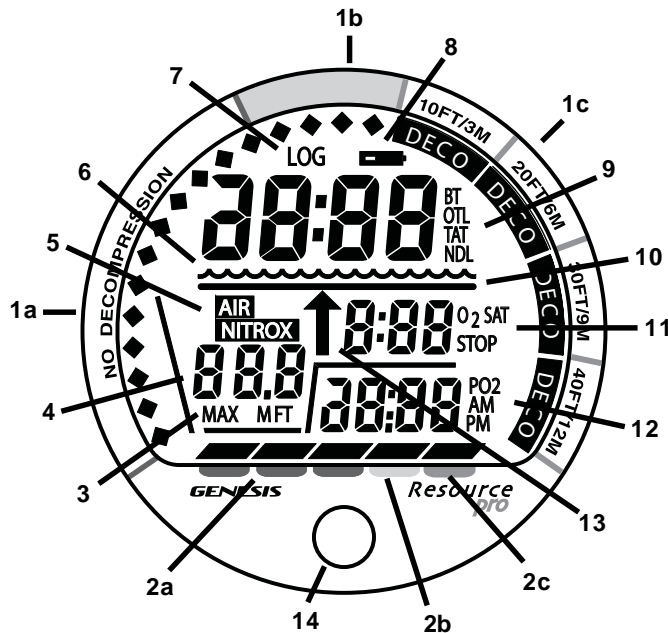


Resource
pro

OWNERS MANUAL



FULL LCD DISPLAY



- 1a. Nitrogen Bar Graph - (No Deco)
- 1b. Nitrogen Bar Graph - (No Deco Caution)
- 1c. Nitrogen Bar Graph - (Deco)
- 2a. Ascent Rate Indicator - (Normal)
- 2b. Ascent Rate Indicator - (Caution)
- 2c. Ascent Rate Indicator - (Too Fast)
3. Current and Max Depth icons
4. Dive Profile icon - Plan or Dive Mode
5. FO2 mode icons
6. Wave (Surface Mode) icon
7. Log Mode icon
8. Low Battery icon
9. Time icons
10. Deco Stop Bar icon
11. O2 Desat or Stop Time icon
12. AM or PM icon (for 12 hour time)
13. UP Arrow icon (ascend)
14. Control Button

RESPONSIBLE COMPUTER DIVING

Before you dive using your Resource Pro, keep these basic rules in mind:

- Plan each dive, and dive your plan - **Your Resource Pro was not designed to make decisions for you, only to provide you with the information you need to make responsible decisions for yourself. This begins with a dive plan that will help you avoid a low air or decompression situation.**
- Do not plan any dive that exceeds your training or experience level.
- Inspect your computer before every dive - **If it shows any signs of damage or abnormal function, DO NOT dive with it until it has received factory service.**
- Make your deepest dive first - **When making repetitive dives, it is imperative to ensure that each consecutive dive is shallower than the one before. This will allow your body's slower tissues to continue outgassing nitrogen.**
- Make the deepest part of your dive first, and gradually work your way to the surface using a staircase profile - **The ability to perform multilevel diving is one of the most important contributions of a dive computer, and you should take advantage of it. It will increase your bottom time and at the same time decrease your risk of decompression sickness.**
- Ascend slowly by following an ascent line whenever possible, or by ascending diagonally toward the surface - **Watch the Ascent Rate Indicator closely while you ascend, and keep it in the green zone as much as possible.**
- A Safety Stop of 3 minutes or more is recognized as a prudent action to reduce the probability of bubble formation in divers.

The following icons are used throughout this manual to bring your attention to situations that require special consideration.



WARNING - used if serious injury or death could result if the procedure is not followed carefully.



CAUTION - used if a maintenance technique could result in damage to parts if that technique is not followed carefully.



NOTE - used to emphasize important information or maintenance technique.

LIMITED TWO-YEAR WARRANTY

Genesis Scuba guarantees, to the original purchaser only, that the Resource Pro will be free of defects in materials and/or craftsmanship under normal recreational multilevel scuba use for two years from date of purchase, provided proper care and annual service are performed as described within this owner's guide. Should your Resource Pro prove to be defective for any reason (other than those listed in the limitations section below) it will be repaired or replaced (at Genesis Scuba's discretion) free of charge excluding shipping and handling charges.

This warranty will be considered void if the registration card is not filled out completely at the time of purchase and mailed to Genesis Scuba within 30 days of purchase, and/or if the annual inspection is not done according to this owner's manual. This warranty is non-transferrable and applies to the original purchaser only. All correspondence concerning this warranty must be accompanied by a copy of the original sales receipt and a copy of the owner's portion of the warranty registration card including the annual inspection record.

Once each year you must return the Resource Pro to an Authorized Genesis Scuba Dealer within 30 days of the original purchase date anniversary to keep the two year limited warranty in force. Annual inspection includes verification of depth accuracy and proper general function. Labor charges for the annual inspection are not covered by the warranty. You must provide a copy of the original sales receipt and a copy of the owner's portion of the warranty registration card including the annual service record to obtain warranty service.

Statement of Limitations - General:

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

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

Warranty does not extend to plastic gauge face, o-rings, batteries, or damage due to accident, abuse, modification, or tampering.

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TRADEMARK NOTICE

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PATENT NOTICE

U.S. Patents have been issued, or applied for, to protect the following design features:

Data Sensing and Processing Device (U.S. Patent no. 4,882,678), Dive Time Remaining (U.S. Patent no. 4,586,136), and Ascent Rate Indicator (U.S. Patent no. 5,156,055).

DECOMPRESSION MODEL

The programs within the Resource Pro 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 Resource Pro dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the Resource Pro, just as using the U.S. Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."** Every diver's physiology is different, and can even vary from day to day. No machine can predict how your body will react to a particular dive profile.

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WARNINGS:

- The Resource Pro is intended for use by recreational divers who have successfully completed a nationally recognized course in scuba diving.
- It is intended only for no decompression diving, NOT intentional decompression diving.
- It must not be used by untrained persons who may not have knowledge of the potential risks and hazards of scuba diving.
- You must obtain scuba certification before using the Resource Pro if you have not already done so.
- It is NOT for use by military and commercial divers.
- It should NOT be utilized for any competitive, or repetitive square wave or decompression diving, as it is intended solely for recreational use and no decompression multilevel diving.
- As with all underwater life support equipment, improper use or misuse of this product can cause serious injury or death.
- Never participate in sharing or swapping of a dive computer.
- Conduct your dives in such a manner so as to insure that you continuously check the computer's proper function.
- Read and understand this owner's manual completely before diving with the Resource Pro.
- If you do not fully understand how to use this dive computer, or if you have any questions, you should seek instruction in its use from your authorized Genesis Scuba dealer before you utilize this product.
- Never participate in sharing or swapping of a dive computer. Doing so may result in injury or death. The Resource Pro provides information based upon a diver's personal dive profile, and therefore must not be "shared" between divers. You should never, under any circumstances, swap your computer with another unit between dives, or share your computer with another diver underwater.

FEATURES and DISPLAYS

INTRODUCTION

Congratulations on your recent purchase of the Genesis Resource Pro !

Your Resource Pro presents the information that you need before, during, and after your air dives using an intuitive combination of easy to read displays and unique identification icons.

Tissue loading of nitrogen and ascent rate are presented as segmented bar graphs alongside color coded reference indicators that bring quick focus to these important status displays.

As you progress through this instructional guide, you will become familiar with all of the unique functions and features available and see examples of the displays that you could expect to see in the various operational modes. Although it will require an initial investment of time to become acquainted with the various icons and symbols, you'll soon agree that your Resource Pro is easy to understand and use.

Due to the importance that you understand the Resource Pro thoroughly prior to using it, information will be expanded upon and some refreshed as you proceed. Relax and read through the complete owner's manual.

It is extremely important that you:

- **Read this owner's manual in sequence and understand it completely before attempting to use the Resource Pro.**
- **Check the Resource Pro frequently during your dive.**
- **You must also be a trained diver, certified by a recognized training agency in SCUBA diving.**

Remember that the rules you learned in your basic SCUBA certification course still apply to the diving you will do while using a dive computer - some will become even more important. Technology is no substitute for common sense, and a dive computer only provides the person using it with data, not the knowledge to use it.



WARNING: Inspect your Resource Pro prior to every dive, checking for any signs of the entrance of moisture, damage to the button, or damage to the LCD display. If these or other signs of damage are found, return the unit to an Authorized Genesis Scuba Dealer. DO NOT attempt to use it until it has received factory prescribed service.

CONTROL BUTTON

The Resource Pro's control button (Fig. 1a) allows you to select various settings and access specific information when you choose to see it.

On the surface the control button is used to activate the Resource Pro, access the Log mode, and modify settings such as FO₂, Units, Time, Wet Activation, etc.

The button is used to view Alternate displays of information that revert to the Main display after 5 seconds.

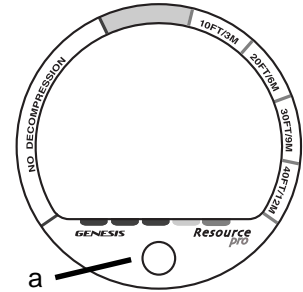


Fig. 1 - Control Button

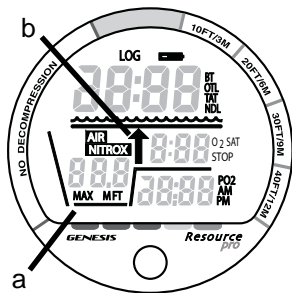


Fig. 2 - Symbols

INTUITIVE DISPLAYS

The Resource Pro uses Genesis Scuba's unique Dive Profile Diagram (Fig. 2a) and easy to understand symbols, displaying information where you would expect it to be when looking at a log profile.

When you enter Special Situations, such as Decompression and various Violation modes, an UP Arrow symbol (Fig. 2b) will appear in the middle portion of the display as a warning that a controlled ascent is required.

It is imperative that you understand the formats, ranges, and values of the information presented by the Resource Pro's numeric and graphic displays to avoid any possible misunderstanding that could result in error.

BAR GRAPHS

Two segmented bar graphs appear around the perimeter of the screen next to coded portions of the peripheral decal that denote normal, caution, and danger zones, respectively.

When underwater, you can quickly focus on the bar graphs to make sure that you are not getting too close to the no decompression limit or ascending too fast.

Ascent Rate Indicator (ARI)

The Ascent Rate Indicator (Fig. 3a) is provided to help you avoid excessive ascent rates by providing a visual representation of ascent speed, rather than just showing that you are ascending too fast.

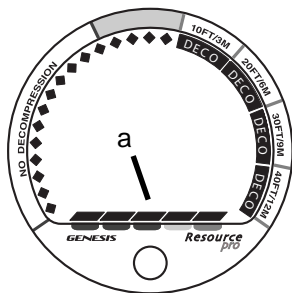


Fig. 3 - ARI

The ARI displays up to 5 segments that may be considered an ascent rate speedometer. The segments of the ARI represent 2 sets of speeds which change at a reference depth of 60 FT (18 M). Refer to the chart at the right for segment values.

When your Ascent Rate exceeds the maximum recommended rate of 60 FPM (18 MPM) when deeper than 60 FT (18 M) or 30 FPM (9 MPM) when shallower than 60 FT (18 M), the ARI will display all 5 segments that will flash once per second until your ascent speed is slowed.

Nitrogen Bar Graph (NiBG)

The NiBG (Fig. 4a) represents tissue loading of nitrogen, showing your relative no decompression or decompression status. As your depth and Bottom Time (BT) increase, segments will add to the NiBG, and as you ascend to shallower depths, the segments will begin to recede, indicating that additional no decompression time is allowed for multilevel diving.

The NiBG also assists you with managing decompression by filling Stop Depth 'required' segments which are described in more detail in the Special Situations section of this manual.

The NiBG monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive at that time. It is divided into a No Decompression zone, a Caution zone (also No Deco), and a DECO (decompression) zone.

The Caution zone gives a visual representation of just how close you are to the No Decompression limit which allows you to make a decision regarding Deep and Safety stops.

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

60 FT (18 M) & Shallower		
Segments	Ascent Rate =	
Displayed	FPM	MPM
0	0-10	0 - 3
1	11-15	3.5-4.5
2	16-20	5-6
3	21-25	6.5-7.5
4	26-30	8-9
5	>30	>9

ARI

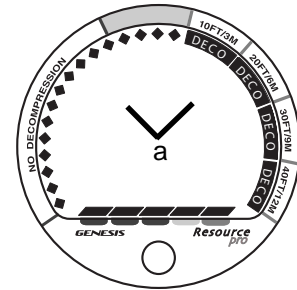


Fig. 4 - NiBG

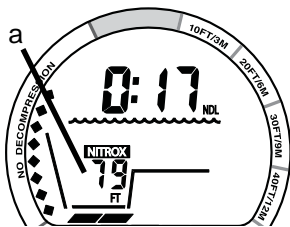


Fig. 5 - Current Depth

The DECO zone alerts you to focus your attention on the current required DECO Stop Depth indicated by the bar graph segment. When Stop Depths of 50 FT (15 M) and 60 FT (18 M) are required, all NiBG segments are displayed and the required Stop Depth is displayed numerically.

DEPTH DISPLAYS

The Depth display indicates depths from 0 to 330 FT (99.9 M) in 1 FT (0.1 M) increments.

During a dive, Current Depth is displayed on the Main displays with the symbol FT (or M) below it (Fig. 5a).

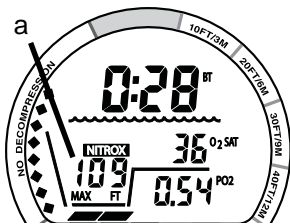


Fig. 6 - Max Depth

When the button is pressed to view the first Alternate display, Max Depth and the symbols MAX and FT (or M) below it (Fig. 6a) are displayed in place of Current Depth.

In the event that you descend deeper than 330 FT (99.9 M), the Depth display will show three dashes (- - - or - - -) to indicate that you have gone 'out of range'. This is described in more detail in the Special Situations section of this manual.

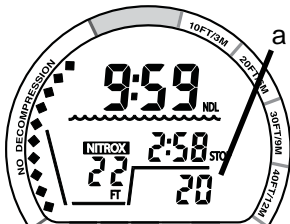


Fig. 7 - Stop Depth

During No Decompression dives, a recommended Deep Stop at 1/2 Max Depth (if set On) and a Safety Stop at 20 FT (6 M) are displayed (Fig. 7a). These are described in more detail in the No Deco Dive section of this manual.

Upon entry into Decompression, required Stop Depths of 50 FT (15 M) and 60 FT (18 M) are displayed numerically. This is described in more detail in the Special Situations section of this manual.

TIME DISPLAYS

The largest, at the top of the screen (Fig. 8a), will display Bottom Time (elapsed dive time) with BT icon, O2 Dive Time Remaining with OTL icon, Total Deco Ascent Time with TAT icon, No Deco Dive Time Remaining with NDL icon, or Surface Interval Time with the wave icon below it, depending on the operating mode that it is in.

A second Time display, shown in the center (Fig. 8b), will display Stop Times (Deep, Safety, or Deco) or Time to Desaturate after a dive.

The third Time display, shown at the bottom of the screen (Fig. 9a), will display Time of Day or Time to Fly.

Time displays are shown in Hour:Minute format**. The colon that separates Hours and Minutes blinks once per second when the display is indicating real time such as Surface Time, Bottom Time, and Time of Day. NDL, TAT, Stop Times, Time to Fly, and O2SAT are calculated projections of time and use a solid colon to indicate that they are counting down.

***An exception is No Deco Stop Time (Deep and Safety) that displays Time in Minute:Second format.*

TEMPERATURE DISPLAY

During dives Temperature is displayed on Alternate screens (Fig. 9b). While on the surface, Temperature is displayed on the Surface Main screen (Fig. 10a, page 18).

If the Temperature exceeds a value of 99, dashes (- -) will be displayed until it decreases to 99.

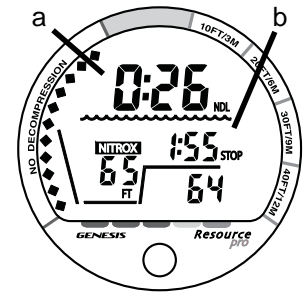


Fig. 8 - Time Displays

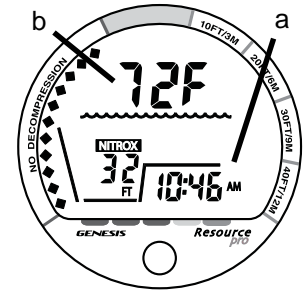


Fig. 9 - Time & Temperature

OPERATING TEMPERATURE

The Resource Pro will operate in water temperatures from 28° to 95° F (-2 to 35 °C) and in air from 20° to 140°F (-6 to 60 °C). At extremely low temperatures, the LCD may become sluggish, but this will not affect its accuracy. If stored or transported in extremely low temperature areas (below freezing), warm the module and battery with body heat before diving.

BACKLIGHT FEATURE

During dives, the Hydroglow Backlight will illuminate the display when the button is pressed for 2 seconds and for 10 seconds after it is released.

The Backlight does not operate while on the surface.

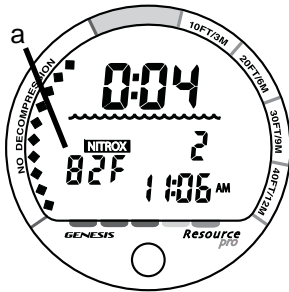


Fig. 10 - Temperature
(Surface)

ACTIVATION and SETUP

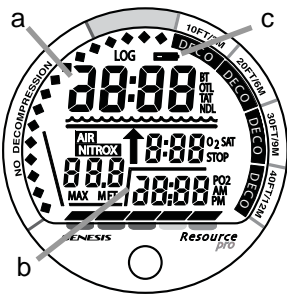


Fig. 11 - Diagnostic Mode

ACTIVATION

PUSH BUTTON (PRIMARY METHOD)

To activate the Resource Pro, press/release the button. It will immediately enter Diagnostic Mode, displaying all 8s (Fig. 11), followed by dashes, then a countdown from 9 to 0. Note that 2 of the digits do not contain an upper/left segment (Fig. 11a/b).

While conducting diagnostics, the display is illuminated by the backlight as it checks its display functions to ensure that everything is working properly and that battery voltage is sufficient to complete a full day of diving. If there is not enough battery voltage, the unit will either deactivate itself or would not have activated at all.



WARNING: If a Low Battery icon (Fig. 11c) is indicated following diagnostics, Genesis Scuba strongly recommends that you **DO NOT** dive until the battery is replaced.

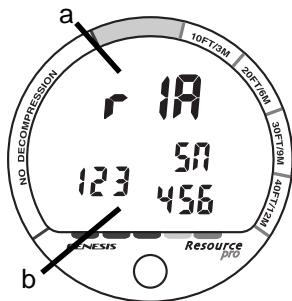


Fig. 12 - Serial Number

The unit will automatically turn Off 2 hours after activation if no dive is made. If the wet activation contacts are still bridged (the unit is wet), it will automatically reactivate.

When the button is held depressed as the Diagnostic countdown reaches 00, a Serial Number screen appears displaying the unit's firmware code Revision Number (Fig. 12a) and Serial Number (Fig. 12b). Upon releasing the button, the unit will shut Off. Press/release the button to reactivate the unit and enter Surface Mode.

WET CONTACT ACTIVATION)

N **NOTE:** Wet contact will only activate the unit if the Wet Activation feature is Set ON (a user setting).

The Resource Pro has contacts that cause it to activate and enter Surface, or Dive, Mode when the space between the contacts is bridged by a conductive material (e.g., water contact).

If the Wet Activation feature is Set ON and the wet contacts are bridged when the unit shuts Off, it will automatically reactivate.

STOP **WARNING:** Never attempt to activate the Resource Pro underwater. This may result in inaccurate depth and no-decompression time displays. If attempt is made to activate the unit when deeper than 4 FT (1 M), or at elevations higher than 14,000 feet (4,270 meters), it will perform a diagnostic check followed by immediate shutdown.

Upon activation and every 30 minutes while on the surface, the Resource Pro will check ambient barometric pressure, and calibrate its present depth as zero. At elevations higher than 3,000 feet (915 meters), it will recalibrate itself to provide adjusted No Decompression limits.

STOP **WARNING:** If any display or function varies from the information presented here, return the Resource Pro to your Authorized Genesis Scuba Dealer for inspection.



SURFACE SEQUENCE

While on the surface, the Resource Pro automatically scrolls through a Sequence of displays -

- Surface Mode for 3 seconds
- Fly/Desat Times for 3 seconds (only after a dive)
- Plan Mode screens (each Depth/Time displayed for 3 seconds)

The Sequence repeats for 2 hours or until a dive is made or the button is pressed to access Log Mode or Set Mode.

- To access Set Mode, depress the button for 2 seconds.
- To access an Alternate screen then Log Mode, press/release the button (< 2 seconds).

SURFACE MODE

Surface Mode is identified by the Surface Wave symbol (Fig. 13a).

Information displayed includes Surface Interval Time (Fig. 13b) with colon flashing, Dive Number (0 if no dive made that activation period - Fig. 13c), AIR (or NITROX) mode icon (Fig. 13d), Temperature with the graphic F or C (Fig. 13e), and Time of Day (Fig. 13f) with the AM or PM symbol (if set for 12 Hour Format).



NOTE: Fly/Desat times and Plan Mode are described later in this manual.

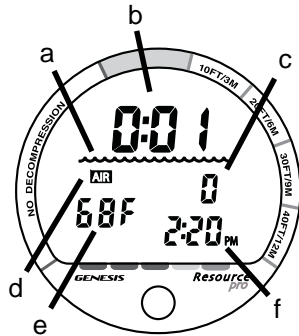


Fig. 13 - Surface Mode

SET MODE

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

- Upon entry into Set Mode, the Set PO2 screen will be displayed with the Set Point flashing.
- If the button is not pressed during a 2 minute period while in the Set Mode, operation will revert to Surface Mode and resume the Surface Sequence scroll.

SET PO2 ALARM

Factory set for 1.60 (ATA), the PO2 Alarm can be set to values between 1.20 and 1.60 (ATA) in increments of .10 (ATA).

Information displayed includes (Fig. 14) -

- Graphic PO2
 - Set Point x.xx (ATA) flashing with PO2 icon
- > Press/release the button repeatedly (< 2 seconds each time) to step upward through the settings from 1.20 to 1.60 in increments of .10 (ATA).
- > Depress the button for 2 seconds to save the Set Point and advance to Set FO2.



Fig. 14 - Set PO2 Alarm

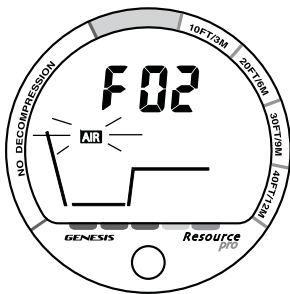


Fig. 15A - Set FO2 (Air)

SETFO2

Each time the unit is activated (if Off), FO2 will be automatically set for a default value of AIR which can then be changed to numerical values for dives using Nitrox mixes.

Information displayed includes (Fig. 15A/B) -

- Graphic FO2
- Dive Profile icon
- AIR (or NITROX) icon flashing
- FO2 Set Point (21 to 50 %) flashing - when Nitrox is selected, blank if Air is selected
- Max Depth allowed for the PO2 Alarm set with MAX and FT (or M) icons - when Nitrox is selected, blank if Air is selected

- > Press/release the button (< 2 seconds) to toggle between AIR and NITROX.
- > Depress the button for 2 seconds to save the Set Point.
 - If Air is selected, operation will advance to Set Wet Activation, bypassing Set FO2 Default.
 - If Nitrox is selected, the FO2 Set Point digits will flash allowing it to be set.
- > Press/release the button repeatedly (< 2 seconds each time) to step upward through the FO2 settings from 21 to 50 in increments of 1 (%). For each FO2 value that appears, the Max Depth allowed for the PO2 Alarm set will be displayed.
- > Depress the button for 2 seconds to save the Set Point and advance to Set FO2 Default.

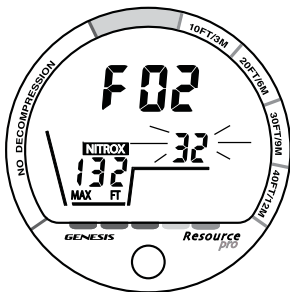


Fig. 15B - Set FO2 (Nitrox)

SETFO250% DEFAULT

Factory set ON, the FO2 50% Default feature can be set to OFF.

Information displayed includes (Fig. 16) -

- Graphics FO2 and 50 with NITROX icon
- Set Point graphic ON (or OFF) flashing

- > Press/release the button (< 2 seconds) to toggle between ON and OFF.
- > Depress the button for 2 seconds to save the Set Point and advance to Set Wet Activation.

SETWETACTIVATION

Factory set for ON, Wet Activation can also be set OFF (disabled) to prevent inadvertent activation during travel or storage.

Information displayed includes (Fig. 17) -

- Graphic H2O
- Set Point graphic ON (or OFF) flashing

- > Press/release the button (< 2 seconds) to toggle between ON and OFF.
- > Depress the button for 2 seconds to save the Set Point and advance to Set Units.

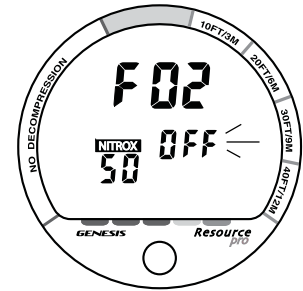


Fig. 16 - Set FO2 Default



Fig. 17 - Set Wet Activation

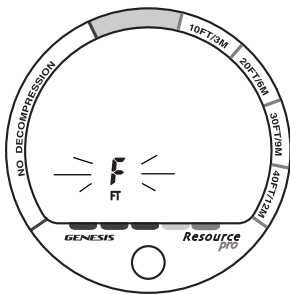


Fig. 18 - Set Units

SET UNITS OF MEASURE

Factory set for Imperial, Units can be set for Metric values.

Information displayed includes (Fig. 18) -

- Temperature graphic F (or C) flashing
- Depth icon FT (or M) flashing

- > Press/release the button (< 2 seconds) to toggle between Imperial and Metric.
- > Depress the button for 2 seconds to save the Set Point and advance to Set Hour Format.

SET HOUR FORMAT

Factory set for 12 Hour (12: AM to 11: PM), Hour Format can also be set for 24 Hour (0: to 23:).

Information displayed includes (Fig. 19) -

- Graphic Hr
- Set Point graphic 12 (or 24) flashing

- > Press/release the button (< 2 seconds) to toggle between 12 and 24.
- > Depress the button for 2 seconds to save the Set Point and advance to Set Time

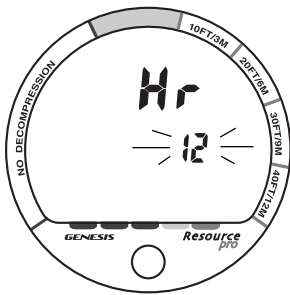


Fig. 19 - Set Hour Format

SETTIMEofDAY

Set for local Time at the factory, Time of Day can be set to values between 12:00 AM and 11:59 PM (if 12 Hour Format) or 0:00 and 23:59 (if 24 Hour Format).

Information displayed includes (Fig. 20) -

- Time of Day (hr:min) with Hour digits flashing
 - AM (or PM) icon if 12 Hour Format, no icon if 24 Hour Format
- > Press/release the button repeatedly (< 2 seconds each time) to step upward through the Hour settings.
- > Depress the button for 2 seconds to save the Hour Set Point, the Minutes digits will flash.
- > Press/release the button repeatedly (< 2 seconds each time) to step upward through the Minute settings.
- > Depress the button for 2 seconds to save the Set Point and advance to Set Deep Stop.

SETDEEPSTOP

Factory set OFF, the Deep Stop feature can be set to ON.

Information displayed includes (Fig. 21) -

- Graphic dS with STOP icon
 - Set Point graphic ON (or OFF) flashing
- > Press/release the button (< 2 seconds) to toggle between ON and OFF.
- > Depress the button for 2 seconds to save the Set Point and revert to Surface Mode.

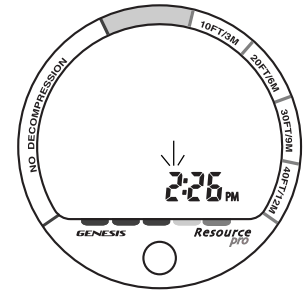


Fig. 20 - Set Time of Day

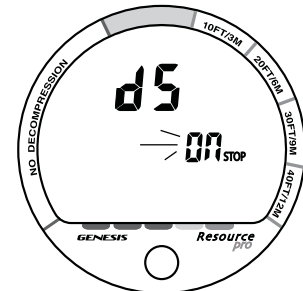


Fig. 21 - Set Deep Stop



WARNINGS AND SAFETY RECOMMENDATIONS

- **The percentage of oxygen (FO2) in the Nitrox mix being used must be 'set before each nitrox dive', unless the FO2 50% Default feature is set OFF (a user setting).**
- **Plan Mode provides predicted times for subsequent dives. Depending on cylinder size, breathing gas consumption, and oxygen accumulation, you may have less time available than indicated because of breathing gas quantity or other limitations.**
- **Until it has shut itself off, you must not use it at a different Altitude than the Altitude at which it was activated. Doing so will result in an error equal to the difference in barometric pressure, and possibly a false dive mode with erroneous data.**
- **To provide proper Altitude compensation, the unit must be manually activated at the new altitude. Dive computers, such as the Resource Pro cannot sense changes in barometric pressure if activated by immersion in water at higher Altitudes.**
- **Use the Caution Zone of the Nitrogen Bar Graph as a visual reference to provide a greater margin of protection between you and the No Decompression Limits.**
- **Every effort should be made to keep each of the Bar Graphs in the normal zone throughout your dives to reduce your risk of exposure to decompression sickness, oxygen toxicity, and the effects of excessive ascent rates.**

PRE DIVE and DIVE MODES

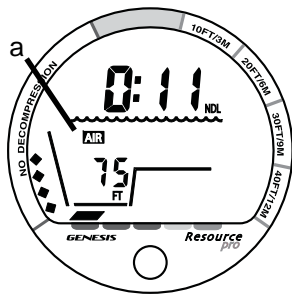


Fig. 22 - Dive Main (Air)

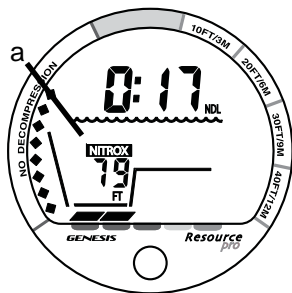


Fig. 23 - Dive Main (Nitrox)

BUTTON USE

While viewing the Surface or Dive Main screens press/release the button to view ALT (Alternate) screens displaying additional information.

During dives, depress the button for 2 seconds to activate the Backlight.

FO2

The Resource Pro can be set for use either as an Air computer or as a Nitrox computer. After activation, it will operate as an Air computer without displaying information associated with oxygen calculations, unless it is set for a percentage of oxygen (FO2) other than Air (e.g., a numerical value between 21 and 50 %).

If set for use with Air as your breathing gas, the AIR icon will be displayed (Fig. 22a) on the Surface and Dive mode screens. If it is set for use with Nitrox, the NITROX icon will be displayed (Fig. 23a).



WARNING: When set for Nitrox use, you must verify that the FO2 setting correctly matches the Nitrox mix being used prior to each Nitrox dive.

USE WITH AIR

When set for Air, the Resource Pro will perform calculations the same as if FO2 were set for 21%, internally accounting for O2 accumulation for any subsequent Nitrox dives.

Once a dive is made with the unit set for Nitrox (e.g., FO2 set for a numerical value), it cannot be set to operate as an Air computer until 24 hours elapse after the last dive. Air will not be an option during that time. You can however set FO2 for 21% for use with Air.

USE WITH NITROX

If FO2 is set at a value of 21%, it will remain set at 21% for subsequent dives until FO2 is set to a higher value (22 to 50%), or until it automatically turns Off and is reactivated.



WARNING: When the FO2 Default is set On, the FO2 value must be set for each repetitive Nitrox dive, or the value will automatically be 50 and the dives will be calculated based on 50% O2 for oxygen calculations and 21% O2 (79% nitrogen) for nitrogen calculations.

FO2 50% Default

- When the FO2 Default feature is set Off, FO2 will remain as set until another value is selected or the unit shuts Off and reverts to Air until changed to a Nitrox setting.
- When the FO2 50% Default feature is set On and FO2 is set at a value of 22 to 50% to match the Nitrox mix being used for that dive, the FO2 setting after that dive will automatically default to a value of 50%.



WARNING: If you surface for greater than 10 minutes during a dive and the FO2 Default is set On, a subsequent descent will be considered a new dive and the FO2 value must be reentered.

Depth FT (M)	NDL hr:min	
30 (9)	4:20	(4:43)
40 (12)	2:17	(2:24)
50 (15)	1:21	(1:25)
60 (18)	:57	(:59)
70 (21)	:40	(:41)
80 (24)	:30	(:32)
90 (27)	:24	(:25)
100 (30)	:19	(:20)
110 (33)	:16	(:17)
120 (36)	:13	(:14)
130 (39)	:11	(:11)
140 (42)	:09	(:09)
150 (45)	:08	(:08)
160 (48)	:07	(:07)
170 (51)	:07	(:06)
180 (54)	:06	(:06)
190 (57)	:05	(:05)

NDLs for an Air Dive
(no dive made yet)

PRE DIVE PLAN MODE

N **NOTE:** Genesis Scuba strongly recommends that you review the Plan Mode prior to every 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 Plan Mode indicates adjusted no decompression limits available for your next dive based on any residual nitrogen following your last dive and surface interval.

STOP **WARNING:** The Plan Mode predicts only no decompression times for subsequent dives. Depending on cylinder size and air consumption you may have *less time available* than indicated.

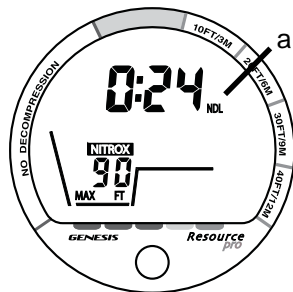


Fig. 24 - Plan Mode

Plan Mode appears as part of the Surface Sequence (Surface Main > Fly/Desat > Plan).

With each Depth displayed in the Plan Mode, you will see predicted no decompression limits (NDLs) based upon your previous dive profiles. The NDL icon will be displayed (Fig. 24a) with a sequence of theoretical dive times available for depths ranging from 30 FT (9 M) to 190 FT (57 M) in 10 FT (3 M) increments.

No decompression times are only displayed for depths where there are at least 3 minutes of dive time available at that depth, taking into account a descent rate of 60 FT (18 M) per minute.

NO DECO MAIN (FIG. 25)

The Resource Pro will enter the No Deco Dive Mode when you descend to 5 FT (1.5 M) for 5 seconds. This mode is identified by the unique Wave/Dive Profile icons (Fig. 25a). Other information displayed includes -

- Dive Time Remaining with the NDL icon
 - AIR (or NITROX) icon
 - Current Depth with the FT (or M) icon
 - NiBG (nitrogen loading) and ARI (when ascending)
- > Pressing/releasing the button will access the ALT 1 screen.
- > Depressing the button for 2 seconds will activate the Backlight for 10 seconds.

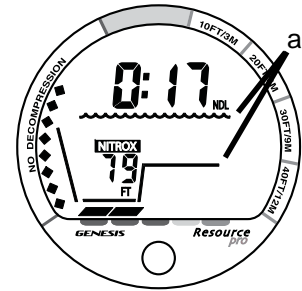


Fig. 25 - No Deco Main

NO DECO ALT 1 (Fig. 26)

Information displayed includes -

- Elapsed Dive Time with BT (bottom time) icon
 - AIR (or NITROX) icon
 - Max Depth with MAX and FT (or M) icons
 - O₂ accumulated (xx%) with O₂ SAT icons (if Nitrox)
 - PO₂ (x.xx ATA) with PO₂ icon (if Nitrox)
 - NiBG (nitrogen loading) and ARI (when ascending)
- > Pressing/releasing the button will access the ALT 2 screen.
- > Operation will revert to the Main after 5 seconds if ALT 2 is not accessed.
- > Depressing the button for 2 seconds will activate the Backlight.

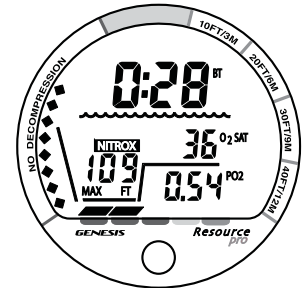


Fig. 26 - No Deco Alt 1

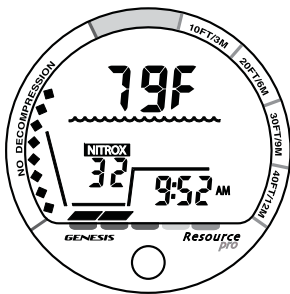


Fig. 27 - No Deco Alt 2

NO DECO ALT 2 (Fig. 27)

Information displayed includes -

- Temperature with graphic F (or C)
 - AIR (or NITROX) icon
 - FO2 value set, if Nitrox
 - Time of Day with AM (or PM) icon if 12 Hour Format, no icon if 24 Hour Format
 - NiBG (nitrogen loading) and ARI (when ascending)
- > Pressing/releasing the button will access the Deep Stop Preview screen, if triggered.
- > Pressing/releasing the button will revert to the Main screen, if the DS has not triggered.
- > Operation will revert to the Main after 5 seconds if the button is not pressed.
- > Depressing the button for 2 seconds will activate the Backlight.

NO DECO DEEP STOP (DS)

During No Deco dives in which Depth exceeds 80 FT (24 M), a Deep Stop Preview screen can be accessed (if set On) that will revert to the No Deco Main after 5 seconds.

- > The intent of this screen is to suggest that a Stop should be made as indicated (at 1/2 Max Depth) to help reduce the probability of DCS (decompression sickness).

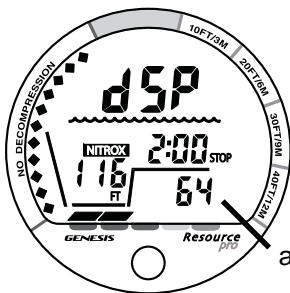


Fig. 28 - Deep Stop Preview

Information displayed includes (Fig. 28) -

- Graphic dSP (meaning Deep Stop Preview)
- AIR (or NITROX) icon with Wave/Profile icons
- Current Depth with FT (or M) icon
- Stop Time 2:00 (min:sec) with STOP icon and Stop Depth (Fig. 28a, with no icon)
- NiBG (nitrogen loading) and ARI (when ascending)

- > Operation will revert to the Main after 5 seconds or if the button is pressed/released.
- > Depressing the button for 2 seconds will activate the Backlight.

N NOTE: The Deep Stop is not required and although recommended, it does not have to be taken. There will be no penalty if the Stop is ignored and ascent (or other activity) is continued.

The Deep Stop feature will be disabled and its screens not displayed if you enter Deco or High O₂ (\Rightarrow 80%), during High PO₂ (\Rightarrow Alarm Set Point), or descend to $>$ 190 FT (63 M).

Upon ascending to within 10 FT (3 M) below the calculated Deep Stop, a Deep Stop (DS) Main screen will automatically appear.

Information displayed includes (Fig. 29) -

- Dive Time Remaining (hr:min) with NDL (or OTL) icon
 - AIR (or NITROX) icon with Wave/Profile icons
 - Current Depth with FT (or M) icon
 - Stop Time 2:00 (min:sec) with STOP icon and Stop Depth (below with no icon)
 - NiBG (nitrogen loading)
- > Pressing/releasing the button will access the ALT 1 screen, then again the ALT 2 screen, which are similar to the No Deco ALT 1 and 2 screens previously described.
 - > Depressing the button for 2 seconds will activate the Backlight.

In the event that you descend 10 FT (3 M) deeper than, or ascend 10 FT (3 M) shallower than, the Stop Depth during the countdown, the No Deco Main display will replace the Deep Stop Main screen which will be disabled for the remainder of that dive.



Fig. 29 - Deep Stop Main

NO DECO SAFETY STOP

Upon ascending to 20 FT (6 M) on No Deco dives that exceed 30 FT (9 M), a Safety Stop screen appears with a timer that counts down from 3:00 to 0:00 (min:sec).

Information displayed includes (Fig. 30) -

- Dive Time Remaining (hr:min) with NDL (or OTL) icon
 - AIR (or NITROX) icon with Wave/Profile icons
 - Current Depth with FT (or M) icon
 - Stop Time 3:00 (min:sec) with STOP icon and Stop Depth (below with no icon)
 - NiBG (nitrogen loading)
- > Pressing/releasing the button will access the ALT 1 screen, then again the ALT 2 screen, which are similar to the No Deco ALT 1 and 2 screens previously described.
- > Depressing the button for 2 seconds will activate the Backlight.
- In the event that you descend 10 FT (3 M) deeper than, or ascend 10 FT (3 M) shallower than, the Stop Depth during the countdown, the No Deco Main display will replace the Safety Stop Main screen.
 - In the event that you descend below 30 FT (9 M) during the countdown, the No Deco Main screen replaces the Safety Stop screen. The Safety Stop feature will reset and be displayed again upon ascent to 20 FT (6 M).
 - The Safety Stop is not mandatory and there is no penalty if you surface during the countdown period.

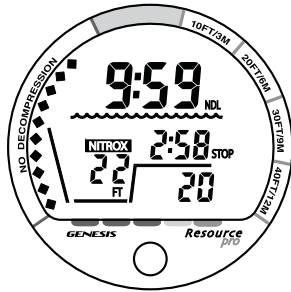


Fig. 30 - Safety Stop Main

POST DIVE MODES

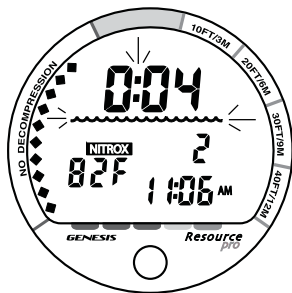


Fig. 31 - Transition Period

POST DIVE SURFACE MODE

When you ascend to 2 FT (0.6 M) for 1 second, the Resource Pro will enter Surface Mode and begin counting your Surface Interval.

TRANSITION PERIOD

The first 10 minutes on the surface is, in effect, a Transition Period during which time the following information is displayed (Fig. 31):

- Surface Interval time (hr:min) with colon and Wave icon flashing
- AIR (or NITROX) icon
- Dive number
- Temperature with graphic F (or C)
- Time of Day with AM (or PM) icon if 12 Hour Format, no icon if 24 Hour Format
- NiBG

- > Press/release the button to view that dive's Log 1 screen (Fig. 32). The Surface ALT screen is bypassed.
- > Press/release the button again to view the Log 2 screen, then again the Log 3 screen.
- > Operation will revert to the Surface Main after 2 minutes of no button action or if the button is depressed for 2 seconds while viewing a Log screen.



Fig. 32 - Log Mode



NOTE: Data will not be stored in the Log until the 10 minute Transition Period is completed. Also, no other modes/screens are accessible.

If you descend during 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 to Elapsed Dive Time.

AFTER THE TRANSITION PERIOD (THE FIRST 2 HOURS)

Once 10 minutes have elapsed, the Wave icon and Surface Interval Time colon stop flashing indicating that the Dive and Transition Period are completed, and a subsequent descent will be considered a new dive. That dive will then be entered into the Resource Pro's Dive Log.

For the remainder of the first 2 hours after surfacing, the Surface Sequence will be displayed, scrolling through the Surface Main, Fly/Desat Time, and Plan screens. You will have full access to the Surface ALT screen, Log Mode, and Set Mode.

Time to Fly and Desat Time

The Time to Fly counter (Fig. 33a) begins counting down 10 minutes after the last dive (after the Transition Period) displaying the graphic FLY with a countdown that starts at 23:50 (hr:min) and counts down to 0:00.

The Desaturate counter (Fig. 33b) provides calculated time for tissue desaturation at sea level. It begins 10 minutes after the last dive displaying the SAT icon with a countdown that starts at 9:59 (hr:min) maximum and counts down to 0:00 (hr:min).

If Time to Desaturate is calculated to be greater than 9:59 (hr:min), the display will indicate 9:++ (Fig. 34a) until the time decreases to 9:59.

If a Violation occurred during that dive, Time to Desaturate will not be displayed and a single dash (-) will appear instead of the graphic FLY.

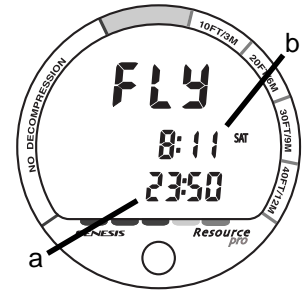


Fig. 33 - Time to Fly / DeSat

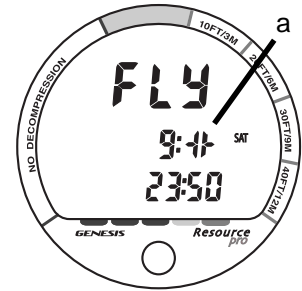


Fig. 34 - DeSat Time > 9:59

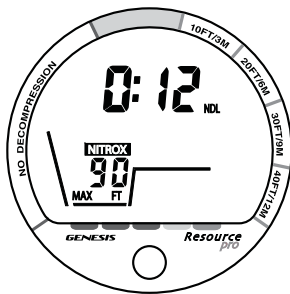


Fig. 35 - Adjusted NDLs

Post Dive Plan Mode

After dives, Plan screens (Fig. 35) will display adjusted NDLs based on your previous dive profiles.

The Plan will only display Depths/Times to the Max Depth allowed by the nitrogen limit. The calculated dive times and the maximum allowed depth displayed will increase as the real time Surface Interval increases after completion of a dive.

Log Mode

Information from your latest 50 dives is stored in the Log for viewing. After exceeding 50 dives, the oldest dive in the Log will be overwritten by the most recent dive.

- Log information will not be lost when the battery is removed/replaced, but factory service will delete data.
- Log Mode recalls dives in reverse order from the one most recently recorded back to the oldest of the 50 dives stored. Your most recent dive will always be the first shown when Log Mode is accessed.
- Each dive has 3 Log screens.
- Dives are identified by the Dive Number (for that activation period) and Time started. The first dive of a new Activation Period will always be #1.

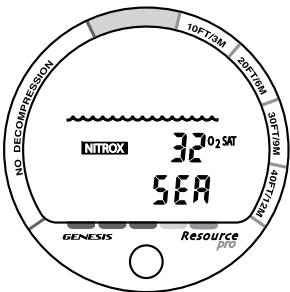


Fig. 36 - Surface ALT

To access Log Mode and view the 1st screen of the most recent dive:

- press/release the button while the Surface Sequence is scrolling through screens.
- then, press/release the button while viewing the Surface ALT screen (Fig. 36).

Log 1 information includes (Fig. 37) -

- Log (book) icon
 - Surface Interval Time prior to that dive (hr:min) with Wave icon
 - AIR (or NITROX) icon
 - Max Depth with MAX and FT (or M) icons
 - Temperature with graphic F (or C), lowest recorded during the dive
 - Dive number (1 to 50), for that activation period
 - Time of Day (hr:min) the dive began with AM (or PM) icon if 12 Hour Format, no icon if 24 Hour Format
- > Pressing/releasing the button will access the ALT 1 screen.
- > Operation will revert to the Surface Main after 2 minutes of no button action or if the button is depressed for 2 seconds.



Fig. 37 - Log 1 (Identifier)

Log 2 information includes (Fig. 38) -

- Log (book) icon
 - Elapsed Dive Time (hr:min) with BT (Bottom Time) icon
 - AIR (or NITROX) icon
 - Max Depth with MAX, FT (or M), and Dive Profile icons
 - NiBG, max accumulated segment flashing, others solid representing nitrogen accumulated at the end of the dive. All flashing if a Violation occurred.
 - ARI, segments representing max ascent rate maintained for 4 consecutive seconds
- > Pressing/releasing the button will access the ALT 2 screen.
- > Operation will revert to the Surface Main after 2 minutes of no button action or if the button is depressed for 2 seconds.

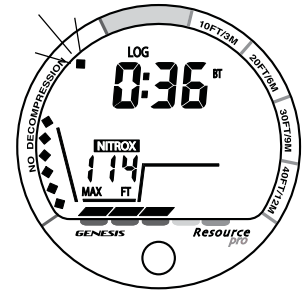


Fig. 38 - Log 2 (Dive Data)

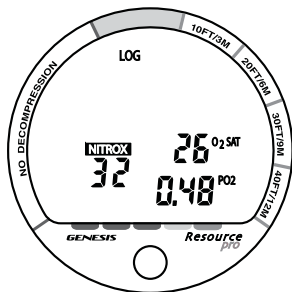


Fig. 39 - Log 3 (Dive Data)

Log 3 information includes (Fig. 39) -

- Log (book) icon
 - AIR (or NITROX) icon
 - FO2 setting, blank if Air
 - O2 (% accumulated at the end of the dive) with O2 SAT icons
 - Max PO2 level (x.xx ATA) reached during the dive with PO2 icon
- > Pressing/releasing the button will revert to the Surface Main screen.
 > Operation will revert to the Surface Main after 2 minutes if the button is not depressed.

AFTER THE FIRST 2 HOURS

Two hours after the last dive, the unit will no longer scroll through the Surface Sequence. Instead, the **Fly/Desat screen** (countdown timers) will be displayed continuously, giving the final countdowns from 22:00 and 9:59 (hr:min) to 0:00 (Fig. 40).

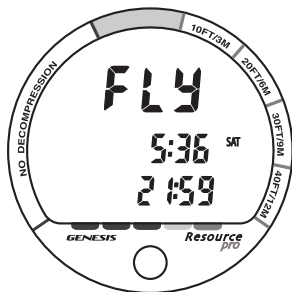


Fig. 40 - Fly/Desat

To access other modes or enter settings while in Fly/DeSat Mode:

- press the button to reactivate the Surface Sequence.
- The Fly/Desat screen will appear in the Sequence and again be the only screen displayed after 2 hours, if the button is not pressed.

SPECIAL SITUATIONS

CLEAR (RESET)

The Resource Pro is configured with a feature that allows calculations pertaining to a dive series in progress to be interrupted. Activation of this feature will delete all data accumulated during the dive series necessary for planning a next dive and should only be performed if the user plans to suspend diving for at least 24 hours.

This feature is present to provide institutional users of the computer a means to provide a "clean" computer to subsequent users without having to wait for the computer to complete all calculations in real time. This practice requires strict control to ensure that the "clean" computer is not used by a diver that has been diving within the preceding 24 hours. Failure to follow this practice could adversely affect the accuracy of subsequent calculations by failing to account for previous exposure to elevated nitrogen absorption.

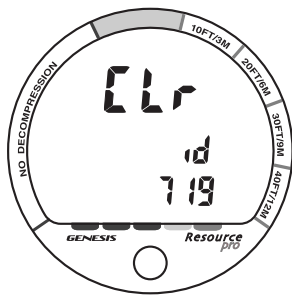


Fig. 41 - Clear



WARNING: Do not attempt to activate the CLEAR (Reset) function on your computer. Proper activation of this feature requires controlled procedures and is restricted to authorized personnel.



WARNING: Improper activation of this feature could expose the user to elevated risk of decompression sickness. This is a serious risk and could result in injury or death.



WARNING: If the CLEAR (Reset) screen appears (Fig. 41), cease all operation of the unit's button and wait until Surface Mode appears on the display (2 minutes). If the unit shuts Off completely, all calculations for repetitive dives will be cleared in which case you must wait at least 24 hours before resuming diving activity.

DECOMPRESSION

The Resource Pro is designed with capabilities that can help you to avoid and, if necessary, manage decompression.



WARNING: Adhere to all warnings and safety information provided.

NITROGEN BAR GRAPH (NIBG)

The NiBG offers you a convenient way to consistently monitor how close you are coming to the No Deco Limit. As you use the Resource Pro and become familiar with the NiBG, you will notice that it displays fewer segments for shorter dive times and shallower depths. Use this feature to adjust conservatism to your diving needs.



NOTE: Use the Caution Zone of the NiBG (Fig. 42a) as a visual reference to place a wider margin of protection between you and the No Deco Limits.

Genesis Scuba suggests keeping the NiBG in the No Deco zone during all of your dives, and that it always be in the No Deco zone when leaving the water.

DECOMPRESSION DIVE MODE

The Resource Pro is designed to help you by providing a representation of how close you are to entering Deco which activates when theoretical No Deco Limits are exceeded. In the event that you enter Deco, you should begin a safe controlled Ascent to a depth slightly deeper than, or equal to, the Deco Stop Depth indicated and decompress for the Stop Time indicated.

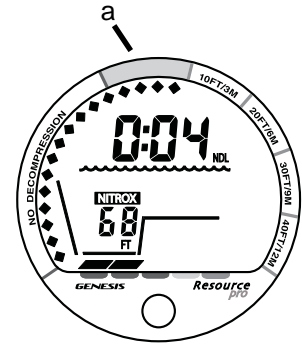


Fig. 42 - NiBG Caution Zone

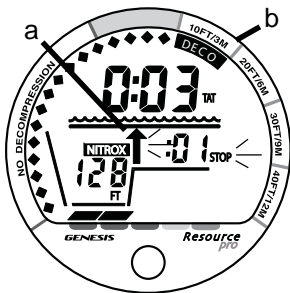


Fig. 43 - Deco Entry Main

Entry into Deco (Fig. 43)

Upon entering Deco, the Ceiling Bar and Up Arrow icons appear below the Wave icon as a warning (Fig. 43a), and the NiBG will display a segment next to the deepest Stop Depth required (Fig. 43b). Other information displayed on the Main includes -

- Total Ascent Time (hr:min) with TAT icon, time required at all Deco Stops plus vertical ascent time
- AIR (or NITROX) icon with Wave/Profile icons
- Current Depth with FT (or M) icon
- Stop Time required at that Stop Depth (:min) with STOP icon
- ARI, while ascending

- > The Up Arrow and STOP icons flash until you ascend to within 10 FT (3 M) below a Stop Depth, then they are solid.
- > If a Stop Depth of 50 FT (15 M) or 60 FT (18 M) is required, all segments of the NiBG will be displayed and the required Stop Depth will appear numerically in the lower/right portion of the screen (Fig. 44a).
- > To access ALT displays, press/release the button.
- > To activate the Backlight, depress the button for 2 seconds.

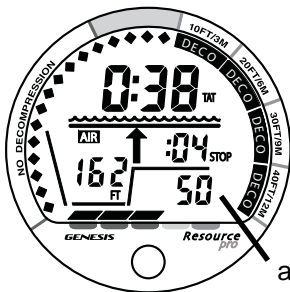


Fig. 44 - Stop > 40 FT (12 M)

MANAGING DECOMPRESSION STOPS

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

You should stay slightly deeper (Fig. 45a) than the required Stop Depth indicated (Fig. 45b) until the next shallower Stop Depth appears. Then, you can slowly ascend to, but not shallower than that indicated Stop Depth.



WARNING: You should not ascend shallower than the Stop Depth indicated. Doing so will greatly increase your risk of decompression sickness and place the Resource Pro into a Conditional Violation.

Once all required decompression has been completed, operation will revert to the No Deco Dive Mode (Fig. 46). This is indicated by NDL appearing = 0:01 in place of TAT, and the NiBG receding into the Caution Zone.



WARNING: If you exceed certain limits, the Resource Pro will not be able to provide information to help you to the surface. These situations exceed tested limits and can result in loss of some Resource Pro functions for 24 hours after the dive in which a Violation occurred. It is important to understand each different Violation Mode and how to carry out emergency procedures in the event that you enter one.

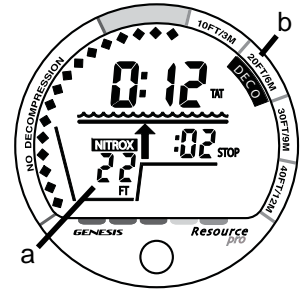


Fig. 45 - Deco Stop Main

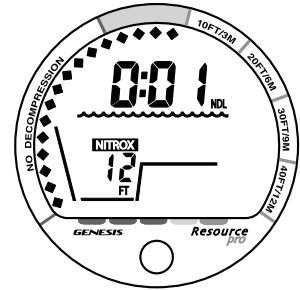


Fig. 46 - Deco Complete

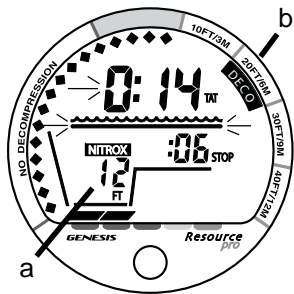


Fig. 47 - CV Main

CONDITIONAL VIOLATION (CV)

Operation will enter Conditional Violation if you ascend shallower than (Fig. 47a) the required Deco Stop Depth displayed (Fig. 47b).

The Up Arrow icon will disappear, and Total Ascent Time (TAT) and the Deco Stop Bar icon will flash until you descend below the required Stop Depth.

If you descend below the required Stop Depth before 5 minutes have elapsed, operation will continue to function in Deco Dive Mode. In this case, no off gassing credit will be given, and for each minute above the required Stop Depth $1\frac{1}{2}$ minutes of Penalty Time is added to required Stop Time and Total Ascent Time.

The added Penalty Time will have to be served before off gassing credit begins again. Once the Penalty Time is served and off gassing credit begins, required Stop Depths and Times will decrease toward zero, then the NiBG will recede into the No Deco Caution Zone and operation will revert to No Deco.

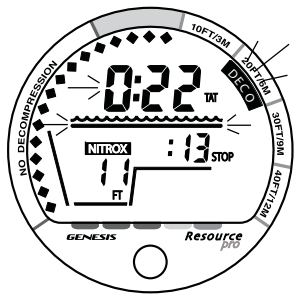


Fig. 48 - DV1 Main

DELAYED VIOLATION 1 (DV1)

If you remain above a required Deco Stop Depth for more than 5 minutes, operation will enter DV1, which is a continuation of CV.

Total Ascent Time (TAT), the Deco Stop Bar, and NiBG DECO segment, will flash (Fig. 48) until you descend below the required Stop Depth.

When DV1 activates, you would then need to follow the Stop Depths and Times toward the surface until the NiBG recedes into the No Deco Caution Zone.

DELAYED VIOLATION 2 (DV2)

If your Decompression requires a Stop Depth between 60 FT (18 M) and 70 FT (21 M), Total Ascent Time (TAT), Stop Bar, Up Arrow, and STOP icons, full NiBG, and graphic 60 (or 18) will flash (Fig. 49) until you descend below the required Stop Depth. One beep per second will sound.

You must ascend to just deeper than 60 FT (18 M), staying as close to 60 FT (18 M) as possible without causing TAT to flash. When the required Stop Depth indicates 50 FT (15 M), etc., you can ascend to those depths and continue decompressing.

The Resource Pro cannot accurately calculate Deco 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.

DELAYED VIOLATION 3 (DV3)

If you exceed the MOD (Max Operating Depth) of 330 FT (99.9 M), Dive Time Remaining and Current Depth will both display 3 dashes flashing as a warning (Fig. 50), and the Up Arrow icon will be displayed flashing.

Max Depth, O2SAT, and PO2 displays on ALT screens will also only indicate dashes until ascent is made to a depth shallower than the MOD.



Fig. 49 - DV2 Main

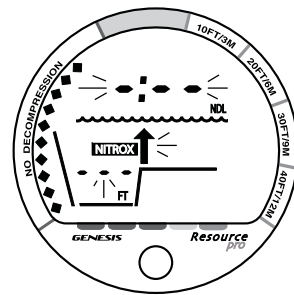


Fig. 50 - DV3 Main

Once you ascend above the MOD, the Current Depth display will be restored, however, Max Depth will only display 3 dashes (- - -) for the remainder of that dive. The Log for that dive will also only indicate dashes (- - -) as the Max Depth achieved.



WARNING: Special training, equipment, and support are necessary for diving deeper than the maximum recommended sport diving depth limit of 130 FT (40 M).

VIOLATION GAUGE MODE (VGM)



WARNING: The Resource Pro activates VGM when a situation totally exceeds its capacity to predict an ascent procedure. These dives represent gross excursions into decompression that are beyond the boundaries and intent of the Resource Pro design, and a Resource Pro should not be used for the dives.

If a Deco Stop Depth of 70 FT (21 M) or greater is required, VGM will be activated. This situation would be preceded by entering DV2.

The Resource Pro would then operate with limited functions without any decompression or oxygen monitoring functions. Depth, Bottom Time, and the ARI will be displayed, also the Up Arrow icon and full NiBG flashing as a warning (Fig. 51).

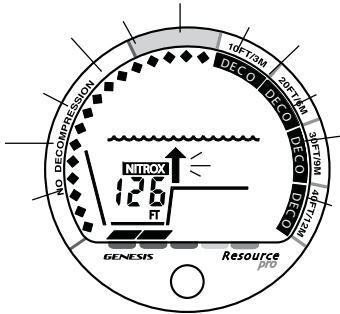


Fig. 51 - VGM Main

The Resource Pro will also activate VGM 5 minutes after surfacing from a dive in which a Delayed Violation occurred. The Surface Interval, Temperature, Dive #, and Time of Day will be displayed together with the full NiBG flashing (Fig. 52).

The countdown timer that appears when you access the Fly screen is only provided to inform you of the time remaining before normal operation can resume with full features and functions.

Entering VGM will result in loss of Deco and O2 functions for 24 hours after that dive. FO2 and Plan Mode will not be accessible. In the event that a dive is made during the 24 hour period, a full 24 hour surface interval must then be served before all functions are restored.

HIGH PO2

As depth increases during a dive, the partial pressure of oxygen (PO2) increases. When PO2 increases to within 0.20 (ATA) less than the alarm value set, the Up Arrow and PO2 icons appear on the Main display as a warning (Fig. 53a) until PO2 decreases below a value of 0.20 (ATA) less than the alarm value set.

If partial pressure of oxygen continues to increase, the value of PO2 will increase in increments of .01 (ATA) toward a maximum value of 5.00 (ATA).

When PO2 reaches the alarm Set Point, the Up Arrow and PO2 icons will flash as a warning. When PO2 decreases below the alarm Set Point, the flashing will stop.

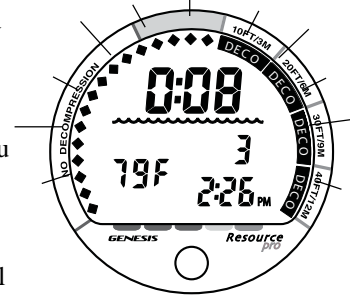


Fig. 52 - VGM (surface)

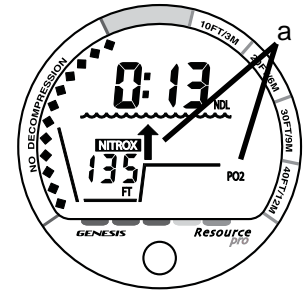


Fig. 53 - PO2 Warning

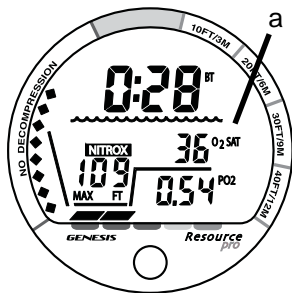


Fig. 54 - O2 SAT



WARNING: In the event that you enter High PO₂ mode, you must immediately focus on reducing the partial pressure of oxygen by slowly ascending to a shallower depth at a safe rate in accordance with your Nitrox training. If you continue the dive at your current depth, or descend deeper, your exposure to CNS oxygen toxicity will increase.

OXYGEN ACCUMULATION

It is important that you understand that conducting repetitive dives using enriched nitrogen-oxygen (Nitrox) mixtures can lead to increased oxygen saturation (O₂SAT) and the risk of pulmonary oxygen toxicity.

Genesis Scuba strongly recommends that you avoid exceeding oxygen exposure limits, and reminds you that Nitrox diving requires special training and understanding of the effects of oxygen toxicity.

During Nitrox dives, the current level of O₂ saturation (%) with O₂SAT icon is displayed on an ALT screen (Fig. 54a).

Displayed will be either the percentage (%) of oxygen accumulated during that dive, or during the repetitive dives you conducted during that 24 hour period, whichever of the two is calculated to be greater at that time.

If the calculated amount of O₂ saturation equals, or exceeds, 80% of the theoretical exposure limit of 300 OTU, the Up Arrow and O₂SAT icons appear on the Main dive display (Fig. 55a).

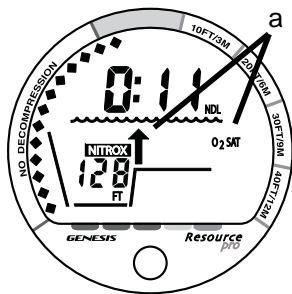


Fig. 55 - O2 Warning

If O₂ saturation continues to increase, the value (%) will increase in increments of 2 (%) toward the maximum allowed (300 OTU or 100%).

When O₂SAT reaches 100 (%), O₂ Dive Time Remaining (OTL) becomes zero (0:00) and the O₂SAT value (100) and Up Arrow icons will flash (Fig. 56) until O₂SAT decreases below 100% at which time O₂ Dive Time Remaining (OTL) will increase above zero (0:00).

You must immediately focus on making a safe controlled ascent to the surface to prevent further exposure. The Up Arrow icon will disappear upon surfacing. As your level of saturation decreases during your surface interval, the amount of calculated dive time available will increase.



WARNING: If you exceed the per dive allowable O₂ exposure limit, it is recommended that you allow a surface interval of at least 2 hours before reentering the water. If you exceed the allowable limit for a 24 hour period, you must allow a surface interval of at least 24 hours before reentering the water.

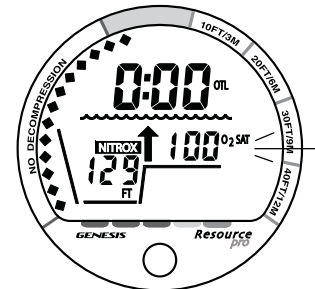


Fig. 56 - O₂ Alarm

UNEXPECTED LOSS OF DISPLAYED INFORMATION

While diving, if you find that any major piece of equipment is not functioning correctly, you must abort the dive immediately and surface slowly in a controlled manner.

If your Resource Pro stops working for any reason, it is important that you have anticipated this possibility and are prepared for it. **This is an important reason to avoid pushing the no decompression and oxygen tolerance limits, and a critical reason to avoid entering decompression.**

Regardless of your diving habits, Genesis Scuba advises you to dive with additional backup instrumentation that can provide the data necessary to properly surface if and when your primary instruments fail.

As with any other piece of equipment, unforeseen things can happen. By preparing ahead of time, you can spare yourself a great deal of frustration and disappointment. **If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your Resource Pro, an analog or digital backup system or use of standard air (or nitrox) tables is highly recommended.**





SPECIAL WARNINGS and ADDITIONAL SAFETY INFORMATION

There are few legitimate excuses for making unplanned Decompression dives, and the consequences of this type of diving can be severe. By making an unplanned Decompression dive without the necessary preparation and training, you will have placed yourself in an unnecessarily dangerous situation. Allow a surface interval of at least 24 hours before reentering the water in the event a dive requires emergency decompression.

By entering decompression, you automatically impose a ceiling above you which you cannot immediately ascend beyond, denying you free access to the surface.

Exiting the water with the Nitrogen Bar Graph in the DECO zone greatly increases the risk of decompression sickness, and may result in injury or death.

Existing data for making planned decompression dives is extremely limited, and virtually nonexistent for repetitive decompression diving. Decompression diving greatly increases your risk of decompression sickness.



SPECIAL WARNINGS and ADDITIONAL SAFETY INFORMATION

Decompression diving, or diving deeper than 130 FT (39 M), will greatly increase your risk of decompression sickness.

Genesis Scuba does not advocate diving to depths below 130 FT (39 M), the basis for which is purely theoretical.

It should not be considered that the capabilities built into the Resource Pro provide any implied approval or consent from Genesis Scuba for individuals to exceed the defined limits of recreational dive profiles, as agreed on by all internationally recognized training agencies.

The Resource Pro is not intended for use by military or commercial divers.

CARE, INSPECTION, and SERVICE

CARE AND CLEANING

The Resource Pro is a sensitive electronic instrument. Although it has been built to endure the rigors of diving, it still must be handled carefully to protect it from shock, excessive heat, chemical attack, and tampering. The housing is made of an impact resistant resin that is shock resistant but susceptible to scratches and attack by strong chemicals.



CAUTION: Never spray aerosols of any kind on, or near, the Resource Pro. The propellants may chemically attack the plastic.

Be careful not to leave it in an unsupervised, unprotected location where it might be damaged. Many dive computers (and dive trips) are ruined due to carelessly tossed weight belts or cylinders.

If the lens becomes scratched, Genesis Scuba can replace it, although small scratches will naturally disappear underwater. For even more convenience and additional protection against scratches, place a transparent Instrument Lens Protector on the gauge face. This can be purchased from your Authorized Genesis Scuba Dealer.

CLEANING

Soak and rinse the Resource Pro in fresh water following each day of diving, preferably after each dive, and ensure that it is free of any debris or obstructions that would block the sensors. If possible, use lukewarm water to dissolve any salt crystals. Salt deposits can also be dissolved using a 50% vinegar/50% fresh water bath. Towel dry before storing, and transport your Resource Pro cool, dry, and protected.



CAUTION: Never, under any circumstances, poke any object through any slots or holes on the rear side of the Resource Pro. Doing so may damage the Depth Sensor, possibly resulting in erroneous depth and/or dive time remaining displays.

ANNUAL INSPECTIONS AND SERVICE

Your Resource Pro should be inspected annually by an Authorized Genesis Scuba 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). The original sales receipt and owner's portion of the Warranty Registration Card must be presented at the time of service. It is recommended that you have this inspection performed even after the warranty period has expired to ensure your Resource Pro is working properly.

A service record is provided in the back of this manual for your convenience. It should be signed by the Authorized Genesis Dealer service technician after each annual inspection or factory service. The costs of annual inspections are not covered under the terms of the 2 year limited warranty.



WARNING: If you are in doubt about the accuracy of your Resource Pro's depth readings, DO NOT attempt to dive with it until it has been inspected by an Authorized Genesis Scuba Dealer.

The facility conducting the depth check must have a pressure test chamber that is capable of pressurizing the Resource Pro to its maximum operating depth (330 FT/99.9 M). Also, the test gauge on the pressure test chamber must be as accurate as the Depth Sensor in the Resource Pro ($\pm 1\%$ of full scale).



CAUTION: Never pressure test the Resource Pro in an air environment. Doing so may damage the Depth Sensor; possibly resulting in erroneous depth or time readings.

It is possible to damage the Resource Pro Depth Sensor if it is not pressure tested properly. The Resource Pro must be placed completely underwater when being pressure tested to protect the Depth Sensor.

BATTERY LIFE

Battery consumption rate varies throughout periods of operation, which begin upon activation and continue for 24 hours after surfacing from a dive. The exact number of dives, or hours of operation, that you will obtain is subject to variables, such as, temperature, the number of dives conducted during each operational period, and the frequency and duration that the backlight is used (excessive use will reduce battery life).

Tests and calculations indicate that a new CR2450 Lithium battery will maintain unit operation for approximately 300 hours or -

- 150 dives, if 1 - 1 hour dive per activation period to over -
- 300 dive hours, if 2 or more 1 hour dives per activation period

LOW BATTERY CONDITION

During operation, voltage level is checked every second while on the surface. You will be alerted to a Low Battery condition by a Battery icon appearing on the Surface display (Fig. 57a).

Upon decreasing to a voltage level that will not maintain proper unit operation, the icon will flash for 5 seconds followed by shutdown of the unit.

If the Resource Pro did not display the Low Battery icon prior to entering the Dive mode, and a Low Battery condition occurs during a dive, there will be sufficient battery power to maintain operation for the remainder of that dive, however the Backlight will be disabled. You will be alerted by the Battery icon being displayed upon surfacing.

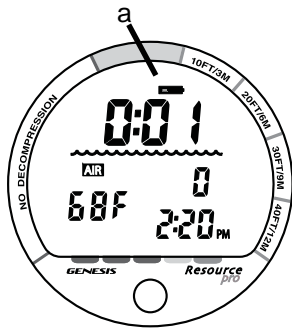


Fig. 57 - Low Battery



NOTE: Genesis Scuba strongly advises that you replace the Battery and **DO NOT** attempt to dive when the Battery icon remains on the display, and that you replace the Battery with a new one prior to any multi day dive trip.

BATTERY REPLACEMENT PROCEDURES

MODULE REMOVAL FROM BOOT

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

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



CAUTION: The procedure that follows must be closely adhered to. Damage due to improper battery replacement is not covered by the Resource Pro's limited 2 year warranty.



BATTERY REPLACEMENT

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

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 Button, Lens, and Housing to ensure they are not cracked or damaged.
- If there is any sign of moisture in the module, **DO NOT** use the Resource Pro until it receives proper service by an Authorized Genesis Scuba Dealer.



WARNING: If damage, moisture, or corrosion is found, it is recommended that you return your Resource Pro to an Authorized Genesis Scuba Dealer, and **DO NOT** attempt to use it until it has received factory prescribed service.



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



Battery Hatch Removal

- Locate the Battery Compartment on the back of the module.
- While applying steady inward pressure on the center of the Battery Hatch, rotate the Hatch Retaining Ring 10 degrees clockwise by pressing against the upper tab of the Retaining Ring with a small blade screwdriver (Fig. 58).
- Lift the Hatch Ring up and away from the Housing, or turn the module over to allow the Ring to drop out into your hand.
- Remove the Battery Hatch.

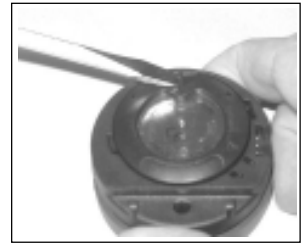


Fig. 58 - Hatch Ring Removal

Battery Removal

- Remove the Retaining Bar located across the lower portion of the Battery (Fig. 60a).
- Remove the Hatch O-ring. **DO NOT** use tools
- Using care not to damage the Battery Contacts (Fig. 59b/c), slide the Battery up and out of the Battery Compartment.

Inspection

- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.
- If it is necessary to clean the Battery Compartment, flush 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').

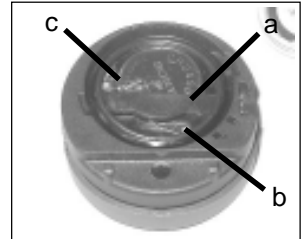


Fig. 59 - Battery Compartment

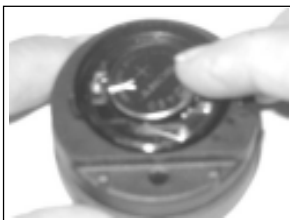


Fig. 60 - Battery Insertion



Fig. 61 - Retaining Bar



Fig. 62 - Retaining Ring



WARNING: If damage or corrosion is found in the Battery Compartment, return your Resource Pro to an Authorized Genesis Scuba Dealer, and **DO NOT** attempt to use it until it has received factory prescribed service.

Battery Installation

- Slide a new 3 volt type CR2450 Lithium Battery, negative (-) side down into the Battery Cavity. Slide it in from the right side and ensure that it slides under the contact clip on the left rim of the cavity (Fig. 60).
- Orient the Retaining Bar across the lower portion of the Battery and carefully push it down into position (Fig. 61).

Battery Hatch and Hatch Retaining Ring Installation

- Replace the Hatch O-ring with a new one. This O-ring must be a genuine Genesis Scuba part that can be purchased from an Authorized Genesis Scuba Dealer. Use of any other O-ring will void the warranty.
- Lightly lubricate the **new** Hatch O-ring with silicone grease and place it on the inner rim of the Battery Hatch. Ensure that it is evenly seated.
- Slide the Hatch Retaining Ring, top portion first (small opening), onto your thumb (Fig. 62).
- Carefully place the Battery Hatch (with O-ring) into position on the rim of the Battery Compartment, then press it evenly and completely down into place with your same thumb.
- Maintain the Battery Hatch securely in place and, using your other hand, slide the Retaining Ring down off your thumb and into position around the Battery Compartment.
- The tabs on the Retaining Ring fit down into the two slots located at the 2 and 8 o'clock positions.

- Using your fingers, turn the Ring counter clockwise 5 degrees until the tabs engage (Fig. 50), then tighten it 5 more degrees by turning it counter clockwise with the aide of a small blade screwdriver (Fig. 63).

N **NOTE:** While tightening (turning) the Retaining Ring, exert continuous inward pressure on it until it is secured in the proper position. A small symbol located on the Ring should be aligned with the Locked symbol located on the Housing (Fig. 64 a/b)

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.

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

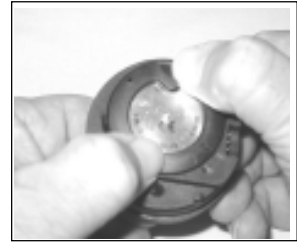


Fig. 63 - Retaining Ring Tabs

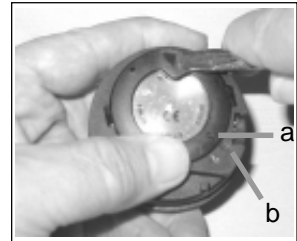


Fig. 64 - Securing the Retaining Ring

RETURNING THE MODULE TO BOOT

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



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



WARNING: If the Resource Pro is installed in a Boot that does not have the side opening where the side Wet Activation Contact is located, the unit may not activate automatically upon descending on a dive.

REFERENCE

DIVE TIME REMAINING (DTR)

One of the most important pieces of information on the Resource Pro is the patented Dive Time Remaining numeric display. To numerically display Dive Time Remaining, the Resource Pro constantly monitors no decompression status.

This unique feature has been granted U.S. Patent No. 4,586,136.

No Deco DTR 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 12 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 of the 12 is closest to this maximum level is the controlling compartment for that depth. Its resulting value will be displayed numerically with the NDL icon (Fig. 65a) and graphically as the NiBG.

As you ascend from depth following a dive that has approached the No Deco Limit, the NiBG 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 the Resource Pro offers.

The decompression algorithm is based upon Haldane's theory using maximum allowable nitrogen levels developed by Merrill Spencer. Repetitive diving control is based upon experiments designed and conducted by Dr. Ray Rogers and Dr. Michael Powell in 1987. Diving Science and Technology® (DSAT), a corporate affiliate of PADI®, commissioned these experiments.

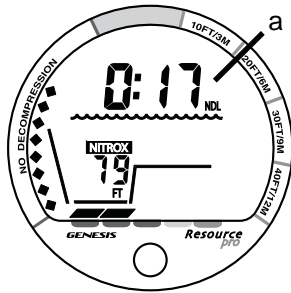


Fig. 65 - No Deco DTR

As oxygen accumulation increases during a nitrox dive, DTR decreases before reaching the O₂ saturation limit for that dive, or 24 hour period.

When O₂ time becomes less than the NDL, calculations for the current depth will be controlled by oxygen. Oxygen Time Remaining will then appear as DTR with the OTL icon (Fig. 66a).

ALTITUDE

Atmospheric pressure decreases as Altitude increases above sea level. Weather systems and ambient temperature also affect barometric pressures. Consequently, depth reading instruments that do not compensate for the decrease in ambient pressure indicate depth readings shallower than actual depth. The Resource Pro automatically compensates for decreased ambient pressures for Altitudes between 3,001 feet (916 meters) and 14,000 feet (4,270 meters). Its program reduces No Deco and O₂ limits to add a larger zone of caution.

The Resource Pro senses ambient pressure when it is manually activated, every 15 minutes while it is activated, or every 30 minutes when it is not activated. Beginning at 3,001 feet (916 meters), then at additional intervals of 1,000 feet (305 meters), it will automatically recalibrate depth measurements and the No Deco and O₂ limits. When returning to lower Altitudes, diving should not be conducted until the unit automatically clears of any residual nitrogen and oxygen loading and resets to operate at the new lower Altitude.

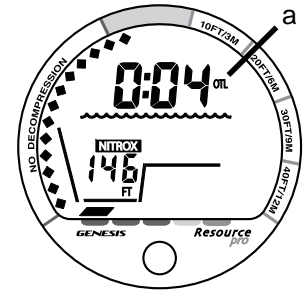


Fig. 66 - O₂ DTR



WARNING: Diving at high altitude requires special knowledge of the variations imposed upon divers, their activities, and their equipment by the decrease in atmospheric pressures. Genesis Scuba recommends completion of a specialized Altitude training course by a recognized training agency prior to diving in high altitude lakes or rivers.

FLYING AFTER DIVING

In 1990 the Undersea and Hyperbaric Medical Society (UHMS) published a set of guidelines aimed at minimizing the possibility of decompression sickness due to flying too soon after diving. The UHMS suggests* that divers using standard air cylinders and exhibiting no symptoms of decompression sickness wait 24 hours after their last dive to fly in aircraft with cabin pressures up to 8,000 feet. (2,440 meters).

** excerpted from "The UHMS Flying After Diving Workshop"*

The two exceptions to UHMS's recommendation are:

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

Since the 1990 UHMS guidelines were introduced, data from the Diver's Alert Network (DAN) was introduced that resulted in DAN's position** that "A minimum surface interval of only 12 hours would be required in order to be reasonably assured a diver will remain symptom free upon ascent to altitude in a commercial jet airliner (altitude up to 8,000 feet/2,440 meters). Divers who plan to make daily, multiple dives for several days, or make dives that require decompression stops, should take special precautions and wait for an extended surface interval beyond 12 hours before flight".

Both the UHMS and DAN agree that "There can never be a flying after diving rule that is guaranteed to prevent decompression sickness completely. Rather, there can be a guideline that represents the best estimate for a conservative . . . surface interval for the vast majority of divers. There will always be an occasional diver whose physiological makeup or special diving circumstances will result in the bends".

*** excerpted from "DAN's Position on Recreational Flying After Diving"*

NITROX DIVING

Both central nervous system (CNS) oxygen toxicity and pulmonary oxygen toxicity were taken into consideration when the maximum durations (see chart) for a Single Exposure and for Any 24 Hour Day were published by in the October 1991 NOAA Diving Manual. Although CNS oxygen toxicity is considered the primary constraint for higher levels of partial pressure of oxygen (PO₂), there are circumstances in which pulmonary oxygen toxicity can limit exposures.

CNS oxygen toxicity is not considered likely at PO₂ levels below 1.30 ATA. It is, however, related to diver's work level. **Performing strenuous tasks could cause the symptoms of O₂ poisoning at PO₂ levels lower than they normally would appear during casual diving.**



WARNING: In the event that you exceed the maximum limit of per dive allowable O₂, it is recommended that you allow at least 2 hours at a normoxic PO₂ before diving again. If you have reached the Maximum Total 24 hour Day Limits, you must spend at least 12 hours at a normoxic PO₂ before diving again (you should allow a surface interval of at least 24 hours before reentering the water).



WARNING: Diving with Nitrox mixtures requires special knowledge of the variations imposed upon divers, their activities, and their equipment by the increased percentage of O₂. Genesis Scuba recommends completion of a specialized Nitrox training course by a recognized training agency prior to diving with any Nitrox mixtures.

PO ₂ (ATA)	Maximum Exposure Time	
	Per Dive (Min)	Per 24 hr (Min)
0.60	720	720
0.70	570	570
0.80	450	450
0.90	360	360
1.00	300	300
1.10	240	270
1.20	210	240
1.30	180	210
1.40	150	180
1.50	120	180
1.60	45	150

NOAA O₂ Limits

MULTIPLE TISSUE TRACKING

The Resource Pro tracks 12 tissue compartments with halftimes ranging from 5 to 480 minutes. The NiBG always displays the controlling compartment that is the only one important at that time.

Think of the NiBG as transparent displays laid on top of one another. The tissue compartment that has filled up fastest is the only one that can be seen from the top.

At any particular point, one tissue compartment may be absorbing nitrogen, while another that was previously higher may be off gassing. One compartment hands over control to another compartment at a different depth. **This feature of the Decompression Model is the basis of multilevel diving, one of the most important contributions the Resource Pro offers you.** Take advantage of this feature and make all of your dives multilevel dives.

REPETITIVE DECOMPRESSION DIVING

The decompression model used by the Resource Pro is based on the no decompression multilevel repetitive dive schedules successfully tested by Dr. Ray Rogers and Dr. Michael Powell.

These tests did not include repetitive dives deeper than 90 FT (27 M) or decompression dives.

Due to the present unavailability of statistical data, the Resource Pro's decompression predictions are based on U.S. Navy theory. Therefore, pay special attention to the following warnings.

**WARNINGS:**

The decompression capabilities of the Resource Pro are intended for emergency use. Decompression diving is inherently hazardous and greatly increases your risk of decompression sickness, even when performed according to the computer's calculations. In the event that you must make an emergency decompression, you must not make another dive for at least 24 hours.

Using the Resource Pro, just as using the U.S. Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."

Genesis Scuba advocates responsible diving practices and does not recommend decompression diving, or diving below 130 FT (39 M).

NO DECOMPRESSION LIMITS (NDLS)

Note how the NDLS for the Resource Pro compare with the U.S. Navy limits (see chart). For most depths, the Resource Pro provides somewhat less times than the U.S. Navy Tables. However, while the No Decompression Limits may be less, you will receive increased allowable Bottom Times as you take advantage of the multilevel dive capabilities offered by the Resource Pro.

CONCLUSION

The Resource Pro is an informational tool whose entire worth depends on using it correctly. **Learn how to use it and use it wisely.** Have fun with the Resource Pro, and **thank you for being a responsible diver!**

Resource Pro	U.S.N.	
Depth	NDL-mins.	NDL
feet (meters)	Eng (Metric)	mins.
30 (9)	260 (283)	---
35	---	310
40 (12)	137 (144)	200
50 (15)	81 (85)	100
60 (18)	57 (59)	60
70 (21)	40 (41)	50
80 (24)	30 (32)	40
90 (27)	24 (25)	30
100 (30)	19 (20)	25
110 (33)	16 (17)	20
120 (36)	13 (14)	15
130 (39)	11 (11)	10
140 (42)	9 (9)	10
150 (45)	8 (8)	5
160 (48)	7 (7)	5
170 (51)	7 (6)	5
180 (54)	6 (6)	5
190 (57)	5 (5)	---

NDL Comparison

**DSAT NDLS (HR:MIN) AT ALTITUDE
(IMPERIAL)**

Altitude 0 (feet)	3001 to 3000	4001 to 4000	5001 to 5000	6001 to 6000	7001 to 7000	8001 to 8000	9001 to 9000	10001 to 10000	11001 to 11000	12001 to 12000	13001 to 13000	14001 to 14000
Depth (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	0:08	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

**DSAT NDLS (HR:MIN) AT ALTITUDE
(METRIC)**

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 (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

SPECIFICATIONS

NO DECOMPRESSION MODEL

Basis:

- Modified Haldanean Algorithm
- 12 tissue compartments

Data Base:

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

Performance:

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

Decompression Capabilities:

- Decompression stop depths at 10, 20, 30, 40, 50, & 60 FT (3, 6, 9, 12, 15, & 18 M)

Altitude Algorithm:

- Based on NOAA tables

Oxygen Exposure Limits:

- Based on NOAA tables

OPERATIONAL MODES

- Activation >> Diagnostic >> SN
- Surface Main >> Fly/Desat >> Plan

- Surf ALT >> Log >> Clear
- Set -
 - >> PO2 Alarm
 - >> FO2
 - >> FO2 Default
 - >> Wet Activation
 - >> Units
 - >> Hour Format,
 - >> Time of Day
 - >> Deep Stop
- No Deco Dive
- No Deco Deep Stop
- No Deco Safety Stop
- Decompression
- Conditional Violation
- Delayed Violation (1, 2, 3)
- Violation Gauge Mode
- High PO2
- High O2

SPECIFICATIONS (continued)

DISPLAY RANGE/RESOLUTION

Numeric Displays:	Range:	Resolution:
• Dive Number	0 - 50	1
• Depth	0 - 330 FT (0 - 99.9 M)	1 FT (.1 M)
• Maximum Depth	330 FT (99.9 M)	1 FT (.1 M)
• Dive Time Remaining	0 - 9:59 (hr:min)	1 min
• Total Ascent Time	0 - 9:59 (hr:min)	1 min
• Deco Stop Time	0 - 99 min. (per depth)	1 min
• Elapsed Dive Time	0 - 9:59 (hr:min)	1 min
• Surface Time	0 - 23:59 (hr:min)	1 min
• Dive Log Surface Interval	0 - 23:59 (hr:min)	1 min
• Time to Fly	0 - 23:50 (hr:min)* (* starting 10 min. after the dive)	1 min
• Time to Desaturate	0 - 9:59 (hr:min)* (* starting 10 min. after the dive)	1 min

Special Displays:	Occurrence
• Diagnostic Display	Activation
• Out of Range (- - -)	> 330 FT (99.9 M)
• Gauge Mode Countdown	24:00 - 0:00 hr:min (after Violation)

BARGRAPHS

NiBG:	segments
No Deco zone	13
No Deco Caution zone	3
Deco Warning zone	4

ARI:

	At depths of 60 FT (18 M) and shallower		
	segments	FPM	MPM
	0	0 - 10	0 - 3
Normal zone	1	11 - 15	3.5 - 4.5
Caution zone	2	16 - 20	5 - 6
	3	21 - 25	6.5 - 7.5
	4	26 - 30	8 - 9
Too Fast (all flashing)	5	> 30	> 9

	At depths deeper than 60 FT (18 M)		
	segments	FPM	MPM
	0	0 - 20	0 - 6
Normal zone	1	21 - 30	6.5 - 9
Caution zone	2	31 - 40	9.5 - 12
	3	41 - 50	12.5 - 15
	4	51 - 60	15.5 - 18
Too Fast (all flashing)	5	> 60	> 18

SPECIFICATIONS (continued)

OPERATIONAL PERFORMANCE

Function:

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

Dive Counter:

- Displays Dives #1 to 50
- Displays #1 for 51st dive of an activation period
- Resets to Dive #1 upon reactivation

Dive Log Mode:

- Stores 50 most recent dives in memory for viewing
- After 50 dives, the 51st dive is added, overwriting the oldest

Altitude:

- Operational to 14,000 feet (4,270 meters) elevation
- Sampling of ambient pressure every 30/15 minutes
- Recalibration of depth readings at 1,000 feet (305 m) intervals beginning at 3,001 feet (916 m) elevation

Power:

- Battery 1 - 3 volt CR2450, Lithium
- Shelf life Up to 5 years
- Replacement User replaceable (yearly is recommended)
- Life expectancy 150 dive hr (if 1 - 1 hr dive per activation period)
300 dive hr (if 2 or more 1 hr dives per period)

Activation:

- Manual - push button (recommended)
- Automatic - by wet contacts (if set On)
- Cannot be activated deeper than 5 FT (1.5 M) - if Wet Activation is set Off
- Cannot be activated at elevations higher than 14,000 feet (4,270 m)

Shutoff:

- Automatically shuts off if no dive is made within 2 hours after initial activation.
- Automatically shuts off 24 hours after the last dive (will reactivate if the Wet Activation feature is set On and the contacts are wet).
- Cannot be shut off manually.

SETTING FO2

- Automatically set for AIR upon activation
- Remains set for AIR unless an FO2 numerical value is set
- Nitrox Set Points from 21 to 50 (%)
- If set for 21%, remains set for 21% until changed
- If set for >21%, reverts to 50% 10 minutes after the dive (if the FO2 50% Default is set On). The previous FO2 value set will be retained, if the FO2 50% Default is set Off.

GLOSSARY

- Air Dive** - A dive conducted using AIR (approximately 21% oxygen & 79% nitrogen) as the breathing gas.
- Algorithm** - A step-by-step mathematical formula designed to accomplish a particular result (i.e. Dive Time Remaining in the Resource Pro).
- Altitude Dive** - A dive made at an elevation above sea level (> 3,000 feet) where no decompression limits are adjusted.
- Ascent Rate** - The speed that a diver ascends toward the surface.
- Ascent Rate Indicator** - A graphic representation of vertical ascent rate (speed) displayed alongside a color coded indicator.
- Boot** - A protective rubber covering that surrounds an instrument module.
- Bottom Time** - The total time spent underwater during a dive between 5 FT (1.5 M) on initial descent to 2 FT (0.6 M) on final ascent.
- BT** - Abbreviation for Bottom Time (Elapsed Dive Time).
- Caution Zone** - The section of a bar graph that gives visual warning of a diver's proximity to projected limits.
- Ceiling** - See decompression ceiling.
- Clean Dive** - A dive preceded by 24 hours of no diving activity.
- Competitive Dive** - A dive conducted for profit or prize.
- Compartment** - A term applied to the hypothetical modeling of nitrogen absorption in the tissues (more accurate than the term "tissue" because dive computer models have no direct relation to human tissues).
- CNS** - Abbreviation for the Central Nervous System of the body.
- DCS** - Abbreviation for decompression sickness (i.e., the bends).
- DECO** - Abbreviation for Decompression.
- Decompression Ceiling** - The shallowest depth a diver may reach upon ascent without risking DCS.
- Decompression Stop** - The depth(s) at which a diver must pause during ascent to allow absorbed nitrogen to escape naturally from the tissues.
- Depth Sensor** - An electromechanical device that converts water pressure into an electrical signal, that is converted to a visual depth display.
- Diagnostic Mode** - The first display seen on Genesis Scuba dive computers after initial activation during which time a self check for internal faults and battery voltage is performed.
- Display** - A visual readout of information.
- Dive Time Remaining** - A display of time allowed before a diver must surface based on decompression status or oxygen saturation.
- FO2** - The fraction (percent / 100) of oxygen (O₂) in the breathing gas mixture.
- Hydroglow** - A Genesis Scuba term for an instrument backlight feature.
- LCD** - Abbreviation for liquid crystal display, an easily viewed low voltage display usually found on dive computers
- Log Mode** - A computer display of previous dive information.

GLOSSARY (continued)

Maximum Depth - The deepest depth attained during a dive.

Mode - A specific set of functions in a dive computer.

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

NDL - Abbreviation for No Decompression Limit.

Nitrogen Bar Graph - A graphic display of simulated nitrogen absorption.

Nitrox - A nitrogen-oxygen breathing gas mixture that contains a higher fraction of oxygen than air.

Nitrox Dive - A dive conducted using nitrox (22 to 50 % O₂) as the breathing gas.

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

No Decompression Limit - The amount of dive time remaining based on no decompression status.

O₂SAT - Abbreviation for oxygen saturation.

OTL - Abbreviation for oxygen tolerance limit.

Out of Range - The point at which a dive computer can no longer supply correct dive information.

Oxygen Tolerance Limit - The amount of dive time remaining based on exposure to elevated levels of oxygen.

Oxygen Toxicity - The adverse physiological affects of exposure to elevated levels of oxygen.

Partial Pressure - The proportion of the total pressure contributed by a single gas in a mixture of gases.

Plan Mode - An accessible sequential display of available dive times at 10 FT (3 M) intervals from 30 to 190 FT (9 to 57 M) used when dive planning.

PO₂ - Partial pressure of oxygen. The proportion of total pressure of a gas mixture contributed by oxygen.

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

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

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

Symbol - a small pictorial representation of an operational mode or informational display.

Tissue - See Compartment.

Tissue Compartment - See Compartment.

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

Transition Period - The first 10 minutes of surface time after ascending to 2 FT (0.6 M).

NOTES

INSPECTION / SERVICE RECORD

SERIAL NUMBER _____

DATE OF PURCHASE _____

PURCHASED FROM (DEALER) _____



BELOW TO BE FILLED IN BY AN AUTHORIZED GENESIS SCUBA DEALER:

DATE	INSPECTION / SERVICE PERFORMED	DEALER/TECHNICIAN



www.GenesisScuba.com

Authorized GENESIS Scuba dealers are equipped to provide you with the service you need including technical service, repair and returns. Should you need to return a product under warranty, please provide your GENESIS dealer with the item along with your sales receipt.

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Doc. No. 12-2973-r01 (2/10/09)