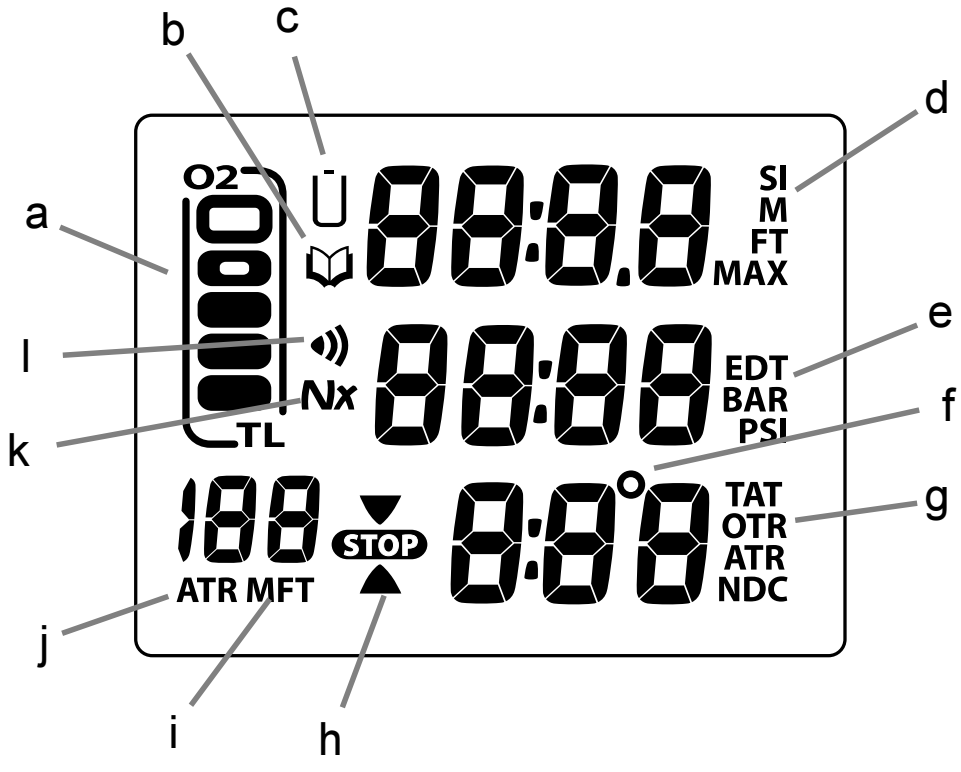
OCEANIC®

DATA MASK™

Mask / Dive Computer

Operating Manual



Components:

a. TLBG / O2BG
b. Icon - Log Mode
c. Icon - Low Battery
d. Icons - SI (Surface Interval)
   - FT or M (Depth)
   - MAX
e. Icons - EDT (Elapsed Dive Time)
   - BAR or PSI (Pressure)
f. Icon - Degrees (Temperature)
g. Icons - TAT (Total Ascent Time)
   - OTR (O2 Time Remaining)
   - ATR (Air Time Remaining)
   - NDC (No Deco Time Remaining)
h. Icon - Descend (arrow)
   - Stop (bar)
   - Ascend (arrow)
i. Icons - M or FT (Depth)
j. Icon - ATR (Air Time Remaining)

DataMask™ FULL LCD

CONTENTS

CONTENTS (continued)

CONTENTS (continued)

CONTENTS (continued)

Pay special attention to items marked with this Warning symbol.

LIMITED TWO-YEAR WARRANTY

For details and online registration, visit www.OceanicWorldwide.com

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DataMask Operating Manual, Doc. No. 12-2736
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TRADEMARK, TRADE NAME, AND SERVICE MARK NOTICE

PATENT NOTICE

U.S. Patents have been issued, or applied for, to protect the following design features:
Air Time Remaining (U.S. Patent no. 4,586,136 and 6,543,444) and Data Sensing and Processing Device (U.S. Patent no. 4,882,678). Set TLBG Alarm and other patents pending. User Setable Display (U.S. Patent no. 5,845,235) is owned by Suunto Oy (Finland).

DECOMPRESSION MODEL

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

⚠ WARNING: If your DataMask stops working for any reason, it is important that you have anticipated this possibility and are prepared for it. This is an important reason for not pushing the no decompression and oxygen exposure limits, and a critical reason to avoid entering decompression. If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your DataMask, a backup instrument system is highly recommended.

FCC ID: MH8A

FCC COMPLIANCE:
This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1.) this equipment may not cause harmful interference, and 2.) this equipment must accept any interference received, including interference that may cause undesired operation.

FCC INTERFERENCE STATEMENT:
This equipment has been tested and found to comply with the limits for an Intentional Radiator, a Class B Digital Device, pursuant to Part 15 of FCC Rules, Title 47 of the Code of Federal Regulations. These rules are designed to provide reasonable protection against harmful interference in a commercial or residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

There is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

⚠ Warning: Changes or modifications to this unit not expressly approved by Oceanic/2002 Design could void the user's authority to operate the equipment.

WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

INTRODUCTION AND GENERAL FEATURES AND DISPLAYS

INTRODUCTION

Welcome to OCEANIC and thank you for choosing the DataMask !

It is extremely important that you read this Operating Manual in sequence and understand it completely before attempting to use the DataMask as a dive computer.

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

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

General Interface and Human Factors

The Mask provides a watertight face seal and comfort level during SCUBA or FREE dives.

The Mask and its components will not interfere with or degrade the user's capability to use underwater communication or acoustic system headsets that mount over the user's ear(s).

Straps and Strap Adjustments allow for quick and easy donning and doffing of the Mask as would be done with a typical sport diving Mask.

Mask electronics are activated by manual button operation or by water activation (if set ON, a predefined user setting).

A diver who can read his or her instruments with uncorrected vision will be able to read the Mask display in all the environmental conditions described.

DataMask System components can be located and operated by a diver wearing a 7 mm thick three finger (lobster claw) wet suit glove. The equipment will not be impaired/ degraded when the diver is wearing a 7 millimeter wet suit or dry suit hood.

Mask Optics and Display Interface

The Display of the Mask is viewed through an integrated Digital Optic System™ that is used to display alpha/numeric data and icons/symbols.

After magnification, alpha/numeric characters on the Display can be read by a user who can read a ½ inch character at a distance of 10" from the eye with uncorrected vision.

△ **NOTE: Characters and symbols (icons) appear as a negative field which is lighted against a dark background when active and invisible (dark against a dark background) when not active.**

Environmental Capabilities

Functionality is not degraded by exposure to the life cycle environmental profiles and conditions described. The DataMask meets the manufacturer's environmental test standards and combined test procedures performed on dive computers and dive masks.

Tests have been conducted to verify performance in the environmental profiles and conditions described.

Ambient Light Levels

The Mask's display is readable on the surface and while underwater in Ambient Light Levels ranging from no light to bright light (direct sun). Shading may be required on the surface in direct sunlight.

Visibility

The Mask's display is readable in external Visibility Conditions ranging from zero to infinite. It is readable as long as water does not cover the Display Optics. The Mask lens and Digital Optic System™ are capable of being prevented from fogging. Water droplets are prevented from collecting on the Display Optics in wet conditions.

INTERACTIVE CONTROL CONSOLE

The Interactive Control Console consists of 2 Control Buttons that allow you to select mode options and access specific information. They are also used to link the Transmitter, enter Settings, activate the Backlight, and acknowledge the Audible Alarm.

Throughout this manual they will be referred to as the A (Top) and S (Side) buttons.

- Top = Advance (A) button
- Side = Select (S) button

OPERATING MODE STRUCTURE

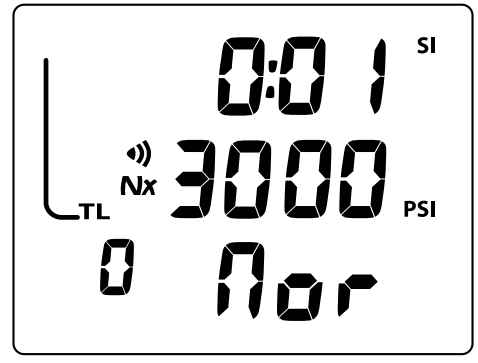
The A (Top) button is used to access 3 Operating Modes (Fig. 1) that include NOR (Normal Air/Nitrox Dive Computer), GAU (Digital Gauge Mode), and FRE (Free Dive Mode).

The screens of the Main Modes and Sub Modes will remain on display until a button is pressed to access another screen or Mode, activate a sequence, or for 2 minutes if no button is pressed.

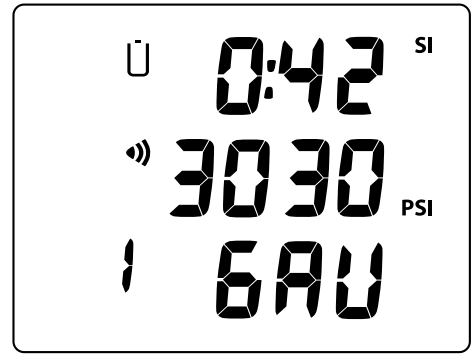
When Wet Activation is set ON, the DataMask will enter the selected Dive Mode upon descent to 5 FT (feet) /1.5 M (meters), regardless of what surface screen is displayed at the time.

⚠ WARNING: When Wet Activation is set OFF, the DataMask must be activated by push button prior to the first dive of a new series. Commencing a dive will not activate Dive Mode unless Wet Activation is set ON or the unit is activated.

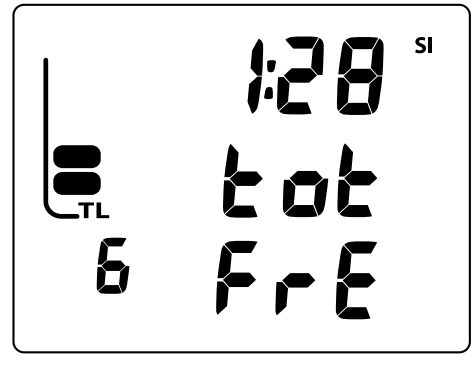
Entering Settings and Plan Mode are available in NOR SURF Mode which also allows access to ALT (Alternate) Displays, Set, Plan, Fly, Desat, Log, and History Modes. Tank Pressure is displayed if a Transmitter is active and Linked with the DataMask.



NORMAL (AIR/NITROX)



GAUGE



FREE DIVE

Fig. 1 - OPERATING MODES

GAUGE Surface Mode allows access to ALT (Alternate) Displays, Set, Fly, Log, and History Modes. It also displays Tank Pressure.

FRE Mode allows access to sub modes by first accessing NOR Surface Mode. It does not display Tank Pressure.

Once a dive is made in GAUGE Mode, the DataMask is locked into that Mode for 24 hours after the dive.

AUDIBLE ALARM

Most warning situations that activate the Audible Alarm while operating in NOR or GAU Mode cause the DataMask to emit 1 beep per second for 10 seconds, or until the situation is corrected, or it is acknowledged by momentarily pressing and releasing the A (Top) button (less than 2 seconds). After being acknowledged and the situation corrected, the Alarm will sound again upon reentry into the warning situation, or entry into another type of warning situation.

FRE Dive Mode has its own set of Alarms which emit 3 short beeps either 1 or 3 times which cannot be acknowledged.

If the Backlight is OFF, it will come ON at any time at the Level set during the time that an Alarm strikes even when set OFF. It will remain ON until the Alarm condition is corrected or clears, even if the S (Side) button is pressed in an attempt to turn it OFF.

Situations that will activate the NOR/GAU 10 second Alarm include -

- Air Time Remaining (ATR) at 5 minutes, then again at 0 minutes.
- ATR becomes less than No Deco and O2 Time Remaining for 1 minute.
- Turn Pressure at the Set Point selected.
- End Pressure at the Set Point selected.
- Descent deeper than the Max Depth Set Point selected.
- Dive Time Remaining at the Set Point selected.
- Elapsed Dive Time at the Set Point selected.
- PO2 increases to the Set Point selected.
- High O2 of 300 OTU (single or daily exposure).
- Tissue Loading Bar Graph at the segment Set Point selected.
- NOR/GAU Ascent Rate exceeds 60 FPM (18 MPM) when deeper than 60 FT (18 M), or 30 FPM (9 MPM) at 60 FT (18 M) and shallower.
- Loss of the active Transmitter Link signal for more than 15 seconds during a dive.
- Entry into Decompression Mode (Deco).
- Conditional Violation (above a required Deco Stop Depth for less than 5 minutes).
- Delayed Violation (above a required Deco Stop Depth for more than 5 minutes).
- Delayed Violation (a Deco Stop Depth greater than 60 FT/18 M is required).
- Delayed Violation (Maximum Operating Depth of 330 FT/99.9 M is exceeded).

A single short beep (which cannot be disabled) is emitted for the following -

- Upon completion of a Hot Swap battery change.
- Change from Delayed to Full Violation 5 minutes after the dive.

3 short beeps (which cannot be disabled) are emitted for the following -

- FREE Dive Elapsed Dive Time Alarm (3 beeps every 30 seconds if set ON).
- FREE Dive Depth Alarms 1/2/3 (set sequentially deeper) - each 3 beeps 3 times.
- FREE Dive TLBG Alarm (Caution zone, 4 segments) - 3 beeps 3 times.
- Entry into Deco during a FREE Dive (Permanent Violation) - 3 beeps 3 times.
- FREE Dive Mode Countdown Timer reaches 0:00 - 3 beeps 3 times.

During the following NOR Dive situations, the 10 second Audible Alarm will not turn off when acknowledged -

- Ascending above a required Decompression Ceiling Stop Depth for more than 5 minutes (referred to as a Delayed Violation).
- Decompression requires a Ceiling Stop Depth of 70 FT/21 M or deeper.
- Being on the Surface for 5 minutes after a Conditional Violation.

BACKLIGHT

When the Backlight is OFF, depressing the S (Side) button will activate the Backlight which will turn ON upon button depression. The Backlight will be ON, at the Level previously set, until the S (Side) button is depressed again to turn it OFF.

- The Backlight will not be disabled if the S (Side) button is held depressed for any long time (> 2 seconds) or if a Low Battery Alarm Condition (< 2.50 vdc) is sensed.
- If the Backlight is OFF, it will come ON at the Level previously set upon descent on a dive, during the time that an Alarm strikes, and upon entry into a Set Menu while on the surface or during a dive, even when set OFF. If the Backlight is ON, it will remain ON and will not be turned OFF when the S (Side) button is pressed while operating in the Set Menu.
- The Backlight does not operate when the DataMask is connected to a PC.

POWER SUPPLY

The DataMask utilizes one 3 volt, type CR2 Lithium Battery. The Battery should provide 160 hours of operation over the temperature ranges specified with the Backlight ON continuously while set for maximum brightness (Level). The DataMask checks its battery voltage every 2 minutes during surface operation.

- If the Mask's voltage decreases to the Warning level (2.75 volts), the Battery icon (shell with lid) will appear on Surface displays (Fig. 2a) as an indication that the Battery should be changed prior to commencing a series of dives.
- If the Mask's voltage decreases to the Alarm level (2.50 volts), the Battery icon (shell with lid) will flash and the DataMask will shut Off.
- Low Battery Warning/Alarm conditions are not displayed during Dive Modes.
- If a Mask Low Battery Condition was not displayed prior to starting a Dive, and a Low Battery Condition occurs during the dive, there will be sufficient Battery power remaining to maintain operation for the remainder of that dive.

The Transmitter also uses one 3 volt, type CR2 Lithium Battery that should provide normal operation for 1 year or 300 dive hours. A Transmitter checks battery voltage when it is pressurized and will send a Low Battery signal to the Receiver in the DataMask when the voltage drops below the Warning level.

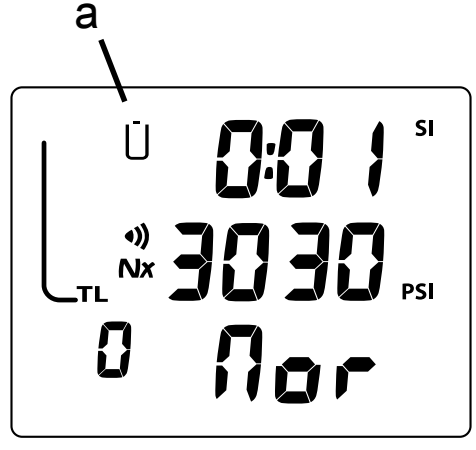


Fig. 2 - LOW BATTERY

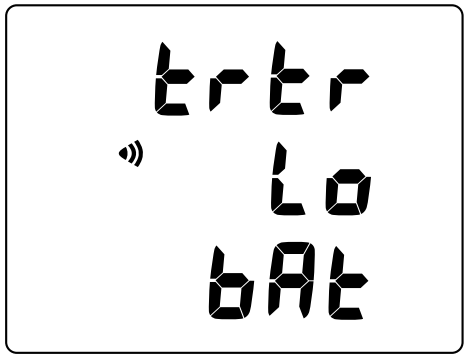


Fig. 3 - TRANSMITTER LOW BATTERY

Fig. 4A - TLBG

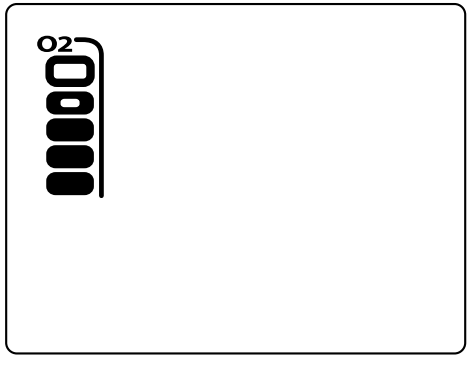


Fig. 4B - O2BG

- Transmitter Low Battery Warning/Alarm conditions are only displayed as a Transmitter Low Battery Status screen (Fig. 3) that comes On and alternates with the SURF MAIN screens when voltage decreases to the Warning level (2.75 volts).
- Each screen will be On for 3 seconds.
- Displayed on the Transmitter Status screen will be the graphics trtr (meaning Transmitter), Lo (meaning Low Voltage), and bAt (meaning Battery).
- The Battery should be changed prior to commencing a series of dives.
- If the Transmitter's voltage decreases to the Alarm level (2.50 volts), the Lo and bAt graphics will flash. Transmitter operation will continue until Tank Pressure decreases to 50 PSI (4 BAR).

BAR GRAPH

The DataMask features one shared Bar Graph that represents either nitrogen loading (Fig. 4A), or when accessed or during a High O2 condition, oxygen accumulation (Fig. 4B).

By default the Bar Graph represents your relative no decompression or decompression status and is referred to as the Tissue Loading Bar Graph (TLBG) identified by the TL icon and left side bar.

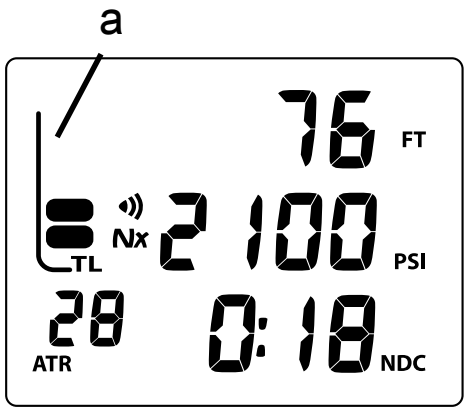


Fig. 5 - NOR DIVE MAIN

As your Depth and Elapsed Dive Time increase, segments will add to the TLBG (Fig. 5A), and as you ascend to shallower depths, the segments of the TLBG will begin to recede, indicating that additional no decompression time is allowed.

The TLBG monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive. It consists of 5 segments, the lower 4 represent No Decompression status and the one at the top indicates a Decompression condition.

Within the available NOR Mode parameters that can be set (described later) are a TLBG Alarm and a Conservative Factor which, if set ON, reduces No Decompression times allowed.

FREE Dive Mode has a separate (fixed) TLBG Alarm.

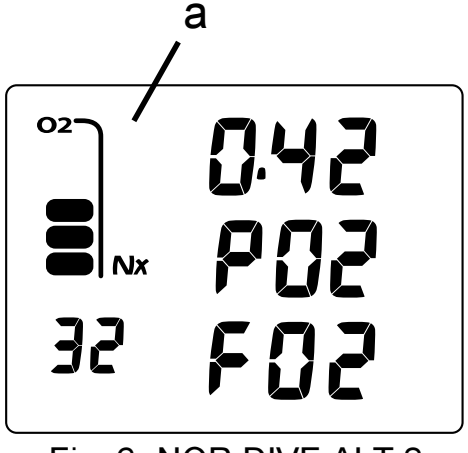


Fig. 6 -NOR DIVE ALT 2

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

When the DataMask is set to operate in NOR Nitrox mode, the Bar Graph will represent O2 accumulation when the O2 data screen (Alternate Display) is accessed or a High O2 condition exists. The O2 icon and right side bar will appear (Fig. 6a).

Regardless of which parameter the Bar Graph is representing at the time, nitrogen calculations (if in NOR Nitrox or FRE Mode) and oxygen calculations (if in NOR Nitrox Mode) will continue to be performed in the background.

While in NOR Mode, displays associated with oxygen and the O2 Bar Graph will be displayed if FO2 has been set at a value other than AIR (e.g., a numerical value) and the ALT 2 screen that displays oxygen related data is accessed.

When the oxygen data ALT screen is accessed during a NOR Nitrox dive, the Bar Graph will show the maximum of either per dive or 24 hour period accumulated oxygen.

As oxygen accumulation (or saturation) increases during a NOR Nitrox dive, segments will add to the O2 Bar Graph, and as saturation decreases, it will begin to recede, indicating that additional exposure is allowed for that dive and 24 hour period.

The DataMask will store calculated oxygen accumulation for up to 10 dives conducted during a 24 hour period. If the maximum limit for NOR Nitrox dive oxygen accumulation has been exceeded for that day (24 hour period), all of the segments of the O2 Bar Graph will be displayed flashing (Fig. 7).

Depth/Time values will not appear in Plan Mode until the O2 Bar Graph recedes into the normal zone (lower 4 segments) indicating that your daily oxygen saturation has decreased an amount equivalent to the amount accumulated during the latest dive completed.

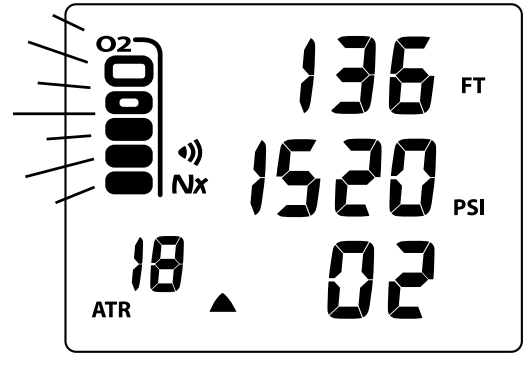


Fig. 7 - HIGH O2

PC INTERFACE

Interface with a PC is accomplished by connecting the DataMask to a PC USB Port using the OceanLog USB Interface Cable. The same Cable is used for Upload and Download.

The software program is on the OceanLog CD, together with a USB Driver. The program's Help section serves as the User Manual and can be printed for personal use. The Settings Upload portion of the program is used to check the DataMask's existing Settings and for entering settings into the DataMask. The Data Download portion of the program is used to retrieve Data that was sampled during dives and stored in the DataMask's memory.

The DataMask checks for an External Access request once every second while in Surface Mode. Checks are not made if the unit is WET. For a connection to be made, the Interface Cable is plugged into the DataMask's Data Port and plugged into a PC USB Port. To establish the connection, the OceanLog PC program must be running. When the connection is made, all segments of the DataMask appear on the display until completion of the Upload or Download operation.

- The DataMask reverts to the Surface Mode Main screen after completion of the Upload or Download operation, or after 2 minutes if no OceanLog PC program action was taken.

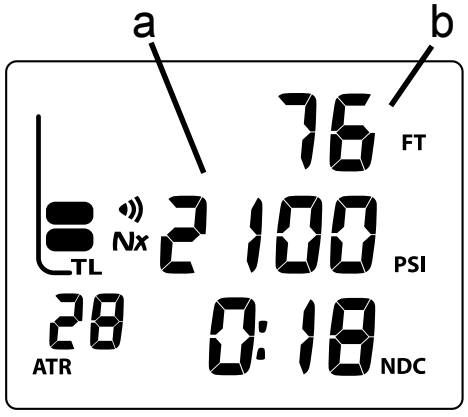


Fig. 8 - NOR DIVE MAIN

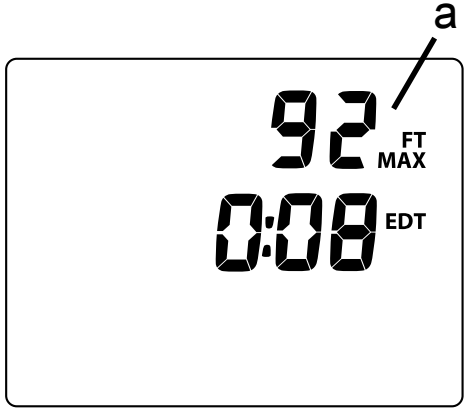


Fig. 9 - NOR DIVE ALT 1

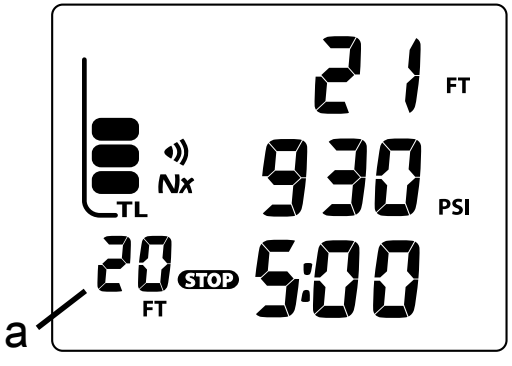


Fig. 10 - NO DECO STOP

ALPHA / NUMERIC DISPLAYS

Tank Pressure Display (NOR/GAU only)

When the DataMask's Receiver is active and properly Linked with a Transmitter, Tank Pressure from the Transmitter will be displayed on the NOR or GAU MAIN screens (Fig. 8a).

Values of Pressure are displayed numerically from 000 PSI (00 BAR) up to 5000 PSI (345 BAR) in increments of 5 PSI (1 BAR).

Depth Displays (all Modes)

During dives, the **Current Depth** display (Fig. 8b) and **Maximum Depth,** which is accessed as an ALT (Alternate) Display (Fig. 9a), indicate Depths from 0 to 330 FT (100 M) in increments of 1 FT (0.1 M) on the top row of digits.

During a No Decompression Safety Stop, the set **Stop Depth** is displayed (Fig. 10a). During Decompression conditions, the required **Ceiling Stop Depth** is displayed. These Depths are identified by the FT (or M) STOP bar icons. Deco also displays Up/Down Arrow icons.

Air Time Remaining (ATR) Display

If the DataMask's Receiver and a Transmitter are active and properly linked, ATR is displayed on the NOR or GAU Main Dive display as 1 - - with the ATR icon if > 60 minutes, then in decrements of 1 minute when it is <= 60 minutes (Fig. 11a).

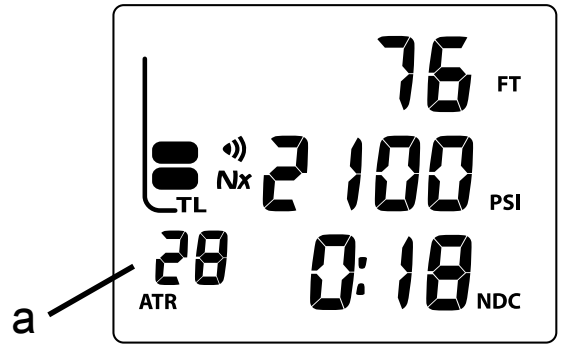


Fig. 11 - NOR DIVE MAIN

Time, Date, Temperature Displays

Time of Day and NOR/GAU Mode Time displays are shown in hour:minute format (i.e., 1:16 represents 1 hour and 16 minutes, not 116 minutes). Exception is the No Deco Safety Stop Time remaining (countdown) which is shown as minutes:seconds

FRE Mode times are shown in minute:second format. Exception is No Deco Dive Time Remaining which is hour:minute format.

The colon that separates hours:minutes (minutes:seconds) blinks once per second when the display is indicating real time (e.g., Surface Interval, Elapsed Dive Time), and is solid (non-blinking) when times are calculated projections (e.g., Time to Fly, Plan).

The Times being displayed are identified by icons.

- SI = Surface Interval
- EDT = Elapsed Dive Time
- NDC = No DeCo time remaining
- ATR = Air Time Remaining
- OTR = O2 Time Remaining
- TAT = Total Ascent Time required

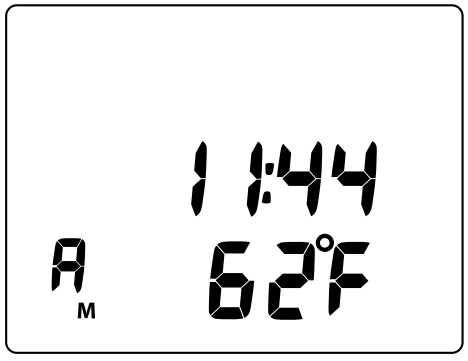


Fig. 12 - DIVE ALT
(Time/Temp)

There is an ALT (Alternate) screen that displays Time of Day and Temperature. This common display (Fig. 12) can be accessed while operating in NOR, GAU, or FRE Modes while on the Surface and during Dives.

Date is displayed only to identify dives when they are accessed in the LOG Mode. When set for Imperial Units, Month is to the left of Day (Fig. 13a) separated by a decimal point (month.day). When set for Metric, Month is to the right of Day (day.month).

NOTE: Each display represents unique pieces of information. It is imperative that you understand the formats, ranges, and values of the information represented to avoid any possible misunderstanding that could result in error.

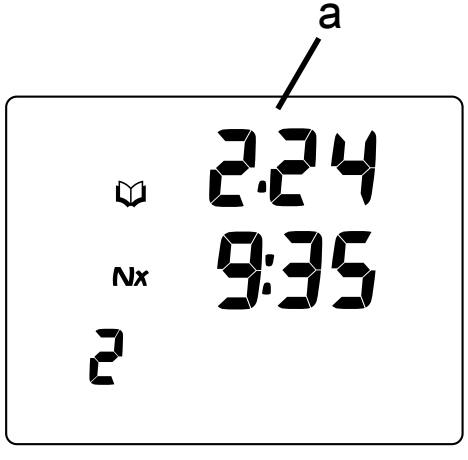


Fig. 13 - LOG PREVIEW

WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

SURFACE SEQUENCE AND OPERATING MODES

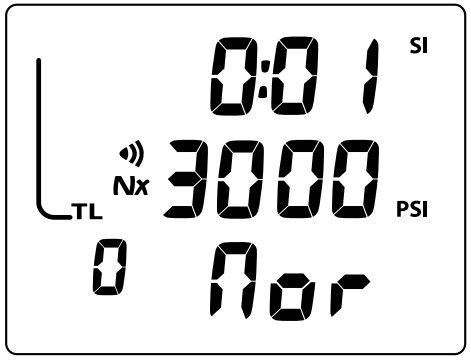


Fig. 14A - NOR SURF MAIN

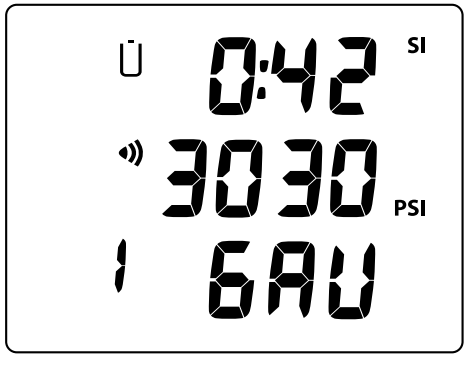


Fig. 14B - GAU SURF MAIN

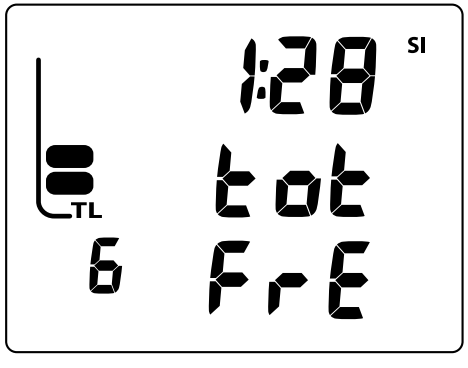


Fig. 14C - FRE SURF MAIN

OPERATING MODES

The DataMask features 3 Operating Modes >>

- NOR - for Normal Air or Nitrox dives
- GAU - for dives with no Nitrogen/Oxygen calculations
- FRE - for dives with no SCUBA

REMINDER: Once a dive is made in GAU Mode, the DataMask is locked into that Operating Mode for 24 hours after the dive.

SURFACE MODE

After activation and while the default Surface Main screen is displayed, depressing the A (Top) button for 4 sec each time steps through the operating mode Surface Main screens.

Fig. 14 - NOR MAIN >> GAU MAIN >> FRE MAIN

- The Operating Mode selected (NOR, GAU, or FRE) will remain on display for 2 hours until a dive is made or another Operating Mode is selected.

If a dive has been conducted within the past 24 hours, the SURF MAIN screen for that mode will be displayed until changed.

While operating in any Surface Mode, the DataMask will enter Dive Mode upon descent to 5 FT (1.5 M) for 5 seconds.

The DataMask will enter Post Dive Surface Mode following a dive upon Ascent to 4 FT (1.2 M) for 1 second. The Surface Interval Time colon will flash during the first 10 minutes after a NOR/GAU dive, or first 1 minute after a FRE dive, indicating a Descent will be a continuation of that dive.

During the first 2 hours after a dive, the SURF MAIN screen for the Operating Mode selected prior to the dive (NOR, GAU, or FRE) remains on display as the Default SURF MAIN screen.

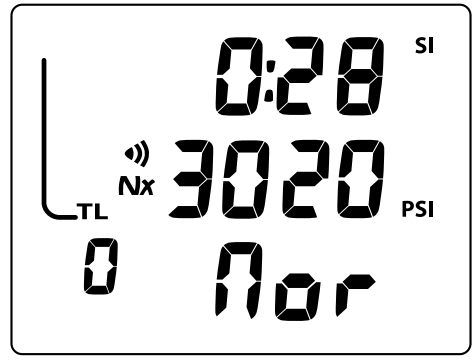


Fig. 15A - NOR SURF MAIN
(no dive made yet)

NOR SURF MAIN, information includes (Fig. 15A/B):

- > TLBG (Left Bar with TL icon), and accumulated segments if any after a NOR or FRE dive.
- > Battery icon (shell with lid), if a DataMask Low Battery Condition exists, flashing if Too Low.
- > Surface Interval (hr:min) with SI icon.
- > Tank Pressure with PSI (or BAR) and Link (Speaker) icons, if the Receiver is successfully Linked with an active Transmitter.
- > Nx icon, if FO2 is set for a Nitrox (numerical value).
- > Dive Number (lower/left).
- > Graphic **Nor** (indicating Normal Mode).

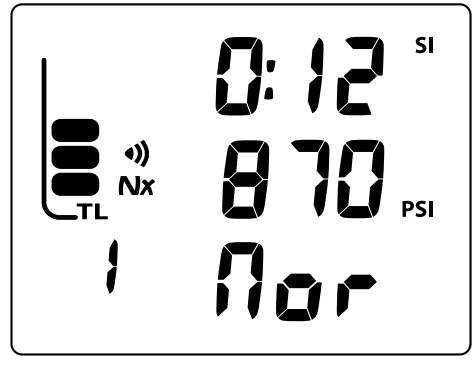


Fig. 15B - NOR SURF MAIN
(12 min after dive #1)

NOR SURF MAIN - Button Operations:

- Pressing the S (Side) button will turn the Backlight ON/OFF.

- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each time) will step through the NOR Surface Sequence (descriptions start on page 55) -
  >> SURF MAIN > SURF ALT1 > SURF ALT2 > PLAN > FLY > SAT > LOG > HISTORY

- Depressing S (Side) button repeatedly (2 seconds each time) will step through the SET Menu screens (descriptions start on page 29) -
  >> SURF MAIN > SET G > SET F > SET A > SET U > SET T > SN

- Depressing the A (Top) button for 4 seconds will access the GAU SURF MAIN screen with the graphic GAU flashing, then another 4 second press will access the FRE SURF MAIN screen with the graphic FRE flashing.
  >> NOR SURF MAIN >> GAU SURF MAIN >> FRE SURF MAIN

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) while GAU or FRE is displayed flashing will select that as the Operating Mode which will be indicated by the graphic becoming solid.

- When one Mode graphic in the series is solid, it is the 'selected Operating Mode'. Ensure it is that Mode that you want and will be diving in.

- To activate the DataMask's Receiver and Transmitter Link (for 10 minutes), press and release the A (Top) button (< 2 seconds). This will cause the ALT1 screen (refer to page 55) to appear, which will revert to the MAIN screen after 5 seconds.

Transmitter Low Battery

As previously described, if the voltage of a Linked Transmitter decreases to the Warning level (< 2.75 volts > 2.50 volts), the Transmitter Low Battery Status screen will appear and alternate with the SURF MAIN. If voltage decreases to the Alarm level (<= 2.50 volts), the Lo and bAt graphics will flash.

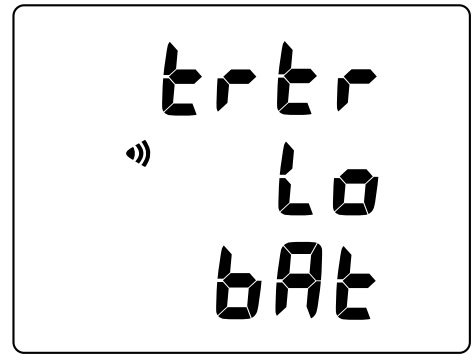


Fig. 16 - TRANSMITTER BATTERY LOW

Information displayed includes (Fig. 16):

- > Graphic **trtr** (meaning Transmitter).
- > Link (speaker) icon.
- > Graphics **Lo** and **bAt**, flashing if an Alarm Condition.

SET MODES

Unless noted otherwise, items set apply to all Operating Modes (NOR, GAU, and FRE). FRE Dive Mode also has several settings that do not affect NOR and GAU Modes.

SURF MAIN > SET G > SET F > SET A > SET U > SET T > SN

Access and step through of the sequence is gained by repeated 2 second presses then releases of the S (Side) button.

FO2 Default (Set F), Backlight (Set G), Alarms (Set A), Utilities (Set U), and Time (Set T) Set Points can also be set/changed using the PC Settings Upload program. FO2 (Set F) can only be set using the push buttons, not by using the PC Interface.

Upon access to a Set Menu, the Backlight will come ON if OFF and remain ON until exit from the Set Menu.

It cannot be turned OFF.

Exit from the Set Sequence to the Main by depressing A for 2 sec

GAU and FRE Operating Modes are also described in separate sections of this manual.

NOTE: Operation of the S (Side) button while in a Set Menu will not turn the Backlight OFF as it does while operating in other modes.

SET G GROUP (G = GLO = BACKLIGHT)

Set G Sequence:
SET G > GLO.L (Level)

NOTE: Backlight Level can be set while on the surface and during dives in any of the 3 Operating Modes.

Depressing the S (Side) button for 2 seconds while the SURF MAIN screen is displayed will access the SET G screen identified by the graphic SEtG (Fig. 17).

Pressing and releasing the A (Top) button momentarily (less than 2 seconds), while SET G is displayed, will advance to SET L (Level) with the Set Point flashing.

Depressing the S (Side) button for 2 seconds while SET G is displayed will bypass SET G and advance to SET A.

Depressing the A (Top) button for 2 seconds while SET G is displayed will exit the Set Menu and revert to the SURF MAIN.

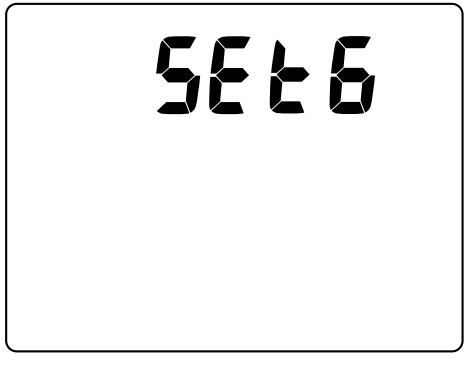


Fig. 17 - SET G (BACKLIGHT)

Set Backlight Level, information includes (Fig. 18):

- Graphic GLO.L
- Set Point, flashing

△ NOTE: GLO Level is the % of the Backlight's full (100%) power of illumination.

While the SET L screen is displayed, pressing and releasing the S (Side) button momentarily and repeatedly (less than 2 seconds each time) will step through the Set Points of 5% (Minimum), 25, 50, 75, and 100%, then repeat the step through.

- As the Set Point changes, the actual Level of illumination of the Mask's LCD will change allowing you to determine which Level setting you prefer.

Pressing and releasing the A (Top) button momentarily (less than 2 seconds) will save the setting and revert back to the SET G screen.

△ NOTE: During the first 10 minutes on the surface following a dive, Backlight Level can be set in the same manner described above.

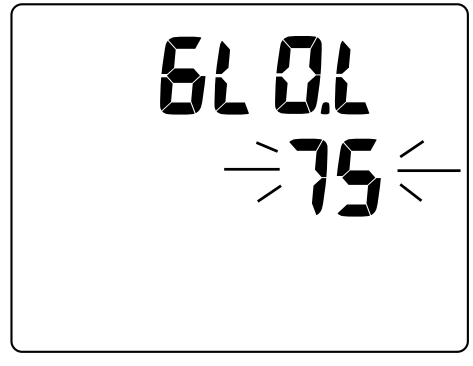


Fig. 18 - SET BACKLIGHT LEVEL

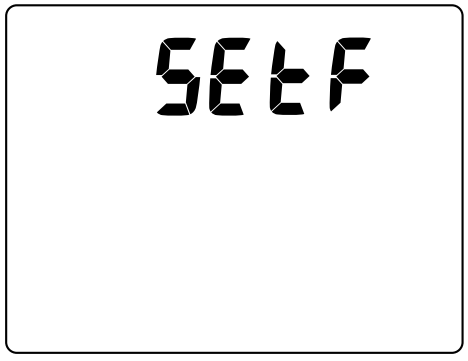


Fig. 19 - SET F (FO2)

SET F GROUP (FO2)

Set F Sequence:
SET F > FO2 > FO2 Default.

> Depressing the S (Side) button for 4 seconds while the NOR or GAU SURF MAIN screen is displayed will access SET F identified by the graphic SEtF (Fig. 19).
> Pressing and releasing the A (Top) button momentarily (< 2 seconds) while SET F is displayed will access the SET FO2 screen with the Set Point flashing.
> Depressing the A (Top) button for 2 seconds while SET F is displayed will exit the Set Menu and revert to the SURF MAIN.

Setting FO2 for NOR Nitrox Dives:
For each numerical value of FO2 displayed, the MOD (Maximum Operating Depth) that can be achieved for the PO2 Alarm Set Point limit previously set will be displayed.

△ **NOTE: The MODs will change if the PO2 Alarm Set Point is changed after setting FO2.**

When the FO2 DEFAULT is set ON and FO2 is set for a numerical value, 10 minutes after surfacing from that dive FO2 will be displayed as 50 (%) and further repetitive dives will be calculated based on 50% O2 for oxygen calculations and 21% O2 for Nitrogen calculations (79% Nitrogen), unless FO2 is set to another numerical value before the dive.

FO2 continues to reset to the FO2 50% DEFAULT after subsequent repetitive dives until 24 hours elapse after the last dive, or the FO2 50% DEFAULT is turned OFF.

When the FO2 50% DEFAULT is set OFF, FO2 for that series of repetitive dives will remain set at the last FO2 Set Point selected.

The default FO2 for each new dive activation Period is AIR. When FO2 is set for AIR, the calculations are the same as when it is set for 21%. When FO2 is set to AIR, it remains set for AIR until it is set for a numerical value (21 to 50%).

When FO2 is set to AIR, the O2 Bar Graph is not displayed at any time during a dive or on the surface. PO2 values and/or warnings will not be displayed during the dive.

FRE Dive nitrogen calculations are based on AIR and not affected by these FO2 Settings.

Maximum Operating Depths affected by the PO2 limit set will not be displayed when FO2 is set to AIR.

Internally, the DataMask keeps track of the oxygen loading so that if FO2 is subsequently set for a numerical value, the oxygen loading for previous AIR dives will be accounted for in the next Nitrox dive (during that dive period and series of repetitive dives).

Once FO2 is set for a numerical value (21 to 50%) and a dive is made, the AIR option is disabled until 24 hours elapse after the last dive. The AIR option will not be displayed as Set FO2 option until a full 24 hour Surface Interval has elapsed.

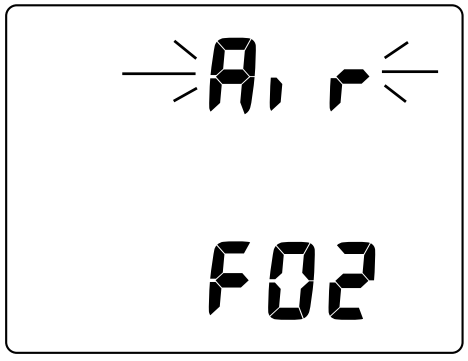


Fig. 20A - SET FO2 = AIR

SET FO2, information includes:

> Max Depth allowed for the PO2 Alarm Set, if Nitrox
> Nx icon, if Nitrox
> PO2 Alarm Set Point with graphic PO2, if Nitrox
> FO2 Set Point value, flashing
> Graphic FO2

- Depressing and holding the S (Side) button while the Set Point is flashing will scroll the Set Points from AIR (Fig. 20A) to 21 through 50% in 1% increments, at a rate of 8 Set Points per second.
- The scroll will stop when the button is released, or momentarily at 32% (even if the button is held depressed).
- Depressing and holding the S (Side) button will resume the scroll from 32 (Fig. 20B) through 50%, then stop at AIR (or 21%).
- Pressing and releasing the S (Side) button (< 2 seconds) will advance FO2 in increments of 1% per press of the button.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to SET FO2 Default with the Set Point flashing.
- Pressing and releasing the A (Top) button again (< 2 seconds each) will revert to the SET F screen.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET F screen.
- If no button is pressed for 2 minutes, operation will revert to NOR (or GAU) SURF MAIN screen.

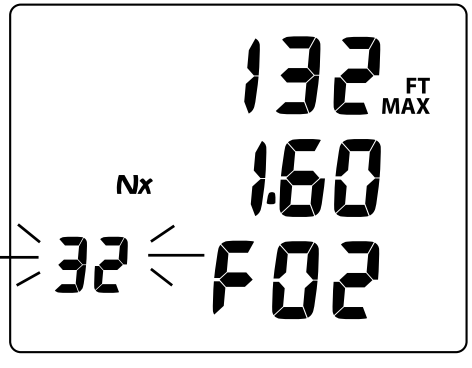


Fig. 20B - SET FO2 = 32%

SET FO2 50% DEFAULT, information includes (Fig. 21):

> Graphic dFLt (meaning Default)
> Nx icon
> Set Point graphic ON (or OFF), flashing.
> Graphics 50 and FO2

- Pressing and releasing the S (Side) button (< 2 seconds) will toggle between OFF and ON.
- Pressing and releasing the A (Top) button (< 2 seconds) will save the setting and revert to the SET F screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

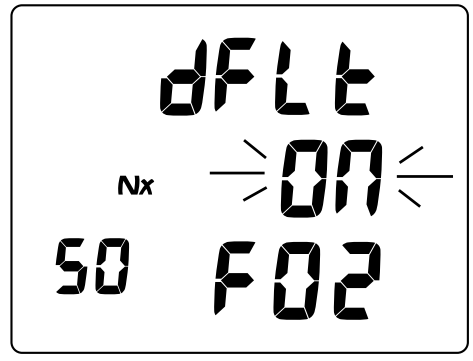


Fig. 21 - SET FO2 DEFAULT

FO2 Default can be set using the push buttons or the PC Interface program.

FO2 (%) can only be set using the push buttons.

SET A GROUP (NOR/GAU ALARMS)

Set A Sequence:
SET A > Audible > Depth > EDT > TLBG > DTR > Turn Pressure > End Pressure > PO2

> The SET A Group items can also be set/changed using the PC Settings Upload program.
> SET A items do not strike Alarms in FRE Dive Mode.
> SET A Settings remain at the values set until changed.
> Depressing the S (Side) button for 6 seconds while NOR (or GAU) SURF MAIN is displayed will access SET A identified by the graphic SEtA (Fig. 22).

Fig. 22 - SET A (ALARMS)

> Pressing and releasing the A (Top) button momentarily (< 2 seconds) while SET A is displayed will advance to SET AUDIBLE ALARM with the Set Point flashing.
> Depressing the A (Top) button for 2 seconds while SET A is displayed will exit the Set Menu and revert to the SURF MAIN.

SET AUDIBLE ALARM

This option allows the Audible Alarms to be disabled. Some cautionary situations will cause the Audible Alarm to sound even if this feature is set to OFF. Setting the Audible OFF will also prevent it from sounding when FREE Dive Mode Alarms strike.

SET AUDIBLE ALARM, information includes (Fig. 23):

> Graphic Aud
> Set Point graphic ON (or OFF), flashing.

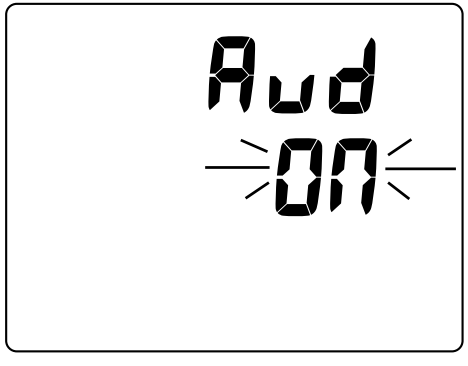


Fig. 23 - SET AUDIBLE ALARM

- Pressing and releasing the S (Side) button (< 2 seconds) will toggle between ON and OFF.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET DEPTH ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

SET DEPTH ALARM, information includes (Fig. 24):

> FT (or M) and MAX icons
> Set Point Depth value, flashing
> Graphic SdA (meaning Scuba Depth Alarm)

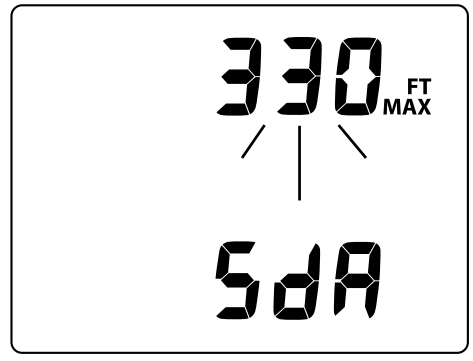


Fig. 24 - SET DEPTH ALARM

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will step through the Set Points from 30 to 330 FT (10 to 100 M) in 10 FT (1 M) increments at a rate of 1 Set Point per press of the button.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until it is released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET EDT (Elapsed Dive Time) ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button momentarily and repeatedly (< 2 seconds each time) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

FREE Dive Mode has separate Depth Alarms.

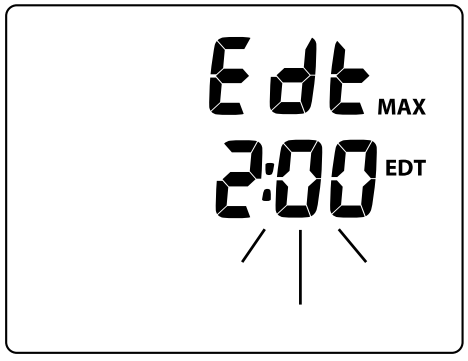


Fig. 25 - Set Depth Alarm

SET EDT (ELAPSED DIVE TIME) ALARM,

information includes (Fig. 25):

> Graphic Edt (meaning Elapsed Dive Time) and MAX icon
> Set Point value (hr:min), flashing, and EDT icon.

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will increase the Set Point from 0:10 to 3:00 (hours:minutes) in 5 minute (:05) increments.
- Depressing the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until it is released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET TLBG (Tissue Loading Bar Graph) ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

FREE Dive Mode has a separate (fixed) EDT Alarm.

SET TLBG (TISSUE LOADING BAR GRAPH) ALARM,
information includes (Fig. 26):

> Graphic tLbG (meaning Tissue Loading Bar Graph) and MAX icon
> TLBG (Left Bar with TL icon) with Set Point (segments), flashing

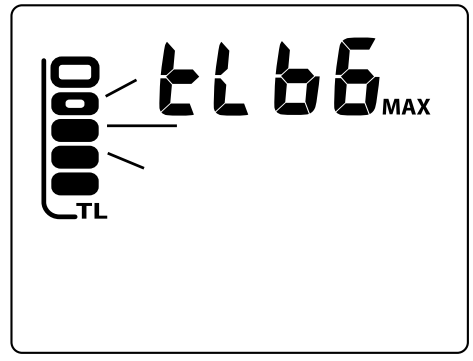


Fig. 26 - SET TLBG ALARM

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will decrease the Set Point from All 5 segments (Deco) to 1 in decrements of 1 segment.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET DTR (Dive Time Remaining) ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for a period of 2 minutes operation will revert to the NOR or GAU SURF MAIN screen.

Setting the TLBG Alarm to activate before the DataMask enters DECO is highly recommended.

FREE Dive Mode has a separate (fixed) TLBG Alarm.

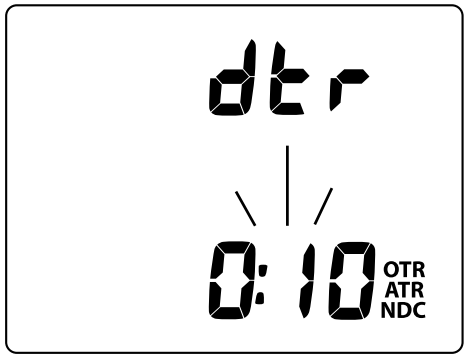


Fig. 27 - SET DTR ALARM

SET DTR (DIVE TIME REMAINING) ALARM,

information includes (Fig. 27):

> Graphic dtr (meaning Dive Time Remaining)
> Set Point value (hr:min) flashing.
> OTR, ATR, and NDC icons.

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each time) will increase the Set Point from 0:00 to 0:20 (:minutes) in 1 minute (0:01) increments.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until it is released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET TURN PRESSURE ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button momentarily and repeatedly (< 2 seconds each) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for a period of 2 minutes operation will revert to the NOR (or GAU) SURF MAIN screen.

NDC = No Deco Time
ATR = Air Time
OTR = O2 Time

Whichever Time decreases to the Alarm Set Point will activate the Alarm.

SET TURN PRESSURE ALARM, information includes (Fig. 28):

> Graphic turn (TURN)

> Set Point OFF or a numeric value, flashing, and PSI (or BAR) icon

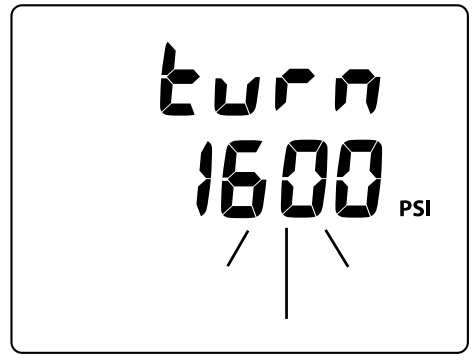


Fig. 28 - SET TURN ALARM

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each time) will step through the Set Points from OFF then 1000 to 3000 PSI (70 to 205 BAR) in 250 PSI (5 BAR) increments.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until it is released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET END PRESSURE ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

Setting the Turn Pressure Alarm OFF does not affect the End Pressure Alarm.

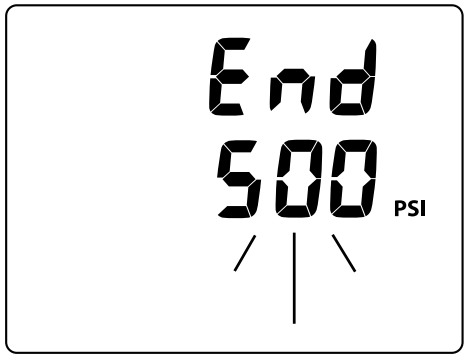


Fig. 29 - SET END ALARM

SET END PRESSURE ALARM, information includes (Fig. 29):

> Graphic End (END)

> Set Point numeric value, flashing, and PSI (or BAR) icon

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each time) will increase the Set Point from 300 to 1500 PSI (20 to 105 BAR) in 100 PSI (5 BAR) increments.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until it is released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET PO2 ALARM screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each time) will step through the other SET A screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET A screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

End Pressure Alarm does not have an OFF Set Point.

SET PO2 ALARM, information includes (Fig. 30):

> Set Point value, flashing, and MAX icon
> Nx icon
> Graphics PO2 and AtA

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each time) will increase the Set Point from 1.20 (ATA) to 1.60 (ATA) in .10 (ATA) increments.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or revert to the SET A screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

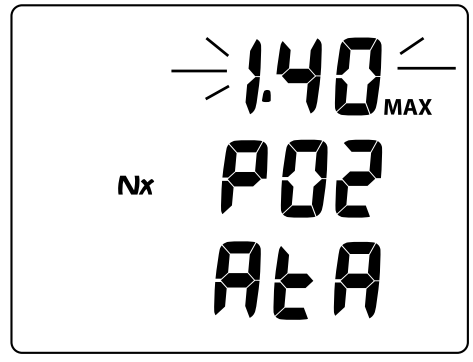


Fig. 30 - SET PO2 ALARM

SET U GROUP (UTILITIES)

Set U Sequence:
SET U > Wet Activation > Units > No Deco Stop > Conservative Factor > Sampling Rate > Transmitter Link Code

> SET U Settings remain at the values set until changed.
> FRE Mode utilizes these settings for Wet Activation and Units. It has a separate fixed Sampling Rate.

ATA = Atmospheres Absolute

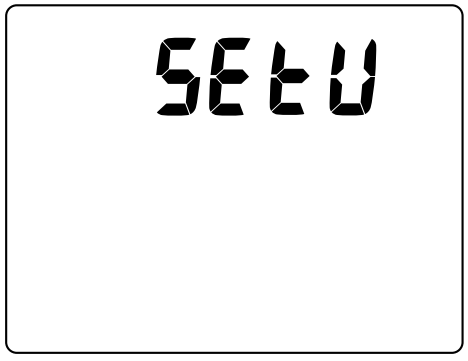


Fig. 31 - SET U (UTILITIES)

- Depressing the S (Side) button for 8 seconds while the NOR (or GAU) SURF MAIN screen is displayed will access SET U identified by the graphic SEtU (Fig. 31).

> Pressing and releasing the A (Top) button momentarily (< 2 seconds) while SET U is displayed will advance to SET WET ACTIVATION with the Set Point flashing.

> Depressing the A (Top) button for 2 seconds while SET U is displayed will exit the Set Menu and revert to the SURF MAIN.

SET WET ACTIVATION, information includes (Fig. 32):

> Graphics ACt and H2O (meaning Wet Activation)

> Set Point graphic ON (or OFF) flashing.

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each time) will toggle between ON and OFF.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET UNITS screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each) will step through the other SET U screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

Fig. 32 - SET WET ACTIVATION

HINT: To change the Wet Activation setting while operating in FREE Dive Mode, first access the NOR SURF Mode.

SET UNITS, information includes (Fig. 33A/B):

> Graphic Unit
> Set Point icons/graphics FT, PSI, and F (or M, BAR, and C), flashing.

- Pressing and releasing the S (Side) button will toggle between Imperial (FT, PSI, F) and Metric (M, BAR, C).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET NO DECO STOP screen with the Time Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each time) will step through the other SET U screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

HINT: To change the Units setting while operating in FREE Dive Mode, first access the NOR SURF Mode.

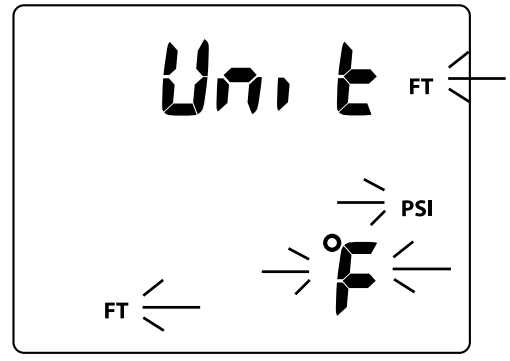


Fig. 33A - SET UNITS (IMPERIAL)

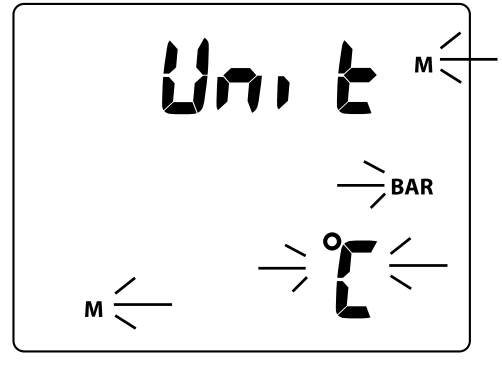


Fig. 33B - SET UNITS (METRIC)

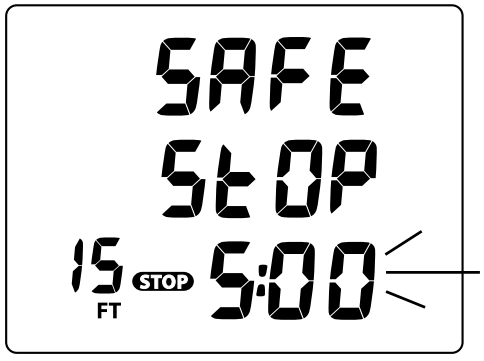


Fig. 34 - SET NO DECO SAFETY STOP

SET NOR SAFETY STOP, information includes (Fig. 34):

> Graphics SAFE and StOP
> Safety Stop Depth Set Point and FT (or M) icon
> STOP Bar icon
> Safety Stop Time Set Point (min:sec), flashing.

- Pressing and releasing the S (Side) button momentarily (< 2 seconds each) will step through the Stop Time Set Points of OFF, 3:00, and 5:00 (min:sec).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Time setting and the Depth Set Point will flash, or if Stop Time is set OFF advance to the SET CONSERVATIVE FACTOR screen with the Set Point flashing.
- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will step through the Stop Depth Set Points of 10, 15, and 20 FT (or 3, 4, 5, and 6 M).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the settings and/or advance to the SET CONSERVATIVE FACTOR screen with the Set Point flashing.
- Pressing the A (Top) button repeatedly (< 2 seconds) will step through the other SET U screens.
- Depressing the A (Top) button for 2 seconds will save the settings and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

There is no penalty if you surface before a No Deco Safety Stop is completed.

SET CONSERVATIVE FACTOR, information includes (Fig. 35):

> Graphic CONS (Conservative)
> Set Point ON (or OFF), flashing
> NDC icon

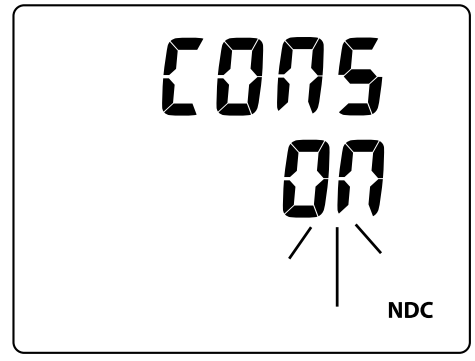


Fig. 35 - SET CONSERVATIVE FACTOR

- Pressing and releasing the S (Side) button (< 2 seconds each time) will toggle between ON and OFF.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET SAMPLING RATE screen with the Set Point flashing.
- Pressing and releasing the A (Top) button repeatedly (< 2 seconds each time) will step through the other SET U screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

△ NOTE: When the Conservative Factor is set ON, the No Decompression Dive Time Limits are reduced to values equivalent to those that would be available at the next higher 3000 foot (915 meter) Altitude. Refer to the tables in the back section of the manual.

NDC =
No Deco Dive Time
Remaining

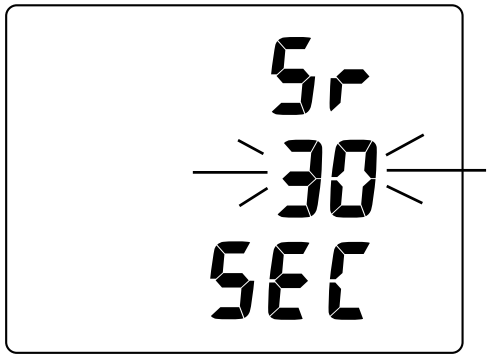


Fig. 36 - SET SAMPLING RATE

SET SAMPLING RATE, information includes (Fig. 36):

> Graphic Sr (meaning Sampling Rate)
> Set Point (sec), flashing
> Graphic SEC (seconds)

- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will step through the Set Points of 2, 15, 30, 60 (seconds).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the setting and/or advance to the SET Transmitter Link Code screen with the Set Point flashing.
- Pressing and releasing the A (Top) button momentarily and repeatedly (< 2 seconds each time) will step through the other SET U screens.
- Depressing the A (Top) button for 2 seconds will save the setting and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

FREE Dive Mode has a separate fixed Sampling Rate of 1 second.

SAMPLING RATE is the frequency (time interval) at which data is sampled and stored in memory for subsequent down-load to the PC OceanLog program.

SET TRANSMITTER (trtr) LINK CODE, information includes (Fig. 37A/B):

> Graphic trtr (meaning Transmitter)
> Set Point graphic ON (or OFF), flashing
> Link Code Set Point (Transmitter Serial Number)

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle between ON and OFF.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the ON/OFF selection.

> If OFF is selected, operation will revert to the SET U screen.
> If ON is selected, the First Digit (left) of the Code will flash (Fig. 37B).

- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will increase the First Digit from 0 to 9 in increments of 1.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 per second.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the First Digit of the Code and/or advance to the Second Digit which will be flashing.
- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will increase the Second Digit from 0 to 9 in increments of 1.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 per second.

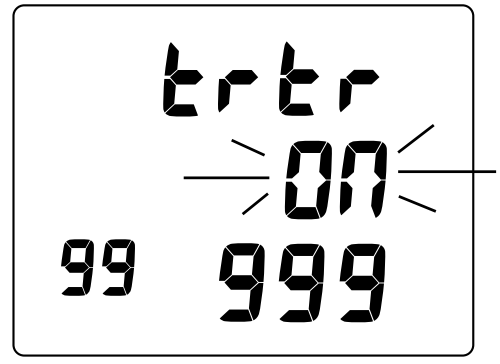


Fig. 37A - SET LINK CODE (ON / OFF)

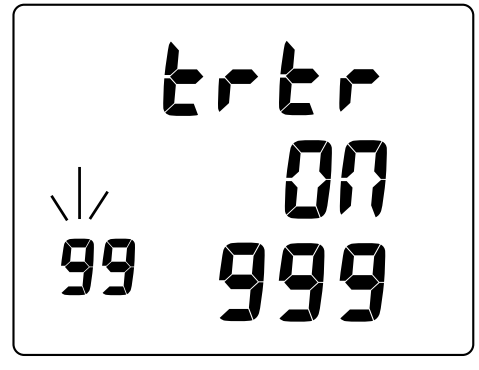


Fig. 37B - SET LINK CODE (SERIAL NUMBER)

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the Second Digit of the Code and/or advance to the Third Digit which will be flashing.
- Pressing and releasing the S (Side) button repeatedly (< 2 seconds each time) will increase the Third Digit from 0 to 9 in increments of 1.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 per second.
- Pressing and releasing the A (Top) button (< 2 seconds) will accept the Third Digit of the Code and/or advance to the Fourth Digit which will be flashing.
- Pressing and releasing the S (Side) button repeatedly (< 2 seconds each time) will increase the Fourth Digit from 0 to 9 in increments of 1.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 per second.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the Fourth Digit of the Code and/or advance to the Fifth Digit which will be flashing.
- Pressing and releasing the S (Side) button repeatedly (< 2 seconds each time) will increase the Fifth Digit from 0 to 9 in increments of 1.
- Depressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 per second.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the Fifth Digit of the Code, save the setting, and revert to the SET U screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

SET T GROUP (TIME/DATE)

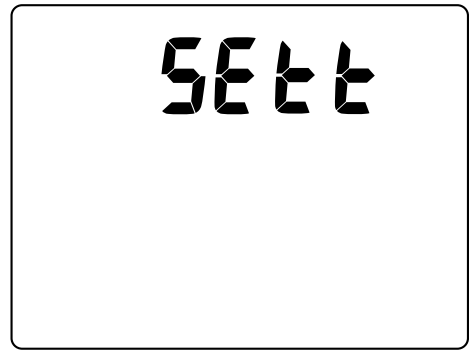


Fig. 38 - SET T (TIME / DATE)

Set T Sequence:
SET T > Hour Format > Hour > Minute > Year > Month > Day

> The SET T Group can also be set/changed using the PC Settings Upload program.
> SET T Settings remain at the values set until changed.
> FREE Dive Mode utilizes these settings.
> Day of the Week is set automatically when the Date is set.

- Depressing the S (Side) button for 10 seconds while the NOR (or GAU) SURF MAIN screen is displayed will access SET T identified by the graphic SEtt (Fig. 38).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) while SET T is displayed will advance to SET HOUR FORMAT with the Set Point flashing.
- Depressing the A (Top) button for 2 seconds while SET T is displayed will exit the Set Menu and revert to the SURF MAIN.

SET HOUR FORMAT, information includes (Fig. 39):

> Graphic Hour
> Set Point 12 (or 24), flashing.

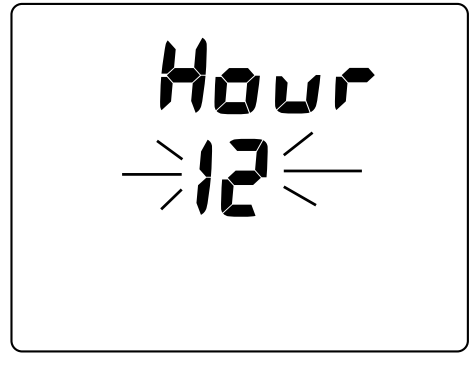


Fig. 39 - SET HOUR FORMAT

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle between 12 and 24.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Hour Format Set Point and access the SET TIME screen with the HOUR Set Point flashing.
- Depressing and holding the A (Top) button for 2 seconds will save the setting and revert to the SET T screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

SET TIME (Hour and Minute)

The graphic Am or Pm will be displayed when 12 Hour Format has been selected.

- Depressing and holding the S (Side) button while the HOUR Set Point is flashing (Fig. 40) will scroll through the Set Points in 1 Hour increments at a rate of 4 per second from 12: Am to 11: Pm (or 0: to 23: if set for 24 Hour Format).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Hour Set Point and/or advance to SET MINUTE with the MINUTE Set Point flashing.
- Depressing and holding the S (Side) button while the MINUTE Set Point is flashing will scroll through the Set Points in 1 minute increments at a rate of 4 per second from :00 to :59.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Minute Set Point and/or advance to the SET DATE screen with the YEAR Set Point flashing.

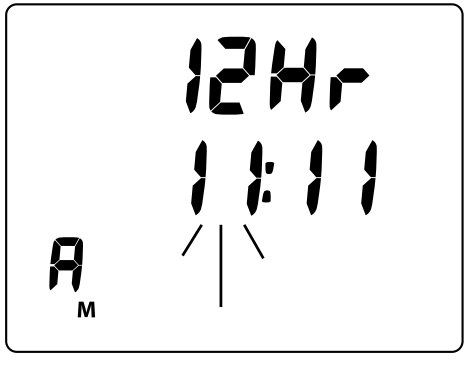


Fig. 40 - SET TIME

- Depressing and holding the A (Top) button for 2 seconds will save the setting and revert to the SET T screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

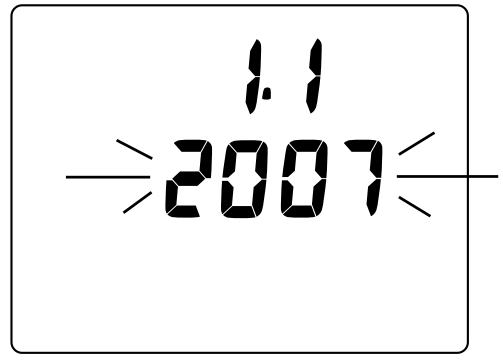


Fig. 41 - SET DATE

SET DATE (Year, Month, and Day)
Displayed numerically will be the Month and Day (or Day and Month if set for metric) and the YEAR Set Point flashing (Fig. 41).

- Depressing and holding the S (Side) button will scroll through the YEAR Set Points in 1 year increments at a rate of 4 per second from 2007 to 2050 (with leap year corrections).
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the YEAR Set Point and/or advance to SET MONTH with the Set Point flashing.
- Depressing and holding the S (Side) button will scroll through the MONTH Set Points in 1 month increments at a rate of 4 per second from 1 to 12.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Month Set Point and/or advance to SET DAY with the Set Point flashing.
- Depressing and holding the S (Side) button will scroll through the DAY Set Points in one day increments at a rate of 4 per second from 1 to 31.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will save the Time/Date Set Points and revert to the SET T screen.
- If no button is pressed for a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.

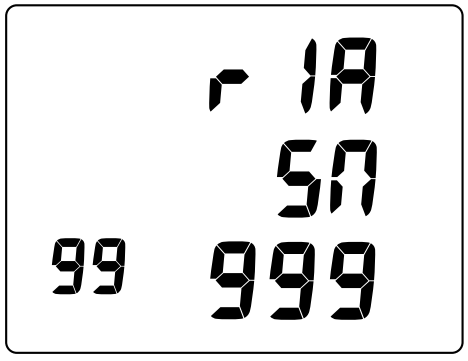


Fig. 42 - SERIAL NUMBER

SERIAL NUMBER (DataMask) - view only

- Depressing and holding the S (Side) button for 12 seconds while viewing the NOR (or GAU) SURF MAIN screen will access the Mask's SERIAL NUMBER screen, displaying (Fig. 42):

> Firmware revision number (e.g., graphic r1A)
> Graphic SN (meaning Serial Number)
> Factory programmed Serial Number of the DataMask

- Depressing and holding the S (Side) button for 2 seconds will revert to the SURF (or GAU) SURF MAIN screen.
- If no button is pressed during a period of 2 minutes, operation will revert to the NOR (or GAU) SURF MAIN screen.
- Depressing the A (Top) button for 2 seconds will revert to the SURF MAIN.

NOR (or GAU)
SURF MAIN >>
SET G >>
SET F >>
SET A >>
SET U >>
SET U >>
SN

NOTE: The Serial Number and Firmware Revision will be requested in the event that you contact Oceanic regarding your DataMask. Enter them in the Records section provided in the back of this Manual.

SURF ALT 1, information includes (Fig. 43):

This screen can only be accessed after a NOR Nitrox dive and is bypassed after NOR Air dives.

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) while viewing the NOR SURF MAIN screen will access the SURF ALT 1 screen, displaying (Fig. 50):

> O2BG (Right Bar with O2 icon) and accumulated segments
> Nx icon
> FO2 Set Point with graphic FO2

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will access the SURF ALT 2 screen.
- Depressing the S (Side) button will toggle the Backlight.
- The display will revert to the NOR SURF MAIN screen after 5 seconds of no button action.

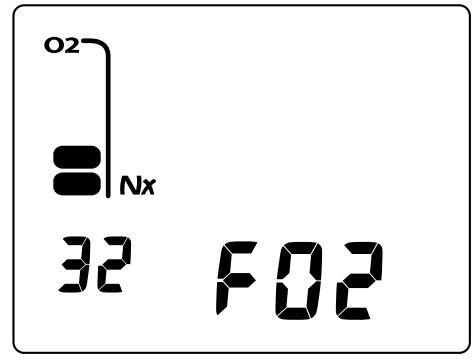


Fig. 43 - SURF ALT 1

SURF ALT 2, information includes (Fig. 44):

> Altitude as graphic EL - 2 to EL - 7, when > 3,000 feet
> Time of Day (hr:min), with graphic Am (or Pm) when set for 12 Hour Format
> Temperature with degree icon and graphic F (or C)

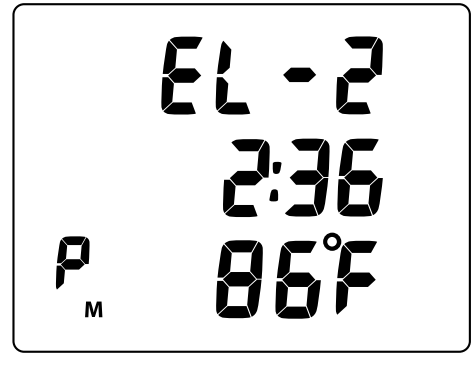


Fig. 44 - SURF ALT 2

- After NOR Air dives, pressing and releasing the A (Top) button momentarily (< 2 seconds) while viewing the NOR SURF MAIN screen will access the SURF ALT 2 screen (the SURF ALT 1 screen would not be available).
- After NOR Nitrox dives, pressing and releasing the A (Top) button 2 times momentarily (< 2 seconds each time) while viewing the NOR SURF MAIN screen will access the SURF ALT 2 screen.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will then access the NOR PLAN Lead-in screen.
- Pressing the S (Side) button will toggle the Backlight.
- The display will revert to the NOR SURF MAIN after 5 seconds of no button action.

NOR PLAN MODE

Oceanic strongly recommends that you review the Pre Dive Planning Sequence (PDPS) prior to every NOR dive to help you Plan your dive as required to avoid exceeding no decompression or oxygen exposure limits. This is especially important for repetitive dives when the PDPS indicates adjusted dive times that are available for the next dive, based on residual nitrogen or oxygen accumulation (whichever is in control) following the last dive and surface interval.

△ **NOTE: No Decompression Dive Time Limits in NOR PLAN MODE are based on the FO2 Set Point.**

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) while the SURF ALT 2 screen is displayed will access the PLAN MODE Lead-in screen (NOR SURF > PLAN Lead-in).

- While in the PLAN MODE, pressing and releasing the S (Side) button repeatedly (< 2 seconds each time) will increase the Planned Depth in increments of 10 FT (3 M), displaying the information one screen at a time.

Information provided includes Depths and allowable No Decompression Dive Times. The screens will sequence through Depths from 30 to 190 FT (9 to 57 M), or the Maximum Depth that will allow theoretical No Decompression Dive Time of at least 1 minute based upon the previous dive profiles in a series of repetitive dives and taking into account descent and ascent rates of 60 FPM (18 MPM).

△ NOTE: When the Conservative Factor is set ON, No Decompression Dive times are reduced to the values of the next 3000 foot (915 meter) higher Altitude. See tables in the Reference section.

If FO2 is set for a numerical value (21 to 50%), the Nx (Nitrox) icon and Maximum Operating Depth defined by the PO2 ALARM Set Point will be displayed.

If the limiting time factor is Nitrogen controlled, the symbols TIME and NDC will be displayed. If the limiting time factor is Oxygen controlled, the symbols TIME and O2 will be displayed.

- Prior to a first dive of a series, pressing and releasing the A (Top) button momentarily (< 2 seconds) will advance to LOG MODE.
- After a dive is made, it will advance to FLY MODE.
- If no button is pressed during a 2 minute period, operation will revert to the NOR SURF MAIN screen.

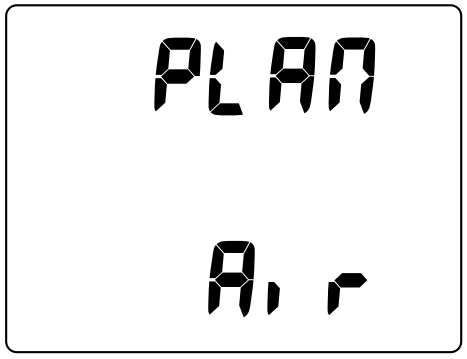


Fig. 45A - PLAN (FO2 = AIR)

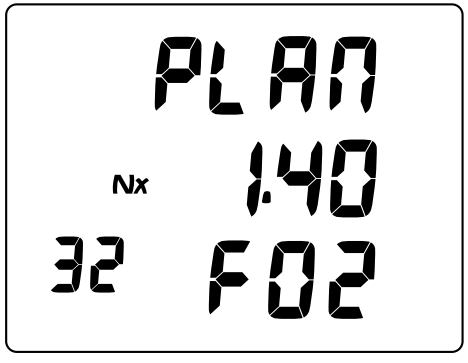


Fig. 45B - PLAN (FO2 = 32)

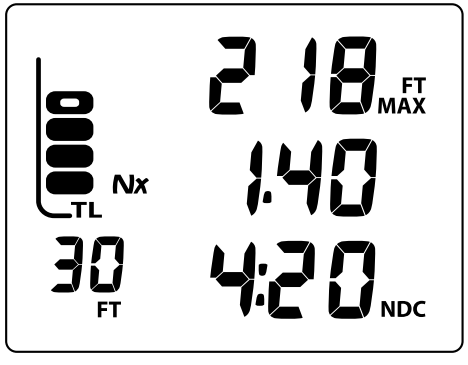


Fig. 46 - PDPS

PLAN MODE LEAD-IN, information includes (Fig. 45A/B):

> Graphic PLAN
> Nx icon, if set for Nitrox
> PO2 Alarm Set Point, if set for Nitrox.
> FO2 Set Point and graphic FO2, if Nitrox; or graphic Air

- Press and release the S (Side) button momentarily (< 2 seconds) to access the first Depth/Time screen (30 FT/9 M) of the Pre Dive Planning Sequence (PDPS).

PDPS, information includes (Fig. 46):

> TLBG (Left Bar with TL icon) with 4 segments if calculations are controlled by Nitrogen, or -
> O2BG (Right Bar with O2 icon) with 4 segments if calculations are controlled by Oxygen

> Nx icon, if FO2 is set Nitrox
> PO2 Alarm Set Point, if FO2 is set for Nitrox
> Plan Depth values with F (feet) or M (meters) icon
> Dive Time allowed (hr:min) for the FO2 set with NDC icon if Nitrogen controlled, or OTR icon if Oxygen controlled
> Maximum Depth allowed for the PO2 Alarm value set with FT (or M) and MAX icons

- Press and release the S (Side) button momentarily and repeatedly (< 2 seconds each time) to step through the Planned Depths in increments of 10 FT (3 M), displaying the information one screen at a time, then reverting to the NOR SURF MAIN screen.

△ NOTE: While operating in the PDPS, presses of the S (Side) button will not toggle the Backlight.

FLY MODE

Time to Fly is a counter that begins counting down 10 minutes after surfacing from a dive from 23:50 to 0:00 (hr:min).

Two hours after a NOR or FRE dive, the FLY screen will alternate with the SAT screen until the DataMask shuts Off 24 hours after the last dive. When operating in FREE Dive Mode, the FLY screen can be viewed by first accessing the NOR SURF MAIN screen.

During the first 2 hours after a dive -

- while the NOR SURF MAIN screen is displayed after an AIR or FREE dive, pressing and releasing the A (Top) button 3 times momentarily (< 2 seconds each time) will access the FLY screen (SURF MAIN > ALT 2 > PLAN > FLY), or -
- after a Nitrox dive, pressing and releasing the A (Top) button 4 times will access the FLY screen (SURF MAIN > ALT 1 > ALT 2 > PLAN > FLY).

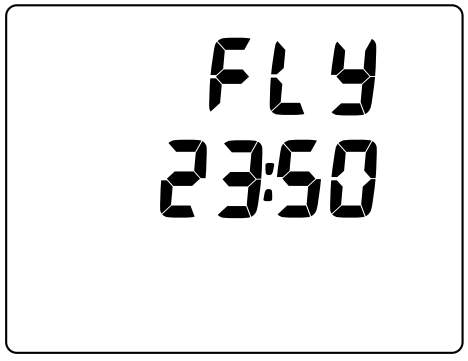


Fig. 47 - time to fly

TIME TO FLY, information includes (Fig. 47):

> Graphic FLY
> Countdown Time (hr:min).
> Battery icon (shell with lid), if a DataMask Low Battery Condition exists, flashing if Too Low.

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will access the SAT screen.
- The display will revert to the NOR SURF MAIN screen after 2 minutes of no button action.
- Pressing the S (Side) button will toggle the Backlight.

SAT MODE

The Time to Desaturate counter provides calculated time for Tissue Desatuation at sea level taking into consideration the Conservation Factor setting. It begins counting down 10 minutes after surfacing from a dive, counting down from 23:50 max to 0:00 (hr:min).

When the Countdown reaches 0:00, which will generally occur prior to the FLY count-down reaching 0:00, the SAT screen continues to alternate with FLY displaying 0:00 until the FLY counter shuts the DataMask Off 24 hours after a last dive.

> The SAT screen is not displayed after a Violation Dive.
> Desaturation requiring Times greater than 24 hours will display 23: - - .
> In the event that Time to Desaturate still remains at the end of 24 hours, the added time will be zeroed.

During the first 2 hours after a dive -

- while the NOR SURF MAIN screen is displayed after an AIR or FRE dive, pressing and releasing the A (Top) button 4 times (< 2 seconds each time) will access the SAT screen (SURF MAIN > ALT 2 > PLAN > FLY > SAT), or -
- after a NOR Nitrox dive, pressing and releasing the A (Top) button 5 times will access the SAT screen (SURF MAIN > ALT 1 > ALT 2 > PLAN > FLY > SAT).

Two hours after a NOR or FRE dive, the SAT screen will alternate with the FLY screen until the DataMask shuts Off 24 hours after the last dive. When operating in FREE Dive Mode, the SAT screen can be viewed by first accessing the NOR SURF MAIN screen.

TIME TO DESAT, information includes (Fig. 48):

> Graphic SAt
> Countdown Time (hr:min).
> Battery icon (shell with lid), if a Low Battery Warning Condition exists, flashing if Too Low.

- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will access the LOG Preview screen.
- The display will revert to the NOR SURF MAIN screen after 2 minutes of no button action.
- Pressing the S (Side) button will toggle the Backlight.

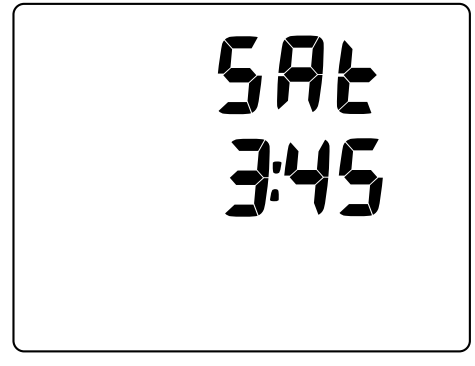


Fig. 48 - DESATURATION TIME

NOR/GAU LOG MODE

LOG MODE displays information from the latest 24 NOR/GAU dives sequentially in reverse order (the most recent first).

Dives will be numbered 1 to 24 starting at #1 each time a new series of dives begins. After it shuts Off 24 hours after a dive, the first dive of the next new series will be #1.

LOG information is retained until deleted by another dive.

> After exceeding 24 dives, the most recent Dive completed will be added to the LOG and the oldest deleted.

Battery removal will not affect the data stored in the LOG for viewing.

Accessing LOG Mode:

Access to Log Mode is dependent upon diving activity previously conducted.

While operating in Log Mode, presses of the S (Side) button will not toggle the Backlight.

- During the first 10 minutes after a dive, pressing and releasing the A (Top) button momentarily (< 2 seconds) while the NOR SURF MAIN screen is displayed will access LOG MODE. (SURF MAIN > LOG)

- 10 minutes after a Non Violation Nitrox Dive, pressing and releasing the A (Top) button 6 times (< 2 seconds each time) while the NOR SURF MAIN screen is displayed will access LOG MODE (SURF MAIN > ALT 1 > ALT 2 > PLAN > FLY > SAT > LOG).

- 10 minutes after a Non Violation AIR Dive, pressing and releasing the A (Top) button 5 times (< 2 seconds each time) while the NOR SURF MAIN screen is displayed will access LOG MODE (SURF MAIN > ALT 2 > PLAN > FLY > SAT > LOG).
- 10 minutes after a GAU or Violation Dive, pressing and releasing the A (Top) button 3 times (< 2 seconds each time) while the NOR (or GAU) SURF MAIN screen is displayed will access LOG MODE (SURF MAIN > ALT 2 > FLY > LOG).
- ALT 1, PLAN, and SAT screens will not be available after a Violation (or GAU) Dive.

Upon accessing LOG MODE, the most recent NOR (or GAU) dive's LOG PREVIEW screen will be displayed.

- Depressing and holding the S (Side) button for 2 seconds will display the previous dive's PREVIEW screen. Subsequent 2 second presses/releases of the S (Side) button will step through other previous dives' PREVIEW screens.
- Pressing and releasing the S (Side) button momentarily (< 2 seconds) while viewing a PREVIEW screen will display that dive's DATA 1 screen.
- Pressing and releasing the S (Side) button momentarily (< 2 seconds) while viewing the DATA 1 screen will display that dive's DATA 2 screen.
- If that was a Nitrox dive, pressing and releasing the S (Side) button momentarily (< 2 seconds) while viewing the DATA 2 screen will display that dive's DATA 3 screen.
- LOG screens remain on display until further button action occurs.

- Once the S (Side) button is pressed, pressing and releasing the A (Top) button momentarily (< 2 seconds) will revert to the NOR (or GAU) SURF MAIN screen.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

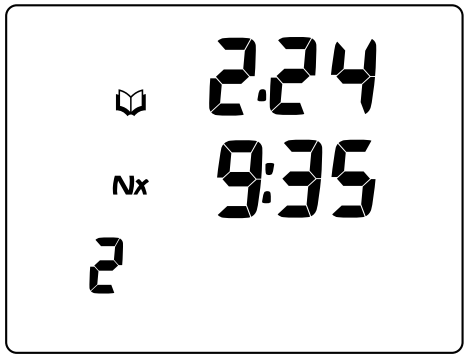


Fig. 49 - LOG PREVIEW

LOG PREVIEW, information includes (Fig. 49):

> Log Mode icon
> Date (month.day, or day.month if set for metric)
> Nx icon, if a Nitrox dive
> Time of Day the dive began (hr:min)
> Dive number (1 to 24) for that series (at lower/left)

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) button will advance to the DATA 1 screen.
- Pressing and holding the S (Side) button will scroll through the previous Log Preview screens.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

LOG DATA 1, information includes (Fig. 50):

> Log Mode icon
> Surface Interval (prior to the dive) with SI icon
> Nx icon, if a Nitrox dive
> Graphic No-d (indicating No Decompression), or dECO (Decompression), or GAU (Gauge), or VIOL (Violation) identifying the type of dive
> Dive number (1 to 24) for that series (at lower/left)
> Temperature (minimum recorded that dive) with degrees icon and graphic F (or C)

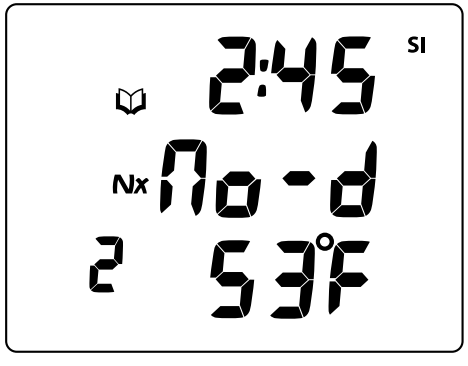


Fig. 50 - LOG DATA 1

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) button will advance to the LOG DATA 2 screen.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

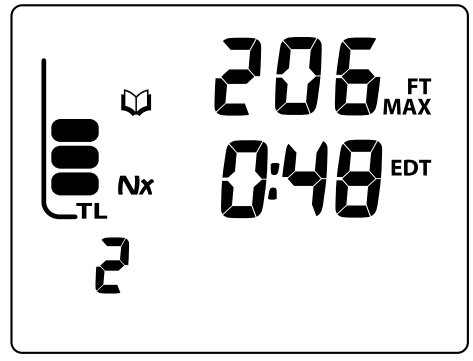


Fig. 51 - LOG DATA 2

LOG DATA 2, information includes (Fig. 51):

> TLBG (left bar and TL icon) with the maximum accumulation segment flashing, others fixed up to end of dive accumulation. All segments flashing if a Delayed Violation # 1 or 2 or Full Violation occurred.
> Log Mode icon
> Maximum Depth and FT (or M) and MAX icons
> Elapsed Dive Tine (hr:min) with EDT icon

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) button will advance to the DATA 3 screen.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

LOG DATA 3, (if a Nitrox dive) information includes (Fig. 52):

> O2BG (right bar and O2 icon) with the segments representing Oxygen accumulated at the end of the dive.
> Log Mode icon
> Nx icon
> Maximum level of PO2 reached (ATA) and graphic PO2
> FO2 Set Point for the dive with graphic FO2

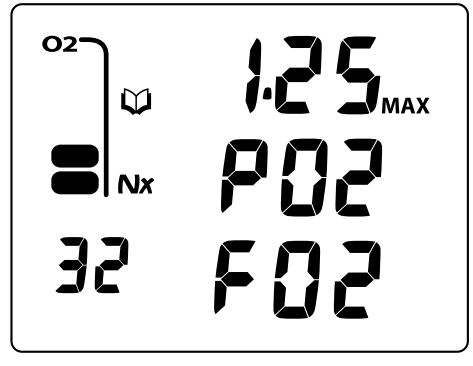


Fig. 52 - LOG DATA 3

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will advance to the previous dive's LOG PREVIEW screen. After viewing the last dive in the Log, operation will revert to the NOR (or GAU) SURF MAIN screen.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

FREE Dives are not recorded in the LOG or HISTORY. The data is stored in Memory for subsequent Download to the Oceanlog PC Interface program.

NOR/GAU HISTORY MODE

HISTORY Mode displays accumulated NOR and GAU dive information.

10 minutes after a NOR Nitrox dive -

- pressing and releasing the A (Top) button 7 times momentarily (< 2 seconds each time) while the NOR (or GAU) SURF MAIN screen is displayed will access History Mode displaying the HISTORY 1 screen -
  (SURF MAIN > ALT 1 > ALT 2 > PLAN > FLY > SAT > LOG > HISTORY).

10 minutes after a NOR AIR dive -

- pressing and releasing the A (Top) button 6 times momentarily (< 2 seconds each time) while the NOR (or GAU) SURF MAIN screen is displayed will access HISTORY 1 - (SURF MAIN > ALT 2 > PLAN > FLY > SAT > LOG > HISTORY).

10 minutes after a GAU dive -

- pressing and releasing the A (Top) button 4 times momentarily (< 2 seconds each time) while the GAU SURF MAIN screen is displayed will access HISTORY 1 - (SURF MAIN > ALT 2 > FLY > LOG > HISTORY).

While operating in History Mode, presses of the S (Side) button will not toggle the Backlight.

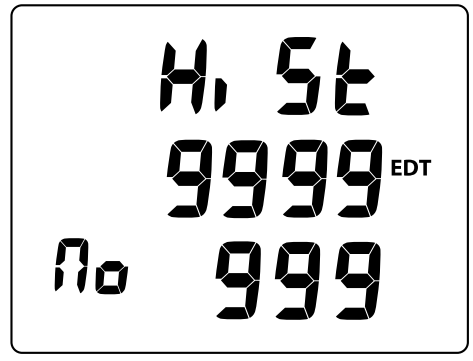


Fig. 53 - HISTORY 1

HISTORY 1, information includes (Fig. 53):

> Graphic HiSt
> Total Hours of Elapsed Dive Time up to 9999 with EDT icon
> Total number of All NOR (and GAU) dives recorded up to 999 with No icon (No meaning Number)

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) button will advance to the HISTORY 2 screen.
- If no button is pressed during a 2 minute period, operation will revert to the NOR (or GAU) SURF MAIN screen.

HISTORY 2, information includes (Fig. 54):

> Maximum Depth achieved during any NOR (or GAU) dive with FT (or M) and MAX icons
> Graphic EL - 2 to EL - 7, indicating the highest Altitude (> 3,000 feet) at which a NOR (or GAU) dive was conducted. (EL meaning elevation). No indication means SEA Level.
> Temperature with degrees icon and graphic F (or C), lowest ever recorded during any NOR (or GAU) dive

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) button will advance to the NOR (or GAU) SURF MAIN screen.

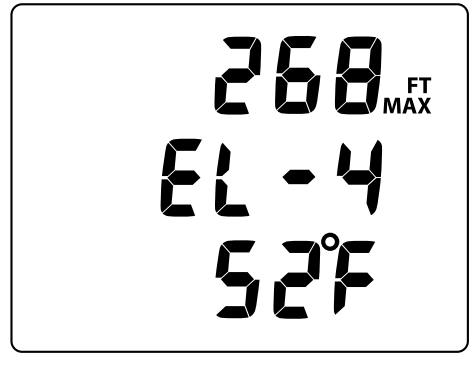


Fig. 54 - HISTORY 2

WARNING: If your DataMask stops working for any reason while operating as a Dive Computer, it is important that you have anticipated this possibility and are prepared for it. This is an important reason for not pushing the no decompression and oxygen exposure limits, and a critical reason to avoid entering decompression. If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your DataMask, a backup instrument system is highly recommended.

WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

OVERVIEW OF DIVE MODE INFORMATION

POSITIONING A TRANSMITTER AND MASK

When installing a Transmitter on a Regulator First Stage (Fig. 55), it is important that it be properly positioned for actual use with the Mask.

The Transmitter is a Battery powered electronic device that contains a Pressure Transducer designed to measure Pressure of a Tank that it is fitted to. It also contains a microcomputer that converts data from the Pressure Sensor and emits Radio Frequency data signals capable of being received by the electronics of the Mask.

The Transmitter emits a low frequency signal that radiates outward in a semicircular pattern that is parallel to its length dimension. A coiled antenna inside the Mask receives the signal when it is positioned within range of the Transmitter.

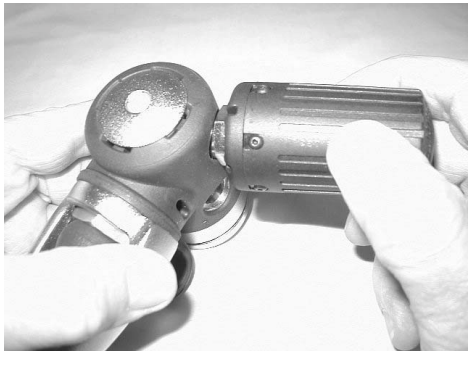


Fig. 55 - TRANSMITTER POSITIONING

Once it is activated by sensing a Pressure of 120 PSI (8.4 BAR), or greater, it will transmit a signal of sufficient strength to be received by the Mask at distances up to 3 feet (1 meter).

Link Interruption Underwater

During operation, the Mask (receiving unit) may be moved out of the signal pattern of the Transmitter, resulting in a temporary interruption of the transmitted Link signal.

An interruption lasting greater than 15 seconds will cause the Tank Pressure value and the Link (Signal) icon to flash on the Mask's display (Fig. 56). An interruption of the Link may also occur while operating -

- within 3 feet (1 meter) of a running Dive Propulsion Vehicle.
- when using a Strobe (a temporary interruption may occur shortly after the Strobe flashes).
- within 6 feet (2 meters) of a PC CRT monitor, in which case the Mask and Transmitter may have to be moved to within inches of each other to maintain the Link.

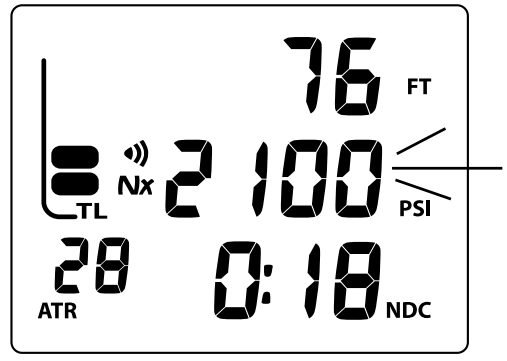


Fig. 56 - LOSS OF LINK

The Link will be restored within 4 seconds after the above conditions are corrected.

DIVE TIME REMAINING (DTR)

One of the most important pieces of information on Oceanic dive computers is the Dive Time Remaining numeric display. The DataMask constantly monitors No Decompression status, Oxygen Accumulation, and Air Consumption Rate.

The Dive Time Remaining display (Fig. 57a) will indicate the No Deco (NDC), O2 (OTR), or Air Time (ATR) Remaining, whichever Time is the least amount available. The specific Time being displayed is identified by the NDC or OTR or ATR icons.

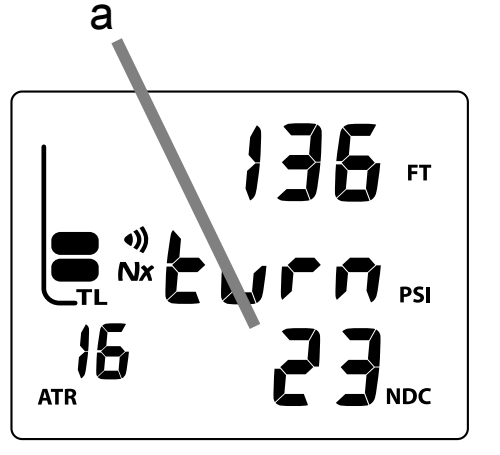


Fig. 57 - DIVE TIME REMAINING

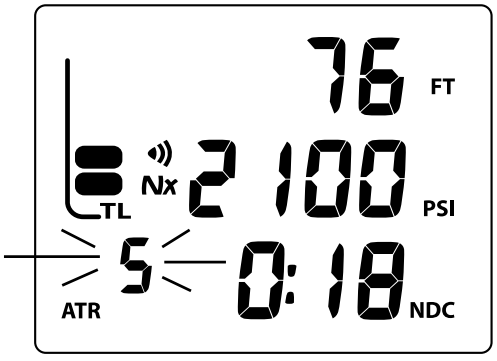


Fig. 58 - ATR ALARM
(during No Deco)

ATR will be displayed on the Main display (lower/left) when it is 60 minutes or less in decrements of 1 minute).

In the event that ATR becomes less than 5 minutes during No Deco conditions, the Audible Alarm will sound, and the ATR value will flash (Fig. 58) until it is > 5 minutes.

During other conditions, the Audible Alarm will sound, and the graphic ATR will flash in place of Dive Time Remaining (Fig. 59). The value of ATR can be viewed by pressing and releasing the A (Top) button (< 2 seconds) to access the ALT 1 screen

No Decompression Dive Time Remaining (NDC)

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

Whichever one is closest to this maximum level is the controlling compartment for that Depth. Its resulting value will be displayed numerically along with the NDC icon and graphically as the Tissue Loading Bar Graph.

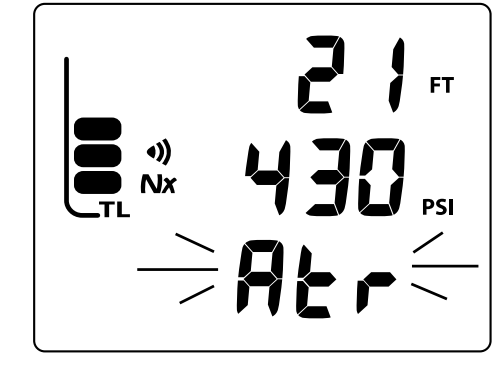


Fig. 59 - ATR ALARM
(during other conditions)

As you ascend from Depth following a dive that has approached the No Decompression Limit, the TLBG segments will recede (Fig. 60a) as control shifts to slower compartments. This is a feature of the Decompression Model that is the basis for Multilevel Diving, one of the most important advantages that Oceanic dive computers offer.

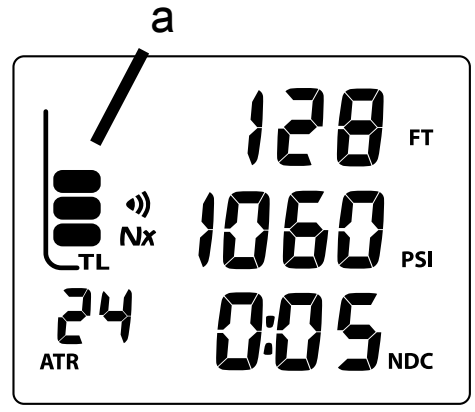


Fig. 60 - TLBG

The DataMask's 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.

Oxygen Accumulation Time Remaining (OTR)

When the DataMask is set for Nitrox operation, Oxygen Accumulation (saturation or exposure) during a dive, or 24 hour period, appears graphically as the O2 Bar Graph (O2BG) (Fig. 61a). As time remaining before reaching the Oxygen Exposure Limit decreases, segments are added to the O2BG.

When the amount of time remaining before reaching the Oxygen Limit (OTR) becomes less than the No Decompression Dive Time Remaining (NDC), calculations for that Depth will be controlled by Oxygen.

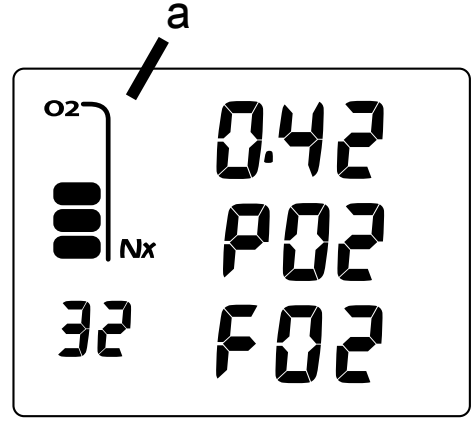


Fig. 61 - O2BG

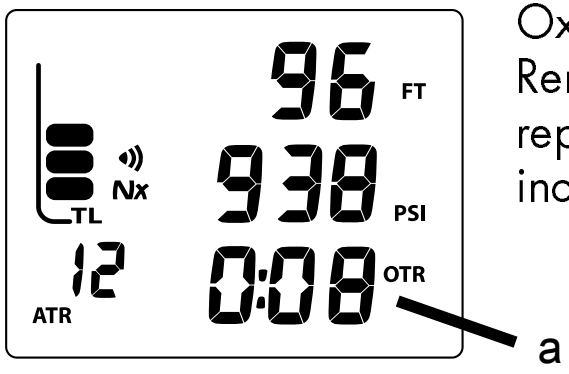


Fig. 62 - OTR is DTR

Oxygen Time Remaining (OTR) will then appear as the Dive Time Remaining (DTR) display (Fig. 62a) as signified by the OTR icon replacing the NDC icon. As Oxygen Accumulation continues to increase, segments will add to the O2BG.

Air Time Remaining (ATR)

The DataMask calculates Air Time Remaining (ATR) using a patented Algorithm that is based on a diver's individual Air Consumption Rate and Current Depth.

> Tank Pressure is measured once each second and an average rate of Consumption is calculated over a 90 second period.
> This Rate of Consumption is then used in conjunction with a knowledge of the Depth dependence to predict the Air required for the diver to make a safe controlled Ascent including a No Deco Safety Stop (if set) and/or any required Decompression Stops.

Air Consumption and Depth are continuously monitored and Air Time Remaining reflects any change in circumstances. For example, when find yourself swimming against a strong current and begin breathing more rapidly, the DataMask will recognize the change and adjust the ATR accordingly.

ATR is the time you can remain at your present Depth and still surface with the Tank Pressure Reserve that you selected during setup (End Pressure Alarm Setting).

ATR, identified by the ATR icon, is displayed digitally at the lower/left of the MAIN Dive screen (Fig. 63a).

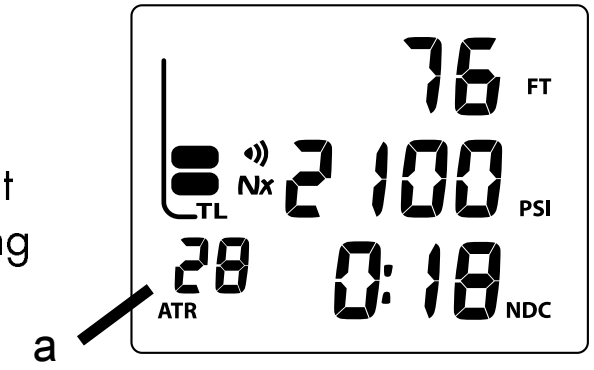


Fig. 63 - MAIN DIVE DISPLAY

In the event that ATR becomes less than NDC and O2 Time, it will be displayed on the Main Display as Dive Time Remaining (DTR) until it becomes greater than one or the other.

Air Time Remaining (ATR) Alarm

When ATR decreases to 5 minutes (0:05), the Audible Alarm will sound and the ATR value (lower/left) will flash.

If ATR decreases to 0:00, the Audible will sound again. The message **Atr** will flash in place of DTR (Fig. 64) until ATR becomes greater than 5 minutes (0:05).

You should immediately initiate a controlled Ascent while monitoring your Tank Pressure. However, there is no reason to panic, the DataMask has allowed for the Air necessary for a safe Ascent including the No Deco Safety Stop, if set On, and any Decompression Stops required. Example:

- You set the End Pressure Alarm for 300 PSI (20 BAR)
- You are at a Depth of 60 FT (20 M)
- Air Time Remaining decreases to 0:00
- You Ascend at a maximum rate of 30 FPM (10 MPM)
- You surface with 300 PSI (20 BAR) pressure still in your Tank.

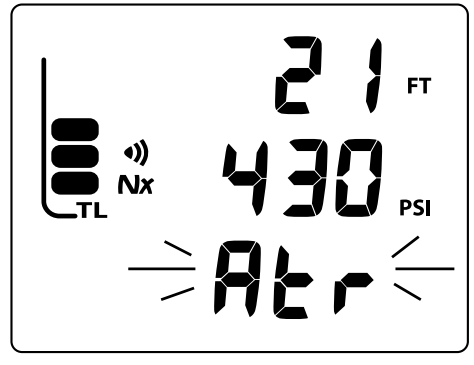


Fig. 64 - ATR ALARM

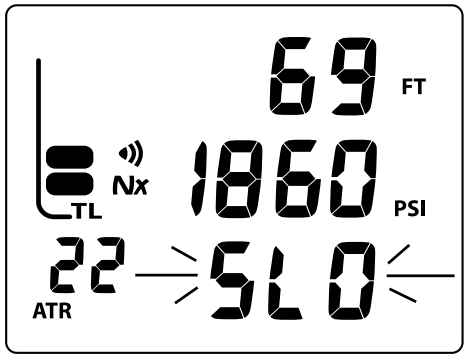


Fig. 65 - ASCENT RATE ALARM

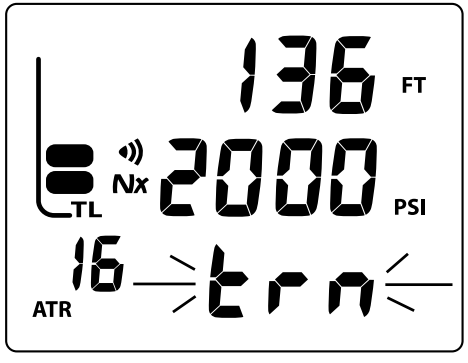


Fig. 66A - TURN PRESSURE ALARM

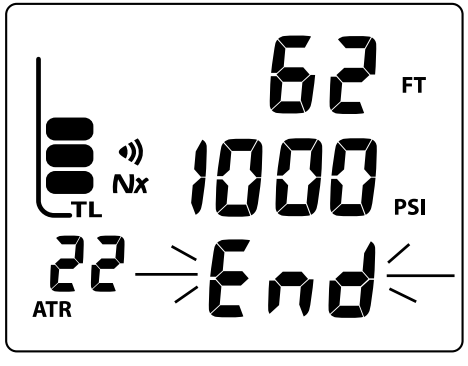


Fig. 66B - END PRESSURE ALARM

ASCENT RATE ALARM

Alarms associated with Ascent Rate are based upon 2 sets of speeds which change at a reference depth of 60 FT (18 M).

The Audible will sound and the graphic **SLO** will flash in place of DTR (Fig. 65). The Audible will stop when acknowledged by pressing and releasing the A (Top) button, or after 10 seconds, or when the Ascent is slowed. The graphic will continue to flash until Ascent is slowed, then DTR (hr:min) will reappear.

⚠ **WARNING: At depths greater than 60 FT (18 M), Ascent Rates should not exceed 60 FPM (18 MPM). At depths of 60 FT (18 M) and shallower, Rates should not exceed 30 FPM (9 MPM).**

TANK PRESSURE ALARMS

Alarms associated with Pressure are set prior to dives utilizing the NOR/GAU Set A menu selections.

The Audible will sound and the graphic **trn** then **End** will flash in place of DTR (Fig. 66A/B). The Audible will stop when acknowledged by pressing and releasing the A (Top) button, or after 10 seconds. The graphic(s) will flash for 10 seconds, then DTR (hr:min) will reappear.

CONTROL OF DISPLAYS

During Dive Modes, there is a Main (Default) Display of important information relevant to the specific mode that the DataMask is operating in (No Deco, Deco, GAU, FRE, etc.).

Alternate (ALT) Displays can be accessed by pressing and releasing the A (Top) button to view additional information. They will automatically revert to the Main Display after 5 seconds unless the A (Top) button is pressed again to view another Alternate Display.

- DIVE MAIN > ALT 1 > ALT 2 (only if Nitrox) > ALT 3

Alarms can be acknowledged/silenced by pressing the A (Top) button for 2 seconds.

The S (Side) button is used to toggle the Backlight On/Off.

- When Alarms strike, the Backlight will come On if set Off and remain On until the Alarm condition clears.
- The Backlight will not activate during a Low Battery condition.

WET CONTACTS

The Wet Contact Dive Mode Activation feature is active when it is set ON. The DataMask is configured with contacts that will automatically activate Dive Mode when the space between the contacts is bridged by a conductive material (immersed in water) and it senses a Depth of 5 FT (1.5 M) for 5 seconds.

When the Wet Activation feature is set OFF, the DataMask will not enter Dive Mode upon descent unless it is first Activated by push button and operating in one of the Dive Computer modes (menus) at that time, a mode such as Surface, Fly, Log, etc.

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WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

NOR TYPE DIVE MODES

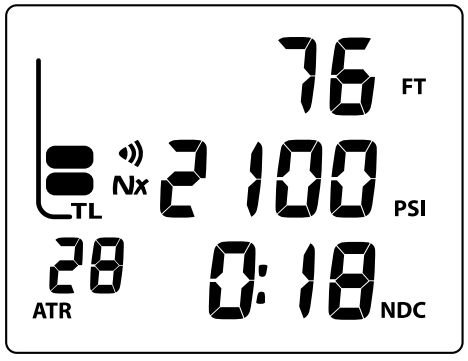

Fig. 67 - NOR DIVE MAIN

NOR DIVE MAIN (Default), information includes (Fig. 67) -

> TLBG (Left Border with TL icon), segments representing Nitrogen Loading
> Current Depth with FT (or M) icon
> Tank Pressure with the PSI (or BAR) and Link icons, if a TRTR is active and linked, flashing after 1 minute of Lost Link
> Nx icon, if a Nitrox dive
> ATR (decrements of 1 min), if =< 60 min. If ATR is displayed as DTR, it will not be displayed at the lower/left.
> DTR (hr:min) with NDC (or OTR or ATR) icon

- Press/release the A (Top) button (< 2 seconds) to view the NOR DIVE ALT 1 screen.

NOR DIVE ALT 1, information includes (Fig. 68)

> Max Depth with FT (or M) and MAX icons
> Elapsed Dive Time (hr:min) with EDT icon
> If ATR is displayed on the Main screen as DTR, NDC or OTR (whichever is less) will be displayed with the TLBG or O2BG.

- The display will revert to the MAIN Display after 5 seconds unless A is pressed to access another ALT display.
- Press/release the A (Top) button (< 2 sec) to view ALT 2, or if FO2 is set for AIR bypass ALT 2 and view ALT 3.

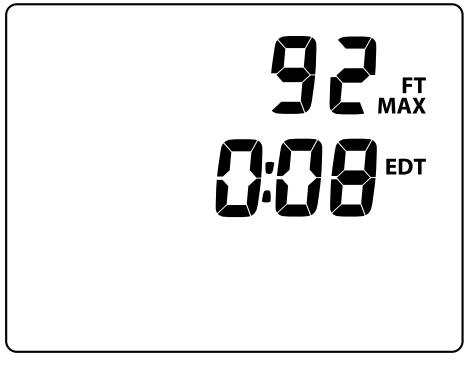

Fig. 68 - NOR DIVE ALT 1

NOR DIVE ALT 2 (if Nitrox), information includes (Fig. 69) -

> O2BG (Right Bar with O2 icon), segments representing Oxygen accumulated
> Nx icon
> PO2 (ATA) level with graphic PO2
> FO2 Set Point (21 to 50%) with graphic FO2

- The display will revert to the MAIN Display after 5 seconds unless A is pressed to access the ALT 3 display.
- Press and release the A (Top) button (< 2 seconds) to view ALT 3.

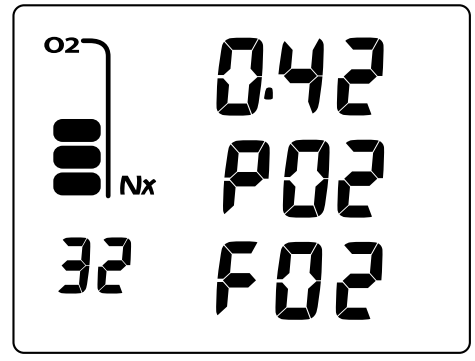

Fig. 69 - NOR DIVE ALT 2

NOR DIVE ALT 3, information includes (Fig. 70) -

> Time of Day (hr:min)
> Graphic Am or Pm, if set for 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- The display will revert to the MAIN Display after 5 seconds or if A is pressed and released (< 2 seconds).

△ **NOTE: The Alternate Displays cannot be accessed during the time (10 seconds) when an Alarm is sounding.**

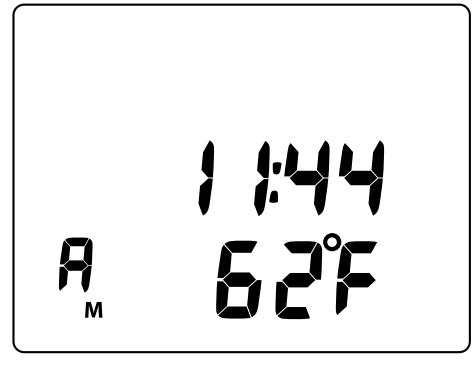

Fig. 70 - NOR DIVE ALT 3

SETTING THE BACKLIGHT LEVEL

> Backlight Level is the % of the Backlight's full (100%) power of illumination.
> Backlight Level can be set during dives in any of the 3 Operating Modes.

- Depressing the S (Side) button for 2 seconds while the DIVE MAIN screen is displayed will access the Set Backlight Level (GLO.L) screen.

Set Backlight Level, information includes (Fig. 71):

> Graphic GLO.L (GLO means Backlight, L means Level)
> Set Point (%), flashing

- Pressing and releasing the S (Side) button repeatedly (< 2 sec each time) will step through the Set Points of 5 (minimum), 25, 50, 75, and 100%, then repeat the step through.

> As the Set Point changes, the actual Level of illumination of the Mask's LCD will change allowing you to see which Level setting you prefer.

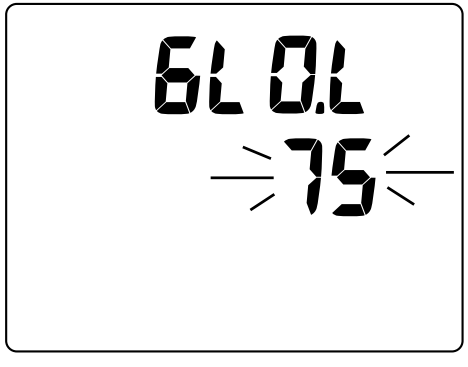

Fig. 71 - SET BACKLIGHT LEVEL

- pressing and releasing the A (Top) button (< 2 sec) will save the setting and revert back to the NOR DIVE MAIN screen.
- If no button is pressed during a period of 30 seconds, the Set Point will remain as previously set and operation will revert to the MAIN screen.

NOR DIVE NO DECO SAFETY STOP (if set)

Upon ascending to 5 FT (1.5 M) below the No Deco Safety Stop Depth set on any NOR No Decompression dive in which Depth exceeded 30 FT (9 M), a short beep will be emitted and a Stop at the Depth set will appear on the display with a countdown timer that begins at the Stop Time set and counts down to 0:00 (min:sec).

The No Deco Safety Stop will be displayed until the countdown times out, or you descend below 30 FT (10 M) at which time it resets, or you surface. There is no Penalty if you surface prior to completing the No Deco Safety Stop.

If the No Deco Safety Stop was set to OFF, the screen will not appear during the ascent.

NO DECO SAFETY STOP MAIN, information includes (Fig. 72) -

- > TLBG (Left Bar with TL icon), segments representing Nitrogen Tissue Loading
- > Current Depth with FT (or M) icon
- > Tank Pressure with the PSI (or BAR) and Link icons, if a TRTR is active and linked, flashing after 1 minute of Lost Link
- > Nx icon, if a Nitrox dive
- > Stop Depth with FT (or M) icon
- > STOP Bar icon, flashing during the first 10 seconds.
- > Stop Time (min:sec), counting down

- Press and release the A (Top) button momentarily (< 2 seconds aec) to view the NO DECO SAFETY STOP ALT 1 Display.

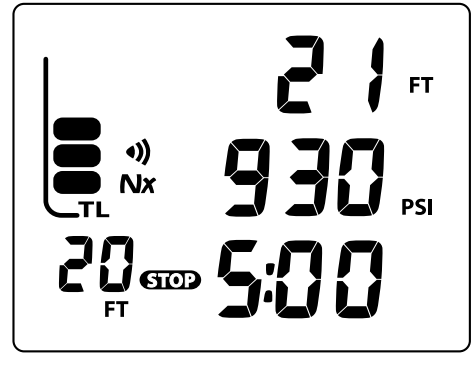

Fig. 72 - NO DECO SAFETY STOP MAIN

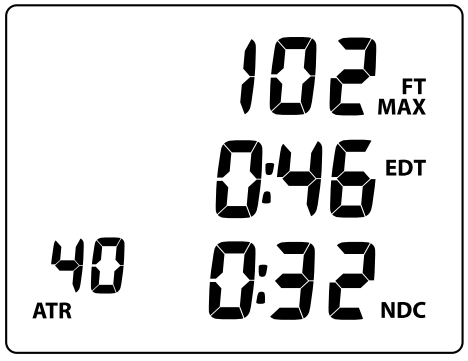

Fig. 73 - NO DECO SAFETY STOP ALT 1

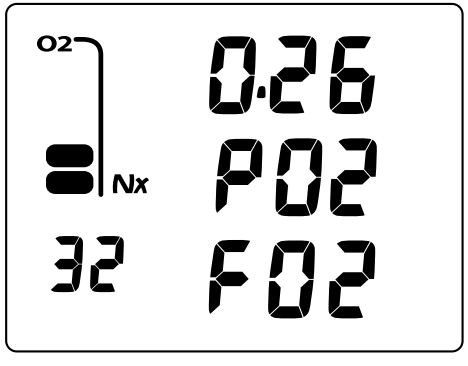

Fig. 74 - NO DECO SAFETY STOP ALT 2

NOTE: The Alternate Displays cannot be accessed during the time (10 seconds) when an Alarm is sounding.

NO D SAFETY STOP ALT 1, information includes (Fig. 73) -

> Max Depth with FT (or M) and MAX icons
> Elapsed Dive Time (hr:min) with EDT icon
> Air Time Remaining with ATR icon.
> DTR (Dive Time Remaining) as NDC or OTR, whichever is less, (hr:min) with NDC or OTR icon

- The display will revert to the MAIN Display after 5 seconds unless A is pressed to access the ALT display.
- Press/release the A (Top) button (< 2 sec) to view ALT 2, or if FO2 is set for AIR bypass ALT 2 and view ALT 3.

NO D SAFETY STOP ALT 2, information includes (Fig. 74)

> O2BG (Right Bar with O2 icon), segments representing Oxygen accumulated
> Nx icon
> PO2 (ATA) level with graphic PO2
> FO2 Set Point (21 to 50%) with graphic FO2

- The display will revert to the MAIN Display after 5 seconds unless A is pressed to access the ALT 3 display.
- Press/release the A (Top) button (< 2 sec) to view ALT 3.

NO D SAFETY STOP ALT 3, information includes (Fig. 75) -

> Time of Day (hr:min)
> Graphic Am or Pm, if set for 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- The display will revert to the MAIN Display after 5 seconds or if A is pressed/released (< 2 seconds).

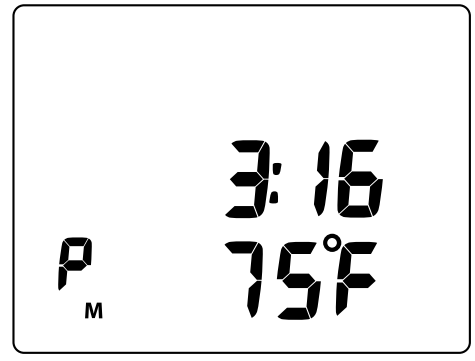

Fig. 75 - NO DECO SAFETY STOP ALT 3

DECOMPRESSION DIVE MODE

The DataMask 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 and depth limits are exceeded.

Upon Entry into Decompression, the Audible Alarm will sound and the TLBG and UP Arrow will flash (Fig. 76) until acknowledged or for 10 seconds (unless set OFF), then the TLBG will stop flashing.

- Depress the A (Top) button for 2 seconds to acknowledge/ silence the Audible Alarm.

> The UP Arrow will flash if you are greater than 10 FT (3 M) deeper than the Required Stop Depth.
> Once you are within 10 FT (3 M) of, and below, the Required Stop Depth, the UP Arrow will stop flashing and both Arrows and the STOP Bar icon will be On solid.

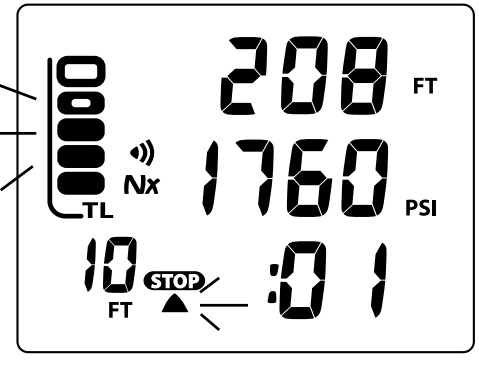

Fig. 76 - ENTRY INTO DECO

To fulfill your decompression obligation, you should make a safe controlled Ascent to a depth slightly deeper than (Fig. 77a), or equal to, the Required Ceiling Stop Depth indicated (Fig. 77b) and decompress for the Stop Time indicated (Fig. 77c).

The amount of decompression Credit Time that you receive is dependent on Depth, with slightly less Credit given the deeper you are below the Stop Depth indicated.

You should stay slightly deeper than the Required Stop Depth indicated until the next shallower Stop Depth appears. Then, you can slowly ascend to, but not shallower than that indicated Ceiling Stop Depth.

DECO STOP MAIN, information includes (Fig. 77) -

> TLBG (Left Bar with TL icon), all 5 segments (= DECO)
> Current Depth with FT (or M) icon
> Tank Pressure with the PSI (or BAR) and Link icons, if a TMT is active and linked, flashing after 1 minute of Lost Link
> Nx icon, if a Nitrox dive
> Stop Depth with FT (or M) icon
> Down Arrow, STOP Bar, and UP Arrow icons
> Stop Time (hr:min)

- Press/release the A (Top) button (< 2 sec) to view ALT 1, then ALT 2 and ALT 3. ALT 2 is bypassed if FO2 is set for AIR.
- Depress the S (Side) button for 2 seconds to access Set Backlight (GLO) Level. Refer to page 82.

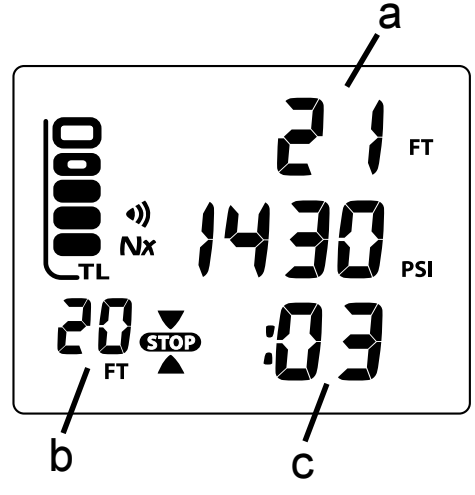

Fig. 77 - DECO STOP MAIN

DECO STOP ALT 1, information includes (Fig. 78) -

> Max Depth with FT (or M) and MAX icons
> Elapsed Dive Time (hr:min) with EDT icon
> Air Time Remaining (hr:min) with ATR icon
> Total Ascent Time (hr:min) with TAT icon

- The display will revert to the DECO STOP MAIN after 5 seconds unless a button is pressed.
- Press/release the A (Top) button to view ALT 2, or ALT 3 if FO2 is set for AIR.

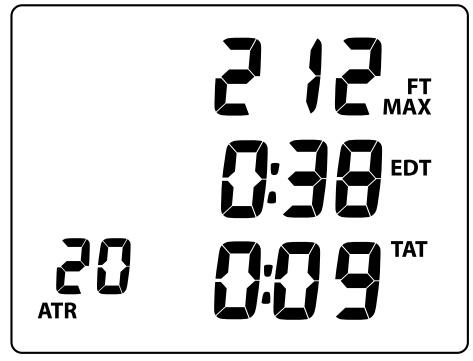

Fig. 78 - DECO ALT 1

Total Ascent Time (TAT) includes Stop Times at all required decompression ceilings (Stops) and vertical Ascent Time to the surface calculated at 60 FPM (18 MPM) for depths deeper than 60 FT (18 M), and 30 FPM (9 MPM) for depths of 60 FT (18 M) and shallower, and the Safety Stop time (if one has been set).

DECO STOP ALT 2, information includes (Fig. 79)

> O2BG (Right Bar with O2 icon), segments representing Oxygen accumulated
> Nx icon
> PO2 (ATA) level with graphic PO2
> FO2 Set Point (21 to 50%) with graphic FO2

- Press/release the A (Top) button (< 2 sec) to view ALT 3.
- The display will revert to the MAIN Display after 5 seconds unless A is pressed to access the ALT 3 display.

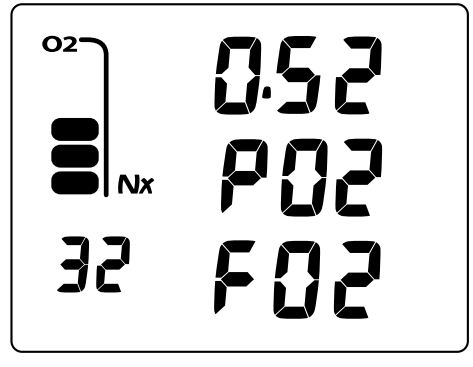

Fig. 79 - DECO ALT 2

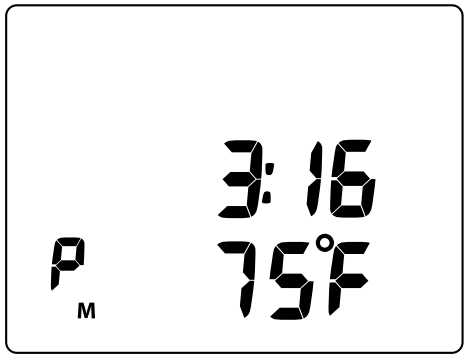

Fig. 80 - DECO STOP ALT 3

DECO STOP ALT 3, information includes (Fig. 80) -

> Time of Day (hr:min)
> Graphic Am or Pm, if set for 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- The display will revert to the MAIN Display after 5 seconds if A is not pressed.
- Press/release the A (Top) button (< 2 sec) to revert to the MAIN display.

△ **NOTE: The Alternate Displays cannot be accessed during the time (10 seconds) when an Alarm is sounding.**

VIOLATION MODES

While in Violation Modes, the Alternate Displays can be accessed using the A (Top) button, the Backlight can be toggled using the S (Side) button, Alarms can be acknowledged and silenced with the A (Top) button, and the Backlight Level can be set (refer to page 82).

- Alternate Displays will be similar to the DECO screens and are not repeated here. They revert to the MAIN (Default) Display after 5 seconds unless A is pressed.

CONDITIONAL VIOLATION

If you ascend shallower (Fig. 81a) than a Required Decompression Ceiling Stop Depth (Fig. 81b), the Audible Alarm will sound and the Full TLBG will flash. The Down Arrow will flash until you descend below the Required Stop Depth.

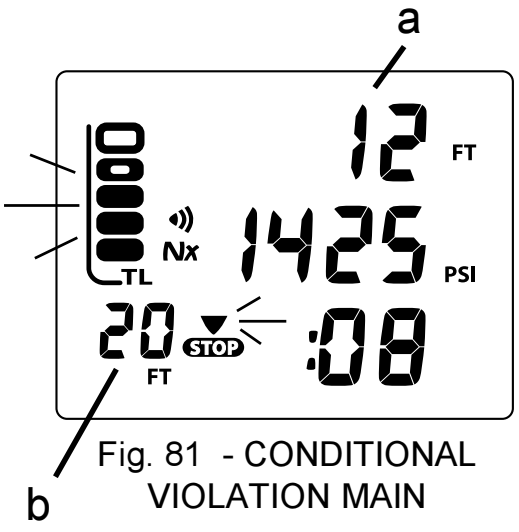

Fig. 81 - CONDITIONAL VIOLATION MAIN

If you descend to within < 9 FT (3 M) below the required Decompression Stop Depth before 5 minutes have elapsed, the DataMask 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 the Required Stop Time.

> 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 begins, required Deco Stop Depths and Times will decrease toward zero. The TLBG will recede into the No Deco Zone (4 segments) and the DataMask will revert to the No Deco Dive Mode.

△ **NOTE: Upon entry into any of the following Delayed Violation Modes, the Audible Alarm will sound, <u>even if Set OFF.</u> When these events occur, the Alarm cannot be acknowledged (silenced) by pressing the A (Top) button. It will sound for 10 seconds.**

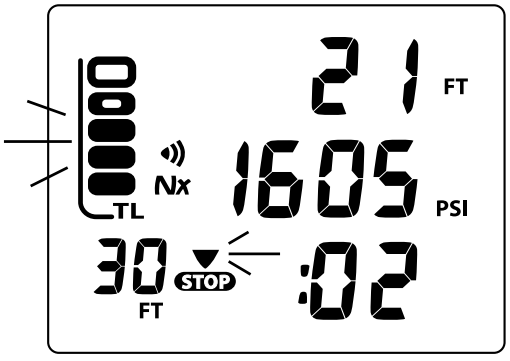

Fig. 82 - DELAYED VIOLATION # 1

DELAYED VIOLATION # 1 (Fig. 82)
If you remain above the Required Deco Stop Depth for more than 5 minutes, the full TLBG and DOWN Arrow will flash until you descend below the Required Stop Depth.

After the Audible stops (10 seconds), the TLBG will stop flashing. The Down Arrow will continue to flash until you descend below the required Decompression Stop Depth.

> Delayed Violation #1 is a continuation of a Conditional Violation.

DELAYED VIOLATION # 2 (Fig. 83)
The DataMask cannot calculate Decompression times for Stop Depths much greater than 60 FT (18 M) and offers no indication of how much time spent underwater would result in the need for a greater Stop Depth.

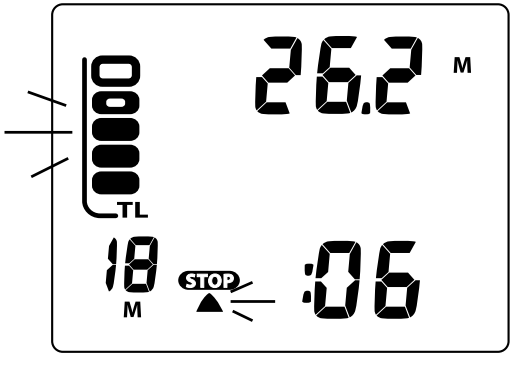

Fig. 83 - DELAYED VIOLATION # 2

If the Decompression obligation requires a Ceiling Stop Depth between 60 FT (18 M) and 70 FT (21 M), the Audible will sound (10 seconds) and the TLBG and UP Arrow will flash.

After the Audible stops (10 seconds), the TLBG will stop flashing. The UP Arrow will continue to flash until you ascend to within 10 FT (3 M) below the 60 FT (18 M) Deco Stop Depth.

When Delayed Violation #2 occurs, you must make a controlled Ascent to just deeper than and stay as close as possible to 60 FT (18 M) without causing the UP Arrow to flash.

When the Required Stop Depth indicates 50 FT (15 M), etc., you can ascend to those Stop Depths and continue decompressing.

NOR/GAU DELAYED VIOLATION #3 (Fig. 84)
If you descend deeper than the Maximum Operating Depth of 330 FT (100 M), the Audible will sound (10 seconds) and the Current Depth displayed only as 3 dashes (- - -) and UP Arrow will flash.

Max Depth (on ALT 1) will only display 3 dashes (- - -) signifying that you are/were Out of Range.

Upon ascending above 330 FT (100 M), the numerical Current Depth display will be restored solid and the UP Arrow will turn Off.

Max Depth (on ALT 1) will continue to display 3 dashes for the remainder of that dive and the Log for that dive will display 3 dashes as the Max Depth achieved.

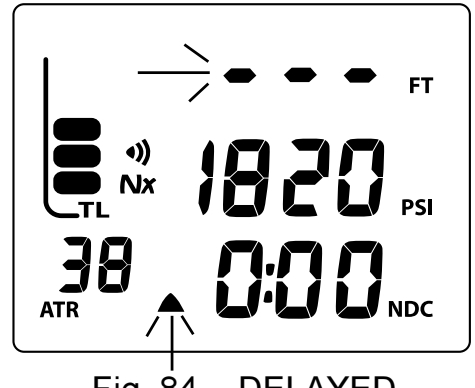

Fig. 84 - DELAYED VIOLATION # 3

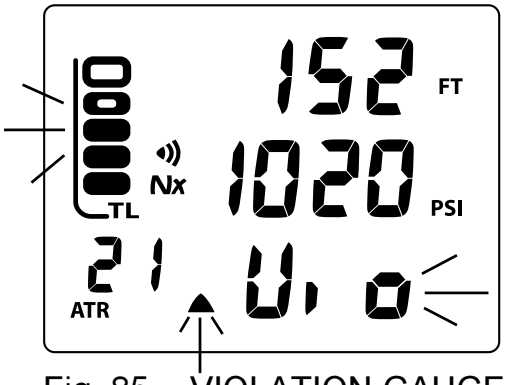

Fig. 85 - VIOLATION GAUGE MODE MAIN

IMMEDIATE VIOLATION AND VIOLA GAUGE MODE

If a Decompression Ceiling Stop Depth much greater than 60 FT (18 M) is required, an Immediate Violation Mode will be entered. This situation would be preceded by entering Delayed Violation #2.

The DataMask would then operate in Violation Gauge Mode during the remainder of that dive and for 24 hours after surfacing. Violation Gauge Mode turns the DataMask into a digital instrument without any Deco or O2 monitoring functions.

VIOLATION GAUGE MODE MAIN DISPLAY, information includes (Fig. 85) -

> TLBG (Left Bar with TL icon), all 5 segments flashing while the Audible sounds. When the Audible stops (10 seconds), the TLBG will be removed.
> Current Depth with FT (or M) icon
> Tank Pressure with the PSI (or BAR) and Link icons, if a TMT is active and linked, flashing after 1 minute of Lost Link
> Nx icon, if a Nitrox dive
> Air Time Remaining with ATR icon (lower/left)
> UP Arrow and graphic Vio flashing. The graphic Vio will continue to flash until 10 minutes after surfacing, then it will alternate with the graphic Nor (or GAU).

- Press/release the A (Top) button (< 2 sec) to view ALT 1, then ALT 2 and ALT 3. ALT 2 is bypassed if FO2 is set for AIR.
- Depress the S (Side) button for 2 seconds to access Set Backlight Level. Refer to page 82.

The DataMask will also enter a Violation Gauge Mode 5 minutes after surfacing from a dive in which a Delayed Violation occurred.

Violation Gauge Mode on the Surface does not allow access to the SET F, PLAN, FLY, and SAT features/screens.

The countdown timer that appears when you try to access the FLY screen does not represent Time to Fly. It is only provided to inform you of the time remaining before normal operation can resume with full DataMask features and functions.

In the event that a dive is made during the 24 hour period following the dive, a full 24 hour surface interval must then be served before all functions are restored.

HIGH PO2 (PARTIAL PRESSURE OF OXYGEN)

When PO2 becomes equal to or greater than 0.20 (ATA) less than the PO2 Alarm Set Point (a SET A selection); the Audible Alarm will sound (10 seconds).

> The graphic PO2 will replace the time displayed on the lower/right (DTR) and the UP Arrow will appear solid on the MAIN Display (Fig. 86) as a warning.
> After the Audible stops (10 seconds), the graphic PO2 will be replaced by the DTR time, if PO2 is less than the Alarm Set Point. The Up Arrow will remain On until PO2 decreases to 0.20 (ATA) less than the PO2 Alarm Set Point.

- The PO2 value can be viewed by pressing/releasing the A (Top) button 2 times to access the ALT 2 screen.

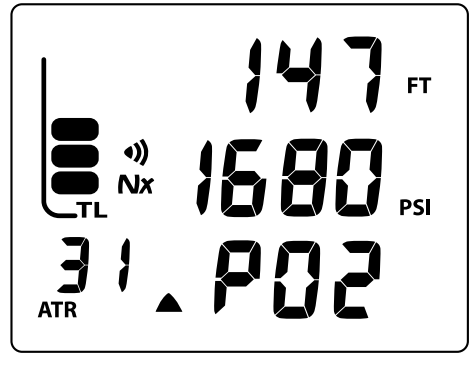

Fig. 86 - HIGH PO2 MAIN

If PO2 continues to increase, the value displayed on the ALT 2 screen will increase in increments of 0.01 (ATA) to a maximum value of 5.00 (ATA).

When PO2 reaches the PO2 Alarm Set Point, the Audible Alarm will sound again (10 seconds).

> The graphic PO2 and UP Arrow will flash as a warning until PO2 decreases below the Alarm Set Point.

- The PO2 value can be viewed by pressing/releasing the A (Top) button 2 times to access the ALT 2 screen.

HIGH O2

The O2BG (Oxygen Accumulation Bar Graph) displays either oxygen accumulated during that Nitrox dive, or during the repetitive dives you conduct during a 24 hour period, whichever of the two is greater at that time. The O2BG lets you monitor how close you are coming to the limits of oxygen exposure.

If the theoretical amount of oxygen accumulated equals, or exceeds, 80% (240 OTU) of the limit for a single exposure, or the exposure limit for a 24 hour period, the Audible Alarm will sound (10 seconds), the UP Arrow and graphic O2 will come On flashing (Fig. 87). After the Audible stops (10 seconds), the O2 graphic will stop flashing. The UP Arrow will remain On flashing until you surface.

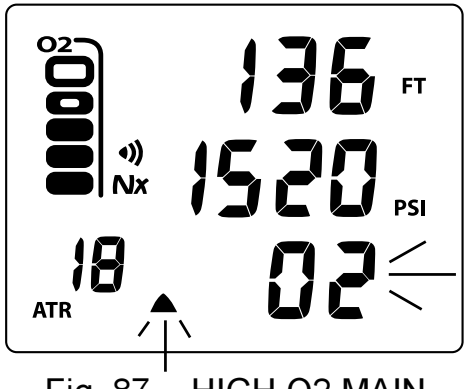

Fig. 87 - HIGH O2 MAIN

If oxygen accumulation continues to increase and becomes 100% of the limit (300 OTU), the Audible Alarm will sound again (10 seconds), the O2BG (Right Border with O2 icon) with all 5 segments solid will be displayed, and the UP Arrow and graphic O2 will flash and continue to flash until you surface.

- Press/release the A (Top) button to view the Alternate displays.

> The Backlight Level can be set. Refer to page 82.

If a High PO2 condition occurs while in Deco Mode, the graphic PO2 and UP Arrow will appear flashing for 10 seconds once per minute in place of Stop Depth/Time until PO2 is less than the PO2 Alarm Set Point.

Upon surfacing the O2 graphic will flash for the first 5 minutes (Fig. 88A), then it will alternate with the graphic Vio (Fig. 88B) until O2 decreases to < 300 OTU, then Vio will alternate with the graphic Nor. Operation will lock into NOR Mode, blocking access to GAU and FRE, until the O2BG recedes to 4 segments.

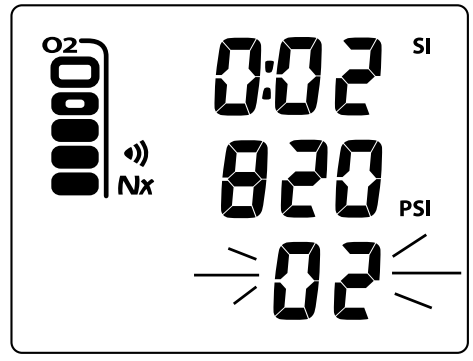

Fig. 88A - HIGH O2 SURF (< 5 min)

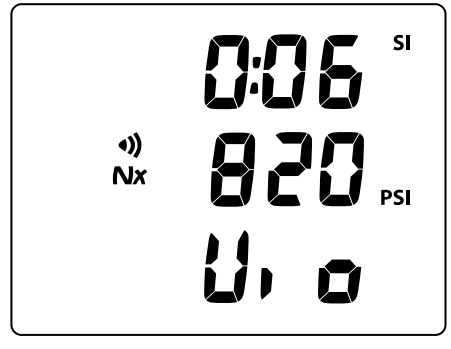

Fig. 88B - HIGH O2 SURF (> 5 min)

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WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

NOR POST DIVE MODES

POST DIVE SURFACE MODE

When you ascend to 2 FT (0.6 M), the DataMask will enter Surface Mode and begin counting your Surface Interval.

TRANSITION PERIOD

If you descend during the first 10 minutes after surfacing (referred to as the 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.

During the Transition Period, the SURF ALT 1, ALT 2, and LOG screens for that dive can be accessed. Other screens/modes (e.g., Plan, Fly, Sat, Hist, Set) will be accessible after 10 minutes on the surface.

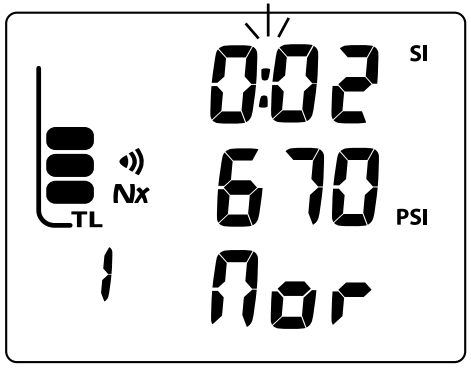

Fig. 89 - SURF TRANSITION PERIOD

Information on the surface includes (Fig. 89):

- TLBG (Left Bar with TL icon), and accumulated segments if any after a NOR or FRE dive.
- Battery icon (shell with lid), if a DataMask Low Battery Warning Condition exists, flashing if Too Low.
- Surface Interval (hr:min, colon flashing) with SI icon.
- Tank Pressure with PSI (or BAR) and Link icons, if the Receiver is successfully Linked with an active Transmitter.
- Nx icon, if FO2 is set for a Nitrox (numerical value).
- Dive Number (lower/left)
- Graphic **Nor** (indicating Normal Mode).

SURF Displays during the Transition Period -

- To access SURF ALT 1, press and release the A (Top) button (< 2 seconds) while viewing the SURF MAIN.
- Press and release the A (Top) button (< 2 seconds) while viewing SURF ALT 1 display to access SURF ALT 2.

> The ALT screens will revert to SURF MAIN after 5 seconds unless the A (Top) button is pressed.

- Press the S (Side) button to toggle the Backlight.
- To set the Backlight, access Set G (GLO) by pressing the S (Side) button for 2 seconds while viewing the SURF MAIN.

- To access the LOG Preview screen for that dive, press and release the A (Top) button 3 times (< 2 seconds each time) while viewing the SURF MAIN.
- Press/release the S (Side) button to view the LOG 1 screen.
- Press/release the S (Side) button again to view the LOG 2 screen.
- Press/release the S (Side) button again to view the LOG 3 screen, if a Nitrox dive.
- Press/release the S (Side) button again to return to the SURF MAIN screen.
- The screen will revert to NOR SURF MAIN after 2 minutes if no button is pressed.

Data for that dive will not be stored in the DataMask's Log or Download memory until the 10 minute Transition Period on the surface is completed.

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

AFTER THE TRANSITION PERIOD (> 10 MINUTES)

Once the Transition Period has ended, you will then have full access to other Modes (e.g., GAU SURF, FRE SURF, PLAN, FLY, SAT, LOG, HISTORY, SET, etc.).

- Press the S (Side) button to toggle the Backlight.
- Depress the A (Top) button as required (4 seconds each time) to access GAU and FRE.

  NOR SURF MAIN > GAU SURF MAIN > FRE SURF MAIN

- Press/release the A (Top) button as required to access SURF ALT 1, ALT 2, PLAN, etc.

  NOR SURF MAIN > ALT 1 > ALT 2 > PLAN > FLY > SAT > LOG > HIST

> The Planning Sequence now displays adjusted No Decompression Limits based on residual nitrogen and accumulated oxygen calculated to be remaining from the previous NOR and/or FRE dives.

> The Time to Desaturate (SAT) counter provides calculated time for tissue desaturation at sea level.

> If a Violation occurred during the dive, the SAT screen (Desaturation Time) will not be displayed.

> After 2 hours on the surface, the FLY and SAT screens will alternate until the DataMask shuts Off after 24 hours.

WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

GAUGE OPERATING MODE

GAUGE MODE

When Gauge Mode (GAU) is selected as the Operating Mode, the DataMask will operate as a Digital Depth Gauge/Timer without performing nitrogen and oxygen calculations. Tank Pressure and ATR (Air Time Remaining) will be displayed.

- To access the GAU SURF MAIN screen while NOR SURF MAIN is displayed, depress the A (Top) button for 4 seconds.
- To select GAU as the Operating Mode to be used, press/release the A (Top) button while the graphic GAU is flashing. GAU stops flashing and GAU Mode is selected.
- If no GAU dive has be conducted, depress the A (Top) button for 4 seconds to access the FRE SURF MAIN screen.

NOR SURF MAIN > GAU SURF MAIN > FRE SURF MAIN

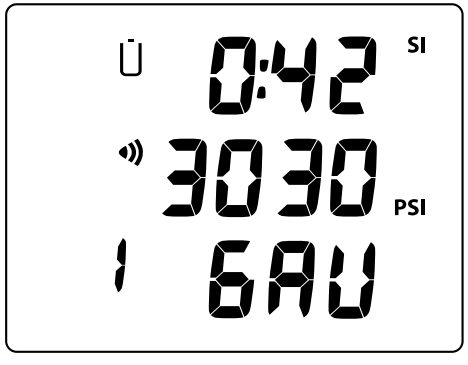

Fig. 90 - GAU SURF MAIN

GAU SURF MAIN, information includes (Fig. 90) -

> Battery icon (shell with lid), if a DataMask Low Battery Warning Condition exists, flashing if Too Low.
> Surface Interval (hr:min) with SI icon.
> Tank Pressure with PSI (or BAR) and Link icons, if the Receiver is successfully Linked with an active Transmitter.
> Dive Number (lower/left)
> Graphic **GAU** (indicating Gauge Mode).

- Press the S (Side) button to toggle the Backlight.
- Press/release the A (Top) button as necessary to access SURF ALT, FLY, LOG, and HISTORY, similar to NOR Mode.

- Depress/hold the A (Top) button for 2 seconds to access the SET menu (G > F > A > U > T).

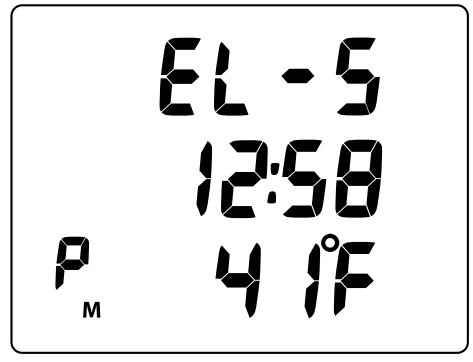

Fig. 91 - GAU SURF ALT

NOTE: Once a dive is conducted in GAU Operating Mode, you must wait 24 hours after surfacing before the DataMask resets and will operate in NOR Mode (Air or Nitrox) or FRE Dive Mode.

GAU SURF ALT, information includes (Fig. 91) -

> Altitude level graphic EL - 2 to EL - 7 (when > 3,000 feet)
> Time of Day (hr:min)
> Graphic Am or Pm, if set for 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- Press the S (Side) button to toggle the Backlight.
- Press/release the A (Top) button as necessary to access FLY, LOG, and HISTORY, similar to NOR Mode.

> The display will revert to the MAIN Display after 5 seconds if A is not pressed.

Upon descending to 5 FT (1.5 M), the DataMask will enter GAU DIVE Mode.

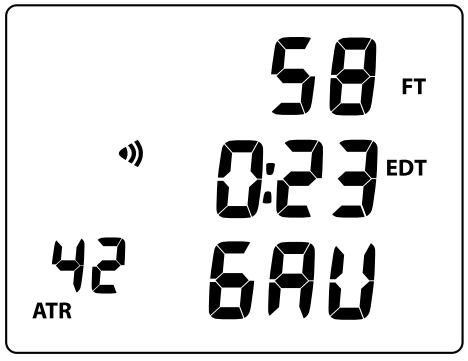

Fig. 92 - GAU DIVE MAIN

At any time during the dive -

- Press the S (Side) button to toggle the Backlight.
- Depress the S (Side) button for 2 seconds to access Set Backlight Level. Refer to page 82.
- Depress the A (Top) button for 2 seconds to acknowledge and silence Alarms.
- Press and release the A (Top) button momentarily (< 2 seconds each time) to access Alternate Displays.

GAU DIVE MAIN, information provided includes (Fig. 92) -

> Current Depth with FT (or M) icon
> Link icon, if a TRTR is active and linked, flashing after 1 minute of Lost Link
> ATR (decrements of 1 min), if =< 60 min
> Graphic GAU (indicating operation is set for Gauge Mode
- Press/release the A (Top) button (< 2 sec) to view ALT 1

GAU DIVE ALT 1, information includes (Fig. 93)

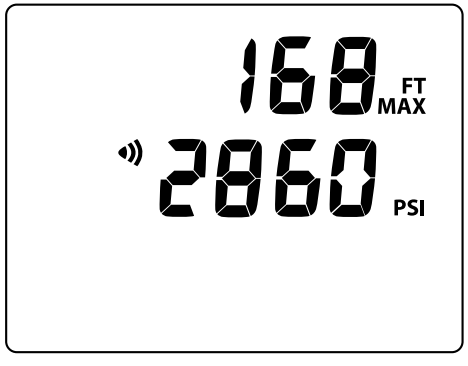

Fig. 93 - GAU DIVE ALT 1

> Max Depth with FT (or M) and MAX icons
> Elapsed Dive Time (hr:min) with EDT icon
> Tank Pressure with the PSI (or BAR) and Link icons, if a TRTR is active and linked, flashing after 1 minute of Lost Link
- Press/release the A (Top) button (< 2 sec) to view ALT 2
> The display will revert to the GAU DIVE MAIN screen after 5 seconds unless A is pressed.

GAU DIVE ALT 2, information includes (Fig. 94) -

> Time of Day (hr:min)
> Graphic Am or Pm, if set for 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- The display will revert to the GAU DIVE MAIN Display after 5 seconds or if A is pressed.

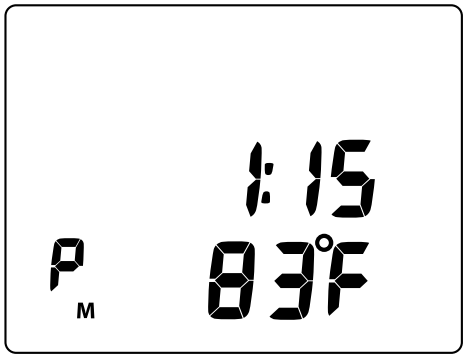

Fig. 94 - GAU DIVE ALT 2

△ **NOTE: The Alternate Displays cannot be accessed during the time (10 seconds) when an Alarm is sounding.**

INFORMATION PERTAINING TO FREE DIVE MODE

Although breathing apparatus is not utilized for FREE Dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO2 of AIR. Since a user has the option of alternating between NOR (SCUBA) and FRE Dive activities within a 24 hour period, nitrogen calculations and the displayed value of No Deco Dive Time Remaining (NDC Time) are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and offgasing status.

The mathematical model currently used in the DataMask is based on no decompression/decompression multilevel repetitive dive schedules. This algorithm does not take into account the physiological changes associated with the high pressures that competitive type Free diving can expose a diver to.

⚠ WARNINGS:

- **Ensure that you know which Operating Mode is selected (Nor, GAU, or FrE) prior to commencing any dive.**
- **Conducting Free dives within a 24 hour period after conducting SCUBA dives, combined with the effects of multiple rapid Free Dive ascents, increases your risk of decompression sickness. Such activities may result in accelerated entry into decompression which could cause serious injury or death.**
- **Combining competitive type Free dive activities that involve multiple descents/ascents with activities utilizing SCUBA during the same 24 hour period is not recommended. Presently, there is no data relating to such activities.**
- **It is highly recommended that anyone planning to become involved in competitive type Free dive activities obtain proper instruction and training from a recognized Free Diving trainer. It is imperative that the physiological affects be understood and the diver is physically prepared.**

WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

FREE DIVE OPERATING MODE

FREE DIVE OPERATING MODE

When Free Dive Mode (FrE) is selected as the Operating Mode, the DataMask will operate as a Digital Depth Gauge with select features.

FREE Dives can be conducted prior to NOR or GAU Dive operation as well as after NOR Dives.

FO2 set for NOR Mode operation has no affect on FO2 for FREE Dives. FREE Dive Mode calculates Nitrogen loading based upon a fixed default FO2 of AIR.

The amount of Nitrogen remaining during the 24 hours after a NOR or FRE Dive is carried over between FRE and NOR Operating Modes. NDC (No Deco Dive Time Remaining) is presented on the surface and underwater as the TLBG and during dives NDC is displayed as min:sec with the NDC icon.

FREE Dive Mode Alarms and their Set Points are independent of those for NOR and GAU Mode, and they cannot be silenced.

- To access the FRE SURF MAIN screen while NOR GAU MAIN is displayed, if no GAU Dive has been conducted, depress the A (Top) button for 4 seconds.
- To select FREE Dive as the Operating Mode to be used, press/release the A (Top) button while the graphic **FrE** is flashing. **FrE** stops flashing and FREE Dive Mode is selected.

NOR SURF > GAU SURF > FRE SURF MAIN

FREE SURF MAIN, information includes (Fig. 95) -

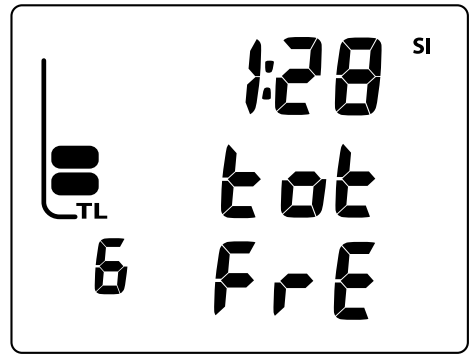

Fig. 95 - FRE ESURF MAIN

> TLBG (Left Bar with TL icon), loaded segments representing nitrogen loading remaining from any previous NOR or FRE dives conducted within the past 24 hours.
> Battery icon (shell with lid), if a DataMask Low Battery Warning Condition exists, flashing if Too Low
> Surface Interval (min:sec up to 59:59, then hr:min) with SI icon
> Graphic tot (Total) and the accumulated Total number (lower/left) of FRE Dives conducted in that set (series) of repetitive FRE Dives.
> Dive Number (lower/left)
> Graphic **FrE** (indicating Free Dive Mode)

- Press and release the A (Top) button momentarily (< 2 seconds) to access FREE SURF ALT 1.
- Depress the A (Top) button for 4 seconds to access NOR SURF MAIN.
- Press the S (Side) button to toggle the Backlight.
- Depress the S (Side) button repeatedly (2 seconds each time) to access and step through the FREE Mode Set Menu.

SURF MAIN > CDT Status > SET G > SET EDT Alarm > SET FRE Depth Alarms 1/2/3

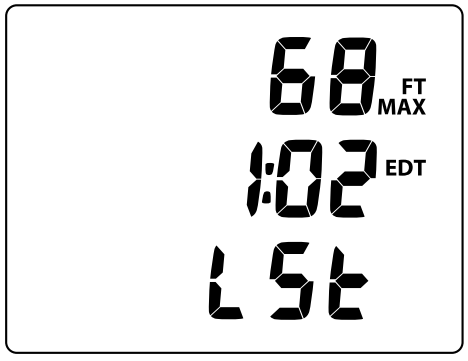

Fig. 96 - FREE SURF ALT 1

FREE SURF ALT 1, information includes (Fig. 96) -

> Maximum Depth of the FREE dive previously made while still in FREE Mode with FT (or M) and MAX icons
> Elapsed Dive Time (min:sec) of the FREE dive previously made while still in FREE Mode with EDT icon (resets to 0:00 after 24 hours)
> Graphic LSt (indicating data refers to the Last dive)

- Press and release the A (Top) button (< 2 seconds) to view FREE SURF ALT 2.
- Press the S (Side) button to toggle the Backlight.

The display will revert to the FRE SURF MAIN screen after 5 seconds unless the A (Top) button is pressed.

FREE SURF ALT 2, information includes (Fig. 97) -

> Altitude level graphic EL - 2 to EL - 7 (when > 3,000 feet)
> Time of Day (hr:min), with Am (or Pm) if 12 Hour Format
> Temperature with degrees icon and graphic F (or C)

- The display will revert to the FREE SURF MAIN screen after 5 seconds or if A is pressed.

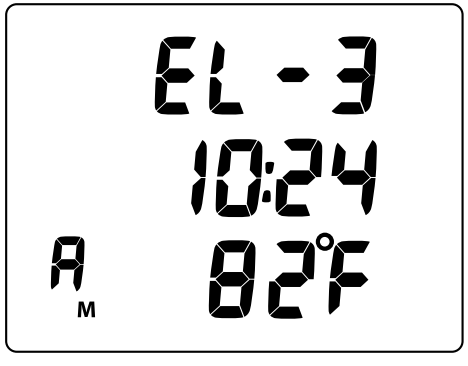

Fig. 97 - FREE SURF ALT 2

FREE SURFACE SET MENU

Depressing the S (Side) button for 2 seconds while viewing the FREE SURF MAIN screen will access the first item of the FREE SURF Set Menu displaying the FREE SURF CDT STATUS screen.

During operation in the Set Menu, the Backlight will remain ON and not be toggled OFF when the S (Side) button operates.

FREE SURF CDT STATUS, information includes (Fig. 98A/B) -

> Graphic Cdt (meaning Count Down Timer)
> Remaining Countdown Time (min:sec) with the colon flashing, if ON and a Count Down is in progress.
> 0:00 (min:sec) will be displayed with the colon flashing, if the CDT is ON and no time is remaining.
> If the CD Timer is OFF, the CD Time (min:sec) previously set will be displayed with the colon solid.
> OFF (or ON) Status, flashing

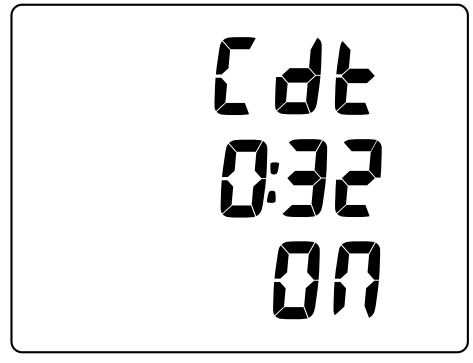

Fig. 98A - CDT ON/ RUNNING (32 sec remain)

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle between ON and OFF.

> If a Time has been set, a toggle from OFF to ON will Start the CDT indicated by the colon flashing.

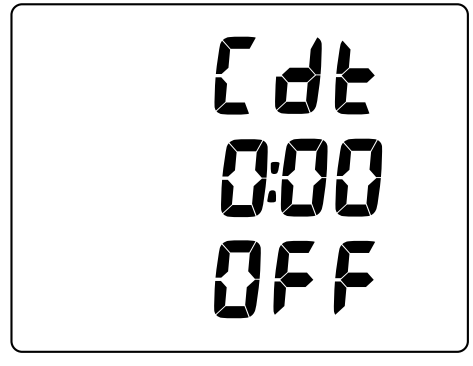

Fig. 98B - CDT OFF (no time set)

- Press the S (Side) button to toggle the Backlight.
- Pressing/releasing the A (Top) button momentarily (< 2 seconds) when the CD Timer is OFF will access the SET CDT screen with the MINUTE Set Point flashing.
- Depressing the A (Top) button for 2 seconds will revert to the FREE SURF MAIN screen.

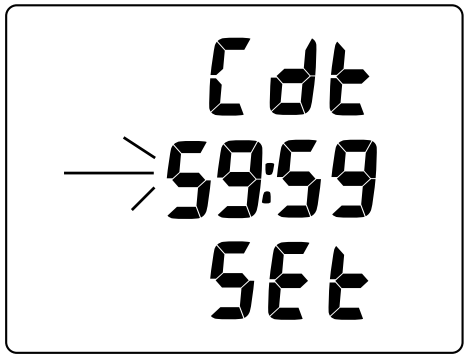

Fig. 99 - SET FREE CDT

Once the CD Timer has been Set and Started (by selecting ON), it will continue to run in the background while on the surface until turned OFF (stopped) or the Time reaches 0:00 at which time the Alarm will strike (3 short beeps 3 times), the graphic Cdt will be displayed and the CD Timer will revert to OFF.

Upon descending to 5 FT (1.5 M) for 5 seconds (i.e., entry into Dive Mode), CD Timer operation will continue, if in progress.

During dives, the CDT can be turned OFF (stopped) and ON (started), but not Set.

SET FREE CDT (Surface only), information includes (Fig. 99) -

> Graphic Cdt
> CD Timer setting (min:sec), colon solid, with MINUTE Set Point flashing
> Graphic SEt

- Depressing and holding the S (Side) button will scroll through the MINUTE Set Points at a rate of 4 per second from 0: to 59: in 1 Minute (1:) increments.
- Pressing and releasing the A (Top) button momentarily (< 2 sec) will save the MINUTE Set Point displayed and the SECONDS Set Point will flash.
- Depressing and holding the S (Side) button while the SECONDS Set Point is flashing will scroll through the Set Points at a rate of 4 per second from :00 to :59 in 1 Second (:01) increments.
- Pressing and releasing the A (Top) button momentarily (< 2 sec) will save the CD Timer Set Point and revert to the CDT Status screen indicated by the graphic OFF flashing in place of the graphic SEt.

- Pressing and releasing S (Side) button momentarily (< 2 sec) will toggle the CDT to ON and Start the Count Down.
- Depressing the A (Top) button for 2 seconds, or if no button is pressed during a period of 2 minutes, will revert to the FREE SURF MAIN screen.
- Depressing the S (Side) button for 2 seconds while the CDT Status screen is displayed will access the SET G screen identified by the graphic SEtG. Refer to page 30 (NOR) for Setting.

FREE DIVE EDT (ELAPSED DIVE TIME) ALARM

The FREE EDT Alarm is factory set for 30 seconds. When set ON, the Alarm will sound 3 short beeps and the message TIME will be displayed momentarily every 30 seconds while the DataMask is operating underwater in FREE DIVE Mode.

△ **NOTE: The FREE EDT Alarm can only be Set (turned OFF or ON) while on the Surface and can not be changed during a Dive.**

- Depressing the S (Side) button for 2 seconds while the SET G screen is displayed will access SET FREE EDT ALARM with the Set Point flashing.

SET FREE EDT ALARM, information includes (Fig. 100) -

> Graphic Edt (meaning Elapsed Dive Time)
> Set Point OFF or ON, flashing.

- Pressing and releasing the S (Side) button momentarily (< 2 sec) will toggle the Set Point between OFF and ON.

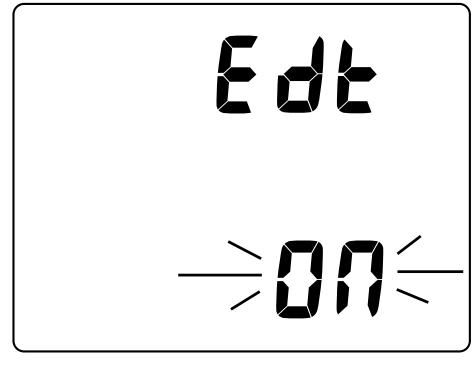

Fig. 100 - SET FREE EDT ALARM

- Pressing the A (Top) button momentarily (< 2 sec) will accept the setting indicated by the Set Point becoming solid.
- Depressing the A (Top) button for 2 seconds, or if no button is pressed during a period of 2 minutes, will revert to the FREE SURF MAIN screen.

FREE DIVE DEPTH ALARMS (FDA)

The DataMask features 3 FREE Dive DEPTH Alarms that can be Set at progressively deeper Depths and turned OFF/ON.

> If Alarm 1 is set OFF, then Alarms 2 and 3 will be disabled.
> If Alarm 2 is set OFF, Alarm 3 will be disabled.

When each of the Depths set are reached during a dive, 3 short beeps will sound 3 times and the Current Depth value will flash on the MAIN Dive display.

- Pressing the A (Top) button momentarily (< 2 seconds) while the SET FREE EDT ALARM screen is displayed will access SET FDA 1 with the ON/OFF Set Point flashing.

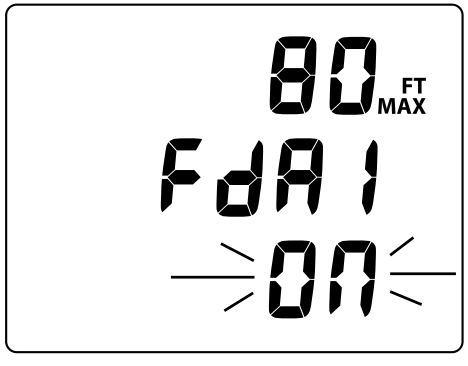

Fig. 101 - SET FDA 1

SET FDA 1, information includes (Fig. 101) -

> Depth Alarm value with FT (or M) and MAX icons
> Graphic FdA1 (meaning FREE Depth Alarm 1)
> Set Point ON or OFF, flashing

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle the Set Point between ON and OFF.

- Pressing the A (Top) button momentarily (< 2 sec) will accept the ON or OFF Set Point which will stop flashing.

> If set OFF, operation will revert to the FRE SURF MAIN screen, bypassing SET FDA 2 and 3.

> If set ON, the Depth value displayed will start flashing.

- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will step through the Set Points from 30 to 330 FT (10 to 100 M) in increments of 10 FT (1 M) at a rate of 1 Set Point per press of the button.
- Pressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until released.
- Pressing the A (Top) button momentarily (< 2 sec) will accept the Depth Set Point and advance to SET FDA 2.

- Depressing the A (Top) button for 2 seconds, or if no button is pressed during a period of 2 minutes, will revert to the FREE SURF MAIN screen.

SET FDA 2, information includes (Fig. 102) -

> Depth Alarm value with FT (or M) and MAX icons

> Graphic FdA2 (meaning FREE Depth Alarm 2)

> Set Point ON or OFF, flashing

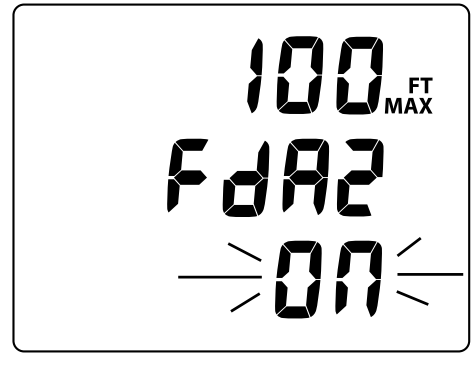

Fig. 102 - SET FDA 2

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle the Set Point between ON and OFF.
- Pressing the A (Top) button momentarily (< 2 sec) will accept the ON or OFF Set Point which will stop flashing.

> If set OFF, operation will revert to the FRE SURF MAIN screen, bypassing SET FDA 3.
> If set ON, the Depth value displayed will start flashing.

- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 seconds each time) will step through the Set Points from 40 to 330 FT (11 to 100 M) in increments of 10 FT (1 M) at a rate of 1 Set Point per press of the button.
- Pressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until released.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will accept the Depth Setting and advance to SET FDA 3.

- Depressing the A (Top) button for 2 seconds, or if no button is pressed during a period of 2 minutes, will revert to the FREE SURF MAIN screen.

SET FDA 3, information includes (Fig. 103) -

> Depth Alarm value with FT (or M) and MAX icons
> Graphic FdA3 (meaning FREE Depth Alarm 3)
> Set Point ON or OFF, flashing

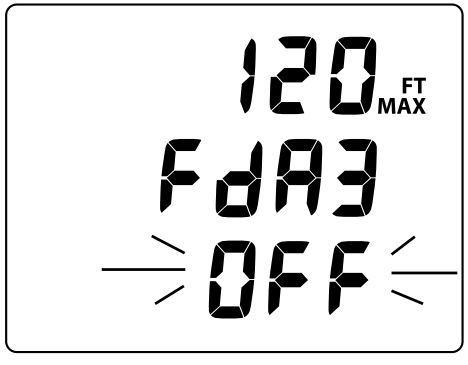

Fig. 103 - SET FDA 3

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle the Set Point between ON and OFF.
- Pressing the A (Top) button momentarily (< 2 sec) will accept the ON or OFF Set Point which will stop flashing.

> If set OFF, operation will revert to the FRE SURF MAIN screen.
> If set ON, the Depth value displayed will flash.

- Pressing and releasing the S (Side) button momentarily and repeatedly (< 2 sec each time) will step through the Set Points from 50 to 330 FT (12 to 100 M) in increments of 10 FT (1 M) at a rate of 1 Set Point per press of the button.
- Pressing and holding the S (Side) button will scroll through the Set Points at a rate of 4 Set Points per second until released.
- Pressing the A (Top) button momentarily (< 2 sec) will accept the Depth Setting and revert to the FREE SURF MAIN screen.

The range of available FDA 2 and 3 Set Points begins at the next FT/M value greater than the FDA 1 and 2 Alarm Set Points selected.

FREE DIVE MAIN, information includes (Fig. 104) -

> TLBG (Left Bar with TL icon), if any Nitrogen is remaining from NOR or FRE Dives conducted within the previous 24 hours
> Current Depth with FT (or M) icon
> Elapsed Dive Time (min:sec) with EDT icon
> Dive Time Remaining (hr:min) with NDC icon

- Depress the S (Side) button for 2 seconds to access SET GLO (Backlight Level). Refer to page 82.
- Depress the A (Top) button for 2 seconds to access the FREE CDT (Count Down Timer) STATUS screen, then again < 2 seconds to access the FREE Dive ALT screen.
- Press the S (Side) button to toggle the Backlight.

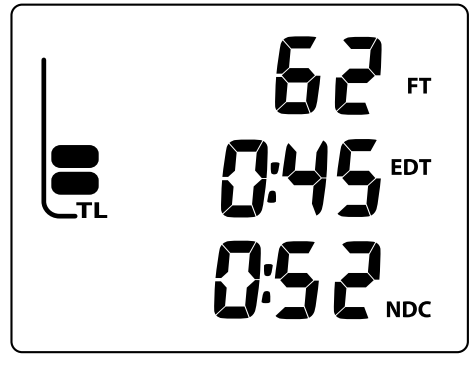

Fig. 104 - FREE DIVE MAIN

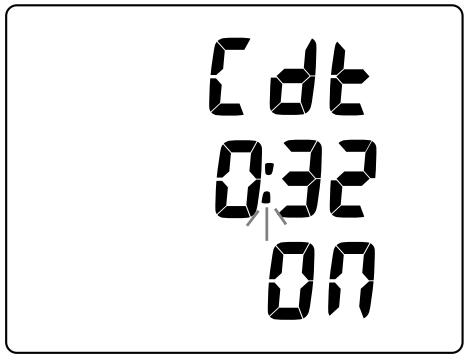

Fig. 105 - FREE DIVE CDT

FREE DIVE CDT STATUS, information includes (Fig. 105) -

> Graphic Cdt (meaning Count Down Timer)

> Remaining Countdown time (min:sec) with the colon flashing if ON and a CD is in progress, 0:00 with the colon flashing if ON and no time is remaining. If OFF, the CD Time previously set while on the surface will be displayed with the colon solid.

- Pressing and releasing the S (Side) button momentarily (< 2 seconds) will toggle between OFF and ON. If a Time has been set, a toggle from OFF to ON will Start the CD TIMER indicated by the colon flashing (Fig. 117).
- Pressing the S (Side) button will toggle the Backlight.
- Pressing and releasing the A (Top) button momentarily (< 2 seconds) will access the FREE DIVE ALT screen.
- If no button is pressed during a period of 10 seconds, the display will revert to the FREE DIVE MAIN screen.

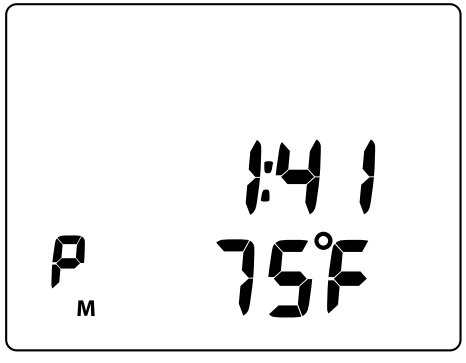

Fig. 106 - FREE DIVE ALT

FREE DIVE ALT, information includes (Fig. 106) -

> Time of Day (hr:min) with Am (or Pm) icon if 12 Hour Format

> Temperature with degrees icon and graphic F (or C)

- The display will revert to the FREE DIVE MAIN screen after 5 seconds or if the A (Top) button is pressed and released.

FREE DIVE ALARMS

All FREE Dive Alarms will sound 3 short beeps (either 1 or 2 times) and flash the associated parameter as an indication that an event is occurring and as a reminder to view the display to identify the event. After the beeps have sounded, the flashing will stop.

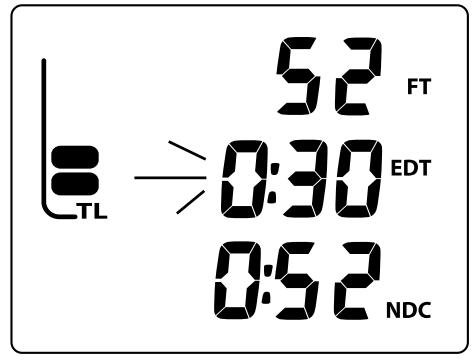

Fig. 107 - FREE DIVE EDT ALARM

FREE DIVE Alarms are separate and unaffected by NOR/GAU Mode Alarm Settings. The Alarms for those Modes are separate and unaffected by FREE DIVE Alarm Settings.

FREE DIVE EDT (Elapsed Dive Time) ALARM

When the FREE EDT Alarm is set ON prior to commencing a FREE Dive, 3 short beeps will sound and Elapsed Dive Time (min:sec value) will flash on the MAIN screen (Fig. 107).

This FREE DIVE Alarm is factory set to repeat every 30 seconds when set ON.

FREE CDT (Count Down Timer) ALARM

When the FREE CDT decreases to 0:00 (min:sec), 3 short beeps will sound 3 times and the graphic **Cdt** (meaning Count Down Timer) will flash on the MAIN screen in place of NDC time (Fig. 108). NDC time will be restored after the beeps stop.

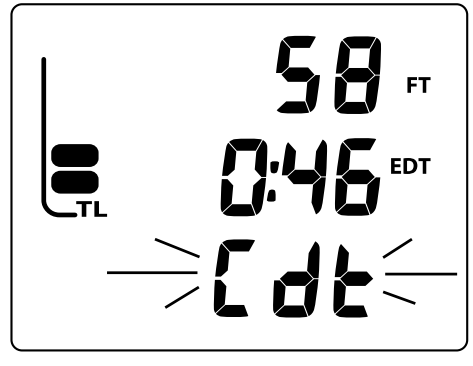

Fig. 108 - FREE DIVE CDT ALARM

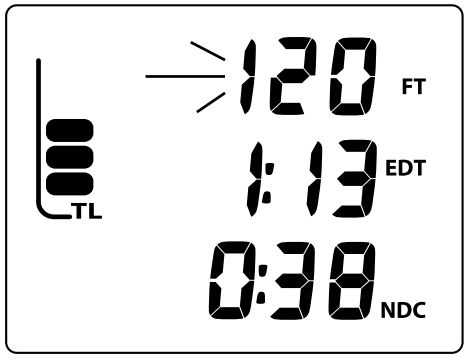

Fig. 109 - FREE DIVE DEPTH ALARM

FREE DIVE DEPTH ALARM(S)

When Depth reaches the FDA (FREE DEPTH ALARM) 1 Set Point, 3 short beeps will sound 3 times and the Current Depth value will flash on the MAIN screen (Fig. 109).

The beeps and flashing will be repeated when Depth reaches the FDA 2 and FDA 3 Set Points, if set ON.

If Ascent is made above, then descent is made below, an FDA Set Point, the respective Depth Alarm will sound again.

FREE DIVE TLBG (Tissue Loading Bar Graph) ALARM

While diving in FREE DIVE Mode, nitrogen accumulation from the FREE Dives in that set (series) and any previous NOR Dives conducted within 24 hours is presented as the TLBG.

When Nitrogen Loading increases to the Caution level (4 TLBG segments), 3 short beeps will sound 3 times and the TLBG and UP Arrow will flash on the MAIN screen (Fig. 110).

After the beeps, the TLBG will stop flashing. The UP Arrow will remain On solid until the TLBG (Nitrogen Loading) recedes to 3 segments at which time it will be removed.

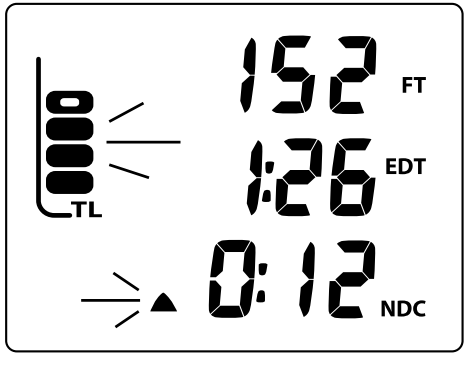

Fig. 110 - FREE DIVE TLBG ALARM

ENTRY INTO DECO DURING A FREE DIVE

When Nitrogen Loading increases to the DECO level (all 5 TLBG segments), 3 short beeps will sound 3 times, the TLBG and UP Arrow will flash, and the graphic **Vio** (meaning Violation) will flash on the MAIN screen in place of NDC time (Fig. 111).

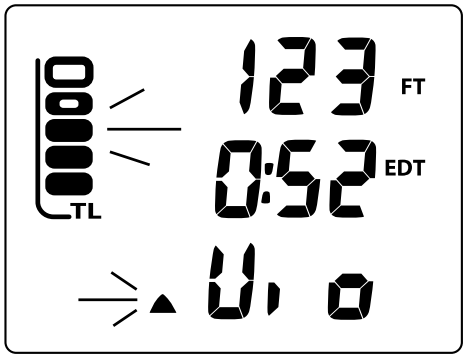

Fig. 111 - ENTRY INTO DECO

After the beeps stop, the TLBG will be removed and UP Arrow and graphic **Vio** will continue to flash until you surface.

Upon surfacing, the UP Arrow will be removed, the graphic **Vio** will flash for 1 minute, then alternate with the graphic **FrE**, each On for 3 seconds.

This is a Permanent Violation and access to NOR and GAU Modes will be blocked until a full 24 hours elapse with no diving of any type.

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WARNING: Prior to diving with the DataMask, you must also read and understand the Oceanic Dive Computer Safety and Reference Manual, Doc. No. 12-2262, which provides Important Warnings and Safety Recommendations as well as general product information.

REFERENCE

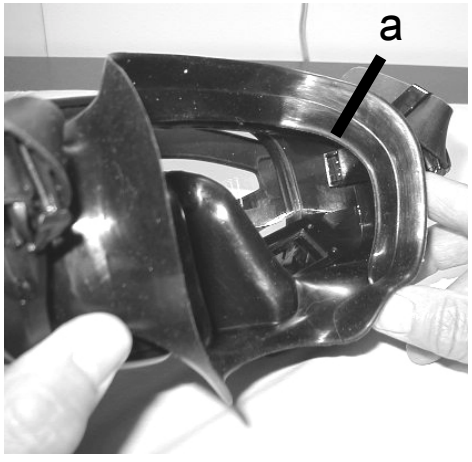

Fig. 112 - DATA PORT

UPLOADING SETTINGS AND DOWNLOADING DATA

The DataMask is configured with a Data Port located on the inner/right side (Fig. 112a) that enables it to be connected to a PC USB port using the OceanLog Interface Cable (Fig. 113).

A USB Driver is provided on the OceanLog CD as part of the Interface System.

The Settings Upload feature can be used to set/change the DataMask's Set G group (Backlight), Set A group (Alarms), Set U group (Utilities), and Set T group (Date/Time) using the Interface System.

The Set F group (FO2) and FREE Dive Mode Alarms must be entered using the Mask's control buttons.

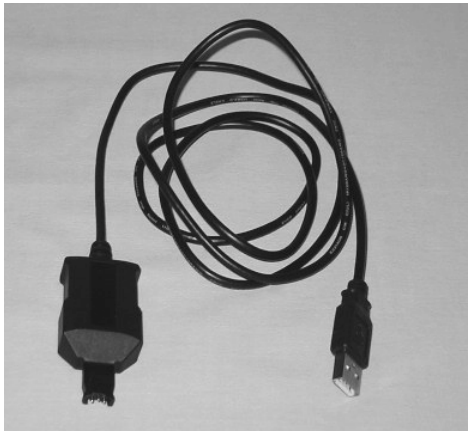

Fig. 113 - PC INTERFACE CABLE

Information available for retrieval (DownLoad) from the DataMask to the PC OceanLog program includes Dive Number, Surface Interval time, Maximum Depth, Elapsed Dive Time, Start Date, Start Time, Lowest Temperature underwater, Sampling Rate, Dive Profile, Set Points, Pressure, Air Time Remaining, OTU, OTS, Ascent Rate, TLBG, and O2BG.

The DataMask checks for the presence of an interface device connection to the Data Port once every second while in Surface Mode. Checks are not made if the Wet Activation contacts are wet. Upon sensing an interface connection, the requesting device (PC) connects to the DataMask and is prepared for Upload of Settings or Download of Data which are then initiated using the PC OceanLog program.

Prior to attempting to Download Data from your DataMask or Upload Settings to it, review the HELP section of the OceanLog program. Recommended is to print those sections of HELP that you consider appropriate for your Interface activities. There is no manual for OceanLog.

PC compatibility requirements:

- IBM®, or compatible, Personal Computer with USB Port and CD Rom drive
- Intel® Pentium 200 MHz or better microprocessor
- Microsoft® Windows® 98 Second Edition, ME, NT, 2000, or XP
- Super VGA card or compatible video graphics adaptor (256 color or greater) with a minimum 800 X 600 pixel screen area of display settings
- 16 MB of available RAM
- 20 MB of available hard drive storage
- Mouse, Printer

For software updates, refer to the Oceanic web site.

www.OceanicWorldwide.com

For support, call OceanLog Support toll free at -

(866) 732-7877, 8 Am to 5 Pm Pacific time.

MASK PREPARATION AND USE

Prior to using the Mask for the first time, thoroughly clean both sides of the Lens with a nonabrasive liquid detergent** or toothpaste to remove any residue (**Oceanic recommends McNett brand Sea Buff™ Cleaner), then rinse thoroughly with fresh water.

To prevent fogging during use, rub a no fog solution**, or saliva, on the inner surface of the Mask Lens and Optics while it is still dry (**Oceanic recommends McNett brand Sea Gold™ Anti-Fog Gel), then rinse with water.

Place the Mask on your face and pull the Strap over the top of your head, similar to donning a typical SCUBA Mask. Adjust the Strap so that it holds the Mask comfortably and firmly in position on your face without being too tight or restrictive.

To clear water that enters the Mask while underwater, tilt your head back and exhale gently into the Mask while pressing the top portion of the Frame with your fingers, similar to clearing a typical SCUBA Mask. Water will be forced out the bottom edge.

To eliminate mask squeeze caused by the higher pressures that are experienced when diving deeper than a few feet, exhale slowly into the Mask through your nose as you dive deeper.

To equalize pressure in your ears, pinch your nose closed with your thumb and finger and blow gently while holding your mouth closed.

CARE AND CLEANING

Protect your DataMask from shock, excessive temperatures, chemical attack, and tampering. Protect the Mask's Lens and Optics against scratches.

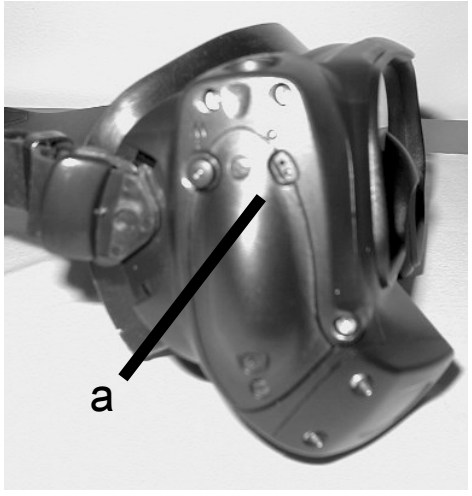

Fig. 114 - DEPTH SENSOR

- Aerosols should not be sprayed in the area of the DataMask. The propellants may chemically attack components such as the plastic portions and Lens/Optics.
- Soak and rinse the DataMask 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. 114a), PC Interface Data Port, and Buttons are free of debris or obstructions.
- Soak and rinse the Regulator equipment with the Transmitter attached.
- To dissolve salt crystals, use lukewarm water or a slightly acidic bath (50% white vinegar/50% fresh water).
- After removal from the bath, rinse the Mask and the Regulator with Transmitter under gently running water and towel** dry before storing (**Oceanic recommends McNett brand MicroNett Microfiber Towels).
- Transport your DataMask equipment cool, dry, and protected.

INSPECTIONS AND SERVICE

DataMask equipment (Mask and Transmitter) should be inspected for damage and wear prior to, and after, each dive operation to ensure it is working properly.

Inspect the Mask Lens/Optics/Frame/Skirt/Straps/Buttons, and Housing(s) to ensure they are not cracked or damaged.

If there is any sign of moisture in the Mask's Optics, DO NOT attempt to use the Mask until it receives proper service.

Prior to each dive operation, the Mask should be activated and Battery status, Button operations, Backlight operation, and Set Points verified and/or modified, if required. The Transmitter should be pressurized and transmitted data verified to be properly received by the Mask it is linked to.

Your DataMask should be inspected annually by an Authorized Oceanic Dealer who will perform a factory prescribed function check and inspection for damage or wear. To keep the 2 year limited warranty in effect, this inspection must be completed one year after purchase (+/- 30 days).

Oceanic recommends that you continue to have an inspection performed every year to ensure it is working properly.

The costs of annual inspections are not covered under the terms of the 2 year limited warranty.

To Obtain Service:

Take your DataMask system (Mask and Transmitter) to an Authorized Oceanic Dealer or send it to the nearest Oceanic Regional Distributor Facility (refer to page 122).

To return your DataMask to Oceanic:

- Record all dive data in the Log and/or download the data in memory. All data will be erased during factory service.
- Package it using a protective cushioning material.
- If shipping to Oceanic USA, obtain an RA (Return Authorization) number by contacting Oceanic at 510/562-0500 or send an e-mail to service@oceanicusa.com.
- Include a legible note stating the specific reason for return, your name, address, daytime phone number, serial number(s), and a copy of your original sales receipt.
- Send freight prepaid and insured using a traceable method to the nearest Oceanic Regional Service Facility (page 122), or to Oceanic USA.
- Non-warranty service must be prepaid. COD is not accepted.
- Additional information is available at the Oceanic web site.

OceanicWorldwide.com

BATTERY REPLACEMENT

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

The Battery Compartment(s) 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(s), it is recommended that the Battery(s) be changed in an environment equivalent to the local outdoor temperature and humidity (e.g., do not change the Battery(s) in an air conditioned environment then take it outside during a hot sunny day).

If there is any sign of moisture in the DataMask or Transmitter, DO NOT attempt to use it for diving (NOR, GAU, or FRE Mode) until it receives proper service by the Oceanic factory or an Authorized Regional Distributor.

WARNING: When the Battery is removed, Settings will revert to factory default values and have to be reentered, and nitrogen loading and oxygen accumulation used for calculations for repetitive dives will be erased.

DataMask Battery Removal

Before opening the Mask's Battery Compartment, inspect the Housing (Mask Frame) to ensure it is not cracked or damaged.

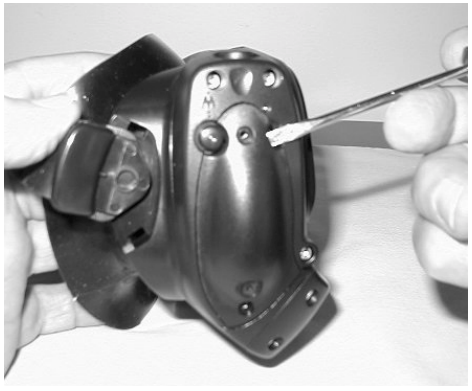

Fig. 115 - BATTERY COVER REMOVAL

- Locate the Battery Compartment on the Right Side of the Mask.
- Remove the 2 Screws that secure the Battery Cover to the Housing by turning them out counter clockwise.
- Carefully insert the blade of a screwdriver down along the side of the Cover next to the Depth Sensor (Fig. 115) and lift the Battery Cover out and away from the Housing.
- Lift the Battery, positive (+) end first, out of the Battery Compartment and discard according to local regulations governing disposal of Lithium batteries.
- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Battery Compartment components (inside and outside) to ensure there is no damage, and for any signs of corrosion indicating entrance of moisture into the unit.

⚠ **WARNING: If damage or corrosion is found, DO NOT attempt to use the Mask until it has received proper service.**

- Remove the Battery Cover O-ring and inspect it for any signs of deterioration or deformity. DO NOT use tools to remove the O-ring.
- O-ring replacement is highly recommended to ensure proper sealing.
- Closely examine the Sealing surfaces of the Battery Cover and Housing for any signs of damage that might prevent proper sealing.

Fig. 116 - BATTERY O-RING AND BATTERY INSTALLED

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

Mask Battery Installation

- Lightly lubricate a new Battery Cover O-ring with silicone grease and place it on the beveled outer edge of the Battery Compartment (Fig. 116). Ensure that it is evenly seated.
- The O-ring must be a genuine Oceanic part. Use of any other O-ring may result in an improper seal and leakage.
- Place a new 3 volt, CR2, Lithium Battery (Duracell® model DL-CR2 or equivalent) negative end first into the Battery Compartment with the negative end toward the Spring. Ensure that the Battery is properly oriented.
- Carefully place one side of the Battery Cover into position so that it is seated on top of the Cover O-ring (Fig. 117) and while holding it in place, press the other side down into place.
- While holding the Cover firmly in place, secure it with the 2 Screws by alternately turning each of them clockwise 1 turn at a time.
- The outer surface of the Battery Cover should be flush with the outer surface of the Housing (Mask Frame).

Fig. 117 - BATTERY COVER INSTALLATION

Transmitter Battery Removal

Before opening the Transmitter's Battery Compartment, inspect the Housing to ensure it is not cracked or damaged.

Fig. 118 - TRANSMITTER BATTERY COVER REMOVAL

- Locate the Battery Cover on the End of the Housing.
- Apply a coin (not a screwdriver) to the recessed slot of the Cover (Fig. 118) and while exerting slight inward pressure, turn it counter clockwise out of the Housing.
- Remove the Battery from the Battery Compartment and discard according to local regulations governing disposal of Lithium batteries.
- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Housing (inside and outside) to ensure it is not cracked or damaged, and for any signs of corrosion indicating entrance of moisture into the unit.

⚠ **WARNING: If damage or corrosion is found, DO NOT attempt to use the Transmitter until it has received proper service.**

- Remove the Battery Cover O-ring and inspect it for any signs of deterioration or deformity. DO NOT use tools to remove the O-ring.
- O-ring replacement is highly recommended to ensure proper sealing.
- If it is necessary to clean the Battery Compartment, flush it and all components with a solution of 50% white vinegar and 50% fresh water. Rinse with fresh water, and allow to dry overnight, or blow dry with a hair dryer (set at 'no heat').

Fig. 119 - TRANSMITTER O-RING INSTALLATION

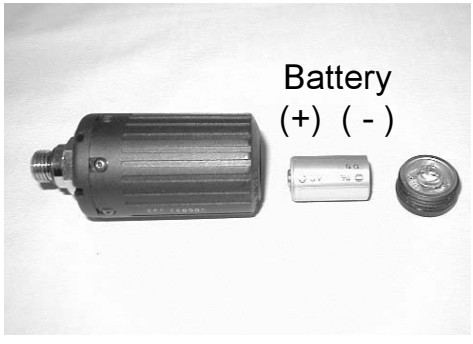

Fig. 120 - BATTERY ORIENTATION

Fig. 121 - BATTERY COVER INSTALLED

Transmitter Battery Installation

- Lightly lubricate a new (recommended) Battery Cover O-ring with silicone grease and install it on the Battery Cover, stretching it slightly to work it down over the slotted end of the Cover into the Groove above the Threads (Fig. 119). DO NOT roll the O-ring over the Threads.
- The O-ring must be a genuine Oceanic part. Use of any other O-ring may result in an improper seal and leakage.

- Place a new 3 volt, CR2, Lithium Battery (Duracell® model DL-CR2 or equivalent) positive (+) side down into the Battery Compartment with the negative end facing up/out.
- Ensure that the Battery is properly oriented (Fig. 120) and the Cover O-ring is evenly seated around the Battery Cover.
- Carefully place the Battery Cover with Spring into the Housing and turn clockwise slowly by hand to ensure proper threading.
- Apply a coin and tighten clockwise until secure. The outer surface of the Battery Cover should be flush with the outer surface of the Housing (Fig. 121).

DataMask System Battery Test

- Pressurize the Transmitter to at least 120 PSI (8 BAR) and activate the Mask programmed to link to it. Observe that it performs a full diagnostic and battery check, and enters NOR Surface Mode displaying Tank Pressure and the Link icon.
- If a Mask or Transmitter Low Battery Condition is indicated, DO NOT use them until a complete evaluation is performed.

INSTALLING A TRANSMITTER ON A REGULATOR FIRST STAGE

- Remove the existing Pressure Gauge and High Pressure Hose, or the High Pressure Port Plug from the Port marked HP using the proper size Hex Key.
- Lightly lubricate the O-ring and Threads of the Transmitter fitting with a halocarbon based lubricant such as Christo-Lube MCG111 (provided in Oceanic Battery Kits).
- Thread the Transmitter clockwise by hand into the Regulator's HP Port (Fig. 122) and tighten until secure with a 5/8" open end wrench.
- Attach the Regulator First Stage to a full Scuba Tank and pressurize by slowly opening the Tank Valve, listening for any indication of air leaking around the Fitting.
- If air leakage is present, DO NOT use, take the complete Regulator Assembly to an Authorized Oceanic Dealer for inspection and service.

TRANSMITTER COMPATIBILITY WITH NITROX

When packaged and shipped from the factory, Oceanic Transmitters are rated for use with compressed Air and/or nitrogen-oxygen (Nitrox) breathing gas mixtures containing up to 99% O2 by volume and with 100% O2.

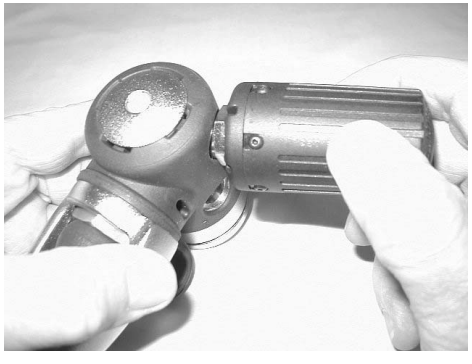

Fig. 122 - INSTALLING A TRANSMITTER

ALTITUDE SENSING AND ADJUSTMENT

Prior to the first dive of a series of repetitive dives, ALTITUDE (i.e., Ambient Pressure) is measured upon activation and every 15 minutes until a dive is made.

> Measurements are taken every 15 minutes during the 24 hour period after surfacing.
> Measurements are only taken when the unit is dry.
> Two readings are taken, the second reading is taken 5 seconds after the first. The readings must be within 1 foot (30 cm) of each other to record that Ambient Pressure as the current ALTITUDE.

The Mathematical Model in the DataMask accounts for the reduced No Decompression Dive Time available based on National Oceanic and Atmospheric Administration (NOAA) guidelines.

When diving in high altitude waters from 3,001 to 14,000 feet (916 to 4,270 meters), the DataMask automatically adjusts to these conditions providing corrected Depth, reduced No Decompression Times, and reduced Oxygen Accumulation Times at intervals of 1,000 feet (305 meters).

> At an elevation of 3,001 feet (916 meters), Depth Calibration automatically changes from feet of seawater to feet of fresh water. This is the first adjustment to the Algorithm.
> No adjustments are made during any time that the Wet Contacts are bridged.

When the Conservative Factor feature is set ON, allowable dive times are calculated based upon the next higher 3,000 foot (915 meter) Altitude. All adjustments for Altitudes greater than 11,000 feet (3,355 meters) are then made to allowable dive times for 14,000 feet (4,270 meters). If the Conservative Factor is set ON while at Sea Level, calculations are based upon an Altitude of 3,001 feet (6916 meters).

The DataMask will not function above 14,000 feet (4,270 meters).

IMPERIAL NO DECOMPRESSION LIMITS (HOURS:MINUTES) AT ALTITUDE

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

METRIC NO DECOMPRESSION LIMITS (HOURS:MINUTES) AT ALTITUDE

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

OXYGEN EXPOSURE LIMITS (from NOAA Diving Manual)

PO2 (ATA)	Max Duration Single Exposure (min)	(hr)	Max Total Duration 24 Hour Day (min)	(hr)
0.60	720	12.0	720	12.0
0.70	570	9.5	570	9.5
0.80	450	7.5	450	7.5
0.90	360	6.0	360	6.0
1.00	300	5.0	300	5.0
1.10	240	4.0	270	4.5
1.20	210	3.5	240	4.0
1.30	180	3.0	210	3.5
1.40	150	2.5	180	3.0
1.50	120	2.0	180	3.0
1.60	45	.75	150	2.0

SPECIFICATIONS

CAN BE USED AS

- Dive Computer (Air or Nitrox)
- Digital Depth Gauge/Timer with Pressure
- Free Dive activity
- With or without 1 Transmitter

NO DECOMPRESSION MODEL

Basis:

- Modified Haldanean Algorithm
- 12 tissue compartments

Data Base:

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

Dive Computer 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 (stop ceilings):

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

Altitude Algorithm and Oxygen Exposure Limits:

- Based on NOAA tables

TRANSMITTER

- Startup
  - > Pressure equal or greater than 120 PSI (8 BAR)
  - > Battery equal or greater than 2.75 volts
- Shutdown
  - > Pressure less than 50 PSI (3.5 BAR)

SURFACE SEQUENCE/MODES

- NORMAL / GAUGE / FREE Surface Mode
- Plan (30 to 190 FT/9 to 57 M) - NOR only
- Time to Fly Countdown - NOR/GAU
- Time to Desaturation Countdown - NOR only
- Dive Log - NOR/GAU
- History - NOR/GAU
- Set Backlight - NOR/GAU/FRE
- Set FO2, Alarms, Utilities, Time - NOR/GAU

FREE MODE SETTINGS

- Count Down Timer (0:00 to 59:59 min:sec)
- Elapsed Dive Time Alarm (Off/On) - fixed every 30 sec
- Depth Alarm 1 (30 to 330 FT /10 to 100 M)
- Depth Alarm 2 (40 to 330 FT /11 to 100 M)
- Depth Alarm 3 (50 to 330 FT /12 to 100 M)
- TLBG Alarm - fixed at 4 segments
- DECO Alarm - fixed at 5 TLBG segments

SPECIFICATIONS (CONTINUED)

NOR/GAU SET MODES

	Factory Settings:
• Set G Group (Backlight):	
• Level (5, 25, 50, 75, 100%)	> 75%
• Set F Group (FO2 items):	
• FO2 (Air, 21 to 50%)	> Air
• FO2 Default (On/Off)	> On
• Set A Group (Alarms):	
• Audible (On/Off)	> On
• Depth (30 to 330 FT /10 to 100 M)	> 330 FT
• Elapsed Dive Time (:10 to 3:00 hr:min)	> 3:00 (hr:min)
• TLBG (1 to 5 segments)	> 5 segments (Deco)
• Dive Time Remaining (:00 to :20 min)	> :05 (min)
• Turn Press (Off, 1000 to 3000 PSI, 70 to 205 BAR)	> Off
• End Press (300 to 1500 PSI, 20 to 105 BAR)	> 300 PSI
• PO2 (1.20 to 1.60 ATA)	> 1.60 (ATA)
• Set U Group (Utilities):	
• Wet Activation (On / Off)	> On
• Units of Measure (Imperial / Metric)	> Imperial
• Safety Stop Time, Depth (Off/3/5 minutes, 10/15/20 FT, 3/4/5/6 M)	> 3:00 (min:sec)
• Conservative Factor (On / Off)	> Off
• Sampling Rate (2, 15, 30, 60 seconds)	> 15 (sec)
• Transmitter Link Code (Off / On, 00000 to 99999)	> serial no.

SPECIFICATIONS (CONTINUED)

NOR/GAU SET MODES (continued)

- Set T Group (Time/Date): — Factory Settings:
  - Hour Format (12/24) > 12
  - Time (hr:min) > actual at factory
  - Date (month_day_year) > 0101 2007

- DataMask Serial Number
  - Factory set > actual

NOR No Deco Dive Displays:
- Main (default) - TLBG, Current Depth (FT/M), Pressure (PSI/BAR), ATR (min), DTR (hr:min)
- Alt 1 - Max Depth (FT/M), EDT (hr:min)
- Alt 2 - O2BG, Current PO2 (ATA), FO2 Set Point (%)
- Alt 3 - Time of Day (hr:min), Temp (F/C)
- Safety Stop Main - TLBG, Current Depth (FT/M), Pressure (PSI/BAR), Stop Depth (FT/M), Stop Time (min:sec)
- Safety Stop Alt 1 - Max Depth (FT/M), EDT (hr:min), ATR (min), DTR (hr:min)
- Safety Stop Alt 2 - O2BG, Current PO2 (ATA), FO2 Set Point (%)
- Safety Stop Alt 3 - Time of Day (hr:min), Temp (F/C)

NOR Decompression Dive Displays:
- Main (default) - TLBG, Current Depth (FT/M), Pressure (PSI/BAR), Stop Depth (FT/M), Stop Time (hr:min)
- Alt 1 - Max Depth (FT/M), EDT (hr:min), ATR (min), Total Ascent Time (hr:min)
- Alt 2 - O2BG, Current PO2 (ATA), FO2 Set Point (%)
- Alt 3 - Time of Day (hr:min), Temp (F/C)

NOR Violation Modes (displays similar to Deco) - Conditional, Delayed, and Immediate/Violation Gauge

NOR High PO2 (setting of 1.20 to 1.60 ATA)

NOR High O2 (300 OTU per dive / 24 hr)

SPECIFICATIONS (CONTINUED)

GAU Dive Displays:

- Main (default) - Current Depth (FT/M), EDT (hr:min), ATR (min)
- Alt 1 - Max Depth (FT/M), Pressure (PSI/BAR)
- Alt 2 - Time of Day (hr:min), Temp (F/C)

FRE Dive Displays:

- Main (default) - TLBG, Current Depth (FT/M), EDT (min:sec), NDC Time (hr:min)
- CDT Status - graphic Cdt (Timer), CDT Remaining (min:sec), Status (On/Off)
- Alt - Time of Day (hr:min), Temp (F/C)

NUMERIC DISPLAYS:	Range:	Resolution:
• NOR/GAU Dive Number	0 to 24	1
• FRE Dive Number	0 to 99	1
• Current Depth	0 to 330 FT (100 M)	1 FT (0.1 M)
• Maximum Depth	330 FT (100 M)	1 FT (0.1 M)
• FO2 Set Point	Air, 21 to 50 %	1 %
• PO2 Value	0.00 to 5.00 ATA	0.01 ATA
• Dive Time Remaining	0:00 to 9:59 hr:min	1 minute
• Air Time Remaining	0:00 to 9:59 hr:min	1 minute
• Total Ascent Time	0:00 to 9:59 hr:min	1 minute
• No Deco Safety Stop Time	5:00 to 0:00 min:sec	1 second
• Deco Stop Time	0:00 to 9:59 hr:min	1 minute
• NOR/GAU Elapsed Dive Time	0:00 to 9:59 hr:min	1 minute
• FRE Elapsed Dive Time	0:00 to 59:59 min:sec	1 second
• Surface Interval Time	0:00 to 23:59 hr:min	1 minute
• FRE Surface Interval Time	0:00 to 59:59 min:sec	1 second
	1:00 to 23:59 hr:min	1 minute
• Dive Log Surface Interval	0:00 to 23:59 hr:min	1 minute
• Time to Fly	23:50 to 0:00 hr:min*	1 minute
	(* starting 10 min after the dive)	

SPECIFICATIONS (CONTINUED)

NUMERIC DISPLAYS (cont'd):	Range:	Resolution:
• Time to Desaturate	23:50 max to 0:00 hr:min* (* starting 10 min. after the dive)	1 minute
• Temperature	0 to 99°F (-9 to 60°C)	1°
• Tank Pressure	0 to 5000 PSI (345 BAR)	5 PSI (1 BAR)
• Time of Day	0:00:00 to 23:59 hr:min	1 minute
• FRE Countdown Timer	59:59 to 0:00 min:sec	1 second

- Out of Range (- - -) => 330 FT (100 M)
- Violation Countdown Timer 23:50 to 0:00 hr:min (after violation)

BAR GRAPHS

Tissue Loading Bar Graph:	segments
• No Decompression zone	1 to 4
• Decompression zone	5 (all)

Oxygen (O2) Bar Graph:	segments
• Normal zone	1 to 4
• Danger zone	5 (all)

OPERATIONAL PERFORMANCE

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

Dive Counter:
- NOR/GAU displays Dives #1 to 24, FRE displays Dives #1 to 99, 0 if no dive made yet
- Resets to Dive #1, upon diving (after 24 hours with no dives)

SPECIFICATIONS (CONTINUED)

NOR/GAU Dive Log Mode:
- Stores 24 most recent NOR/GAU dives in memory for viewing.
- After 24 dives, adds 25th dive in memory and deletes the older dive.

Altitude:
- Operational from sea level to 14,000 feet (4,270 meters) elevation.
- Measures ambient pressure every 30 minutes when not activated, upon activation by push button, and every 15 minutes while in NOR/GAU/FRE Surface Modes.
- Does not measure ambient pressure when Wet.
- Compensates for Altitudes above sea level beginning at 3,001 feet (916 meters) elevation and every 1,000 feet (305 meters) higher.

Conservative Factor:
- Reduces NOR and FRE NDLs to those for the Altitude 3,000 feet (915 meters) higher.

Power:

• DataMask Battery	1 - 3 vdc, CR2, .75 Ahr, Lithium battery (Duracell® model DL-CR2 or equivalent)
• Transmitter Battery	1 - 3 vdc, CR2, .75 Ahr, Lithium battery (Duracell® model DL-CR2 or equivalent)
• Shelf life	Up to 5 years
• Replacement	User replaceable (annual recommended)
• Use Life (DataMask)	160 hours with Backlight On Constant at 100% Level
• Use Life (Transmitter)	1 year or 300 dive hours

Low Battery Indication:
- Mask Warning - icon (shell with lid) on solid at <= 2.75 volts, Battery change recommended
- Mask Alarm - icon (shell with lid) flashing at <= 2.50 volts, change Battery prior to diving
- Transmitter - Lo Batt Status screen alternates with Surface Main at <= 2.75 volts
- Transmitter - Lo Batt Status screen, alternates with Surface Main, flashing at <= 2.50 volts

SPECIFICATIONS (CONTINUED)

Activation:
- Manual - push button (recommended), required if Wet Activation is set OFF.
- Automatic - by immersion in water (if set ON)
- Cannot be manually activated deeper than 4 FT (1.2 M), if Wet Activation is set OFF.
- Cannot operate at elevations higher than 14,000 feet (4,270 meters)

Operating Temperature:
- Out of the water - between 20 °F and 140 °F (-6 and 60 °C).
- In the water - between 28 °F and 95 °F (-2 and 35 °C).
- At extremely low temperatures, the LCD may become sluggish, but this will not affect it's accuracy. If stored or transported in extremely low temperature areas (below freezing), you should warm the unit and its battery with body heat before diving.

Storage Temperature:
- Out of the water - between 14 °F and 158 °F (-8 and 70 °C).

ABBREVIATIONS

DISPLAY GRAPHICS

Nor	= Normal Op Mode
GAU	= Gauge Op Mode
FrE	= Free Op Mode
SEA	= Sea Level
EL	= Elevation (Altitude)
trtr	= Transmitter
bAt	= Battery
FO2	= %O2 (Setting)
F	= Fahrenheit
C	= Centigrade
P	= PM (Time)
A	= AM (Time)
PLAN	= Plan Mode
Air	= FO2 (Setting)
FLY	= Time to Fly
SAt	= Time to Desat
No-d	= No Deco
dECO	= Deco
GAU	= Gauge
Vio	= Violation
PO2	= Partial Pressure O2 (ATA)
HiSt	= History
No	= Number (Dive)
SEtG	= Set Glo Group (Backlight)
GLO.L	= Backlight Level
SEC	= Seconds

DISPLAY GRAPHICS

SEtF	= Set FO2 Group
dFLt	= Set FO2 Default
OFF/ON	= Settings
SEtA	= Set Alarms Group
Aud	= Audible Alarm
SdA	= SCUBA Depth Alarm
Edt	= Elapsed Dive Time
tLbG	= Tissue Loading Bar Graph
dtr	= Dive Time Remaining
turn	= Turn Pressure
End	= End Pressure
AtA	= Atmospheres Absolute
SEtU	= Set Utilities Group
ACt	= Activation
Unit	= Units of Measure
SAFE	= No Deco Safety Stop
CONS	= Conservative Factor
Sr	= Sampling Rate
SEtt	= Set Time
r1A	= Revision Number
SN	= Serial Number
Vio	= Violation
LSt	= Last
Cdt	= CountDown Timer
FdA	= Free Depth Alarm

DISPLAY ICONS

O2	= Oxygen (Bar Graph)
TL	= Tissue Loading (Bar Graph)
Nx	= Nitrox (FO2 = 21 to 50%)
SI	= Surface Interval (hr:min)
M	= Meters (Depth)
FT	= Feet (Depth)
MAX	= Maximum
EDT	= Elapsed Dive Time (hr:min or min:sec)
BAR	= Metric (Pressure)
PSI	= Imperial (Pressure)
TAT	= Total Ascent Time (hr:min)
OTR	= O2 Time Remaining (hr:min)
ATR	= Air Time Remaining (hr:min)
NDC	= No Deco Time Remaining (hr:min)

TERMINOLOGY (below diagrams)

MAX	= Maximum
BATT	= Battery
G	= Glo (Back Light)
A	= Alarm
U	= Utilities
BL	= Back Light
SEC	= Seconds
AL	= Alarm
PRESS	= Pressure
TMR	= Timer
OOR	= Out Of Range
PC	= Personal Computer
SN	= Serial Number

INSPECTION / SERVICE RECORD

DataMask Serial No.: _____ Rev. No.: _____

Transmitter Serial No.: _____

Date of Purchase: _____ Purchased from: _____

Below to be filled in by an Authorized Oceanic Dealer:

Date	Service Performed	Dealer / Technician

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