.

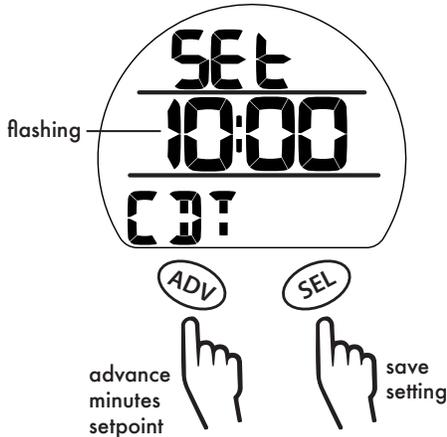
CDT LEAD-IN



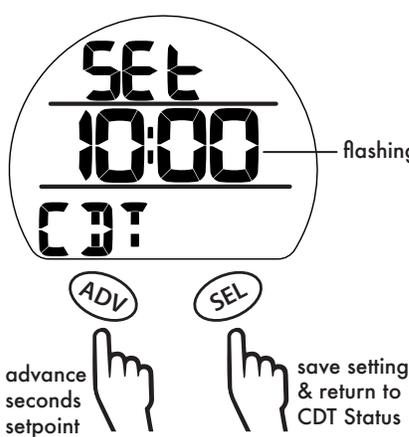
CDT STATUS



CDT SET MINUTES



CDT SET SECONDS



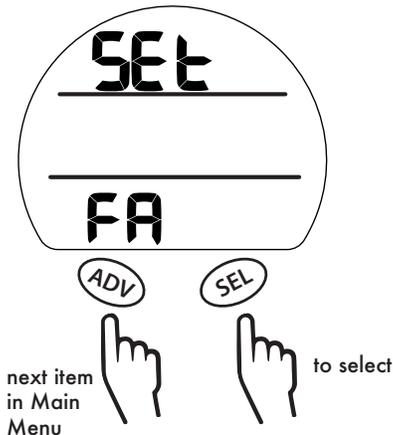
CDT ALARM TRIGGERED (on surface, during audible alarm)



**SET FA (FREE ALARMS)**

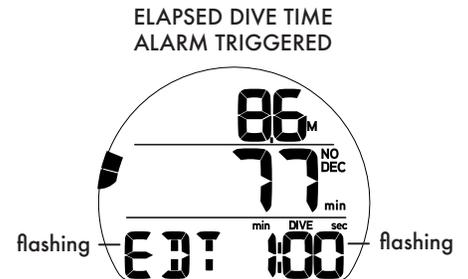
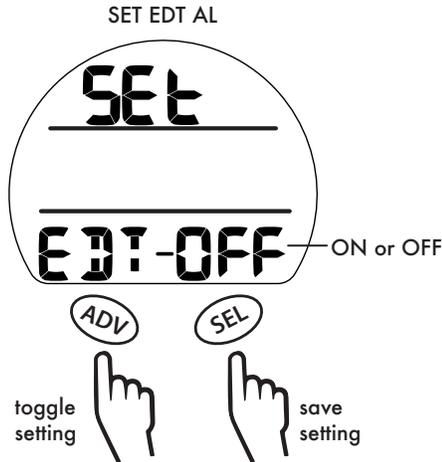
Within this submenu you can customize the following Free Mode alarm settings.

SET ALARMS LEAD-IN



**1. ELAPSED DIVE TIME ALARM**

The EDT (Elapsed Dive Time) Alarm sounds the audible alarm every 30 seconds while underwater in Free Dive mode.

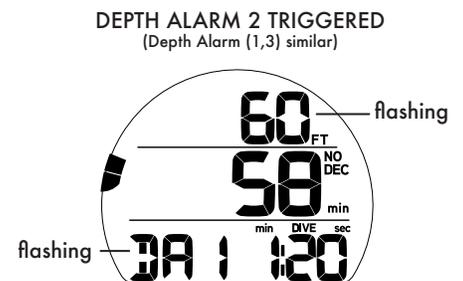
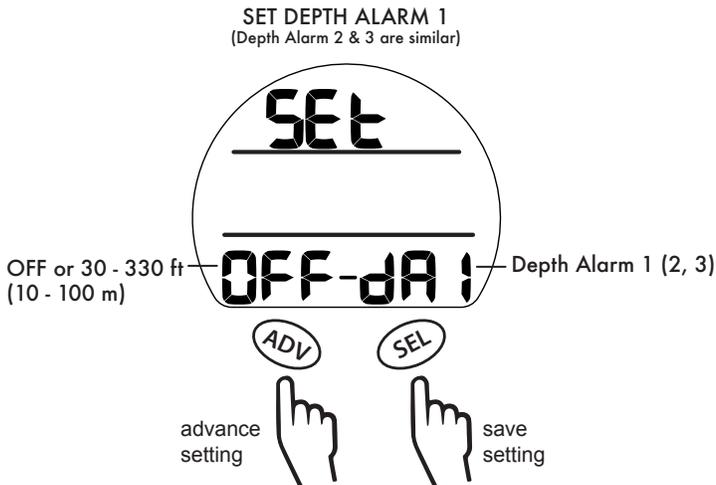


**2. DEPTH ALARMS 1-3**

There are 3 Free Depth Alarms that can be set at progressively deeper depths, in intervals of 10 ft (1 m).

**△ NOTE:** Each successive Depth Alarm can only be set deeper than the Depth Alarm that precedes it. For example: If Depth Alarm 1 is set for 30 ft then Depth Alarm 2 settings start at 40 ft.

**△ NOTE:** DA 2 and DA 3 are set the same way as DA 1. Press select to save settings and to return to the Main menu from Set DA 3 screen.



**SET MODE (OPERATION MODE)**

This feature functions the same as in Dive Mode, see p. 28.

**SHARED SETTINGS**

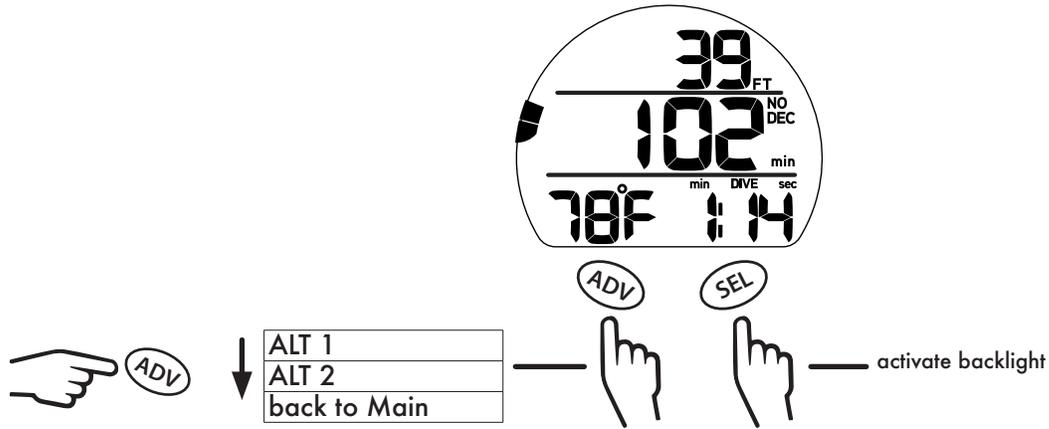
To change items that Free Mode shares with Dive Mode, access the Dive Main Menu, then SET U, then -

- > Wet Act
- > Units
- > CF (Conservative Factor)
- > Glo Duration

**INITIATING A DIVE**

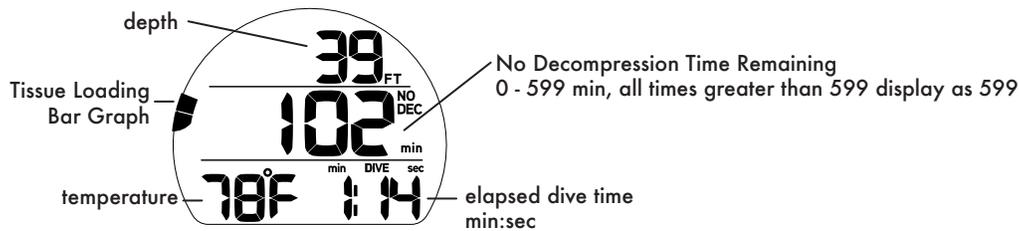
With the VEO 4.0 in Free Mode, a dive will commence upon descending to 5 ft (1.5 m) for longer than 5 seconds. Below is a diagram to help you navigate Free Dive Mode functions. The dive will end and revert to Surface Mode upon ascent to 3 ft (0.9 m) of depth for at least 1 second.

FREE DIVE MAIN



**FREE DIVE MAIN**

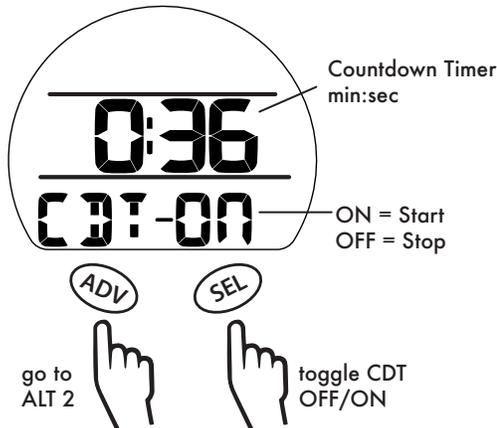
The Free Dive Main provides basic information including depth, no decompression time, dive time, temperature and nitrogen loading during the dive.



**FREE DIVE ALT 1**

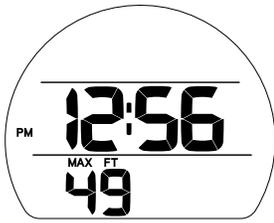
This screen Displays the Countdown Timer status. The Countdown Timer can be started and stopped in this screen by selecting ON or OFF. After the time runs down to 0:00, the countdown timer will reset to the original preset time.

**△ NOTE: The Countdown Timer must be preset on the surface while in the Free Surface Mode.**



**FREE DIVE ALT 2**

This screen simply tells you the max depth and current time of day.



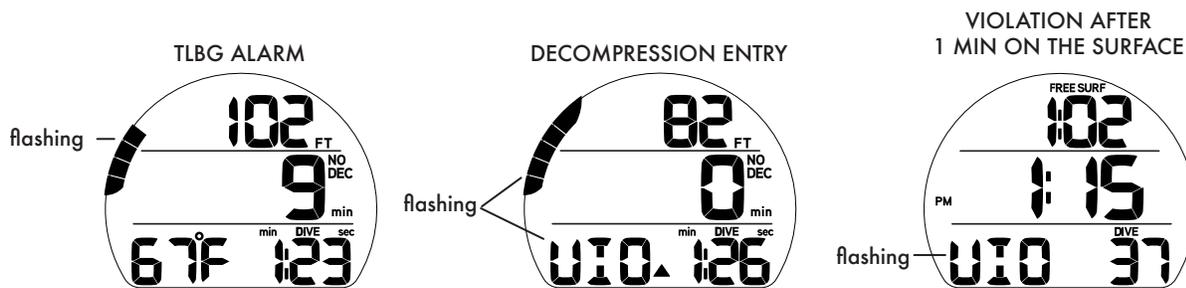
**HIGH NITROGEN ALARMS**

When nitrogen increases to the caution level (4 Tissue Loading Bar Graph segments), the audible alarm will sound 3 sets of 3 beeps. During this time the Tissue Loading Bar Graph segments will flash on the Free Dive Main screen.

If nitrogen continues to increase to the Decompression level (all 5 Tissue Loading Bar Graph segments), the audible alarm will sound again. At this time the Tissue Loading Bar Graph segments will flash, and NDC (no decompression) time will be displayed as 0 min.

When the audible alarm is silenced, the Tissue Loading Bar Graph and NDC (no decompression), values are removed. Then the message VIO (violation) and the Up Arrow flashes until on the surface.

After surfacing, the graphic VIO (violation) flashes. Then after 1 minute on the surface, the dive computer operation locks into Violation Gauge Mode for 24 hours. Access to Watch Mode will be as usual.



# REFERENCE

## UPLOADING/DOWNLOADING DATA

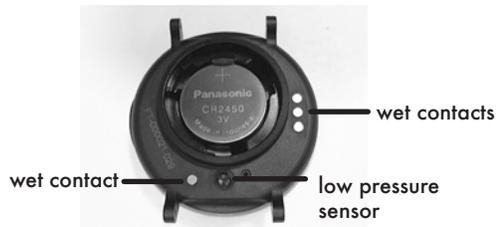
As previously described (p. 26), the Veo 4.0 can be paired using the Bluetooth® feature. This requires a mobile device with Bluetooth® running Diverlog+ software.

The Settings Upload portion of the program can be used to set/change the Gases, Set A (Alarms), Set U (Utilities), and Set T (Time/Date) using the same Interface System. The Mode settings must be entered using the Veo 4.0 button controls.

Information available for retrieval\* (download) from the Veo 4.0 includes items such as dive number, surface interval time, depth, dive time, start dates/time, lowest temperature, sampling rate, set points, TLBG Bar Graph, and VARI Bar Graph.

\*FREE Dive information is only available using the DiverLog + application.

Refer to the Diverlog+ software application for further instruction on linking your Veo 4.0 to your mobile device.



## CARE AND CLEANING

Protect your Veo 4.0 from shock, excessive temperatures, exposure to chemicals, and tampering. Protect the lens against scratches with an Instrument Lens Protector. Small scratches will naturally disappear underwater.

- Soak and rinse the Veo 4.0 in fresh water at the end of each day of diving, and check to ensure that the areas around the Low Pressure (Depth) Sensor, wet contacts, and buttons are free of debris or obstructions.
- To dissolve salt crystals, use lukewarm water or a slightly acidic bath (50% white vinegar/50% fresh water). After removal from the bath, place the Veo 4.0 under gently running fresh water. Towel dry before storing.
- Keep your Veo 4.0 cool, dry, and protected during transport.

## INSPECTIONS AND SERVICE

Your Veo 4.0 should be inspected annually by an Authorized Oceanic Dealer who will perform a factory prescribed function check and inspection for damage or wear. To keep the 2 year limited warranty in effect, this inspection must be completed one year after purchase (+/- 30 days). Oceanic recommends that you continue to have an inspection performed every year to ensure it is working properly. The costs of annual inspections, or inspections relating to water tight integrity, are not covered under the terms of the 2 year limited warranty.

To Obtain Service:

Take your Veo 4.0 to an Authorized Oceanic Dealer or send it to the nearest Oceanic Regional Facility.

To return your Veo 4.0 to Oceanic:

- Record all dive data in the Log and/or download the data stored in memory. All data will be erased during factory service.
- Package it using a protective cushioning material.
- Include a legible note stating the specific reason for return, your name, address, daytime phone number, serial number(s), and a copy of your original sales receipt and Warranty Registration Card.
- Send freight prepaid and insured using a traceable method to the nearest Oceanic Regional Facility, or to Oceanic USA.
- If shipping to Oceanic USA, obtain an RA (Return Authorization) number by contacting Oceanic at 888-270-8595 or follow the instructions at <https://www.oceanicworldwide.com/us/support/returns/>.
- Non-warranty service must be prepaid. COD is not accepted.
- Additional information is available at the Oceanic web site [OceanicWorldwide.com](http://OceanicWorldwide.com)

## BATTERY REPLACEMENT



**CAUTION: The procedures that follow must be closely adhered to avoid entrance of water into the unit. Damage due to improper battery replacement (or subsequent leakage of moisture into the unit) is not covered by the Veo 4.0's warranty.**

The battery compartment should be opened only in a dry and clean environment with extreme care taken to prevent the entrance of moisture or dust.

As an additional precautionary measure to prevent formation of moisture in the battery compartment, it is recommended that the battery be changed in an environment equivalent to the local outdoor temperature and humidity (e.g., do not change the battery in an air conditioned environment then take it outside during a hot sunny day).

Inspect the buttons, lens, and housing to ensure they are not cracked or damaged. If there is any sign of moisture in the Veo 4.0, DO NOT attempt to use it for diving until it receives proper service by the Oceanic factory or an authorized regional distributor.

### Data Retention

When the battery is removed, settings and nitrogen/oxygen calculations for repetitive dives will be retained in volatile memory until a new battery is installed.

All parts needed for the battery change are provided in the Veo 4.0 Battery Kit available from your Oceanic Dealer.

**Battery Removal**

- It is not necessary to remove the wrist straps.
- Locate the battery compartment on the back of the unit.
- Using a coin, rotate the battery cover counterclockwise 10 degrees.
- Lift the cover and O-ring up and away from the housing.
- Using care not to damage any components, slide the battery up and out of the left side of the compartment.
- Turn the case to one side to drop the battery into your hand. If necessary, gently loosen it with the tip of your finger. **DO NOT** use tools to pry it out, or short the positive (+) top of the Battery to the negative (-) contact under it.
- Discard the battery according to local regulations governing disposal of lithium batteries.

COVER REMOVAL



BATTERY REMOVAL



**Inspection**

- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the button, lens, and housing to ensure they are not cracked or damaged.

**⚠ WARNINGS:** If damage or corrosion is found, return your VEO 4.0 to an authorized Oceanic dealer, and **DO NOT** attempt to use it until it has received factory prescribed service.

- Remove the cover O-ring. Discard, and do not attempt to reuse it.

**⚠ CAUTION:** **DO NOT** use tools to remove the O-ring. To ensure proper sealing, O-ring replacement is required each time the battery is replaced.

REMOVE O-RING



**Battery Installation**

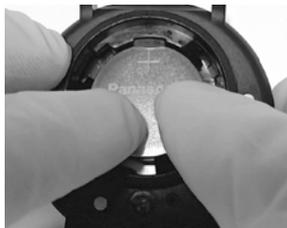
**⚠ CAUTION:** The O-ring must be a genuine Oceanic part that can be purchased from an authorized Oceanic dealer. Use of any other O-ring will void the warranty.

- Very lightly lubricate the new O-ring with silicone grease and place it in the O-ring groove of the cover.
- Place a new 3 volt type CR2450 lithium battery, negative side down into the battery cavity. Ensure that it is evenly positioned.
- Carefully place the battery cover (with O-ring) into position on the rim of the battery compartment, then press it evenly and completely down into place.
- Maintain the battery cover securely in place and turn it clockwise 10 degrees using a coin, the arrow should point to the solid circle.

REPLACE O-RING



INSTALL BATTERY



INSTALL COVER



ENSURE CLOSED



Align arrow with this solid circle to lock cover.

### Testing

- Activate the unit and ensure that the LCD is clear and sharp in contrast. If any portions are missing or appear dim, or if a low battery condition is indicated, return the Veo 4.0 to an authorized Oceanic dealer for evaluation before use.
- Verify all set points prior to diving.

### **ALTITUDE SENSING AND ADJUSTMENT**

Altitude (i.e., ambient pressure) is measured upon activation and every 15 minutes until a dive is made.

- Measurements are only taken when the unit is dry.
- Two readings are taken, the second reading 5 seconds after the first. The readings must be within 1 foot (30 cm) of each other to record that ambient pressure as the current Altitude.
- No adjustments are made during any time that the Wet Contacts are bridged.
- When diving in high altitude waters from 3,001 to 14,000 feet (916 to 4,270 meters), the Veo 4.0 automatically adjusts to these conditions providing corrected Depth, and reduced No Deco and O<sub>2</sub> Times at intervals of 1,000 feet (305 meters).
- When the Conservative Factor is set On, NDLs are calculated based upon the next higher 3,000 foot (915 meter) Altitude.
- At Sea Level, calculations are based upon an Altitude of 6,000 feet.
- All adjustments for Altitudes greater than 11,000 feet (3,355 meters) are then made to allowable dive times for 14,000 feet (4,270 meters).
- The Veo 4.0 will not function as a Dive Computer above 14,000 feet (4,270 meters).

# TECHNICAL DATA

**DSAT BASED NDLS (HR:MIN)  
(IMPERIAL)**

Altitude (feet)	0	3001	4001	5001	6001	7001	8001	9001	10001	11001	12001	13001
	to 3000	to 4000	to 5000	to 6000	to 7000	to 8000	to 9000	to 10000	to 11000	to 12000	to 13000	to 14000
<b>Depth (FT)</b>												
30	4:20	3:21	3:07	2:55	2:45	2:36	2:28	2:21	2:15	2:10	2:04	1:58
40	2:17	1:43	1:36	1:30	1:25	1:20	1:16	1:12	1:09	1:06	1:03	1:01
50	1:21	1:03	1:00	0:58	0:55	0:52	0:48	0:45	0:43	0:41	0:39	0:37
60	0:57	0:43	0:40	0:38	0:36	0:34	0:33	0:31	0:30	0:29	0:28	0:27
70	0:40	0:31	0:30	0:28	0:27	0:26	0:24	0:23	0:22	0:20	0:19	0:18
80	0:30	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16	0:14	0:13
90	0:24	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:10	0:10
100	0:19	0:15	0:14	0:13	0:12	0:11	0:10	0:10	0:09	0:09	0:08	0:08
110	0:16	0:12	0:11	0:10	0:09	0:09	0:08	0:08	0:08	0:07	0:07	0:07
120	0:13	0:09	0:09	0:08	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06
130	0:11	0:07	0:07	0:07	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05
140	0:09	0:07	0:07	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05
150	0:08	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04
160	0:07	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04
170	0:07	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:04	0:03
180	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
190	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03

**DSAT BASED NDLS (HR:MIN)  
(METRIC)**

Altitude (meters)	0	916	1221	1526	1831	2136	2441	2746	3051	3356	3661	3966
	to 915	to 1220	to 1525	to 1830	to 2135	to 2440	to 2745	to 3050	to 3355	to 3660	to 3965	to 4270
<b>Depth (M)</b>												
9	4:43	3:37	3:24	3:10	2:58	2:48	2:39	2:31	2:24	2:18	2:12	2:07
12	2:24	1:52	1:44	1:37	1:30	1:25	1:21	1:17	1:13	1:10	1:07	1:04
15	1:25	1:06	1:03	1:00	0:57	0:55	0:52	0:49	0:46	0:43	0:41	0:39
18	0:59	0:45	0:42	0:40	0:38	0:36	0:34	0:32	0:31	0:30	0:29	0:28
21	0:41	0:33	0:31	0:29	0:28	0:27	0:26	0:24	0:23	0:21	0:20	0:19
24	0:32	0:26	0:24	0:22	0:21	0:20	0:19	0:18	0:17	0:16	0:15	0:14
27	0:25	0:19	0:18	0:17	0:16	0:16	0:14	0:13	0:12	0:12	0:11	0:10
30	0:20	0:16	0:15	0:13	0:12	0:12	0:11	0:10	0:10	0:09	0:09	0:08
33	0:17	0:12	0:11	0:11	0:10	0:09	0:09	0:08	0:08	0:08	0:07	0:07
36	0:14	0:10	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06
39	0:11	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:06	0:05	0:05
42	0:09	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05
45	0:08	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04
48	0:07	0:06	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04
51	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:04
54	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
57	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03

**ALTITUDE LEVELS**

**Display:**

- SEA = Level 1 (Sea Level)
- L2 = Level 2
- L3 = Level 3
- L4 = Level 4
- L5 = Level 5
- L6 = Level 6
- L7 = Level 7

**Range:**

- 0 to 3,000 feet (0 to 915 meters)
- 3,001 to 5,000 feet (916 to 1,525 meters)
- 5,001 to 7,000 feet (1,526 to 2,135 meters)
- 7,001 to 9,000 feet (2,136 to 2,745 meters)
- 9,001 to 11,000 feet (2,746 to 3,355 meters)
- 11,001 to 13,000 feet (3,356 to 3,965 meters)
- > 13,000 feet (3,965 meters)

**Z+ BASED NDLS (HR:MIN)  
(IMPERIAL)**

<u>Altitude</u> (feet)	0 to 3000	3001 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 to 8000	8001 to 9000	9001 to 10000	10001 to 11000	11001 to 12000	12001 to 13000	13001 to 14000
<u>Depth</u> (FT)												
30	3:17	2:30	2:21	2:14	2:08	2:02	1:57	1:52	1:47	1:39	1:34	1:29
40	1:49	1:21	1:15	1:11	1:08	1:05	1:02	1:00	0:57	0:55	0:53	0:51
50	1:05	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:35	0:34	0:33
60	0:48	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22	0:21
70	0:35	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16	0:14
80	0:26	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11	0:10
90	0:19	0:15	0:14	0:13	0:12	0:11	0:10	0:10	0:09	0:09	0:08	0:08
100	0:16	0:11	0:10	0:10	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07
110	0:12	0:09	0:08	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05
120	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
130	0:08	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04
140	0:07	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04
150	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03
160	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
170	0:05	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03
180	0:05	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03
190	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:00

**Z+ BASED NDLS (HR:MIN)  
(METRIC)**

<u>Altitude</u> (meters)	0 to 915	916 to 1220	1221 to 1525	1526 to 1830	1831 to 2135	2136 to 2440	2441 to 2745	2746 to 3050	3051 to 3355	3356 to 3660	3661 to 3965	3966 to 4270
<u>Depth</u> (M)												
9	3:37	2:41	2:31	2:23	2:16	2:10	2:04	1:59	1:54	1:50	1:43	1:37
12	1:55	1:27	1:21	1:15	1:12	1:08	1:05	1:03	1:00	0:58	0:55	0:54
15	1:08	0:55	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:36	0:34
18	0:50	0:39	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22
21	0:36	0:28	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16
24	0:27	0:20	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11
27	0:20	0:16	0:15	0:13	0:12	0:11	0:11	0:10	0:09	0:09	0:09	0:08
30	0:16	0:12	0:11	0:10	0:09	0:09	0:09	0:08	0:08	0:07	0:07	0:07
33	0:13	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07	0:06	0:06	0:06
36	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
39	0:09	0:07	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04
42	0:08	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04
45	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:04
48	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
51	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03
54	0:05	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03
57	0:05	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03

## SPECIFICATIONS

### CAN BE USED AS

- Dive Computer (Air or Nitrox)
- Digital Depth Gauge/Timer
- Free Dive Computer

### DIVE COMPUTER PERFORMANCE

- Buhlmann ZHL-16c based PZ+, or DSAT based, algorithm.
- No Decompression limits closely follow PADI RDP.
- Decompression in agreement with Buhlmann ZHL-16c and French MN90.
- No Decompression Deep Stops - Morroni, Bennett.
- Decompression Deep Stops (not recommended) - Blatteau, Gerth, Gutvik.
- Altitude - Buhlmann, IANTD, RDP (Cross).
- Altitude corrections and O<sub>2</sub> limits based on NOAA tables.

### OPERATIONAL PERFORMANCE

<u>Function:</u>	<u>Accuracy:</u>
• Depth	±1% of full scale
• Timers	1 second per day

### **Dive Counter:**

- Dive/Gauge displays Dives #1 to 24.
- Resets to Dive #1, upon diving (after 24 hours with no dives).

### **Dive Log Mode:**

- Stores 24 most recent Dive/Gauge dives in memory for viewing
- After 24 dives, adds 25th dive in memory and deletes the oldest dive

### **Altitude:**

- Operational from sea level to 14,000 feet (4,270 meters) elevation.
- Measures ambient pressure every 30 minutes in Watch mode, when Dive Computer mode is accessed, and every 15 minutes while in DC Surface modes.
- Does not measure ambient pressure when wet.
- Compensates for Altitudes above sea level beginning at 3,001 feet (916 meters) elevation and every 1,000 feet (305 meters) higher.

### **Power:**

- (1) 3 volt, CR2450, lithium battery (Panasonic or equivalent)
- Shelf life Up to 7 years (dependent on battery manufacturer)
- User replacement battery (annual recommended)
- Use Life 100 dive hours if (1) 1 hour dives per dive day to 300 hours if (3) 1 hour dives per day

### **Battery Indicator:**

- Warning - icon on solid at 2.75 volts, Battery change recommended
- Alarm - icon on flashing at 2.50 volts, change the Battery

### **Operating Temperature:**

- Out of the water - between 20 °F and 140 °F (-6.6 and 60 °C).
- In the water - between 28 °F and 95 °F (-2.2 and 35 °C).

### BAR GRAPHS:

<b>Nitrogen Loading Bar Graph</b>	<b>segments</b>
• No Decompression Normal Zone	1 to 3
• No Decompression Caution Zone	4
• Decompression Zone	5 (all)

### **VARI**

- Normal zone            3 segments
- Caution zone        4 segments
- Too Fast zone        5 segments

**SPECIFICATIONS (CONTINUED)**

**NUMERIC DISPLAYS:**

	<u>Range:</u>	<u>Resolution:</u>
• Dive Number	0 to 24	1
• Depth	0 to 330 ft (100 m) (0 - 99.9 M, > 99.9 then 100 M)	1 FT (0.1/1 M)
• FO2 Set Point	Air, 21 to 100 %	1 %
• PO2 Value	0.00 to 5.00 ATA	0.01 ATA
• Dive Time Remaining	0 to 599 min, display 599 if >599 min	1 minute
• Time To Surface	0 to 999 min, display - - if >999 min	1 minute
• No Decompression Deep Stop Time	2:00 to 0:00 min:sec	1 second
• No Decompression Safety Stop Time	5:00 to 0:00 min:sec	1 second
• Decompression Stop Time	0 to 999 min	1 minute
• Dive/Gauge Elapsed Dive Time	0 to 999 min	1 minute
• Free Elapsed Dive Time (< 10 min)	0:00 to 9:59 min:sec	1 second
• Free Elapsed Dive Time (≥ 10 min)	10 to 999 min	1 minute
• Surface Interval Time	0:00 to 23:59 hr:min	1 minute
• Free Surface Interval Time	0:00 to 59:59 min:sec, then 1:00 to 23:59 hr:min	1 second 1 minute
• Time to Fly & Desaturate	23:50 to 0:00 hr:min*  * starting 10 min after the dive	1 minute
• Temperature	-18 to 60° C (0 to 99° F) if outside of temp range, then displays - -	1°
• Time of Day	0:00 to 23:59 hr:min	1 minute
• Free Countdown Timer	59:59 to 0:00 min:sec	1 second
• Violation Countdown Timer	23:50 to 0:00 hr:min	1 minute

**MAX FUNCTIONAL DEPTH:**    Limit:

Dive/Gauge/Free                    330 ft (100 m)

## ABBREVIATIONS/TERMS

AL	= Alarm	M.D (D.M)	= Month.Day (Day.Month)
AR	= Ascent Rate	MIN (min)	= Minutes (time)
ATA	= Atmospheres Absolute	MPM	= Meters Per Minute
AUD	= Audible	NDC/NO DEC	= No Deco DTR
BAR	= Metric Unit Of Pressure	NDL	= No Deco Limit
BATT (BAT)	= Battery	NO	= Number
CHG	= Change	O2	= Oxygen
CONSERV	= Conservative Factor	O2SAT	= % O2
CV	= Conditional Violation	OTR	= Oxygen Time Remaining
DECO	= Decompression	PDPS	= Pre Dive Planning Sequence
DESAT	= Desaturation	PO2	= Partial Pressure of O2 (ATA)
DFLT	= Default	SAFE	= Safety (stop)
DS	= Deep Stop	SAT	= Time to Desaturate
DSAT	= Algorithm type	SEC (sec)	= Seconds (time)
DTR	= Dive Time Remaining	SI	= Surface Interval
DURA	= Duration (backlight)	SN	= Serial Number
DV	= Delayed Violation	SS	= Safety Stop
EDT	= Elapsed Dive Time	SR	= Sampling Rate
EL	= Elevation (altitude)	SURF	= Surface
FO2	= Fraction of Oxygen (%)	TLBG (TL)	= Tissue Loading Bar Graph
FORM	= Format (date, time)	TTS	= Time To Surface
FPM	= Feet Per Minute	VARI	= Variable Ascent Rate Indicator
FT	= Feet (depth)	VGM	= Violation Gauge Mode
HR	= Hour	VIO	= Violation
M	= Meters (depth)	Z+	= Algorithm type
MAX	= Maximum		

**INSPECTION / SERVICE RECORD**

Serial Number: \_\_\_\_\_

Firmware Rev: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Below to be filled in by an Authorized Oceanic Dealer:

Date	Service Performed	Dealer/Technician

**OCEANIC WORLD WIDE**

**OCEANIC USA**

1540 North 2200 West Salt Lake City,  
Utah, 84116  
Tel: 888-270-8595  
Web: [www.OceanicWorldwide.com](http://www.OceanicWorldwide.com)

**OCEANIC EUROPE**

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[info@atomicaquatics.de](mailto:info@atomicaquatics.de)

# **Veo 4.0**

## **DIVE COMPUTER**

### **OPERATING MANUAL**