DIGITAL GAUGE

OPERATING MANUAL

⚠ **Pay special attention to items marked with this <u>Warning</u> symbol.**

CONTENTS

CONTENTS (continued)

◭ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

FEATURES and DISPLAYS

OVERVIEW

Hereafter, the Digital Gauge will be referred to as the **dG01**.

The **dG01** presents information that you need before, during, and after your Normal (NORM) or Navigation (NAV) dives using a combination of easy to read displays and identification icons.
 • When set to operate in NORM mode, it functions as a digital depth gauge/timer.
 • When set to operate in NAV mode, Headings with Countdown Times that are uploaded from the associated PC Interface program are provided.
 • While operating in either NORM or NAV Mode, all data associated with NAV Mode can be deleted (cleared) if necessary to prevent missions from being retraced.

This manual is intended to help you become familiar with the functions and features available and show you examples of displays that you could expect to see in the operational modes. Read through the complete manual thoroughly.

The rules that you learned during your training still apply to the diving you will do while using the dG01 - some will become even more important. Technology is no substitute for common sense and the dG01 only provides the person using it with data, not the knowledge to use it.

CONTROL BUTTONS

The two Control Buttons allow you to select operating modes and display options, access specific information when you want to see it, and operate the Backlight.   In NAV mode, they allow you to start/stop EDT (Elapsed Dive Time) and call up, start/stop NAV Legs.

The Left button (Fig. 1a) is named **A** (meaning Advance) and the Right button (Fig. 1b) is named **S** (meaning Select).

6

ASCENT RATE BAR GRAPH (ASC)

The Ascent Rate Bar Graph (Fig. 1c) provides a visual representation of Ascent Speed (i.e., an ascent speedometer). More segments indicate faster Rates of Ascent.

The segments of the Ascent Rate Bar Graph represent 2 Scales referred to as Standard and Navy (based on Navy tables) which can be selected using the associated PC Interface program. Standard has 2 sets of speeds that change at a reference depth of 18 M (60 FT). Refer to the Specifications section for segment values.

⚠️ **WARNING: When set for Standard and at depths greater than 18 M (60 FT), Ascent Rates should not exceed 18 MPM (60 FPM). At depths of 18 M (60 FT) and shallower, Ascent Rates should not exceed 9 MPM (30 FPM). When set for Navy, Ascent Rates should not exceed 18.5 MPM (60 FPM).**

INFORMATIONAL DISPLAYS
Each numeric and graphic display represents a unique piece of information. It is imperative that you understand the formats, ranges, and values of the information represented to avoid any possible misunderstanding that could result in error.

Fig. 1 - BUTTONS and ASCENT BAR GRAPH

Fig. 2 - DEPTH DISPLAYS

Depth Displays

During a dive, the **Current Depth** display (Fig. 2a), indicates Depths from 0 to 120 M (400 FT) in 0.1 M (1 FT) increments or 1 M increments when greater than 99.9 M. The **Maximum Depth** reached during that dive will be displayed during the dive (Fig. 2b) and during the first 5 minutes on the surface after a NORM (Normal) dive.

Time and Date Displays

Time displays are shown in hour:minute format (i.e., :02:36 represents 2 hours and 36 minutes, not 236 minutes!). The colons blink twice per second when the display is indicating real time.

• Time of Day identified by the clock icon (Fig. 3a) can be set for 12 hour format or 24 hour format.

Date is displayed only to identify dive data while it is viewed in the Log Mode.

Fig. 3 - DATE/TIME

• When Units of Measure are set for Metric, the Month appears to the right of Day (Fig. 3b). When set for Imperial units, the Month appears to the left of Day.

8

Temperature Display

Ambient Temperature identified by the degrees and C (or F) icons (Fig. 4a) is displayed while in the Surface Mode and can be viewed as part of an Alternate Display when the A (Advance/Left) button is pressed while in NORM Dive mode.

Fig. 4 - TEMPERATURE

⚠ **NOTE: The Informational Displays are described in detail as the various operating modes they appear in are presented throughout this manual.**
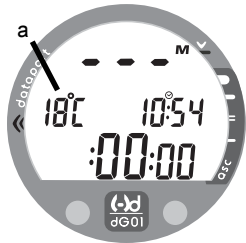
AUDIBLE ALARM

A single short beep is emitted after the Diagnostic check. When most warning situations activate the Alarm, the unit will emit 1 beep per second for 10 seconds, or less if the situation is corrected, or it is acknowledged by pressing the A (Advance/Left) button for 2 seconds. If acknowledged by the diver and the situation corrected, the Alarm will sound again upon reentry into the warning situation, or entry into another type of warning situation.

Warning situations that will sound the Alarm, if ON -
• NORM or NAV Max Depth > Alarm Set Point (user set).
• NORM PO2 > Alarm Set Point (user set).
• NORM Elapsed Dive Time > Alarm Set Point (user set).
• NORM Ascent Rate exceeds 18 MPM (60 FPM) if > 18 M (60 FT) or 9 MPM (30 FPM) if =< 18 M (60 FT) when Ascent Scale is set for Standard.
• NORM Ascent Rate exceeds 18.5 MPM (60 FPM) if > 18 M (60 FT) when Ascent Scale is set for Navy.
• NAV Leg Count Down Timers (CDTs) reach :00:03 (:min:sec)

9

BACKLIGHT

 • The Backlight does not operate during a Low Battery condition. If it is ON at the time, it will automatically turn OFF.

To turn the Backlight ON while operating in NORM mode when on the Surface or during a dive:

 > press and release the S (Select/Right) button momentarily (< 2 seconds).
 • The screens will be illuminated for button depression time plus 0, 5, or 10 seconds (the Backlight Duration time set prior to each use).
 > Press the button again to activate as desired.
 • The Backlight does not operate when the Chrono Start/Stop screen is being displayed.

To turn the Backlight ON or OFF while operating in NAV mode when on the Surface or underwater:

 > press and release the S (Select/Right) button momentarily (< 2 seconds).
 • If NAV Backlight Mode is set for Constant, the screens will remain illuminated until the S button is pressed again to deactivate it.
 • If NAV Backlight Mode is set for Time Out, the screens will remain illuminated for 0, 5, or 10 seconds (the Backlight Duration time set in NORM Set Mode).
 > Press the button again to activate as desired.

 • When operating in NAV mode, Backlight Level (illumination) will be 50% of the NORM 100% Level of illumination.
 • Using the PC Interface program, the Backlight can be selected to come ON when NAV Leg Count Down Timers (CDTs) reach :00:03 (:min:sec)

POWER SUPPLY

The dG01 utilizes one (1) type CR 2450 Lithium 3 volt cell that will provide a minimum of 50 hours operation with the Backlight ON constantly at 50% in NAV mode.

Battery Status Indication

The status of the Battery is displayed on an Altitude/Battery Status screen that appears after Activation and the Diagnostic check.

If battery voltage is satisfactory (=> 2.75 volts), the graphics **bAtt** and **OP** will be displayed (Fig. 5a/b).

If voltage is below 2.75 volts, the graphic **bAtt** will be displayed with the Low Battery icon that will continue to be displayed in Surface Mode, flashing (Fig. 6a).

Low Battery Condition

Voltage level is checked upon activation and every minute during operation on the surface.

• If a Low Battery Condition exists when the unit is activated (by pressing a button), the Low Battery icon will appear flashing once per second for 5 seconds followed by shutdown of the unit.

Fig. 5 - BATTERY STATUS
(OP = Operable)
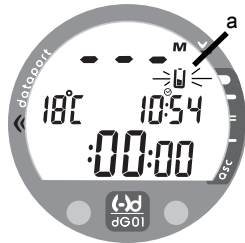
Fig. 6 - LOW BATTERY
(ACTIVATION)

11

• If a <u>button is not pressed to activate the unit</u> prior to a dive, and a Low Battery Condition exists, the Low Battery icon will appear flashing as a warning upon descent to 1.2 M (4 FT) if set for NORM mode operation or 0.6 M (2 FT) if set for NAV mode operation. No other information will be displayed.

• If the unit did not display the Low Battery icon 'prior to' entering the Dive Mode, and a Low Battery Condition occurs <u>during the dive,</u> there will be sufficient battery power to maintain unit operation for the remainder of 'that dive'. The Low Battery icon will then appear upon ascending to 0.6 M (2 FT) if set for NORM or NAV mode operation.

When the Battery is removed, Settings are reset to their default values after 8 seconds. If a new Battery can be inserted within 8 seconds, the Settings will be retained.

△ **NOTE: Battery change procedures are described later in this manual.**

NORM FO2

⚠ **NOTE: FO2 applies only to NORM mode. Setting FO2 is described later in NORM SET 1.**

After Activation, the dG01 will operate in NORM mode with a default FO2 setting of AIR (Fig. 7) unless the user sets FO2 for a numerical value between 21 and 50 % (Fig. 8).

When FO2 is set for AIR, the unit will perform PO2 calculations the same as if FO2 were set for 21% oxygen, internally accounting for oxygen loading for any repetitive NORM dives. However, PO2 displays and warnings will not appear on the display for that dive, or subsequent dives, unless FO2 is set for a numerical value (21 to 50%).

⚠ **NOTE: FO2 will remain at the value set by the user until changed or the unit shuts Off at which time FO2 will default to AIR and operate set at AIR upon reactivation. FO2 can then be set by the user to the value desired for each dive.**

Fig. 7 - FO2 set for AIR

Fig. 8 - FO2 set for 32% O2

13

ICONS / SYMBOLS
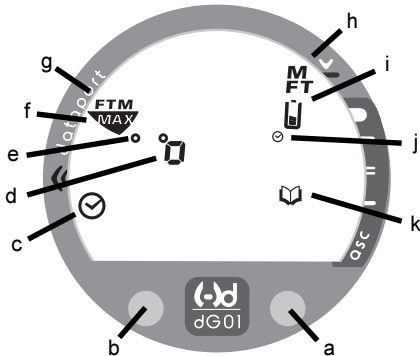
Components:
a. S (Select /Right) Button
b. A (Advance /Left) Button
c. Icon - Chrono, or EDT Alarm
d. Icon - Degrees (NAV Heading)
e. Icon - Degrees (Temperature)
f. Icon - Maximum Depth or PO2
g. Icon - Max Depth units
h. Icon - Current Depth
i. Icon - Low Battery
j. Icon - Time of Day
k. Icon - Log Mode

△ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

ACTIVATION and SETUP

ACTIVATION

• To Manually Activate the dG01, press/release either button.

Automatic Activation

Only functional if the Wet Activation feature is set ON (a NORM SET 2 selection).

When the Wet Activation feature is set ON, the dG01 will automatically activate by water contact (immersion). This is accomplished by bridging the gap between contacts located on the stems of the control buttons and pins in the PC Interface data port.

If the Wet Activation feature is set OFF, the dG01 will only activate by push button and only if shallower than 1.2 M (4 FT) depth.

Fig. 9 - NORM DIAGNOSTIC

• • Upon manual push button activation, the unit will enter NORM (or NAV described later) Diagnostic Mode (Fig. 9), displaying all segments of the LCD (as 8's) and all icons, followed by dashes, then a countdown from 9 to 0.
• • Diagnostic Mode checks the display and battery voltage to ensure everything is within tolerance and functioning properly.
• • After manual activation and release of the button, it will check ambient barometric pressure and calibrate its present Depth as zero.
• • At elevations of 3,001 feet or higher, it will recalibrate itself to measure Depth in feet of fresh water instead of feet of sea water.

16

- During the next 5 seconds, the Altitude Level (EL) and Battery Status screen will be displayed. The graphics ALt and EL - appear with the Level number 0 or 2 through 7 (Fig. 10a). The graphic bAtt also appears with the graphic OP indicating that the Battery is OPerational or with the Low Battery icon indicating that the Battery should be replaced.
- If values are acceptable, the unit will enter Surface Mode. If any value is not acceptable, the unit will shut down in 5 seconds.
- If no dive is made within 3 hours after initial activation, the unit will automatically deactivate. If the wet contacts are still bridged, the unit will then reactivate and display the H2O graphic.

Fig. 10 - ALTITUDE/BATTERY STATUS

Displayed Altitude Levels (barometric)

- EL - 0 = Level 0 = 0 to 3,000 feet (0 to 915 meters) = Sea Level
- EL - 2 = Level 2 = 3,0001 to 5,000 feet (916 to 1,525 meters)
- EL - 3 = Level 3 = 5,0001 to 7,000 feet (1,526 to 2,135 meters)
- EL - 4 = Level 4 = 7,0001 to 9,000 feet (2,136 to 2,745 meters)
- EL - 5 = Level 5 = 9,0001 to 11,000 feet (2,746 to 3,355 meters)
- EL - 6 = Level 6 = 11,001 to 13,000 feet (3,356 to 3,965 meters)
- EL - 7 = Level 7 = > 13,000 feet (3,965 meters)

⚠ **NOTE: Altitude Levels (ELs) that appear on operational displays represent approximate levels above sea level.**
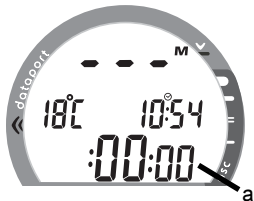
Fig. 11 - NORM SURF MAIN

Fig. 12 - SURF MAIN (unit wet)
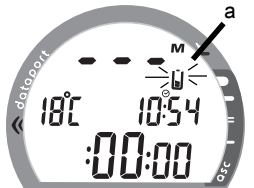
Fig. 13 - SURF MAIN (Low BATT)

NORM SURFACE MODE

NORM Surface Mode, identified by Temperature and Time of Day being displayed, follows the Altitude/Battery Status screen after Activation and the NORM Diagnostic and Altitude/Battery Status screens.

NORM SURF MAIN, information includes (Fig. 11):

• Current Depth as 3 dashes with M or FT (no dive made yet), Temperature and degrees icon with C or F, Time of Day (hr:min) with the clock icon, and Surface Interval Time (hr:min:sec) as :00:00 (min:sec) until a dive is made (Fig. 11a).

> Depress the A (Advance/Left) button for 2 seconds then release it to access the Altitude/Battery Status screen for 5 seconds.

⚠ **NOTE: If the wet activation contacts are bridged, the graphic H2O will appear in place of the Depth (Fig. 12a). After the unit is rinsed and dried, the 3 dashes will replace the graphic H2O.**

⚠ **WARNING: If a Low Battery condition is displayed after activation as indicated by the Low Battery icon flashing (Fig. 13a), DO NOT attempt to dive with the dG01 until the Battery is changed.**

18

SET MENU
The Set Menu consists of a Sequence containing 3 Set groups followed by a Serial Number screen then an Ascent Scale Preview screen accessed from the Surface Main screen.

Set Menu Sequence:
NORM SURF MAIN >> SET NAV >> SET 1 >> SET 2 >> SN >> ASC

• SET NAV allows changing of several of the NORM SET functions without accessing those that do not apply to NAV Mode. It also allows NAV Backlight Mode to be set.
• NORM SET 1 groups settings that would change more often and NORM SET 2 groups those items not likely to change once they are initially set.
• SN is a view only screen in the Sequence that displays the MDG's Serial Number and Firmware Revision number.
• ASC is a view only screen in the Sequence that displays the Ascent Scale selected by PC.

> Access to the Sequence and SET NAV screen (first in Sequence) is gained by simultaneously pressing Both buttons for 2 seconds. Subsequent 2 second presses of Both buttons are then used to step through the other Set Mode screens.
> After gaining access to the Set Mode Group desired, settings can be made in sequence one after the other, or items not to be set can be bypassed.
• Access is gained to Selections in the Set Modes by releasing the buttons during the 2 second window during which the SET Mode screen is displayed, then pressing the A (Advance/Left) button.
• If Both buttons are held longer than 2 seconds, that Set Mode or screen will be bypassed.
• While in the Set Mode menu, if neither button is pressed during a period of 2 minutes, operation will revert to the NORM SURF MAIN screen.

NAV SET MODE

This unique Mode is described later in the manual in a separate NAV MODE section (page 53).

NORM SET 1 MODE

To access NORM SET 1 Mode, press <u>Both</u> buttons simultaneously for 2 seconds while viewing the SET NAV screen, release when the **SET 1** screen appears (Fig. 14).

NORM SURF MAIN >> SET NAV >> **NORM SET 1** >> NORM SET 2 >> SN >> ASC

NORM SET 1 allows you to set/select the following items:
• Max Depth Alarm value
• NORM EDT (Elapsed Dive Time) Alarm value
• NORM Chrono or Ascent function
• Backlight Duration time
• NORM PO2 Alarm value
• NORM FO2 value (to be used)
• PC (to set up Upload/Download)

SET MAX DEPTH ALARM

Factory set for 120 M, the Max Depth Alarm can be set to values of 6, 7, or 8 M (20, 23, or 26 FT); and between 9 M (30 FT) and 120 M (400 FT) in increments of 3 M (10 FT).

Fig. 14 - NORM SET 1

To access the Set Max Depth Alarm screen while viewing the SET 1 screen, press/release the A (Advance/Left) button (< 2 seconds).

- The **Max Depth Alarm** value appears flashing with the graphics **M** (or **FT**) and **dEEP** (Fig. 15).
- > Press/release the S (Select/Right) button until the desired Alarm value appears, or press/hold the button to scroll through the Set Points at a rate of 4 set points per second.
- > Press/release the A (Advance/Left) button to accept the setting and advance to Set NORM EDT Alarm, or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
- Operation reverts to the NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 15 - SET MAX DEPTH ALARM

This same Max Depth Alarm can also be set in the SET NAV Mode.

SET NORM EDT (ELAPSED DIVE TIME) ALARM
Factory set for 3:00 (hr:min), the EDT Alarm can be set to values between :10 and 9:00 (hr:min) in increments of :10 (:min).

To access the Set EDT Alarm screen while viewing the SET 1 screen, press/release the A (Advance/Left) button 2 times (< 2 seconds each time).

- The graphic **Edt** and Time (Clock) icon appear with the **Elapsed Dive Time Alarm** value flashing (Fig. 16).

Fig. 16 - SET EDT ALARM

21

Fig. 17 - SET A - C (BOTH OFF)

> Press/release the S (Select/Right) button until the desired Alarm value appears, or press/hold the button to scroll through the Set Points at a rate of 4 set points per second.
> Press/release the A (Advance/Left) button to accept the setting and advance to Set A - C (Ascent - Chrono) Mode, or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
• Operation reverts to the NORM SURF MAIN in 2 minutes if no button is pressed.

SET A - C (ASCENT - CHRONO) MODE

The dG01 is configured with a Chronograph Mode and a Mode that provides a digital display of Ascent Rate. This setting selects which Mode is to be used and which is to be disabled, or if both are to be disabled. There are 3 screens of information.

To access the Set A - C Mode screen while viewing the SET 1 screen, press/release the A (Advance/Left) button 3 times (< 2 seconds each time).

• If both Modes were previously set OFF, the graphics **A - C** and **OFF** appear with **OFF** flashing (Fig. 17).
• If Ascent Mode was previously set ON, the graphics **ASC, A,** and **ON** appear with **ON** flashing (Fig. 18).
• If Chrono Mode was previously set ON, the graphics **CHR, C,** and **ON** appear with **ON** flashing (Fig. 19).

Fig. 18 - SET ASCENT MODE

22

> Press/release the S (Select/Right) button repeatedly (< 2 seconds each time) to step through the 3 selections
> Press/release the A (Advance/Left) button to accept the selection displayed and advance to Set GLO (Backlight Duration), or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
• Operation reverts to the NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 19 - SET CHRONO MODE

SET GLO (BACKLIGHT DURATION)

Backlight Duration is the Length of Time (0, 5, or 10 seconds) that the Backlight will remain ON when the S (Select/Right) button used to activate it is released.

⚠ **NOTE: During operation in NAV Mode, Backlight Duration is active when NAV Backlight Mode (a NAV Mode setting) is set for Time Out. When Backlight Mode is set for Constant, the Backlight will remain ON until it is turned OFF and not Time Out.**

To access the Set GLO (Backlight Duration) screen while viewing the SET 1 screen, press/release the A (Advance/Left) button 4 times (< 2 seconds each time).

• The graphic **GLO** will appear with a clock icon and the **Duration Time** value flashing (Fig. 20).

Fig. 20 - SET GLO

23

> Press/release the S (Select/Right) button repeatedly (< 2 seconds each time) to step through the Set Points.
> Press/release the A (Advance/Left) button to accept the Set Point displayed and advance to Set NORM PO2 Alarm, or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
• Operation reverts to the NORM SURF MAIN in 2 minutes if no button is pressed.

SET NORM MAX PO2 ALARM

Factory set for 1.60 (ATA), the Max PO2 Alarm can be set to values between 1.20 and 1.60 (ATA) in increments of 0.10 (ATA).

To access the Set MAX PO2 Alarm screen while viewing the SET 1 screen, press/release the A (Advance/Left) button 5 times (< 2 seconds each time).

Fig. 21 - SET PO2 ALARM

• The graphic **PO2** and **MAX** icon appear with the **PO2 Alarm** value flashing (Fig. 21).
> Press/release the S (Select/Right) button repeatedly (< 2 seconds each time) to step through the Set Points.
> Press/release the A (Advance/Left) button to accept the Set Point displayed and advance to Set NORM FO2, or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
• Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

SET NORM FO2

Set for AIR (Default value) upon activation, FO2 can also be set to values between 21 and 50% O2 in increments of 1%. FO2 defaults to the AIR setting whenever the **dG01** shuts OFF.

To access the Set FO2 screen while viewing the SET 1 screen, press/release the A (Advance/Left) button 6 times (< 2 seconds each time).

- The graphic **FO2** and **FO2 value** previously set will appear with the set point flashing, **AIR** (Fig. 22) if just activated.
- > Depress and hold the S (Select/Right) button to scroll through the Set Points from AIR to 21(%) through 32(%) in 1(%) increments at a rate of 8 Set Points per second. The scroll will stop at 32(%) even if the button is held depressed. Depressing and holding the button again will resume the scroll from 32 to 50%, then stop at AIR.
- For each numerical **FO2 value** displayed with the graphic **O2**, the MAX Depth allowed for the Max PO2 Alarm set will be displayed with the **FT (or M)** and **MAX** icons and graphic **PO2** (Fig. 23)
- > Press/release the A (Advance/Left) button to accept the setting and advance to the PC screen, or press/hold Both buttons for 2 seconds to revert to the SET 1 screen.
- Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 22 - SET FO2 (AIR)

Fig. 23 - SET FO2 (32%)

25

PC Interface can also be accessed in the SET NAV Mode.

PC INTERFACE

PC is not a setting, it is included in the NORM SET 1 menu for access when data in the unit's NORM Dive memory is to be downloaded (copied) to the associated PC Interface software program named HCI for storage and viewing, or NORM and/or NAV Settings are to be Uploaded from the HCI program to the **dG01**.

To access the PC screen while viewing the NORM SET 1 screen, press/release the A (Advance/Left) button 7 times (< 2 seconds each time).

• The graphics **PC** and **SEC** and a clock icon appear with a 120 second countdown (Fig. 24). Data Download or Settings Upload must be initiated before the countdown reaches 0 SEC.
• Download/Upload action is initiated by the external device requesting data transfer (i.e., the PC HCI program).
> Press/release the A (Advance/Left) button to revert to the SET 1 screen.
• Operation will revert to the NORM SURF MAIN after 2 minutes if no button is pressed.

HCI means HOLLIS COMPUTER INTERFACE

Fig. 24 - PC INTERFACE

26

NORM SET 2 MODE

To access NORM SET 2 Mode, press <u>Both</u> buttons simultaneously for 2 seconds while viewing the SET 1 screen, release when the **SET 2** screen appears (Fig. 25).

NORM SURF MAIN >> SET NAV >> NORM SET 1 >> **NORM SET 2** >> SN

NORM SET 2 allows you to set/select the following items:
• Units of Measure
• Hour Format
• Time of Day
• Date
• Sampling Rate (for NORM Dive Data Download)
• Audible Alarm
• Wet Activation

Fig. 25 - NORM SET 2

SET UNITS OF MEASURE

Factory set for Metric (M, C), Units of Measure can also be set for Imperial (FT, F).

To access the Set Units screen while viewing the SET 2 screen, press/release the <u>A (Advance/Left)</u> button (< 2 seconds).

• The icon and graphic **M** (Meters) or **FT** (Feet), and the Temperature icon and graphic **C** or **F**, flashing (Fig. 26).

Fig. 26 - SET UNITS
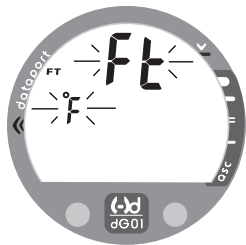
> Press/release the S (Select/Right) button to toggle between the selections.
> Press/release the A (Advance/Left) button to accept the setting and advance to Set HOUR FORMAT, or press/hold Both buttons for 2 seconds to revert to the SET 2 screen.
• Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

SET HOUR FORMAT
Factory set for 12 Hour (12: AM to 11: PM), the Format can also be set for 24 Hour (0: to 24: hours).

To access the Set Hour Format screen while viewing the SET 2 screen, press/release the A (Advance/Left) button 2 times (< 2 seconds each time).

• The graphic **Hour** appears with **12** (or 24) flashing (Fig. 27).
> Press/release the S (Select/Right) button to toggle between 12 and 24.
> Press/release the A (Advance/Left) button to accept the setting and advance to Set Time of Day, or press/hold Both buttons for 2 seconds to revert to the SET 2 screen.
• Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 27 - SET HOUR FORMAT

SET TIME OF DAY

Factory set for factory local time in 12 Hour Format, the Time Of Day can be set to values between :01 to 12:00 AM/PM (12 Hour Format) or :00 to 23:59 (24 Hour Format).

To access the Set Time screen while viewing the SET 2 screen, press/release the A (Advance/Left) button 3 times (< 2 seconds each time).

• The Time of Day appears with the graphic AM (or PM) if 12 Hour Format, clock (Time) icon indicating that Time of Day is displayed, and the **Hour** setting flashing (Fig. 28).
> Press/release the S (Select/Right) button to advance the Hour setting in increments of 1 hour, or press/hold the button to scroll through the Hours at a rate of 4 per second.
> Press/release the A (Advance/Left) button to accept the setting. The **Minute** setting flashes.
> Press/release the S (Select/Right) button to advance the Minute setting in increments of 1 minute, or press/hold the button to scroll through the Minutes at a rate of 4 per second.
> Press/release the A (Advance/Left) button to accept the setting and advance to Set Date, or press/hold Both buttons for 2 seconds to revert to the SET 2 screen.
• Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 28 - SET TIME OF DAY

29

SET DATE

Factory set for factory local Date, the Date can be set to values between 01.01 2007 and 01.01 2050. If Units are set for Metric, Day appears to the left of Month. If Units are set for Imperial, Month appears to the left of Day.

• After having set and accepted the Time of Day, the Date (Day, Month, Year) appears with the graphic **YR,** and **Year** value flashing (Fig. 29).

> Press/release the S (Select/Right) button to advance the Year setting in increments of 1 Year, or press/hold the button to scroll through the settings at a rate of 4 per second.

> Press/release the A (Advance/Left) button to accept the setting. The graphic **MtH** appears and the **Month** value flashes.

> Press/release the S (Select/Right) button to advance the Month setting in increments of 1 Month, or press/hold the button to scroll through the settings at a rate of 4 per second.

> Press/release the A (Advance/Left) button to accept the setting. The graphic **dAY** appears and the **Day** value flashes.

> Press/release the S (Select/Right) button to advance the Day setting in increments of 1 Day, or press/hold the button to scroll through the settings at a rate of 4 per second.

> Press/release the A (Advance/Left) button to accept the setting and advance to Set NORM PC Sampling Rate, or press/hold Both buttons for 2 seconds to revert to the SET 2 screen.

• Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 29 -SET DATE

SET NORM PC SAMPLING RATE

Factory set for 15 SEC (seconds), the Sampling Rate can be set to values of 2, 15, 30, or 60 (seconds); or 0.5, 1.5, or 3 M (2, 5, or 10 FT).

To access the Set Sampling Rate screen while viewing the SET 2 screen, press/release the A (Advance/Left) button 8 times (< 2 seconds each time).

- The graphics **SR** and **SEC** w**i**th clock icon (or **M** or FT ion) appear with the Set Point flashing (Fig. 30/31).
- > Press/release the S (Select/Right) button to advance the setting 1 selection at a time, or press/hold the button to scroll through the settings at a rate of 4 per second.
- > Press/release the A (Advance/Left) button to accept the setting and advance to Set Audible Alarm, or press/hold Both buttons for 2 seconds to revert to the SET 2 screen.

- Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 30 - SET SAMPLING RATE (by TIME)
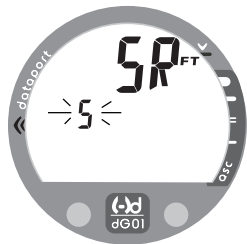
Fig. 31 - SET SAMPLING RATE (by DEPTH)

31

SET AUDIBLE ALARM

Factory set for ON, the Alarm can also be set to OFF.

When set OFF, the Alarm will not sound during the conditions described on page 9.

To access the Set Audible Alarm screen while viewing the SET 2 screen, press/release the <u>A (Advance/Left)</u> button 9 times (< 2 seconds each time).
 • The graphic **ALM** appears with the Set Point flashing (Fig. 32).
 > Press/release the <u>S (Select/Right)</u> button to toggle between ON and OFF.
 > Press/release the <u>A (Advance/Left)</u> button to accept the setting and advance to Set Wet Activation, or press and hold Both buttons for 2 seconds to revert to the SET 2 screen.
 • Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

SET WET ACTIVATION

Factory set ON, this feature can also be set OFF (disabled). When set ON, the dG01 will automatically Activate and enter NORM Dive Mode upon descent to 1.5 M (5 FT), or NAV Dive Mode upon descent to 0.6 M (2 FT).

Fig. 32 - SET AUDIBLE ALARM

To access the Set Wet Activation screen while viewing the SET 2 screen, press/release the A (Advance/Left) button 10 times (< 2 seconds each time).

- The graphics **ACt** and **H2O** appear with the Set Point flashing (Fig. 33).
- > Press/release the S (Select/Right) button to toggle between ON and OFF.
- > Press/release the A (Advance/Left) button to accept the setting and revert to the SET 2 screen.
- Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 33 - SET WET ACTIVATION

SERIAL NUMBER

To access the dG01 module's Serial Number screen, press Both buttons simultaneously for 2 seconds while viewing the SET 2 screen, release when the view only **SN** screen appears.

NORM SURF MAIN >> SET NAV >> NORM SET 1 >> NORM SET 2 >> **SN**

- The graphic **SN** appears with numerical MDG's Serial Number and firmware Revision (r) number (Fig. 34).
- > Press Both buttons for 2 seconds to access the ASCENT SCALE screen.
- Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

Fig. 34 - SERIAL NUMBER
(factory set - view only)

Fig. 35 - ASCENT SCALE
(set by PC Interface only)

ASCENT SCALE

To access the dG01 Ascent Scale screen, press <u>Both</u> buttons simultaneously for 2 seconds while viewing the SN screen, release when the <u>view only</u> **ASC** screen appears.

NORM SURF MAIN >> SET NAV >> SET 1 >> SET 2 >> SN >> **ASC**

- The graphic **ASC** appears with the graphic indicating the Ascent Scale (Standard or Navy) that was last selected using the PC Interface program (Fig. 35).
- > Press Both buttons for 2 seconds to revert to the NORM SURF MAIN screen.
- Operation reverts to NORM SURF MAIN in 2 minutes if no button is pressed.

⚠ **WARNING: During Activation and Diagnostics, if any display or function varies from the information presented here, return the dG01 to an Authorized dG01 Service Technician for inspection.**

△ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

NORM DIVE MODE
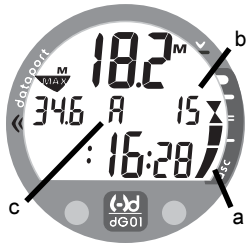
Fig. 36 - ASCENT RATE INDICATION

ASCENT RATE INDICATION

The **Ascent Rate Bar Graph** (Fig. 36a) shows how fast you are Ascending. When you exceed the maximum recommended Ascent Rate for the Depth you are at, it will enter the Too Fast zone and you will be alerted by all segments flashing, and an Audible alarm (unless it is set OFF). The warnings will stop when your Ascent Rate is slowed.

When Ascent Mode is set on (a NORM SET 1 group selection), Ascent Rate will also be displayed as a digital numeric (Fig. 36b) with the Ascent Mode graphic **A** (Fig. 36c).

Ascent Rates are displayed in increments of 2 MPM (5 FPM).

CONTROL OF DISPLAYS

During NORM Dive Mode, there is a Main (Default) screen that displays primary information relevant to the dive. Except when Alarms are sounding, the Chrono and Alternate screens that display additional information can be accessed by press/release of the A (Advance/Left) button (< 2 seconds). They will automatically revert to the Main (Default) screen after 30 seconds (Chrono) and 3 seconds (ALT) unless, the A button is pressed again to access another Alternate screen.

To activate the Backlight, press/release the S (Select/Right) button (< 2 seconds).
 • The display will remain illuminated for the Backlight Duration time that has been set (0, 5, or 10 seconds).
 • The Backlight will not activate during the time that a Low Battery condition is present.

NORM DIVE MODE

The dG01 will enter NORM Dive Mode upon Descending to 1.2 M (4 FT) for 3 seconds and display the NORM DIVE MAIN (Default) screen.

After entry in to NORM Dive Mode, Current Depth will be displayed until Ascent is made to 0.6 M (2 FT) for 1 second at which time dashes will replace the numeric Depth value.

If a Descent is then made before 5 minutes elapse, the Depth value will again be displayed beginning at 0.6 M (2 FT) rather than 1.2 M (4 FT).

NORM DIVE MAIN (Default) Display, (Fig. 37A/B)
 • Current Depth with M (or FT) icon
 • Max Depth for that dive with MAX icon
 • EDT (Elapsed Dive Time) (hr:min:sec)
 • Ascent Rate Bar Graph, if ascending
 • Ascent Rate with A icon, if Ascent Mode is set ON - or -
 • Chronograph time (hr:min:sec), if Chrono Mode is set ON

 > Press/release the <u>A (Advance/Left)</u> button (< 2 seconds each time) to view the Chrono Start/Stop screen (if set On) and Alternate Displays.
 > Depress the <u>A (Advance/Left)</u> button for 2 seconds to acknowledge/silence Alarms.

EDT

Fig. 37A - NORM DIVE MAIN
(ASCENT/CHRONO OFF)

CHRONO
TIME

Fig. 37B - NORM DIVE MAIN
(CHRONO MODE ON)

Fig. 38 - CHRONO START/STOP

CHRONO START/STOP/RESET Display, (Fig. 38)
- Graphics CHR and ON (if running) or OFF (if stopped)
- Chrono Time
- Clock icon

> Press/release the S (Select/Right) button (< 2 seconds) to Stop or Start the Chrono.
> Press the S (Select/Right) button for 2 seconds to Reset the Chrono to :00:00 (:min:sec) if Stopped first.
> Press/release the A (Advance/Left) button (< 2 seconds) to view the NORM DIVE ALT 1 Display.
> The display will revert to the NORM DIVE MAIN screen after 30 seconds, unless S is pressed to Start, Stop, or Reset the Chrono, or A is pressed to view ALT 1.

Fig. 39 - NORM DIVE ALT 1

NORM DIVE ALT 1 Display, (Fig. 39)
- Current Depth with M (or FT) icon
- Temperature with degrees icon and graphic C (or F)
- Time of Day (hr:min) with clock icon
- EDT (Elapsed Dive Time) (hr:min:sec)
- Ascent Rate Bar Graph, if ascending

> If a Nitrox dive, press/release the A (Advance/Left) button to view the NORM DIVE ALT 2 Display.
> The display will revert to the NORM DIVE MAIN screen after 3 seconds, unless A is pressed to view ALT 2.

NORM DIVE ALT 2 Display, (Fig. 40)
This screen is only displayed if FO2 has been set for Nitrox (a numeric value of 21 to 50% O2).

• Current Depth with M (or FT) icon
• PO2 value (ATA) and graphic PO2
• EDT (Elapsed Dive Time) (hr:min:sec)
• Ascent Rate Bar Graph, if ascending

> The display will revert to the NORM DIVE MAIN screen after 3 seconds.

Fig. 40- NORM DIVE ALT 2

MAXIMUM OPERATING DEPTH EXCEEDED
If you descend deeper than 120 M (400 FT) which is the MDG's Maximum Operating Depth (MOD), the Current Depth and Max Depth will only be displayed as 3 dashes (- - -) (Fig. 41).

Upon Ascending to and above 120 M (400 FT), the Current Depth display will be restored, however, Max Depth will only display the 3 dashes for the remainder of that dive. The Log for that dive will also only indicate 3 dashes (- - -) as the Max Depth achieved.

Fig. 41 -MAX OPERATING DEPTH EXCEEDED

Fig. 42 -HIGH PO2 WARNING

Ex: PO2 Alarm set at 1.40,
Warning given at .20 less

Fig. 43 -HIGH PO2 ALARM

HIGH PO2

As Depth increases during a dive, the partial pressure of oxygen (PO2) increases. When PO2 increases to 0.20 ATA less than the PO2 Alarm setting (a SET 1 selection), the current PO2 value and graphic PO2 will appear solid as a Warning on the NORM DIVE MAIN Display (Fig. 42) until PO2 decreases to 0.30 ATA less than the Alarm setting.

When PO2 increases to the PO2 Alarm setting, the Audible Alarm will sound (unless set OFF) and the current PO2 value and graphic PO2 will flash (Fig. 43) until PO2 decreases below the Alarm setting.

> Press/hold the A (Advance/Left) button for 2 seconds to acknowledge/silence the Audible Alarm.
> Press/release the S (Select/Right) button (< 2 seconds) to activate the Backlight for the Duration Time set.
> Press/release the A (Advance/Left) button (< 2 seconds) to access the Chrono Start/Stop display, if set ON. The display will revert to the High PO2 Main screen after 30 seconds unless the A button is pressed/released to access the ALT 1 screen.
> Press/release the A (Advance/Left) button again (< 2 seconds) to access ALT 1 (Temperature, Time of Day) for 3 seconds.

NORM DIVE DEPTH ALARM

When Depth exceeds the Alarm value set (a SET 1 selection), the Audible Alarm will sound, unless set OFF (a SET 2 selection), and the Current Depth digits will flash (Fig. 44) until Ascent is made above the Alarm Depth.

> Press the A (Advance/Left) button for 2 seconds to acknowledge/silence the Audible Alarm.

Fig. 44 -DEPTH ALARM

NORM DIVE EDT (Elapsed Dive Time) ALARM

When EDT exceeds the Alarm value set (a SET 1 selection), the Audible Alarm will sound, unless set OFF (a SET 2 selection), and the EDT digits will flash (Fig. 45).

> Press the A (Advance/Left) button for 2 seconds to acknowledge/silence the Audible Alarm.
> Flashing will stop when the Audible is silenced.

Fig. 45 -EDT ALARM

NORM DIVE ASCENT RATE ALARM

When the Ascent Scale is set for Navy and Ascent Rate exceeds 18.5 MPM (60 FPM) or when the Ascent Scale is set for Standard and Ascent Rate exceeds 18 MPM (60 FPM) at Depths of 18 M (60 FT) and deeper or it exceeds 9 MPM (30 FPM) at Depths shallower than 18 M (60 FT), the Audible Alarm will sound, unless set OFF (a SET 2 selection) and the FULL Ascent Bar Graph will flash (Fig. 46) until Ascent Rate is slowed below the Alarm value.

> Press the A (Advance/Left) button for 2 seconds to acknowledge/silence the Audible Alarm.

Fig. 46 -ASCENT RATE ALARM

41

⚠ WARNINGS AND SAFETY RECOMMENDATIONS

• The percentage of oxygen (FO2) in the Nitrox mix being used must be 'set before each Nitrox dive'.

• Until it has shut itself off, you should not use the dG01 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 for Depth and PO2, the dG01 must be manually activated at the new Altitude. Digital instruments such as the dG01 cannot sense changes in barometric pressure if activated by immersion in water at higher Altitudes.

• Every effort should be made to keep the Ascent Bar Graph in the normal zone throughout your dives to reduce your risk of the effects of excessive Ascent Rates.

• In the event that High PO2 occurs, you should focus on reducing PO2 by slowly Ascending to a shallower depth at a safe rate in accordance with your training to reduce the risk of oxygen toxicity.

△ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

NORM POST DIVE MODES

POST DIVE NORM SURFACE MODE

When you ascend to 0.6 M (2 FT), the dG01 will display 3 dashes for Current Depth, continue to display Max Depth and EDT (Elapsed Dive Time) for that dive, and begin counting your Surface Interval time.

FIRST 5 MINUTES

The first 5 minutes is, in affect, a Transition Period during which time the following information is displayed (Fig. 47):

• Current Depth as 3 dashes with M (or FT) icon
• Max Depth of that dive with M (or FT) and MAX icons
• Surface Interval Time (:min:sec)
• EDT (Elapsed Dive Time) of that dive (hr:min:sec)
• Battery icon (if a Low Battery Condition exists)

During the Transition Period, the Chrono and Log Mode can be accessed. No other modes (e.g., History, Set, PC) are accessible until after being on the surface for a full 5 minutes.

> To access the Chrono (if set ON), then the Log for that dive, press/release the A (Advance/Left) button (< 2 seconds each time).
> To activate the Backlight, press/release the S (Select/Right) button (< 2 seconds).

SURFACE INTERVAL

EDT

Fig. 47 - POST DIVE
FIRST 5 MINUTES

44

Log Data will not be recorded in the unit's memory until the 5 minute Transition Period on the surface is completed.

If you Descend during the 5 minute Transition Period, EDT (Elapsed Dive Time) will restart from the time that you descend (i.e., a continuation of that dive). The time at the surface (if less than 5 minutes) will not be added as EDT.

AFTER THE FIRST 5 MINUTES (UP TO 3 HOURS)
Once 5 minutes have elapsed, the Surface Interval time (hr:min) will be displayed as the lower digits with the graphic SF (= SurFace) indicating Post Dive Surface Time (Fig. 48). A subsequent Descent would then be considered a new dive and EDT would again start at :00:00 (:min:sec).

For the remainder of the next 3 hours after surfacing, information will be displayed as the POST DIVE NORM SURF MAIN screen and you will have full access to other modes (e.g., Chrono, Log, History, Set, PC).

> To access the Chrono (if set ON) then the Memo then History, press/release the A (Advance/Left) button (< 2 sec each time).
> To access the Set Sequence, press/hold Both buttons for 2 seconds.
> To activate the Backlight, press/release the S (Select/Right) button (< 2 sec).

Fig. 48 - POST DIVE AFTER 5 MINUTES

Fig. 49 - ACTIVATION (WET)

If set ON (as indicated by the graphic C appearing in the middle of the screen) and Started, the Chronograph will continue to run in the background while on the Surface after a dive until it is Stopped by button action or the unit shuts Off automatically, at which time the Chrono will Stop and Reset to :00:00 (hr:min:sec).

The dG01 will automatically shut Off 3 hours after surfacing from a last dive. Upon subsequent manual (button) or Wet activation, the NORM SURF MAIN screen will be displayed and Surface Interval time will be displayed as :00:00 (:min:sec) (Fig. 49a). The graphic SF will not be displayed as it is after surfacing from a dive.

CHRONO START/STOP/RESET Display, (Fig. 50)
 • Graphics CHR and ON (if ready or running) or OFF (if stopped)
 • Chrono Time
 • Clock icon

Fig. 50 - CHRONO READY TO START

> Press/release the S (Select/Right) button (< 2 seconds) to Stop or Start the Chrono.
> Press the S (Select/Right) button for 2 seconds to Reset the Chrono to :00:00 (:min:sec) after it is Stopped.
> Press/release the A (Advance/Left) button (< 2 seconds) to view the NORM LOG Display.
> The display will revert to the NORM SURF MAIN screen after 2 minutes if no button is pressed or if Both buttons are pressed simultaneously for 2 seconds.

46

NORM LOG MODE

Information from your latest 24 NORM Dives is stored in the **LOG** for viewing. Dives will be numbered sequentially from 1 to 999, regardless of the Date/Time Started or Activation Period. The 1000th dive will be recorded as #1, starting the numbering sequence over.

After 24 dives are recorded, each subsequent dive will overwrite the oldest dive in the MEMO (i.e., the most recent dive deletes the oldest). Dive #25 will override Dive #1, then #26 will override #2, etc.

Dives are displayed in a reverse sequence that starts with the NORM Dive most recently recorded back to the oldest of the 24 NORM Dives stored. Your most recent NORM Dive will always be the first shown in the sequence. LOG screens are Preview (Dive #, Date/Time Started), Dive Data, and O2 Data (if a Nitrox dive).

Button Control in LOG Mode -
- The A (Advance/Left) button is used to access a specific dive's Log Preview (identification) screen.
- The S (Select/Right) button is then used to view the Dive Data screen and then, if set for Nitrox use, the O2 Data screen.
- Once the S (Select/Right) button is pressed, a press/release of the A (Advance/Left) button will revert to the NORM SURF MAIN screen
- To return to the NORM SURF MAIN screen at any time while in Log Mode, press Both buttons simultaneously for 2 seconds.
- The unit will automatically revert to the NORM SURF MAIN screen after 2 minutes if no button is pressed while in the Log Mode.

Fig. 51 - LOG PREVIEW

To access LOG Mode, while viewing NORM SURF MAIN -
> press/release the A (Advance/Left) button 2 times (< 2 seconds each time) if Chrono is set ON, or 1 time if Chrono/Ascent is set OFF or Ascent is set ON.

The **LOG PREVIEW** screen for the most recent dive will be displayed (Fig. 51) -
• Dive Number
• Date and Time of Day (with clock icon) that the dive started
• Log Mode (book) icon

• press/release the S (Select/Right) button to display the Dive Data screen, or press/hold the button to scroll through the Log Preview screens.

Dive Data information (2nd Log screen) includes (Fig. 52) -
• Dive Number
• Max Depth reached during the dive with M (or FT) and MAX icons
• Surface Interval (hr:min) prior to that dive with clock icon
• Elapsed Dive Time (hr:min)
• Log Mode icon

Fig. 52 - LOG DIVE DATA

> press/release the S (Select/Right) button to display the O2 Data screen, if a Nitrox Dive, or to access the Preview screen of the previous dive's Log if an Air Dive.

48

O2 Data information (3rd Log screen) includes (Fig. 53) -
 • Dive Number
 • Maximum PO2 level reached (X.XX ATA) during that dive with
   MAX icon and graphic PO2
 • Log Mode icon
 • FO2 setting for that dive with graphic O2

 > press/release the S (Select/Right) button to access the Preview
   screen of the previous dive's Log.

Fig. 53 - MEMO O2 DATA

NORM HISTORY MODE

The dG01 stores NORM Dive information in the History Mode for viewing. NAV Dive information is not recorded or included with the data.

Historical information will not be lost when the Battery is removed, but factory service may delete data.

Button Control in History Mode -
 • To return to the NORM SURF MAIN screen while viewing the History Mode screen, press/release the A (Advance/Left) button (< 2 seconds).
 • The unit will automatically revert to the NORM SURF MAIN screen after 2 minutes if no button is pressed while in the History Mode.

To access the History Mode screen -
• While viewing the NORM SURF MAIN screen 5 minutes after a NORM Dive, press/release the A (Advance/Left) button 2 times (< 2 seconds each time) -

NORM SURF MAIN >> LOG >> HISTORY

- or -

• If Chrono Mode is selected (ON), press/release the A (Advance/Left) button 3 times (< 2 seconds each time) -

NORM SURF MAIN >> CHRONO >>LOG >> HISTORY

History information displayed includes (Fig. 54) -
• Max Depth achieved with M (or FT) icon.
• Total Number of Dives conducted (up to 999 maximum).
• Total Dive Hours and graphic h.
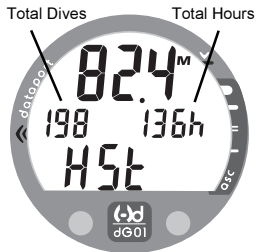• Graphic HSt.

Total Dives   Total Hours

Fig. 54 - HISTORY MODE

PC INTERFACE (UPLOADING SETTINGS, DOWNLOADING DATA)

Using a special linking Cable and a custom designed PC software program (named HCI), dive data can be Downloaded (copied) from the memory of your dG01 to an IBM compatible PC program (HCI) running on a Microsoft® Windows® operating system.

The HCI program provides tabular and graphic profile data sampled throughout the dives. It also allows Upload of NORM and NAV settings.

Instructions for use of the PC Interface Cable and HCI program are provided as the HELP portion of the program which is on the HCI program CD. It should be printed and reviewed prior to attempting either Download or Upload operations.

The Interface Cable will be connected to the Data Port located on the side of the dG01 housing and a USB port of the PC.

PC System Requirements:

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

ALTITUDE SAMPLING/COMPENSATION

⚠️ **NOTE: This information relating to Altitude pertains to calibration/compensation and adjustments of Depth readings and calculations of NDLs. It does not affect Altitude levels (EL-2 to EL-7) appearing on operating displays.**

Atmospheric (barometric) 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 pressure indicate Depth readings shallower than the Depth they are actually at.

The dG01 automatically compensates for decreased ambient pressure when activated at high Altitudes up to 14,000 feet (4,270 meters).

The dG01 senses ambient pressure when it is manually activated, every 15 minutes while it is operating on the surface, or every 30 minutes when it is not activated. At an Altitude of 3,001 feet (916 meters), it will automatically recalibrate itself to measure Depth in meters (feet) of fresh water rather than feet of sea water. It will then readjust the calibration at additional intervals of 2,000 feet (610 meters). Therefore, when returning to lower Altitudes, diving should not be conducted until the unit automatically resets to operate at the new lower Altitude level.

⚠️ **WARNING: The dG01 will not sense ambient pressures or provide Altitude Compensation when it is wet. <u>DO NOT dive at any different Altitude until the unit shuts Off and is reactivated</u> at the new Altitude level. If the unit is activated at elevations higher than 14,000 feet (4,270 meters), it will perform a Diagnostic check followed by immediate shutdown.**

△ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

NAV MODE

Fig. 55 - PRIOR TO FIRST DIVE
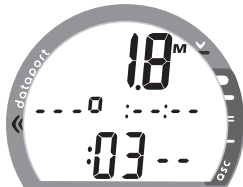
Fig. 56 - DURING NAV DIVE

Fig. 57 - AFTER SURFACING

54

OVERVIEW OF NAV (NAVIGATION) MODE

As indicated previously, the dG01 is configured with a unique NAV (Navigation) Mode. Information such as SNs (Serial Numbers) or NAV Leg #s, Headings, and CDTs (Count Down Times) are entered only using the PC Interface program.

Once a Dive is started in NAV Mode, it essentially stays in Dive Mode and data displayed continues without regard to Depth (e.g., there is no real Surface Mode, only Dive Mode while on the surface with zero Depth).

If the diver surfaces after an initial Descent is made, Depth will be displayed as 0.0 M (0 FT) instead of as 3 dashes as it is upon surfacing after a NORM Dive.

When NAV Mode is set ON, the dG01 will initially enter NAV Dive Mode upon Descending to 0.6 M (2 FT) for 3 seconds and display the NAV DIVE MAIN screen.

Sample screens:
• Fig 55 - Depth prior to the first Descent as 3 dashes (- - -) M (FT).
• Fig 56 - Depths after Descent to 0.6 M (2 FT) as actual.
• Fig 57 - Depths of 0.3 and 0.0 M (1 and 0 FT) as 0.0 M (0 FT).

Once NAV Mode is set ON, the dG01 will remain in NAV Mode until NAV Mode is set OFF. Upon reactivation or after selecting NAV Mode ON, if it was previously set OFF, NAV Diagnostic Mode will be displayed then NAV Pre Dive Surface Mode.

<u>To set the NAV Mode ON</u> (if previously set OFF):
While viewing the NORM SURF MAIN screen -
 > press Both buttons simultaneously for 2 seconds to access the SET NAV screen with the Set Point (OFF) flashing.
 > press/release the <u>S (Select/Right)</u> button momentarily (< 2 seconds) to toggle between OFF and ON (Fig. 58).
 > press/release the <u>A (Advance/Left)</u> button momentarily (< 2 seconds) to accept the ON setting and access the NAV DIAGNOSTIC screen then the NAV DIVE MAIN (Surface) screen.

Fig. 58 - SET NAV (ON)

<u>To set the NAV Mode OFF</u> (if previously set ON):
While viewing the NAV DIVE MAIN Surface screen -
 > press Both buttons simultaneously for 2 seconds to access the SET NAV screen with the Set Point (ON) flashing.
 > press/release the <u>S (Select/Right)</u> button momentarily (< 2 seconds) to toggle between ON and OFF (Fig. 59).
 > press/release the <u>A (Advance/Left)</u> button momentarily (< 2 seconds) to accept the OFF setting and access the NORM SURF MAIN screen.

Fig. 59 - SET NAV (OFF)

55

Fig. 60 - NAV DIAGNOSTIC

Fig. 61 - LOW BATTERY

NAV DIAGNOSTIC MODE
- Upon manual activation (if NAV was previously set ON and the dG01 shut Off), or if the SET NAV screen is accessed from the NORM SURF MAIN, the unit will enter NAV Diagnostic Mode (Fig. 60), displaying the NAV segments of the LCD.
- Diagnostic Mode checks the display and battery voltage to ensure everything is functioning properly.
- If a Low Battery condition exists, the Battery icon will flash (Fig. 61a) and the dG01 will shut Off.

NAV MODE SETTINGS
The NAV Mode Set Menu provides access to the NAV Leg Preview and PC screens; and to SET MAX DEPTH ALARM and SET UNITS, which are the same as those described for NORM settings. Changing the MAX DEPTH ALARM and UNITS settings in NAV Mode will change the settings selected in NORM Mode. The NAV Set Menu also includes a SET NAV BACKLIGHT MODE selection.

Access to the NAV MODE SET MENU:
While viewing the SET NAV screen with ON having been previously selected (refer to page 55) -
> press/release the A (Advance/Left) button momentarily (< 2 seconds) to step through the Menu selections.

56

NAV SET MENU
NAV DIVE MAIN (Surface) >> SET NAV (ON) >> SN >> PC >> SET DEPTH ALARM >> SET UNITS >> SET NAV BACKLIGHT MODE

NAV LEG PREVIEW
NAV Leg Preview is included in the NAV SET Menu for access when NAV Settings have been Uploaded from the PC program to the dG01.

Up to 99 NAV Legs with CDTs (Count Down Times) of up to 9:59:59 (hr:min:sec) and polar Leg Headings ranging from 0 to 360 degrees can be Uploaded.

To access the Preview screen while viewing the NAV SET screen,
> press/release the A (Advance/Left) button (< 2 seconds).

• The graphic **NAV** appears with the Heading (degrees), CDT (Countdown Time), and graphic LEG with Leg # set by PC Interface (Fig. 62).
> Press/release the S (Select/Right) button to step through the NAV Legs set from 1 to 99 (or the highest set), or press/hold the button to scroll through the Legs at a rate of 4 per second.
> Press/release the A (Advance/Left) button (< 2 seconds) to advance to the PC screen.
> Press Both buttons for 2 seconds to revert to the SET NAV screen.
• Operation will revert to the NAV DIVE MAIN (Surface) screen after 2 minutes if no button is pressed.

Fig. 62 - NAV LEG PREVIEW

PC INTERFACE (PC)

PC is the same screen seen in NORM SET 1. It is included in the NAV SET Menu for access when NAV Settings are to be Uploaded from the HCI PC program to the dG01.

To access the PC screen while viewing the NAV SET screen,
> press/release the A (Advance/Left) button 2 times (< 2 seconds each time).

• The graphic **PC** appears with a 120 second countdown with the graphic SEC and clock icon (Fig. 63).
• Settings Upload must be initiated (using the HCI program) before the countdown reaches 0 SEC (seconds).
• Settings Upload action is initiated by the HCI PC program.

> Press/release the A (Advance/Left) button (< 2 seconds) to advance to the SET MAX DEPTH screen.
> Press Both buttons for 2 seconds to revert to the SET NAV screen.
• Operation will revert to the NAV DIVE MAIN (Surface) screen after 2 minutes if no button is pressed.

Fig. 63 - PC INTERFACE

58

SET MAX DEPTH ALARM
This is the same function as the one in the NORM SET 1 menu.
Changing either will change the other.

Max Depth Alarm can be set for 6, 7, or 8 M (20, 23, or 26 FT)
then 9 to 120 M (30 to 400 FT) in increments of 3 M (10 FT).

To access the Set Max Depth Alarm screen while viewing the SET
NAV screen, press/release the A (Advance/Left) button 3 times (<
2 seconds each time).

• The **Max Depth Alarm** value appears flashing with the **M** (or
  FT) icon, and graphic **dEEP.** (Fig. 64).
> Press/release the S (Select/Right) button until the desired Alarm
  value appears, or press/hold the button to scroll through the Set
  Points at a rate of 4 Set Points per second.
> Press/release the A (Advance/Left) button to accept the setting
  and advance to SET UNITS, or press/hold Both buttons for 2
  seconds to revert to the SET NAV screen.
• Operation reverts to the NAV DIVE MAIN (Surface) screen in 2
  minutes if no button is pressed.

Fig. 64 - SET MAX DEPTH
ALARM
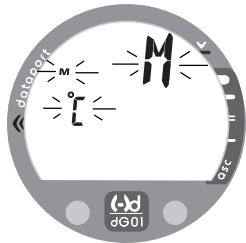
Fig. 65A - SET UNITS OF
MEASURE (METRIC)
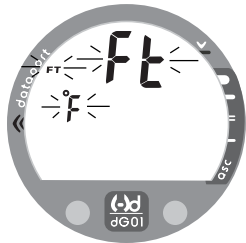
Fig. 65B - SET UNITS OF
MEASURE (IMPERIAL)

SET UNITS OF MEASURE
This is the same function as the one in the NORM SET 2 menu.
Changing either will change the other.

Units of Measure can be set for Metric (M, C) or Imperial (FT, F).

To access the Set Units screen while viewing the SET NAV screen,
press/release the A (Advance/Left) button 4 times (< 2 seconds
each time).

• The graphic **M** (Meters) or **FT** (Feet), M (or FT) icon, and the
  Temperature icon and graphic **C** (or **F)**, flash (Fig. 65A/B).
> Press/release the S (Select/Right) button to toggle between the
  selections.
> Press/release the A (Advance/Left) button to accept the setting
  and advance to SET NAV BACKLIGHT MODE, or press/hold
  Both buttons for 2 seconds to revert to the SET NAV screen.
• Operation reverts to the NAV DIVE MAIN (Surface) screen in 2
 minutes if no button is pressed.

SET NAV BACKLIGHT MODE

NAV Backlight Mode controls whether the Backlight remains ON after the S button is released to activate it (i.e., stay ON Constantly), or turn OFF after the Time Out Duration set in the NORM SET 1 menu (0, 5, or 10 seconds).

• When operating in NAV mode, Backlight Level (illumination) will be 50% of the NORM Mode's 100% Level of illumination.

To access the Set NAV Backlight Mode screen while viewing the SET NAV screen, press/release the A (Advance/Left) button 5 times (< 2 seconds each time).

• The graphic **GLO** will appear with the Set Point **CON** (Constant) or **tot** (Time Out) flashing (Fig. 66A/B).

> Press/release the S (Select/Right) button to toggle between the selections.

> Press/release the A (Advance/Left) button to accept the setting and revert to the SET NAV screen.

• Operation reverts to the NAV DIVE MAIN (Surface) screen in 2 minutes if no button is pressed.

⚠ **NOTE: To change any of the other settings such as Wet Activation, Backlight Duration, Time/Date, etc., NAV MODE must be set OFF in the SET NAV screen (see page 55), then the A (Advance/Left) button pressed/released (< 2 seconds) to gain access to the NORM SURF MAIN screen.**
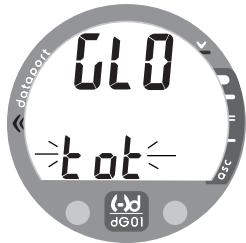

Fig. 66A - SET NAV BACKLIGHT MODE (CONSTANT)

Fig. 66B - SET NAV BACKLIGHT MODE (TIME OUT)
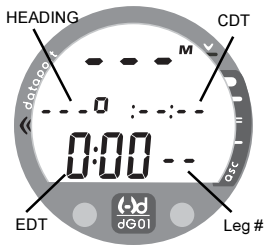
Fig. 67 - NAV DIVE MAIN
(no dive yet, on Surface)

NAV DIVE MODE

When NAV Mode is set ON, the dG01 will enter NAV Dive Mode upon Descending to 0.6 M (2 FT) for 3 seconds and display the NAV DIVE MAIN screen.

While operating in NAV Mode, EDT (Elapsed Dive Time) is controlled (Started/Stopped) using the <u>A (Advance/Left)</u> button. It also Starts automatically upon the first descent.

NAV SNs (Serial Numbers or Legs) are controlled using the <u>S (Select/Right)</u> button, which is also used to toggle the Backlight ON/ OFF in the Mode set (Constant or Time Out).

NAV DIVE MAIN (no dive yet, on Surface) -
After activation and Diagnostics, the following information is displayed (Fig. 67):

Fig. 68 - NAV DIVE MAIN
(EDT Started, on Surface)

• Current Depth as 3 dashes (- - -) with M (or FT) icon
• Battery icon (if a Low Battery Condition exists)
• NAV Leg Heading as 3 dashes (- - -) with degrees graphic
• NAV Leg CDT (Count Down Time) as 4 dashes (: - -: - -)
• EDT (Elapsed Dive Time) as 0:00 (hr:min)
• NAV Leg # as 2 dashes (- -)

The unit will automatically turn OFF 3 hours after activation if no dive (descent) is started.

62

> press/release the S (Select/Right) button (< 2 seconds) to toggle the Backlight ON/OFF in the Mode set (Constant ON or ON for Time Out set, OFF until turned ON).

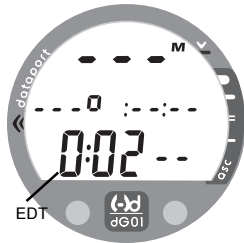> press/release (tap) the A (Advance/Left) button (< 1 second) to Start EDT (Elapsed Dive Time), Fig. 68 (page 62).

> depress the A (Advance/Left) button for 10 seconds to Stop (freeze) EDT, if its running.

> if EDT is running, depress the A (Advance/Left) button for a full 30 seconds to activate NAV Delete (clear), or 20 seconds if EDT is not running.

> press Both buttons for 2 seconds to access SET NAV.

NAV DIVE MAIN (underwater) -

Upon descent to 0.6 M (2 FT) for 3 seconds, Current Depth will be displayed and NAV Leg information will be displayed after Leg 1 is activated (called up and ready) by pressing the S (Select/Right) button for 2 seconds (Fig. 69):

• Current Depth with M (or FT) icon
• NAV Leg Heading with degrees graphic and CDT (hr:min:sec)
• EDT (hr:min)
• NAV Leg #, flashing until Started then solid (Fig. 70)

> press/release the S (Select/Right) button (< 2 seconds) to toggle the Backlight ON/OFF in the Mode set (Constant ON or ON for Time Out set, OFF until turned ON).

Fig. 69 - NAV DIVE MAIN (underwater, Leg 1 activated and ready to Start)

Fig. 70 - NAV DIVE MAIN (Leg 1 running)

63

> if EDT is running, depress the A (Advance/Left) button for 10 seconds to Stop (freeze) EDT.

> press/release (tap) the A (Advance/Left) button (< 1 second) to Start EDT.

> press the S (Select/Right) button for 2 seconds to Start NAV Leg #1.

> press the S (Select/Right) button for 2 seconds while NAV Leg #1 is running to Stop Leg #1 and call up the Leg #2 screen.

> if EDT is running, depress the A (Advance/Left) button for a full 30 seconds to activate NAV Delete (clear), or 20 seconds if EDT is not running.

The PC Upload program allows selection of an End Alarm for each NAV Leg / CDT. 3 seconds before a NAV Leg's CDT (Count Down Time) reaches :00 seconds, either an Audible Alarm will sound 3 beeps or the Backlight will come ON until 3 seconds after the next Leg is Started. The program also allows both indications to be selected or both turned Off.

Fig. 71 - NAV DIVE MAIN
(underwater, Leg 2 activated and
ready to Start)

When a NAV Leg's CDT reaches :00 seconds, the next Leg will be displayed automatically with its # (number) flashing together with its Heading and CDT (Fig. 71). If no Legs remain, dashes will be displayed.

>> press the S (Select/Right) button for 2 seconds to Start NAV Leg #2.

64

NAV DIVE MAIN (after Surfacing) -
Upon ascent above 0.6 M (2 FT), Current Depth will be displayed
as 0.0 M (0 FT) (Fig. 72):

 • Current Depth as 0.0 (or 0) with M (or FT) icon
 • Battery icon, if a Low Battery Condition exists
 • NAV Leg Heading with degrees graphic
 • NAV Leg CDT (hr:min:sec)
 • EDT (hr:min)
 • NAV Leg #, flashing if activated and ready to Start

The unit will automatically turn OFF 3 hours after surfacing at
which time EDT (Elapsed Dive Time) will reset to 0:00 (min:sec)
and NAV Leg Headings and CDTs (Count Down Times) will reset
to the values at which they were last set by PC Upload. Upon reac-
tivation, the NAV Diagnostic screen will be displayed, then the
NAV DIVE MAIN Pre Dive Surface screen.

Fig. 72 - NAV DIVE MAIN
(above 0.6 M / 2 FT)

While on the Surface after a NAV Dive:
 > press/release the S (Select/Right) button (< 2 seconds) to toggle the Backlight from ON to OFF
  in the Mode set (Constant ON or ON for Time Out set, OFF until turned ON).
 > depress the A (Advance/Left) button for 10 seconds to Stop (freeze) EDT, if its running.
 > if EDT is running, depress the A (Advance/Left) button for a full 30 seconds to activate NAV
  Delete (clear), or 20 seconds if EDT is not running.
 > press Both buttons for 2 seconds to access SET NAV.
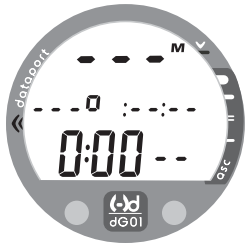
Fig. 73 - NAV DIVE MAIN
(after reactivation)

Fig. 74 - NAV DELETE
(during dive)

To exit NAV Mode and operate in NORM Mode:
> press/release the S (Select/Right) button (< 2 seconds) to toggle NAV Mode from ON to OFF.
> press/release the A (Advance/Left) button (< 2 seconds) to save the OFF setting and revert to the NORM SURF MAIN screen.

⚠ **NOTE: Upon exit from NAV Mode to NORM Mode, NAV EDT (Elapsed Dive Time) will reset to 0:00 (min:sec) and NAV Leg Headings and CDTs (Count Down Times) will reset to the values at which they were last set by PC Upload. Displayed upon reentry into NAV Mode will be the NAV DIVE MAIN Surface screen with dashes (Fig. 73).**

NAV DELETE (Clear)
The dG01 features a method that allows a diver to completely Delete (Clear) NAV EDT and all NAV Leg Heading/CDT information that was uploaded from all screens (Fig. 74) and memory.

• At any time while operating in NORM Mode or in NAV Mode when EDT is not running, depressing the A button for 20 seconds will activate NAV Delete (Clear).
• While operating in NAV Mode with EDT running, depressing the A button for 10 seconds will Stop EDT, then continuing to maintain the A button depressed for an additional 20 seconds will activate NAV Delete (Clear).

66

△ **NOTE: At any time when the dG01 is Activated, while operating in any mode on the surface or underwater, depressing the A (Left) button for 10 seconds will stop NAV Elapsed Dive Time (if running) and after another 20 seconds Delete (Clear) all NAV Leg data.**

CARE, MAINTENANCE, and REFERENCE

CARE AND CLEANING

Protect your dG01 from shock, excessive temperatures, chemical attack, and tampering. Protect the Lens against scratches with an Instrument Lens Protector. Small scratches will naturally disappear underwater.

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

• Soak and rinse the dG01 in fresh water at the end of each day of diving, and check to ensure that the areas around the low pressure (Depth) sensor (Fig. 75a), PC Interface Port (Fig. 75b), and Buttons are free of debris or obstructions.
• To dissolve salt crystals, soak the unit in a bath consisting of 50% white vinegar and 50% fresh lukewarm water.
• After removal from the bath, place the unit under gently running fresh water and towel dry before storing.
• Transport your unit cool, dry, and protected.

⚠ **WARNING: Never force any object through any slots or holes of the Housing. Doing so may damage the Depth Sensor, possibly resulting in erroneous Depth readings.**

Fig. 75 -CASE BACK

⚠️ **WARNING: If a Low Battery Condition is indicated prior to a dive, DO NOT attempt to dive with the dG01 until the Battery is replaced.**

INSPECTIONS AND SERVICE

Your dG01 should be inspected annually by an Authorized HOLLIS Service Technician who will perform a factory prescribed function check and inspection for damage or wear.

It is recommended that you continue to have this inspection performed every year to ensure it is working properly.

⚠️ **WARNING: If you are in doubt about the accuracy of your dG01's Depth readings, DO NOT attempt to dive with it until it has been inspected by an Authorized HOLLIS Service Technician.**

It is possible to damage the Depth Sensor of the dG01 if it is not pressure tested properly. Ensure that the Service Technician adheres to the following Warning.

⚠️ **WARNING: Ensure that the dG01 is never pressure tested in an air environment. Doing so may damage the Depth Sensor, possibly resulting in erroneous Depth readings.**

To Obtain Service

Take your dG01 to an Authorized HOLLIS Service Technician.

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, sand, debris, 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).

Battery Hatch Removal

- Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.
- If there is any sign of moisture in the module, DO NOT use the dG01 until it receives proper service by an Authorized dG01 Service Technician, or the factory.
- Locate the Battery Compartment on the back of the Housing.
- While applying steady inward pressure on the clear Battery Hatch, rotate the Hatch Ring clockwise 10 degrees by turning it with the Battery Hatch tool, or by pressing on the upper/right arm of the Ring with a small blade screwdriver (Fig. 76).

Fig. 76 -RING REMOVAL

- An adjustable face spanner tool or a pair of pointed pliers can also be used instead of the Battery Hatch tool by inserting the tips of the spanner tool in the small holes in the Ring (Fig. 77).

- Lift the Hatch Ring up and away from the Housing.
- Remove the Battery Hatch.

⚠ **WARNING: If damage, moisture, or corrosion is found, it is recommended that you return your dG01 to an Authorized dG01 Service Technician, and DO NOT attempt to use it until it has received factory prescribed service.**

Fig. 77 - RING REMOVAL
(alternate method)

⚠ **NOTE: If the old Battery can be removed and the new one inserted within <u>8 seconds</u> settings will be retained.**

Battery Removal
- Remove the Retaining Bar located across the lower portion of the Battery (Fig. 78a).
- Remove the Hatch O-ring. DO NOT use tools.
- Using care not to damage the Battery Contacts (Fig. 78 b/c), slide the Battery up and out of the right side of the Battery Compartment.
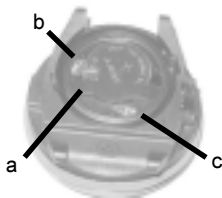

Fig. 78 - BATTERY HATCH OFF

**⚠ CAUTION: Do not allow a metal object to short cir-
cuit the top of the Battery which is positive (+) to
the negative (-) contact of the Battery Compart-
ment.**

• 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').

Battery Installation
• Slide a **new** 3 volt type CR2450 Lithium Battery, negative (-)
side down into the Battery Cavity from the right side and ensure
that it slides under the contact clip on the left rim of the cavity.
• Orient the Retaining Bar across the lower portion of the Battery
(Fig. 79a) and carefully push it down into position.

Battery Hatch and Hatch Ring Installation
• 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. This O-ring must be a genuine **HOLLIS** part.

Fig. 79 - BATTERY INSTALLA-
TION

72

- Slide the Hatch Ring, top portion first (small opening), onto your thumb (Fig. 80).
- 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 Hatch Ring down off your thumb and into position around the Battery Compartment (Fig. 81). The tabs on the Ring fit down into the slots located at the 2 and 9 o'clock positions.
- Using your fingers, turn the Ring counter clockwise 5 degrees until the tabs engage, then tighten it 5 more degrees by turning it counter clockwise with the aide of the Battery Hatch tool, or a small blade screwdriver, pressing against the upper/left arm of the Ring (Fig. 82).
- An adjustable face spanner tool or pair of pointed pliers can be used by placing the tips in the small holes of the Ring.

Fig. 80 -HATCH INSTALLATION

Fig. 81 -RING ORIENTATION

Inspection
- Activate the unit and watch carefully as it performs Diagnostic and Altitude/Battery Status checks, and enters Surface Mode. Observe the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen.

Fig. 82 -INSTALLING RING

SPECIFICATIONS

OPERATING MODES
- NORM (Normal Digital Gauge)
- NAV (Navigational Gauge)

NORM SURFACE MODES
- Activation/Diagnostic
- Altitude/Battery Status Check
- Surface
- Chronograph Start/Stop/Reset
- Dive Log - Date/Time, Dive Data, O2 Data
- History
- Set NAV (On or Off)
- Set Mode 1:
  - Max Depth Alarm (6, 7, 8, or 9 to 120 M) or (20, 23, 26, or 30 to 400 FT)
  - Elapsed Dive Time Alarm (:10 to 9:00 hr:min)
  - Ascent or Chrono Mode
  - Backlight Duration (0, 5, or 10 sec)
  - Max PO2 Alarm (1.20 to 1.60 ATA)
  - FO2 (Air, 21 to 50% O2)
  - PC Interface (to Upload Settings or Download data)
- Set Mode 2:
  - Units of Measure (Metric or Imperial)
  - Hour Format (12 or 24)
  - Time (Hour, Minute)
  - Date (Year, Day, Month)
  - Sampling Rate (2, 15, 30, or 60 sec; or 0.5, 1.5, or 3 M; or 2, 5, or 10 FT),
  - Audible Alarm (On or Off)
  - Wet Activation (On or Off)
- Serial Number (and Firmware Revision)
- Ascent Scale (Standard or Navy)

NORM DIVE MODE
- Main - default (Current Depth, Max Depth, Elapsed Dive Time, Ascent Rate Bar Graph, and if On - Chrono Time or Digital Ascent Rate)
- Chronograph Start/Stop/Reset
- Alternate 1 (Current Depth, Temperature, Time of Day, Elapsed Dive Time, Ascent Rate Bar Graph)
- Alternate 2 - only if a nitrox dive (Current Depth, Current PO2, Elapsed Dive Time, Ascent Rate Bar Graph)
- High PO2 (1.20 to 1.60 ATA)

NAV MODE (on Surface < 0.6 M/2 FT)
- Activation/Diagnostic
- Surface (dashes before dive for Depth, Nav Heading, Nav CDT, and Nav Leg #; 0:00 for EDT; actual after dive)
- Set NAV (On or Off)
  - NAV Leg Preview
  - PC Interface (to Upload NAV Settings)
  - Set Max Depth Alarm (9 to 120 M / 30 to 400 FT)
  - Set Units of Measure (Metric or Imperial)
  - Set Backlight Mode (Constant On or Time Out)

NAV MODE (underwater => 0.6 M/2 FT)
- Current Depth
- NAV Heading, CDT, and Leg # - if accessed
- EDT (Elapsed Dive Time)

SPECIFICATIONS (CONTINUED)

DISPLAY RANGE/RESOLUTION

Numeric Displays:	Range:	Resolution:
• NORM Dive Number	1 to 999	1
• Depth	0 to 120 M (0 to 400 FT)	0.1 M / 1.0 M > 99.9 M (1 FT)
• Max Depth	120 M (400 FT)	0.1 M / 1.0 M > 99.9 M (1 FT)
• Ascent Rate	0 to 20 MPM (0 to 60 FPM)	2 MPM (5 FPM)
• FO2 Set Point	Air, 21 to 50 %	1 %
• PO2 Value	0.00 to 5.00 ATA	0.01 ATA
• Elapsed Dive Time	:00 to 9:59 hr:min	1 minute
• NORM Chrono Time	:00 to 9:59:59 hr:min:sec	1 second
• NORM Post Dive Surface Time	:00 to 4:59 min:sec (< 5 min)	1 second
• NORM Post Dive Surface Time	:05 to 19:59 hr:min (=> 5 min)	1 minute
• Temperature	-18° to 100° C (0° to 212° F)	1° ambient
• NAV Leg # (number)	1 to 99	1
• NAV CDT	9:59:59 to :00 hr:min:sec	1 second
• NAV Heading	0 to 360°	1° polar
• Altitude Level	0 (= Sea Level), EL-2 to -7	1 Level (each 610 m/2,000 ft if > 915 m/3,000 ft)
• NORM History Total Dives	1 to 999	1
• NORM History Total Dive Time	1 to 999 Hr	1 Hr
• PC Countdown	119 to 0 sec	1 sec

Special Displays:	Occurrence
• Diagnostic Display	After Manual Activation
• Altitude/Battery Status	After Diagnostic
• Depth Out of Range (- - -)	>120 M (400 FT)

ASCENT RATE BAR GRAPH (STANDARD)

		<= 18 M (60 FT)			> 18 M (60 FT)	
	segments	MPM	FPM	segments	MPM	FPM
	0	0 to 3	0 to 10	0	0 to 6	0 to 20
• Normal Zone	1	3.5 to 4.5	11 to 15	1	6.5 to 9	21 to 30
• Normal Zone	2	5 to 6	16 to 20	2	9.5 to 12	31 to 40
• Normal Zone	3	6.5 to 7.5	21 to 25	3	12.5 to 15	41 to 50
• Caution Zone	4	8 to 9	26 to 30	4	15.5 to 18	51 to 60
• Too Fast Zone (all flashing)	5	> 9	> 30	5	> 18	> 60

ASCENT RATE BAR GRAPH (NAVY)

	segments	MPM	FPM
	0	0 to 10.5	0 to 32
• Normal Zone	1	11 to 12.5	33 to 38
• Normal Zone	2	13 to 14.5	39 to 44
• Normal Zone	3	15 to 16.5	45 to 50
• Caution Zone	4	17 to 18.5	51 to 56
• Too Fast Zone (all flashing)	5	> 18.5	> 56

OPERATIONAL PERFORMANCE

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

NORM Dive Counter:
• Displays Dives 1 to 999
• Resets to Dive 1, after 999

NORM Dive Log Mode:
• Stores 24 most recent dives in Log memory for viewing
• After 24 dives, adds most recent dive in memory and deletes the oldest

SPECIFICATIONS (CONTINUED)

Altitude:
- Operational from sea level to 4,270 meters (14,000 feet) elevation
- Samples Ambient Pressure every 30 minutes when not activated, when manually activated, and every 15 minutes while activated. Does not sample Ambient Pressure when it is wet.
- Recalibration of Depth readings and adjusted calculations of Nitrogen at 916 meters (3,001 feet) up to 4,270 meters (14,000 feet) at intervals of 610 meters (2,000 feet).

Power:
- Battery   (1) 3 vdc, type CR2450 Lithium battery
- Shelf life   Up to 5 years
- Replacement   User replaceable (annual recommended)
- Life expectancy   50 hours minimum with the Backlight ON Constantly at 50% in NAV Mode

Activation:
- Manual - push button (recommended)
- Automatic - by immersion in water (if set ON)
- H2O graphic in NORM indicates Wet Contacts are bridged (unit must be dried prior to transport or storage).
- Cannot be manually activated deeper than 1.2 M (4 FT), if the Water Activation feature is set OFF.
- Cannot be activated at elevations higher than 4,270 meters (14,000 feet)

Shutoff:
- Automatically shuts Off if no dive is made within 3 hours after initial activation. Reactivation required.
- Automatically shuts Off 3 hours after last dive (will reactivate if the H2O graphic is displayed).
- Cannot be shut Off manually.

Setting NORM 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 %

Operating Temperature:
- Out of the water - - between -6 °C and 56 °C (20 °F and 140 °F).
- In the water - - between -2 °C and 35 °C (28 °F and 95 °F).

ACCESSORIES
- Lens Guard - covers the lens face, prevents scratches
- PC Interface (hardware and software)
- Battery Kit - includes 1 battery, 1 battery hatch o-ring, silicone grease

GLOSSARY

Air Dive - A dive conducted using air (approximately 21% oxygen & 79% nitrogen) as the breathing gas.

Alternate (ALT) Display - Additional information accessible by pressing a control button.

Altitude Dive - A dive made at an elevation above 915 meters (3,000 feet) where reduced no decompression times are used, and Depth readings are adjusted.

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

Ascent Rate Indicator (ASC) - A bar graph that shows ascent rate as segments.

Audible Alarm - An emitted tone that alerts the diver to potential danger.

Battery Icon - A display symbol that flashes (while in Surface Mode) to indicate a Low Battery Condition.

Caution Zone - The section of the Ascent Rate Indicator that gives a visual warning of a diver's proximity to fast ascent rate.

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

Diagnostic Mode - The first display seen after manual activation during which time a self–check for internal faults is performed.

Display - A visual readout of information.

Dive Log Mode - A viewable display of previous dive information stored in memory.

Elapsed Dive Time (EDT) - The total time spent underwater during a dive.

FO2 - The fraction (percent / 100) of oxygen (O2) in the breathing gas mixture.

Icon - a small pictorial representation (symbol) of an operational mode.

LCD - Abbreviation for Liquid Crystal Display, an easily viewed low voltage display usually found on digital instruments.

Maximum Depth (MAX) - The deepest depth attained during a dive.

Mode - A specific set of functions in an instrument.

Out of Range (OOR) - The point at which an instrument can no longer supply correct dive information.

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

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

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

SERVICE RECORD

Serial Number _____

Firmware Rev Number _____

Date placed is service _____

Acquired from _____

Date	Service Performed	Technician

dG01 was developed by -

Pelagic Pressure Systems / 2002 Design

2002 Davis Street
San Leandro, CA 94577
USA