



OCEANIC

# VEO 100

Operating Manual



(r04 cover art to be placed on front/back is provided separately)





#### LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided.

#### COPYRIGHT NOTICE

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#### TRADEMARK NOTICE

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#### PATENT NOTICE

U.S. Patents have been issued, or applied for, to protect the following design features:  
Dive Time Remaining (U.S. Patent no. 4,586,136), Data Sensing and Processing Device (U.S. Patent no. 4,882,678), and Variable Ascent Rate Indicator (U.S. Patent no. 5,156,055). User Settable Display (U.S. Patent no. 5,845,235) is owned by Suunto Oy (Finland).

#### DECOMPRESSION MODEL

The program within the VEO 100 simulates 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 100 dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the VEO 100, 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.





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**The following symbols are used throughout this manual to bring your attention to situations that require special consideration. Be sure to read and follow all instructions carefully.**



A **WARNING** is used to emphasize information that could result in serious injury or death if the information is not adhered to.

**Pay special attention to items marked with this Warning symbol.**

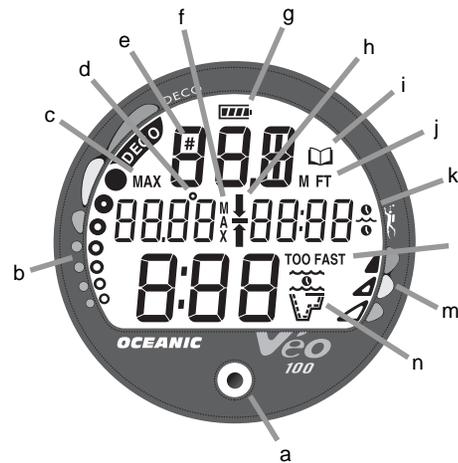


A **CAUTION** is used to convey information that will result in damage to parts if the information is not adhered to.



A **NOTE** is used to emphasize an important general information.





- Components:
- a. Control Button
  - b. Tissue Loading Bar Graph
  - c. Graphic - Max Depth (Log Mode)
  - d. Icon - Temperature
  - e. Icon - Dive Number
  - f. Graphic - Max Depth (Dive Mode)
  - g. Battery Indicator
  - h. Icon - Descend Arrow
  - Icon - Decompression Ceiling
  - Icon - Ascend Arrow
  - i. Icon - Log Mode
  - j. Graphic - Depth
  - k. Icon - Time
  - l. Graphic - Ascent Too Fast
  - m. Variable Ascent Rate Indicator
  - n. Icon - Operating Mode

**Veo 100 Full Display**







## INTRODUCTION

Welcome to Oceanic and thank you for choosing the Veo 100 Personal Dive Computer (PDC)!

It is extremely important that you read this Operating Manual in sequence and understand it completely before attempting to use the Veo 100.

It is equally important that you read the Oceanic Dive Computer Safety and Reference Manual (Doc. No. 12-2262) provided with your Veo 100. It contains information that you must become familiar with prior to diving with your Veo 100.

Remember that technology is no substitute for common sense, and a dive computer only provides the person using it with data, not the knowledge to use it.

The Veo 100 has numerous features that are described throughout this manual.

## CONTROL BUTTON

The Control Button (Fig. 1) allows you to select display options and access specific information when you want to see it.



Fig. 1 - Control Button



## BAR GRAPHS

### Tissue Loading Bar Graph (TLBG)

The Tissue Loading Bar Graph (Fig. 2a) represents tissue loading of nitrogen, showing your relative no decompression or decompression status.

The Tissue Loading Bar Graph monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive.

As your depth and elapsed dive time increase, segments will add to the Graph, and as you ascend to shallower depths, the Bar Graph will begin to recede, indicating that additional no decompression time is allowed for multilevel diving.

It is divided into a green No Decompression (normal) zone, a yellow Caution zone (also No Decompression), and a red Decompression (danger) zone.

While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based upon age, physique, excessive weight, etc., to reduce the statistical risk.



Fig. 2 - TLBG



Deeper than 60 feet (18 m)		
Segments	Ascent Rate =	
Displayed	FPM	MPM
0	0-20	0 - 6
1	21-50	6.5-15
2	51-60	15.5-18
3	>60	>18

60 feet (18 m) & Shallower		
Segments	Ascent Rate =	
Displayed	FPM	MPM
0	0-10	0 - 3
1	11-25	3.5-7.5
2	26-30	8-9
3	>30	>9

VARI Values

### Variable Ascent Rate Indicator (VARI)

The Variable Ascent Rate Indicator (Fig. 3a) provides a visual representation of ascent speed (i.e., an ascent speedometer). Green is a 'normal' rate, yellow a 'caution' rate, and red is 'Too Fast'. The segments of the VARI represent two sets of speeds which change at a reference depth of 60 feet (18 meters). Refer to the chart for segment values.

**WARNING:** At depths greater than 60 feet (18 meters), ascent rates should not exceed 60 fpm (18 mpm). At depths of 60 feet (18 meters) and shallower, ascent rates should not exceed 30 fpm (9 mpm).



### ALPHA / NUMERIC DISPLAYS

#### Depth Displays

During a dive, the **Current Depth** display (Fig. 3b), indicates Depths from 0 to 330 feet (99 meters) in increments of 1 foot (.1 meter). The Depth range is extended to 399 feet (120 meters) when it is set to operate in Digital Gauge Mode.

By pressing the button, the **Maximum Depth** reached during that dive will be displayed.

During a Decompression Dive, the required **Ceiling Stop Depth** is displayed in the Max Depth position.

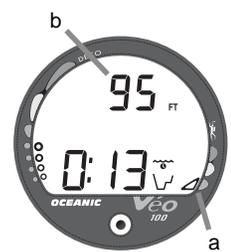


Fig. 3 - VARI & Depth





### Time Displays

**Time displays** are shown in hour:minute format (i.e., 1:16 represents 1 hour and 16 minutes, not 116 minutes!). The colon that separates hours and minutes blinks once per second when the display is indicating real time (e.g., Elapsed Dive Time), and is solid (non-blinking) when times are calculated projections (e.g., Time to Fly).

The **Main Time** display has the largest digits of the display (Fig. 4a) A **second time** display (Fig. 4b) is located above it. Both displays are identified by clock icons.

### Date Display

**Date** is displayed only to identify dive data while it is viewed in the Log Mode. When Units of Measure are set for 'Imperial', the Month appears to the left of Day. When set for Metric, the Month appears to the right of Day.

### Temperature Display

**Ambient Temperature** is displayed in Surface Mode (Fig. 4c) and Log Mode, and can be viewed as an Alternate Display when the button is pressed while in a dive mode (Fig. 5a). If the Temperature exceeds a value of '99', 2 dashes (--) will be displayed until temperature decreases to '99'.



Fig. 4 - Time Displays & Temperature (Surface)



Fig. 5 - Temperature (dive mode)



### POWER SUPPLY

The Veo 100 utilizes 1 - 3 volt CR2450 Lithium Battery which should provide from 100 dive hours of operation, if you conduct 1 - one hour dive each time the unit is activated, to as many as 300 dive hours of operation, if you conduct 3 or more one dives each time the unit is activated.

### Low Battery Condition

- Voltage level is checked upon activation and every 10 minutes during operation.
- When 75 % of the Rated Power has been consumed, a Battery icon will appear on the Surface Mode display (Fig. 6a) flashing once per second as a warning that the Battery is to be replaced prior to conducting any further dives.
- Upon decreasing to a voltage level that will no longer sustain proper operation, the icon will flash 5 times followed by shutdown of the unit.
- If a Low Battery Condition exists when the unit is manually activated (by pressing the button), the icon will appear flashing for 5 seconds followed by shutdown of the unit.
- If the button is not pressed to activate the unit prior to a dive (e.g., the unit activated automatically by immersion in water), and a Low Battery Condition exists, the Battery icon will appear flashing as a warning upon descent to 5 feet (1.5 meters). No other information will be displayed and the unit will not enter Dive Mode.



Fig. 6 - Low Battery  
(surface mode)





- If the unit did not display a Low Battery Condition prior to entering the Dive Mode, and a Low Battery Condition occurs during the dive, there will be sufficient Battery power to maintain unit operation for the remainder of that dive.
- The Battery icon will not appear if a Low Battery Condition occurs during a dive. It will appear after the dive, upon entry into Surface Mode.
- When the Battery is removed, settings and nitrogen calculations for repetitive dives will be retained, if a new battery can be inserted within 8 seconds. Otherwise the calculations will reset to zero and settings must be reset.

**△ NOTE: Each display represents unique pieces of information.**

**It is imperative that you understand the formats, ranges, and values of the information represented to avoid any possible misunderstanding that could result in error.**

**The Informational Displays are described in detail as the various operating modes they appear in are presented throughout this manual.**



## NOTICE

### WET ACTIVATION

The Veo 100 is configured with contacts that will automatically activate the unit when the space between the contacts is bridged by a conductive material (immersed in water).

The contacts are the pins of the Data Port and stem of the Push Button.

It is important that the Data Port and Button be kept clean and free of any contamination or debris that could cause the unit to activate unnecessarily resulting in premature depletion of battery power.

It is also important that they be kept clean to ensure that the unit will activate and enter dive mode upon immersion and descent.

The Data Port and Button can be cleaned with fresh water and a soft bristle brush.

**⚠ WARNING: The Wet Activation feature will not function unless it is Set ON (a user setting) and the contacts are bridged without interference. If the contacts remain dry during a descent and an attempt is made to activate it at depth, it will come On briefly then shut Off**







Fig. 7 - Diagnostic Mode

#### ACTIVATION

To Activate the Veo 100 - press and release the Button.

- Upon manual activation, the unit will enter Diagnostic Mode (Fig. 7), displaying all segments of the LCD as 8's, followed by dashes (- -), then a countdown from 9 to 0.
- Diagnostic Mode checks the display and battery voltage to ensure that everything is within tolerance and functioning properly.
- It will also check the ambient barometric pressure, and calibrate its present depth as zero. At elevations of 2,000 feet (610 meters) or higher, it will adjust its depth readings and no decompression limits for that elevation.

**⚠ WARNING: If it is manually activated at elevations higher than 14,000 feet (4,270 meters), it will perform a diagnostic check followed by immediate shutdown.**



Fig. 8 - Serial Number

#### Identification of the Computer Module

To view a screen that displays the unit's serial number and firmware revision level, hold the button depressed as the Diagnostic countdown reaches 00. The Serial Number screen appears (Fig. 8). Upon releasing the button, the unit shuts Off. Press the button again to reactivate the unit.



### **Backup Activation** (only if Water Activation is set ON)

As a backup, the unit will also automatically activate by water contact. This is accomplished by bridging the gap between contacts located on the Button and housing.

If no dive is made within 2 hours after activation, the unit will deactivate. If the wet contacts are still wet, it will reactivate.

### **SURFACE SEQUENCE**

While on the surface, the unit will automatically scroll through a Sequence of displays including -

- Surface Mode
- Fly Mode
- DeSat Mode
- Plan Mode

As the Surface Sequence is scrolling, you can use the button to access Log Mode and Set Mode.

### **SURFACE MODE**

Surface Mode information includes (Fig. 9) -

- Dive Number if the module is dry (0 if no dive made yet), or the graphic H2O if the module is wet (Fig. 10)
- Temperature (and icon).
- Time of Day (with icon).
- Surface Interval (with flashing colon) and Surface Time icon.



Fig. 9 - Surface Mode  
(module is dry)



Fig. 10 - Surface Mode  
(module is wet)



Depth feet (meters)	NDL hours:mins	NDL hours:mins
30 (9)	4:20	(4:43)
40 (12)	2:17	(2:24)
50 (15)	1:21	(1:25)
60 (18)	:57	(:59)
70 (21)	:40	(:41)
80 (24)	:30	(:32)
90 (27)	:24	(:25)
100 (30)	:19	(:20)
110 (33)	:16	(:17)
120 (36)	:13	(:14)
130 (39)	:11	(:11)
140 (42)	:09	(:09)
150 (45)	:08	(:08)
160 (48)	:07	(:07)
170 (51)	:07	(:06)
180 (54)	:06	(:06)
190 (57)	:05	(:05)
NDLs at Sea Level (no dive made yet)		

### Pre Dive Planning Sequence (PDPS)

The PDPS (Fig. 11) provides a sequence of theoretical dive times available for depths ranging from 30 feet (9 meters) to 190 feet (57 meters) in 10 foot (3 meter) increments.

No decompression times (limits), or NDLs, are only displayed for depths where there is at least 3 minutes of theoretical dive time available at the depth, taking into account a descent rate of 60 feet (18 meters) per minute.

The PDPS should be reviewed prior to every dive to help you plan your dive as required to avoid exceeding no decompression limits. For repetitive dives, it indicates adjusted dive times that are available for the next dive, based on residual nitrogen following the last dive and surface interval.

**⚠ WARNING: The available dive times provided by the PDPS are only predictions. Depending on cylinder size and air consumption rate you may have less time available than indicated because of those or other limitations.**

### SET MODE

After gaining access to Set Mode, settings can be made in sequence one after the other, or you can access a specific item that you want to set, bypassing others.



Fig. 11 - PDPS



**You can set:**

- Units of Measure - Imperial or Metric
- Hour Format - 12 or 24
- Time of Day
- Date
- Digital Gauge Mode - On or Off
- Water Activation - On or Off

**To Access Set Mode and enter Settings:**

While the unit is scrolling through the Surface Sequence -

- Press and hold the Button for 2 seconds, release when the Set Units screen appears with the graphics FT and F (or M and C) flashing (Fig. 12).

- **HINT: To bypass a parameter that you do not want to set, keep the Button depressed until the item you do want to set appears, then release it.**

To change the setting for Units of Measure -

- Press the Button momentarily and release to toggle between Imperial (FT and F) and Metric (M and C).
- Press and Hold the Button for 2 seconds to save the setting, release when the graphic Hour and 12 (or 24) appear with 12 (or 24) flashing (Fig. 13).



Fig. 12 - Set Units of Measure



Fig. 13 - Set Hour Format



Fig. 14 - Set Time

To change the setting for Hour Format -

- Press the Button momentarily and release to toggle between 12 and 24.
- Press and Hold the Button for 2 seconds to save the setting, release when AM (or PM) and the Time of Day appear with the Hour value flashing (Fig. 14).

To change the setting for Time of Day -

- Repeatedly press the Button momentarily and release it until the correct value for Hour appears (1: to 12:, or 0: to 23:). Do Not Hold the Button depressed.
- Press and Hold the Button for 2 seconds to save the setting, release when the Minute value flashes.
- Repeatedly press the Button momentarily and release it until the correct value for Minute appears (:00 to :59). Do Not Hold the Button depressed.
- The Set Date screen appears with the graphic dAY and Year value flashing (Fig. 15).



Fig. 15 - Set Date



To change the setting for Date -

- Repeatedly press the Button momentarily and release it until the correct value for Year appears (2004 to 2049). Do Not Hold the Button depressed.
- Press and Hold the Button for 2 seconds to save the setting, release when the Month value flashes.
- Repeatedly press the Button momentarily and release it until the correct value for Month appears (01 to 12). Do Not Hold the Button depressed.
- Press and Hold the Button for 2 seconds to save the setting, release when the Day value flashes.
- Repeatedly press the Button momentarily and release it until the correct value for Day appears (01 to 31). Do Not Hold the Button depressed.
- Press and Hold the Button for 2 seconds to save the setting, release when the Set Gauge Mode screen appears with the graphic GAU and OFF (or ON) flashing (Fig. 16).



Fig. 16 - Set Gauge Mode



To change the setting for Digital Gauge Mode -

- Press the Button momentarily and release to toggle between OFF and ON.
- Press and Hold the Button for 2 seconds to save the setting, release when the Set Wet Activation screen appears with the graphics ACT, H2O, and ON (or OFF) flashing (Fig. 17).

To change the setting for Wet Activation -

- Press the Button momentarily and release to toggle between ON and OFF.
- Press and Hold the Button for 4 seconds to save the setting, release when the Surface Mode screen appears.
- During the 4 seconds, a PC screen will appear on the Veo 150 and be bypassed.



Fig. 17 - Set Wet Activation





### **PC INTERFACE**

PC Interface is not a setting or user function. It is included in the Set menu for easy access by the factory when calibrating the Veo 100 module prior to shipping.

### **USER SELECTED DIGITAL GAUGE MODE**

When Digital Gauge Mode is set for ON, the Veo 100 will operate as a Digital Depth Gauge/Timer without performing nitrogen calculations (Fig. 18).

While in this mode, the range of the Current and Maximum Depth displays are extended to 399 feet (120 meters) to accommodate activities involving diving with advanced breathing gas mixtures or free diving beyond the normal depth limit of the unit. Temperature and Time of Day can be viewed as an Alternate Display when the button is pressed.



Fig. 18 - Digital Gauge Mode







Fig. 19 - TLBG & VARI

### DIVE MODE BAR GRAPHS

As your depth and elapsed dive time increase, the **Tissue Loading Bar Graph (TLBG)** will fill with segments (green toward red) to represent the absorption of nitrogen (Fig. 19a). While ascending to shallower depths, the segments that have filled the TLBG will begin to recede, offering a graphic representation of your multilevel diving capability.

The **Variable Ascent Rate Indicator (VARI)** shows how fast you are ascending (Fig. 19b). When you exceed an Ascent Rate of 60 fpm (18 mpm) if deeper than 60 feet (18m), or 30 fpm (9 mpm) if shallower than 60 feet (18m), it will enter the red (Too Fast) zone and all segments plus the graphic TOO FAST will flash (Fig. 20) until your Ascent Rate is slowed.

### CONTROL OF DISPLAYS

During dive modes, 3 displays of information are available. You can change from one display to another as often as desired by momentarily (< 2 seconds) pressing and releasing the Button.

During No Decompression conditions, you can choose how much information is displayed at a given time. The Main Display chosen will remain on the screen until you press the Button to change it to another Main Display.



Fig. 20 - Ascent Too Fast



During conditions in which cautionary type information is displayed (e.g., Decompression, etc.), there is one Main Display of important information relevant to the specific condition.

- You can then access Alternate Displays, that will automatically revert to the Main Display after 3 seconds.

#### **NO DECOMPRESSION DIVE MODE**

The Veo 100 will enter the No Decompression Dive Mode when you descend deeper to 5 feet (1.5 meters).

#### **No Decompression - Main Display #1 (Fig. 21)**

Information includes Current Depth, Dive Time Remaining (and Mode icon), and the Bar Graphs.

- press and release the Button to change to Main Display #2.

#### **No Decompression - Main Display #2 (Fig. 22)**

Information includes Current Depth, Maximum Depth for that dive (and icon), Elapsed Dive Time (and icon), Dive Time Remaining (and Mode icon), and the Bar Graphs.

- press and release the Button to change to Main Display #3.



Fig. 21 - No Deco Main #1



Fig. 22 - No Deco Main #2



Fig. 23 - No Deco Main #3

**No Decompression - Main Display #3 (Fig. 23)**

Information includes Current Depth, Temperature, Time of Day, Dive Time Remaining (and Mode icon), and the Bar Graphs.

- Press and release the Button to view Display #1.

**No Decompression Dive Mode - SAFETY STOP (Fig. 24)**

Upon ascending to 20 feet (6 meters) on any No Decompression dive in which depth exceeded 30 feet (9 meters), a Safety Stop at 15 feet (4.5 meters) will appear on the display with a 3 minute countdown timer that counts down from 3:00 to :00 (min:sec).

Information includes Current Depth, Stop Depth (15 feet or 4.5 meters), Stop Bar icon, Countdown Timer, Dive Time Remaining (and Mode icon), and applicable Bar Graphs.

The Safety Stop will be displayed until the countdown times out, or you descend below 30 feet (10 meters), or you surface. There is no Penalty if you surface prior to completing the Safety Stop.

**DECOMPRESSION DIVE MODE**

The Veo 100 is designed to help you by providing a representation of how close you are to entering decompression. Decompression Dive Mode activates when theoretical No Decompression time/depth limits are exceeded.



Fig. 24 - No Deco Safety Stop



Upon entering Decompression Mode, you should begin a safe controlled ascent to a depth slightly deeper than, or equal to, the Required Ceiling Stop Depth indicated (Fig. 25a) and decompress for the Stop Time indicated (Fig. 25b).

- The UP Arrow and Deco Bar will flash if you are more than 10 feet (3 meters) deeper than the Required Ceiling Depth.
- Once within 10 feet (3 meters) of, and below, the Required Ceiling Depth, both Arrows and the Bar appear solid.

#### Decompression Dive Mode - Main Display (Fig. 26)

The amount of decompression **Credit time** that you receive is dependent on Depth, with slightly less Credit given the deeper you are. You should stay slightly deeper than the Required Stop Depth indicated until the next shallower Stop Depth appears. Then, you can slowly ascend to, but not shallower than that indicated ceiling Stop Depth.

Main Display information includes - Current Depth, Required Ceiling Stop Depth/Time, Total Ascent Time (and Mode icon), and applicable Bar Graphs.

Total Ascent Time (Fig. 26a) includes Stop Times required at all ceilings and vertical Ascent Time calculated at 60 feet (18 meters) per minute below 60 feet (18 meters) and 30 feet (9 meters) per minute above 60 feet (18 meters).



Fig. 25 - Entry into Deco



Fig. 26 - Deco Main



Fig. 27 - Deco Alternate #1

To view Alternate Displays of information during Deco situations, momentarily (< 2 seconds) press and release the button -

- 1 time to view Alternate Display #1
- 2 times to view Alternate Display #2

Alternate Displays will revert to the Main Display after 3 seconds.

**Deco Alternate Display #1 (Fig. 27)**

Information includes - Current Depth, Max Depth for that dive (and icon), Elapsed Dive Time (and icon), Total Ascent Time (and Mode icon), and applicable bar graphs.

- Press the Button to view Display #2.

**Deco Alternate Display #2 (Fig. 28)**

Information includes - Current Depth, Temperature, Time of Day, Total Ascent Time (and Mode icon), and applicable Bar Graphs.

- Press the Button to view Display #1.



Fig. 28 - Deco Alternate #2



### VIOLATION MODES

Violation Modes that the Veo 100 can enter are termed - Conditional, Delayed, and Immediate. Permanent Violation Mode and Gauge Mode are continuations of these.

- While in Violation Modes, Alternate Displays similar to those for Deco Mode can be accessed using the Button. They will revert to the Main Display after 3 seconds.

#### Conditional Violation Mode

The Veo 100 will enter a Conditional Violation Mode **if you ascend to a depth shallower (Fig. 29a) than the Required Decompression Ceiling** Stop Depth displayed (Fig. 29b).

The Down Arrow, Deco Bar, and the Total Ascent Time display will flash until you descend below the Required Stop Depth. Also displayed will be Current Depth and applicable Bar Graphs.

If you descend below the required decompression ceiling before 5 minutes have elapsed, the unit will continue to function in Decompression Dive Mode. In this case, no off-gassing credit will be given, and for each minute above the ceiling 1 1/2 minutes of **Penalty Time** will be added to Required Stop Time.



Fig. 29 - Conditional Violation



Fig. 30 - Delay Viola #1

The added Penalty (decompression) Time will then have to be worked off first, 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, then the Tissue Loading Bar Graph will recede into the yellow Caution Zone and operation will revert to the No Decompression Dive Mode.

**Delayed Violation Mode #1 (Fig. 30)**

**If you remain above the Required Ceiling Stop Depth for 'more than 5 minutes',** the Tissue Loading Bar Graph and Total Ascent Time display will flash until you descend below the Required Stop Depth. This is a continuation of a Conditional Violation.



Fig. 31 - Delay Viola #2

**Delayed Violation Mode #2 (Fig. 31)**

The Veo 100 cannot calculate decompression times for Stop Depths much greater than 60 FT (18 M) and offers no indication of how much time spent underwater would result in the need for a greater Stop Depth.

**If your Decompression obligation requires a Ceiling Stop Depth 'between' 60 feet (18 meters) and 70 feet (21 meters),** the Tissue Loading Bar Graph will flash. Total Ascent Time will still be displayed.



You must ascend to just deeper than, and stay as close as possible to, 60 feet (18 meters) without causing the Total Ascent Time display to flash. When the Required Stop Depth indicates 50 FT/15 M, etc., you can ascend to those depths and continue decompressing.

**Delayed Violation Mode #3** (Fig. 32)

**If you descend deeper than 330 feet/99.5 meters, or 399 feet/120 meters when operating in Digital Gauge Mode**, the Tissue Loading Bar Graph will flash, and the Current Depth and Max Depth displays will only indicate 3 dashes (- - -).

Upon ascending above 330 feet/99.5 meters, or 399 feet/120 meters when operating in Digital Gauge Mode, the Current Depth display will be restored, however Max Depth will only display 3 dashes (- - -) for the remainder of that dive. The Log for that dive will also only indicate 3 dashes (- - -) as the Max Depth achieved.

**Immediate Violation Mode and Violation Gauge Mode**

During a Dive, if a ceiling greater than 70FT (21M) is required, an Immediate Violation Mode will be entered. This situation would be preceded by entering Delayed Violation Mode #2, previously described. The Veo 100 would then operate with limited functions in **Violation Gauge Mode** during the remainder of that dive and for 24 hours after surfacing.



Fig. 32 - Delay Viola #3



Fig. 33 - Violation Gauge Mode (underwater)

**Violation Gauge Mode** turns the Veo 100 into a digital instrument without any decompression functions. Only Current Depth, Max Depth, Elapsed Dive Time, and the Variable Ascent Rate Indicator will be displayed (Fig. 33). The full Tissue Loading Bar Graph will flash as a warning of this condition. Temperature and Time of Day can be viewed as an Alternate Display when the button is pressed.

The Veo 100 will also enter an **Immediate Violation Mode** 5 minutes after reaching the surface from a dive in which a Delayed Violation occurred.



Fig. 34 - Violation Gauge Mode (on surface)

On the surface, **Violation Gauge Mode** displays the Dive Number, Temperature, Time of Day, Surface Interval, and the full Tissue Loading Bar Graph flashing (Fig. 34). It does not provide the Pre Dive Planning Sequence or the Time to Fly feature.

The **countdown timer** that appears with a single dash during the Surface Sequence is only provided to inform you of the time remaining before normal operation can resume with full features and functions.

**This condition is considered a Permanent Violation, and in the event that a dive is made during the 24 hour period, a full 24 hour surface interval must then be served before all functions are restored.**



•••••  
•  **WARNING:** Prior to diving with the Veo 100, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual which provides Important Warnings and Safety Recommendations as well as general product information.  
•••••



## POST DIVE MODES





Fig. 35 - Transition Period

### POST DIVE SURFACE MODE

When you ascend to 3 feet (1 meter) or shallower, the unit will enter Surface Mode and begin counting your Surface Interval.

### TRANSITION PERIOD

The first 10 minutes is, in affect, a Transition Period during which time the following information is displayed (Fig. 35):

- 'Number' of that dive (during that activation period)
- Temperature
- Time of Day
- Surface Interval time (colon flashing) and icon (flashing)
- Tissue Loading Bar Graph ( indicating current nitrogen loading)

During the Transition Period, Log Mode can be accessed. No other modes (e.g., Fly, Plan, Set) are displayed or accessible.



Fig. 36 - Log Screen #1

### To view that dive's Log

- Press the Button to view the first screen (Fig. 36).
- Press the Button again to view the Data screen
- Press the Button again to return to Surface Mode.
- The unit will revert to Surface Mode after 2 minutes if the button is not pressed.

Refer to page 36 for a description of the Log Mode displays.



Log Data will not be stored in the unit's memory until the 10 minute Transition Period on the surface is completed.

Once 10 minutes have elapsed, the Surface Mode icon and Surface Interval time display colon stop flashing indicating that the Dive and Transition Period are completed, and a subsequent Descent will be considered a new dive.

If you Descend during the 10 minute Transition Period, time underwater will be considered a continuation of that dive. Time spent at the surface will not be added as Dive Time.

#### **AFTER THE TRANSITION PERIOD (THE FIRST 2 HOURS)**

For the remainder of the **first 2 hours after surfacing**, information will continue to be displayed as the Surface Sequence, scrolling through Surface Mode > Time to Fly > Time to Desaturate > Pre Dive Planning Sequence. You will have full access to Log Mode and Set Mode.

#### **Time to Fly/Desaturate**

The Time to Fly and Desat Timers begin counting down 10 minutes after surfacing from a dive (after the Transition Period). The FLY countdown (Fig. 37) always begins at 23:50 (hr:min) and the Desat countdown (Fig. 38) at 23:50 (maximum).



Fig. 37 - Time to Fly



Fig. 38 - Time to Desaturate



Fig. 39 - Fly Mode  
(after a Violation dive)

If a Violation occurred during the dive a single dash (-) will appear instead of the letters FLY (Fig. 39). DeSat time will not be displayed.

The Time to Fly counter is provided to assist you with deciding when enough surface time has elapsed to fly (or travel to higher elevations).

- After a surface interval of 12 hours, you may choose to fly (or travel to higher elevations), provided that your dive profile(s) did not enter decompression.
- If your diving involved decompression or a repetitive, multi day profile, it is strongly recommended that you wait a full 24 hours after your last dive to add a greater degree of protection.



Fig. 40 - Adjusted NDLS

#### Pre Dive Planning Sequence (PDPS)

After a dive, the PDPS provides 'adjusted' No Decompression Limits (Fig. 40) based on residual nitrogen calculated to be remaining from that dive and previous dives in the same series.

#### Log Mode

The Veo 100 will store up to 12 dives in its Log for viewing.

Each dive has 2 Log screens. The first is the Dive Identifier and the second displays Dive Data.



Once the Log is full (12 dives), each subsequent dive will then overwrite the oldest dive stored in the Log. It is therefore suggested that you transfer the Log's data to your log book at the end of each day of diving.

Log data will not be lost when the battery is removed/replaced, however, factory service and calibration will delete the data.

The first dive conducted each time the unit is Activated will be #1, therefore there may be multiple #1 dives in the Log.

Dives are displayed in a reverse sequence that starts with the dive most recently recorded, back to the oldest one stored. The most recent dive will always be the first shown in the sequence.

**To access Log Mode -**

- Press and release the Button momentarily (< 2 seconds) while the unit is scrolling through the Surface Sequence.
- The first screen (Dive Identifier) of the most recent dive conducted will appear displaying (Fig. 41) -
  - Dive Number (for that activation period)
  - Log Mode icon
  - Date of the Dive
  - Time of Day (that the dive started)
- Press the Button momentarily to view the Second Screen.



Fig. 41 - Log (Dive Identifier)



**Dive Data** (the second screen) includes (Fig. 42) -

- Maximum Depth - reached during the dive (and icon)
- Log Mode icon
- Temperature - minimum during the dive (and icon)
- Surface Interval - prior to that dive (and icon)
- Elapsed Dive Time (and icon)
- Variable Ascent Rate Indicator - showing the maximum ascent rate maintained for 4 consecutive seconds during the dive.
- Tissue Loading Bar Graph - showing tissue nitrogen loading at the time you surfaced at the end of the dive. Also, the segment that reflects the maximum loading during the dive will appear flashing.

To access the first screen of the previous dive's Log, press the Button momentarily (< 2 seconds).

To return to the Surface Sequence at any time while in Log Mode, press the Button for 4 seconds, releasing it when Surface Mode appears.

The unit will automatically revert to the Surface Sequence after 2 minutes if the Button is not pressed to view another Log Screen.



Fig. 42 - Log (Dive Data)



#### AFTER THE FIRST 2 HOURS

Two hours after the last dive the Surface Sequence will no longer be displayed. The Time to Fly and Time to Desaturate countdown screens will be displayed alternately for 3 seconds each until they count down to 0:00 or another dive is made.

If the Water Activation Contacts are wet, the graphic H2O will appear on the displays (Figs. 43/44).

#### To access other modes or enter settings -

- Press the Button to reactivate the Surface Sequence.
- The unit will again revert to the Time to Fly/Desaturate countdowns after 2 hours, if the Button is not pressed.

The unit will shutdown when the Fly countdown reaches 00. If the Wet Activation Contacts are wet, the unit will reactivate and scroll through the Surface Sequence for 2 hours then shutdown again.



Fig. 43 - Time to Fly  
(activation contacts wet)



Fig. 44 - Time to Desaturate  
(activation contacts wet)



### RESET FEATURE

The Veo 100 is configured with a RESET feature that allows data to be cleared, including Nitrogen calculations and Log Mode entries.

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

### RESET PROCEDURE

- While the Surface Sequence is scrolling, press and release the button to access the Log Mode displaying the first screen (Dive Identifier) of the most recent dive.
- Press and release the button again to access the second screen (Dive Data) of the most recent dive.
- Press the button for more than 4 seconds while the second Log screen of the most recent dive is being displayed to access the Reset Mode. The graphics **CLR** and **id** will appear with the Key Code 0101, the first digit flashing (Fig. 45).
- If necessary to change the first digit, press and release the button repeatedly to advance to the correct number.
- Press the button for more than 2 seconds to advance to the second 2 digits, flashing.
- If necessary to change the second 2 digits, press and release the button repeatedly to advance to the correct number.
- Once the proper Key Code **101** has been entered, pressing the button for more than 2 seconds will shut down the unit (i.e., resetting it). If an incorrect Key Code number has been entered, the unit will revert to the Surface Sequence, resuming previous operation(s).



Fig. 45 - Reset (Clear)







### CARE AND CLEANING

Protect your Veo 100 from shock, excessive temperatures, chemical attack, and tampering. Protect the Lens against scratches with an Instrument Lens Guard/Protector. Small scratches will naturally disappear underwater.

- Soak and rinse the Module in fresh water at the end of each day of diving, and check to ensure that the areas around the Low Pressure (Depth) Sensor (Fig. 46a), Interface Port (Fig. 46b), and Button are free of debris or obstructions.
- To dissolve salt crystals, use lukewarm water or a 50% white vinegar/50% fresh water bath. After removal from the bath, place the Module under gently running fresh water and towel dry before storing.
- Transport your Veo 100 cool, dry, and protected.

### INSPECTIONS AND SERVICE

Your Veo 100 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 this inspection performed every year to ensure it is working properly. The costs of annual inspections are not covered under the warranty.

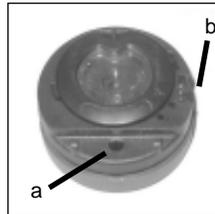


Fig. 46 - Case Back



**To Obtain Service:**

Take your Veo 100 to an Authorized Oceanic Dealer or send it to the nearest Oceanic Regional Distributor Facility (see page 58).

**To return your Veo 100 to Oceanic:**

- Record all dive data in the Log. 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, 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 Distributor Facility or to Oceanic USA.
- If shipping to Oceanic USA, obtain an RA (Return Authorization) number by contacting Oceanic at 510/562-0500 or send an e-mail to [service@oceanicusa.com](mailto:service@oceanicusa.com).
- Non-warranty service must be prepaid. COD is not accepted.
- Additional information is available at the Oceanic web site [OceanicWorldwide.com](http://OceanicWorldwide.com)





#### MODULE REMOVAL FROM BOOT

If the Module is in a Console, bend the rubber Console Boot back to expose the edge of the Module. If the Boot is flexible enough to permit, you may bend it back far enough to scoop the Module out with your finger. Otherwise, it may be necessary to insert a blunt screwdriver until the tip rests just underneath the Module. **DO NOT** pry the Module from the Console! Slowly increase the pressure under the Module by releasing the tension on the rubber Boot. The Module will slide up the screwdriver and exit the Console.

If the Module is in a Wrist Boot, it will be necessary to peel the lips of the Boot downward off the Module while applying pressure from underneath, working it out slowly.



**CAUTION: The procedure that follows must be closely adhered to. Damage due to improper Battery replacement is not covered by the limited 2 year warranty.**



#### BATTERY REPLACEMENT

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





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).

**△ NOTE: If the old Battery can be removed and the new one inserted within 8 seconds, nitrogen calculations and settings, will be retained for repetitive dives.**



Fig. 47 - Retaining Ring

#### Battery Hatch Removal

- Locate the Battery Compartment on the back of the Module.
- While applying steady inward pressure on the center of the Battery Hatch, rotate the Hatch Retaining Ring 10 degrees clockwise by pressing against the upper tab of the Retaining Ring with a small blade screwdriver (Fig. 47).
- Lift the Hatch Ring up and away from the Housing, or turn the Module over to allow the Ring to drop out into your hand.
- Remove the Battery Hatch.

#### Battery Removal

- Remove the Retaining Bar located across the lower portion of the Battery (Fig. 48a).
- Remove the Hatch O-ring. DO NOT use tools
- Using care not to damage the Battery Contacts (Fig. 48b/c), slide the Battery up and out of the Battery Compartment.

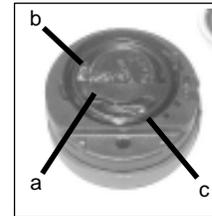


Fig. 48 - Hatch Removed



Fig. 49 - Inserting Battery

#### 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.
- If it is necessary to clean the Battery Compartment, flush it and all components with a solution of 50% white vinegar and 50% fresh water. Rinse with fresh water, and allow to dry overnight, or blow dry with a hair dryer (set at 'no heat').



**WARNING: If damage or corrosion is found, return your Veo 100 to an Authorized Oceanic Dealer, and DO NOT attempt to use it until it has received factory prescribed service.**

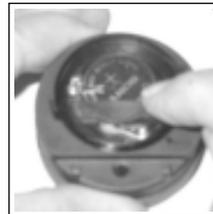


Fig. 50 -Inserting Retaining Bar

#### Battery Installation

- Slide a new 3 volt type CR2450 Lithium Battery, negative (-) side down into the Battery Cavity. Slide it in from the right side and ensure that it slides under the contact clip on the left rim of the cavity (Fig. 49).
- Orient the Retaining Bar across the lower portion of the Battery and carefully push it down into position (Fig. 50).





### Battery Hatch and Hatch Retaining Ring Installation

- Replace the Hatch O-ring with a new one which 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.
- Lightly lubricate the **new** Hatch O-ring with silicone grease and place it on the inner rim of the Battery Hatch (Fig. 51). Ensure that it is evenly seated.
- Slide the Hatch Retaining Ring, top portion first (small opening), onto your thumb.
- Carefully place the Battery Hatch (with O-ring) into position on the rim of the Battery Compartment, then press it evenly and completely down into place with your same thumb.
- Maintain the Battery Hatch securely in place and, using your other hand, slide the Retaining Ring down off your thumb and into position around the Battery Compartment.
- The tabs on the Retaining Ring fit down into the two slots located at the 2 and 8 o'clock positions.
- Using your fingers, turn the Ring counter clockwise 5 degrees until the tabs engage (Fig. 52), then tighten it 5 more degrees by turning it counter clockwise with the aide of a small blade screwdriver (Fig. 53).
- While tightening the Retaining Ring, exert continuous inward pressure on it until it is secured in the proper position. A small symbol located on the Ring should be aligned with the Locked symbol located on the Housing (Fig. 53 a)



Fig. 51 -O-Ring Orientation



Fig. 52 -Engaging Retaining Ring

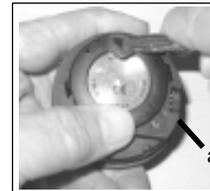


Fig. 53 -Retaining Ring Tightened



#### Inspection

- Activate the unit and watch carefully as it performs a full diagnostic and battery check, and enters Surface Mode.
- Observe the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen.



**WARNING: If there are any portions of the display missing or appearing dim, or if a Low Battery condition is indicated, return your Veo 100 to an Authorized Oceanic Dealer for a complete evaluation before attempting to use it.**

#### RETURNING THE MODULE TO BOOT

- If the Boot was fitted with a Spacer and it was previously removed, replace the Spacer into the Boot.
- Orient the Module over the opening in the Boot, and dip the bottom edge into it while pressing the top edge with the palm of your hand. Stop pressing when the bottom edge of the Module has just entered the Boot.
- Correct the alignment of the Module as needed so that it is straight.
- Press the Module completely into place with your thumbs, watching the alignment, until it snaps into place.





**NOTE:** The Wet Activation Contacts are located on the stem of the Button and on metal Pins located in the Data Port on the left side of the Module. The Module is designed for use in a Boot that has an opening on the left side which exposes the Pins (and side Wet Activation Contacts) to water upon immersion.

**WARNING:** If the Veo 100 is installed in a Boot that does not have the side opening where the side Wet Activation Contacts are located, the unit may not activate automatically upon descending on a dive.



#### UNEXPECTED LOSS OF DISPLAYED INFORMATION

If your Veo 100 stops working for any reason, it is important that you have anticipated this possibility and are prepared for it.

**This is an important reason for not pushing the no decompression limits, and a critical reason to avoid entering decompression.**

If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your Veo 100, a backup instrument system is highly recommended.





### ALTITUDE COMPENSATION

Atmospheric pressure decreases as Altitude increases above sea level. Weather systems and ambient temperature also affect barometric pressures. Consequently, depth reading instruments that do not compensate for the decrease in ambient pressure indicate depth readings shallower than the depth they are actually at.

The Veo 100 automatically compensates for decreased ambient pressures for Altitudes between 2,000 (610 meters) and 14,000 feet (4,270 meters). Its program contains a high altitude algorithm that reduces no decompression limits to add a larger zone of caution.



The Veo 100 senses ambient pressure when it is activated, every 15 minutes while it is activated, or every 30 minutes when it is not activated. At an Altitude of 2,000 feet (610 meters), it will automatically recalibrate itself to measure depth in feet of fresh water rather than feet of sea water. It will then readjust the no decompression limits at additional intervals of 1,000 feet (305 meters). Therefore, when returning to lower Altitudes, diving should not be conducted until the unit automatically clears of any residual nitrogen loading and resets to operate at the new lower Altitude.



**WARNING: The Veo 100 will not sense ambient pressures or provide Altitude compensation when it is wet. DO NOT dive at any different Altitude until the unit shuts off and is reactivated at the new Altitude.**

**If the unit is activated at elevations higher than 14,000 feet (4,270 meters), it will perform a diagnostic check followed by immediate shutdown.**





## SPECIFICATIONS

### **CAN BE USED AS**

- Air Computer
- Digital Depth Gauge/Timer

### **NO DECOMPRESSION MODEL**

#### **Basis:**

- Modified Haldanean Algorithm
- 12 tissue compartments

#### **Data Base:**

- Diving Science and Technology (DSAT) - Rogers/ Powell

#### **Performance:**

- Tissue compartment halftimes (minutes) Spencer's "M" values  
5, 10, 20, 40, 80, 120, 160, 200, 240, 320, 400, 480
- Reciprocal subsurface elimination
- 60 minute surface credit control for compartments faster than 60 minutes
- Tissue compartments tracked up to 24 hours after last dive

#### **Decompression Capabilities (stop ceilings):**

- 10, 20, 30, 40, 50, and 60 feet  
(3, 6, 9, 12, 15, and 18 meters)

#### **Altitude Algorithm:**

- Based on NOAA tables

### **OPERATIONAL MODES (SURFACE)**

- Activation/Diagnostic
- Surface
- Plan (30 to 190 feet / 9 to 57 meters)
- Time to Fly Countdown
- Desaturation Countdown
- Dive Log (Identifier, Data)
- Clear (Reset)
- Set Mode:
  - Units of Measure (Imperial / Metric)
  - Hour Format (12 / 24)
  - Time (Hour, Minute)
  - Date (Year, Month, Day)
  - Digital Gauge Mode (On / Off)
  - Water Activation (On / Off)

### **OPERATIONAL MODES (DIVE)**

#### No Decompression Dive:

- Main #1, #2, or #3
- Safety Stop

#### Digital Gauge Mode:

#### Decompression Dive:

- Main, Alternate #1, Alternate #2

Violation - Conditional, Delayed, and Immediate/Gauge



### SPECIFICATIONS (CONTINUED)

#### DISPLAY RANGE/RESOLUTION

##### **Numeric Displays:**

	Range:	Resolution:
• Dive Number	0 to 12	1
• Depth	0 to 399 ft (120 m)	1 ft (.1 m /1 m > 99.9)
• Maximum Depth	399 ft (120 m)	1 ft (.1 m/1 m > 99.9)
• Dive Time Remaining	0:00 to 9:59 hr:min	1 minute
• Total Ascent Time	0:00 to 9:59 hr:min	1 minute
• Safety Stop Time	3:00 to 0:00 min:sec	1 second
• Decompression Stop Time	0:00 to 9:59 hr:min	1 minute
• Elapsed Dive Time	0:00 to 9:59 hr:min	1 minute
• Surface Time	0:00 to 9:59 hr:min* (* then 10 - to 23 - hr only)	1 minute
• Dive Log Surface Interval	0:00 to 23:59 hr:min	1 minute
• Time to Fly	23:50 to 0:00 hr:min* (* starting 10 min after the dive)	1 minute
• Time to Desaturate	23:50 maximum to 0:00 hr:min* (* starting 10 min. after the dive)	1 minute
• Temperature	0 to 99°F (-9 to 60°C)	1°

##### **Special Displays:**

	Occurrence
• Diagnostic Display	After Manual Activation
• Out of Range (- - -)	>330/399 feet (>99.9/120 meters)
• Gauge Mode Countdown Timer	23:50 to 0:00 hr:min (after violation)



## SPECIFICATIONS (CONTINUED)

### BAR GRAPHS

#### **Tissue Loading Bar Graph:** segments

- No Decompression zone (green) 5
- No Deco Caution zone (yellow) 2
- Decompression Warning zone (red) 1

#### **Variable Ascent Rate Indicator:** 60 feet (18 m) & Shallower

#### Deeper than 60 feet (18 m)

	segments	feet/min	meters/min	segments	feet/min	meters/min
	0	0 - 10	0 - 3	0	0 - 20	0 - 6
• Normal Zone (Green)	1	11 - 25	3.5 - 7.5	1	21 - 50	6.5 - 15
• Caution Zone (Yellow)	1	26 - 30	8 - 9	1	51 - 60	15.5 - 18
• Too Fast Zone (Red - flash)	1	> 30	> 9	1	> 60	> 18

### OPERATIONAL PERFORMANCE

- Function:** Accuracy:
- Depth  $\pm 1\%$  of full scale
  - Timers 1 second per day

#### **Dive Counter:**

- Displays Dives #1 to 12, 0 if no dive made yet
- Resets to Dive #1, upon diving (new activation period)

#### **Dive Log Mode:**

- Stores 12 most recent dives in memory for viewing
- After 12 dives, adds 13th dive in memory and deletes the first dive



## SPECIFICATIONS (CONTINUED)

### OPERATIONAL PERFORMANCE (continued)

#### **Altitude:**

- Operational from sea level to 14,000 feet (4,267 meters) elevation
- Measures ambient pressure every 30 minutes and when manually activated (no when wet contacts are bridged)
- Compensates for Altitude when manually activated (no compensation if activated by immersion in water)
- Compensation begins at 2,000 feet (610 meters) elevation and every 1,000 feet (305 meters) higher

#### **Power:**

- Battery 1 - 3 vdc, CR2450, Lithium battery
- Shelf life Up to 5 years
- Replacement User replaceable (annual recommended)
- Life expectancy 100 dive hours (if 1 - 1 hour dive per dive day), 300 hours (if 3 - 1 hour dives per dive day)

<b>Battery Indicator:</b>	segments displayed	estimated power remaining
	all	25 to 100%
	1 (inside)	< 25%

#### **Activation:**

- Manual - push button (recommended)
- Automatic - by immersion in water (as a backup if set ON)
- H2O graphic indicates Wet Contacts are bridged (unit must be dried prior to transport or storage)
- Cannot be manually activated deeper than 4 feet (1.2 meters), if the Water Activation feature is set OFF.
- Cannot be activated at elevations higher than 14,000 feet (4,270 meters)

#### **Shutoff:**

- Automatically shuts off if no dive is made within 120 minutes after initial activation. Reactivation required.
- Automatically shuts off 24 hours after last dive (will reactivate if the H2O graphic is displayed).
- Cannot be shut off manually.

#### **Operating Temperature:**

- Out of the water - between 20 °F and 140 °F (-6 and 60 °C)
- In the water - between 28 °F and 95 °F (-2 and 60 °C).





**ACCESSORIES**

(optional items available from your Authorized Oceanic Dealer):

- Lens Guard - covers the lens face, prevents scratches
- Battery Kit - includes 1 Battery, 1 Battery Hatch O-ring, Silicone Grease

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**NOTES**





## OCEANIC WORLD WIDE

OCEANIC USA  
2002 Davis Street  
San Leandro, CA 94577  
Tel: 510/562-0500  
Fax: 510/569-5404

Web site: <http://www.OceanicWorldwide.com>

Oceanic Germany - Nurnberg, Germany  
Tel: 49-911-324-6630 Fax: 49-911-312-999  
E-mail: [office@oceanic.de](mailto:office@oceanic.de)

Sorrento, Victoria, Australia  
Tel: 61-3-5984-4770 Fax: 61-3-5984-4307  
E-mail: [sales@oceanicaus.com.au](mailto:sales@oceanicaus.com.au)

Oceanic South Europe - Genova, Italy  
Tel: 0039-010-834-51 Fax: 0039-010-834-52-50  
E-mail: [Shawne.Stanley@oceanicse.it](mailto:Shawne.Stanley@oceanicse.it)

Oceanic Asia-Pacific Pte. Ltd - Singapore  
Tel: 65-779-3853 Fax: 65-779-3945  
E-mail: [info@oceanicasia.com.sg](mailto:info@oceanicasia.com.sg)

Oceanic SW, Ltd - Devon, United Kingdom  
Tel: 44-1-404-89-1819 Fax: 44-1-404-89-1909  
E-mail: [info@oceanicuk.com](mailto:info@oceanicuk.com)

Oceanic Japan - Yokohama, Japan  
Tel: 045-575-6671 Fax: 045-575-6673  
E-mail: [oceanic@gol.com](mailto:oceanic@gol.com)

Oceanic France - Marseille, France  
Tel: 33-491-25-27-45 Fax: 33-491-25-35-86  
E-mail: [oceanicfrance@wanadoo.fr](mailto:oceanicfrance@wanadoo.fr)

Oceanic New Zealand  
Wellington, New Zealand  
Tel: 64-4-472-5335 Fax: 64-4-472-5334

Oceanic International (Pacific) - Kapolei, Hawaii  
Tel: 808-682-5488 Fax: 808-682-1068  
E-mail: [oceanichi@oceanicusa.com](mailto:oceanichi@oceanicusa.com)  
Oceanic Diving Australia Pty. Ltd



### INSPECTION / SERVICE RECORD

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

Date of purchase \_\_\_\_\_

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



Below to be filled in by an Authorized Oceanic Dealer:

Date	Service Performed	Dealer / Technician





VEO 100

Operating Manual

Doc. No. 12-2373-r04 (12/15/08)

(cover art to be placed on front/back is provided separately)

