versa

operating manual

OCEANIC®

LIMITED TWO-YEAR WARRANTY

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

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Versa Operating Manual, Doc. No. 12-2281

San Leandro, Ca. USA 94577

TRADEMARK NOTICE

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 Setable Display (U.S. Patent no. 5,845,235) is owned by Suunto Oy (Finland).

DECOMPRESSION MODEL

The programs within the Versa 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 Versa dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the Versa, 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.

CONTENTS

CONTENTS (continued)

⚠ Pay special attention to items marked with this WARNING symbol.

⚠ WARNING: During Activation, Diagnostics, or Operation, if any display or function varies from the information provided herein, DO NOT dive with the Versa. Return it to your Authorized Oceanic Dealer for inspection.

WARNING: Prior to diving with the Versa, 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.

FEATURES and DISPLAYS

WELCOME TO OCEANIC AND THANK YOU FOR CHOOSING THE VERSA !

Your Versa presents the information that you need before, during, and after your Air dives using a combination of easy to read displays and identification icons. This instructional guide is intended to help you become familiar with the functions and features available and show you examples of displays that you could expect to see in the various operational modes. Relax and read through the complete operating manual.

Remember that the rules you learned in your basic scuba certification course(s) still apply to the diving you will do while using a dive computer - some will become even more important. 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.

Fig. 1 - Control Button

CONTROL BUTTON (Fig. 1)

- The Control Button is first used to Activate the Versa.
- Once activated (and while on the surface), pressing it momentarily provides you access to the Log Mode.
- Pressing it for several seconds provides access to the Set Mode which allows you to set Units of measure, Hour Format, Time of Day, and Water Activation, which are described later.

TISSUE LOADING BAR GRAPH (TLBG)

The TLBG (Fig. 2a) represents tissue loading of nitrogen, showing your relative no decompression or decompression status. As your depth and elapsed dive time increase, segments add to the TLBG, and as you ascend to shallower depths, they will begin to recede, indicating that additional no decompression time is allowed for multilevel diving.

The TLBG monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive. It is divided into a green No Decompression (normal) zone, a yellow Caution zone (also No Decompression), and a red Decompression (danger) zone.

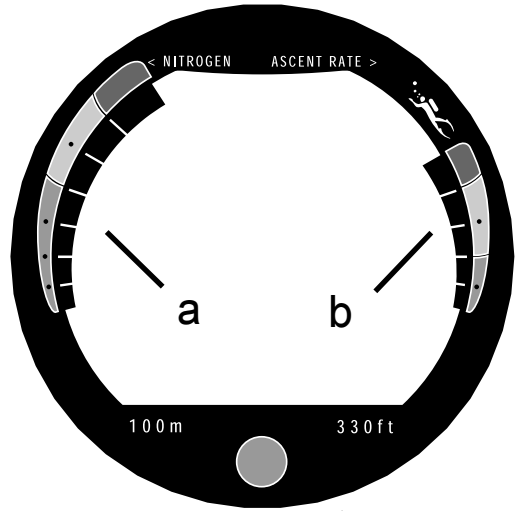

Fig. 2 - Bar Graphs

VARIABLE ASCENT RATE INDICATOR (VARI)

The VARI (Fig. 2b) 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.
- At depths greater than 60 feet (18 meters), the VARI will flash as a warning when an ascent exceeds 60 fpm (18 mpm). At depths of 60 feet (18 meters) and shallower, it will flash if the ascent rate exceeds 30 fpm (9mpm).

Deeper than 60 feet (18 m)

Segments Displayed	Ascent Rate = FPM	MPM
0	0-20	0 - 6
1	21-30	6.5-9
2	31-40	9.5-12
3	41-50	12.5-15
4	51-60	15.5-18
5	>60	>18

60 feet (18 m) & Shallower

Segments Displayed	Ascent Rate = FPM	MPM
0	0-10	0 - 3
1	11-15	3.5-4.5
2	16-20	5-6
3	21-25	6.5-7.5
4	26-30	8-9
5	>30	>9

Variable Ascent Rate Indicator

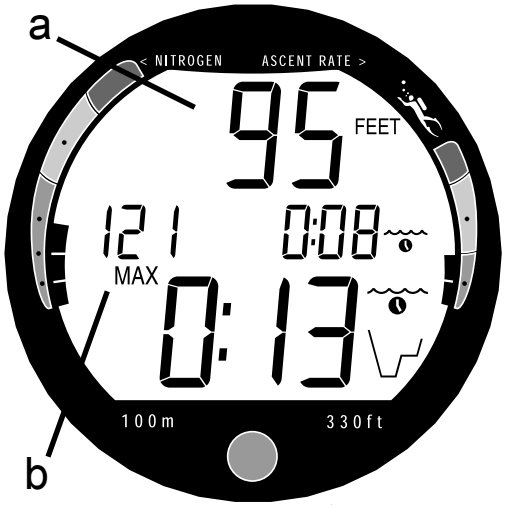

Fig. 3 - Depth Displays

INFORMATIONAL DISPLAYS

Each numeric and graphic display represents a unique piece 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.

Depth Displays

- During a dive, the **Current Depth** display (Fig. 3a), indicates depths from 0 to 330 feet (99.9 meters) in 1 foot (.1 meter) increments.
- By pressing the Button, the **Maximum Depth** reached during that dive will also be displayed (Fig. 3b).
- During a Decompression Dive, the required **Ceiling Stop Depth** is displayed in place of Maximum Depth which can be viewed by pressing the Button.

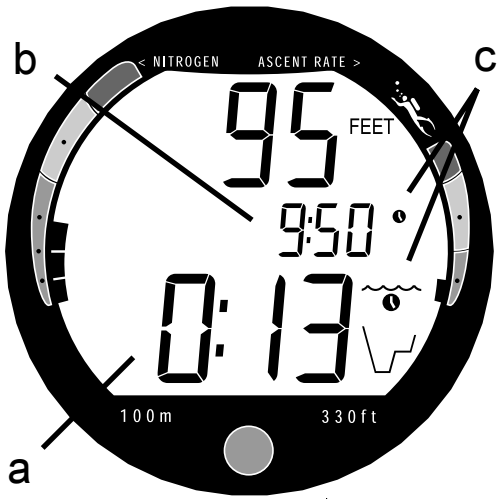

Fig. 4 - Time Displays

Time Displays

- The **Main Time** display located in the lower portion of the screen (Fig. 4a) is configured with large segments.
- A **Secondary Time display** is located in the center/right portion of the display (Fig. 4b).
- Both displays are identified by clock icons (Fig. 4c).

Time displays are shown in hour:minute format (i.e., 1:45 represents one hour and forty five minutes, not 145 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).

POWER SUPPLY

The Versa utilizes one (1) type CR 2450 Lithium 3 volt cell that should provide 300 hours of continuous, or 50 activation periods, of operation. If you conduct 1 dive each time the unit is activated, you should obtain approximately 50 dives. If you conduct 3 dives each time the unit is activated, you should obtain approximately 150 dives.

Low Battery Condition

Voltage level is checked upon activation and every 10 minutes during operation.

- If a Low Battery Condition exists when the unit is activated, it will perform a diagnostic check then the Battery icon will flash once per second for 5 seconds (Fig. 5) followed by shutdown of the unit.
- If the button is not pressed to activate the unit prior to a dive, and a Low Battery Condition exists, the Low Battery icon will appear flashing as a warning upon descent past 5 feet (1.5 m). No other information will be displayed.
- If the unit did not display the Low Battery icon 'prior to' entering the Dive Mode, and a Low Battery Condition occurs during the dive, the Low Battery icon appears after the dive when the unit enters Surface Mode. There will be sufficient battery power to maintain unit operation for the remainder of 'that dive'.

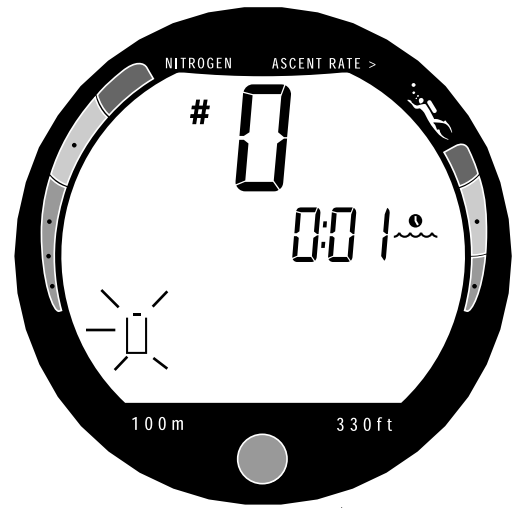

Fig. 5 - Low Battery Condition

LCD DISPLAY

a. Tissue Loading Bar Graph
b. Variable Ascent Rate Indicator
c. Icon - Low Battery Condition
d. Icon - Maximum Depth
e. Icon - Decompression Ceiling
f. Icon - Log Mode
g. Icon - Dive Number
h. Icon - Depth
i. Icon - Time
j. Icon - Operating Mode
k. Operating Button

WARNING: Prior to diving with the Versa, 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.

ACTIVATION and SETUP

ACTIVATION

To Activate the Versa press and release the Button.

Backup Activation (only if Water Activation is set ON)

As a backup, the Versa will also automatically activate by water contact. This is accomplished by bridging the gap between contacts located on the Button stem and back of the case. The graphic H2O that will be displayed as an indication is described later.

- Upon activation, the unit will enter Diagnostic Mode (Fig. 6), displaying all segments of the LCD (as 8's), followed by dashes (- -), then a countdown from 9 to 0. Diagnostic Mode checks the display functions and battery voltage to ensure that everything is within tolerance and functioning properly.
- After manual activation, it will also check the ambient barometric pressure, and calibrate its present depth as zero. At elevations of 2,000 feet (610 m) or higher, it will recalibrate itself to measure depth in feet of fresh water instead of feet of sea water.

Fig. 6 - Diagnostic Mode

WARNING: If the unit is activated at elevations higher than 14,000 feet (4,267 meters), it will perform a diagnostic check followed by immediate shutdown.

If no dive is made within 2 hours after initial activation, the unit will automatically deactivate. If the wet contacts are still bridged, the unit will reactivate and display the H2O graphic.

SURFACE SEQUENCE

Immediately after completing its' Diagnostic check, the Versa will automatically scroll through the following Sequence –

- Time of Day (displayed for 3 seconds), then -
- Surface Mode (displayed for 3 seconds), then -
- Time to Fly (displayed for 3 seconds only after a dive is made, see page 31), then -
- Pre Dive Planning Sequence (each depth/time is displayed for 3 seconds), then -
- The Surface Sequence repeats for 2 hours, or until a dive is made.
- Log and Set Modes can be accessed during the Surface Sequence with the Control Button. This is described later.

Fig. 7 - Time of Day then Surface Mode

Time of Day and Surface Mode (Fig. 7)

Displayed are -

- Dive Number ('0' if no dive made yet)
- Time of Day (for 3 seconds), then -
- Elapsed Surface Time (with flashing colon) and icon (for 3 seconds)
- Tissue Loading Bar Graph (only after a dive is made)

Fig. 8 - Surface Mode (rinse and dry the Versa)

NOTE: If the wet contacts are bridged, the graphic 'H2O' will appear in place of the dive number '0' (Fig. 8). After the unit is rinsed and dried, '0' will replace 'H2O'.

Depth feet (meters)	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	(:42)
80 (24)	:30	(:32)
90 (27)	:24	(:25)
100 (30)	:19	(:20)
110 (33)	:15	(:16)
120 (36)	:13	(:13)
130 (39)	:10	(:11)
140 (42)	:09	(:09)
150 (45)	:08	(:08)
160 (48)	:07	(:07)

No Decompression Limits
(no dive made yet)

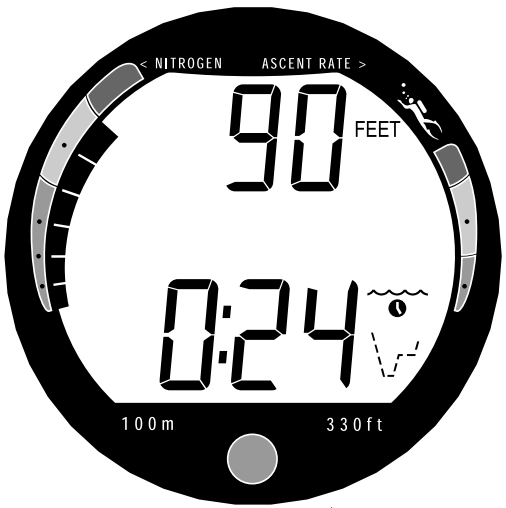

Fig. 9 - Pre Dive Planning Sequence

Pre Dive Planning Sequence (PDPS) (Fig. 9)

The PDPS provides a sequence of theoretical dive times available for depths ranging from 30 feet (9 meters) to 160 feet (48 meters) in 10 foot (3 meter) increments.

No decompression times 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 120 feet (36 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 breathing gas consumption you may have less time available than indicated because of breathing gas quantity 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.

You can set:

- Units of Measure (Imperial or Metric)
- Hour Format (12 or 24)
- Time of Day (Hour and Minute)
- Water Activation (On or Off)

- External Access (this is for factory use only)

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 SET FEET (or M) appears with FEET (or M) flashing.

- **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 (Fig. 10) -

- Press the Button momentarily and release to toggle between FEET and M.

- Press and Hold the Button for 2 seconds to save the setting, release when Hr and 12 (or 24) appear with 12 (or 24) flashing.

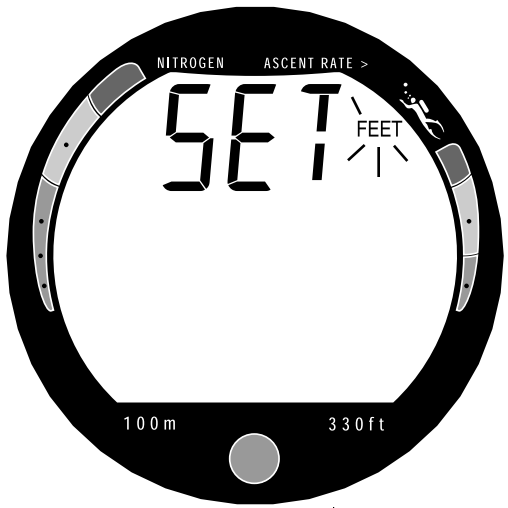

Fig. 10 - Set Units of Measure

Fig. 11 - Set Hour Format

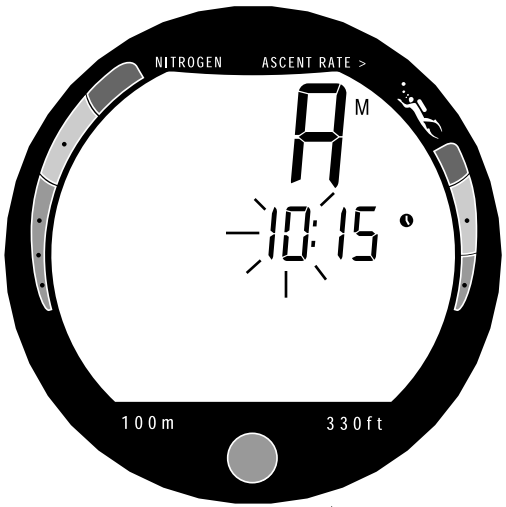

Fig. 12 - Set Time of Day

To change the setting for Hour Format (Fig. 11) -

- 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.

To change the setting for Time of Day (Fig. 12) -

- 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.

- Press and Hold the Button for 2 seconds to save the setting, release when ACT, H2O, and ON (or OFF) appear with ON (or OFF) flashing.

To change the setting for Water Activation (Fig. 13) -

- 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 Am (or Pm) and the Time of Day appear with the colon flashing.

- During the 4 seconds, EA will appear (Fig. 14) and be bypassed.

NOTE: EA signifies External Access Mode which is used only by the factory for calibration and testing of the module. It does not have any user related function.

Fig. 13 - Set Water Activation

Fig. 14 - EA Mode

SUMMARY OF SET MODES

To access Set Mode from the Surface Sequence, press the Button for 2 seconds.

To set Units of Measure - press and release the button to toggle between FEET/METERS.

- To save the setting - press the button for 2 seconds.

To set Hour Format - press and release the button to toggle between ON/OFF.

- To save the setting - press the button for 2 seconds.

To set Hour - press and release the button until the correct value appears.

- To save the setting - press the button for 2 seconds.

To set Minutes - press and release the button until the correct value appears.

- To save the setting - press the button for 2 seconds.

To set Water Activation - press and release the button to toggle between ON/OFF.

- To save the setting and return to Surface Sequence - press the button for 4 seconds.

WARNING: Prior to diving with the Versa, 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.

DIVE MODES

Fig. 15 - Bar Graphs

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. 15a). 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. 15b). 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. 16) until your ascent rate is slowed.

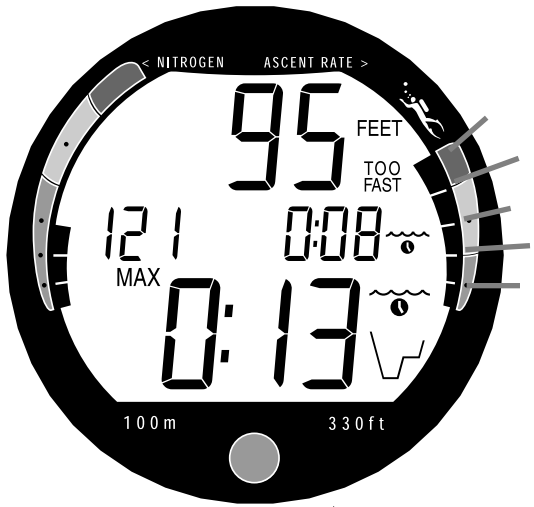

Fig. 16 - Ascent Too Fast

CONTROL OF DISPLAYS

During dive modes, 3 displays of information are available. The diver can change from one display to another as often as desired by pressing and releasing the Button.

During No Decompression conditions, the diver can choose how much information is displayed at a given time. The display chosen will remain until the diver presses the Button to change it.

During conditions in which cautionary type information is displayed (e.g., Decompression, etc.), there is a Main Display of important information relevant to the specific condition. The diver can access another display, but it will automatically revert to the Main Display after 3 seconds.

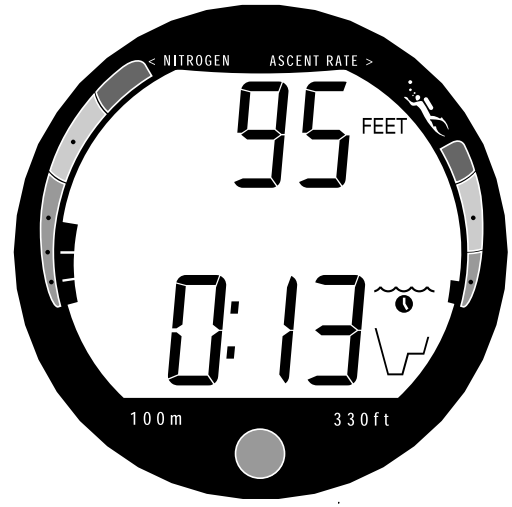

Fig. 17 - No Deco #1

NO DECOMPRESSION DIVE MODE

The Versa will enter the No Decompression Dive Mode when you descend deeper than 5 feet (1.5 meters).

No Decompression Dive Mode - Display #1 (Fig. 17)

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

- press and release the Button to view Display #2.

No Decompression Dive Mode - Display #2 (Fig. 18)

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

- press and release the Button to view Display #3.

Fig. 18 - No Deco #2

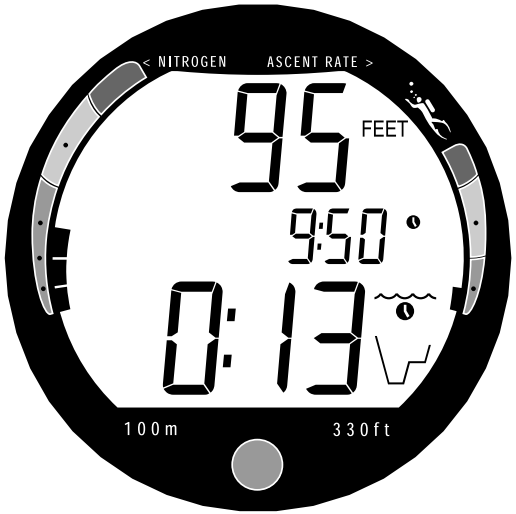

Fig. 19 - No Deco #3

No Decompression Dive Mode - Display #3 (Fig. 19)

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

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

DECOMPRESSION DIVE MODE

The Versa 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.

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. 20a) and decompress for the Stop Time indicated (Fig. 20b).

Fig. 20 - Entry into Decompression

- 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 #1 (Fig. 21)
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.

Fig. 21 - Deco #1 (Main)

Information includes -

- Current Depth.
- Required Ceiling Stop Depth/Time.
- Total Ascent Time (Fig. 21a) - which includes Stop Times required at all ceilings and vertical Ascent Time calculated at 60 feet (18 meters) per minute at depths greater than 60 feet (18 meters) and 30 feet (9 meters) per minute at depths of 60 feet (18 meters) and shallower.
- Applicable Bar Graphs.
- While within 10 feet (3 meters) of, and below, the Stop Depth, both Arrows and the Bar appear solid.
- Press the Button to view Display #2.

Decompression Dive Mode - Display #2 (Fig. 22)
Information includes - Maximum Depth for that dive (and icon), Elapsed Dive Time (and icon), Total Ascent Time, and the applicable bar graphs.

- Press the Button to view Display #3.

Fig. 22 - Deco #2

Decompression Dive Mode - Display #3 (Fig. 23)
Information includes - Current Depth, Time of Day, Total Ascent Time, and the applicable Bar Graphs.

- Press the Button to view Display #1.

NOTE: While in Decompression Mode, the Versa will automatically revert to the Main Display (#1) after 3 seconds unless the Button is pressed to view another display of information.

Fig. 23 - Deco #3

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

- While in Violation Modes, the Alternate Displays previously described can be accessed using the Button.

NOTE: While in Violation Modes, the Versa will automatically revert to the Main Display after 3 seconds unless the Button is pressed to view another display.

Conditional Violation Mode

The Versa will enter the Conditional Violation Mode **if you ascend to a depth shallower (Fig. 23a) than the Required Decompression Ceiling** Stop Depth displayed (Fig. 24b).

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 Versa 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.

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 the Versa will revert to the No Decompression Dive Mode.

Fig. 24 - Conditional Violation

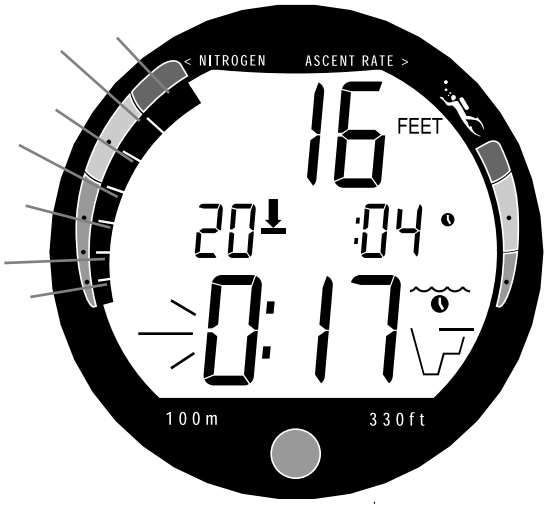

Fig. 25 - Delayed Violation #1

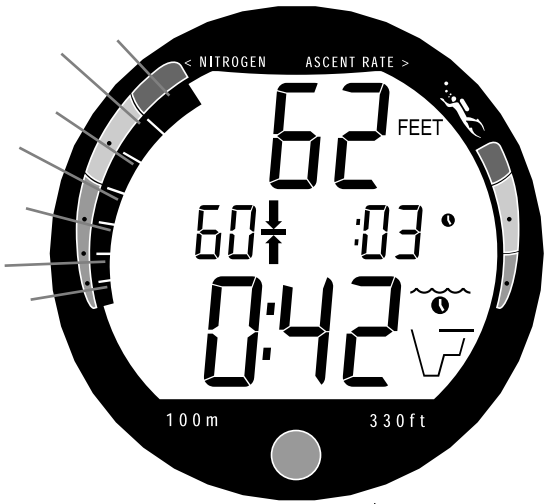

Fig. 26 - Delayed Violation #2

Delayed Violation Mode #1 (Fig. 25)
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.

Delayed Violation Mode #2 (Fig. 26)
The Versa cannot calculate decompression times for Stop Depths much greater than 60FT (18M) 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. 27)

If you descend deeper than 330 feet (99.5 meters), 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), 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.

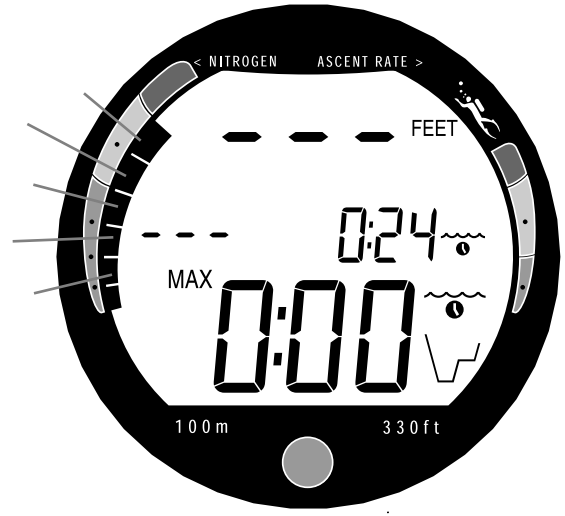

Fig. 27 - Delayed Violation #3

Immediate Violation Mode and Gauge Mode

During a Dive, if a ceiling much greater than 60FT (18M) is required, an **Immediate Violation Mode** will be entered. This situation would be preceded by entering Delayed Violation Mode #2, previously described. The Versa would then operate with limited functions in **Gauge Mode** during the remainder of that dive and for 24 hours after surfacing.

Gauge Mode turns the Versa into a digital instrument without any decompression or oxygen monitoring functions. Only Current Depth, Max Depth, Elapsed Dive Time, and the Variable Ascent Rate Indicator will be displayed (Fig. 28). The full Tissue Loading Bar Graph will flash as a warning of this condition.

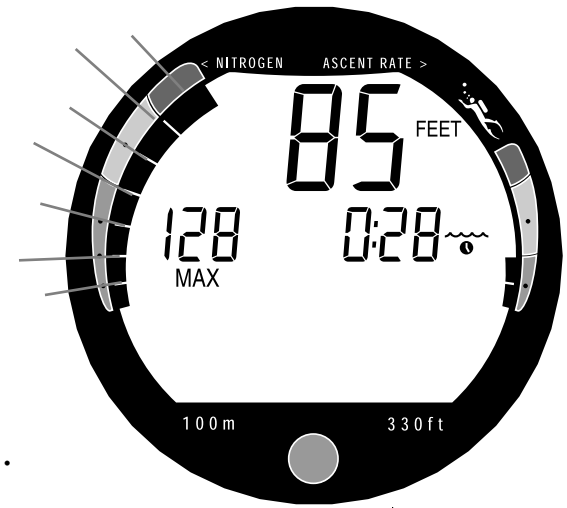

Fig. 28 - Gauge Mode (during a dive)

- Alternate displays are not available while in Gauge Mode.

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

On the surface, **Gauge Mode** displays the Dive Number, Surface Interval, and the full Tissue Loading Bar Graph flashing (Fig. 29). 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 Versa 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.

Fig. 29 - Gauge Mode (after surfacing)

Be a RESPONSIBLE DIVER at all times.

WARNING: Prior to diving with the Versa, 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. 30 - Transition Period

POST DIVE SURFACE MODE

When you ascend to 3 feet (1 m) 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. 30):

- 'Number' of that dive (during that activation period)
- 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 accessible.

Fig. 31 - Log Mode

To view that dive's Log

Refer to page 33 for a description of the Log Mode displays.

- Press the Button to view the first display (Fig. 31).
- Press the Button again to view the Nitrogen 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.

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. The time at the surface (if less than 10 minutes) 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 Time of Day/Surface Mode/Time to Fly/Pre Dive Planning Sequence. You will have full access to Log Mode and Set Mode.

Time to Fly

The Time to Fly Countdown Timer begins counting down 10 minutes after surfacing from a dive (after the Transition Period) displaying the word 'FLY' and a countdown that begins at 23:50 (Fig. 32) and counts down to 0:00 (hr:min).

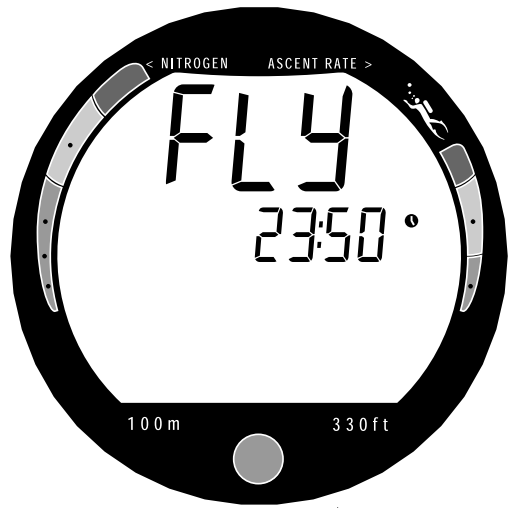

Fig. 32 - Time to Fly

Fig. 33 - Fly Mode
(after a Violation)

- If a violation occurred during the dive a single dash (-) will appear instead of the letters FLY (Fig. 33).

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.

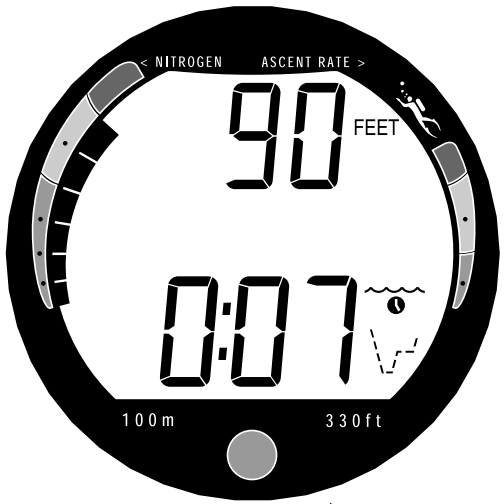

Fig. 34 - Adjusted NDLs

Pre Dive Planning Sequence (PDPS)

After a dive, the PDPS provides 'adjusted' No Decompression Limits (Fig. 34) based on residual nitrogen calculated to be remaining from the previous dives.

Log Mode

Information from up to 9 dives is stored in the **Log** for viewing. 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. The first dive conducted after each Activation 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 of the dives stored. The most recent dive will always be the first shown in the sequence. Each dive has 2 Log screens - Dive Number/ Time of Day started and Dive Data. Log data will not be lost when the battery is removed/replaced, however, factory service and calibration will delete the data.

To access Log Mode (Fig. 35) -

- Press the Button momentarily while the unit is scrolling through the Surface Sequence.
- The first screen of the most recent dive conducted will appear displaying -
  - Log Mode icon
  - Dive Number (for that activation period)
  - Time of Day (that the dive started)

- Press the Button momentarily to view the Second Screen.

- To return to the Surface Sequence at any time while in Log Mode, press the Button for 4 seconds, releasing it when the current Time of Day 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. 35 - Log Mode

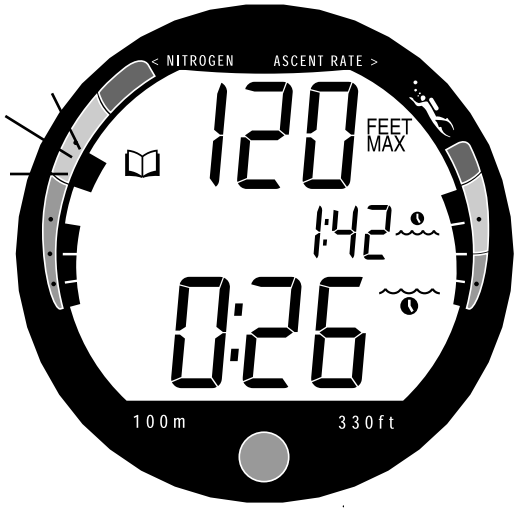

Fig. 36 - Log Dive Data

Dive Data (the second screen) includes (Fig. 36) -

- Log Mode icon
- Maximum Depth - reached 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.

Fig. 37 - Time to Fly Countdown

AFTER THE FIRST 2 HOURS

Two hours after the last dive the Surface Sequence will no longer be displayed. The Time to Fly countdown (Fig. 37) will be displayed continuously until it counts down to 0:00 (hr:min) or another dive is made.

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 countdown after 2 hours, if the Button is not pressed.

WARNING: Prior to diving with the Versa, 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.

DO NOT attempt to change the Battery during the first 10 minutes after surfacing from a dive. Doing so will result in loss of calculated data for repetitive dives.

GENERAL

Fig. 38 - Activation Contacts Wet

Fig. 39 - Activation Contacts Dried

WET CONTACTS

If the graphic **H2O** appears during the Fly Mode countdown (Fig. 38), it is an indication that the water activation contacts are bridged (still wet) and the unit must be rinsed in fresh water and thoroughly dried.

- Once the unit is dry, the graphic **H2O** will disappear from the display (Fig. 39).

- If the unit is not cleaned and dried prior to the countdown reaching 0:00 (hr:min), or making another dive, it will shut off then automatically reactivate. The graphic H2O would then appear in place of Dive Number when Surface Mode is displayed during the scrolling Surface Sequence. If no dive is made, the unit would shut off after 2 hours, then automatically reactivate again, repeating the action until cleaned and dried.

CARE AND CLEANING

Protect your Versa from shock, excessive temperatures such as the trunk of a car during a hot day, chemical attack, and tampering. Protect the lens against scratches with a transparent Instrument Lens Protector. Small scratches will naturally disappear underwater.

Soak and rinse the Versa 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. 40a) and button are free of debris or obstructions. To dissolve salt crystals, use luke-warm water or a slightly acidic white vinegar/water bath. After removal from the bath, place the unit under gently running water and towel dry before storing. Transport your unit cool, dry, and protected.

INSPECTIONS AND SERVICE

Your Versa 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 terms of the 2 year limited warranty.

It is possible to damage the depth sensor of the Versa if it is not pressure tested properly. Ensure that your Versa is never pressure tested unless completely immersed in water.

Fig. 40 -Depth Sensor

To Obtain Service

Take you Versa to an Authorized Oceanic Dealer or send it to the nearest Oceanic Regional Distributor (page 48).

To return your Versa to Oceanic:

- Record all dive data in the Log and/or download the data in memory. All data will be erased when it receives factory service.
- Package it using a protective cushioning material.
- Include a legible note stating 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 Service Facility, or to Oceanic.
- Prior to returning the Versa to the factory, obtain an Return Authorization (RA) number from Customer Service.
- Non-warranty service must also be prepaid (call for an estimate). COD is not accepted.
- If you have any questions regarding service, call Oceanic Customer Service at (510) 562-0500, Monday - Friday, 8 to 5 PST, or E-mail service@oceanicusa.com.

⚠ **WARNING: If a Low Battery Condition is indicated prior to a dive, DO NOT attempt to dive with the Versa until the battery is replaced.**

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.

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).

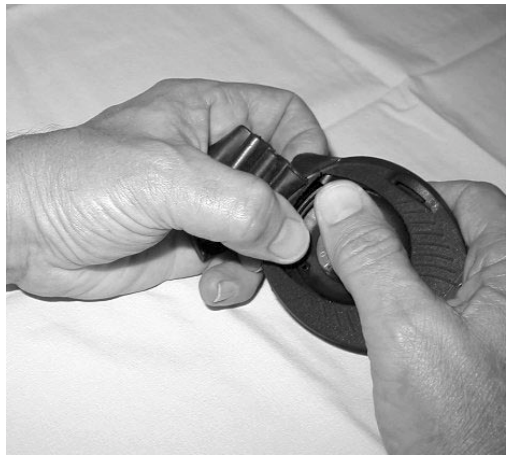

Fig. 41 - Removal from Boot

Module Removal from Boot

- DO NOT use tools or lubricants. Doing so could damage the module or boot.
- Use care not to drop the module when it dislodges from the boot.
- Turn the unit over so the back is facing you.
- Using the fingers of your left hand, lift and pull the top (upper/front portion) of the Boot back toward you while simultaneously pressing the top (upper/right portion) of the module away with your right thumb (Fig. 41).
- Press firmly until the upper/right tab of the module slides of the retaining lip inside the boot.
- Repeat for the left side and the module will dislodge from the Boot (Fig. 42).

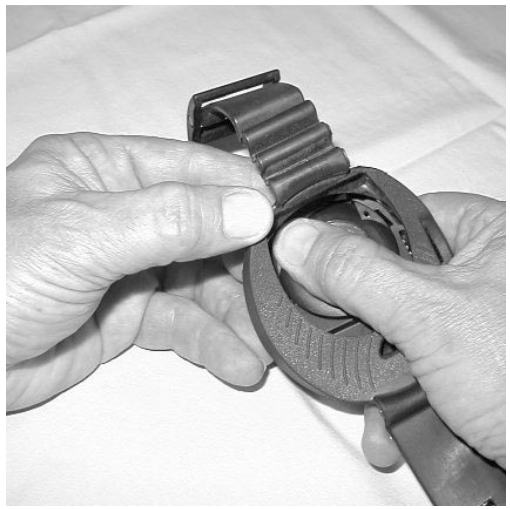

Fig. 42 - Module Removal

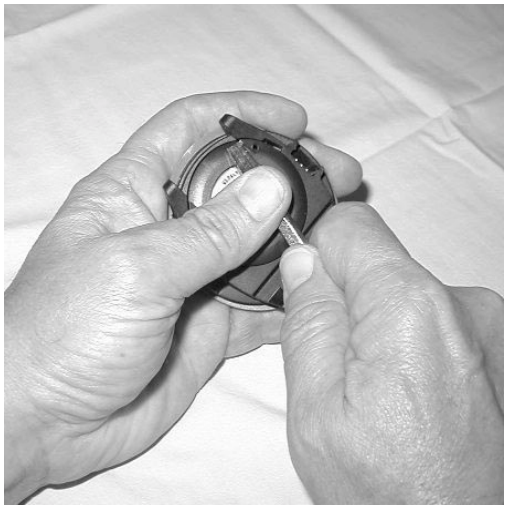

Fig. 43 -Ring Removal

NOTE: The procedures that follow must be closely adhered to. Damage due to improper battery replacement is not covered by the VERSA's 2 year warranty.

Battery Hatch Removal

- Inspect the Button, Lens, and Housing to ensure they are not cracked or damaged.
- If there is any sign of moisture in the module, DO NOT use the Versa until it receives proper service by an Authorized Oceanic Dealer, or the Oceanic factory.
- Locate the Battery Compartment on the back of the Housing.
- While applying steady inward pressure on the Battery Hatch, rotate the Hatch Ring clockwise 10 degrees by pressing on the upper/right arm of the Ring with a small blade screwdriver (Fig. 43).

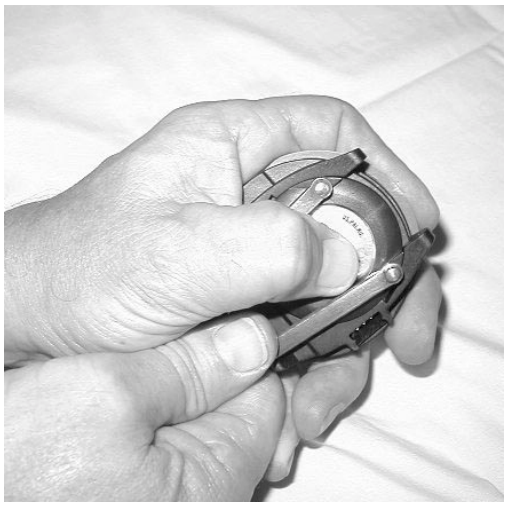

Fig. 44 -Ring Removal (alternate)

NOTE: If available, an adjustable face spanner tool or a pair of pointed pliers can be used instead of the screwdriver by inserting the tips of the tool in the small holes in the Ring (Fig. 44).

- Lift the Hatch Ring up and away from the Housing.
- Remove the clear Battery Hatch.

Battery Removal

- Remove the Retaining Bar located across the lower portion of the Battery (Fig. 45a).
- Remove the Hatch O-ring. DO NOT use tools
- Using care not to damage the Battery Contacts (Fig. 45 b/c), slide the Battery up and out of the right side of the Battery Compartment.

CAUTION: A metal object (tool) should NOT be used to pry the Battery from the Battery Compartment.

Inspection

- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.
- If it is necessary to clean the Battery Compartment, flush the 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, moisture, or corrosion is found, it is recommended that you return your Versa to an Authorized Oceanic Dealer, and DO NOT attempt to use it until it has received factory prescribed service.

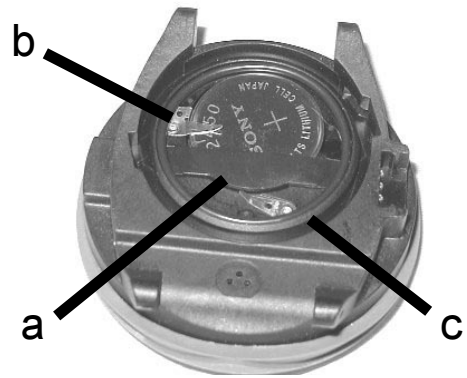

Fig. 45 - Battery Compartment

Fig. 46 - Battery Installation

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.
- Orient the Retaining Bar across the lower portion of the Battery and carefully push it down into position (Fig. 46).

Battery Hatch and Hatch Ring Installation

- Replace the Hatch O-ring with new. This 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.
- Lightly lubricate the **new** Hatch O-ring with silicone grease and place it on the inner rim of the Battery Hatch. Ensure that it is evenly seated.
- Slide the Hatch Ring, top portion first (small opening), onto your thumb (Fig. 47).
- Carefully place the clear 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 Hatch Ring down off your thumb and into position around the Battery Compartment.

Fig. 47 - Hatch Installation

- The tabs on the Ring fit down into the slots located at the 2 and 9 o'clock positions (Fig. 48).
- Using your fingers, turn the Ring counter clockwise 5 degrees until the tabs engage, then tighten it 5 more degrees by turning it counter clockwise with the aide of a small blade screwdriver, pressing against the upper/left arm of the Ring (Fig. 49).

Fig. 48 - Orientation of Hatch Ring

NOTE: If available, an adjustable face spanner tool or pair of pointed pliers can be used by placing the tips in the small holes of the Ring (Fig. 50).

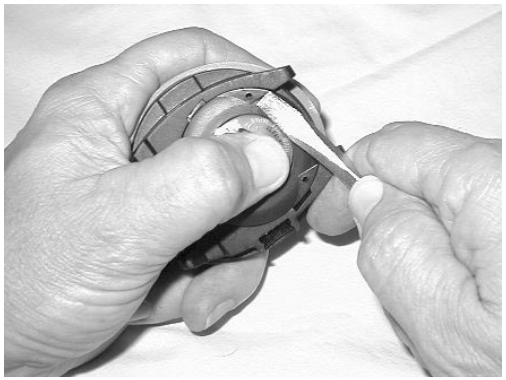

Fig. 49 - Ring Installation

Inspection

- Activate the Versa 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 Versa to an Authorized Oceanic Dealer for a complete evaluation before attempting to use it.

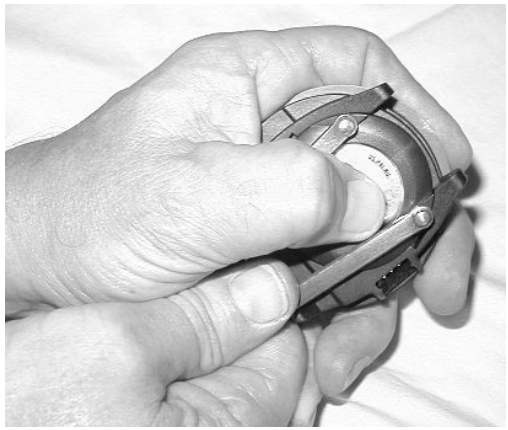

Fig. 50 - Ring Installation (alternate)

Fig. 51 - Lower Portion of Module

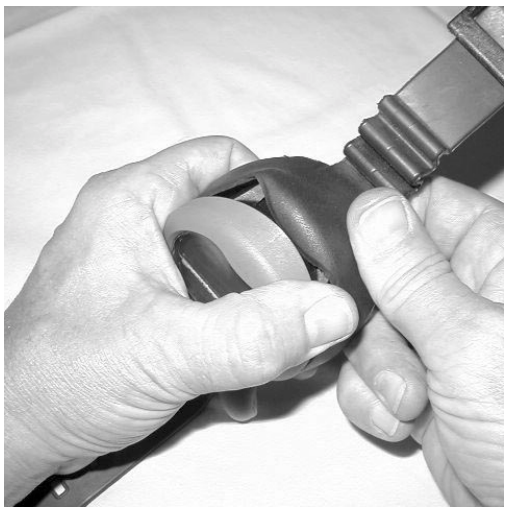

Fig. 52 - Upper Portion of Module

Installing the Module into a Boot

- DO NOT use tools or lubricants, doing so could damage the module or boot.
- Hold the Module over the Boot (both facing you).
- Slide the lower/front portion of the Module down into the cavity of the Boot (Fig. 51).
- Place the fingers of your left hand inside the upper/back portion of the Boot.
- Carefully stretch and pull the top (upper/front portion) of the Boot upward and toward you while simultaneously pressing the top (upper/right portion) of the Module into the Boot (Fig. 52).
- Press firmly until the upper/right arm of the Module slides over the retaining lip inside the Boot.
- Repeat for the left side.
- Ensure that the edges of the Boot (front and back) are not curled and the pressure sensor opening is clear.

SPECIFICATIONS

NO DECOMPRESSION MODEL

Basis:

- Modified Haldanean Algorithm
- 12 tissue compartments

Data Base:

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

Performance:

- Tissue compartment halftimes (mins.) 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:

- Decompression stop ceilings at 10, 20, 30, 40, 50, & 60 ft (3, 6, 9, 12, 15, & 18 m)

Altitude Algorithm:

- Based on NOAA tables

OPERATIONAL MODES

- Activation/Diagnostic
- Surface Sequence:
  - Time of Day
  - Surface Mode
  - Time to Fly Countdown
  - Pre Dive Planning Sequence
- Dive Log (Start Time, Dive Data)

OPERATIONAL MODES (continued)

- Set Mode:
  - Units of Measure (Imperial / Metric)
  - Hour Format (12 / 24)
  - Time (Hour, Minute)
  - Water Activation (On / Off)
  - External Access (EA) Mode (for factory use only)

- No Decompression Dive:
  - #1 (Current Depth, Dive Time Remaining, Bar Graphs)
  - #2 (#1 plus Max Depth, Elapsed Dive Time)
  - #3 (#1 plus Time of Day)
- Decompression Dive:
  - #1 - Main (Current Depth, Stop Depth / Time, Total Ascent Time, BGs)
  - #2 (Max Depth, Elapsed Dive Time, Total Ascent Time, BGs)
  - #3 (#1 plus Time of Day)
- Violation (Conditional, Delayed, & Immediate/Gauge)

SPECIFICATIONS (CONTINUED)

DISPLAY RANGE/RESOLUTION

Numeric Displays:	Range:	Resolution:
• Dive Number	0 - 9	1
• Depth	0 - 330 ft (0 - 99.9 m)	1 ft (.1 m)
• Max Depth	330 ft (99.9 m)	1 ft (.1 m)
• Dive Time Remaining	0:00 - 9:59 hr:min	1 minute
• Total Ascent Time	0:00 - 9:59 hr:min	1 minute
• Decompression Stop Time	0:00 - 9:59 hr:min	1 minute
• Elapsed Dive Time	0:00 - 9:59 hr:min	1 minute
• Surface Time	0:00 - 23:59 hr:min	1 minute
• Dive Log Surface Interval	0:00 - 23:59 hr:min	1 minute

Numeric Displays:	Range:	Resolution:
• Time to Fly	23:50 - 0:00 hr:min* (*starting 10 min after the dive)	1 minute

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

BAR GRAPHS

Tissue Loading Bar Graph:	segments
• No Decompression zone (green)	5
• No Deco Caution zone (yellow)	2
• Decompression Warning zone (red)	1

SPECIFICATIONS (CONTINUED)

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 - 15	3.5 - 4.5	1	21 - 30	6.5 - 9
• Normal Zone (Green)	2	16 - 20	5 - 6	2	31 - 40	9.5 - 12
• Normal Zone (Green)	3	21 - 25	6.5 - 7.5	3	41 - 50	12.5 - 15
• Caution Zone (Yellow)	4	26 - 30	8 - 9	4	51 - 60	15.5 - 18
• Too Fast Zone (Red - flashing)	5	> 30	> 9	5	> 60	> 18

OPERATIONAL PERFORMANCE

Function:	Accuracy:
• Depth	±1% of full scale
• Timers	1 second per day

Dive Counter:
- Displays Dives #1 to 9, 0 if no dive made yet
- Resets to Dive #1, upon diving (after 24 hours')

Dive Log Mode:
- Stores 9 most recent dives in memory for viewing
- After 9 dives, adds 10th dive in memory and deletes the first dive

Altitude:
- Operational from sea level to 14,000 feet (4,267 meters) elevation
- Compensates for altitude only if manually activated at that altitude (no compensation if activated by immersion in water)
- Recalibration of depth readings from 'feet of sea water' to 'feet of fresh water' when manually activated at elevations greater higher than 2,000 feet (610 meters) elevation

SPECIFICATIONS (CONTINUED)

OPERATIONAL PERFORMANCE (continued)

Power:

• Battery	1 - 3 vdc, type 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 dive hours (if 3 - 1 hour dives per dive day)

Activation:

- Manual - push button (recommended)
- Automatic - by immersion in water (as a backup if set ON)
- H2O graphic indicates Wet Contacts are bridged (must be dried prior to transport or storage).
- Cannot be activated at elevations higher than 14,000 ft (4,267 m)
- Cannot be manually activated below 4 feet (1 m), if the Water Activation feature is set OFF.

Shutoff:

- Automatically shuts off if no dive is made within 2 hour after manual activation. Reactivation required.
- Automatically shuts off 24 hours after last dive (will reactivate if the H2O graphic is displayed).
- Cannot be shut off manually.

ACCESSORIES

Optional items available from your Authorized Oceanic Dealer:

- Lens Protector (computer module) - adheres to lens face, prevents scratches
- Battery Kit - includes 1 battery, 1 battery hatch o-ring, silicone grease

OCEANIC AFFILIATES/REGIONAL DISTRIBUTORS

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

Oceanic South Europe - Genova, Italy
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E-mail: info@oceanicuk.com

Oceanic France - Marseille, France
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E-mail: oceanicfrance@wanadoo.fr

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E-mail: oceanichi@oceanicusa.com

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E-mail: sales@oceanicaus.com.au

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

Oceanic Japan - Yokohama, Japan
Tel: 045-575-6671 Fax: 045-575-6673
E-mail: oceanic@gol.com

SERVICE RECORD

Serial Number _____

Date of purchase _____

Purchased from _____

Below to be filled in by an Authorized Oceanic Dealer:

Date	Service Performed	Dealer / Technician

versa

OCEANIC worldwide

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Web: http://www.OceanicWorldWide.com

Doc.no.12-2281-r03 7/10/01

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