



DataMax Sport

owner's guide
(model DRB)

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DataMax Sport Owners Guide, Doc. No. 12-1868

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LIMITED TWO-YEAR WARRANTY

Oceanic guarantees, to the original purchaser only, that the DataMax Sport will be free of defects in materials and/or craftsmanship under normal scuba use for two years from date of purchase, provided proper care and annual service are performed as described beginning on page 39 of this owner's guide. Should your DataMax Sport prove to be defective for any reason (other than those listed in the limitations section below) it will be repaired or replaced (at Oceanic's discretion) free of charge excluding shipping and handling charges. This warranty shall be considered void if the registration card is not filled out completely and mailed to Oceanic within 30 days of purchase, and/or if the annual inspection is not done according to this owner's guide. This warranty is non-transferrable and applies to the original purchaser only. **All correspondence concerning this warranty must be accompanied by a copy of the original sales receipt** and a copy of the owner's portion of the warranty registration card including the annual inspection record.

Maintaining warranty with annual Dealer Inspections

Once each year you must return the DataMax Sport to an Authorized Oceanic Dealer within 30 days of the original purchase date anniversary to keep the two year limited warranty in force. Annual inspection includes verification of depth accuracy and proper general function. Labor charges for the annual inspection are not covered by the warranty. You must provide a copy of the original sales receipt and a copy of the owner's portion of the warranty registration card including the annual service record to obtain warranty service. If you try to obtain warranty service for your DataMax Sport but have not sent in the registration within 30 days of purchase date, you will be charged a twenty-five dollar late registration processing fee to reinstate the warranty. **This charge can be avoided by mailing the registration card immediately after purchase.**

STATEMENT OF LIMITATIONS

General

Warranty does not cover damage from accident, abuse, battery leakage, tampering, lack of proper care and maintenance and/or proper annual servicing. Modifications or repair by anyone other than an Oceanic Sales & Service Center authorized to service the DataMax Sport will void the warranty. Oceanic will not be responsible for recovery or replacement of the product in the event of loss or theft. Oceanic, its distributors, and retailers make no warranties, either expressed or implied, with respect to this product or its owner's guide except those stated in the preceding paragraphs. By purchasing this product you agree and understand that in no event will Oceanic, its distributors or retailers, be held liable for any personal injuries resulting from its operation, or for any other damages whether direct, indirect, incidental, or consequential even if Oceanic is advised of such damages.

Some states do not allow the exclusion or limitation of implied warranties or liabilities for incidental or consequential damages, so the above limitation may not apply to you.

Instrument

Warranty does not extend to plastic gauge face, rubber boot, high pressure hose, air spool and hose-end o-rings, batteries, hose fitting corrosion, chrome loss, or damage due to accident, abuse, modification, or tampering.

DECOMPRESSION MODEL

The programs within the DataMax Sport simulate the absorption of nitrogen into the body by using a mathematical model. This model is not magic, merely a way to apply a limited set of data to a large range of experiences. The DataMax Sport dive computer model is based upon the latest research and experiments in decompression theory. Still, using the DataMax Sport, 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, it even varies from day to day. No machine can predict how your body will react to a particular dive profile.

The DataMax Sport is intended for use by divers who have successfully completed a nationally recognized course in scuba diving. It must not be used by untrained persons who may not have knowledge of the potential risks and hazards of scuba diving. You must obtain proper training before using the DataMax Sport if you have not already done so. You also must read this owner's guide completely before diving with the DataMax Sport.

* The blank Oceanic DiveLog in the reference section may be duplicated for personal use only, not for resale.

OWNER'S GUIDE OVERVIEW

I. THE DATAMAX SPORT IS EASY TO USE

You'll see that just a quick glance at the "Sport" shows your total dive status. The green, yellow, and red Graphic Diver Interface makes understanding the DataMax Sport extremely simple.

II. DETAILED OPERATION GUIDE

Detailed information on every mode and display of the DataMax Sport is contained in this informative section.

III. HANDLING THE EXTREMES

Review this section carefully to learn how the DataMax Sport manages extreme situations like decompression and deep diving.

IV. CARE & MAINTENANCE

Keep your DataMax Sport in tip-top condition by following the procedures outlined for battery replacement, annual inspection, and other maintenance.

V. REFERENCE

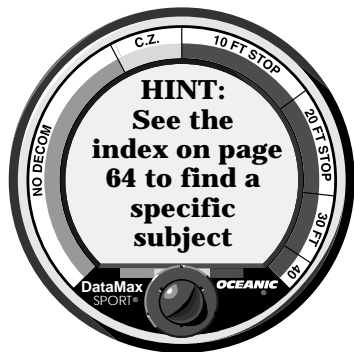
Decompression theory, specifications, a blank Oceanic DiveLog you can duplicate, glossary, and index; it's all in the reference section.



WARNING - As with all underwater life support equipment, improper use or misuse of this product can cause serious injury or death. Read and understand this owner's guide completely before diving.



Pay special attention to items marked with this symbol



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*THE
DATAMAX SPORT
IS EASY TO USE*



Fig. 1 – Surface Mode

INTRODUCTION

The DataMax Sport was designed to be extremely easy to use and understand. This owner's guide is divided into five sections designed to make it easy to learn how to use the "Sport." The first two sections will show you how it performs in most diving situations. Section three describes extreme condition performance such as deep or decompression diving. Sections four and five present care & maintenance procedures and reference material. Start here to begin learning about the DataMax Sport.

REGULATOR ATTACHMENT

If you have purchased the DataMax Sport in a console version, you will need to have it attached to your regulator by an Authorized Oceanic Dealer.

ACTIVATING THE DISPLAY

You can activate the DataMax Sport by pressing and releasing the button under its display (Fig. 1a). After a diagnostic check, it enters "Surface Mode."



WARNING - Be sure to inspect your DataMax Sport prior to every dive, checking for any signs of the entrance of moisture, damage to the button membrane, or damage to the LCD display. If these or other signs of damage are found, return the unit to an Authorized Oceanic Dealer or Oceanic Parts & Service. DO NOT attempt to use until it has received factory service.

PLANNING YOUR DIVE

Surface mode shows how many dives you have made, your depth, surface interval, and residual nitrogen. Once a minute, it alternates with another display called the “*Pre Dive Planning Sequence*” (Fig. 2). When planning your next dive, the Pre Dive Planning Sequence provides adjusted no-decompression limits based upon previous dives made. The PDPS shows depths from 30 to 160 feet in ten foot intervals and the available no-decompression time for each. This makes dive planning extremely simple because you know exactly how much time you can spend at each depth without making any table calculations.

MAKING A DIVE

Once you enter the water, the DataMax Sport changes to “*No-decompression Dive Mode*” (Fig. 3). This mode displays dive number, nitrogen loading, ascent rate and no-decompression (NDC) time remaining.

An “*Alternate Dive Mode*” replaces No-decompression Dive Mode every 15 seconds, displaying bottom time and maximum depth. The Alternate Dive Mode is displayed for three seconds before switching back to the NDC mode.

USING THE “GRAPHIC DIVER INTERFACE”

To make it easy to check your dive status on the DataMax Sport, a color-coded system of graphic displays is used. This “*Graphic Diver Interface*” is



Fig. 2 – Pre Dive Planning Sequence

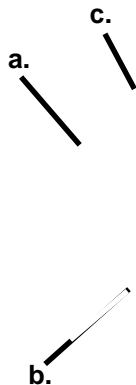


Fig. 3 – No-Decompression
Dive Mode

made up of two bar graphs that have green, yellow and red markers to indicate normal, caution, and danger zones, respectively. The two graphic displays represent ascent rate and nitrogen loading.

When underwater, you can make quick status checks by glancing at the two bar graphs and making sure that they are “***in the green.***” With one quick glance you can make sure you’re not getting too close to the no-decompression limit or ascending too fast.

ASCENDING TO THE SURFACE

A graphic representation of nitrogen absorption can be seen in the “*Tissue Loading Bar Graph*” (Fig 3a). This green, yellow, red bar graph shows how close you are to the no-decompression limit. It “fills-up” with segments as your depth and bottom time increase, simulating the absorption of nitrogen. Upon ascent to shallower depths, the Tissue Loading Bar Graph will begin to recede giving a visual representation of nitrogen off-gassing. The TLBG also provides a way to easily manage decompression by indicating four red “*ceiling*” depths. This is discussed fully in the “*Handling the Extremes*” section beginning page 26.

When rising towards the surface, the “*Variable Ascent Rate Indicator™*” (Fig. 3b) shows how fast you are ascending. The VARI will alert you with a flashing display if you enter the red zone, which represents ascent rates over 60 feet per minute. Immediately slow your ascent whenever this is seen.

If you have not entered decompression, a safety stop made between 15-20 feet is strongly recommended as a standard procedure before completing your ascent. Many divers do this to provide a wider zone of caution from the no-decompression limit. The Tissue Loading Bar Graph gives a visual representation of just how close you came to the no-decompression limit with a yellow “Caution Zone” (Fig. 3c). It provides a further visual indication of how close you are to decompression. This Caution Zone portion of the TLBG allows you to make a decision regarding safety stop duration or necessity. While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based on age, physique, excessive weight, etc., to reduce the statistical risk.

EMERGENCY DECOMPRESSION

If your depth or bottom time is such that the Tissue Loading Bar Graph enters the red zone, the DataMax Sport will switch to “Decompression Dive Mode” (Fig 4) At this point, the display will change the NDC indicator to DEC and the TLBG will indicate a decompression “ceiling” (Fig. 4a). You must stay below the ceiling depth indicated or risk decompression sickness. Decompression Time Remaining (Fig. 4b) will display the total time needed to fulfill the decompression requirement. You must stay at or a few feet below the TLBG indicated ceiling depth until the bar graph recedes into the yellow Caution Zone before ascending any further.



Fig. 4 – Decompression Dive Mode

PLANNING FOR THE NEXT DIVE

After reaching three feet upon ascent, the Surface Mode will display once again. It alternates with the Pre Dive Planning Sequence after ten minutes have elapsed. The Pre Dive Planning Sequence will show adjusted no-decompression limits based on the nitrogen absorbed during your last dive. The longer the surface interval, the more dive time available in the PDPS.

IT'S REALLY JUST THAT SIMPLE!

The DataMax Sport is designed to help you stay out of trouble with a minimum of effort reading the displays. The Graphic Diver Interface eliminates any confusion from looking at too many numbers. Just “*keep it in the green*” and you’ll greatly reduce your exposure to decompression sickness.



WARNING – Using the DataMax Sport, just as using the U.S. Navy (or other) No-decompression Tables, is no guarantee of avoiding decompression sickness, i.e. “the bends.”

OTHER SPECIAL FEATURES

The DataMax Sport also helps you log your dives, dive at high altitudes, and know when the minimum allowable surface time has elapsed to be able to fly, according to UHMS guidelines. These special features are described on the following pages.

LOGGING YOUR DIVES

Immediately after a dive, various information is stored in the DataMax Sport's memory that can be accessed in the "Dive Log Mode." Recalling this information gives you a chance to record it in your log book. Up to 9 dives are stored and can be accessed by pressing the activation button (Fig. 5a).

Dive Log Mode will automatically scroll through all dives for the most recent day of diving starting with the most recent dive first. The log displays dive number, maximum depth, bottom time, and maximum ascent rate. It also displays end-of-dive tissue loading (Fig. 5b). This is handy when making decisions about future dive plans.

ALTITUDE DIVING

The DataMax Sport automatically compensates for decreased ambient pressure when activated at high altitudes up to 14,000 feet. Its program contains a high altitude algorithm that reduces no-decompression limits to add a larger zone of caution. Whenever it is activated above 4,000 feet, it will automatically recalibrate itself to measure depth in feet of fresh water.

KNOWING WHEN TO FLY

Due to the present lack of a complete dataset derived from actual human testing, there are different recommendations cited by various scientific organizations for the amount of time a diver should wait before flying after

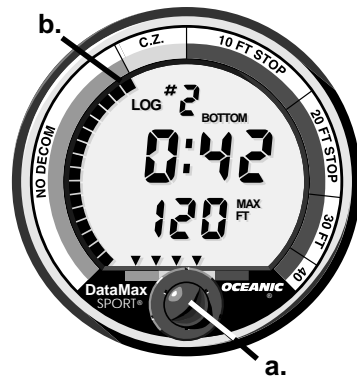


Fig. 5 – Dive Log Mode



Fig. 6 – Time-to-Fly Mode

diving. The DataMax Sport follows one of the more conservative of these, cited by Divers Alert Network (DAN); that divers wait at least twelve hours before flying in pressurized commercial aircraft, and at least 24 or more if making repetitive multi-day or decompression dives. The DataMax Sport easily tracks how much surface time has elapsed with the *Time to Fly* display.

The Time-to-Fly display (Fig. 6) begins a twenty hour countdown starting four hours after a dive. After the timer reaches zero, twenty-four hours have elapsed. You may choose when to fly according to the type of diving you have done, consulting your DataMax Sport to determine the amount of surface time that has elapsed. To learn more about flying after diving and DAN's guidelines, see page 22.

DETAILED OPERATIONS GUIDE

The next section describes the DataMax Sport's Operational Modes and Informational Displays in detail, describing exactly what you can expect to see above and under water. Refer to this section when you have specific questions about DataMax Sport operation.

*DETAILED
OPERATIONS
GUIDE*

OPERATIONAL MODES

The DataMax Sport operates in ten different modes. The visual difference between modes is quite evident depending on when you view the display. Even so, Mode Labels identify the various displays to eliminate confusion.

1. DIAGNOSTIC MODE/ACTIVATION

Diagnostic Mode is displayed immediately following activation. After pressing and releasing the activation button (Fig. 7a), Diagnostic Mode will display all “eights” followed by dashes, and then a countdown from 9 to 0. It will then enter Surface Mode signalling a successful diagnostic check. During the countdown, the Sport checks its display functions and battery voltage to ensure everything is working properly.



WARNING - Never activate the DataMax Sport if the computer is underwater. This may result in inaccurate depth and no-decompression time displays. Activation is not possible deeper than ten feet underwater.



a.

Fig. 7 - Diagnostic Mode

If two hours elapse after activation without making a dive, the Sport will deactivate to save battery power. **Be sure to check your computer before entering the water to ensure it doesn't need reactivation.**

During Diagnostic Mode, the DataMax Sport measures its own battery voltage level. If there is not enough battery power to complete a day of diving, the DataMax Sport will either deactivate itself or not activate at all.



WARNING - If the words “LOW BATT” appear immediately after activation, Oceanic strongly recommends that you **DO NOT** dive until you have obtained battery replacement - especially if you are starting out on a multi-day dive trip. Although there will usually be enough voltage to complete one full day of diving, the voltage level can drop quickly when the batteries experience a sudden temperature change. (See battery replacement procedure on pages 45-48.)

2. SURFACE MODE

Surface Mode immediately follows Diagnostic Mode after initial activation (Fig 8). It also appears after a dive when you ascend shallower than 3 feet. Surface Mode is identified by the Mode Label “SURFACE” immediately above the Surface Time display. Information available in Surface Mode is Dive #, Surface Time, Depth, and the Tissue Loading Bar Graph.

Fig. 8 – Surface Mode

3. PRE DIVE PLANNING SEQUENCE™ (PDPS) MODE

One minute after activation, the Pre Dive Planning Sequence will display (Fig. 9). The PDPS displays the Mode Label “PLAN” at the top of the LCD. This mode automatically scrolls through depths from 30 to 160 feet, in ten foot increments, showing predicted no-decompression dive times based upon your previous dive profiles. The PDPS automatically replaces Surface Mode once each minute. The information displayed is Previous Dive #, Depth, and No-decompression Dive Time.

Fig. 9 – Pre Dive Planning Sequence



WARNING – The Pre Dive Planning Sequence predicts only no-decompression times for subsequent dives. Depending on tank size and air consumption, you may have *less time available* than shown in the PDPS because of air limitations.

PDPS no-decompression times are displayed only for depths where there is at least one minute available. This takes into account a descent rate of 75 feet per minute. Before a “clean” dive (no dives in 24 hours) the PDPS no-decompression limits are those found on page 50 in the Reference section.



Fig. 10 – No-decompression Dive Mode

4. NO-DECOMPRESSION DIVE MODE

No-decompression Dive Mode appears when the diver descends deeper than five feet (Fig. 10). It can be recognized by the “NDC” Mode Label to the left of the Dive Time Remaining display. No-decompression Dive Mode numerically displays Dive #, Depth, and NDC Dive Time Remaining. The Graphic Diver Interface is also active, displaying the Tissue Loading Bar Graph and Variable Ascent Rate Indicator.

5. ALTERNATE DIVE MODE

Displays of Maximum Depth and Bottom Time are not considered important enough to require constant display on the LCD. An “Alternate Dive Mode” is used that switches back and forth with Dive Mode. No-decompress-

sion Dive Mode is replaced every 15 seconds with Alternate Dive Mode for two seconds (Fig. 11). Alternate Dive Mode displays Maximum Depth (noted by the Mode Label “MAX FT”, elapsed Bottom Time (“BOTTOM”), and Temperature. You can easily tell when you are viewing the Alternate Dive Mode because the Graphic Diver Interface bar graphs, and Dive #, disappear.

6. DECOMPRESSION DIVE MODE

The DataMax Sport will allow you to avoid, or easily manage, decompression. Before explaining further, read the following warning.



WARNING - Oceanic recommends the application of responsible diving practices and does not recommend decompression diving or diving deeper than 130 feet, as these practices will greatly increase your risk of decompression sickness.

Decompression Dive Mode activates when the Tissue Loading Bar Graph enters a red decompression zone (Fig. 12a). When this occurs, the No-decompression time display switches from zero to required Decompression time (Fig. 12b). The Mode Label changes from “NDC” to “DEC” on the left of the Dive Time Remaining display. Decompression Dive Mode numerically displays Dive #, Depth and Total Decompression Time. Besides continuing to display the VARI bar graph, the Graphic Diver Interface shows the Tissue Loading Bar Graph, that now acts as a Decompression “ceiling” indicator.



Fig. 11 – Alternate Dive Mode

Decompression time displays the total number of minutes required at all ceilings combined. The Tissue Loading Bar Graph displays the ceiling depth that you must stay below.

After entering decompression, you must immediately change the focus of your dive to getting back to the surface. Upon seeing the Tissue Loading Bar Graph enter the 10 FT. STOP zone, you should immediately ascend to a depth slightly deeper than or equal to 10 feet. The amount of decompression credit time you receive is dependent on depth, with slightly less credit given the deeper you are.

Still, you must never ascend shallower than your decompression ceiling! Doing so will place the DataMax Sport into a Conditional Violation Mode (see page 28) and greatly increase your risk of decompression sickness. Often while coping with surge and swell, it is difficult to stay at a chosen depth. To ensure that you do not enter a violation mode you should stay close to, but no shallower than, the decompression ceiling depth. If the DataMax Sport requires a 10, 20, 30, or 40 foot decompression ceiling, you should stay deeper than the depth indicated until the TLBG recedes into the next shallower zone. When that occurs, you can ascend to, but not shallower than, the new indicated ceiling.

Once you have performed the required decompression, the DataMax Sport will switch to No-decompression Dive Mode allowing additional time underwater. Though more time may be available, you must spend a portion of this time continuing to decompress at a safety stop deeper than or equal to 10 feet. This will let the Tissue Loading Bar Graph recede further into the

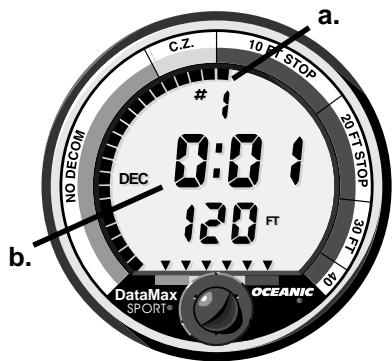


Fig. 12 – Decompression Dive Mode

yellow Caution Zone or green No Decom zone. At the end of all decompression dives, you must focus on **reducing your tissue loading** as much as possible - by spending as much time as you can at your final safety stop and on the surface - before your next dive.

7. VIOLATION MODES

The DataMax Sport enters one of three different Violation Modes when you exceed its ability to predict an ascent procedure. These modes are explained fully in the “Handling the Extremes” section beginning page 26.

8. GAUGE MODE

If the DataMax Sport enters a Permanent Violation Mode, it will operate only in Gauge Mode on subsequent dives. The DataMax Sport removes displays that no longer provide correct information because of the violation (see page 33).

9. DIVE LOG MODE

Dive Log Mode can be accessed on the Dive surface by pressing the button on the front of the DataMax Sport (Fig. 13a). Pressing and releasing the button will start the Automatic Dive Log Sequence. This mode displays information of up to nine dives from your most recent day of diving. Dive Log Mode will retain this information indefinitely until descent past five feet on your next dive after twelve hours, or until the battery is removed. Dive Log Mode can be recognized by the Mode Label “LOG” in the top of the display.



Fig. 13 – Dive Log Mode
Primary Screen



Fig. 14 – Time to Fly Mode

Dive Log Mode displays Dive #, Maximum Depth (noted by Mode Labels “MAX FT”), and total Bottom Time (underneath the Mode Label “BOTTOM”). It will also show the Tissue Loading Bar Graph reading that was recorded at the end of the dive. It also shows the maximum ascent rate value reached in the Variable Ascent Rate Indicator.

Dive Log Mode recalls dives from the last recorded to the first, so your first dive will always be the last shown in the log sequence. When accessing Dive Log Mode, you can choose to either press and release, or press and hold, the button on the face of the DataMax Sport. As mentioned, pressing and releasing the button initiates the Automatic Dive Log Sequence, showing previous dives for about four seconds each.

Pressing and holding the button will freeze the information on the display giving you a chance to write it down in your logbook (A sample logbook page is provided on page 59 of this guide that can be photo duplicated for this purpose). Releasing and then holding the button again will display the next earlier dive, and so on.

NOTE: Following a 12 hour surface interval, all logged dives are cleared when a subsequent dive is made. You must therefore record one day's dive log information before using the computer again if you plan to maintain an accurate dive log.

10. TIME TO FLY MODE

The longer you wait to fly after diving, the more you will reduce your exposure to decompression sickness. The Time To Fly Mode begins display-

ing four hours after the last dive has ended to assist you with deciding when enough surface time has elapsed to fly. It is part of the Pre Dive Planning Sequence and shows the letter “F” with a countdown timer below that starts at 20 hours (Fig. 14).

Twelve hours after the last dive, the Dive Counter resets to zero and the PDPS stops automatically scrolling. Time to Fly Mode now displays continuously on the DataMax Sport, counting down from the remaining twelve hours to zero. After a surface interval of 12 hours, you may choose to fly, provided that your dive profile(s) did not enter decompression. If your diving could be considered as decompression or repetitive, multi-day, it is strongly recommended that you wait the full 24 hours after your last dive to add a greater degree of protection. (See page 22 for more information about flying after diving and DAN's guidelines.)



WARNING: During the remaining 12 hours, the unit is in a countdown mode only, and must be reactivated before it can be used for another dive.

TELLING THE DIFFERENT MODES APART

The DataMax Sport's ten different modes are easy to tell apart. Each is clearly marked with Mode Labels (Fig. 15) and occur at different times. Unless you routinely dive to the extremes, you will rarely see Decompression Dive, Violation, or Gauge Modes. Diagnostic and Dive Log Modes occur only upon request after pressing the activation button. The only modes you will see underwater are NO-Decompression or Decompression Dive and Alternate



Fig. 15 - Mode Labels

Dive. Above water, you will view the Pre Dive Planning Sequence, Surface, and Time to Fly Modes. Become familiar with all ten modes so that you understand exactly what the DataMax Sport is telling you.

INFORMATIONAL DISPLAYS

Each DataMax Sport numeric or graphic display represents a unique piece of information. The following section describes each display in detail.

Depth Display

The lowermost portion of the LCD (Fig. 16b) contains the Depth displays. Depending on the mode that is active, you may see Depth or Maximum Depth displayed in this area. These displays indicate depth from 0 to 249 feet in one foot increments (or 0 to 76 meters in .5 meter increments for the metric version).

Time Display

The top of the LCD (Fig. 16a) contains Dive Number and the Time displays. Time displays may represent NDC or Decompression Dive Time Remaining, Bottom, or Surface Times. The various time displays are shown in **hour:minute** format (i.e. 1:06, one hour and six minutes not 106 minutes!). The colon that separates hours and minutes blinks once per second only when the display is in “real time.” Elapsed Surface Time and Bottom Time are real time displays. Dive Time Remaining is a calculated projection of time and uses a solid (non-blinking) colon. This helps you tell the different time displays apart.

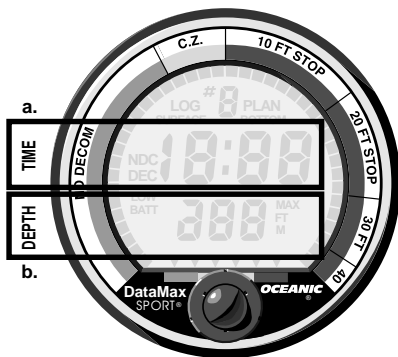


Fig. 16 – Display layout

GRAPHIC DIVER INTERFACE™

Two different bar graphs are located around the perimeter of the DataMax Sport LCD (Fig. 17). They are color coded green, yellow, and red to denote normal, caution and danger zones, respectively. The Graphic Diver Interface allows you to make quick status checks underwater of your no-decompression status and ascent rate. By keeping these bar graphs *in the green* at all times, you'll greatly reduce your exposure to decompression sickness. A detailed description of each graph follows.

Tissue Loading Bar Graph

The semi-circular graph found on the perimeter of the display is the Tissue Loading Bar Graph (Fig. 17a). It monitors twelve different tissue compartments simultaneously and displays the one that is highest. The TLBG is divided into three main sections; green No Decom zone, yellow Caution Zone (C.Z.), and red decompression zone. The red decompression zone is further divided into four decompression “ceiling” zones of 10, 20, 30, and 40 feet. By referring to the Tissue Loading Bar Graph, you can see a visual representation of nitrogen absorption and use it to avoid or, if necessary, manage decompression. The Tissue Loading Bar Graph holds U.S. Patent No. 4,882,687.

 **WARNING - Oceanic advocates responsible diving practices and does not recommend decompression diving or diving below 130 feet.**

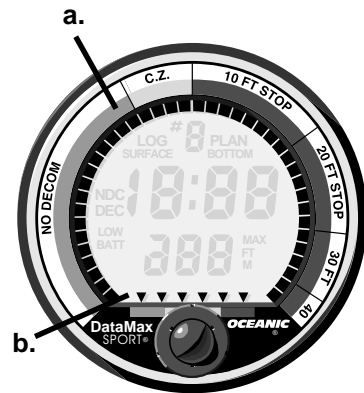


Fig. 17 – Graphic Diver Interface



Fig. 18 – No-decompression
Dive Time Remaining

Variable Ascent Rate Indicator™- VARI

The Variable Ascent Rate Indicator (VARI) occupies the bottom portion of the DataMax Sport display (Fig. 17b). The purpose of the VARI is to assist the diver in preventing too rapid an ascent by providing a visual indication of ascent speed. The bar graph is made up of six triangular segments and is analogous to an ascent rate speedometer. There are various speed “zones” that are color-coded green, yellow, and red. The actual speeds that the VARI segments represent are listed on page 54. Flashing VARI segments alert the diver of an ascent rate that has exceeded 60 feet per minute (red VARI zone). The Variable Ascent Rate Indicator holds U.S. Patent No. 5,156,055.

DIVE TIME REMAINING DISPLAY

One of the most important pieces of information on the DataMax Sport is the NDC Time Remaining display (Fig. 18). To display Dive Time Remaining the DataMax Sport constantly monitors theoretical loading of twelve different tissue compartments. No-decompression Time is calculated based on the amount of nitrogen absorbed by these hypothetical compartments. The rates at which each of these compartments absorb and release nitrogen is mathematically modeled and compared against a maximum allowable nitrogen level. Whichever one of the twelve is closest to this maximum level, known as the no-decompression limit, will be considered the controlling compartment for that depth. Its resulting value will be displayed in the No decompression Time Remaining display and the Tissue Loading Bar Graph.

The no-decompression algorithm is based upon Haldane’s theory using

maximum allowable nitrogen levels developed by Merrill Spencer. Repetitive diving control is based upon experiments designed and conducted by Dr. Ray Rogers and Dr. Michael Powell in 1987. Diving Science and Technology® (DSAT), a corporate affiliate of PADI®, commissioned these experiments and now uses the findings in the Recreational Dive Planner™ distributed by PADI.

One advantage of using the DataMax Sport is its ability to model many tissue compartments simultaneously. It constantly updates No decompression Time as the controlling tissue changes with different depths. You always have a current prediction of remaining no-decompression time regardless of which compartment is in control.

ALTITUDE DIVING

The mathematical model in the DataMax Sport accounts for the reduced no-decompression time available at higher elevations based on NOAA (National Oceanic and Atmospheric Administration) guidelines. When diving in high altitude lakes or rivers (from 4,000 to 14,000 feet), the DataMax Sport will automatically adjust to these conditions providing corrected depth and reduced no-decompression times. Over 4,000 feet, depth calibration automatically changes to read in feet of freshwater rather than feet of seawater.



WARNING - Until it has shut itself off, you must not use the DataMax Sport at a different altitude than the altitude where it was originally activated. Doing so will result in an error equal to the difference in barometric pressure, and possibly a false dive mode.

FLYING AFTER DIVING

In 1990 the Undersea and Hyperbaric Medical Society published a set of guidelines aimed at minimizing the possibility of decompression sickness due to flying too soon after diving. The UHMS suggests¹ divers using standard air tanks and exhibiting no symptoms of decompression sickness wait 24 hours after their last dive to fly in aircraft with cabin pressures up to 8,000 ft. The only two exceptions to this recommendation are:

- 1) If a diver had less than 2 hours total accumulated dive time in the last 48 hours, then a 12 hour surface interval before flying is recommended.
- 2) Following any dive that required a decompression stop, flying should be delayed for at least 24 hours, and if possible, for 48 hours.

Since the introduction of the 1990 UHMS guidelines, data from the Diver's Alert Network (DAN) was introduced that resulted in DAN's position² that "A minimum surface interval of only 12 hours would be required in order to be reasonably assured a diver will remain symptom free upon ascent to altitude in a commercial jet airliner (altitude up to 8,000 ft.). Divers who plan to make daily, multiple dives for several days, or make dives that require decompression stops, should take special precautions and wait for an extended surface interval beyond 12 hours before flight." Both the UHMS and DAN agree that, **"There can never be a flying after diving rule that is guaranteed to prevent decompression sickness completely.** Rather,

there can be a guideline that represents the best estimate for a conservative . . . surface interval for the vast majority of divers. There will always be an occasional diver whose physiological makeup or special diving circumstances will result in the bends.”

The **Time to Fly** display (Fig. 19) provides a way to choose your own degree of protection by providing a twenty hour countdowns starting four hours after the dive. The display is first shown in the PDPS displaying the letter “F” with a countdown from 20 to 12 hours. After 12 hours the dive counter resets to zero, and Surface Mode is shut down. A continuously displayed countdown timer now begins from 12 hours to 0. Because the DataMax Sport provides these two 12 hour countdowns, you can choose whether to fly after twelve hours of surface interval or wait additional time to add greater protection.

THE DATAMAX SPORT AT A GLANCE

Figure 20 on the following page shows all of the DataMax Sport's differ displays "At-A-Glance." For a quick visual reference, or review of display features, refer to these illustrations.



Fig. 19 – Time to Fly Display

Surface Mode



Pre Dive Planning Sequence



No-decompression Dive



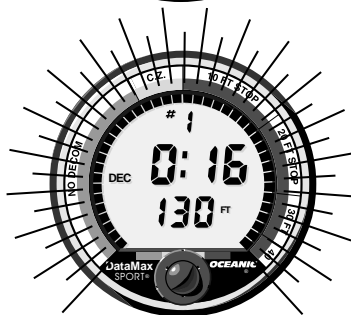
Alternate Mode



Decompression Dive



TLBG & VARI



Delayed Violation



Dive Log

Fig. 20 -The DataMax Sport At-A-Glance

*HANDLING
THE
EXTREMES*

HANDLING THE EXTREMES

DATAMAX SPORT MAXIMUM DEPTH

The DataMax Sport will display a maximum depth of 249 feet. If you exceed that depth, the Depth, Max Depth, and Dive Log readouts will display “- -” signifying that you descended out-of-range (Fig. 21a). For that dive, you will not see a numeric depth display over 249 feet or a Max Depth indication other than the double dashes.

Although the DataMax Sport will withstand the pressures found at 249 feet, the depth that you can still use all its features can be *much shallower*. Before going further, read this warning:

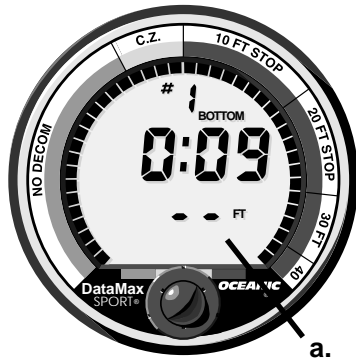


Fig. 21 – Out of Range display



WARNING - The maximum recommended sport diving limit is 130 feet. Any deeper dive should be avoided. Special training and equipment are necessary for this type of diving. Oceanic strongly recommends against diving to depths below 130 feet or decompression diving.

On a first “clean” dive, the DataMax Sport will allow a maximum of 7 minutes NDC dive time remaining at 160 feet. A clean dive is one where there is no residual nitrogen from previous dives. The DataMax Sport will continue to calculate residual nitrogen for up to 24 hours although the dive counter resets to zero after 12 hours. Depending on your descent rate, 7 minutes at 160 feet can be a very short amount of time. It is much more

practical to stay within the 11 minutes of no-decompression time allowed at 130 feet. If you exceed 160 feet, watch the Sport closely because you will enter decompression**rapidly**. The Tissue Loading Bar Graph will alert you when entering decompression by entering the red zone (Fig. 22) and changing dive time remaining from NDC to DEC.

EMERGENCY DECOMPRESSION

After entering decompression (especially at deeper depths) the Tissue Loading Bar Graph may fill the 10, 20, 30, and 40 FT STOP decompression zones rapidly. Once you've entered decompression, **it is imperative that you ascend toward the required decompression ceiling immediately**. If you continue to dive at a deeper depth, your exposure to decompression sickness will increase, and you risk entering violation mode and losing information needed to properly ascend.

Whether at 160 feet on a first dive, or 60 feet on a third dive, it is possible to quickly enter decompression if you're not careful. Decompression is to be avoided because you cannot ascend directly to the surface without potentially dire consequences. If your equipment failed, requiring you to surface immediately, you would risk decompression sickness. Your buddy would be unable to lend assistance without also risking decompression sickness. Decompression diving requires special training and equipment to do properly. For these reasons, decompression sport diving should be avoided.



Fig. 22 – Decompression warning

VIOLATION MODES

If you exceed certain limits, the DataMax Sport will not be able to tell you how to get back to the surface. These situations will make the Sport enter *violation mode* and must be avoided at all costs. They push decompression theory to the limits and can result in loss of some DataMax Sport functions for 24 hours after the last dive of a day in which a violation occurred.

There are three different types of Violation Modes that the DataMax Sport can enter depending on the situation. They are termed “Conditional Violation Mode,” “Delayed Violation Mode,” and “Immediate Violation Mode.” It is important to understand how each of these modes function and how to carry out decompression procedures in the event you encounter one.

CONDITIONAL VIOLATION MODE

Before a situation that may ultimately result in loss of nitrogen monitoring functions, the DataMax Sport will enter a Conditional Violation Mode. If properly handled, the Conditional Violation Mode will not only assist you in getting back to the surface, but will also **allow continued use** of the DataMax Sport. There is only one situation that will force the DataMax Sport to enter a Conditional Violation Mode:

Conditional Violation – Ascending Shallower than Decompression Ceiling

The DataMax Sport will enter a Conditional Violation Mode if you ascend shallower than the decompression ceiling indicated by the Tissue Loading Bar Graph (Fig. 23). A momentary rise above the ceiling, such as with a surge or swell, will cause this to happen. Therefore you must stay slightly deeper than the exact ceiling depth, watching the Sport closely when managing decompression. **The DataMax Sport will alert you to a Conditional Violation by flashing the DEC Time display until you descend below the required decompression ceiling.**

Once the DataMax Sport enters a Conditional Violation Mode, no off-gassing credit will be given. For every minute in Conditional Violation Mode, 1.5 minutes of penalty time is added to decompression stop time for greater protection.

The DataMax Sport will stay in conditional violation mode for up to five minutes of being shallower than the decompression ceiling. After five minutes, it will enter Delayed Violation Mode (see next section). But, if the Conditional Violation is corrected before five minutes have elapsed (meaning you descend below the ceiling depth), the DataMax Sport will continue to function as if no violation had occurred. In this case, the added penalty decompression time will have to be “worked-off” first before obtaining off-gassing credit. Once the penalty time is worked-off, and off-gassing credit



Fig. 23 – Depth less than required ceiling causes a Conditional Violation

begins, the Tissue Loading Bar Graph will recede towards the Caution Zone. Upon entry into the Caution Zone the Sport will revert to NDC Mode.

PERMANENT VIOLATION MODES

If you exceed the boundaries of a Conditional Violation Mode, or exceed a 40 ft. stop requirement, one of two Permanent Violation Modes will be entered; “Delayed Violation Mode” or “Immediate Violation Mode.” Either of these Permanent Violation Modes will result in loss of some computer functions for 24 hours after the last dive.

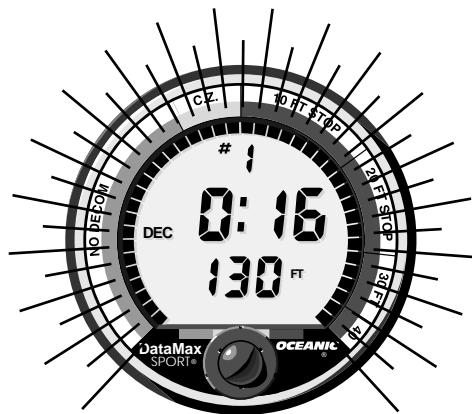


Fig. 24 - Delayed Violation Mode

DELAYED VIOLATION MODE

When the DataMax Sport enters Delayed Violation Mode it retains the capacity to tell the diver how to get back to the surface. Delayed Violation Mode will be encountered in either of the following decompression situations:

Delayed Violation #1 - Requiring a Decompression Ceiling Greater than 40 Feet

If the necessary decompression requires a ceiling depth greater than 40 feet, a Delayed Violation mode will be entered. Once a diver enters this mode, the entire Tissue Loading Bar Graph will flash (Fig. 24). In this situation, **the amount of decompression time needed to get back to the surface will still be displayed numerically in the Decompression**

Time display. To get back to the surface, **the diver must ascend to just deeper than 40 feet staying as close to 40 feet as possible without causing the DEC Time display to flash.** The DEC digits may flash at depths slightly deeper than 40 feet in some situations. If this happens, descend to the shallowest depth below 40 feet where the flashing stops.

After waiting until the Tissue Loading Bar Graph recedes into the 30 foot zone, the diver can then ascend to not less than 30 feet and continue decompressing. After more time, the bar graph will recede into the 20 and then 10 foot zones after which the diver can ascend to not less than 20 or 10 feet respectively. After DEC Time reaches zero and the Tissue Loading Bar Graph recedes into the yellow Caution Zone (C.Z.), the diver can surface. However, to add a greater margin of protection, Oceanic strongly recommends that you wait until the segments are well within the green No Decom zone, unless a low air condition requires you to surface. Five minutes after reaching the surface, the Sport will enter Immediate Violation Mode and will then revert to Gauge Mode (see page 33).

Delayed Violation #2 - Spending More than 5 Minutes Above Decompression Ceiling

If you stay above the decompression ceiling for more than five minutes, you will enter Delayed Violation Mode. At this time the TLBG will flash (Fig. 24). If you descend back beneath the ceiling after this five minute time

window, it is still possible to get back to the surface with the assistance of the DataMax Sport. As previously described, you would then need to follow the ceiling toward the surface as the Tissue Loading Bar Graph recedes toward the Caution Zone. Upon reaching zero decompression time remaining, you should continue decompressing until the bar graph segments are well inside of the green No Decom zone. **After five minutes of surface time, the Sport will enter Immediate Violation and operate only in Gauge Mode (see page 33) for twenty-four hours.**



Fig. 25 - Immediate Violation Mode

IMMEDIATE VIOLATION MODE

The DataMax Sport enters Immediate Violation Mode when a situation totally exceeds its capacity to predict an ascent procedure. These dives represent gross excursions into decompression that are beyond the boundaries and spirit of the DataMax Sport design. **If you are following these dive profiles, Oceanic advises that you do not use a DataMax Sport dive computer.** Immediate Violation Mode occurs as follows:

Immediate Violation Mode - Requiring a Decompression Stop Much Deeper than 40 Feet

The Sport cannot calculate decompression ceilings greater than 40 feet. If a ceiling **much deeper** than 40 ft. is required, Immediate Violation Mode is entered (Fig. 25). This situation would be preceded by entering Delayed

Violation Mode. The Sport offers no indication of how much time spent underwater would result in the need for greater than a 40 foot decompression ceiling. Watch the display closely to keep from exceeding the Tissue Loading Bar Graph's capabilities and losing assistance getting back to the surface. Upon entering an Immediate Violation, the DEC digits will be replaced with elapsed bottom time. The change is shown by the mode label "BOTTOM" appearing over the central time digits which now display a flashing colon.

GAUGE MODE

The DataMax Sport will operate with limited functions in what is called "Gauge Mode" up to twenty-four hours after a dive in which any Immediate or Delayed Violation Mode was entered. Gauge Mode turns the DataMax Sport into a digital instrument console without any decompression monitoring functions. Figure 26a illustrates the changes effected in Gauge Mode.

When in Gauge Mode underwater (Fig. 26b), the DataMax Sport flashes the Tissue Loading Bar Graph. Dive Time Remaining will be replaced by Bottom Time. You will see the Mode Label "BOTTOM" immediately above the time display and the omission of any NDC or DEC labels to the left. The colon separating hours and minutes will also start blinking once per second indicating a "real time" display. If the DataMax Sport changes to Gauge Mode while underwater, you have entered an Immediate Violation Mode. Be sure to read the Violation section thoroughly beginning on page 28.

a.

FUNCTION	STD. MODES	GAUGE MODE
<i>underwater displays</i>		
No decom time	Yes	No
Decom Time	Yes	No
Tissue Bar Graph	Yes	No
All other displays	Yes	Yes
<i>surface displays</i>		
Surface Time	Yes	Yes
Dive Log	Yes	Yes
PDPS	Yes	No
Time to Fly	Yes	No

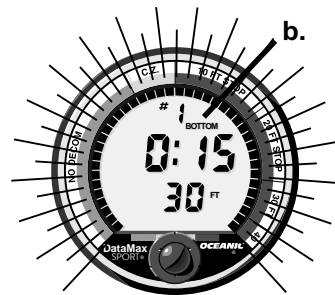


Fig. 26 – Effects of an Immediate Violation: a. Gauge Mode Functions & b. Gauge Mode Display

Above water, Gauge Mode is indicated by the lack of a Pre Dive Planning Sequence or Time to Fly display. Twelve hours after surfacing, a countdown timer with “triple dash” display will inform you of the number of hours remaining before normal operation can resume (Fig. 27).



Fig. 27 – Gauge Mode functions & triple dash display

CAUTION ZONE – C.Z.

When you learned how to dive, you were taught not to get too close to the No-decompression limits. The Caution Zone (C.Z.) offers you a way to consistently monitor how close you are to the no-decompression limit. **Oceanic recommends always leaving the water with the Tissue Loading Bar Graph well inside of the green No Decom zone.**



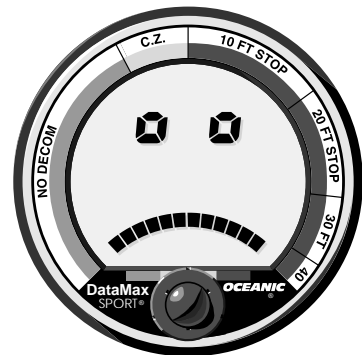
WARNING – Never exit the water with the Tissue Loading Bar Graph in the red decompression zone. Doing so greatly increases the risk of decompression sickness, and may result in injury or death.

A diver’s metabolism varies from person to person, and even from day to day. If you are feeling slightly less than 100%, or you are in less than perfect physical shape, use the Caution Zone as a visual reference to place a wider margin of protection between you and the no-decompression limit.

WHAT TO DO IF YOUR DIVE COMPUTER QUILTS WORKING

Because a dive computer is an electronic, battery powered instrument, the possibility that it may quit working unexpectedly is very real - even with new, highest quality batteries. While no-decompression diving, if you find that any major piece of equipment is not working, you must abort the dive immediately and surface slowly in a controlled manner. If your dive computer quits for any reason, it is important that you have anticipated this possibility and are prepared for it. This is an important reason to avoid pushing your dive profiles to the limit, in order to allow a safety margin. If you ever extend your dive profiles to the maximum limit, Oceanic advises you to bring additional back-up instruments with you on your dives, and to log each dive profile during every surface interval.

Consider the cost to benefit ratio. No other piece of diving equipment gives you additional dive time like a dive computer. It is now possible to dive easier, and longer, because of these technological marvels. Yet, as with all new technology - especially high-tech products used in harsh environments - unforeseen things happen. If you do not prepare for the unknown, you might be sorry later. Who would want to drive a car without a spare tire, for instance? If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of a dive computer, an analog or digital back-up system is highly recommended.



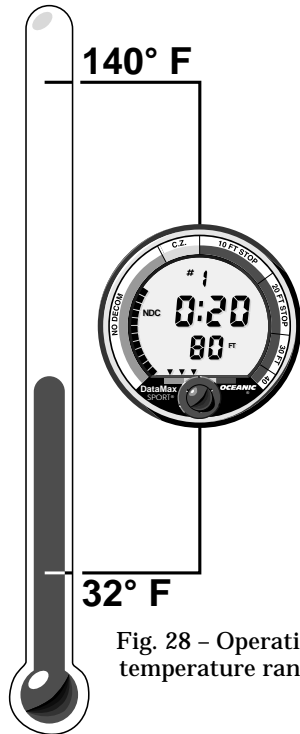


Fig. 28 – Operating temperature range

OPERATING TEMPERATURE

The DataMax Sport will operate in almost any temperature diving environment in the world (Fig. 28) - between 32 to 140° degrees Fahrenheit (0° to 60° Celsius). You may notice the liquid crystal display becoming sluggish at extremely low temperatures. This is normal and will not affect the computer's accuracy. If stored or transported in extremely low temperature areas (below freezing), you should warm with body heat before diving.

Even though the "Sport" will operate in a wide range of temperatures, it is possible to damage the electronics if left exposed to direct sunlight, or in a hot confined space (like a car trunk). After the dive, cover the DataMax Sport and keep it out of the sun. If inadvertently left in the direct view of the sun the LCD display may become totally black. If this occurs, immediately immerse the DataMax Sport in water. The display should recover its normal appearance after a few minutes. Damage from excess heat, or cold, is not covered under the DataMax Sport two-year limited warranty.

NIGHT DIVING WITH THE DATAMAX SPORT

The DataMax Sport uses a high contrast liquid crystal display with large numerals for easy readability in low light conditions. However, the display is not internally illuminated for night diving because of the excessive power consumption that would be required. This means that on night dives, in caves, or any other low light situation you must use your dive light to illuminate the display. If your dive light were to fail, you would be unable to read information about your dive on the DataMax Sport. Oceanic recommends

that you carry a chemical lightstick (Fig. 29) on all low light dives or a back-up dive light, in case of primary light failure.

SHARING THE DATAMAX SPORT

The DataMax Sport provides information based upon your personal dive profile and therefore must not be “shared” between divers. You should never, under any circumstances, swap your computer with another unit between dives, or share your computer with another diver underwater. Your computer's dive profile tracking of previous dives will be pertinent to you only, and it is impossible for two divers to stay precisely together underwater.



WARNING – Never participate in sharing or swapping of a dive computer. Doing so may result in injury or death.

A FINAL WORD OF CAUTION

Although the DataMax Sport represents the latest in user-friendly dive computer technology, it cannot force you to understand how to use it. Before diving with the Sport, be sure you thoroughly understand its functions and displays. Take the quiz on pages 58 and 59 to test your knowledge. Call your local Authorized Oceanic Dealer or Oceanic Customer Service at (510) 562-0500 (ext. 2) if you have a question. Above all remember, technology is not a substitute for training, experience, and *common sense!*

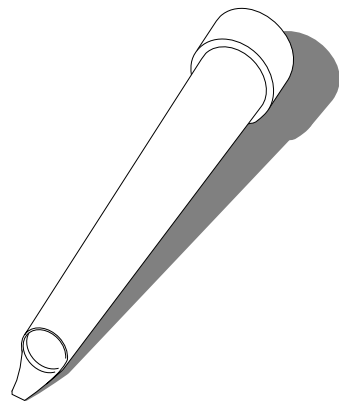


Fig. 29 – Cyalume™ chemical lightstick

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CARE
and
MAINTENANCE

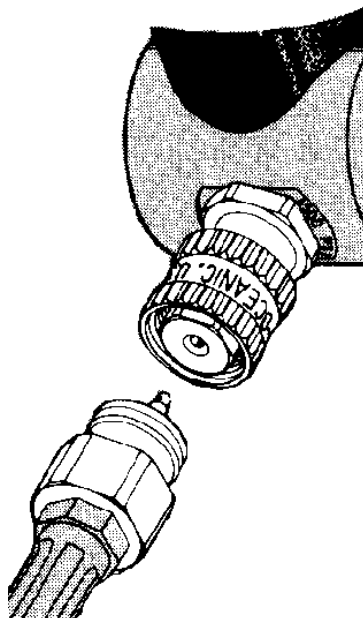


Fig. 30 – DataLink high pressure quick disconnect

CARE AND MAINTENANCE

The DataMax Sport is a sensitive electronic instrument. Although it has been designed to survive the rigors of diving, it still must be handled carefully to protect from shock, excessive heat, chemical attack, and tampering.

The DataMax Sport is protected by an outer rubber boot that, along with the hose, can be cleaned and protected periodically by application of a silicone milk available in dive stores. The internal housing is made of an impact resistant resin that is extremely shock resistant but can be susceptible to chemical attack and scratches. If the gauge face becomes scratched Oceanic can replace it, although small scratches will naturally disappear underwater.



CAUTION - Never spray aerosols of any kind on, or near, the DataMax Sport. The propellants may chemically attack the plastic.

BEFORE THE DIVE

If diving with a console version of the DataMax Sport, be careful not to leave it lying on a boat deck where it might be damaged. Many dive computers (and dive trips) are ruined by encounters between carelessly tossed computers and weight belts or tanks. If the DataMax Sport is attached to a tank in a rack, tuck the computer into a B.C. pocket, or between the B.C. waistband and the bladder. Keep it off the deck and protected from undue shock. Better yet, attach a DataLink (Fig. 30) high-pressure quick disconnect

between your computer and first stage allowing easy removal when not in use (if you have a console version). This allows you to keep the Sport nearby when recording dives in your log book or planning the next dive.

DURING THE DIVE

Keep the DataMax Sport protected from abuse underwater by using the console retainers on your BC. If you let it hang freely, expect scratches to cover the display face after only a few dives. You also may damage delicate corals or marine life while jarring sensitive electronic components.

AFTER THE DIVE

Soak the DataMax Sport in fresh water after each dive. If possible, use lukewarm water to dissolve any salt crystals. Salt deposits can also be dissolved using a slightly acidic vinegar/water bath. After removal from a fresh water bath, place the DataMax Sport under gently running water. Be sure to flush any holes or slots on the rear of the boot. Towel dry the computer before storing. Transport the DataMax Sport cool, dry, and protected.



WARNING - Never, under any circumstances, poke any object through any slots or holes on the rear of the DataMax Sport. Doing so may damage the depth sensor possibly resulting in erroneous depth and/or dive time remaining displays.

ANNUAL DEALER INSPECTIONS & FACTORY SERVICE

Like all Oceanic instrumentation, the DataMax Sport should be inspected annually by an Authorized Oceanic Dealer. They will perform a depth accuracy test, function check, and routine inspection for damage or wear. To keep the two-year limited warranty in effect, this annual inspection must be done within thirty days of the date of purchase, one year after purchase. Oceanic recommends that you continue to have this inspection done even after the warranty period has expired to ensure your DataMax Sport is working properly. A convenient service record is provided in the rear of this owner's manual. This should be signed by the service technician after each annual inspection has been completed. **The cost of this service is not covered under the terms of the two-year limited warranty.** Be sure also to record any factory services that are performed as well.

If you are in doubt about the accuracy of your DataMax Sport's depth readings, DO NOT attempt to dive with it until it has been inspected by an Authorized Oceanic Dealer. Some dive stores who provide this service do not have test gauges on their pressure chambers as accurate as the depth sensor in the DataMax Sport. Therefore, if you are requesting a depth check, it is best to verify that the test chamber's gauge is accurate to within plus or minus 1% of full scale.

It is possible to damage the DataMax Sport depth sensor if it is not pressure tested properly. Please take heed of the following warning:



WARNING - Never pressure test the DataMax Sport in an air environment. Doing so may damage the depth sensor; possibly resulting in erroneous depth or time readings.

The DataMax Sport must be placed completely underwater when being pressure tested to protect the depth sensor. If your local facility does not have the special tools or ability to follow these procedures, have the Authorized Oceanic Dealer send your DataMax Sport directly to Oceanic, or an Oceanic regional Distribution Center for service (Fig. 31).

HOW TO OBTAIN SERVICE

You can obtain service for your DataMax Sport by returning it to the Authorized Oceanic Dealer where it was purchased. If one is not nearby, or you need service a local Service Center cannot provide, you can have them send it directly to Oceanic as follows.

1. Remove DataMax Sport module from its wrist or console boot (see instructions on page 45). Be sure to remove all accessories.
2. Package carefully using a cushioning material.
3. Authorized Oceanic Dealers should use an Oceanic Product Return Form (If one is not available, then go to step 4.)
4. Include a legible note with specific reason for return, your name, address, daytime phone number, serial number, and copy of original sales receipt.
5. Send prepaid and insured to the nearest Oceanic facility.

OCEANIC USA

2002 Davis Street
San Leandro, Ca. 94577
Tel: 510-562-0500; Fax: 510-569-5404

Oceanic International (Pacific)

Kapolei, Hawaii
Tel: 808-682-5488; Fax: 808-682-1068

Oceanic Europe

Pomezia, Italy
Tel: 39-6-910-4148; Fax: 39-6-910-4163

Oceanic SW, Ltd

Devon, United Kingdom
Tel: 44-1-404-89-1819; Fax: 44-1-404-89-1909

Oceanic Diving Australia Pty. Ltd

Sorrento, Victoria, Australia
Tel: 61-3-5984-4770; Fax: 61-3-5984-4307

Oceanic Asia-Pacific Pte. Ltd

Singapore
Tel: 65-779-3853; Fax: 65-779-3945

Oceanic Germany

Numberg, Germany
Tel: 49-911-324-6630; Fax: 49-911-312-999

Oceanic Japan

Tokyo, Japan
Tel: 3-3664-6541; Fax: 3-3667-6187/6

Fig. 31 – Oceanic Facilities

6. If you have any questions regarding DataMax Sport service, call Oceanic Customer Service at (510) 562-0500 or email service@oceanicusa.com.

LOW BATT DISPLAY

The LOW BATT display on the DataMax Sport LCD alerts you to the impending need for a battery change (Fig. 32a). Usually, the Sport will only activate if there is enough battery power to complete one full day of diving. The remaining battery life may be suddenly shortened by a sudden change in temperature, however, and it is therefore advised that you DO NOT attempt to dive when a LOW BATT display is present. Furthermore, Oceanic strongly recommends that you replace the battery with new prior to any extended, multi-day dive trip.

To replace your DataMax Sport's batteries, Oceanic recommends that you bring it to your Authorized Oceanic Dealer, where you may also obtain an annual inspection - even if your DataMax Sport is not yet due for one. Whenever it is necessary to replace your own batteries, however, you may do so by following the procedure outlined on the next page.

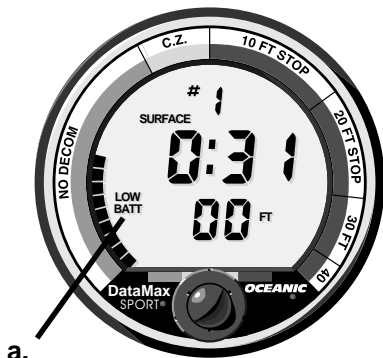


Fig. 32 - Low Batt display



WARNING - Damage from improper battery replacement is not covered under the DataMax Sport's limited 2-year warranty.

DATAMAX SPORT BATTERY REPLACEMENT INSTRUCTIONS

Removing the Module From Its Boot

1. If the module is in a wrist boot, it will be necessary to peel the lips of the boot downward off the gauge while applying pressure from underneath, working it out slowly. If in a console, bend the rubber console boot back to expose the edge of the module. If the console boot is flexible enough to permit, you may bend it back far enough to scoop the module out with your index 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.
2. Verify that your DataMax Sport contains user replaceable batteries by examining the caseback to find the battery hatch (Fig. 33a).



WARNING - Older models of the DataMax Sport do not contain user replaceable batteries, and must be returned to Oceanic for battery service. If your DataMax Sport does not appear identical to that shown in Fig. 33, DO NOT attempt to disassemble the unit. Doing so may cause a dangerous malfunction, resulting in injury or death.

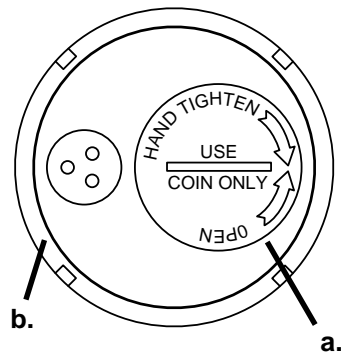


Fig. 33 – DRB battery hatch

Battery Removal & Installation



WARNING - Removal of the DataMax Sport's batteries will clear all stored memory of tissue loading. If you have been diving immediately prior to replacing the batteries, you must wait 24 hours before diving again.

1. Apply a nickel or quarter (not a screwdriver) to the recessed slot of the battery hatch, and turn the hatch out counter-clockwise to remove from the caseback. **NOTE:** 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.
2. Remove the o-ring from the battery hatch and discard. DO NOT use tools.
3. Closely examine the threads of the battery hatch and the caseback to check for any signs of damage which might impair proper threading. If found, return your DataMax Sport to your Authorized Oceanic Dealer or Oceanic Parts & Service, and DO NOT attempt to use until it has received service. You may otherwise proceed to the next step.



WARNING - DO NOT attempt to remove the outer caseback ring (Fig. 33b). Doing so will void the warranty, and may cause a dangerous malfunction, resulting in possible injury or death.

4. Turn the unit over to drop out the two 3 volt lithium batteries inside the

battery compartment and discard, regardless of age or amount of use. Closely examine the metal contacts inside the battery compartment, checking closely for any signs of stress (bending) or breakage. Also, look for any signs of corrosion which may indicate the entrance of moisture into the unit. If found, return your DataMax Sport to your Authorized Oceanic Dealer or Oceanic Parts & Service, and DO NOT attempt to use until it has received service. You may otherwise proceed to the next step.

5. Install two new 3 volt lithium batteries (Duracell® DL 2032, Radio Shack® 23-162, Maxell® CR 2032, or Panasonic® CR 2032.) into the battery compartment, placing them both into the compartment with the positive (+) side facing up, with one directly on top of the other. NOTE: Use caution to avoid touching either the battery contacts or the flat surfaces of the batteries, as skin oil will impair correct contact.
6. Lubricate and install a new o-ring onto the battery hatch, checking to ensure that it is evenly seated inside the groove at the base of the threads. DO NOT roll the o-ring over the threads of the battery hatch. Instead, stretch it slightly to work it down over one thread at a time. NOTE: This o-ring must be a genuine Oceanic Part, purchased from your Authorized Oceanic Dealer. Use of a non-Oceanic o-ring may void the warranty.
7. Carefully mate the battery hatch into the caseback and turn clockwise by hand until snug to ensure correct threading. Apply a nickel or quarter and tighten only until snug, and the outer surface of the battery hatch is

flush with the outer surface of the caseback.

Returning the Module To Its Boot

1. Orient the module over the hole in the boot, and dip the bottom edge into the hole while pressing the top edge with the palm of your hand. Stop pressing when the bottom ridge has just entered the rubber boot
2. Correct the alignment of the module as needed so that it is straight.
3. Press the module completely into place with your thumbs, watching the alignment, until it “snaps” into place.

Final Inspection

1. To ensure that the battery installation was successful, activate the unit and watch carefully as it performs a full diagnostic and battery check. Initially, the display will appear all 8's, with bar graph loading down until the unit enters surface mode, followed by the Pre-Dive-Planning-Sequence (PDPS). If the LOW BATT display appears and stays on, return the unit to your Authorized Oceanic Dealer for a complete inspection before attempting to use it.
2. Examine the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen. If there are any portions of the display missing or appearing dim, return the unit to your Authorized Oceanic Dealer to receive factory service.

REFERENCE

DISPLAY AS SEEN BY DIVER

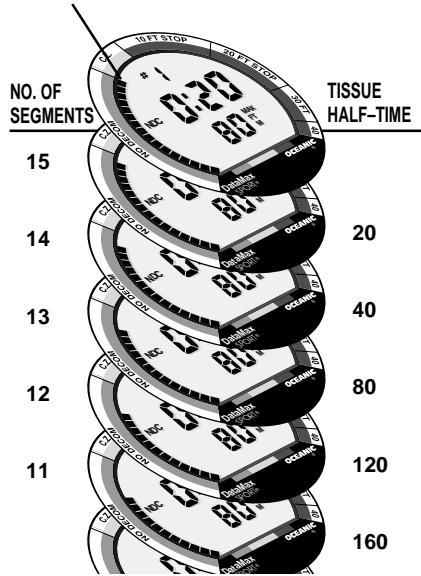


Fig. 34 – Think of the 12 tissues as overlaid clear displays showing only the maximum bar graph reading reached

MULTIPLE TISSUE TRACKING

The DataMax Sport tracks twelve tissue compartments with half-times ranging from 5 to 480 minutes. The Tissue Loading Bar Graph always displays the controlling compartment (that is the only one important at that time). Think of the Tissue Loading Bar Graph as twelve separate transparent displays laid on top of one another (Fig. 34). The tissue compartment that has filled up fastest is the only one the viewer can see from the top.

At any particular point, one tissue compartment may be absorbing nitrogen, while another that was previously higher may be off-gassing. Figure 35 illustrates the point at which one compartment “hands over” control to another at a different depth. Though two tissues were controlling the diver at different depths, the Tissue Loading Bar Graph remains the same because it displays only the highest loading of the 12 compartments.

As time goes on, or you reach a new depth, there may be sufficient off-gassing of the tissue compartments to reduce the number of all bar graph segments. After the dive, the Tissue Loading Bar Graph reading that was recorded at the end of the dive is shown in the Dive Log.

REPETITIVE DECOMPRESSION DIVING

The decompression model used by the DataMax Sport is based on the no-decompression multi-level repetitive dive schedules successfully tested by Dr. Ray Rogers and Dr. Michael Powell. These tests did not include repetitive

dives deeper than 90 feet, or decompression dives. DataMax Sport decompression predictions are therefore based on U.S. Navy theory due to the present unavailability of statistical data. Therefore, pay special attention to the following warnings.

WARNING – Oceanic advocates responsible diving practices and does not recommend decompression diving or diving below 130 feet. The decompression capabilities of the DataMax Sport are intended strictly for emergency use. Decompression diving is inherently hazardous and greatly increases your risk of decompression sickness - even when performed according to the computer's calculations. In the event that you must make an emergency decompression dive, you must not make another dive for at least 24 (twenty-four) hours.

WARNING – Using the DataMax Sport, just as using the U.S. Navy (or other) No-decompression Tables, is no guarantee of avoiding decompression sickness, i.e. “the bends.”

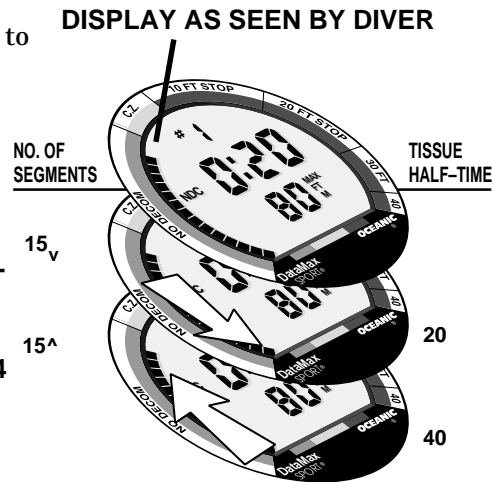


Fig. 35 – As one tissue recedes, another increases with the maximum reading being the only one displayed

Depth feet	DataMax Sport-E mins.	U.S. Navy mins.
30	260	--
35	--	310
40	136	200
50	78	100
60	55	60
70	40	50
80	31	40
90	25	30
100	20	25
110	17	20
120	13	15
130	11	10
140	9	10
150	8	5
160	7	5
170	--*	5
180	--*	5
190	--*	5

* The Pre Dive Planning Sequence will not scroll past 160 feet, or when projected bottom /descent time is less than one minute.

Fig. 36 – No-decompression limits – DataMax Sport vs. U.S. Navy Tables

NO DECOMPRESSION LIMITS

The no-decompression limits for the DataMax Sport are contrasted with the U.S. Navy limits at left (Fig. 36). You will notice that at all but three depths, the DataMax Sport allows less time than the U.S. Navy Tables. Though the DataMax Sport no-decompression limits may be less than the U.S. Navy, you will receive greatly increased bottom times if you follow a multi-level dive profile; sometimes two or three times, as much bottom time!

MAXIMUM NO-DECOMPRESSION DIVE PROFILE

Many people ask, “Just how deep can I go, and how long can I stay, with the DataMax Sport?” The answer depends on many factors including air supply, previous dives made, etc. Assume for a minute that no previous dives were made, and that the diver had an unlimited air supply. Figure 37 shows a maximum no-decompression dive profile that is possible with the DataMax Sport. In this example, the Sport was taken to a depth where the No-decompression Dive Time Remaining reached three minutes. It was then taken to a shallower depth where it received one minute of no-decompression time credit. When the no-decompression time neared zero at this new depth, the DataMax Sport was taken to the next shallower depth. This continued until 33 feet, where there was obviously more no-decompression time available than possible air time with even the largest scuba tank. A safety stop was added as a precaution to round out this simulated dive.

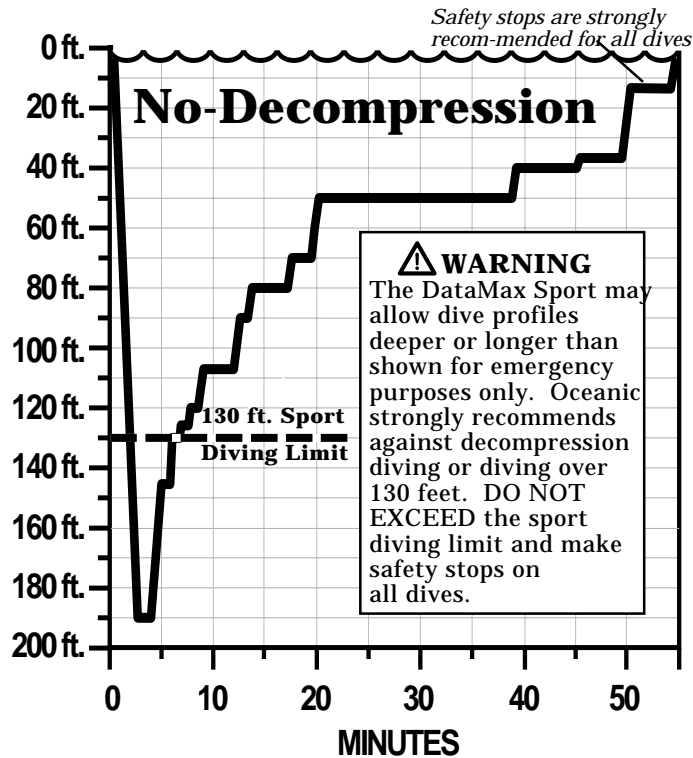


Fig. 37 – Maximum No-decompression Profile (approx).

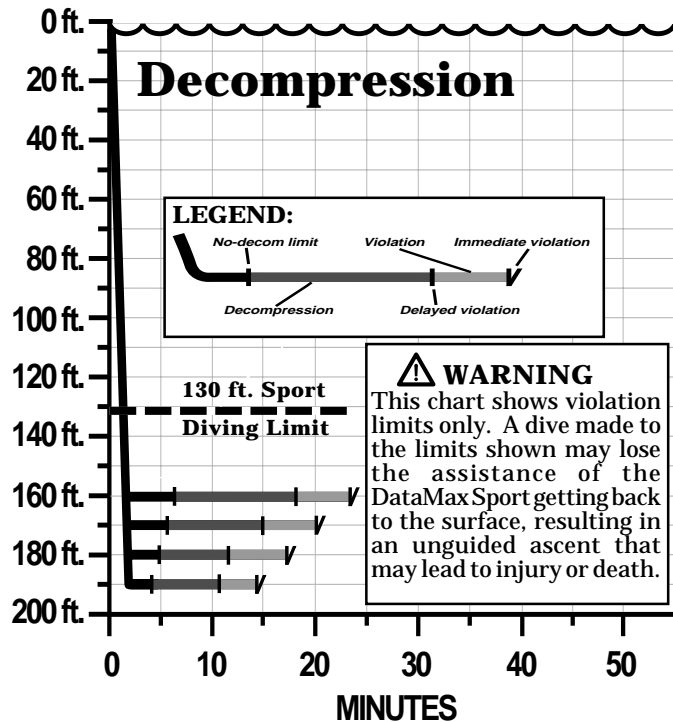
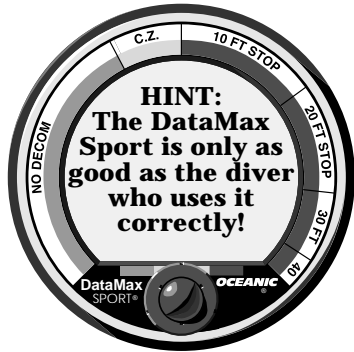


Fig. 38 – Decompression Violation Limits



DECOMPRESSION VIOLATION LIMITS

As described on pages 28 – 33, the DataMax Sport has two permanent violation modes that will result in the loss of some computer functions if entered. These are termed, *Delayed* and *Immediate* Violation Modes. Figure 38 shows a chart which details where those limits occur on extreme dive profiles between 160 and 190 feet on a first dive. The chart is meant as a reference and not a suggestion for planning a dive.

It is possible to exceed these limits at much shallower depths, especially on repetitive dives. Watch the DataMax Sport closely to avoid entering decompression, or entering a violation mode.



WARNING – Oceanic recommends that you follow the rules of responsible diving on every dive, and strongly recommends against decompression diving, or diving below 130 feet.

CONCLUSION

The DataMax Sport will provide you with information to help plan your dives, make mid-dive decisions, and enjoy more fun time underwater. However, it is only an informational tool whose entire worth depends on using it correctly. The DataMax Sport can greatly add to your enjoyment of the underwater world. Learn how to use it. Use it wisely. And have fun with the DataMax Sport, your guide to the Oceanic frontier.

NOTES

SPECIFICATIONS

NO-DECOMPRESSION MODEL

Basis

- Modified Haldanean Algorithm
- 12 tissue compartments

Data Base

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

Performance

- Tissue compartment half-times (in 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 ceilings at 10, 20, 30, & 40 feet (3, 6, 9, & 12 meters)

Altitude Algorithm

- Based on NOAA tables

OPERATIONAL MODES & DISPLAY RANGE/RESOLUTION

Modes

- Diagnostic/Activation Mode
- Surface Mode
- Pre Dive Planning Sequence Mode
- No-decompression Dive Mode
- Alternate Dive Mode
- Decompression Dive Mode
- Violation Modes (conditional, delayed, & immediate)
- Gauge Mode
- Dive Log Mode
- Time to Fly Mode

Numeric Displays

	Range	Resolution
• Dive Number	0 – 9 dives	1 dive
• Depth	0 – 249 feet (0 – 76 meter)	1 foot (.5 meter)
• Maximum Depth	249 feet (76 meters)	1 foot (.5 meter)
• No-decompression Time	0 – 9 hrs. 59 mins.	1 minute
• Decompression Time	0 – 9 hrs. 59 mins.	1 minute
• Bottom Time	0 – 9 hrs. 59 mins.	1 minute
• Surface Time	0 – 11 hrs. 59 mins.	1 minute
• Dive Log Surface Interval	0 – 11 hrs. 59 mins.	1 minute
• Time to Fly	19 hrs. 59 mins. – 0*	1 minute

(* starting 4 hrs. after the dive)

Graphic Diver Interface

	Range	Resolution
• Tissue Loading Bar Graph		
No decompression (green)	16 segments	1 segment
Caution Zone (yellow)	4 segments	1 segment
Decompression (red)	20 segments	1 segment
• Variable Ascent Rate Indicator		
	feet/min. (meters/min.)	
Red zone	91+ (28+)	
	61 – 90 (19 – 27)	
Yellow zone	51 – 60 (16 – 18)	
	41 – 50 (12 – 15)	
Green zone	31 – 40 (9 – 12)	
	21 – 30 (6 – 9)	
	0– 20 (3 – 6)	



Special Displays	Occurrence
• Diagnostic Display	Activation
• Out of Range	250+ feet
• Gauge Mode Countdown Timer	12 - 24 hours after violation
• External Calibration Access (EA)	If activation button is held for six seconds during last dive in dive log.

OPERATIONAL PERFORMANCE

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

Dive Counter

- Displays Dives 0 - 9 then recycles to 0 (and continues 0 - 9)
- Resets to Dive 0 twelve hours after last dive
- Cycles to next dive at 5 foot depth after 10 minute surface interval

Dive Log Mode

- Stores 9 dives in period up to 12 hours after last dive
- If more than 9 dives, stores latest dive in memory, deletes first dive
- Erases all dives upon next submersion past 5 feet after 12 hours

Altitude

- Altitude range 0 - 14,000 feet above sea level (0 - 4267 meters)
- Modes Full computer functions up to 14,000 feet

Recalibration to fresh water depth readings over 4,000 ft. elevation

CONSTRUCTION & MATERIALS

Materials

- Caseback/Retainer Glass-filled Noryl® Resin**
- Housing Polycarbonate Resin

- Boot Natural Rubber/EPDM blend
- Hose Kevlar® braid, rubber coated **
- Fittings Triple chrome plated brass
- Electronics S-MOS and C-MOS integrated circuits
- Weight 3 ounces (85 grams) (module only)
- Circumference 2.406 inches (module)
- Height 1.313 inches (module)

Power

- Battery Two 3 volt lithium cells
- Life expectancy Approximately 2-1/2 years 50 dives/year*
- Shelf life Up to five years depending on storage environment*
- LOW BATT Replace as soon as possible

Activation

- Needed before first dive only
- Battery Saver feature automatically shuts off gauge if no first dive in 120 minutes after initial activation. Reactivation required.
- DataMax Sport cannot be shut off manually

Display Specifications

- Display Size 1.5" diameter hemicircle (3.81 cm)
- Display type High contrast, custom liquid crystal
- Primary numeral height .340 inch
- Secondary numeral height .263 inch
- Tertiary numeral height .208 inch


* Battery life may vary greatly depending upon age, usage, climate, etc.
 ** Kevlar® and Noryl® are trademarks of DuPont and General Electric Corporations

DO YOU REALLY KNOW HOW TO USE THE DATAMAX SPORT?

Test your knowledge of how to operate the DataMax Sport by checking true (T) or false (F) in pencil. Answers are found on the bottom of the next page and in the owner's guide on the pages listed in parentheses.

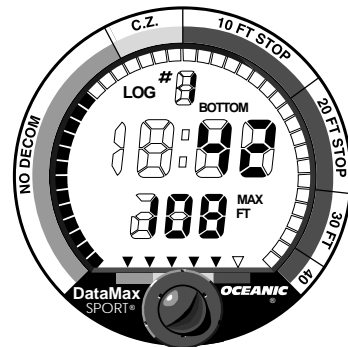
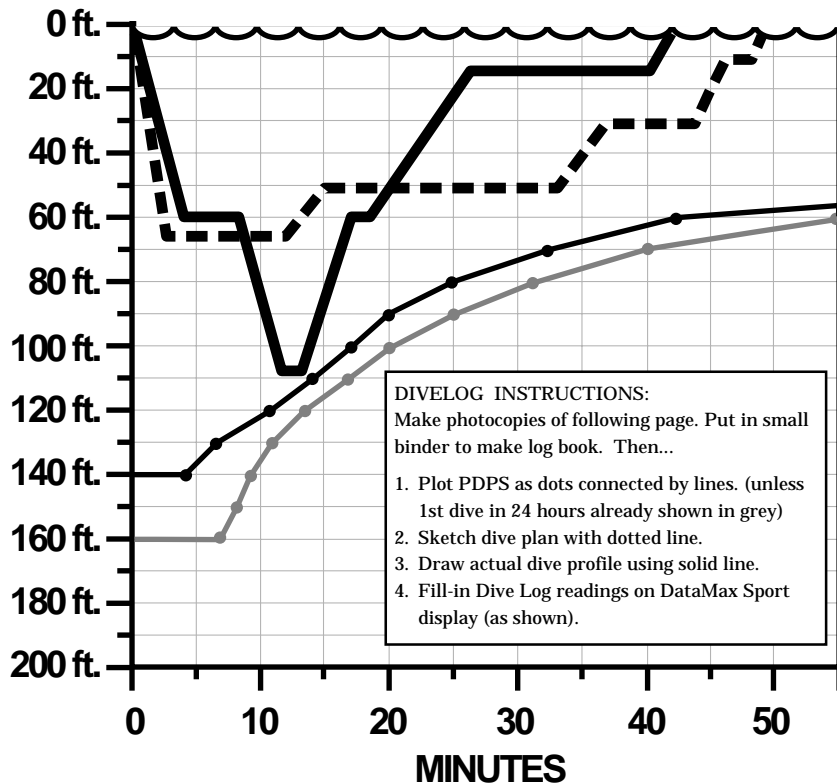
1. __ T __ F Your two-year warranty will be void if the registration card is not sent in. (pg. ii)
2. __ T __ F A flashing Tissue Loading Bar Graph means you have entered a Violation Mode. (pg. 30)
3. __ T __ F You can ascend shallower than your decompression ceiling for no more than 15 secs. (pg. 29)
4. __ T __ F Over 4,000 ft. elevation, the DataMax Sport recalibrates to fresh water depth readings. (pg. 21)
5. __ T __ F If both bar graphs are kept in the green, your exposure to DCS is minimized. (pg. 19)
6. __ T __ F Entering the TLBG red zone means you should decompress sometime later in the dive. (pg. 14)
7. __ T __ F It's okay to activate the DataMax Sport while underwater. (pg. 10)
8. __ T __ F The Variable Ascent Rate Indicator warns you when you are ascending too fast. (pg. 20)
9. __ T __ F You should never let your ascent rate put the VARI bar graph into the red zone. (pg. 20)
10. __ T __ F The Time Displays indicate either Total Bottom, Elapsed, NDC, or Surface Times. (pg. 18)
11. __ T __ F Your DataMax Sport doesn't need to be inspected annually by an Authorized Dealer. (pg. 42)
12. __ T __ F The DataMax Sport will compensate for diving at altitudes up to 14,000 feet elevation. (pg. 21)
13. __ T __ F Time to Fly mode displays a countdown 20 hours to 0 starting 4 hours after the dive. (pg. 16)
14. __ T __ F After activation, the Sport will shut down to save batteries after two hours with no dive. (pg. 10)
15. __ T __ F Any dive after a minimum of 24 hours surface interval will be numbered Dive #1. (pg. 57)
16. __ T __ F Surface mode shuts down after 12 hrs. but no-decom calculations continue for 24 hrs. (pg. 56)
17. __ T __ F Bottom time and maximum depth are not displayed underwater. (pg. 12)
18. __ T __ F Decompression Time displays total time required at all ceiling depths. (pg. 13)

19. T F Gauge Mode occurs after a permanent violation mode has been entered. (pg. 33)
20. T F The Dive Log display retains the last day's dives indefinitely until the next dive begins. (pg. 15)
21. T F You won't enter Violation mode if you require a decom ceiling greater than 40 feet. (pg. 30)
22. T F The PDPS always gives projected dive times to 160 feet. (pg. 48)
23. T F It's best to surface with the Tissue Loading Bar Graph in green, or low yellow, zones. (pg. 31)
24. T F The Caution Zone display helps you avoid decompression. (pg. 34)
25. T F It's okay for two divers to share information from one DataMax Sport. (pg. 37)
26. T F The DataMax Sport LCD can be read at night without the aid of a dive light. (pg. 36)
27. T F The DataMax Sport should be periodically sprayed with a silicone aerosol. (pg. 40)
28. T F Blinking DEC Time digits indicate entry into a conditional violation mode. (pg. 29)
29. T F You can change the DataMax Sport battery yourself. (pg. 45)
30. T F A special display will tell you when the DataMax Sport's battery is low. (pg. 44)

 **NOTE** – If you don't understand any part of this manual or how to operate the DataMax Sport, contact your local Authorized Oceanic Sales & Service Center before attempting to dive. Oceanic wants you to enjoy your DataMax Sport to the fullest. If you have any questions or comments, please call Oceanic at (510) 562-0500. Thank you.

Answers: 1.=T, 2.=T, 3.=F, 4.=T, 5.=T, 6.=F, 7.=F, 8.=T, 9.=T, 10.=T, 11.=F, 12.=T, 13.=T, 14.=T, 15.=F, 16.=T, 17.=F, 18.=T, 19.=T, 20.=T, 21.=F, 22.=F, 23.=T, 24.=T, 25.=F, 26.=F, 27.=F, 28.=T, 29.=T, 30.=T

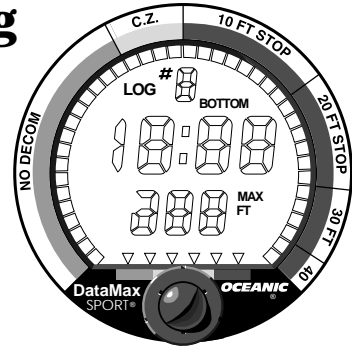
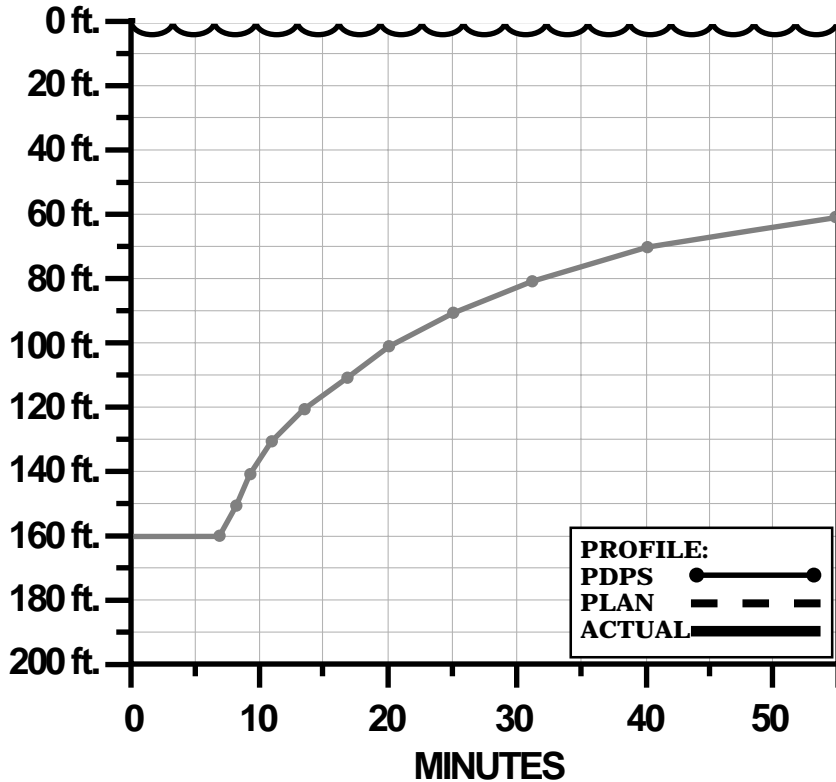
OCEANIC DiveLog Instructions



	TODAY	CUMULATIVE
Dive No.	2	84
Dive Site	Dive Site Name	
Location	City, State or Country	
Date	Today's Date	
Visibility	Vis in feet or meters	
Purpose	Why you're there	
Buddy	Your Buddy's Name	
Buddy Cert. #	Your Buddy's #	

OCEANIC

DiveLog



TODAY CUMULATIVE

Dive No. _____

Dive Site _____

Location _____

Date _____

Visibility _____

Purpose _____

Buddy _____

Buddy Cert. # _____

GLOSSARY

The following are diving terms that you should become familiar with. Many definitions given below apply specifically to the DataMax Sport.

Algorithm - A step-by-step mathematical formula designed to accomplish a particular result (i.e. Dive Time Remaining in the DataMax Sport)

Altitude Dive - A dive made at an elevation above sea level where a different set of no-decompression tables is used (4,000+ feet with the DataMax Sport)

Ascent Rate - The speed that a diver ascends toward the surface

Boot - A protective rubber covering that surrounds an instrument console

Bottom Time - The total time spent underwater during a dive between 5 feet on initial descent to 3 feet on final ascent

C.Z. - Abbreviation for Caution Zone

Caution Zone - The yellow section of the Tissue Loading Bar Graph that gives a visual warning of a diver's proximity to decompression

Ceiling - See decompression ceiling

Clean Dive - A dive preceded by 24 hours of no diving activity

Compartment - A term applied to the hypothetical modeling of nitrogen absorption in the tissues (more accurate than the term "tissue" because dive computer models have no direct relation to human tissues)

DCS - Abbreviation for decompression sickness, i.e., “the bends”

DEC - Abbreviation for Decompression

Decompression Ceiling - The shallowest depth a diver may reach upon ascent without risking decompression sickness (also see TLBG)

Decompression Stop - The depth(s) at which a diver must pause during ascent to allow absorbed nitrogen to escape naturally from the tissues

Depth Sensor - an electro-mechanical device that converts water pressure into an electrical signal, that is converted to a visual depth display

Diagnostic Mode - The first display seen on dive computers after initial activation during which time a self-check for internal faults is performed

Display - A visual readout of information

Dive Log Mode - A computer display of previous dive information

Dive Time Remaining - A display of the time before a diver must surface based on no-decompression status

Graphic Diver Interface™ - A feature of Oceanic dive computers. Easily understandable color coded bar graphs that indicate diver status; green = normal, yellow = caution, red = danger.

LCD - Abbreviation for liquid crystal display, an easily viewed low voltage display usually found on dive computers

Maximum Depth - The deepest depth attained during a dive

Mode - A specific set of functions in a dive computer

Modular Dive Computer - A dive computer that is not connected to the diver's air supply

Multiplexing Display - A display on an instrument that alternates to show different information relating to separate events

Multi-level Dive - A type of dive profile where the diver spends various times at different depths (opposite of a "Square Wave" dive profile)

NO DEC - Abbreviation for No-decompression

NO DEC Time Remaining - The amount of dive time remaining based on no-decompression status

No-Decompression - Any part of a dive where the diver can surface without requiring a decompression stop

Out of Range - The point that a dive computer can no longer supply correct dive information

PDPS - Abbreviation for Pre Dive Planning Sequence

Pre Dive Planning Sequence™ - A display of available dive times at ten foot intervals from 30 to 160 feet used when dive planning

Repetitive Dive - Any dive that takes place within 12 hours of a previous dive

Safety Stop - A depth at which a diver may choose, but is not required, to pause during ascent to allow absorbed nitrogen to escape naturally from the tissues

Square Wave Dive - A type of dive profile where the entire dive is spent at one depth between descent and ascent

Tissue - See Compartment

Tissue Compartment - See Compartment

Tissue Loading Bar Graph™ - A graphic display of simulated nitrogen absorption on Oceanic dive computers

TLBG - Abbreviation for Tissue Loading Bar Graph

Transducer - An electro-mechanical device in a dive computer that acts as a depth or pressure sensor

VARI - Abbreviation for Variable Ascent Rate Indicator

Variable Ascent Rate Indicator™ - A display on the DataMax Sport that shows ascent rate as a bar graph alongside a color-coded indicator (part of the Graphic Diver Interface)

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DATAMAX SPORT ANNUAL INSPECTION RECORD

Serial Number _____

Date of purchase _____

Purchased from _____

To be filled in below by Authorized Dealer:



Date	Dealer Name & Number	Technician Name

THE CODE OF THE RESPONSIBLE DIVER:

AS A RESPONSIBLE DIVER

I UNDERSTAND AND ASSUME THE RISKS I MAY ENCOUNTER WHILE DIVING
RESPONSIBLE DIVING BEGINS WITH:

- DIVING WITHIN THE LIMITS OF MY ABILITY AND TRAINING
- EVALUATING THE CONDITIONS BEFORE EVERY DIVE AND MAKING SURE THEY FIT MY PERSONAL CAPABILITIES
- BEING FAMILIAR WITH AND CHECKING MY EQUIPMENT BEFORE AND DURING EVERY DIVE
- KNOWING MY BUDDY'S ABILITY LEVEL AS WELL AS MY OWN
- ACCEPTING THE RESPONSIBILITY FOR MY OWN SAFETY ON EVERY DIVE

RESPONSIBLE COMPUTER DIVING

- **Always Make Your Deepest Dive First**
- **Always Make The Deepest Part Of Every Dive, First**
- **Check Your Computer Often**
- **Do A Safety Stop On Every Dive**
- **Adequate Surface Interval Between Each Dive**
- **Adequate Surface Interval Between Each Day Of Diving
(12 Hours Or Until Your Computer Clears)**

P.S. - Read And Understand The Instruction Manual

OCEANIC USA

2002 Davis Street
San Leandro, Ca. 94577
USA

Phone: 510/562-0500

Fax: 510/569-5404

Web: <http://www.oceanicusa.com>