

# NiTek He Owners Manual

*NiTek® is a registered trademark of Lamartek, Inc., dba Dive rite*



## **WARNING**

Read this manual, *in its entirety*, before using your NiTek He. Failure to follow the instructions it gives, or to heed the warnings it provides, can lead to *serious personal injury or death*.



# Dive Rite

175 NW Washington Street • Lake City, FL 32055 • USA • Phone (386) 752-1087  
Fax (386) 755-0613 • [www.diverite.com](http://www.diverite.com) • E-mail: [support@diverite.com](mailto:support@diverite.com)

## NiTek<sup>1</sup>/NiTek He Limited Warranty

- ▶ Dive Rite will—*at its sole discretion*—repair or replace NiTek system components proved to be damaged by faulty manufacture or material, at no cost, for a period of up to one year (365 days) from the date of purchase.
- ▶ This warranty applies only to the original retail purchaser. It does not cover commercial or rental use, nor does it extend to units purchased from other than an authorized Dive Rite dealer.
- ▶ This warranty specifically excludes battery depletion or other conditions resulting from misuse, negligence, alteration, accident or unauthorized disassembly.
- ▶ To make a claim under this warranty, the owner must have either completed and returned the Warranty Registration card at the time of purchase, or registered his/her warranty using Dive Rite's website ([www.diverite.com](http://www.diverite.com)). He or she must then return the damaged items to Dive Rite, along with a copy of the original purchase invoice or receipt. No warranty service will be performed for other than registered owners.
- ▶ This warranty becomes void if the NiTek system components are damaged by anything other than normal recreational diving use, or if they have been serviced or repaired by other than authorized Dive Rite dealers.
- ▶ Repairs made under this warranty will not extend the warranty period.
- ▶ All further claims, especially for damage after diving accidents, are excluded from coverage under this warranty.
- ▶ Dive Rite has no obligation to honor any extension of this warranty.

# Table of Contents

<b>Introduction.....</b>	<b>4</b>
Common Sense Warnings.....	4
<b>Using the NiTek.....</b>	<b>6</b>
Surface Mode.....	6
Date/Time Set Mode .....	11
Dive Set Mode.....	11
Plan Mode .....	14
Log Mode.....	14
Profile Mode .....	16
Transfer (Upload) Mode .....	16
Dive Mode.....	17
<b>Additional Cautions and Warnings .....</b>	<b>24</b>
General Handling.....	24
Battery.....	25
While Diving.....	25
<b>Care and Maintenance .....</b>	<b>25</b>

# Introduction

This information has been developed for your safety. Please read and understand this manual completely before using your NiTek He dive computer.

## **IMPORTANT**

This manual contains important safety and maintenance information. Read this manual thoroughly and become familiar with all of your scuba equipment before diving.

Important information regarding the use or maintenance of your dive computer is designated, throughout this manual, by the important symbol appearing above. This manual also uses several signal words to designate hazards with various levels of seriousness. These are:

## **WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in damage to or loss of equipment, serious personal injury or death.

## **CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## Common Sense Warnings

There are certain limitations and restrictions of which you must be aware, and certain precautions you must take, when using your NiTek He.



## **WARNING**

Before using your NiTek He, it is extremely important you read the following points—as well as similar warning and caution notices that appear throughout this manual—and follow the recommendations they provide. Failure to do so could result in *damage to or loss of equipment, serious personal injury or death.*

- ▶ The NiTek He is designed for use by certified divers who have maintained a sufficient level of knowledge and skill proficiency through a combination of formal training, ongoing study and experience. It is not intended for use by persons who lack these qualifications and, thus, may not be able to identify, assess and manage the risks scuba diving entails. Use of the NiTek He in conjunction with Nitrox or Trimix further requires that divers be trained and certified for the use of these mixtures.
- ▶ The NiTek He is not intended for use by commercial or military divers, whose activities may take them beyond the commonly accepted depth limits for recreational or technical diving.
- ▶ Although the NiTek He is capable of calculating decompression stop requirements, users must remember that dives requiring mandatory stage decompression carry substantially greater risk than dives made well within no-decompression limits.
- ▶ The NiTek He is designed to be used by only one diver at a time. Divers should not share a single NiTek He—or any other dive computer—on the same dive. Additionally, no diver should lend his or her NiTek He to anyone else until it calculates that no measurable residual inert gas remains after previous dives, and no longer displays the “Desaturation Time” indicator while in Surface Mode. Further, no diver should use his or her NiTek He for repetitive dives—unless that same *properly functioning* NiTek He has accompanied him or her on all previous dives in the same repetitive dive series and is, thus, accurately monitoring the diver's total exposure to oxygen, helium and nitrogen.
- ▶ Neither the NiTek He—*nor any other dive computer*—physically measures the amount of inert gas present in body tissues, or the rate at which this gas is being absorbed or released. Instead, the NiTek He monitors depth and time, and uses this data to work a mathematical formula designed to emulate how individuals in good general health and whose physical characteristics do not place them among those at higher risk of decompression illness are assumed to absorb and release inert gas from body tissues. Thus, the NiTek He cannot compensate for factors such as age, obe-

sity, dehydration, cold or exertion, which experts believe place divers at greater risk of DCI. If these, or similar factors apply to you, use the NiTek He—and other dive computers or dive tables—with even greater caution.

- Experts still know surprisingly little regarding the exact nature and causes of decompression illness (also known as decompression sickness, DCI or DCS). Susceptibility to DCI may vary substantially from person to person and from day to day. Neither the NiTek He—nor any other dive table or computer—can guarantee that you will not suffer decompression illness. Even though you use these items correctly, you may still suffer DCI. Use your NiTek He conservatively, and in conjunction with other dive planning devices, such as dive tables. *Do not rely on the NiTek He, or any similar device, as your sole means of avoiding decompression illness.*

## Using Your NiTek He

The NiTek He is capable of presenting far more data than can fit in a single display screen. Thus, to help avoid confusion, it presents only that data which is relevant to a particular situation. These different data screens are called *display modes*.

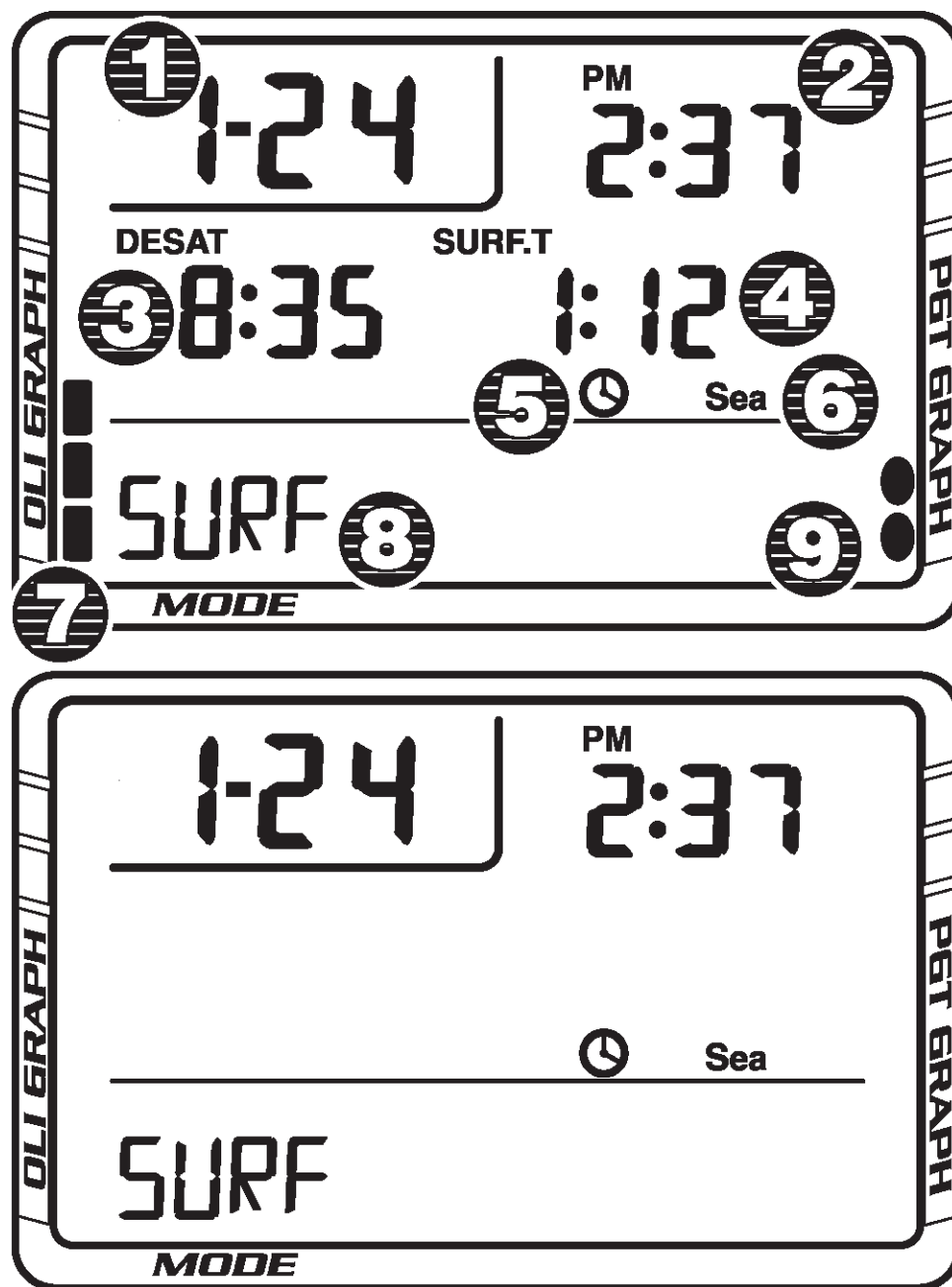
The NiTek He will enter its Surface and Dive modes automatically. To access other display modes, you must push the orange buttons on the NiTek He's face. These are the **A** and **B** buttons.

The accompanying flow chart will tell you which buttons to push, and in which sequence, to access a particular display mode. (Note that you cannot enter any mode other than Surface mode within ten minutes of surfacing.)

Gauge mode is a state in which the NiTek He tracks depth, time and temperature data, but does not compute the effect of exposure to elevated levels of oxygen, helium and nitrogen. While in this mode, the word GAGE appears above the mode indicator. This is the mode you would choose to use if diving below 394 feet/120 meters (past which the NiTek He cannot function as a dive computer), and using dive tables as your primary dive planning and inert gas exposure tool. In Gauge mode the NiTek He will function to a depth of 656 feet/200 meters. How to switch from dive computer mode to Gauge mode is shown on the flow chart.

### Surface Mode

Surface mode is the NiTek He's default mode. The computer returns to this mode automatically upon surfacing from Dive mode, and from other display modes after two to three minutes of inactivity. You can also access Surface mode from other display modes by holding button **A** for two to three seconds.



**Figure 1** Surface Mode. The top display is how the computer appears when it calculates that there is still residual inert gas remaining in the user's body following a dive. The bottom display is how the computer appears when at least 48 hours have passed following a dive. Items appearing include: 1) Date; 2) Time; 3) Desaturation Time; 4) Surface Interval; 5) Alarm symbol; 6) Fresh/Salt symbol; 7) Oxygen Limit Index (OLI); 8) Mode indicator; 9) PGT (Pressure of Gas in Tissue) graph.

- The format the NiTek He uses to display dates is MONTH:DAY.
- The NiTek He can display time in either a 12- or 24-hour format.
- If your NiTek He calculates that there is residual inert gas present from previous dives, it will display a value for Desaturation Time (DESAT.). This represents the amount of time, expressed in HOURS: MINUTES, that the NiTek He calculates must pass before inert gas levels drop to the point where subsequent dives may

be treated as single (non-repetitive) dives. Please note that this is not the same as “Time to Fly.”

## **WARNING**

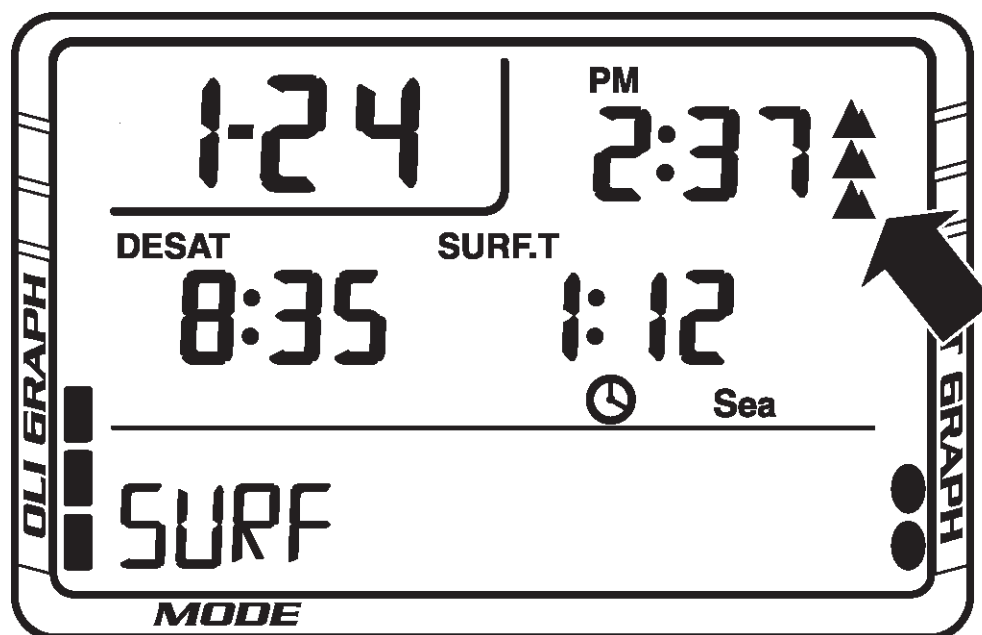
Experts recommend waiting at least 24 hours following any dive before flying in an aircraft or driving to altitude. Failure to allow sufficient surface interval before doing so may *substantially increase the risk of Decompression Illness (DCI)*.

- If less than 48 hours have passed since the last dive, the NiTek He displays Surface Interval Time (SURF T.) in HOURS:MINUTES.
- Alarm symbols (clock icon for Max Time; profile icon for Max Depth) appear if either the depth or bottom time alarms have been activated.
- The Fresh/Sea water symbols indicate whether the NiTek He has been set to display accurate depth information based on exposure to fresh or salt water.
- The Oxygen Limit Index (OLI) is a column of up to eight rectangular pixels representing the cumulative effect of your exposure to elevated partial pressures of oxygen ( $PO_2$ s). Eight pixels is roughly equivalent to having used up 100 percent of the theoretical “CNS Clock.”
- The Pressure of Gas in Tissues (PGT) graph is a row of nine oval pixels that represents the overall saturation of body tissues with nitrogen and/or helium. When all nine pixels appear under water, it means you have reached (or exceeded) the No-Decompression Limit (NDL).

Desaturation time and OLI/PGT graphs do not appear while in Gauge mode.

**Altitude Symbols** The NiTek He adjusts automatically for diving at altitudes of up to 19,680 ft/6,000 m. To show that it has made this adjustment, the NiTek He displays its altitude settings using either no altitude symbol, from one to three mountain symbols, or the letters ERR.





**Figure 2** *Altitude symbols.*

Here is what each altitude symbol means:

Rank	Altitude Range
0	Sea Level to 2,624 ft/800m
1	2,624 ft/800m to 5,248 ft/1,600 m
2	5,248 ft/1,600 m to 7,872 ft/2,400 m
3	7,872 ft/2,400 m to 19,680 ft/6,000 m
Err	Above 19,680 ft/6,000 m (Out of Range)

Prior to using your NiTek He at altitudes substantially above sea level, you should find out what the actual altitude of your dive site is, and make certain that the altitude settings your NiTek He displays accurately matches this height.

## **i IMPORTANT**

Do not use your NiTek He to dive at altitude unless the altitude settings accurately match the actual height above sea level. Doing so could cause the NiTek He to *display inaccurate information*. You should also not use your NiTek He to dive at altitude when the letters **ERR** appears. This means that you are above an altitude of 19,680 ft/6,000 m, which is beyond the NiTek He's ability to function accurately. Also, do not use your NiTek He until the number of PGT graph symbols drops to eight or less.

It is also important your NiTek He not be in Dive Mode when making sudden, substantial changes in altitude—such as when flying in an airplane. This would most likely result from storing your NiTek He with wet dive gear, which might

touch its external electrical contacts and fool the NiTek He into thinking it is under water. This interferes with your NiTek He's ability to function accurately.

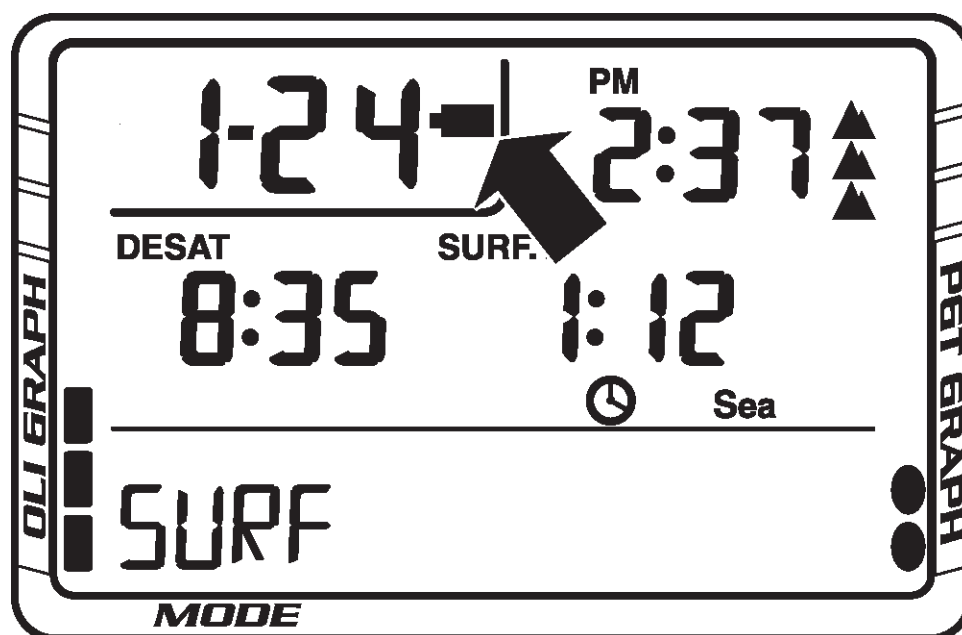
## **i IMPORTANT**

Do not pack or store your NiTek He with wet dive equipment, or touch it with wet fingers while moving to altitude. Doing so may cause it to *erroneously enter Dive Mode* and *interfere with its ability to accurately process and display data*.

Upon arriving at altitude, your NiTek He's PGT graph may show that there is excess inert gas present, even though you may not have made any dives in the preceding 48 hours. It may also display a surface interval value, which later re-sets itself.

If you have obtained the Altitude Specialty Diver training which everyone should have before diving at altitudes substantially above sea level, you already understand that this should be expected. By ascending to a higher altitude from a lower one, your body will have more inert gas saturated in body tissues than would be present had you spent the preceding 48 hours at the higher altitude. By displaying PGT graph pixels and a surface interval, your NiTek He is merely reflecting this fact.

**Low Battery Warning** The Low Battery warning means that the NiTek He's battery lacks sufficient voltage to function properly.



**Figure 3** *Low battery symbol.*

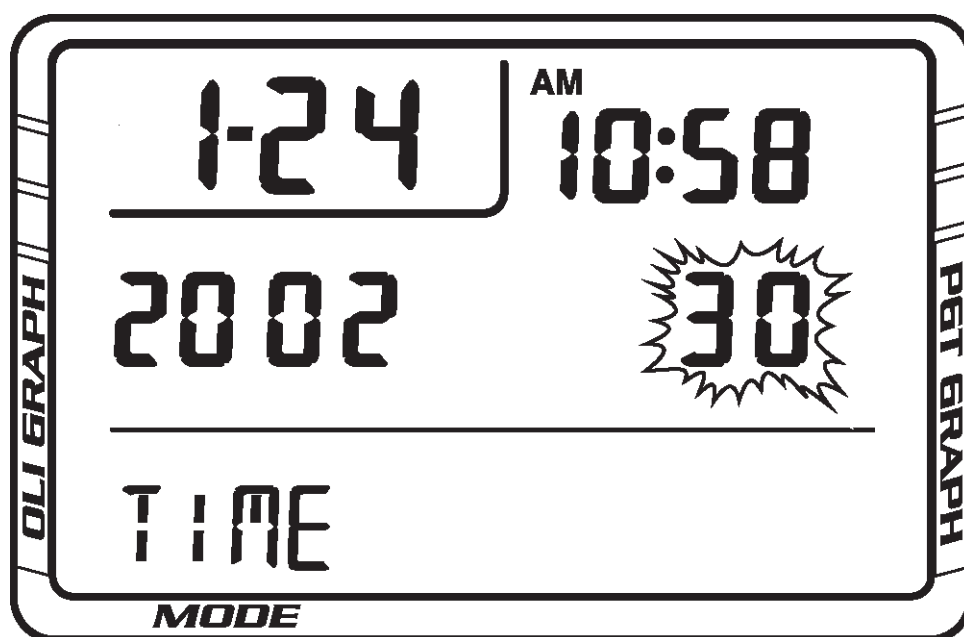
The symbol blinks when the battery drops below 2.7 volts. Below 2.6 volts, it stops blinking and remains on constantly.

## **IMPORTANT**

Once the Low Battery warning appears, you should return your NiTek He to your local authorized Dive Rite distributor for battery replacement.

### **Date/Time Set Mode**

Pressing and holding button **B**, while in Surface Mode, will cause the NiTek He to display the current date and time, along with the year and seconds settings. Holding button **B** for from four to five seconds will enable you to change the date and time.

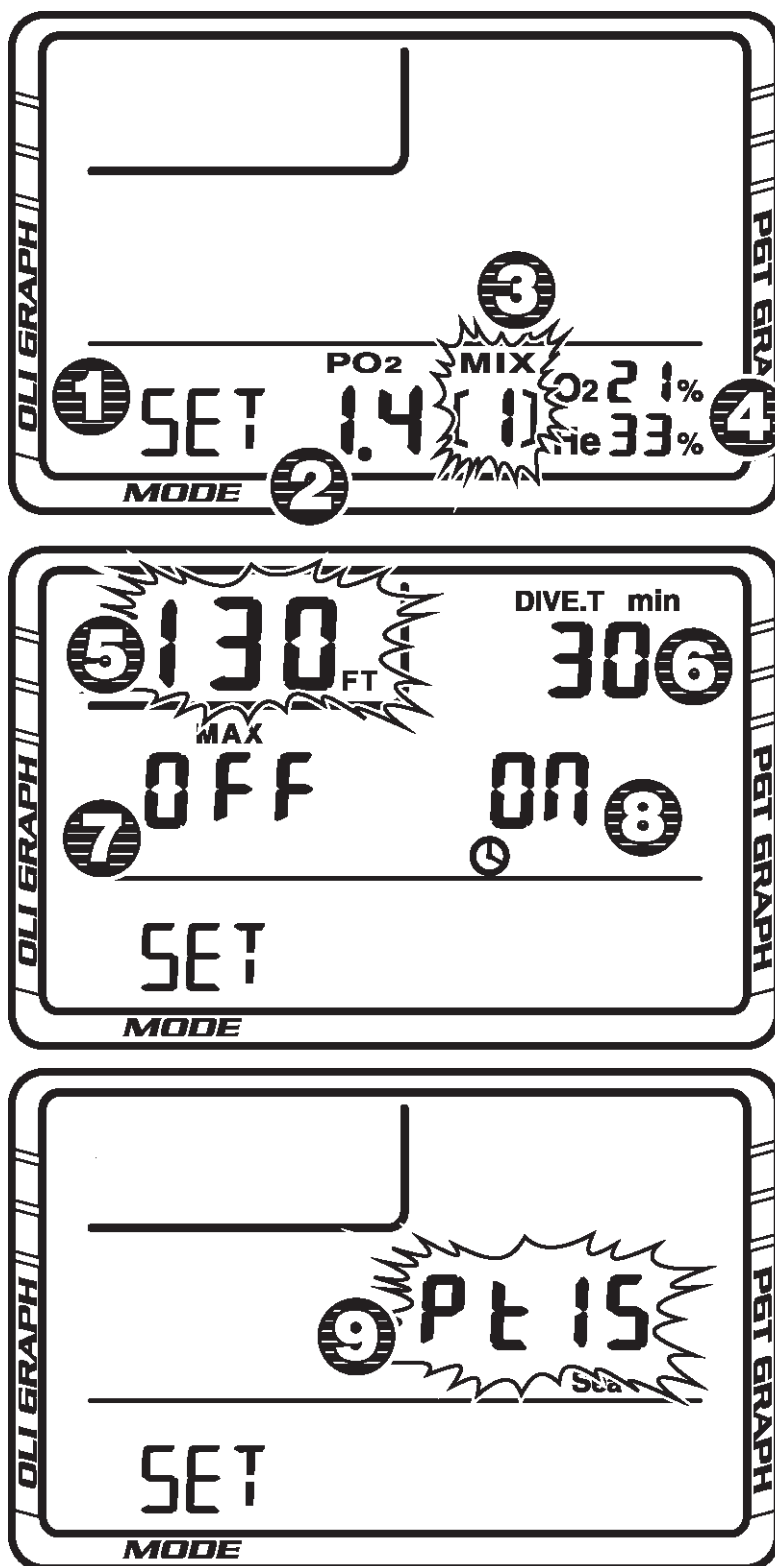


**Figure 4** *Date/Time Set mode.*

The procedure for setting date and time values is similar to setting any digital watch, and outlined on the flow chart. Note that holding button **B** while increasing a particular setting value will cause the numbers displayed to increase rapidly.

### **Dive Set Mode**

This mode is where you set important parameters such as Fraction of Oxygen/Helium, PO<sub>2</sub>/Depth/Time warnings and sampling rate. It is also where you can switch to Gauge mode, or back to dive computer mode.



**Figure 5** Dive Set mode. Items appearing include: 1) Mode indicator; 2) PO<sub>2</sub> alarm value; 3) mix number; 4) FO<sub>2</sub>/FHe levels; 5) Max depth alarm value; 6) Max time alarm value; 7) Max depth alarm on/off; (OLI); 8) Max time alarm on/off; 9) sampling rate.

- Be aware that, while in Gauge mode, you cannot enter settings for mixes 1-7 until at least 48 hours have passed since surfacing from your last dive.
- Also, when setting parameters for mix “G” (Gauge), you cannot enter values for PO<sub>2</sub> warning and FO<sub>2</sub>/FHe levels.

- When setting parameters for mix 1, you will also have the option of setting values for maximum depth and time warnings, and of turning the depth and time alarms on and off.
- If less than 48 hours have passed since surfacing from a dive in Gauge mode, you can set values for maximum depth and time warnings while in mix “G.”
- Holding button **B** will cause displayed number values to advance rapidly.
- Sampling rate refers to the frequency with which the NiTek He stores dive data in its memory. You may set the sampling rate for either 15 or 30 seconds. By setting the rate for 30 seconds, you can store more dives in memory.
- Holding buttons **A** and **B** for ten seconds while in Dive Set mode will cause the NiTek He to switch back and forth between displaying data in imperial or metric units.
- Under water, the NiTek He will only display (and users may only select from) those mix choices that were programmed while in Dive Set mode.

## **WARNING**

Do not use your NiTek He without confirming that its gas settings accurately match those of your breathing media. Failure to do so may mean that your NiTek He will be unable to accurately monitor your exposure to oxygen, helium and nitrogen, and lead to decompression illness (DCI) or CNS Oxygen Toxicity—conditions that can cause *serious personal injury* or *death*.

**Default** Once programed, the NiTek He will hold its gas settings until midnight, unless the user is under water. At that point the computer will *default* to a setting of 99 percent oxygen, 99 percent helium and 99 percent nitrogen. This is designed to help prevent users from diving with a computer that has not been properly programmed to reflect the actual contents of their breathing media.

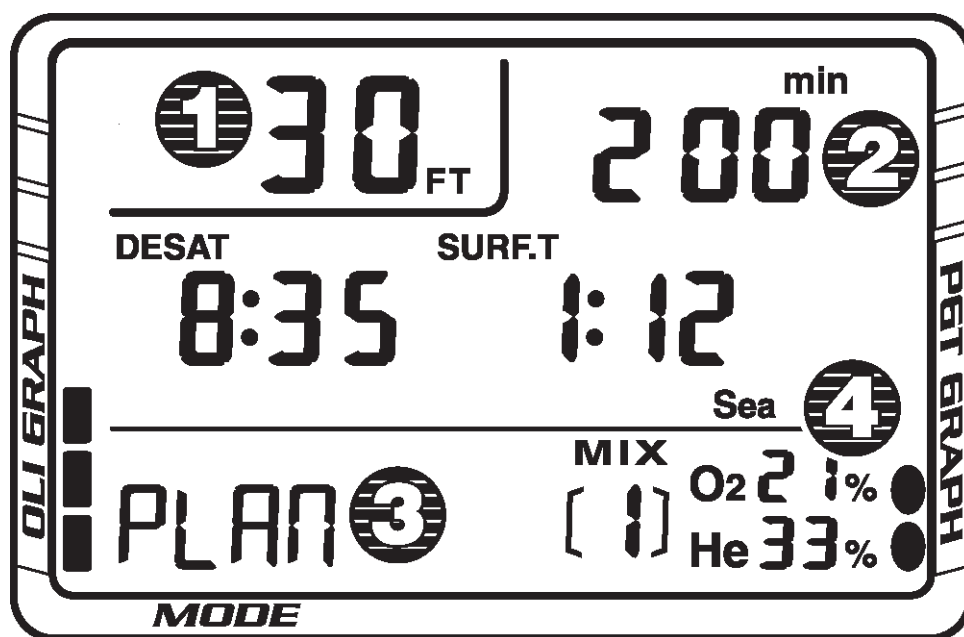
If you try to descend with a NiTek He that is in default, an alarm will sound, signalling that you should return to the surface and enter the correct gas data. If you ignore this warning, you will find your bottom time severely curtailed, and your decompression time severely lengthened. The computer will also show that you have exceeded your allowable oxygen exposure almost immediately.

The sole exception to default occurs when the computer is programmed to air (21% O<sub>2</sub>, 79% N<sub>2</sub>, 0% He). If set to air, the NiTek He will not default until set to a value other than air.



## Plan Mode

Plan Mode enables you to answer the question, “If I enter the water right now, how long can I stay at various depths while remaining within the NiTek He’s No-Decompression Limits?” It is designed to help plan single-mix, no-decompression dives.



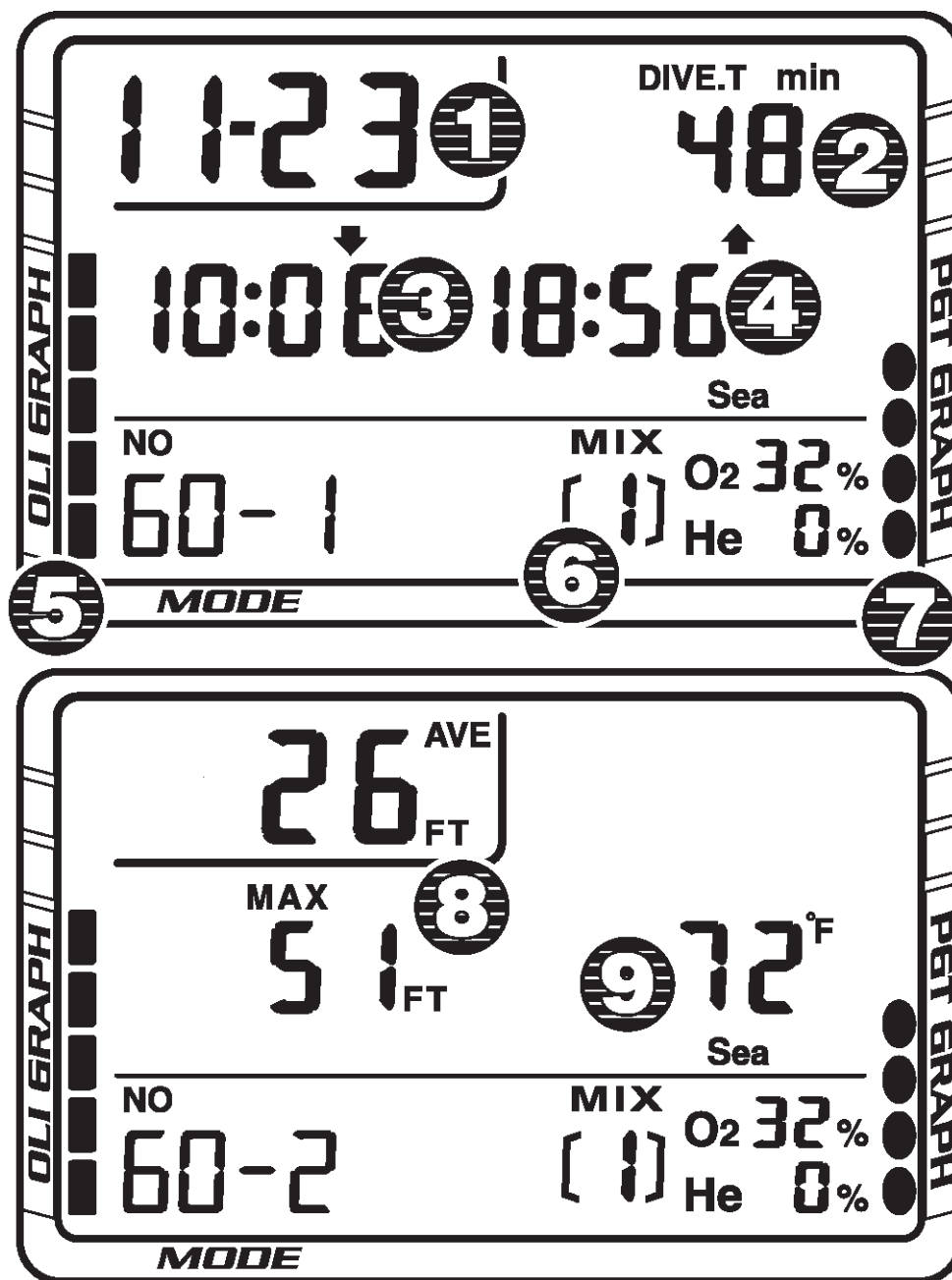
**Figure 6** Plan Mode. Items displayed include: 1) Plan depth; 2) No-Decompression Limit (NDL); 3) mode indicator; 4) Mix 1 gas settings.

- ▶ While in Plan mode, the NiTek He will only display No-Decompression Limits (NDLs) for Mix 1.
- ▶ Pressing button **B** while in Plan mode will increase the displayed depth value by ten feet/three meters, up to a maximum of 160 feet/48 meters.
- ▶ The NiTek He cannot display more than 200 minutes of no-decompression time, even though it can determine this value accurately. For NDLs of 200 minutes and above, the NiTek He will simply display a value of 200.
- ▶ After selecting the desired depth value, it may take a few seconds for the corresponding NDL to appear.

## Log Mode

The NiTek He’s Random Access Memory (RAM) can store and display data for up to 30 hours or 60 dives. This makes it possible for users to make a series of dives, then later transfer key dive data to a separate log book, or upload it to a personal computer using the available NiTekLogic™ software and PC interface.

To be able to present all the available data, the NiTek He uses two “pages,” i.e. page 60-1, page 60-2, page 59-1, etc., where dive 60 represents the most recent dive, dive 59 represents the second most recent dive, and so on.



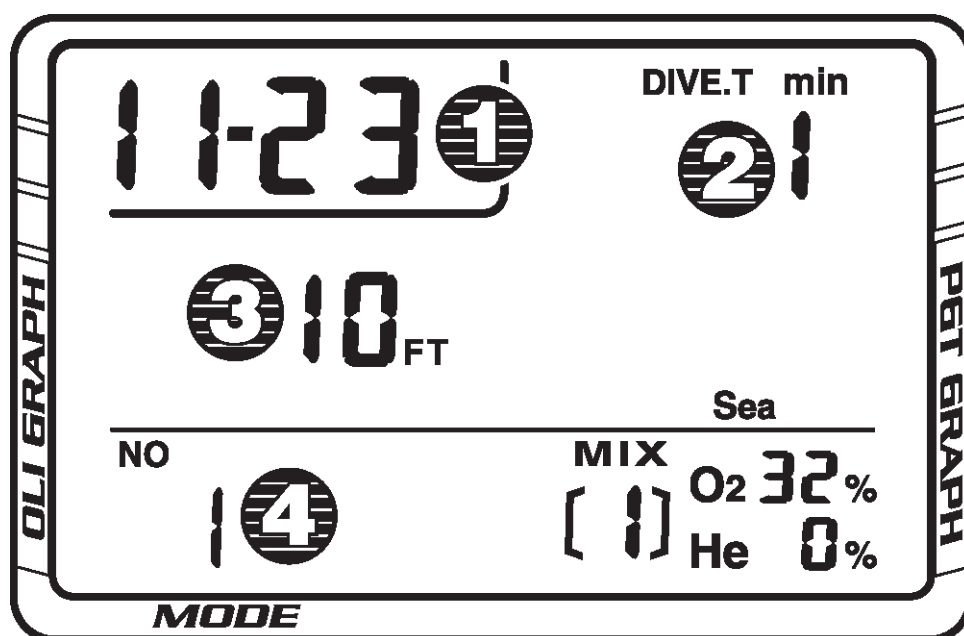
**Figure 7** Log mode. Items appearing include: 1) Date; 2) Bottom time; 3) Descent time; 4) Ascent time; 5) OLI at end of dive; 6) Mix number and corresponding gas settings; 7) PGT at end of dive; 8) Average and max depths for dive; 9) Coldest temperature during dive.

- Pressing button **A** to change the displayed mix number will show you the gas settings for the chosen mix.
- Pressing button **B** will cause the NiTek He to scroll backward through the available page displays from the most recent to the least recent dive, i.e. page 60-1, page 60-2, page 59-1, page 59-2, page 58-1, etc. Holding button **B** will cause the computer to scroll rapidly through the available pages.
- Many of the warnings that may appear during Dive mode will also be displayed for the corresponding dive in Log mode. These include the Out-of Range, Ascent Rate, PO<sub>2</sub> and OLI warnings.

- The NiTek He can display the coldest temperature reached during the dive in a range from 23°F/5°C to 104°F/40°C. If the coldest temperature reached during the dive is outside this range, the computer will display the temperature as being either **Lo** or **Hi**.

## Profile Mode

Entering Profile mode enables you to access detailed depth information from the dives stored in memory. (This same data can be uploaded to a personal computer, using the available NiTekLogic™ software and personal computer interface.)



**Figure 8** Profile mode. Items displayed include: 1) Dive date; 2) Dive time; 3) Depth corresponding to the displayed dive time; 4) Dive number.

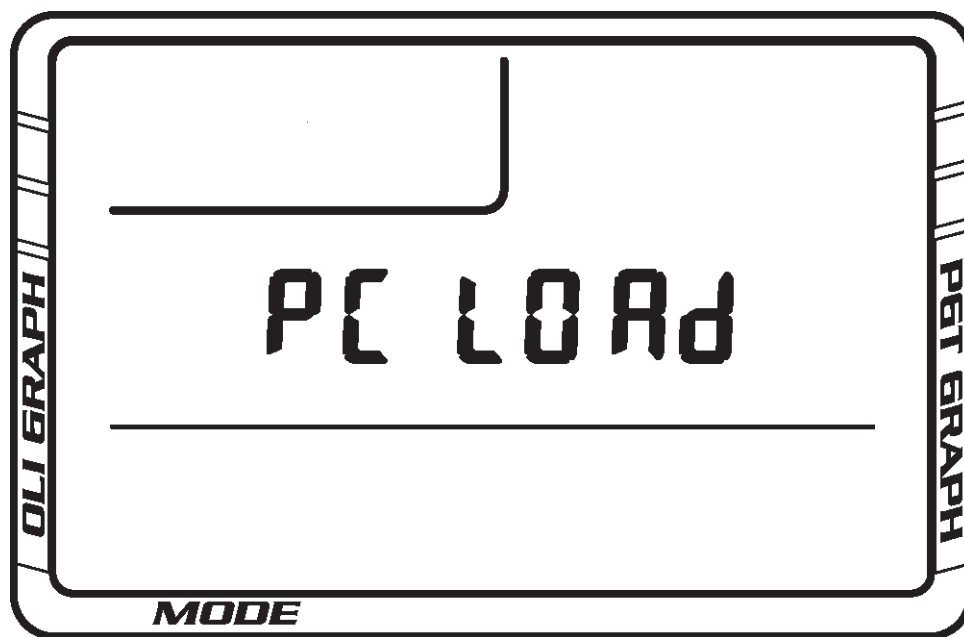
- Upon entering Profile mode, you will see the date and profile data for dive 1 (i.e., the most recent dive stored in memory). The NiTek He will begin scrolling through the stored depth data, starting with minute 1, allowing you to see the depth(s) that correspond to each minute of the dive.
- Depending on whether you set the sampling rate to 15 or 30 seconds, you may see as many as two to four different depths associated with each minute of the dive.
- Pressing button **A** will enable you to see profile data for other dives (dive 1, dive 2, etc.). Holding button **A** will allow you to scroll through the dives rapidly.

## PC Transfer (Upload) Mode

If you have purchased the optional personal computer interface for the NiTek He, you will need to be able to access Transfer mode to upload data from the NiTek He to your PC. Prior to entering this mode, you will need to do the following:

- Begin by plugging one end of the cable supplied with the interface in an open “com” port on your computer, and plugging the other end into the interface itself.
- If you have not already done so, install NiTekLogic™ onto your computer's hard drive. Load the program, go to *Options* and check the *Uploader* tab. Verify the com port selection matches the com port into which you plugged the transfer cable.
- Set the computer into Upload mode, as outlined below.
- Set the computer (without the acrylic protective cover, if so equipped) on the interface box and secure the strap over the computer. Click on the computer icon in NiTekLogic™. A dialog box should appear. If the dialog box indicates the beginning of data transfer, you can assume the program's default settings are adequate. If the unit does not upload, select another “com” port and try again.

If dialog box on screen says *Negotiating* and breaks off before saying *Transfer*, it most likely means there is a computer/com port setting issue. If there is an error reported after the dialog box says *Transfer*, then the problem is most likely a loose connection or dirty contacts interfering with the connection between the NiTek He and interface box.

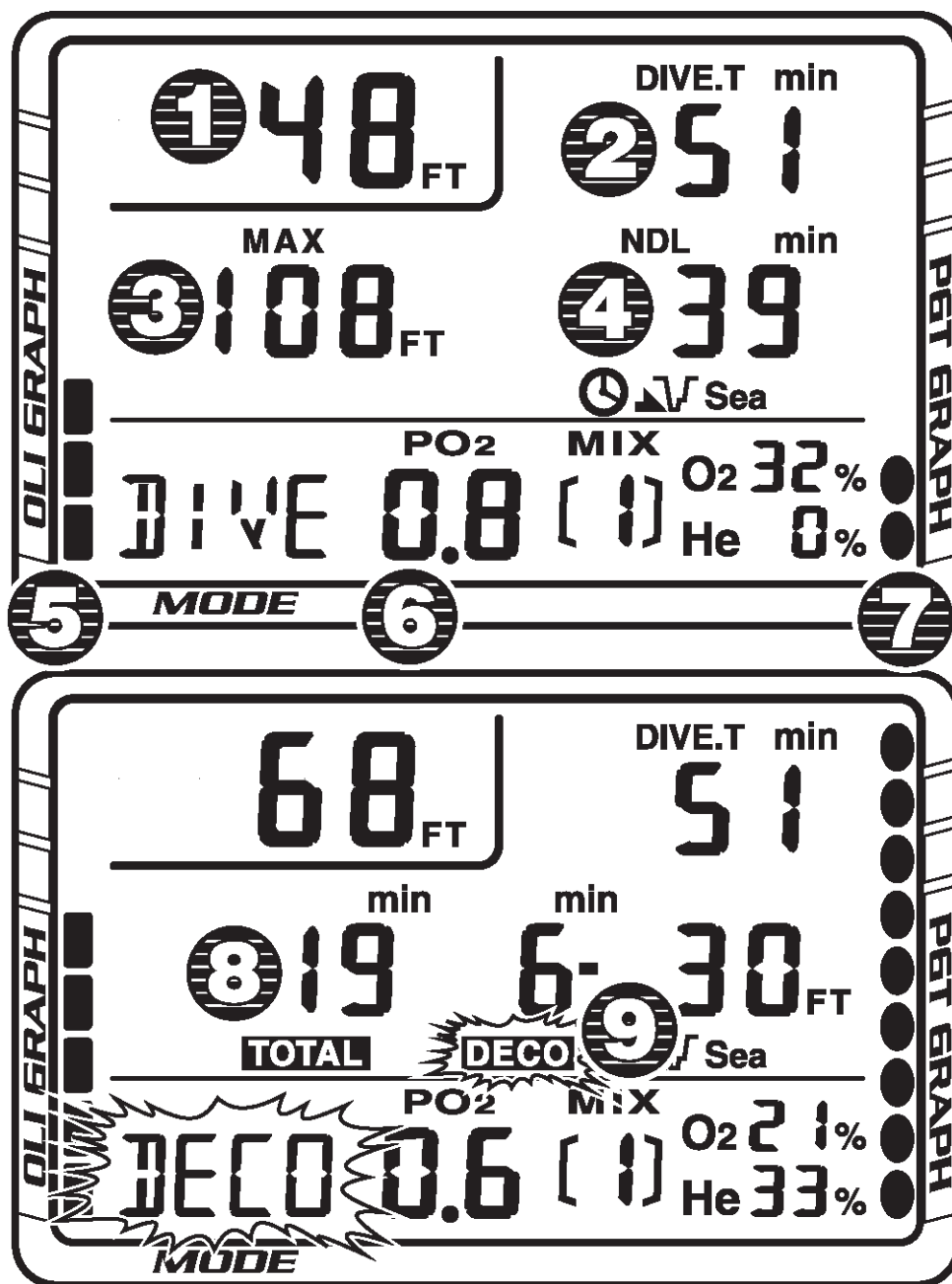


**Figure 9** PC Transfer (Upload) mode.

You can enter PC Transfer mode by following the steps outlined on the accompanying flow chart.

## Dive Mode

The NiTek He enters Dive mode automatically. What you will see displayed on the computer's screen will depend on whether you are making a decompression or no-decompression dive.



**Figure 10** Dive mode. The no-decompression dive appears at the top; the decompression dive display is at the bottom. Items displayed include: 1) Current depth; 2) Current bottom time; 3) Maximum depth; 4) Remaining NDL; 5) Current OLI; 6) Current PO<sub>2</sub>; 7) Current PGT; 8) Total ascent time, including stops; 9) First or current stop depth and stop time.

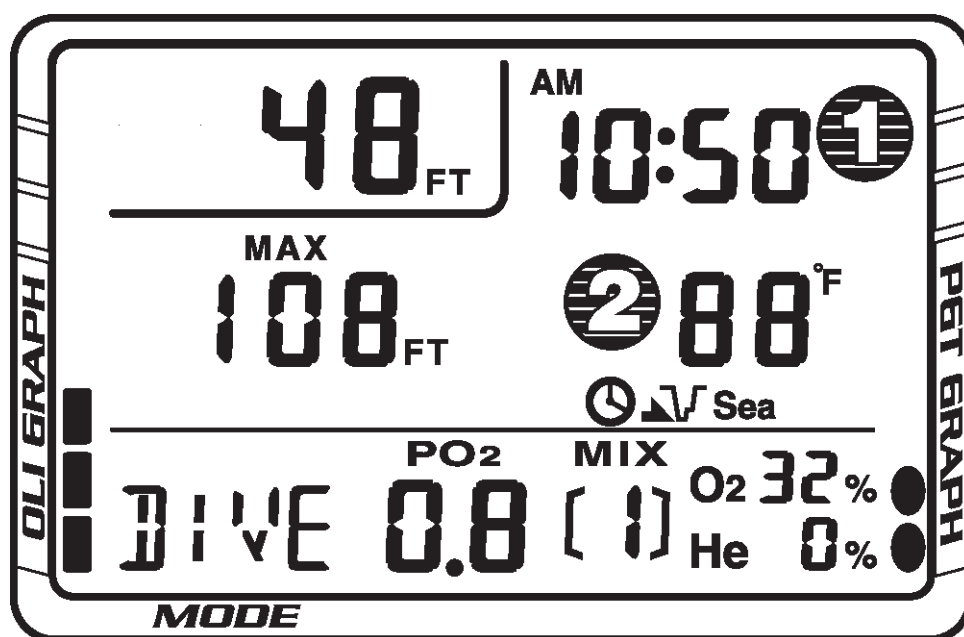
- Pressing button **A** enables you to switch mixes, as shown on the accompanying flow chart. Be aware, however, that you *cannot lock in a mix if doing so would cause you to exceed a PO<sub>2</sub> of 1.6 atmospheres*.
- As mentioned earlier, the NiTek He can calculate No-Decompression Limits (NDLs) of greater than 200 minutes; however, it can only display NDLs of up to 200 minutes. When you see the NiTek He display an NDL of 200, it means that your actual NDL may be 200 minutes or greater.



- The NiTek He enters Dive mode as soon as it enters the water. It does not count a dive as having taken place, however, unless you remain below a depth of 5.0 feet/1.5 meters for at least three minutes.
- If you spend at least ten minutes above a depth of 5.0 feet/1.5 meters, the computer will consider any further descent as a separate dive.
- If your NiTek He is in default, an audible warning will sound as you enter the water. (Horizontal bars will also appear in the FO<sub>2</sub> and FHe display, instead of a percentage value.) If you hear this alarm, surface and set the NiTek He for your actual gas mixture.

## **IMPORTANT**

Prior to descending, always check one final time to ensure the gas mixture settings are correct.

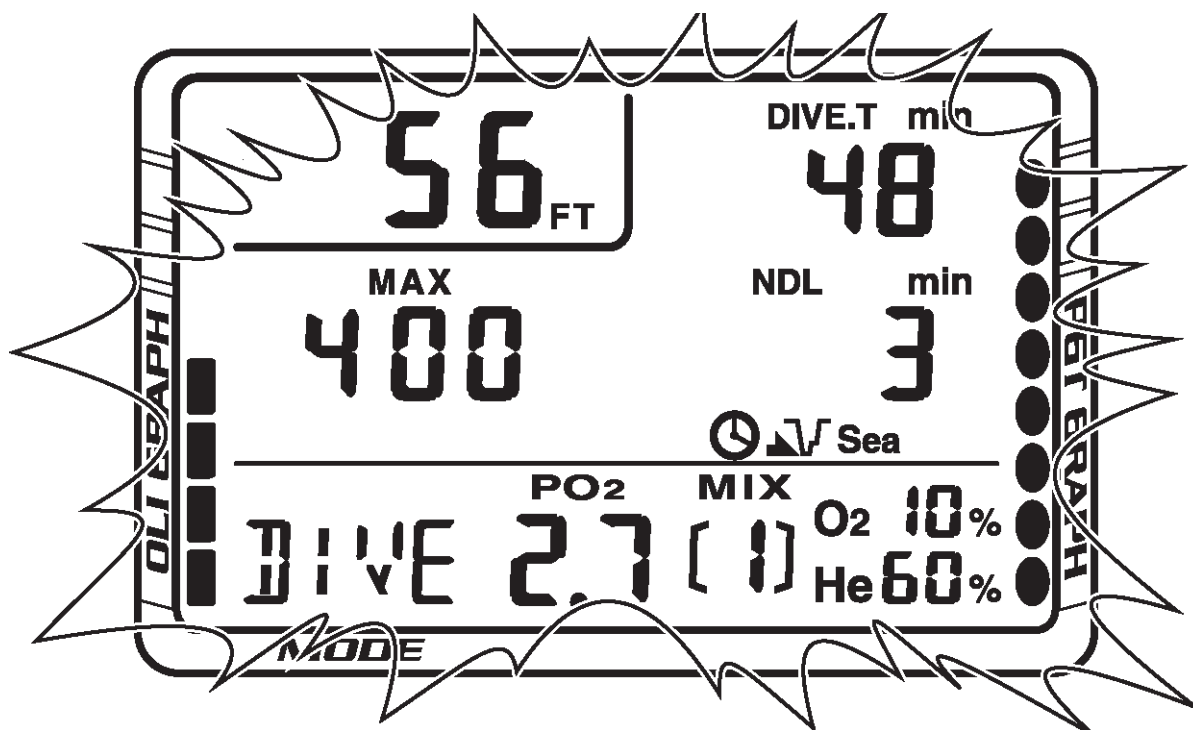


**Figure 11** Time and temperature display. Items displayed include: 1) Current time of day; 2) Current water temperature.

- Pressing and holding button **B** will cause the NiTek He to display current time of day and temperature, as shown in Figure 11. Releasing button **B** returns the computer to its normal Dive mode display.

While in Dive mode, you should be alert for the following warnings:

**Out-of-Range** The Out-of-Range warning consists of the entire display screen blinking.



**Figure 12** *Out of Range warning.*

To activate the Out-of-Range Warning, you would have to do one or more of the following:

- Descend below 394 feet/120 meters while in dive computer mode, or 656 feet/200 meters while in Gauge mode.
- Exceed a bottom time of 699 minutes.

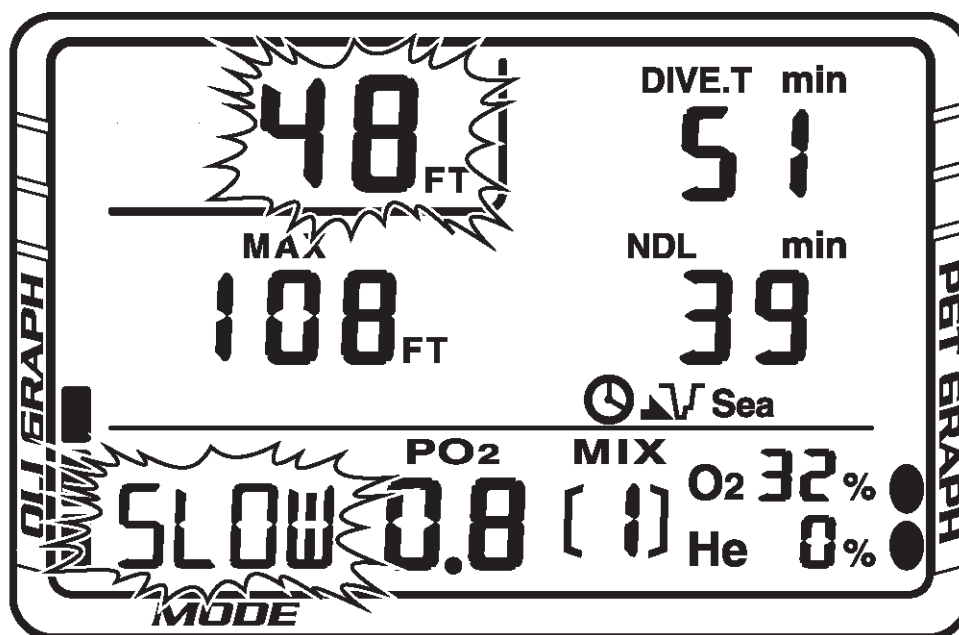
## **WARNING**

A NiTek He displaying an “Out of Range” Warning is incapable of displaying other critical information such as depth, time, Ascent Rate, PO<sub>2</sub>, FHe, OLI and Deco Stop violations, and required decompression stops. For this reason, you should not—under any circumstance—use a NiTek He in such a way that would cause the Out-of-Range Warning to be displayed. Under such conditions, the risk of *serious personal injury* or *death* would be substantial.

Should you take the NiTek He “out of range,” it will remain unusable for the next 48 hours.

**Ascent Rate** The NiTek He’s algorithm (the formula it works to determine your inert gas uptake and release) assumes you keep your rate of ascent within the following limits:

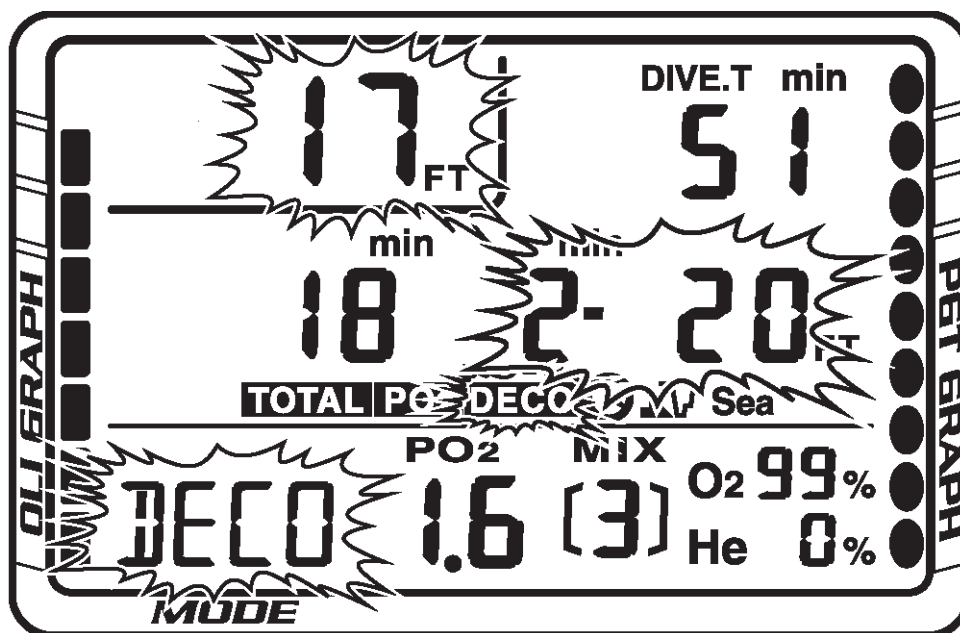
Depth Range	Ascent Rate
0 ft/0m to 19 ft/5.9m	26 ft/8m per Minute
20 ft/6.0m to 58 ft/17.9m	39 ft/12m per Minute
59 ft/18.0m or deeper	52 ft/16m per Minute



**Figure 13** *Ascent Rate Warning.*

If you exceed these ascent rates, the NiTek He's audible alarm will sound, and the computer will display its Ascent Rate Warning, as shown in Figure 13. This consists of current depth indicator blinking on and off. The Ascent Rate Warning will continue to display until you slow your ascent rate to that which the NiTek He finds acceptable, or until you reach a depth of 5 ft/1.5m.

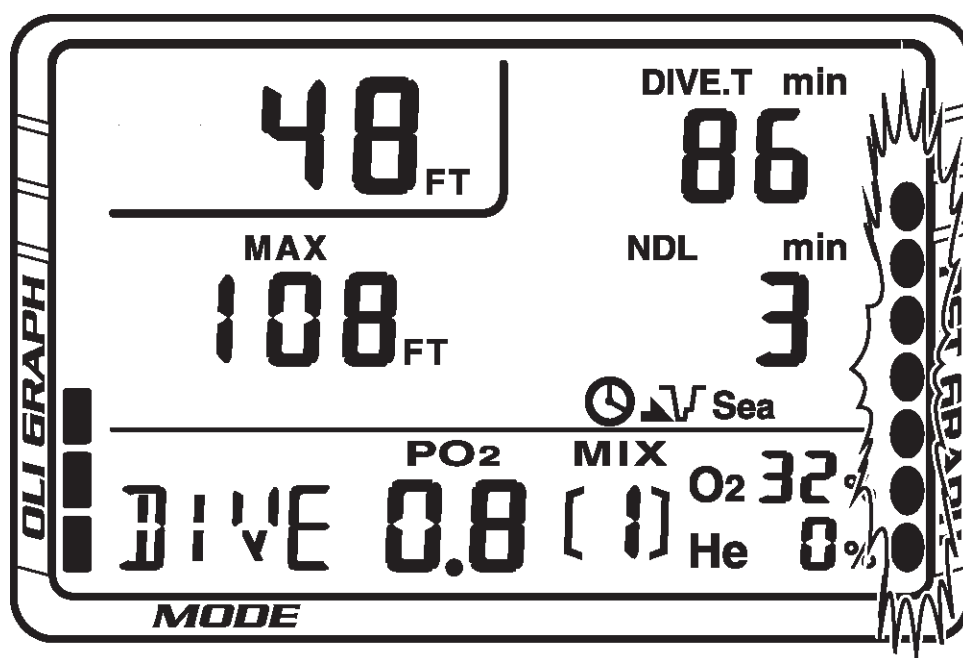
**Deco Stop Violation** A Deco Stop violation takes place when you either ascend shallower than the indicated stop depth or do not spend sufficient time there before ascending. To warn you of this violation, the computer's audible alarm sounds, and the stop depth and stop time, along with the deco symbol, blink on and off. These items will continue blinking as long as you remain shallower than the indicated stop depth.



**Figure 14** *Deco Stop violation.*

If you find yourself in Deco Stop Violation, descend to or below the indicated stop depth and remain for the time shown. You should also be aware that, during a Deco Stop Violation, the NiTek He's Ascent Rate Warning does not function. However, in so far as the correct response to a Deco Stop Violation involves not only slowing your ascent, but reversing it, the problem is self-correcting.

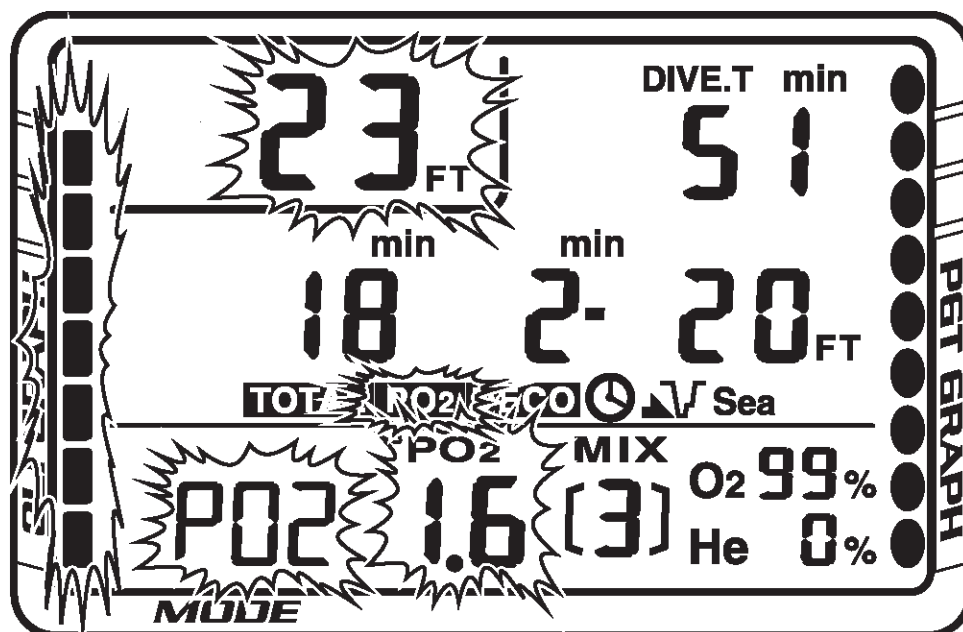
**PGT** When seven or more pixels appear in the PGT graph, an audible alarm will sound and the PGT graph will blink.



**Figure 15** *PGT warning.*

This is to notify you that you are approaching the No-Decompression Limit (NDL).

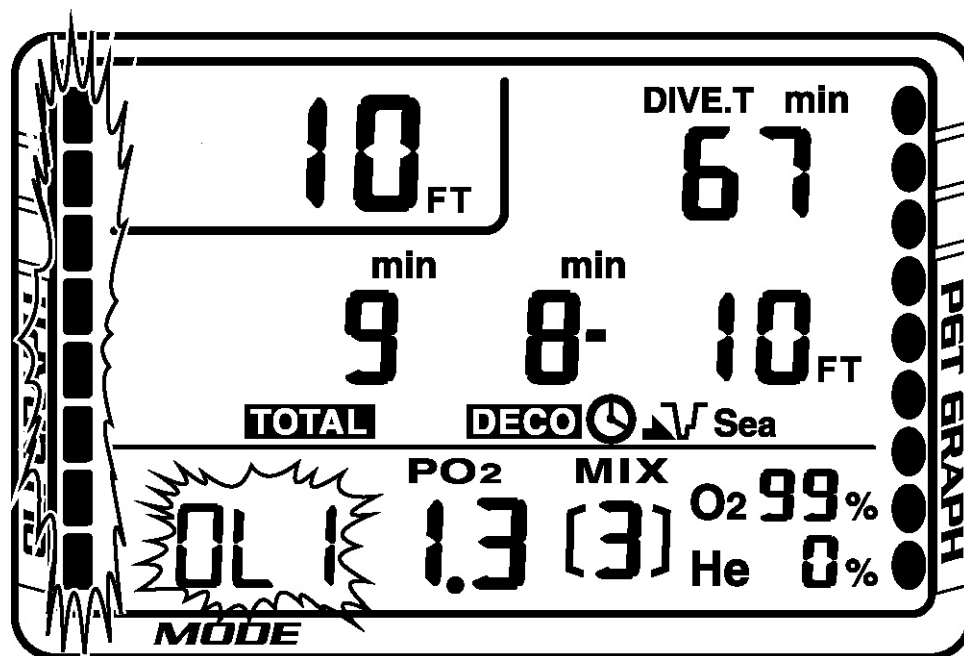
**PO<sub>2</sub>** The PO<sub>2</sub> warning will occur at the value you set for it while in Dive Set mode.



**Figure 16** PO<sub>2</sub> warning.

- If you set the PO<sub>2</sub> warning for 1.4 atmospheres, an alarm will sound and the current depth and PO<sub>2</sub> information will blink on and off.
- If you set the PO<sub>2</sub> warning for 1.6 atmospheres, the OLI graph will blink as well.

**Oxygen Limit Index (OLI)** The NiTek He's Oxygen Limit Index (OLI) reflects the cumulative effect of your exposure to elevated partial pressures of oxygen. Whereas the PO<sub>2</sub> Warning accounts only for the intensity of such exposure, the OLI accounts for both its intensity and length.



**Figure 17** OLI warning.



When seven of the OLI's eight pixels appear, the NiTek He's audible alarm will sound. When eight pixels appear, the alarm will sound and the OLI display will blink on and off. If you do not ascend to a shallower depth, and all eight of the OLI's eight pixels appear, the alarm will again sound and the display will again blink. This portion of the display will continue to blink until the OLI drops to seven pixels.

## Additional Cautions and Warnings

You now know most of what you need to get started using your NiTek He in as safe a manner as possible. There are a few more things we need to cover, however, before you take your NiTek He into the water for the first time.



Before using your NiTek He, read the following points and follow the recommendations they provide. Failure to do so could result in *damage to or loss of equipment, serious personal injury or death.*

### General Handling

- Do not store the computer in hot and/or humid environments. The pressure transducer is sensitive to both heat and humidity. If impaired, it may cause display of incorrect altitude or depth data.
- When in hot and/or humid environments, dip the computer in water for several minutes to cool it to room temperature before using it. Similarly, allow the computer to completely warm to room temperature if it is cold and, again, do not take it under water immediately after doing so. Failure to follow these instructions may result in damage to the NiTek He.
- Do not transport your NiTek He on an aircraft or take it to altitude while it is sealed in an air-tight container. Doing so may interfere with its ability to correctly read, display and track depth information.
- The NiTek He's Liquid Crystal Display (LCD) may darken if left in a hot environment (such as on a car's dashboard). It will return to normal once allowed to cool; however, extensive exposure to heat may shorten LCD life.

- Be aware that weather-related changes in air-pressure can cause incorrect display of altitude settings. Be sure to check indicated altitude settings against actual altitude before use.
- Your NiTek He is not to be disassembled by anyone other than Dive Rite or its authorized dealers. Unauthorized disassembly will violate the warranty.
- If the NiTek He does not appear to be functioning properly—in any manner—do not use it to dive. Contact your authorized Dive Rite dealer for service instructions.

## Battery

- All NiTek He functions may cease within two to three days of the Low Battery symbol first appearing. Always have low batteries replaced promptly.
- A depleted battery that is left in a NiTek He for a long period of time may leak. Again, have batteries replaced promptly.

## While Diving...

Check your breathing gas supply at all stop depths.

- Remember that the NiTek He does not monitor breathing gas supply. You must monitor this yourself, on every dive, using a submersible pressure gauge or equivalent device.
- Do not rely solely on this—or any other—dive computer. Take a back-up dive computer or tables (along with a separate means of monitoring depth and dive time).
- Be aware that the NiTek He makes assumptions regarding residual inert gas based on altitude settings. Avoid making abrupt changes in altitude following a dive, as doing so may be very dangerous.

# Care and Maintenance

This section covers the general care and maintenance procedures you should follow before, after and between dives, and the procedure for changing batteries. General maintenance procedures include:

- Rinse the NiTek He thoroughly in fresh water following every dive.
- Do not use cleansers, chemicals or solvent to clean the NiTek He. Use a soft cloth to gently wipe dirt or water stains from the computer.

- The lens face may be damaged (and its water resistance impaired) if exposed to: solvents such as alcohol or gasoline; cosmetic products such as hair spray or liquid soaps; alkaline substances; aromatic hydrocarbon solvents; and, halogenated hydrocarbon solvents.
- Store the NiTek He in a cool, dry location. After diving, wipe the computer dry and store it in a location separate from other damp items.

**Serial Number** \_\_\_\_\_

**Notes:** \_\_\_\_\_

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

