

PROPLUS 4.0

DIVE COMPUTER

OPERATING MANUAL

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NOTICES

LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided. Register on line at www.OceanicWorldwide.com

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PATENT NOTICE

U.S. patents have been issued to protect design features of our products. The list of patents issued and pending are available at dive-patent.com.

DECOMPRESSION MODEL

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

Welcome
to
OCEANIC
and
THANK YOU
for choosing the
ProPlus
4.0

GETTING STARTED

BASICS

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

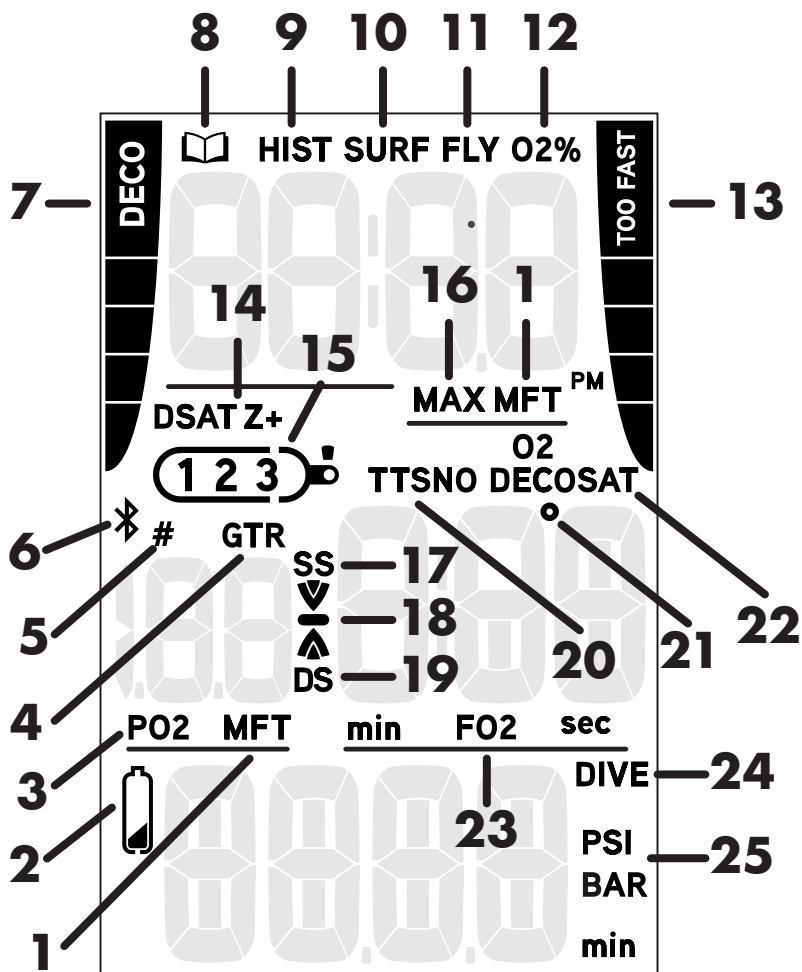
ACTIVATION

To activate the ProPlus 4.0, press and release either button. The ProPlus 4.0 will also turn on if its metal contacts become wet and you descend greater than 1.5 m (5 ft) for 5 seconds. The H2O ACT (water activation) feature may be disabled if that is your preference. Disabling the H2O ACT feature is described in the Dive Surface Mode chapter, [p. 26](#).

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

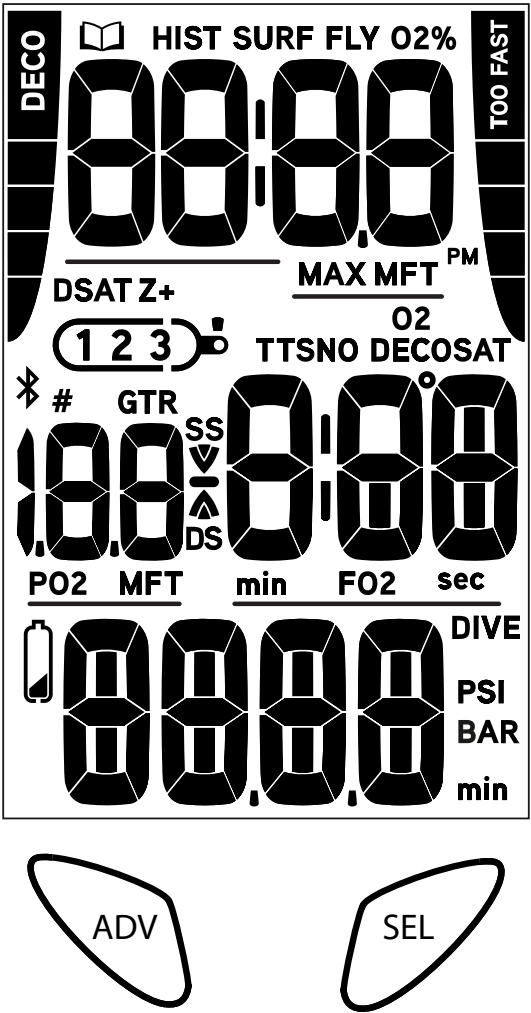
 **NOTE:** The ProPlus 4.0 has no off button or command. If no buttons are pressed or dives made within 10 minutes the computer will enter Sleep Mode. The screen and Bluetooth (if set ON) shut down, to save battery life, while in Sleep Mode. To wake the computer press any button. Additionally, the unit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

DISPLAY ICONS



1	Depth ID (units)
2	Low Battery
3	Partial Pressure of Oxygen
4	Gas Time Remaining
5	Dive Number
6	Bluetooth (on)
7	Tissue Loading Bar Graph
8	Log
9	History
10	Surface Time
11	Time To Fly
12	Oxygen Saturation
13	Variable Ascent Rate Indicator

14	Algorithm
15	Gas #
16	Value is Maximum
17	Safety Stop
18	Descend, Ascend, or Stop
19	Deep Stop
20	Time To Surface
21	Temperature
22	Saturation
23	Fraction of Oxygen
24	Dive Time
25	Value is Pressure



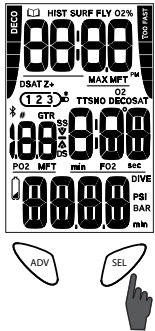
BUTTONS

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

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

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

BUTTON FUNCTIONS

ACTION	FUNCTION
Press Any Button 	• to activate the ProPlus 4.0
	• to access Alt screens • to advance or step through menus • to toggle or change setpoints
	• to scroll quickly, changing setpoints • to scroll quickly through menu lead-in screens (selections)
	• to select, access, step forward through selections, or save a setting • to activate the backlight
	• to step back through selections in a submenu
	• to exit a menu directly to the main screen

DIVE FEATURES

DTR (DIVE TIME REMAINING)

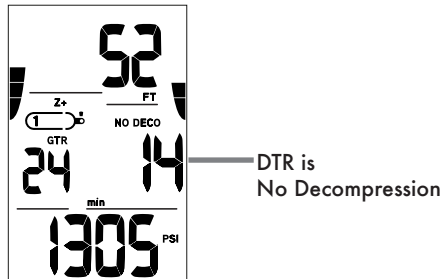
The ProPlus 4.0 constantly monitors No Decompression status and O2 Accumulation, and will display whichever time is the least amount available as DTR on the No Decompression Dive Main screen. The time being displayed will be identified by the NO DECO (no decompression) min or O2 (Oxygen Time Remaining)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

NO DECOMPRESSION

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

Whichever compartment is closest to this maximum level is the controlling compartment for that depth. Its resulting value NO DECO (no decompression) will be displayed. It will also be displayed graphically as the Tissue Loading Bar Graph, see Bar Graphs later in this section.

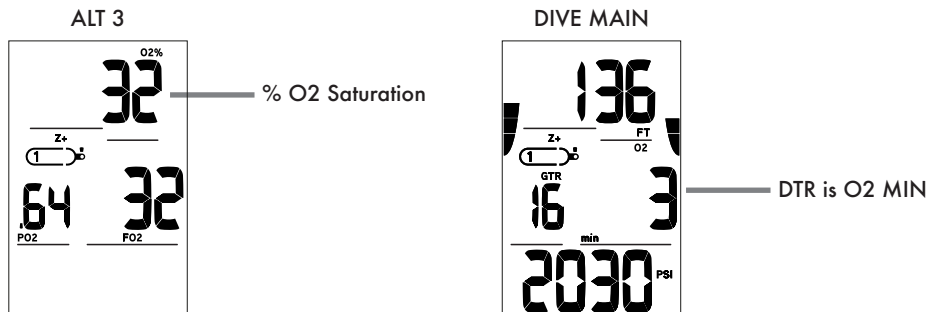
As you ascend, the Tissue Loading Bar Graph will recede as control shifts to slower compartments. This is a feature of the decompression model that is the basis for multilevel diving, one of the most important advantages that Oceanic dive computers offer.



O2 MIN (OXYGEN TIME REMAINING)

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

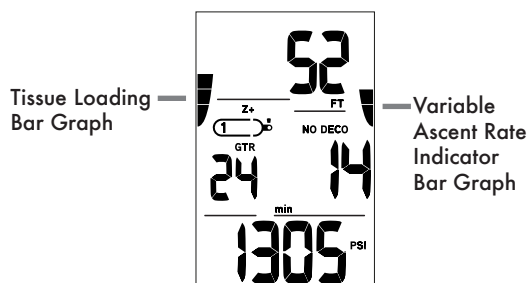
When the O2 MIN value becomes less than the No Decompression calculations for the dive, DTR (Dive Time Remaining) will be controlled by O2 SAT and the O2 MIN value will be displayed as the DTR on the Dive Main screen, identified by the O2 MIN icon.



BAR GRAPHS

The ProPlus 4.0 features two specific bar graphs.

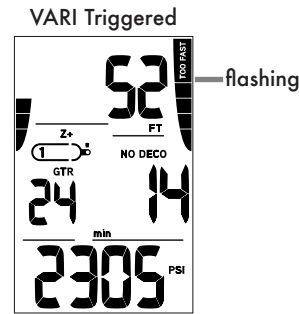
1. The one on the left represents nitrogen loading. It is referred to as TLBG (Tissue Loading Bar Graph).
2. The one on the right represents ascent rate. It is referred to as the VARI (Variable Ascent Rate Indicator) Bar Graph.



VARIABLE ASCENT RATE INDICATOR

The VARI (Variable Ascent Rate Indicator) Bar Graph provides a visual representation of ascent speed (i.e., an ascent speedometer). When the ascent is faster than the recommended 30 fpm (9 mpm), the bar graph will flash red until the ascent is slowed.

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



TISSUE LOADING BAR GRAPH

The Tissue Loading Bar Graph represents your relative No Decompression or Decompression status. The first four segments represent No Decompression status and the fifth indicates a Decompression condition. As your Depth and Elapsed Dive Time increase segments are added. As you ascend segments recede, indicating that additional No Deco (decompression) time is available. The ProPlus 4.0 monitors twelve different nitrogen compartments simultaneously and the N2 Bar Graph displays the one that is in control of your dive at any given time.

DUAL ALGORITHM®

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

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

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

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

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

CONSERVATIVE FACTOR

When the CF (Conservative Factor) is set On, the dive time remaining, No Decompression/Oxygen Time Remaining, which are based on the algorithm and used for N₂/O₂ calculations and displays relating to Plan Mode, will be reduced to the values available at the altitude level that is 3,000 ft (915 m) higher than the actual altitude at activation. Refer to the charts in the back of this manual for dive times.

DEEP STOP

When the DS (Deep Stop) selection is set ON, it will trigger after descending deeper than 80 ft (24 m). The ProPlus 4.0 then calculates (continually updating) a Stop Depth equal to ½ the Max Depth.



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

- While 10 ft (3 m) deeper than the calculated Deep Stop, you will be able to access a Deep Stop Preview screen that will display the current calculated Deep Stop Depth/Time.
- Upon initial ascent to within 10 ft (3 m) below the calculated Stop Depth, a Deep Stop screen displaying a Stop Depth at ½ the Max Depth will appear with a countdown timer beginning at 2:00 (min:sec) and counting down to 0:00. If you descend 10 ft (3 m) below, or ascend 10 ft (3 m) above, the calculated Stop Depth for 10 seconds during the countdown, the No Decompression Main will replace the Deep Stop Main display and the Deep Stop feature will be disabled for the remainder of that dive. There is no penalty if the Deep Stop is ignored.
- In the event that you enter Decompression, exceed 190 ft (57 m), or a High O₂ SAT (Oxygen Saturation) condition, ≥ 80%, occurs, the Deep Stop will be disabled for the remainder of that dive.
- The Deep Stop is disabled during a High PO₂ Alarm condition, ≥ set point.

SAFETY STOP

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

- If the Safety Stop was set for OFF, the display will not appear.
- In the event that you descend 10 ft (3 m) deeper than the Stop Depth for 10 seconds during the countdown, or the countdown reaches 0:00, the No Decompression Main screen will replace the Safety Stop Main screen which will reappear upon ascent to within 5 ft (1.5 m) deeper than the Safety Stop depth set for 1 second.
- In the event that you enter Decompression during the dive, complete the Decompression obligation, then descend below 30 ft (9 m); the Safety Stop Main will appear again upon ascent to within 5 ft (1.5 m) deeper than the Safety Stop depth set for 1 second.
- If you ascend to 3 ft (0.9 m) of the surface for 1 second, the Safety Stop will be canceled for the remainder of that dive.
- There is no penalty if you surface prior to completing the Safety Stop or choose to ignore it.

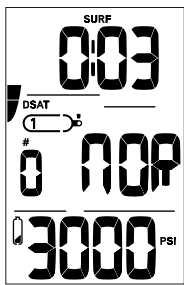
LOW BATTERY



WARNING: DO NOT dive with a low battery. Charge the battery before diving if your ProPlus 4.0 indicates the Battery Low Warning or Alarm.

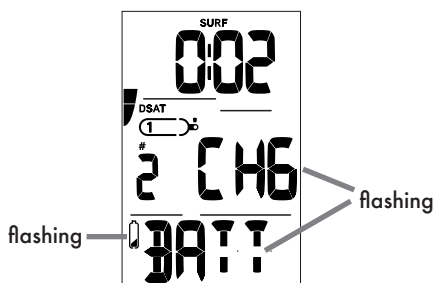
Warning Level

- The ProPlus 4.0 functions continue but the backlight and Bluetooth are disabled.
- The battery icon appears solid.



Alarm Level

- The ProPlus 4.0 functions continue but the backlight and Bluetooth are disabled.
- When the voltage is below that required for normal operation (< 2.50 volts), the graphics "CHG BATT" shall flash and the Battery icon shall flash once per second for 5 seconds, then the unit is to shut off.



AUDIBLE ALARM

While operating in Norm or Gauge mode, the audible alarm will emit 1 beep per second for 10 seconds when alarms strike. During that time, the audible alarm can be acknowledged and silenced by pressing the UP button.

The audible alarms will not be active if the audible alarm is set to OFF (a Set Alarms setting).

The following situations shall activate the Alarm (1 beep per sec for 10 sec):

- Conditional Violation.
- Delayed Violations 1, 2, 3.
- Ascent Rate too fast, full bar graph.
- PO₂ increases to .20 < Alarm Set Point and at the Alarm Set Point.
- Depth Alarm.
- Tissue Loading Bar Graph Alarm.
- O₂ Sat at 80% and 100%.
- Entry into Decompression.
- Elapsed Dive Time Alarm.
- Dive Time Remaining Alarm.
- Gas Time Remaining decreases to 5 minutes and again at 0 minutes.
- Turn Pressure Alarm.
- End Pressure Alarm.
- Gas Switch would expose the diver to PO₂ > 1.60 ATA.

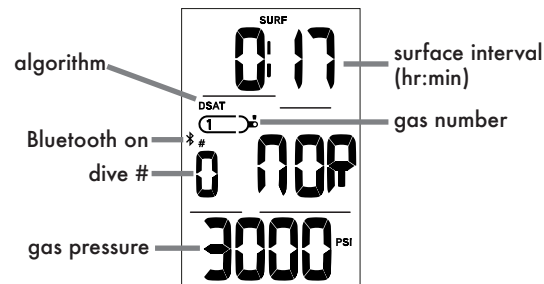
The following situations shall activate the 3 short beep Alarm:

- Ascent Rate (warning)

NORM SURFACE MODE

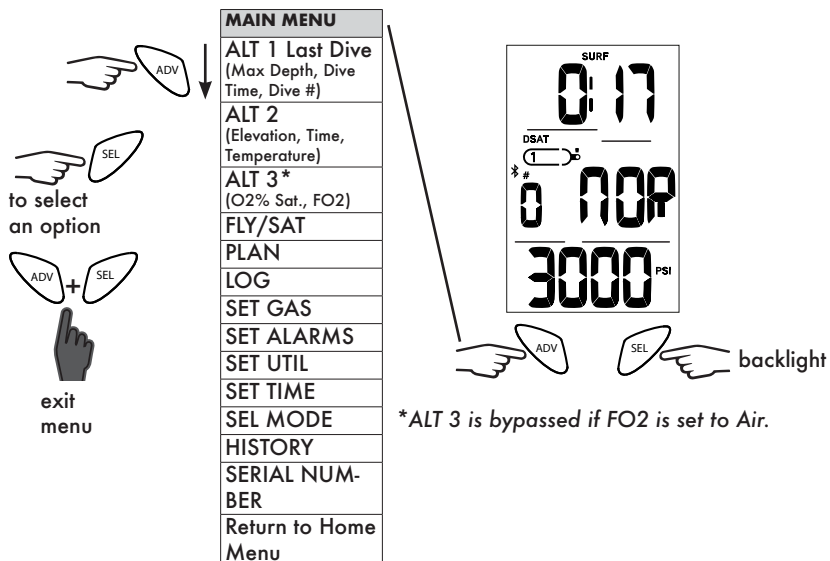
ON THE SURFACE BEFORE A DIVE

The Norm Surface Main screen will display the SURF (Surface Time), gas pressure, dive number, Bluetooth icon if on, gas number, any residual nitrogen loading, and selected algorithm. The surface time displayed is the time since activation or the surface interval after a dive.



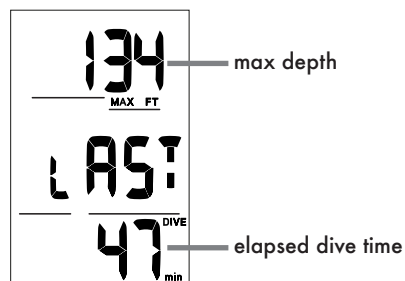
NORM MAIN MENU

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



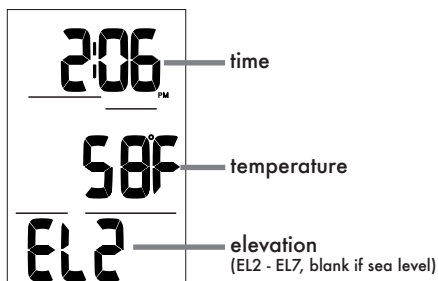
ALT 1 (LAST)

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

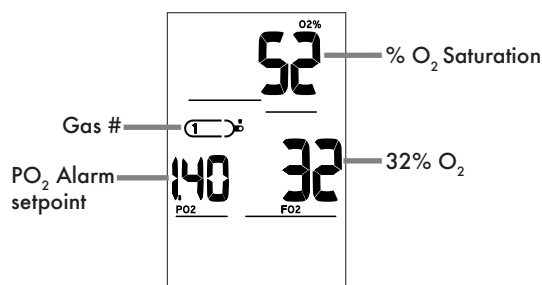


ALT 2

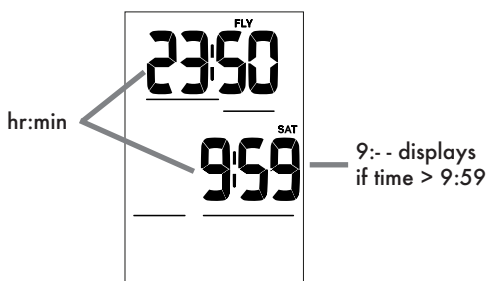
The ALT 2 screen displays current elevation readings, time of day, and temperature.

**ALT 3**

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

**FLY/DESAT**

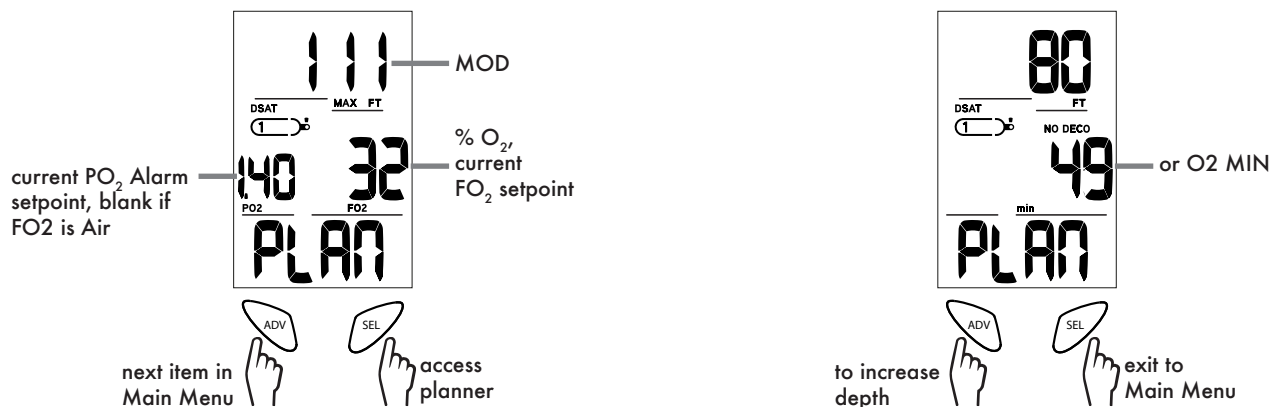
The FLY/SAT screen displays the Time to Fly and the SAT (desaturation) countdown. The Time to Fly countdown shall begin counting from 23:50 to 0:00 (hr:min), 10 minutes after surfacing from a dive. The SAT (Desat) counter shall provide calculated time for Tissue Desaturation at sea level taking into consideration the CF (Conservative Factor) if it was set on. It shall begin counting down 10 minutes after surfacing from DIVE mode dives. It will count down from a maximum of 23 to 10 (hr only), then 9:59 to 0:00 (hr:min). When the SAT countdown reaches 0:00 (hr:min), which will generally occur prior to the FLY countdown reaching 0:00 (hr:min), the SAT time is to remain on the screen as 0:00 until the FLY counter shuts the ProPlus 4.0 off, 24 hours after the last dive.



PLAN

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

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

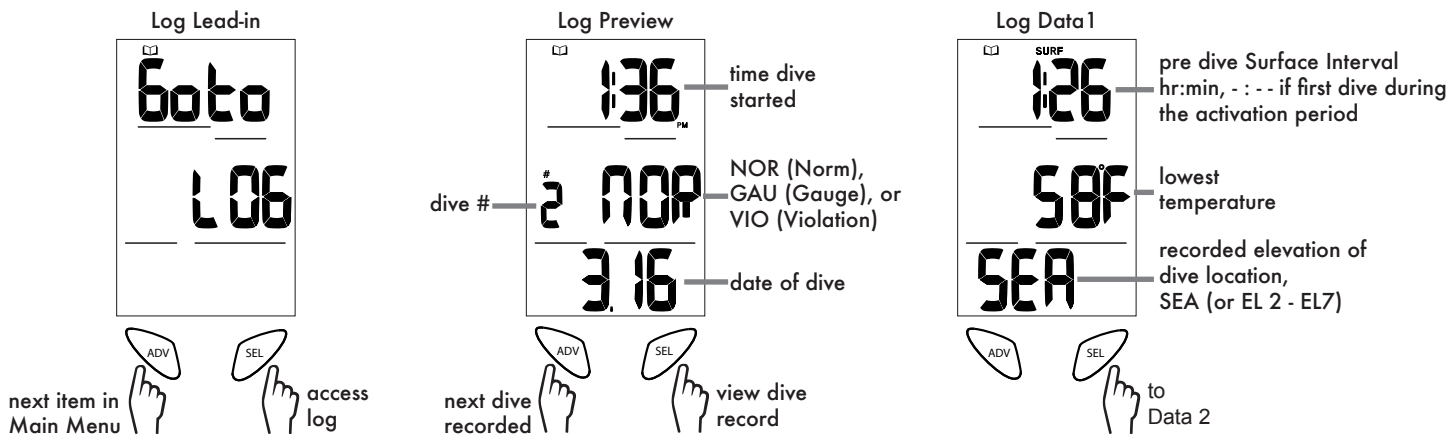


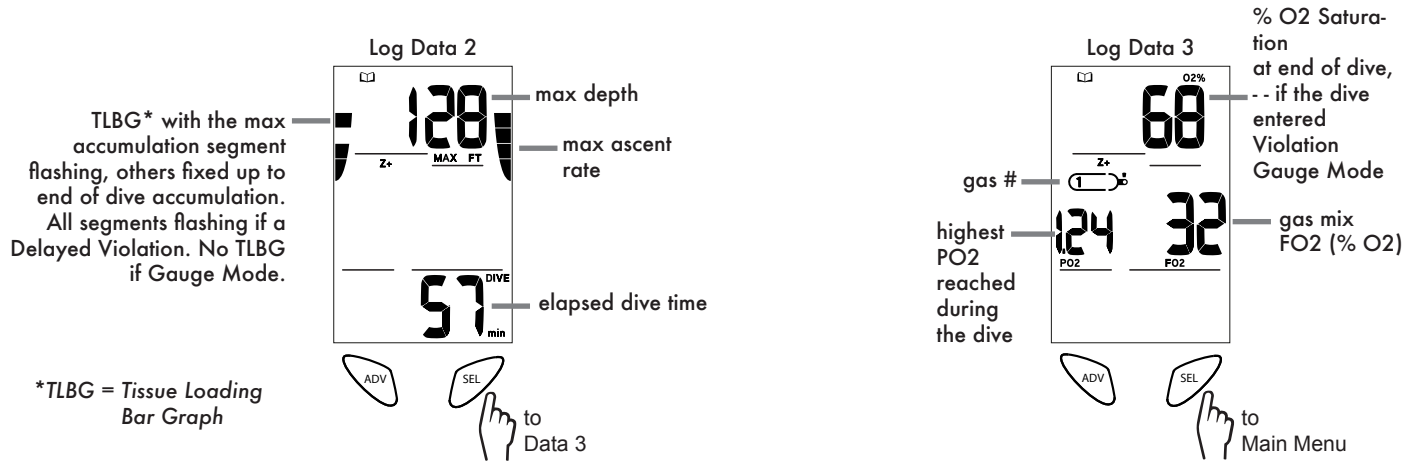
LOG

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

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

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





NOTE: Log Data 3 only displays for nitrox dives; it is bypassed if the dive was an air dive.

SET GAS

Pressing the SEL button while viewing the Set Gas Lead-in screen accesses the Set FO₂ screen. Within this screen you can change the gas mix from Air to any nitrox mix between 21 - 100 FO₂ (% O₂). Nitrox mixes are displayed with their corresponding MOD (Maximum Operating Depth) and the current PO₂ Alarm setting. If you do not like the current PO₂ Alarm setting, it can be changed in the screen that follows after saving a nitrox gas mix setting.

NOTE: Once a nitrox dive is made, the Air option will not be displayed in the Set Gas menu until 24 hours elapse after the last dive. If subsequent Air dives are made during this period, an FO₂ value of 21 should be chosen.

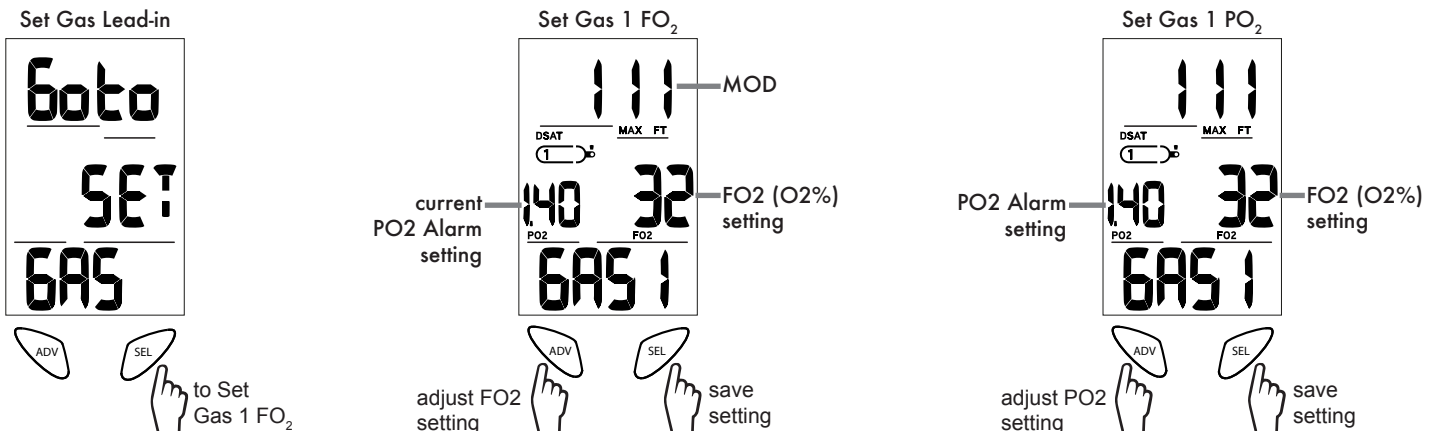
NOTE: When FO₂ is set for AIR, oxygen related data (such as PO₂, % O₂) will not be displayed at any time during the dive, on the surface, or in Plan Mode. Though these oxygen values will be tracked internally for use in any subsequent nitrox dives.

NOTE: Gas 1 cannot be set to OFF.

FO₂ Default

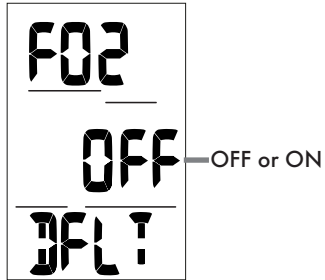
The FO₂ Default setting follows Set FO₂ and PO₂ for gases 1-3. When the FO₂ 50% Default is set On and FO₂ is set for a numerical value, 10 minutes on the surface after that dive the FO₂ will be displayed as 50 and further dives will be calculated based on 50% O₂ for oxygen calculations and 21% O₂ for Nitrogen calculations (79% Nitrogen), unless FO₂ is set before the dive.

FO₂ will continue 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 set Off.



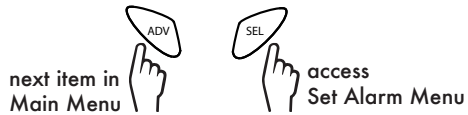
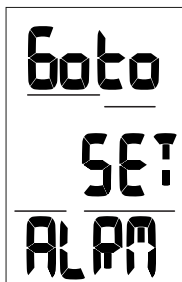
NOTE: Set Gas 2/3 FO₂ and PO₂ are similar to Set Gas 1.

Set FO₂ Default



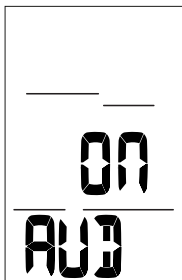
SET ALARMS

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



1: AUDIBLE

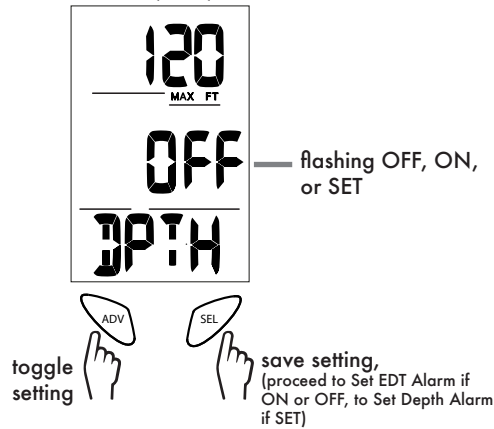
The Audible Alarm allows you to set audible alarms ON or OFF.



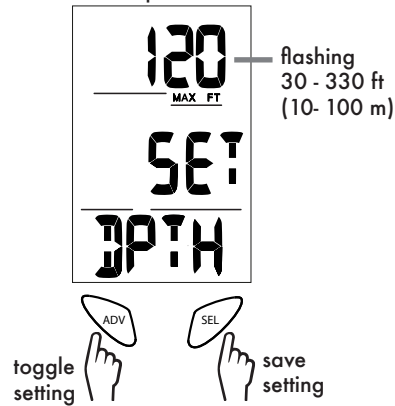
2: DEPTH

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

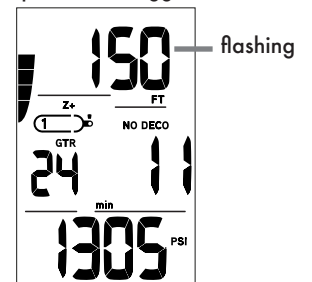
Choose OFF, ON, or SET



Set Depth Alarm

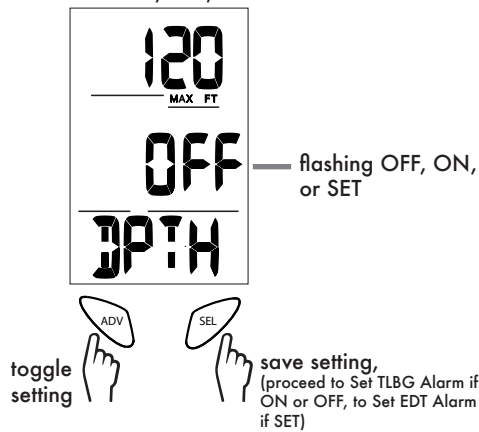


Depth Alarm Triggered

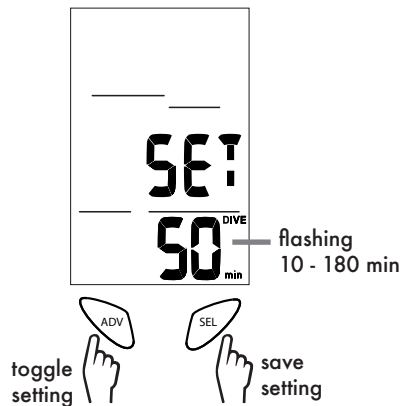
**3: EDT (ELAPSED DIVE TIME)**

The Elapsed Dive Time Alarm allows you to set an alarm to go off at a predetermined amount of dive time.

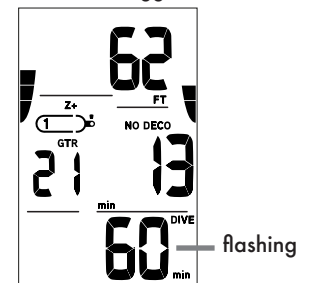
Choose OFF, ON, or SET



Set EDT Alarm

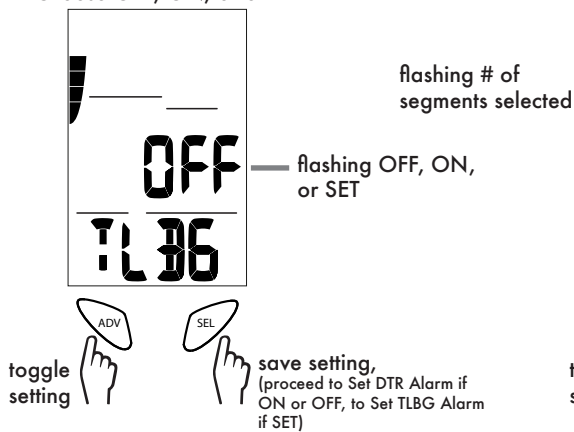


EDT Alarm Triggered

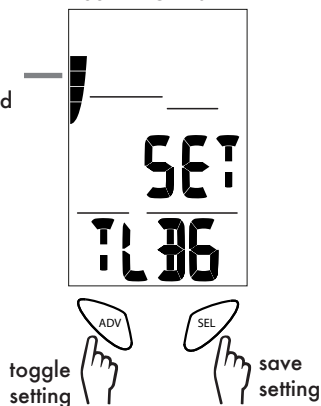
**4: TLBG (TISSUE LOADING BAR GRAPH)**

This feature allows you to set an alarm to go off at a predetermined number of Tissue Loading Bar Graph segments being filled.

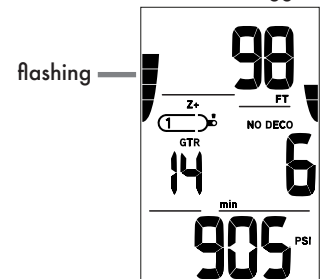
Choose OFF, ON, or SET



Set TLBG Alarm



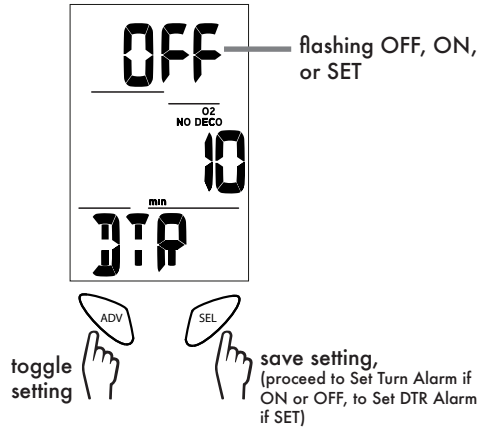
TLBG Alarm Triggered



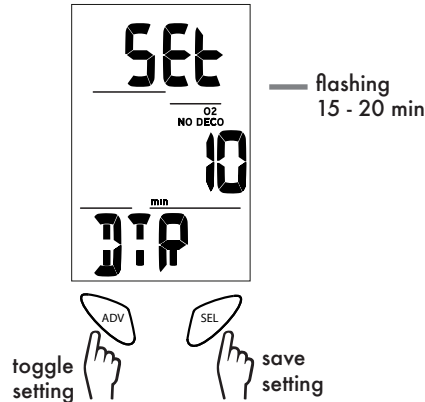
5: DTR (DIVE TIME REMAINING)

The Dive Time Remaining Alarm allows you to set an alarm to go off with a designated reserve. Settings include OFF or 5 - 20 min of dive time remaining.

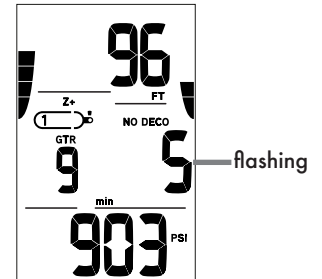
Choose OFF, ON, or SET



Set DTR Alarm



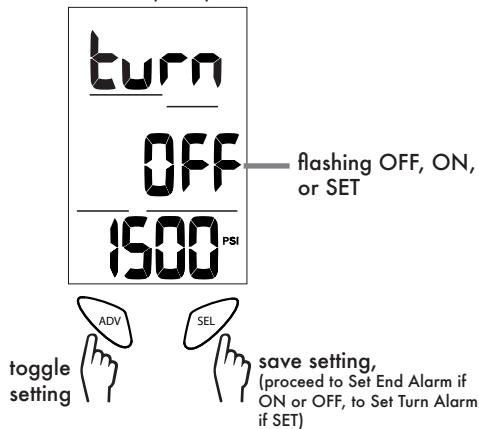
DTR Alarm Triggered



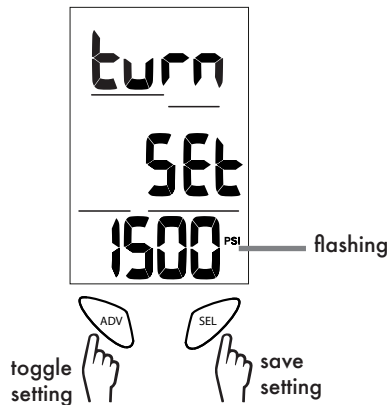
6: TURN PRESS

The Turn Pressure Alarm allows you to set an alarm to go off at a designated turn pressure. You may choose from OFF or 1000 to 3000 PSI (70 to 205 BAR) in increments of 250 PSI (5 BAR).

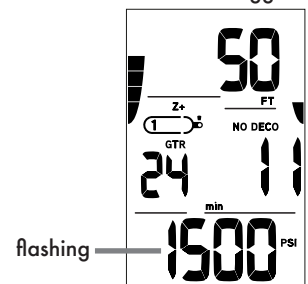
Choose OFF, ON, or SET



Set Turn Alarm



Turn Alarm Triggered

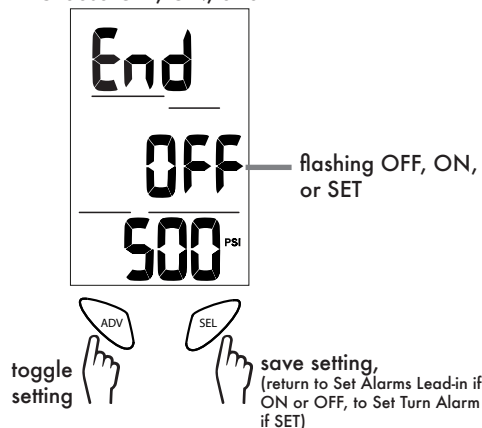


7: END PRESS

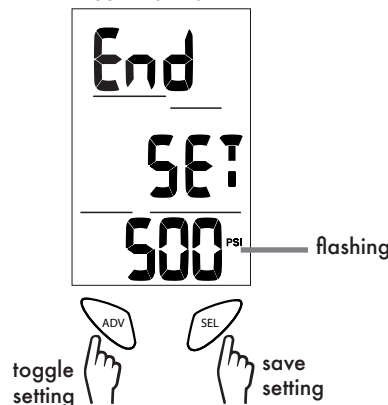
The End Pressure Alarm allows you to set an alarm for when you reach a designated end pressure. You may choose from 500 to 1500 PSI (20 to 105 BAR) in increments of 100 PSI (5 BAR).

NOTE: The Low Pressure Alarm only considers gas 1.

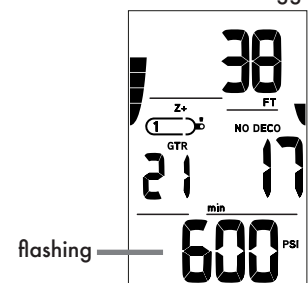
Choose OFF, ON, or SET



Set End Alarm

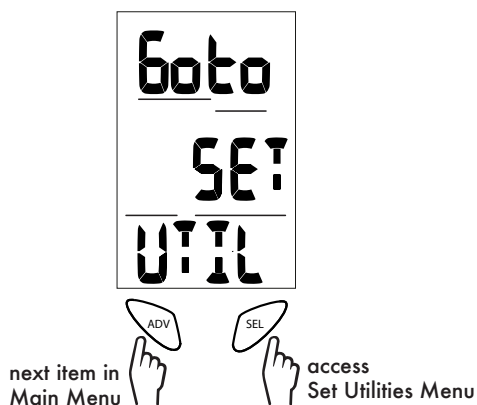


End Press Alarm Triggered



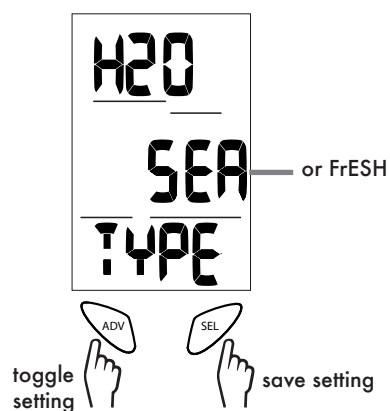
SET UTILITIES

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



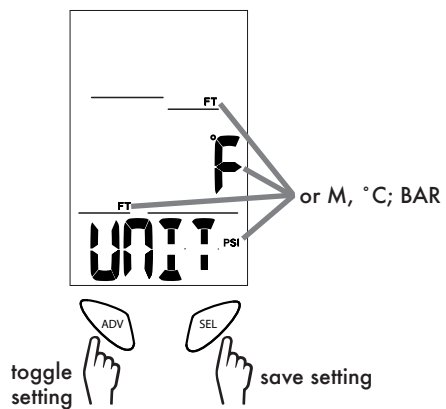
1: WATER TYPE

The Water Type feature allows you to set SALT or FRESH water environment for accurate depth calculations.



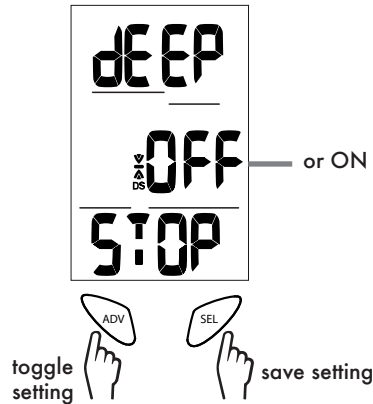
2: UNITS

The Units feature allows you to select whether Imperial (FT, PSI) or Metric (M, BAR) units of measure will be displayed.

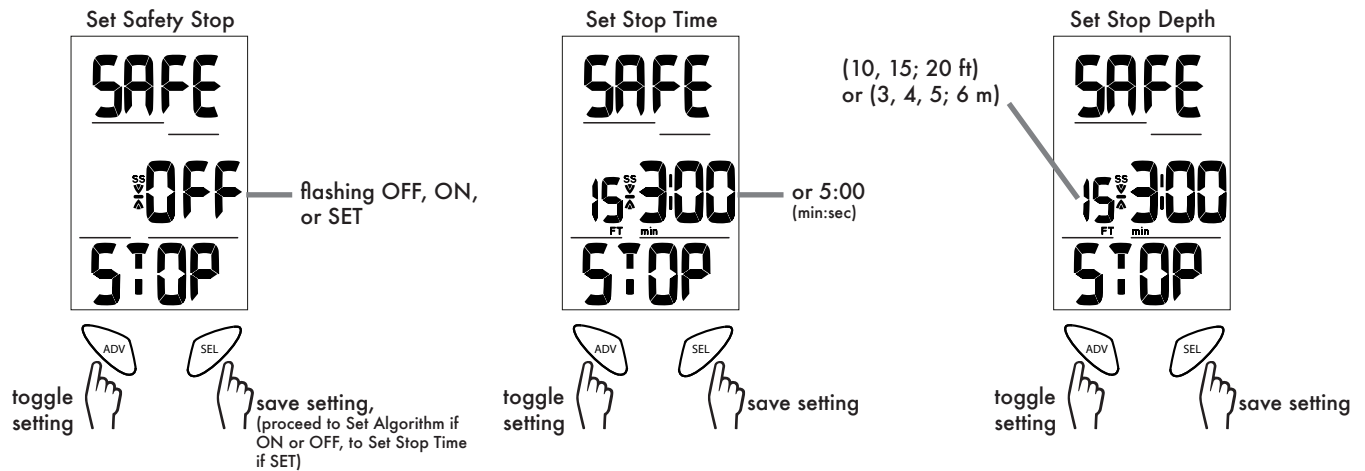


3: DEEP STOP

The Deep Stop feature can be set ON or OFF.

**4: SAFETY STOP**

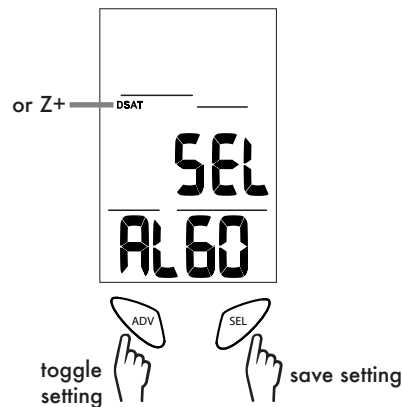
The Safety Stop feature can be set ON or OFF. If SET is selected, you may choose from an available 3 or 5 min Safety Stop at depths of 10, 15, or 20 ft or (3, 4, 5, or 6 m).

**5: ALGORITHM**

This feature allows the choice of using the Z+ or DSAT algorithms, for nitrogen and oxygen calculations. See page 12 for further Dual Algorithm details.

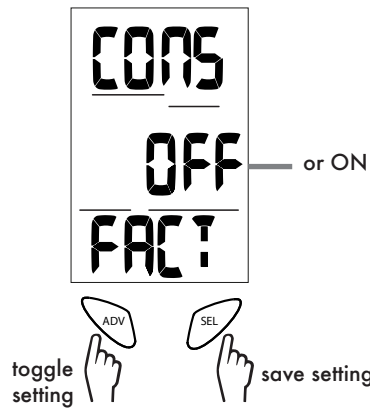


NOTE: Changing the algorithm is blocked during 24 hours after NORM dives unless Desat time decreases to 0:00.



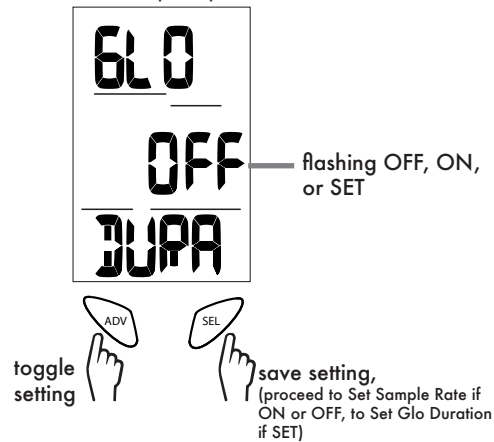
6: CONSERVATIVE FACTOR

The Conservative Factor feature (see pg. 12) can be set ON or OFF.

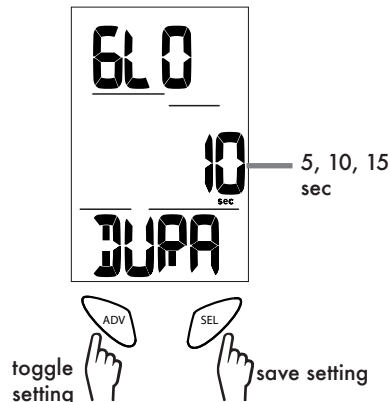
**7: GLO (BACKLIGHT) DURATION**

This setting is the duration the backlight stays on after releasing the buttons. The options are OFF, 5 sec, 10 sec, or 15 sec.

Choose OFF, ON, or SET



Set Glo Duration

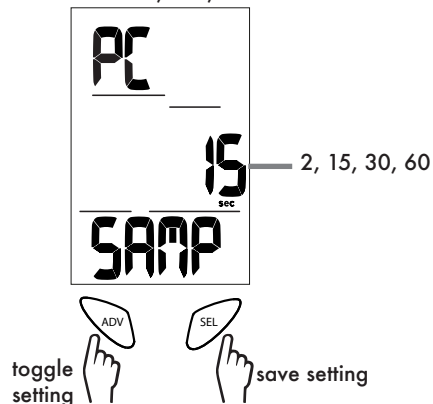
**8: SAMPLE RATE**

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



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

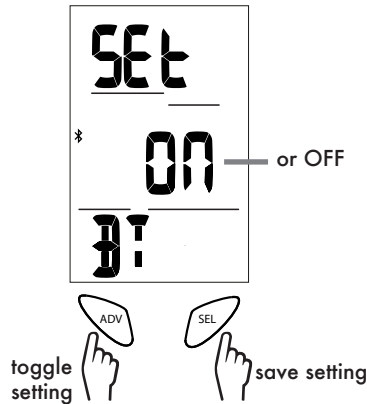
Choose OFF, ON, or SET



9: BLUETOOTH

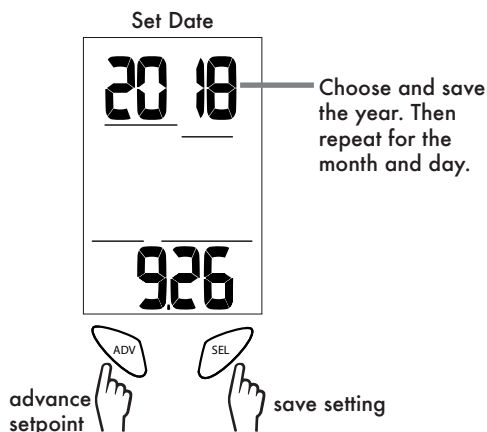
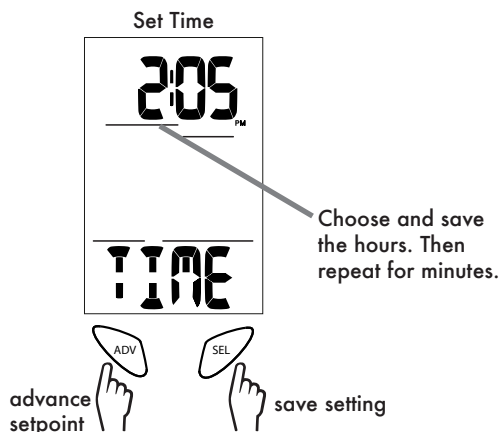
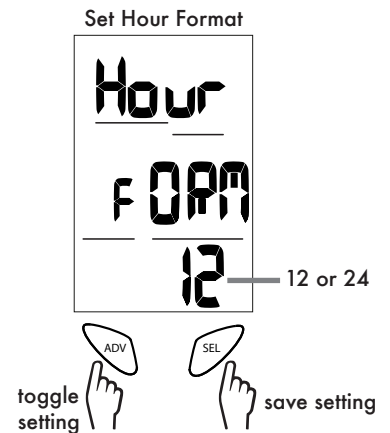
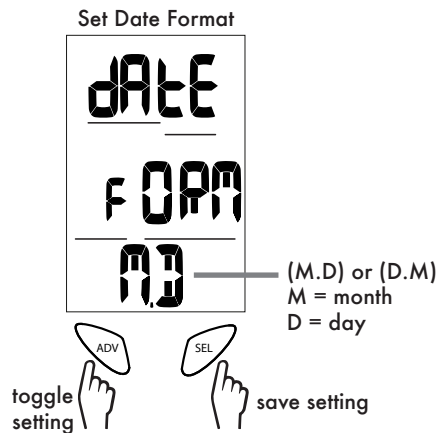
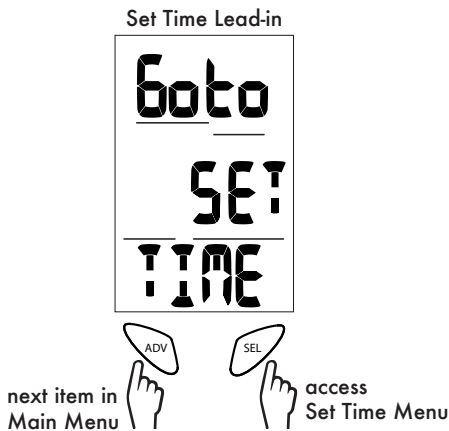
Within this screen the Bluetooth® may be turned ON or OFF. When ON is selected, dashes will display sequentially at the top of the screen indicating that Bluetooth® is initiating. When Bluetooth® is turned on it will operate in sniffing mode (searching for compatible devices) while on the surface and the ProPlus 4.0 screen is active. Communication with your ProPlus 4.0 must be initiated with your mobile device using Diverlog+ software.

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



SET TIME

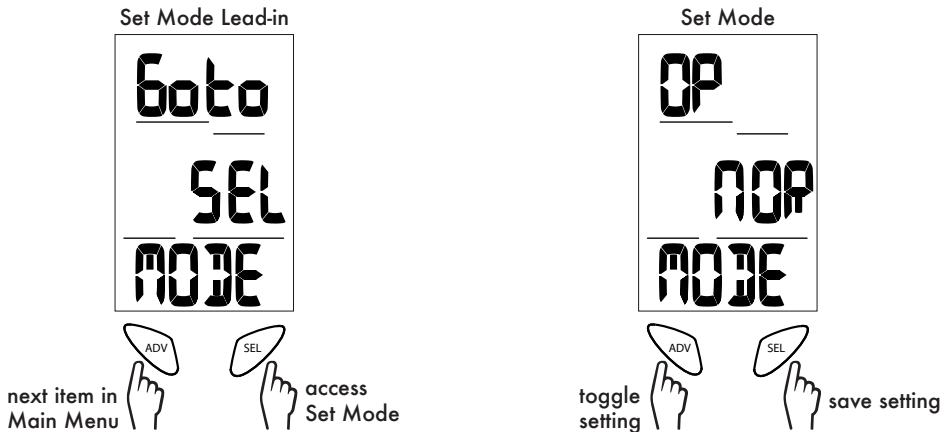
Pressing the SEL button while viewing the Set TIME Lead-in screen accesses the Set TIME Sub Menu. Within this menu you can set the time formats, date, and time of day.



SET MODE

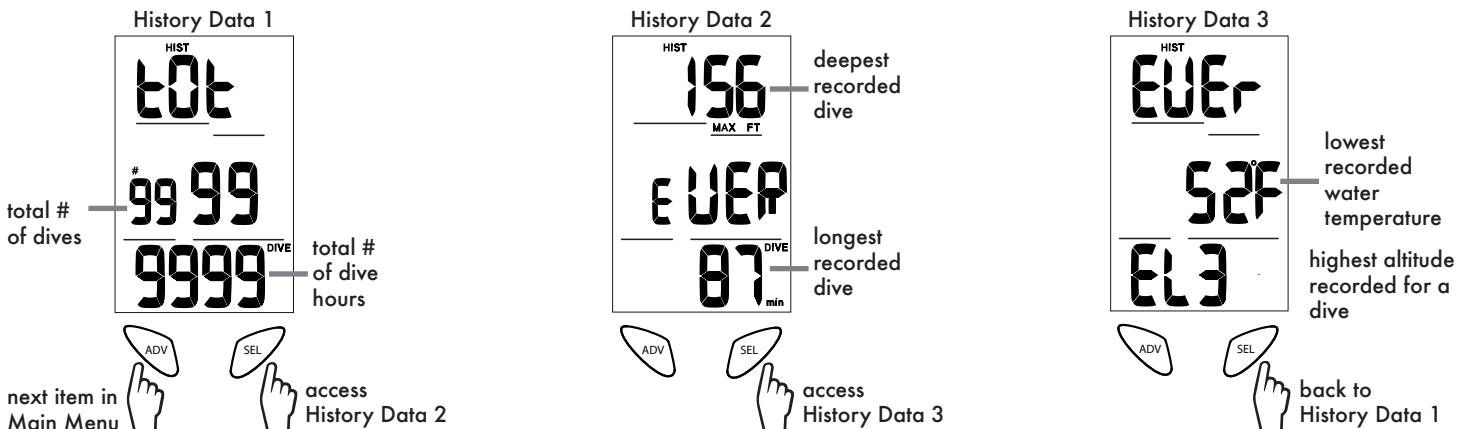
Set Mode allows you to choose between Norm or Gauge modes of operation.

NOTE: The ProPlus 4.0 will be locked in Gauge mode for 24 hours after surfacing from any Gauge or Violation Dive. Otherwise, you may switch modes freely while in either Surface Mode.



HISTORY

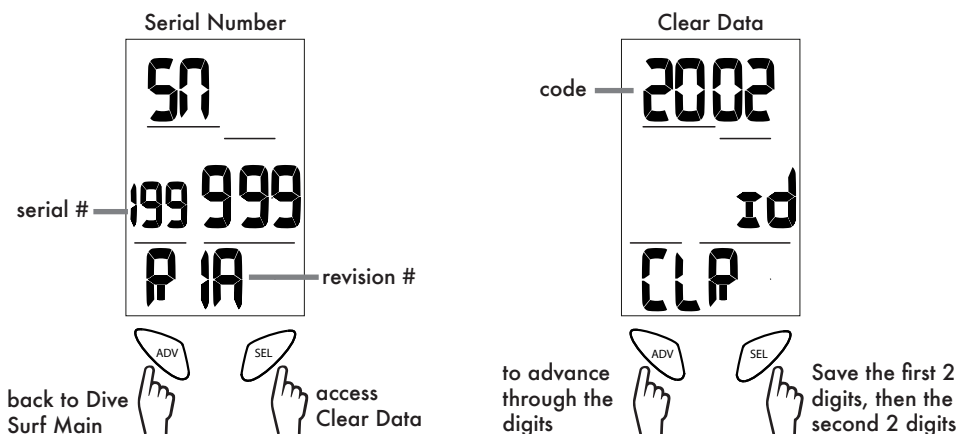
History is a summary of basic data recorded during all Norm and Gauge dives.



SN (SERIAL NUMBER)

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

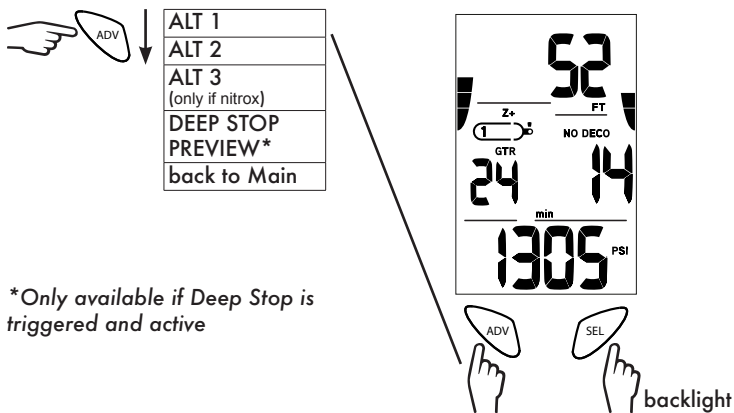
WARNING: Reset after a dive and subsequent use for a repetitive dive conducted by the same diver could result in serious injury or death.



NORM DIVE MODE

INITIATING A DIVE

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

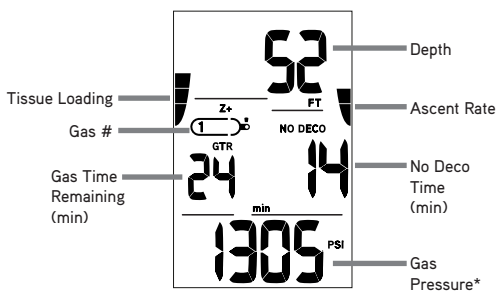


*Only available if Deep Stop is triggered and active

NO DECOMPRESSION DIVE MAIN

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

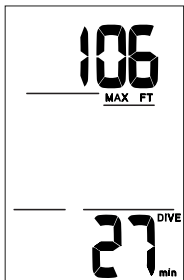
WARNING: Before diving with the ProPlus 4.0 take time to familiarize yourself with both normal and alarm conditions of operation.



*If gases 2 or 3 are selected, then SPG (submersible pressure gauge) will be displayed in place of pressure and gas time remaining.

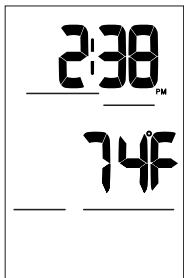
ALT 1

This screen tells you the maximum depth and elapsed dive time.



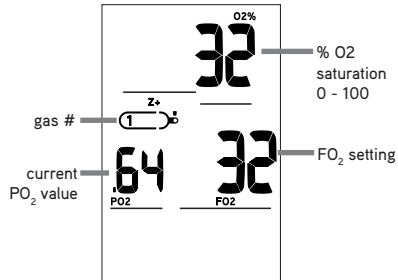
ALT 2

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

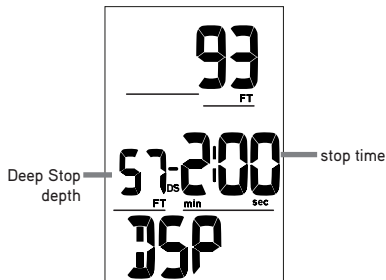


ALT 3

The ALT 3 screen displays information pertaining to nitrox; it is bypassed if the ProPlus 4.0 is set for air.

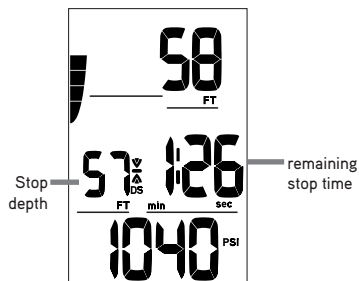
**DEEP STOP PREVIEW**

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

**DEEP STOP MAIN**

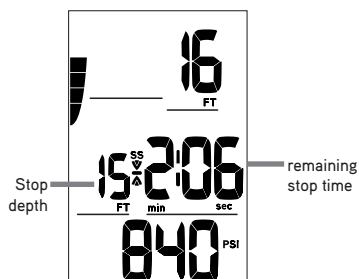
If triggered, the Deep Stop will activate upon ascending to within 3 m (10 ft) below the calculated Deep Stop depth. The stop time will be displayed and count down to 0:00 min:sec as long as you stay within 3 m (10 ft) above or below the stop. While Deep Stop Main is displayed, you may access Alt displays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

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

**SAFETY STOP MAIN**

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

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



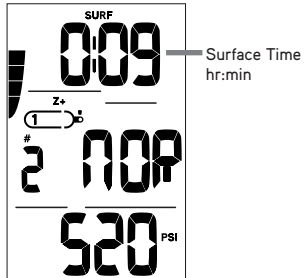
SURFACING

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



NOTE: If using gas 2 or 3, the ProPlus 4.0 will revert to gas 1 after 10 minutes on the surface.

< 10 Min On Surface



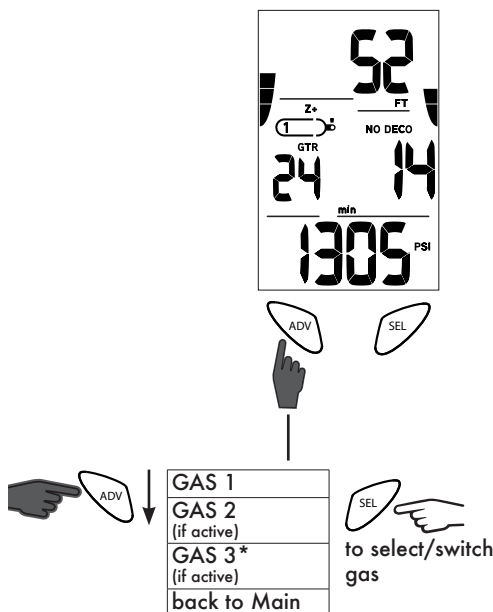
GAS SWITCHES



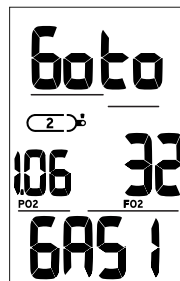
WARNING: Historically, many accidents and near misses have occurred by switching to the wrong gas at the wrong depth. **DO NOT** attempt gas switch decompression dives without proper education and training to do so from an internationally recognized training agency.

Overview

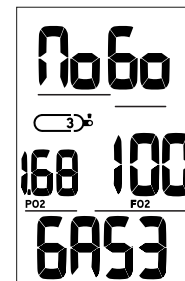
- All dives begin with gas 1.
- The GAS defaults to # 1 after 10 minutes on the surface.
- Gases cannot be switched while in surface mode.
- The Gas Switch Menu cannot be accessed during the sounding of alarms.
- If an alarm strikes while in the Gas Switch Menu, the switch operation is terminated (reverting to the Dive Main screen).
- If a gas has a prohibitive PO_2 value ($\geq 1.6 PO_2$), a warning will be displayed. Though the diver will not be prevented from choosing the gas. If the diver proceeds to select said gas a high PO_2 alarm will then trigger.



Gas Switch Preview



Gas Switch Warning



COMPLICATIONS

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

DECOMPRESSION

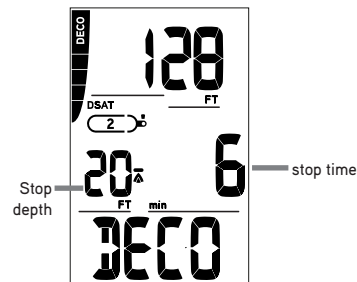
Decompression (deco) mode activates when theoretical No Decompression time and depth limits are exceeded.

- Once within 10 ft (3 m) below the required Stop Depth (stop zone) and Stop Time will be displayed in amber.

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

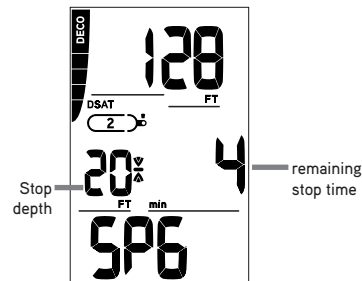
DECOMPRESSION ENTRY

Upon entry into decompression the audible alarm will sound and the alarm LED will flash until the audible alarm is silenced. The message DECO, Up Arrow, and full N2 Bar Graph icons will flash. Additionally, the stop depth and stop time values will be displayed.



DECOMPRESSION STOP MAIN

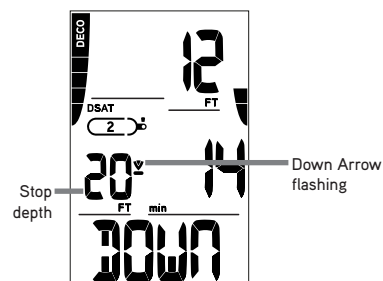
Decompression (deco) Stop Main will display upon ascending to within 10 ft (3 m) below the Deco Stop depth. The Full Stop icon (both Arrows with Stop Bar) will be displayed solid. While Decompression Stop Main is displayed, you may access ALT displays by pressing the ADV button to cycle through them. They are similar to the No Decompression Main and Dive ALT displays.



CONDITIONAL VIOLATION

Upon ascent above the required Decompression Stop depth, operation will enter CV during which no off gassing credit will be given. The Audible alarm will sound. The audible alarm will sound and the alarm LED will flash. Additionally, the full Tissue Loading Bar Graph and Down Arrow icon will flash. Meanwhile, the DOWN message will flash in place of gas pressure during the audible alarm.

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

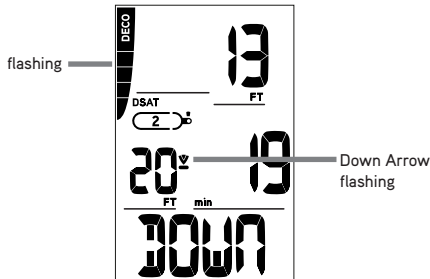


DELAYED VIOLATION 1

If you remain shallower than a Deco Stop Depth for more than 5 minutes, operation will enter Delayed Violation 1* which is a continuation of Conditional Violation with penalty time still being added. Again, the audible alarm will sound and the full Tissue Loading Bar Graph will flash until it is silenced.

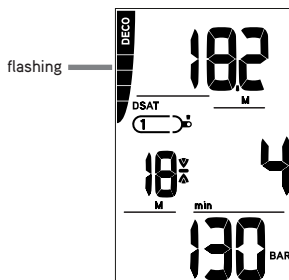
*The difference is that 5 minutes after surfacing from the dive, operation will now enter Violation Gauge Mode.

- Down arrow and DOWN message flashing in place of gas pressure during audible alarm.
- If the Delayed Violation 1 status is ignored, the ProPlus 4.0 will enter Delayed Violation 1 Surface mode for 5 minutes upon surfacing from the dive. After 5 minutes on the surface in DV1 mode, the unit will enter VGM (Violation Gauge Mode).



DELAYED VIOLATION 2

If the calculated Decompression obligation requires a Stop Depth between 60 ft (18 m) and 70 ft (21 m), operation will enter Delayed Violation 2. The audible alarm will sound. Additionally, the full Tissue Loading Bar Graph will flash for 10 seconds. After 5 minutes on the surface following a dive in which DV2 was entered, operation is to enter VGM.

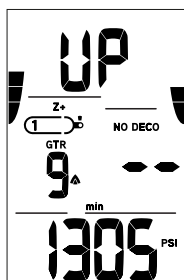


DELAYED VIOLATION 3

If you descend deeper than the maximum functional depth*, the audible alarm will sound. Also, the message UP will flash for 10 seconds then depth will display as dashes. Dashes will also display for NO DECO (No Decompression) time signifying that you are too deep.

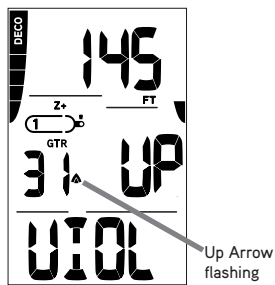
*The maximum functional depth (Dive/Gauge = 330 ft / 100 m) is the depth at which the ProPlus 4.0 can properly perform calculations or provide accurate display information.

Upon ascending above the maximum functional depth, current depth will be restored. However, the log for that dive will display dashes for max depth and the ProPlus 4.0 will enter Violation Gauge Mode 5 minutes after surfacing.



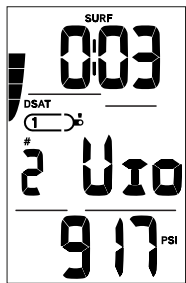
VIOLATION GAUGE MODE (VGM) DURING A DIVE

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



VIOLATION GAUGE MODE (VGM) ON THE SURFACE

The message VIO (violation) is to flash for 10 minutes then it will alternate with NOR (Norm) or GAU (Gauge) until 24 hours elapse with no dives. During that 24 hours, VGM lockout does not allow access to the Set Gas, Plan, and Desat features/screens.



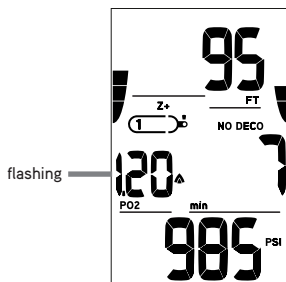
HIGH PO₂

Warning >> at Alarm Set Point value minus .20

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

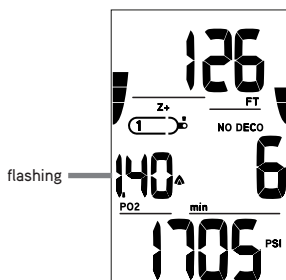
WARNING

When PO₂ (partial pressure of oxygen) increases to the Warning level; the audible alarm sounds and the PO₂ value and Up Arrow will flash during the audible alarm. After the audible alarm is silenced, GTR (Gas Time Remaining) will be restored and the Up Arrow will remain solid until the PO₂ value decreases below the Warning level.



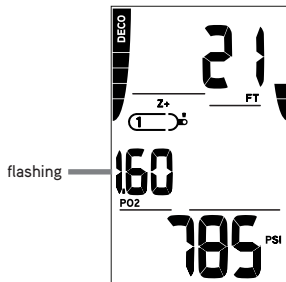
ALARM

If PO₂ continues to increase and reaches the alarm set point, the audible alarm sounds again. The PO₂ value and Up Arrow will flash during the audible alarm. After the audible alarm is silenced, they alternate with GTR (Gas Time Remaining) until PO₂ decreases below the alarm set point.



PO₂ DURING DECOMPRESSION

The PO₂ alarm setting does not apply when in Decompression. If PO₂ exceeds 1.60 while in Decompression, the PO₂ value (= 1.60) will flash during the audible alarm in place of the Deco Stop/Time. After the audible alarm is silenced, they alternate with Deco Stop/Time until PO₂ decreases below 1.60.

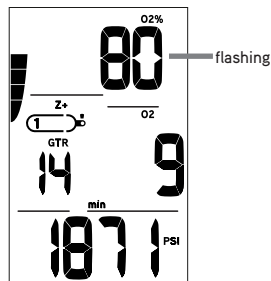
**HIGH O₂ SAT (OXYGEN SATURATION)**

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

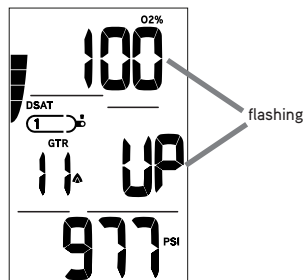
Alarm >> at 100% (300 OTU)

WARNING

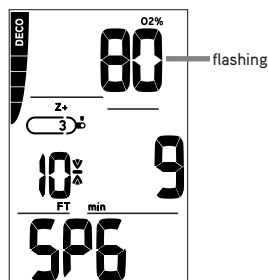
When O₂ saturation reaches the Warning Level, the audible alarm sounds and the O2% (oxygen saturation) value will flash in place of Depth. Depth will be restored when the audible alarm is silenced.

**ALARM**

If O₂ saturation reaches the Alarm level, the audible alarm sounds. The UP message, Up Arrow, and the O2% (oxygen saturation) value will flash in place of Depth and NO DECO (No Decompression). They will alternate after the audible alarm is silenced.

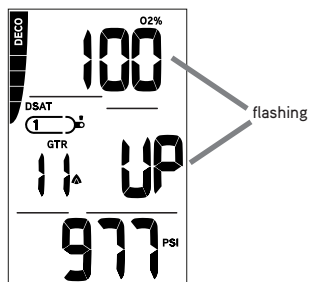
**WARNING DURING DECOMPRESSION**

When O₂ saturation reaches the Warning Level, the audible alarm sounds and the O2% (oxygen saturation) value will flash in place of Depth. When the audible alarm is silenced, current Depth value will be restored.

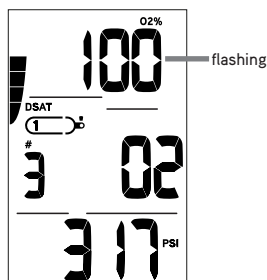


ALARM DURING DECO

If O_2 saturation reaches the Alarm level, the audible alarm sounds and the UP message, Up Arrow, GTR (Gas Time Remaining), and the $O_2\%$ (oxygen saturation) value will flash in place of Deco Stop/Time. Upon silencing, Current Depth is to be restored, the graphics UP and O_2 are to alternate, and the Up Arrow is to flash until on the surface.

**ALARM ON SURFACE**

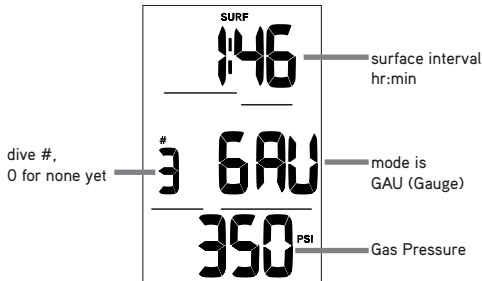
If O_2 saturation = 100%, it is to flash in place of Surface Interval time until 10 minutes elapse. Then it is to alternate with Surface Interval time until < 100%. Once O_2 becomes < 100%, it is to be removed with Surface Interval restored.



GAUGE MODE

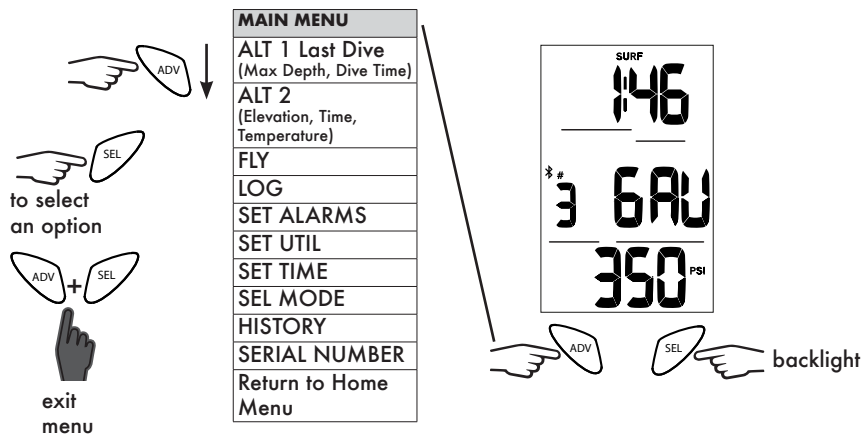
ON THE SURFACE BEFORE A DIVE

Gauge Surface Main is nearly identical to Dive Mode. Unlike Dive Mode, there will be no residual Tissue Loading Bar Graph after a dive.



GAUGE SURF MAIN MENU

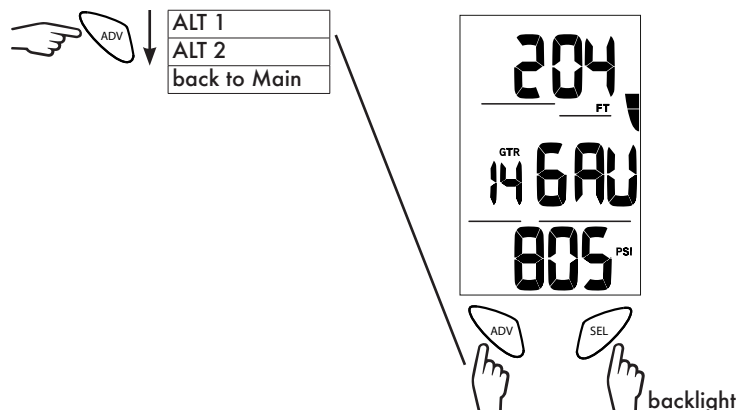
To view ProPlus 4.0 logs, change settings, or switch modes you must navigate through the Surf Main Menu. Enter the menu by pressing the ADV button. When you reach the end of the menu the ProPlus 4.0 will return to the Gauge Surface Main screen. You may hold the ADV button to scroll quickly through the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



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

INITIATING A DIVE

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



NOTE: The ProPlus 4.0 will be locked in Gauge Mode for 24 hours after surfacing from a Gauge Mode dive.

NOTE: All other Gauge mode dive functions are similar to Norm Mode. See the Norm Dive Mode chapter for further details.

REFERENCE

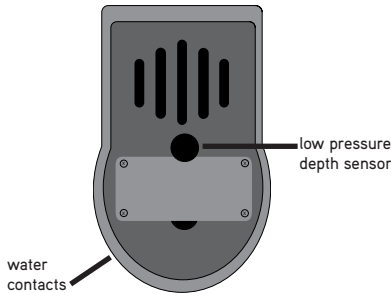
UPLOADING/DOWNLOADING DATA

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

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

Information available for retrieval (download) from the ProPlus 4.0 includes items such as dive number, surface interval time, depth, dive time, start dates/time, lowest temperature, sampling rate, set points, Tissue Loading Bar Graph, and Ascent Rate Bar Graph.

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



CARE AND CLEANING

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

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

INSPECTIONS AND SERVICE

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

To Obtain Service:

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

To return your ProPlus 4.0 to Oceanic:

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

BATTERY REPLACEMENT



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

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

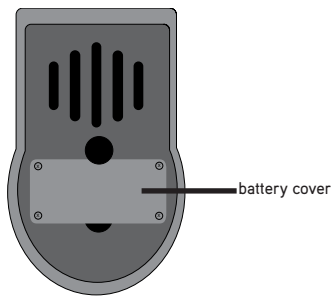
As an additional precautionary measure to prevent formation of moisture in the Battery Compartment, it is recommended that the Battery be changed in an environment equivalent to the local outdoor temperature and humidity (e.g., do not change the Battery in an air conditioned environment then take it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

Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged. If there is any sign of moisture in the module, DO NOT use the Pro Plus 4.0 until it receives proper service by an Authorized Oceanic Dealer, or the Oceanic factory.

Data Retention

When the battery is removed, settings* and calculations for repetitive dives are retained in volatile memory until a new battery is installed.

*Date will have to be set, Time may require adjustment for the time duration that the battery remains out of the unit.



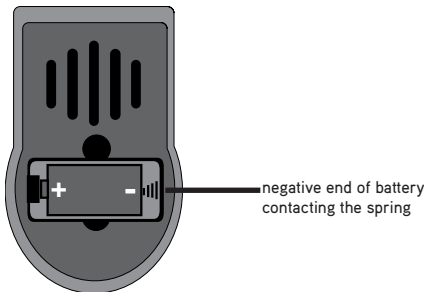
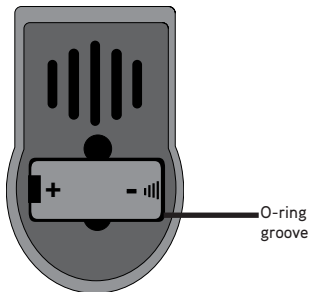
Battery Removal

Examine the Case Back to locate the Battery Cover:

- Remove the 4 screws that secure the Battery Cover to the Housing by turning counter clockwise.
- Lift the Cover up and away from the Housing.
- Lift the Battery, positive (+) end first, out of the Battery Compartment.
- 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. If found, return the ProPlus 4.0 to an Authorized Oceanic Dealer, and DO NOT attempt to use it until it has received factory service.
- Closely examine the inside of the Battery Compartment for any signs of corrosion indicating entrance of moisture into the unit.
- If corrosion is found, return the ProPlus 4.0 to an Authorized Oceanic Dealer, and DO NOT attempt to use it until it has received factory service.

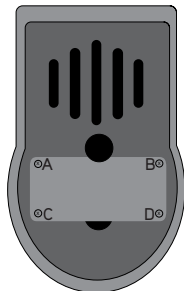
Moisture in the Battery Compartment

- If moisture is found, it is best to have the unit inspected and cleaned by an Authorized Oceanic Dealer.
- If it is necessary to clean the Battery Compartment, flush the it and all components with a solution of 50% white vinegar and 50% fresh water. Rinse with fresh water, and allow to dry overnight, or blow dry with a hair dryer (set at 'no heat').
- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.



Battery Installation

- Replace the Cover O-ring with a new one. This O-ring must be a genuine Oceanic part that can be purchased from an Authorized Oceanic Dealer. Use of any other O-ring will void the warranty.
- Lightly lubricate the new Cover O-ring with silicone grease and place it on the O-ring groove of the Battery Compartment. Ensure that it is evenly seated.
- Place a new CR2, 3 volt Lithium Battery (Duracell model DL-CR2 or equivalent) negative end first into the Battery Compartment with the negative end toward the spring.



Battery Cover Installation

- Ensure that the Battery is properly oriented and the Cover O-ring is evenly seated.
- Carefully place the Battery Cover into position so that it seats on top of the O-ring, and while holding it in place, secure it with the 4 screws by turning them clockwise. DO NOT attempt to use any other screws.
- Carefully tighten the screws by alternately turning them each one turn at a time. Turn the upper left one (A), then the lower right (D), then the lower left (C), then the upper right (B).
- Repeat the sequence until all of the screws are evenly secure. The outer surface of the Battery Cover should be flush with the outer surface of the Housing. DO NOT overtighten.

Inspection

- Activate the unit and watch carefully as it performs a full diagnostic and battery check, and enters Surface Mode. Observe the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen.
- If any portions of the display are missing or appear dim, or if a Low Battery Condition is indicated, return your ProPlus 4.0 to an Authorized Oceanic Dealer for a complete evaluation before attempting to use it.

ALTITUDE SENSING AND ADJUSTMENT

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

- Measurements are only taken when the unit is dry.
- Two readings are taken, the second reading 5 seconds after the first. The readings must be within 1 foot (30 cm) of each other to record that ambient pressure as the current Altitude.
- No adjustments are made during any time that the Wet Contacts are bridged.
- When diving in high altitude waters from 3,001 to 14,000 feet (916 to 4,270 meters), the ProPlus 4.0 automatically adjusts to these conditions providing corrected Depth, and reduced No Deco and O₂ Times at intervals of 1,000 feet (305 meters).
- When the Conservative Factor is set On, NDLs are calculated based upon the next higher 3,000 foot (915 meter) Altitude.
- At Sea Level, calculations are based upon an Altitude of 6,000 feet.
- All adjustments for Altitudes greater than 11,000 feet (3,355 meters) are then made to allowable dive times for 14,000 feet (4,270 meters).
- The ProPlus 4.0 will not function as a Dive Computer above 14,000 feet (4,270 meters).

TECHNICAL DATA

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

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

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

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

ALTITUDE LEVELS

Display:

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

Range:

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

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

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

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

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

SPECIFICATIONS

CAN BE USED AS

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

DIVE COMPUTER PERFORMANCE

- Buhlmann ZHL-16c based PZ+, or DSAT based, algorithm.
- No Decompression limits closely follow PADI RDP.
- Decompression in agreement with Buhlmann ZHL-16c and French MN90.
- No Decompression Deep Stops - Morroni, Bennett.
- Decompression Deep Stops (not recommended) - Blatteau, Gerth, Gutvik.
- Altitude - Buhlmann, IANTD, RDP (Cross).
- Altitude corrections and O2 limits based on NOAA tables.

OPERATIONAL PERFORMANCE

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

Dive Mode Activation:

- Manually by pressing any button or automatic by immersion in water.
- Cannot operate as a DC at elevations higher than 14,000 feet (4,270 meters)

Dive Counter:

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

Dive Log Mode:

- Stores max 24 entries per day, 99 entries in memory for viewing.
- After 24 dives in one day or 99 dives overall, new dives overwrite older dives.

Altitude:

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

Power:

- CR2 3V lithium battery

Battery Indicator:

- Graphical level gauge

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).

BAR GRAPHS:

TLBG

- | | |
|------------------------|--------|
| • No Deco Normal zone | 0-70% |
| • No Deco Caution zone | 71-99% |
| • Decompression zone | 100% |

VARI

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

SPECIFICATIONS (CONTINUED)

NUMERIC DISPLAYS:	Range:	Resolution:
• Temperature	0 to 99 F (-18 to 60 C)	1 degree
• Altitude Level	Sea, EL2 to EL7	1 level
• Depth, Max Depth	0 to 330 FT (100 M)	1 FT (0.1 M)
• Time to Fly	23:50 to 0:00 hr:min* (* starting 10 min after the dive)	1 minute
• Time to Desaturate	23:50 to 0:00 hr:min* (* starting 10 min after the dive)	1 minute
• Surface Interval	0:00 to 23:59 hr:min	1 minute
• Dive No.	0 to 24	1
• Elapsed Dive Time	00 to 599 min	1 minute
• FO2 Set Points	Air, 21 to 100 %	1 %
• PO2 Value	0.00 to 5.00 ATA	.01 ATA
• O2 Saturation	0 to 100 %	1 %
• Dive Time Remaining	0 to 599 min	1 minute
• No Deco Deep Stop Time	2:00 to 0:00 min:sec	1 second
• No Deco Safety Stop Time	5:00 to 0:00 min:sec	1 second
• Deco Stop Time	0 to 599 min	1 minute
• Time To Surface	0 to 599 min	1 minute
• Violation Countdown Timer	23:50 to 0:00 hr:min	1 minute

MAX FUNCTIONAL DEPTH: Limit:

Norm/Gauge	330 ft (100 m)
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ABBREVIATIONS/TERMS

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

INSPECTION / SERVICE RECORD

Serial Number: _____

Firmware Rev: _____

Date of Purchase: _____

Purchased from: _____

Below to be filled in by an Authorized Oceanic Dealer:

Date	Service Performed	Dealer/Technician

OCEANIC WORLD WIDE**OCEANIC USA**1540 North 2200 West Salt Lake City,
Utah, 84116

Tel: 888-270-8595

Web: www.OceanicWorldwide.com**OCEANIC EUROPE**Dieselstrasse 2
D-83043 Bad Aibling, Germany

Tel: 49 8061 938392

info@atomicaquatics.de

ProPlus 4.0

DIVE COMPUTER

OPERATING MANUAL