

DG03

DIVE COMPUTER

OPERATING MANUAL

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Pay special attention to items marked with this Warning symbol.

⚠ WARNING: If your DG03 stops working for any reason while operating, it is important that you have anticipated this possibility and are prepared for it. This is an important reason for not pushing the no decompression and oxygen exposure limits, and a critical reason to avoid entering decompression. If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your DG03, a backup instrument system is highly recommended.

NOTICES

LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided.

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TRADEMARK, TRADE NAME, AND SERVICE MARK NOTICE

HOLLIS, the HOLLIS logo type, DG03, the DG03 logo, Air Time Remaining (ATR), Diver Replaceable Batteries, Graphic Diver Interface, Nitrogen Loading Bar Graph (NIBG), Pre Dive Planning Sequence (PDPS), SmartGlo, Set Point, Control Console, Turn Gas Alarm, and HOLLIS Computer Interface (HCI) are all registered and unregistered trademarks, trade names, and service marks of HOLLIS. All rights are reserved.

PATENT NOTICE

U.S. Patents have been issued to protect the following design features:

Dive Computer with Free Dive Mode and/or Wireless Data Transmission (U.S. Patent no. 7,797,124), Air Time Remaining (U.S. Patent no. 4,586,136 and 6,543,444) and Data Sensing and Processing Device (U.S. Patent no. 4,882,678). Set NIBG Alarm and other patents pending. User Settable Display (U.S. Patent no. 5,845,235) is owned by Suunto Oy (Finland).

DECOMPRESSION MODEL

The program within the DG03 simulate the absorption of nitrogen into the body by using a mathematical model. This model is merely a way to apply a limited set of data to a large range of experiences. The DG03 dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the DG03, just as using the U.S. Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."** Every diver's physiology is different, and can even vary from day to day. No machine can predict how your body will react to a particular dive profile.

FCC ID: MH8A

FCC COMPLIANCE:

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

FCC INTERFERENCE STATEMENT:

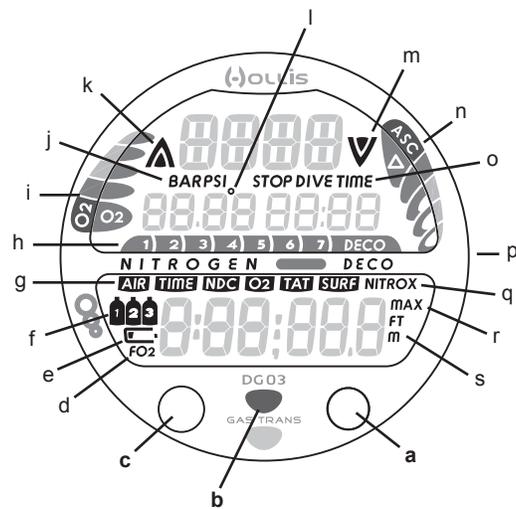
This equipment has been tested and found to comply with the limits for an Intentional Radiator, a Class B Digital Device, pursuant to Part 15 of FCC Rules, Title 47 of the Code of Federal Regulations. These rules are designed to provide reasonable protection against harmful interference in a commercial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

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

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

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

FULL LCD

Components:

- a. A button
- b. LED warning light
- c. M button
- d. value is FO2
- e. Low Battery warning
- f. Gas/TMT in use
- g. Time identification
- h. NIBG
- i. O2BG
- j. Pressure units
- k. Ascend
- l. value is Temperature
- m. Descend
- n. ASC (ascent rate)
- o. Time identification
- p. S button
- q. FO2 is set for Nitrox
- r. value is MAX
- s. Depth units

Welcome
to
HOLLIS GEAR
and
THANK YOU
for choosing the
DG03 .

FEATURES

&

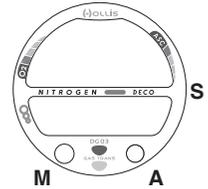
DISPLAYS

INTERACTIVE CONTROL CONSOLE

The Interactive Control Console consists of 3 Control Buttons that allow you to select mode options and access specific information. They are also used to link the Transmitter(s), enter Settings, activate the Backlight, and acknowledge the Audible Alarm.

Throughout this manual they will be referred to as the M, S, and A buttons.

- Left/Front - Mode (M) button
- Right/Front - Advance (A) button
- Right/Side - Select (S) button



OPERATING MODE STRUCTURE

The M button is used to access 3 operating Modes (Fig. 1) that include NORM (Normal Air/Nitrox Dive Computer), GAUG (Digital Gauge Mode), and FREE (Free Dive Mode).

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

When Wet Activation is set On, the DG03 will enter the selected Dive Mode upon descent to 5 FT (feet) /1.5 M (meters), regardless of what surface screen is displayed at the time.

⚠ WARNING: When Wet Activation is set OFF, the DG03 must be activated by push button prior to the first dive of a new series. Commencing a dive will not activate Dive Mode unless Wet Activation is set ON or the unit is activated.

Entering Settings and Plan Mode are available in NORM SURF Mode which also allows access to Battery/Transmitter Status, Fly, Desat, Log, and History Modes. Tank Pressure is displayed if a Transmitter is active and Linked with the DG03.

GAUG Surface Mode allows access to Battery/Transmitter Status, Fly, Log, and History Modes. It also displays Tank Pressure.

FREE Mode allows access to sub modes by first accessing NORM Surface Mode. It does not display Tank Pressure.

Once a dive is made in GAUG Operating Mode, the DG03 is locked into that Mode for 24 hours after the dive.

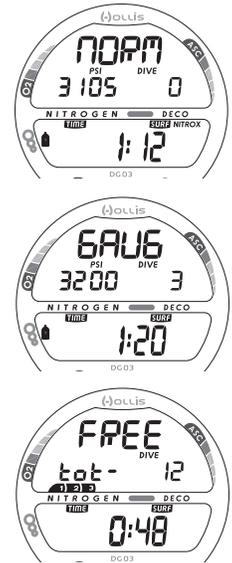


Fig. 1 - OPERATING MODES

AUDIBLE ALARM

Most warning situations that activate the Audible Alarm while operating in NORM or GAUG Mode cause the DG03 to emit 1 beep per second for 10 seconds, or until the situation is corrected, or it is acknowledged by momentarily pressing and releasing the S button (less than 2 seconds). After being acknowledged and the situation corrected, the Alarm will sound again upon reentry into the warning situation, or entry into another type of warning situation.

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

An LED Warning Light, located on the side of the housing, is synchronized with the Audible Alarm. It will flash as the Audible Alarm sounds. It will turn Off when the Alarm is acknowledged or the situation is corrected. The Audible and LED will not be active if the Alarm is Set OFF (a group A setting).

Situations that will activate the NORM/GAUG 10 second Alarm include -

- Air Time Remaining (ATR) at 5 minutes, then again at 0 minutes.
- ATR becomes less than No Deco and O₂ Time Remaining for 1 minute.
- Turn Pressure at the Set Point selected (Transmitter 1).
- End Pressure at the Set Point selected (active Transmitter).
- Descent deeper than the Max Depth Set Point selected.
- Dive Time Remaining at the Set Point selected.
- Elapsed Dive Time at the Set Point selected.
- High PO₂ at the Set Point selected.
- High O₂ of 300 OTU (max single or daily exposure).
- Nitrogen Loading Bar Graph at the segment Set Point selected.
- NORM/GAUG Ascent Rate exceeds 60 FPM (18 MPM) when deeper than 60 FT (18 M), or 30 FPM (9 MPM) at 60 FT (18 M) and shallower.
- Loss of the active Transmitter Link signal for more than 15 seconds during a dive.
- Entry into Decompression Mode (Deco).
- Conditional Violation (above a required Deco Stop Depth for less than 5 minutes).
- Delayed Violation (above a required Deco Stop Depth for more than 5 minutes).
- Delayed Violation (a Deco Stop Depth greater than 60 FT/18 M is required).
- Delayed Violation (Maximum Operating Depth of 330 FT/100 M is exceeded).
- A Gas Switch to another tank would expose the diver to PO₂ greater than 1.60 ATA.

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

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

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

- FREE Dive Elapsed Dive Time Alarm (3 beeps every 30 seconds if set On).
- FREE Dive Depth Alarms 1/2/3 (set sequentially deeper) - each 3 beeps 3 times.
- FREE Dive NIBG Alarm (Caution zone, 7 segments) - 3 beeps 3 times.
- Entry into Deco during a FREE Dive (Permanent Violation) - 3 beeps 3 times.
- Free Dive Mode Countdown Timer reaches 0:00 - 3 beeps 3 times.

During the following NORM Dive situations, the 10 second Audible Alarm will not turn off when acknowledged -

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

SMARTGLO® BACKLIGHT

To activate the SmartGlo Backlight - press the S button.

- If ambient light level is low, the Backlight will activate and illuminate the display for button depression time* plus the user set Duration time of 0, 5, or 10 seconds, for a maximum of 20 seconds.
(*The Backlight will turn Off if the button is depressed for more than 10 seconds.)
- Press the button again to activate as desired.

Extensive use of the Backlight reduces estimated Battery life. Also, the Backlight does not operate during a Low Battery Condition or when the DG03 is connected to a PC.

POWER SUPPLY

The DG03 utilizes (1) 3 volt CR2450 Lithium Battery which should operate normally for 1 year or 300 dive hours if 2 dives are conducted during each dive period. The DG03 checks battery voltage every 2 minutes during surface operation.

- If voltage of the DG03 decreases to the Warning level (2.75 volts), the Battery icon will appear on Surface display screens (Fig. 2a) as an indication that the Battery should be changed prior to commencing a series of dives.
- If the DG03's voltage decreases to the Alarm level (2.50 volts), the Battery icon will flash (Fig. 3) and the DG03 will shut Off.
- Low Battery conditions are not displayed in Dive Mode.
- If a Low Battery condition was not displayed prior to starting a Dive, and a Low Battery condition occurs during the dive, there will be sufficient Battery power remaining to maintain operation for the remainder of that dive.

Transmitters use (1) 3 volt, CR2 Lithium Battery which should provide normal operation for 1 year or 300 dive hours. Transmitters check battery voltage when they are pressurized and will send a Low Battery signal to the Receiver in the DG03 when the voltage drops below the Warning level.

- Transmitter Low Battery Warning/Alarm conditions are only displayed on Status screens that can be accessed while viewing the NORM Surface Display.

To check the condition of the DG03 or a Transmitter's Battery if NORM or GAUG Mode is selected, depress the S button for 2 seconds while viewing the NORM or GAUG Surface Main Display, then release it.

- As the button is depressed, the DG03's Receiver will activate, then -
- 2 seconds later, the DG03's Battery status will be displayed for 3 seconds (Fig. 4), then -
- if active and linked, Transmitter 1's Battery status will be displayed for 3 seconds (Fig. 5), then -
- if active and linked, Transmitter 2's Battery status will be displayed for 3 seconds, then -
- if active and linked, Transmitter 3's Battery status will be displayed for 3 seconds, then -
- the display will then revert to Surface Mode.
- If a Transmitter is not active and linked, the message NotAvAIL (not available) will be displayed (Fig. 6).

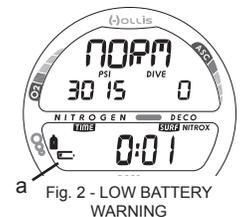


Fig. 2 - LOW BATTERY WARNING

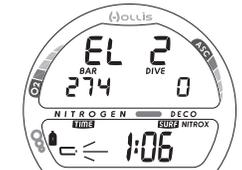


Fig. 3 - LOW BATTERY ALARM



Fig. 4 - DG03 BATT GOOD



Fig. 5 - TMT 1 BATT GOOD



Fig. 6 - TMT 3 STATUS (Not Available)

BAR GRAPHS

The DG03 features a Nitrogen Bar Graph (NIBG) (Fig. 7a) that represents your relative no decompression or decompression status.

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

The NIBG monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive. It consists of 8 segments, the left 7 represent No Decompression status and the 8th at the right indicates a Decompression condition.

When the DG03 is set to operate in NORM Nitrox mode, the 5 segment O2 Bar Graph (O2BG) (Fig. 7b) will represent oxygen accumulation.

Displays associated with oxygen and the O2BG will be displayed if FO2 for any Gas (1, 2, or 3) has been set at a value other than AIR (e.g., a numerical value).

The O2BG will show the maximum of either per dive accumulated oxygen or 24 hour period accumulated oxygen. As your oxygen exposure (accumulation) increases during a NORM dive, segments will add to the O2BG, and as saturation decreases, it will begin to recede, indicating that additional exposure is allowed for that dive and 24 hour period.

The DG03 will store oxygen accumulation calculations for up to 10 dives conducted during a 24 hour period. If the maximum limit for NORM dive oxygen accumulation has been exceeded for that day (24 hour period), all of the segments of the O2BG will be displayed flashing.

Depth/Time values will not appear in Plan Mode until the O2BG recedes into the normal zone (4 segments) indicating that your daily oxygen level has decreased an amount equivalent to the amount accumulated during the latest dive completed.

The DG03 also features a 5 segment NORM/GAUG Mode Variable Ascent Rate Indicator (VARI) (Fig. 8a) that provides a visual representation of ascent speed (i.e., an ascent speedometer). The segments of the VARI represent two sets of speeds which change at a reference depth of 60 FT (18 M). Refer to the chart for segment values.

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

ALPHA / NUMERIC DISPLAYS

Tank Pressure Display (NORM/GAUG only)

When the DG03's Receiver is set On and active, Tank Pressure from an active Transmitter that is properly linked will be displayed on the NORM or GAUG Main screens (Fig. 9a).

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

Depth Displays

During dives, Current Depth (Fig. 9b) and Max Depth, which is accessed as an Alternate Display (Fig. 10a), indicate values from 0 to 399 FT (120 M) in increments of 1 FT (.1 M).

During a No Deco Safety Stop, the set Stop Depth (Fig. 11a) is displayed and during a Deco condition, the required Stop Depth is displayed. These Depths are displayed at the top row of the screen with the graphic F for Feet (or M for Meters).

Time, Date, Temperature Displays

Time of Day and NORM/GAUG Mode displays are shown in hr:min format (i.e., 1:16 represents 1 hour and 16 minutes).

FREE Dive Mode displays are shown in min:sec format. The colon that separates hr:min (min:sec) blinks once per second when the display is indicating real time and is solid when times are calculated projections.

The primary time display, at the bottom of the screen, has the largest digits of the display (Fig. 12a). Another time display (Fig. 12b) is located in the middle row. Both displays are identified by the TIME icon.

There is an Alternate display that provides Day of Week, Temperature, and Time of Day (Fig. 13). This is a common display that can be accessed while operating in NORM, GAUG, or FREE Modes while on the surface and during dives.

Date is displayed only to identify dives recorded in the Log. When set for Imperial Units, Month is to the left of Day (Fig. 14a) separated by a decimal point (month.day). When set for Metric, Month is to the right of Day (day.month).

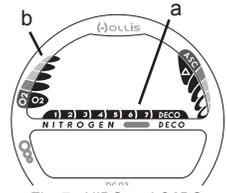


Fig. 7 - NIBG and O2BG

VARI		
Deeper than 60 FT (18 M)		
Segments Displayed	FPM	MPM
0	0-20	0-6
1	21-30	6.1-9
2	31-40	9.1-12
3	41-50	12.1-15
4	51-60	15.1-18
5	60+	18+
60 FT (18 M) & Shallower		
Segments Displayed	FPM	MPM
0	0-10	0-3
1	11-15	3.1-4.5
2	16-20	4.6-6
3	21-25	6.1-7.5
4	26-30	7.6-9
5	30+	9+

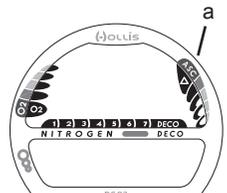


Fig. 8 - VARI



Fig. 9 - NORM DIVE MAIN

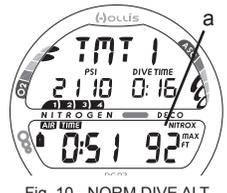


Fig. 10 - NORM DIVE ALT



Fig. 11 - SAFETY STOP

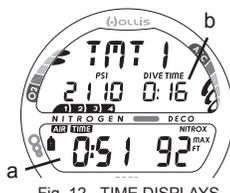


Fig. 12 - TIME DISPLAYS



Fig. 13 - COMMON

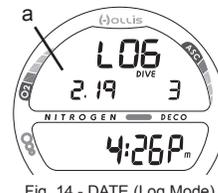


Fig. 14 - DATE (Log Mode)

PC INTERFACE

Interface with a PC is accomplished by connecting the DG03 to a PC USB port using the USB interface cable provided. The same cable is used for upload and download.

The software program is on the HOLLIS Computer Interface CD, together with a USB Driver. The program's Help section serves as the user manual and can be printed for personal use. The settings upload program is used to check the DG03's existing settings and for entering settings into the DG03. The data download program is used to retrieve data that was sampled during dives and stored in the DG03's memory.

The DG03 checks for an external access request once every second while in Surface Mode. Checks are not made if the unit is wet. For a connection to be made, the interface cable is plugged into the DG03's data port and plugged into a PC USB port. To establish the connection, the PC program must be running. When the connection is made, all segments of the DG03 appear on the display until completion of the upload or download operation.

- The DG03 reverts to the Surface Mode Main screen after completion of the upload or download operation, or after 2 minutes if no PC action was taken.

The PC program also allows upgrade of select versions of the firmware (DG03 operating system software) after which the DG03 resets all operating data. Since the upgrades require reset of the DG03, they are blocked during 24 hours after dives.

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

**You must also understand the icons, symbols,
and alpha/numeric messages presented.**

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

SURFACE SEQUENCE

&

OPERATING MODES

OPERATING MODES

The DG03 features 3 Operating Modes -

- NORM - for Normal Air or Nitrox dives
- GAUG - for dives with no Nitrogen/Oxygen calculations
- FREE - for dives with no SCUBA

Once a dive is made in GAUG Mode, the DG03 is locked into that mode for 24 hours after the dive.

SURFACE MODE

To change the operating mode, while the Surface Main screen is displayed, press/hold the M button then release it when the operating mode you wish to select appears with the mode graphic flashing. Then press/release the M button to select that mode for operation, indicated by the graphic becoming solid.

Fig. 15A, B, C - NORM MAIN >> GAUG MAIN >> FREE MAIN

- The operating mode selected (NORM, GAUG, or FREE) will remain on display for 2 hours until a dive is made or another operating mode is selected.
- If a dive has been conducted within the past 24 hours, the SURF MAIN for that mode will be displayed until changed. At any time while operating in Surface Modes, the unit will enter Dive Mode upon descent to 5 FT (1.5 M).

The DG03 will enter Post Dive Surface Mode following a dive upon ascent to 4 FT (1.2 M). The Surface Interval time colon will flash during the first 10 minutes after a NORM/GAUG dive (Fig. 16), or first 1 minute after a FREE dive.

During the first 2 hours after a dive, the SURF MAIN screen for the Operating Mode selected prior to the dive (NORM, GAUG, or FREE) remains on display as the Default SURF MAIN screen.

NORM SURF MAIN, information includes (Fig. 17):

- > Graphic NORM >> alternating with the Altitude graphic (EL2 through EL7) when above 3000 feet elevation, each On 3 seconds then 1/4 second blank.
- > Battery icon, if an DG03 Low Battery Warning Condition exists, flashing if Too Low.
- > Tank Pressure with PSI (or BAR) icon, if the Receiver is successfully Linked with an active Transmitter.
- > Number of that dive with DIVE icon (0 if no dive has been made yet).
- > Surface Interval (hr:min) with TIME and SURF icons.
- > NITROX icon, if any Gas is set for Nitrox.
- > Tank 1 icon representing Gas 1, which is the default start Gas and default Gas 10 minutes after a dive.
- > NIBG, if any after a NORM or FREE dive.
- > O2BG, if any after a Nitrox dive.

- S (press) >> will activate the Smartglo Backlight.
- A repeatedly (< 2 sec) >> will step through the NORM Surface Sequence -

Main >> ALT >> Plan >> Fly >> Sat >> Log >> History.

- A & S (simultaneously for 2 sec) >> will access the Set Menu (F > A > U > T) and SN.

Main >> Set FO2 > Set Alarms > Set Utilities > Set Time > SN.

- M (2 sec) >> will access GAUG SURF MAIN with the graphic GAUG flashing, then another 2 sec press will access FREE SURF MAIN with the graphic FREE flashing.

NORM SURF >> GAUG SURF >> FREE SURF.

- M (< 2 sec), while GAUG or FREE is flashing >> will select that as the Operating Mode as indicated by the graphic becoming solid.
- The Mode graphic in the series that is solid is the 'selected Operating Mode'. Ensure it is that Mode that you want before beginning any dives.
- S (< 2 sec), while viewing NORM SURF >> will activate the DG03's Receiver and access a series of screens that will indicate the Status of the Batteries and Pressures of the Tanks in use.
- Each Status screen will be displayed for 3 seconds. DG03 Battery Status, then TMT 1 Battery Status and Tank Pressure, then TMT 2 Battery Status and Tank Pressure, then TMT 3 Battery Status and Tank Pressure, then revert to SURF MAIN.

DG03 BATTERY STATUS, information includes (Fig. 18):

- > Graphics DG03 and bAt.
- > Graphic Good (or Lo).
- > Battery icon, if a Low Battery Warning condition exists. Flashing if an Alarm condition exists.

TMTs that are active and Linked will transmit signals conveying Tank Pressure and Battery Status for display on the Status screens. If a TMT is not active or active but not Linked, the Status screen(s) will display NotAvAIL (Not Available).



Fig. 15A - NORM SURF MAIN



Fig. 15B - GAUG SURF MAIN

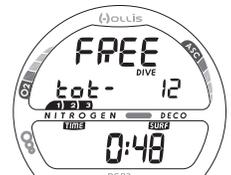


Fig. 15C - FREE SURF MAIN

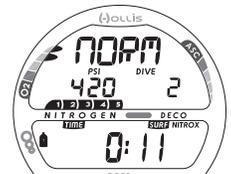


Fig. 16 - NORM SURF MAIN (post dive)



Fig. 17 - NORM SURF MAIN (no dive made yet)



Fig. 18 - DG03 BATTERY

TRANSMITTER STATUS, information includes (Fig. 19 A/B):

- > Graphics TMT1 (then TMT2 and TMT3), identifying the reporting Transmitter, and bAt.
- > Graphic Good (or Lo), or NotAvAil (if not active/linked).
- > Battery icon, if a Low Battery Warning condition exists. Flashing if an Alarm condition exists.
- > Tank Pressure for the TMT reporting with PSI (or BAR) icon.

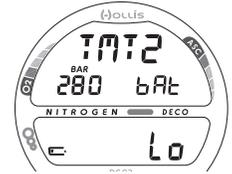


Fig. 19A - TMT 1 BATTERY and PRESSURE

NORM SURF ALT, information includes (Fig. 20):

- > Day of the Week graphic (SAT, SUN, MON, TUE, WED, THU, FRI).
- > Temperature with degree icon and graphic F (or C).
- > Time of Day (hr:min).



Fig. 19B - TMT3 STATUS (Not Available)

- A (< 2 sec) >> will access PlanN.
- A & S (simultaneously 2 sec) >> will access Clear (reset). Refer to page xx.
- S (press) >> will activate the Backlight.
- M (2 sec) >> will revert to the Main, or after 5 seconds with no button action.

NORM PLAN MODE

HOLLIS strongly recommends that you review the Plan Mode prior to every NORM dive to help you plan your dive as required to avoid exceeding no decompression or oxygen exposure limits. This is especially important for repetitive dives when the Plan indicates adjusted dive times that are available for the next dive, based on residual nitrogen or oxygen accumulation (whichever is in control) following the last dive and surface interval.

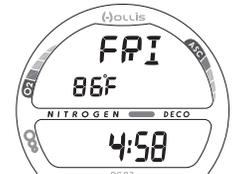


Fig. 20 - NORM SURF ALT

No Deco Dive Times (NDLs) in Plan Mode are based on the FO2 setting for Gas 1. The FO2 settings for Gas 2 and Gas 3 are not utilized for Plan calculations.

Information provided includes Depths and allowable No Deco Dive Times.

The screens will sequence through Depths from 30 to 190 FT (9 to 57 M), or the Max Depth that will allow theoretical Dive Time of at least 1 minute based upon the previous dive profiles in a series of repetitive dives and taking into account descent and ascent rates of 60 FPM (18 MPM).

When the Conservative Factor is set ON, NDLs are reduced to the values of the next 3000 foot (915 meter) higher Altitude. Refer to the table in the back.

If FO2 for Gas 1 is set for a numerical value (21 to 100%), the NITROX icon and Max Depth allowed for the PO2 Alarm Set Point will be displayed.

If calculations are controlled by oxygen accumulation, the TIME and O2 icons will be displayed.

If controlled by nitrogen loading, the TIME and NDC icons will be displayed.

- A (< 2 sec) >> will access Fly Mode, or bypass it to Log Mode if no dive made yet.
- M (2 sec) >> will revert to SURF MAIN, or if no button operation during 2 minutes.

PLAN MODE LEAD-IN, information includes (Fig. 21A/B):

- > Graphic PLAN.
- > Gas 1 PO2 Alarm setting with graphic PO2, if Nx.
- > Graphic Air, or value (21 to 100%) of FO2 set for Gas 1.
- > Gas (tank) 1 icon.
- > NITROX icon, if Nx.



Fig. 21A - PLAN LEAD-IN (AIR)

- S (< 2 sec) >> to access the first screen (30 FT/9 M) of the Plan Sequence.

PLAN SEQUENCE, information includes (Fig. 21C):

- > Plan Depth values with graphic F (feet) or M (meters).
- > Gas 1 PO2 Alarm with graphic PO2, if Nx.
- > Dive Time allowed (hr:min), NDL or OTL, with TIME and NDC (or O2) icons.
- > Gas 1 icon.
- > NITROX icon, if Nx.
- > Max Depth allowed with MAX and FT (or M) icons, if Nx.



Fig. 21B - PLAN LEAD-IN (Nitrox)

- S (< 2 sec) >> to increase Planned Depth in increments of 10 FT (3 M).
- M (2 sec) >> to revert to SURF MAIN.



Fig. 21C - PLAN SEQUENCE (Nitrox)

FLY MODE

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

Two hours after a NORM or FREE dive, the FLY screen will alternate with the SAT screen until the DG03 shuts Off 24 hours after the last dive.

During the first 2 hours after a dive -

- A (< 2 sec), while Plan Lead-in is displayed in NORM; or while SURF MAIN is displayed in GAUG >> will access FLY.
- When operating in FREE Mode, the FLY screen can be viewed by first accessing NORM or GAUG.

TIME TO FLY, information includes (Fig. 22):

- > Graphic FLY.
- > Countdown Time (hr:min) with TIME icon.
- > Battery icon, if a Low Battery condition.

- A (< 2 sec) >> will advance to DESAT.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.
- S (press) >> will activate the Backlight.



Fig. 22 - FLY (countdown)

DESAT MODE

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

When the Countdown reaches 0:00, which will generally occur prior to the FLY countdown reaching 0:00, the SAT screen continues to alternate with FLY displaying 0:00 until the FLY counter shuts the DG03 Off 24 hours after a last dive.

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

Two hours after a NORM or FREE dive, the DESAT screen will alternate with the FLY screen until the DG03 shuts Off 24 hours after the last dive. When operating in FREE Mode, the SAT screen can be viewed by first accessing NORM SURF MAIN.

TIME TO DESATURATE, information includes (Fig. 23):

- > Graphic SAT.
- > Countdown Time (hr:min) with TIME icon.

- A (< 2 sec) >> will advance to Log Mode.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.
- S (press) >> will activate the Backlight.



Fig. 23 - DESAT (countdown)

NORM/GAUG LOG MODE

Log Mode displays information from the latest 24 NORM/GAUG dives sequentially in reverse order (the most recent first).

Log information is retained until overwritten by another dive.

- > After exceeding 24 dives, data for the most recent Dive completed will be added to the Log and that from the oldest deleted.

Battery removal will not affect the data stored for viewing.

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

Accessing Log Mode:

- During the first 10 minutes after a dive >> A (< 2 sec), while the NORM or GAUG SURF MAIN is displayed will access Log.
- 10 minutes after a dive >> A (< 2 sec) while the NORM SAT, or the GAUG SURF MAIN, is displayed will access Log.
- 10 minutes after a Violation Dive >> A (< 2 sec), while the NORM or GAUG SURF MAIN is displayed will access Log. PLAN and SAT will not be available.

Upon accessing Log Mode, the most recent NORM or GAUG dive's Log Preview screen will be displayed.

- S (2 sec) >> will display the previous dive's Preview screen. Subsequent presses of S will step through other previous dives' Preview screens.
- S (< 2 sec), while viewing a Preview >> will display that dive's Log Data 1 screen.
- If that was a Nitrox dive, S (< 2 sec) again >> will display that dive's Log Data 2.
- > *Log screens remain on until further button action occurs.*
- A (< 2 sec), once S has been pressed >> will revert to SURF MAIN.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.
- S (Press) >> will activate the Backlight.

LOG PREVIEW, information includes (Fig. 24):

- > Graphic LOG.
 - > Date (month.day, or day.month if set for metric).
 - > Dive number (1 to 24) for that series with DIVE icon.
 - > Time of Day the dive began (hr:min) with graphic Am (or Pm) if set for 12 Hour Format.
- S (< 2 sec) >> will access Log Data 1.
 - S (press/hold) >> will scroll through previous Log Previews.



Fig. 24 - LOG PREVIEW

LOG DATA 1, information includes (Fig. 25):

- > Graphic NO-D, DECO, GAUG, or VIOL.
 - > NIBG >> with max accumulation segment flashing, others fixed up to end of dive accumulation. All segments flashing for Violation.
 - > VARI >> showing max ascent rate sustained for 4 consecutive seconds during the dive.
 - > Temperature (minimum that dive) with icon and graphic F (or C).
 - > Elapsed Dive Time (hr:min) with DIVE and TIME icons.
 - > Surface Interval (hr:min) prior to dive with TIME and SURF icons, 10 - through 23 - for times greater than 9:59 (hr:min), blank for Dive 1 of a series.
 - > Max Depth with MAX and FT (or M) icons.
 - > NITROX icon, if Nx.
- S (< 2 sec) >> will access Log Data 2 if Nx, or revert to MAIN if AIR or GAUG.
 - M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.
 - S (press) >> will activate the Backlight.

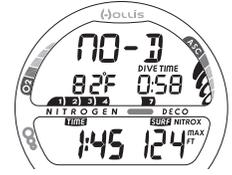


Fig. 25 - LOG DATA 1

LOG DATA 2 (if a Nitrox dive), information includes (Fig. 26):

- > Graphic O2.
 - > O2BG >> segments representing O2 accumulated at the end of the dive.
 - > PO2 value with graphic >> max level (ATA) during dive.
 - > Gas 1 FO2 setting for that dive with icon.
 - > NITROX icon.
- S (< 2 sec) >> will access the previous dive's Log Preview.
 - M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.
 - S (Press) >> will activate the Backlight.



Fig. 26 - LOG DATA 2
(only if Nx)

FREE Dives are not recorded in the Log. Data is stored in memory for subsequent download to the PC Interface program.

NORM/GAUG HISTORY

History mode records and displays accumulative NORM and GAUG dive information.

Battery removal will not affect the data stored for viewing.

- A (< 2 sec), while the Log Preview is displayed >> will access History.

HISTORY 1, information includes (Fig. 27):

- > Graphic HIST.
 - > Total number of all dives (up to 9999) with DIVE icon.
 - > Total hours of Elapsed Dive Time (up to 9999) with graphic Hr and TIME icon.
- S (< 2 sec) >> will access History 2.



Fig. 27 - HISTORY 1

HISTORY 2, information includes (Fig. 28):

- > Altitude graphic SEA (or EL2 through EL7), highest elevation range within which a dive was conducted.
 - > Temperature with icon and F (or C), lowest recorded during any dive.
 - > Max Depth achieved during any dive with FT (or M) and MAX icons.
- S (< 2 sec) >> will revert to SURF MAIN.



Fig. 28 - HISTORY 2

SET MODES

Sequence >> Set F >> Set A >> Set U >> Set T >> SN.

- A & S (2 sec), while viewing SURF MAIN >> will access and step through of the Set Mode sequence.

FO2 (Set F) entries can only be made using the buttons. Alarms (Set A), Utilities (Set U), and Time (Set T) can be set/changed using the buttons or the PC Interface program.

SET F (FO2)

Each Gas has an individual PO2 Alarm setting.

Sequence >> Set F >> FO2/PO2 Alarm Gas 1 >> Gas 2 >> Gas 3 >> FO2 Default.

- > The default FO2 settings each new activation period will be Air with no PO2 value.
- A (< 2 sec), while Set F is displayed (Fig. 29) >> will access Set FO2 Gas 1.



Fig. 29 - SET F (FO2)

When FO2 is set for Air -

- > calculations are the same as when FO2 is set for 21%.
- > it remains set for Air until set for Nitrox (21 to 100%).
- > O2 data (such as PO2, O2%) will not be displayed at any time during the dive, on the surface, or in Plan mode.
- > MODs (Max Operating Depths) will not be displayed on the FO2 set screen.
- > internally, it will keep track of O2 data for use if FO2 is subsequently set for Nitrox for repetitive dives.

When FO2 is set for Nitrox -

- > The Air option will not be displayed as an FO2 setting until 24 hours elapse after the last dive.

FO2 50% Default

When the Default is set Off, FO2 values will remain set at their last settings saved during that period of activation.

When the Default is set On and FO2 is set for Nitrox, 10 minutes on the surface after that dive the FO2 will be displayed as 50 and further dives will be calculated based on 50% O2 for oxygen calculations and 21% O2 for Nitrogen calculations (79% Nitrogen), unless FO2 is set before the dive.

FO2 will continue to reset to the Default after repetitive dives until 24 hours elapse with no dive, or the Default is set Off.

SET GAS 1 FO2/PO2, information includes (Fig. 30A/B):

- > Graphic GAS1.
- > Graphic NO PO2 when Air, or PO2 Alarm value set with graphic when Nitrox.
- > FO2 setting, flashing, with Gas (tank) 1 and FO2 icons.
- > NITROX icon, when numerical values.
- > Max Depth allowed for the PO2 Alarm Set, when Nitrox.

- S (press/hold), while the FO2 digits are flashing >> will scroll upward through the Set Points from Air to 21 through 100 in 1% increments, at a rate of 8 per second.
- > The scroll will stop when the button is released, or momentarily at 32, 50, and 80% .
- S (< 2 sec) >> will step upward through Set Points.
- A (< 2 sec) >> will save the FO2 setting and revert to SURF MAIN if Air, or flash the PO2 digits if Nitrox (21 to 100).
- S (< 2 sec) >> will step upward through PO2 Alarm Set Points from 1.20 to 1.60 (ATA) in .10 increments.
- A (< 2 sec) >> will save the FO2 setting and access Set FO2/PO2 Gas 2.
- A & S (2 sec) >> will save the setting and revert to Set F.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 30A - SET GAS 1 FO2



Fig. 30B - SET GAS 1 PO2 ALARM (if Nitrox)

SET FO2/PO2 GAS 2 and 3 are similar.

Once any Gas is set for Nitrox, any other Gas set for Air will automatically be set to 21%.

SET FO2 50% DEFAULT, information includes (Fig. 31):

- > Graphics DFLT and 50
- > Set Point graphic OFF (or ON), flashing.
- > Symbols FO2 and NITROX.

- S (< 2 sec) >> will toggle between OFF and ON.
- A (< 2 sec) >> will save the setting and revert to Set F.

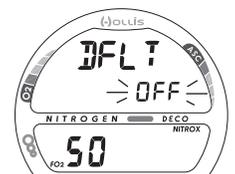


Fig. 31 - SET FO2 DEFAULT

SET A GROUP (NORM/GAUG ALARMS)

Sequence >> Set A >> Audible >> Depth >> EDT >> NIBG >> DTR >> Turn Pressure >> End Pressure.

- A (< 2 sec), while Set A is displayed (Fig. 32) >> will access Set Audible Alarm.



Fig. 32 - SET A (ALARMS)

SET AUDIBLE ALARM

This option allows the Audible Alarms and the associated warning LED function to be disabled*.

*Some cautionary situations will cause the Audible Alarm to sound and the LED to flash even if this feature is set to OFF.

SET AUDIBLE, information includes (Fig. 33):

- > Graphic AUD
- > Graphic ON (or OFF), flashing.

- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the setting and access Set Depth.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 33 - SET AUDIBLE ALARM

SET DEPTH ALARM, information includes (Fig. 34):

- > Graphic DPTH.
- > Depth value flashing, with MAX and FT (or M) icons.

- S (press/hold) >> will scroll upward through the Set Points from 30 to 330 FT (10 to 100 M) in 10 FT (1 M) increments at a rate of 4 second.
- S (< 2 sec) >> will step upward through the Set Points.
- A (< 2 sec) >> will save the setting access Set EDT Alarm.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 34 - SET DEPTH ALARM

SET EDT (ELAPSED DIVE TIME) ALARM, information includes (Fig. 35):

- > Graphic EDT.
- > Time (hr:min) flashing, with DIVE and TIME icons.

- S (press/hold) >> will scroll upward through the Set Points from 0:10 to 3:00 (hr:min) in :05 (5 min) increments at a rate of 4 second.
- S (< 2 sec) >> will step upward through the Set Points.
- A (< 2 sec) >> will save the setting access Set NIBG Alarm.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 35 - SET EDT ALARM

SET NIBG (NITROGEN BAR GRAPH) ALARM, information includes (Fig. 36):

- > Graphic NIBG
- > NIBG (segments), flashing.

- S (< 2 sec) >> will step through the Set Points from 7 to 1 segments one at a time.
- A (< 2 sec) >> will save the setting access Set DTR Alarm.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 36 - SET NIBG ALARM

SET DTR (DIVE TIME REMAINING) ALARM, information includes (Fig. 37):

- > Graphic DTR.
- > Time (hr:min) flashing; with AIR, TIME, NDC, and O2 icons.

- S (press/hold) >> will scroll upward through the Set Points from 0:00 to 0:20 (hr:min) in :01 (1 min) increments at a rate of 4 second.
- S (< 2 sec) >> will step upward through the Set Points.
- A (< 2 sec) >> will save the setting access Set Turn Alarm.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 37 - SET DTR ALARM

SET TURN PRESSURE ALARM, information includes (Fig. 38):

- > Graphic TURN.
- > Graphic OFF or Pressure value flashing, with PSI (or BAR) icon.
- S (press/hold) >> will scroll upward through the Set Points from OFF to 1000 to 3000 PSI (70 to 205 BAR) in 250 PSI (5 BAR) increments at a rate of 4 per second.
- S (< 2 sec) >> will step upward through the Set Points.
- A (< 2 seconds) will save the setting and/access Set End Pressure Alarm.
- A & S (2 sec) >> will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 38 - SET TURN ALARM

SET END PRESSURE ALARM, information includes (Fig. 39):

- > Graphic END.
- > Pressure value flashing, with PSI (or BAR) icon.
- S (press/hold) >> will scroll upward through the Set Points from 300 to 1500 PSI (20 to 105 BAR) in 100 PSI (5 BAR) increments at a rate of 4 per second.
- S (< 2 sec) >> will step upward through the Set Points.
- A (< 2 seconds) will save the setting and revert to Set A.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 39 - SET END ALARM

SET U GROUP (UTILITIES)

Sequence (if in NORM) >> Set U >> Wet Activation >> Units >> Deep Stop >> Safety Stop >> Conservative Factor >> Backlight Duration >> Sampling Rate >> Transmitter 1 >> Transmitter 2 >> Transmitter 3.

Sequence (if in GAUG) >> Set U >> Wet Activation >> Units >> Run Timer >> Backlight Duration >> Sampling Rate >> Transmitter 1 >> Transmitter 2 >> Transmitter 3.

- > To change items while operating in FREE Mode, first access NORM (or GAUG).
- > Refer to page ?? for Set GAUG Dive Run Timer.

- A (< 2 sec), while Set U is displayed (Fig. 40) >> will access Set Wet Activation.



Fig. 40 - SET U

SET WET ACTIVATION, information includes (Fig. 41):

- > Graphic WET.
- > Graphic ON (or OFF) flashing.
- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the setting and access Set Units.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 41 - SET WET ACTIVATION

SET UNITS, information includes (Fig. 42):

- > Graphic UNIT.
- > Graphic F (or C); PSI (or BAR), FT (or M) icons, flashing.
- S (< 2 sec) >> will toggle between Imperial (F, FT, PSI) and Metric (C, M, BAR).
- A (< 2 sec) >> will save the setting and access Set Deep Stop (if NORM), or Set Run Timer (if GAUG).
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 42 - SET UNITS

SET DEEP STOP (NORM), information includes (Fig. 43A):

- > Graphic DEEP with STOP icon.
- > Graphic ON (or OFF) flashing.
- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the setting and access Set Safety Stop.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 43A - SET DEEP STOP

SET RUN TIMER (GAUG), information includes (Fig. 43B):

- > Graphics GAU run TIMR with TIME icon.
- > Graphic ON (or OFF) flashing.
- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the setting and access Set Backlight Duration.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 43B - SET RUN TIMER

SET SAFETY STOP (NORM), information includes (Fig. 44A):

- > Graphic SAFE with STOP icon.
- > Graphic OFF (or ON), flashing.

- S (< 2 sec) >> will step through the selections OFF, ON, and TIMR ON.
- A (< 2 sec) >> will save the selection.

>> If OFF, or TIMR, is selected operation will advance to Set Conservative Factor.
 >> If ON is selected, the Stop Time and Depth values will be displayed with the Time digits flashing (Fig. 44B).

- S (< 2 sec) >> will step through the Stop Time Set Points of OFF, 3:00, and 5:00 (min:sec).
- A (< 2 sec) >> will save the Time setting and flash the Stop Depth digits.
- S (< 2 sec) >> will step through the Stop Depth Set Points of 10, 15, and 20 FT (or 3, 4, 5, and 6 M).
- A (< 2 sec) >> will save the Stop Depth and Time settings and advance to Set Conservative Factor.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.

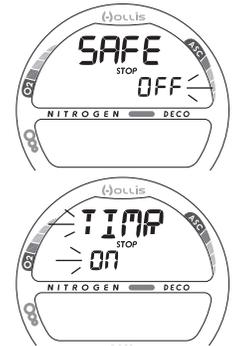


Fig. 44A - SET SAFETY STOP (OFF, Timer On, or ON)



Fig. 44B - SET STOP (if ON - Time, then Depth)

SET CONSERVATIVE FACTOR (NORM), information includes (Fig. 45):

- > Graphic CONS with TIME and NDC icons.
- > Graphic ON (or OFF) flashing.

- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) will save the setting and access Set Backlight.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.

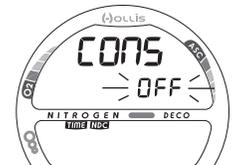


Fig. 45 - SET CONSERVATIVE FACTOR

SET BACKLIGHT DURATION, information includes (Fig. 46):

- > Graphic GLOW with TIME icon.
- > Duration Time (:sec) flashing.

- S (< 2 sec) >> will step through the Set Points of :00, :05, and :10 (:sec).
- A (< 2 sec) >> will save the setting and access Set Sampling Rate.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.

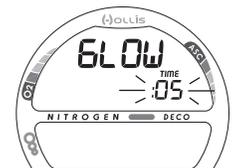


Fig. 46 - SET BACKLIGHT DURATION

SET SAMPLING RATE, information includes (Fig. 47):

- > Graphic SAMP with TIME icon.
- > Sampling interval time (:sec) flashing.

- S (< 2 sec) >> will step through the Set Points of :02, :15,, :30 and :60 (:sec).
- A (< 2 sec) >> will save the setting and access Set TMT1.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.

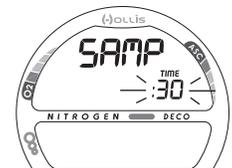


Fig. 47 - SET SAMPLING RATE

SET TMT 1, information includes (Fig. 48):

- > Graphic TMT1 (means Transmitter 1).
- > Graphic ON (or OFF) flashing.
- > Link Code (Transmitter's Serial Number).

- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the ON/OFF selection.

> If OFF is selected, Set TMT 2 and 3 will be bypassed and operation reverts to Set U.
 > If ON is selected, the first (left) digit of the Code will flash.

- S (< 2 sec) >> will increase the first digit 0 through 9 in increments of 1.
- A (< 2 sec) >> will save the first digit and flash the second.
- Repeating S and A >> will set the other digits.
- A (< 2 sec) while the last (right) digit is flashing >> will save the Link Code and access Set TMT 2.
- A & S (2 sec) >> will save the setting and revert to Set U.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 48 - SET TMT 1 (On/Off, then Code)

SET TMT 2 and 3 are similar.

SET T (TIME/DATE)

Sequence >> Set T >> Hour Format >> Time >> Date.

- A (< 2 sec), while Set T is displayed (Fig. 49) >> will access Set Hour Format.
- > Day of the Week is set automatically when Date is set.



Fig. 49 - SET T

SET HOUR FORMAT, information includes (Fig. 50):

- > Graphic HOUR with TIME icon.
- > 12 (or 24), flashing.

- S (< 2 sec) >> will toggle between 12 and 24.
- A (< 2 sec) >> will save the setting and access Set Time.
- A & S (2 sec) >> will save the setting and revert to Set T.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 50 - SET HOUR FORMAT

A (< 2 sec), repeatedly >> will step through the Time/Date settings, bypassing those that don't require setting.

SET TIME, information includes (Fig. 51):

- > Graphic 12HR (or 24HR), Format selected.
- > Time of Day (hr:min) with TIME icon, Hour digits flashing; with Am (or Pm) if 12HR, blank if 24 HR.

- S (hold) >> will scroll upward through Hour settings at a rate of 8 per second from 12: (Am) to 11: (Pm), or 0: to 23: if 24 Hour Format, in increments of 1: (1 hr).
- S (< 2 sec) >> will step through Hour settings.
- A (< 2 sec) >> will save the Hour setting and flash the Minute digits.
- S (hold) >> will scroll upward through Minute settings at a rate of 8 per second from :00 to :59 in increments of :01 (1 min).
- S (< 2 sec) >> will step through Minute settings.
- A (< 2 sec) >> will save the Time setting and access Set Date.
- A & S (2 sec) >> will save the setting and revert to Set T.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 51 - SET TIME

SET DATE, information includes (Fig. 52):

- > Graphic YEAR (then MNTH, then DAY).
- > Month.Day digits (or Day.Month).
- > Year digits, flashing.

Regardless of their position on the display, Year is set first, then Month, then Day.

- S (hold) >> will scroll upward through Year settings at a rate of 8 per sec from 2010 to 2053 in increments of 1.
- S (< 2 sec) >> will step through Year settings.
- A (< 2 sec) >> will save the Year setting and flash the Month digits.
- S (hold) >> will scroll upward through Month settings at a rate of 8 per sec from 1 to 12 in increments of 1.
- S (< 2 sec) >> will step through Month settings.
- A (< 2 sec) >> will save the Month setting and flash the Day digits.
- S (hold) >> will scroll upward through Day settings at a rate of 8 per sec from 1 to 31 (max) in increments of 1.
- S (< 2 sec) >> will step through Day settings.
- A (< 2 sec) >> will save the Date setting and access SN.
- A & S (2 sec) >> will save the setting and revert to Set T.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.



Fig. 52A - SET YEAR



Fig. 52B - SET MONTH
(Metric - August 16)



Fig. 52C - SET DAY
(Imperial - August 16)

SERIAL NUMBER

- A & S (2 sec), while viewing Set T >> will access the DG03's SN screen (Fig. 53):

- > Graphic SN.
- > Serial Number, factory assigned (does not change).
- > Firmware revision number* (e.g., graphic r1A).

- A & S (2 sec) >> will revert to SURF MAIN.
- M (2 sec) >> will revert to SURF MAIN, or if no button is pressed during a 2 minute period.

*The Firmware Revision number will change if you update the firmware at some future time using the HOLLIS PC Interface system.

The Serial Number and Firmware Revision will be requested in the event that you contact HOLLIS regarding your DG03. Enter them in the Records section provided in the back of this Manual.



Fig. 53 - SERIAL NUMBER, FIRMWARE REVISION

OVERVIEW

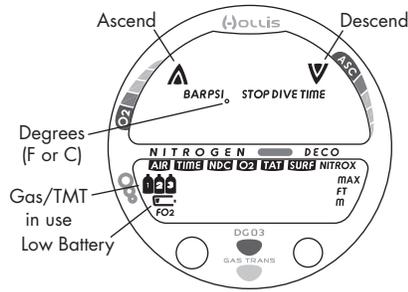
OF

DIVE MODE

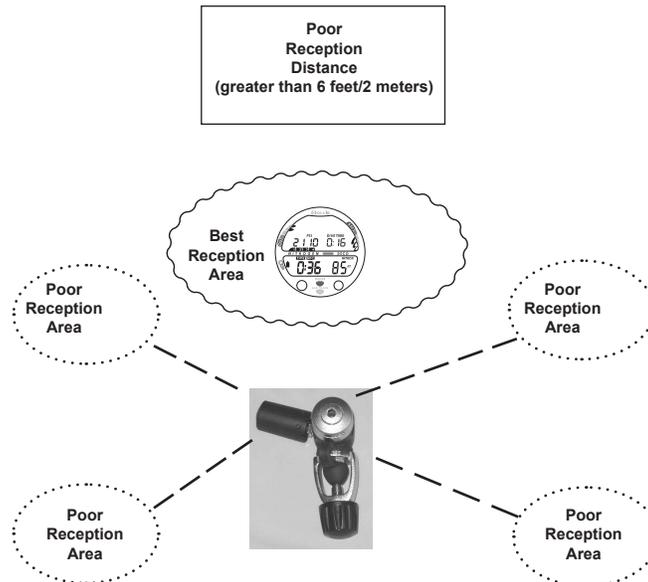
INFORMATION

DISPLAY GRAPHICS AND ICONS

<u>Icons</u>	<u>Meaning</u>
BAR (or) PSI >>	Selected Tank's Pressure Units.
STOP TIME >>	No Deco Deep or Safety Stop Time or Deco Stop Time.
DIVE TIME >>	Elapsed Dive Time.
AIR TIME >>	Air Time Remaining.
TIME NDC >>	No Deco Dive Time Remaining.
TIME O2 >>	O2 Dive Time Remaining.
TIME TAT >>	Deco Total Ascent Time.
TIME SURF >>	Surface Interval Time.
NITROX	FO2 for any Gas is set for Nitrox.
FO2	FO2 setting is the value displayed.
FT (or) M	Depth Units (Feet or Meters).
MAX	Maximum (Depth or PO2).



Transmitter Signal Reception Guide



POSITIONING OF THE DG03

The Transmitters (TMTs) emit low frequency signals that radiate outward in semicircular patterns that are parallel to the length dimension of the TMT. A coiled antenna inside the DG03 receives the signals when it is positioned within a zone parallel to or at a 45 degree angle to the TMT.

The DG03 cannot effectively receive a signal when it is held out to the sides of the TMT or held at distances greater than 6 feet (2 meters) in front of the TMT. Best reception is achieved when the DG03 is within 3 feet (1 meter) of the TMT.

When installed into the high pressure port of a Regulator First Stage, a TMT must be positioned so that it faces horizontally outward from the tank valve.

Link Interruption Underwater

During a dive, you may at times move the DG03 out of the signal pattern of the TMT, resulting in a temporary interruption of the Link signal.

An interruption lasting greater than 15 seconds will the Pressure digits to flash, the Audible to sound, and message TMTx >> LINK >> LOST to scroll (Fig. 54). The Link will be restored within 4 seconds after the DG03 is moved back into its correct position.

An interruption of the Link may also occur while the DG03 is within 3 feet (1 meter) of a running DPV, or after a strobe flashes. The Link will be restored within 4 seconds after the DG03 is moved out of that area or the interference clears.



Fig. 54 - LOST LINK (during a dive)

NO DECO DIVE TIME REMAINING (DTR)

The DG03 constantly monitors No Deco status (NDC), O2 accumulation, and Air Time Remaining, and displays whichever one is the least amount available at the time as DTR.

NDC is the maximum amount of time that you can stay at your present Depth before entering Decompression. It is calculated based on the amount of Nitrogen absorbed by hypothetical tissue compartments.

The rates each of these compartments absorb and release Nitrogen is mathematically modeled and compared against a maximum allowable Nitrogen level.

Whichever one is closest to this maximum level is the controlling compartment for that Depth. Its resulting value will be displayed as NDC (Fig. 55a) and the NIBG (Fig. 55b).

As you ascend from Depth during a dive, the NIBG segments will recede as control shifts to slower compartments.

This is a feature of the decompression model that is the basis for multilevel diving, one of the most important advantages that the DG03 offers.

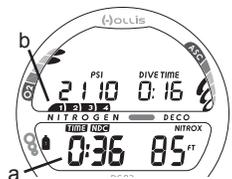


Fig. 55 - DIVE TIME REMAINING

Oxygen Accumulation

If FO2 was set for a numerical value (Nitrox), the O2BG will add segments to represent oxygen accumulation for that dive, or 24 hour period, whichever amount is greater.

When O2 Time Remaining (OTR) becomes less than NDC, it is displayed as DTR on the Main Dive screen (Fig. 56a).

Air Time Remaining (ATR)

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

ATR (Fig. 57a), identified by the AIR and TIME icons, can be viewed when an Alternate display is accessed during dive modes.

The DG03 calculates ATR using a patented algorithm that is based on a diver's air consumption rate and current depth. Tank Pressure is measured once each second and an average rate of consumption is calculated over a 60 second period.

This rate of consumption is then used in conjunction with a knowledge of the depth dependence to predict the air required for the diver to make a safe controlled ascent including any Stops.

Air consumption and depth are continuously monitored and ATR reflects any change in circumstances. For example, when you suddenly find yourself swimming against a strong current and begin breathing more rapidly, the DG03 will recognize the change and adjust the ATR accordingly.

ATR Alarm

When ATR decreases to 5 minutes (Fig. 58a), the Audible will sound during which the graphics LOW and AIR will alternate. If it decreases to 0, the Audible will sound again with the graphics LOW >> AIR >> TIME scrolling until ATR increase above 5 minutes.

You should immediately initiate a controlled Ascent while monitoring your Tank Pressure. However, there is no reason to panic, the DG03 calculations have allowed for the air necessary for a safe ascent including the No Deco Deep and Safety Stops (if set On) and any Deco Stops required.

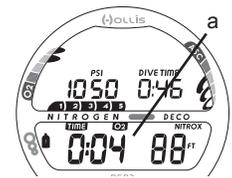


Fig. 56 - O2 DIVE TIME REMAINING

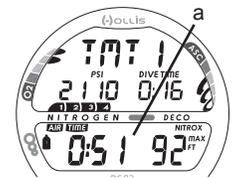


Fig. 57 - AIR TIME REMAINING



Fig. 58 - ATR ALARM

Example of ATR Alarm:

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

ASCENT RATE INDICATOR (ASC)

The ASC shows how fast you are ascending. When you exceed the maximum recommended Ascent Rate for the depth you are at, the Audible will sound during which all segments of the ASC and the graphic SLOW will flash on the Dive Main (Fig. 59). The flashing will stop and normal information restored when the audible is silenced or your Ascent Rate is slowed below the allowed rate.

The Ascent Rate alarm is based upon 2 sets of speeds which change at a reference depth of 60 FT (18 M).

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



Fig. 59 - ASCENT ALARM

CONTROL OF DISPLAYS

During Dive Modes, there is a Main (Default) Display of information relevant to the specific mode that the DG03 is operating in (No Deco, Deco, GAUG, FREE, etc.).

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

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

The S button is used to activate the SmartGlo Backlight.

- The display will be illuminated as long as the button is depressed, plus the Backlight Duration time that has been set (0, 5, or 10 seconds) for a maximum of 20 seconds
- The Backlight will not activate during a Low Battery condition.

WET CONTACTS

The Wet Contact activation feature is active when the feature is set ON.

The DG03 is configured with contacts that will automatically activate Dive Mode when the space between the contacts is bridged by a conductive material (immersed in water) and it senses a Depth of 5 FT (1.5 M) for 5 seconds.

The contacts are the pins of the PC Interface Data Port and the stems of the Push Buttons.

The DG03 will continue checking for Depth, until a dive is made or it shuts Off after 2 hours after activation.

When the Wet Activation feature is set OFF, the DG03 will not activate Dive Mode upon descent unless it is first activated by push button on the surface and operating in one of the surface at that time, such as Surface, Fly, Log, etc.

NORM

DIVE MODE

NO DECO MAIN, information includes (Fig. 60) -

- > Tank Pressure with the PSI (or BAR) icon, if a TMT is active and linked, flashing after 1 minute of Lost Link.
- > EDT (hr:min) with DIVE and TIME icons.
- > DTR (hr:min) with TIME and NDC (or O2 or AIR) icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > NITROX icon, if set for Nx.
- > Current Depth with FT (or M) icon.
- > NIBG, O2BG, ASC - when they apply.

- A (< 2 sec) >> to access ALT 1.
- A (2 sec) >> to access Deep Stop Preview, once triggered.
- S (press) >> to activate Backlight.
- S (2 sec) >> to silence Audible, acknowledge Alarms.
- M (< 2 sec) >> to access Gas/TMT Switch routine.



Fig. 60 - NO DECO MAIN

NO DECO ALT 1, information includes (Fig. 61) -

- > Day of the Week graphic (MON, TUE, etc.).
- > Temperature with degrees icon and graphic F (or C).
- > Time of Day (hr:min).

- A (< 2 sec) >> to access ALT 2.
- Reverts to Main after 5 seconds if A is not pressed.



Fig. 61 - NO DECO ALT 1

NO DECO ALT 2, information includes (Fig. 62) -

- > Graphic TMT1 (or 2, 3), tank in use.
- > Tank Pressure with the PSI (or BAR) icon.
- > EDT (hr:min) with DIVE and TIME icons.
- > ATR (hr:min) with AIR and TIME icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > NITROX icon, if set for Nx.
- > Max Depth with MAX and FT (or M) icons.
- > NIBG, O2BG, ASC - when they apply.

- A (< 2 sec) >> to access ALT 3 if Nitrox, or revert to Main if Air.
- Reverts to Main after 5 seconds if A is not pressed.



Fig. 62 - NO DECO ALT 2

NO DECO ALT 3, information includes (Fig. 63) -

- > Graphic GAS1 (or 2, 3), one in use.
- > PO2 level (ATA) with graphic PO2.
- > Tank (1, 2, or 3) icon, Gas in use.
- > FO2 setting for Gas in use, with FO2 icon.
- > NITROX icon.
- > Current Depth with FT (or M) icon.
- > NIBG, O2BG, ASC - when they apply.

- Reverts to Main after 5 seconds or if A is pressed.

Fig. 63 - NO DECO ALT 3
(only if Nitrox)

ALTs cannot be accessed while the Audible is sounding.

NO DECO DEEP STOP (DS)

On No Deco dives in which Depth exceeds 80 FT (24 M), a Deep Stop Preview screen (Fig. 64) can be accessed that will display the graphic DEEP with a Stop Time of 2:00 (min:sec) with STOP and TIME icons, and a recommended Stop Depth calculated to be 1/2 the Max Depth. The display will revert to the Main after 5 seconds.

- > The intent of this screen is to suggest that a Stop should be made as indicated to help reduce tissue nitrogen loading prior to final ascent.
- > The Preview screen will not be available for viewing once you ascend above the calculated Stop Depth.

The Deep Stop is not required and although recommended, it does not have to be taken.

Upon ascent to within 10 FT (3 M) below the calculated Stop Depth, the Deep Stop Main will replace the No Deco Main.

There is no penalty if the Stop is ignored and ascent (or other activity) is continued.



Fig. 64 - DS PREVIEW

DS Main, information includes (Fig. 65) -

- > Stop Depth with graphic F (or M).
- > Tank Pressure with the PSI (or BAR) icon.
- > Stop Time (min:sec) with STOP and TIME icons.
- > DTR (hr:min) with TIME and NDC (or O2 or AIR) icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > NITROX icon, if set for Nx.
- > Current Depth with FT (or M) icon.
- > NIBG, O2BG, ASC - when they apply.

- A (< 2 sec) >> to access ALT 1.
- S (press) >> to activate Backlight.
- S (2 sec) >> to silence Audible, acknowledge Alarms.
- M (< 2 sec) >> to access Gas/TMT Switch routine.



Fig. 65 - DS MAIN

DEEP STOP ALTS display the same information as the No Deco Main and ALTS.

In the event that you descend 10 FT (3 M) below, or ascend 10 FT (3 M) above the Stop Depth, the No Deco Main will be displayed.

If you return to within the +/- 3 M (10 FT) range within 10 seconds, the DS Main will reappear with the countdown still in progress.

If you remain out of the range for more than 10 seconds during the countdown, the Deep Stop will be canceled for the remainder of that dive.

When the countdown reaches 0:00, the No Deco Main will be displayed and the Deep Stop feature will be disabled for the remainder of that dive.

The Deep Stop feature will be disabled and its screens not displayed for the remainder of that dive, if you enter Deco or High O2 (=> 80%) or descend deeper than 190 FT (63 M).

During High PO2 (=> Alarm setting), the DS screen information will be replaced with High PO2 information.

NO DECO SAFETY STOP (SS)

If set On:

Upon ascent to within 5 FT (1.5 M) deeper than the SS Depth set for 1 second on a No Deco dive in which Depth exceeded 30 FT (9 M) for 1 second, a beep will sound and a SS at the Depth set will appear on the Main display with a countdown beginning at the SS Time set and counting down to 0:00 (min:sec).

- If the SS was set for OFF or Timer, the display will not appear.
- In the event that you descend 10 FT (3 M) deeper than the Stop Depth for 10 seconds during the countdown, or the countdown reaches 0:00, the No Deco Main screen will replace the SS Main screen which will reappear upon ascent to within 5 FT (1.5 M) deeper than the Safety Stop Depth set for 1 second.
- In the event that you enter Deco during the dive, complete the Deco obligation, then descend below 30 FT (9 M); the SS Main will appear again upon ascent to within 5 FT (1.5 M) deeper than the SS Depth set for 1 second.
- If you ascend 2 FT (0.6 M) shallower than the SS Depth for 10 seconds prior to completing it, the SS will be canceled for the remainder of that dive.
- There is no Penalty if you surface prior to completing the SS or ignore it.

SS Main (Time/Depth set), information includes (Fig. 66A) -

- > Stop Depth with graphic F (or M).
- > Tank Pressure with the PSI (or BAR) icon.
- > Stop Time (min:sec) with STOP and TIME icons.
- > DTR (hr:min) with TIME and NDC (or O2 or AIR) icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > NITROX icon, if set for Nx.
- > Current Depth with FT (or M) icon.
- > NIBG, O2BG, ASC - when they apply.

- A (< 2 sec) >> to access ALT 1.
- S (press) >> to activate Backlight.
- S (2 sec) >> to silence/acknowledge Alarms.
- M (< 2 sec) >> to access Gas/TMT Switch routine.



Fig. 66A - SS MAIN
(Time/Depth set)

SAFETY STOP ALTS display the same information as the No Deco Main and ALTS.

If set for Timer On:

Upon ascending to 20 FT (6 M) for 1 second on a No Deco dive in which Depth exceeded 30 FT (9 M) for 1 second, 1 beep will sound and a Run Timer will appear (if set On) displaying 0:00 (min:sec) until started.

- If the SS was set for Off or On, the Timer display will not appear.
- Upon descend below 30 FT (9 M) for 10 seconds, the No Deco Main will replace the Timer screen which will reappear upon ascent to 20 FT (6 M) for 1 second.
- If you ascend above 10 FT (3 M) for 10 seconds, or enter Deco, or a High O2 alarm condition occurs (100%), while the SS Timer is active, the SS Timer will be disabled for the remainder of that dive.

SS Main (using Timer), information includes (Fig. 66B) -

- > Graphic TIMR.
 - > Tank Pressure with the PSI (or BAR) icon.
 - > Timer counting up (min:sec) with STOP and TIME icons.
 - > DTR (hr:min) with TIME and NDC (or O2 or AIR) icons.
 - > Tank (1, 2, or 3) icon, Gas in use.
 - > NITROX icon, if set for Nx.
 - > Current Depth with FT (or M) icon.
 - > NIBG, O2BG, ASC - when they apply.
- A (< 2 sec) >> to access ALT 1.
 - S (press) >> to activate Backlight.
 - S (2 sec) >> to silence/acknowledge Alarms.
 - M (< 2 sec) >> to access Gas/TMT Switch routine.

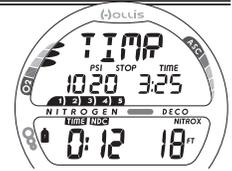


Fig. 66B - SS MAIN
(Time/Depth set)

DECOMPRESSION

The DG03 is designed to help you by providing a representation of how close you are to entering Decompression which activates when theoretical No Deco time and depth limits are exceeded.

Upon Entry into Deco, the Audible will sound and the LED Warning Light will flash during which the graphics DECO >> STOP will scroll (Fig. 67).

- A (< 2 sec) >> will acknowledge/silence the Audible.
- > The UP Arrow will flash while you are greater than 10 FT (3 M) deeper than the required Stop Depth.
- > Once you are within 10 FT (3 M) of, and below, the required Stop Depth, the UP Arrow will be removed.
- > Once silenced, the graphics DECO >> STOP >> xxF (or M) will scroll.



Fig. 67 - DECO ENTRY

To fulfill your decompression obligation, you should make a safe controlled ascent to a depth slightly deeper than, or equal to, the required Stop Depth indicated and decompress for the Stop Time indicated.

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

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

DECO STOP MAIN, information includes (Fig. 68) -

- > Graphics DECO, STOP, and xxF (or M) scrolling.
- > Pressure with PSI (or BAR) icon, if a TMT is in use.
- > Stop Time (hr:min) required with STOP and TIME icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > Total Ascent Time* (hr:min) with TIME and TAT icons.
- > NITROX icon, if applicable.
- > Current Depth with FT (or M) icon.
- > Full NIBG, O2BG (if any).

- A (< 2 sec) >> to access ALT 1.
- S (press) >> to activate Backlight.
- S (2 sec) >> to acknowledge/silence alarms.
- M (< 2 sec) >> to access Gas/TMT Switch routine.

*Total Ascent Time includes Stop Times required at all required Deco Stops plus vertical Ascent Time to the surface.



Fig. 68 - DECO STOP MAIN

DECO STOP ALT 1, information includes (Fig. 69) -

- > Day of the Week graphic (MON, TUE, etc.).
- > Temperature with degrees icon and graphic F (or C).
- > Time of Day (hr:min).

- A (< 2 sec) >> to access ALT 2.
- Reverts to Main after 5 seconds if A is not pressed.



Fig. 69 - DECO STOP ALT 1

DECO STOP ALT 2, information includes (Fig. 70) -

- > Graphic TMT1 (or 2, 3), tank in use.
- > Tank Pressure with the PSI (or BAR) icon.
- > EDT (hr:min) with DIVE and TIME icons.
- > ATR (hr:min) with AIR and TIME icons.
- > Tank (1, 2, or 3) icon, Gas in use.
- > NITROX icon, if set for Nx.
- > Max Depth with MAX and FT (or M) icons.
- > Full NIBG, O2BG (if any).

- A (< 2 sec) >> to access ALT 3 if Nitrox, or revert to Main if Air.
- Reverts to Main after 5 seconds if A is not pressed.



Fig. 70 - DECO STOP ALT 2

DECO STOP ALT 3, information includes (Fig. 71) -

- > Graphic GAS1 (or 2, 3), one in use.
- > PO2 level (ATA) with graphic PO2.
- > Tank (1, 2, or 3) icon, Gas in use.
- > FO2 setting for Gas in use, with FO2 icon.
- > NITROX icon.
- > Current Depth with FT (or M) icon.
- > Full NIBG, O2BG.

- Reverts to Main after 5 seconds or if A is pressed.



Fig. 71 - DECO STOP ALT 3

VIOLATION MODES

While in Violation Modes, ALT displays previously described can be accessed using the A button, the Backlight can be activated using the S button, and Alarms can be acknowledged and silenced with the S button.

CONDITIONAL VIOLATION

If you ascend above a required Deco Stop, the Audible will sound and the warning LED will flash. The Down Arrow and Full NIBG will flash (Fig. 72) until you descend below the required Stop Depth.

The graphics DOWN >> DOWN will scroll at the top of the display until the Alarm is acknowledged/silenced, then the graphics DOWN > TO > xxF (or M) will scroll.

If you descend below the required Deco Stop Depth before 5 minutes have elapsed, the DG03 will continue to function in Decompression mode. In this case, no off gassing Credit will be given, and for each minute above the Stop 1 1/2 minutes of Penalty Time will be added to required Stop Time.

- > The added Penalty (deco) Time will have to be worked off first, before obtaining off gassing credit.
- > Once the Penalty Time is worked off, and off gassing credit begins, required Deco Stop Depth and Time will decrease toward zero. The NIBG will recede into the No Deco zone and the DG03 will revert to the No Deco dive mode.



Fig. 72 - CV MAIN

Upon entry into the following Delayed Violation Modes, the Audible will sound and the warning LED will flash, even if Set OFF. When these events occur, the Audible cannot be silenced by pressing S.

CV, DV 1, & DV 2 button action & ALTs are similar to those described for Deco.

DELAYED VIOLATION 1 (Fig. 73)

If you remain above the required Deco Stop Depth for more than 5 minutes, the full NIBG and DOWN Arrow will flash until you descend below the Required Stop Depth. The graphic message DOWN > TO > xxF (or M) will continue to scroll.

- > This is a continuation of a Conditional Violation.



Fig. 73 - DV 1 MAIN

DELAYED VIOLATION 2 (Fig. 74)

The DG03 cannot calculate decompression times for Stop Depths much greater than 60 FT (18 M) and offers no indication of how much time spent underwater would result in the need for a greater Stop Depth.

If the Deco obligation requires a Stop Depth between 60 FT (18 M) and 70 FT (21 M), the full NIBG will flash and the graphics DECO >> STOP >> 60F (18M) will scroll.

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

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



Fig. 74 - DV 2 MAIN

DELAYED VIOLATION 3 (Fig. 75)

If you descend deeper than the MOD (Max Operating Depth) of 330 FT (100 M) in NORM, or 399 FT (120 M) in GAUG, the UP Arrow will flash, and the Current Depth and Max Depth (on ALT 2) displays will only indicate 3 dashes (---) signifying that you are Out of Range.

The graphics TOO >> DEEP will scroll until Ascent is made above the MOD.

Upon ascending above the MOD, Current Depth will be restored, however Max Depth will only display dashes for the remainder of that dive. Also, the Log for that dive will display dashes as the Max Depth.



Fig. 75 - DV 3 MAIN

DV 3 button action & ALTs are similar to those described for Deco or No Deco.

VIOLATION GAUGE MODE (VGM)

If a Deco Stop Depth much greater than 60 FT (18 M) is required, VGM will be activated. This situation would be preceded by entering DV 2.

The DG03 would then operate in VGM during the remainder of that dive and for 24 hours after surfacing. VGM turns the DG03 into a digital instrument without any decompression or oxygen monitoring functions.

VGM MAIN, information includes (Fig. 76) -

- > Graphics UP >> VIOL, scrolling until on surface.
- > UP Arrow icon, flashing until on surface
- > Pressure with PSI (or BAR) icon.
- > EDT (hr:min) with DIVE and TIME icons.
- > Tank (1, 2, or 3) icon, TMT in use.
- > Current Depth with FT (or M) icon.
- > Full NIBG, flashing until audible is silent then removed.
- > ASC, while ascending.

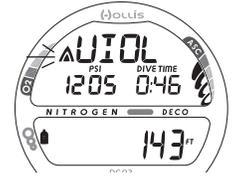


Fig. 76 - VGM MAIN

VGM button action & ALTs are similar to those described for Deco.

The DG03 will also activate VGM 5 minutes after surfacing from a dive in which a Delayed Violation occurred.

VGM on the Surface

In the event that a dive is made during the 24 hour period after surfacing from a dive in which a Violation occurred, a full 24 hour surface interval must then be served before all functions are restored.

Access to the Set F, Plan, and Sat features/screens is blocked.

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

VGM SURF MAIN, information includes (Fig. 77) -

- > Graphic VIOL alternating with NORM.
- > Pressure with PSI (or BAR) icon.
- > Dive number with DIVE icon.
- > Surface Interval Time (hr:min) with TIME and SURF icons.
- > Tank 1 icon, (default TMT on surface).



Fig. 77 - VGM SURF MAIN

HIGH PO2 (NORM ONLY)

Warning >> at Alarm value set for the Gas in use minus 0.20.

Alarm >> at value set for the Gas in use, except in Deco then only at 1.60 regardless of the setting.

When PO2 (partial pressure of oxygen) increases to the Warning level; the audible sounds and the LED flashes.

- S (< 2 sec) >> to acknowledge/silence the audible.

Information includes (Fig. 78) -

- > The graphics HIGH >> PO2 scroll until the audible is silent then UP >> HIGH >> PO2 scroll until PO2 decreases below the Warning level.
- > The Up Arrow icon comes on solid with the graphic PO2 in place of EDT.

If PO2 continues to increase and reaches the Alarm value set for the Gas in use, the audible sounds and the LED flashes again.

- > The Up Arrow icon and graphic PO2 flash until the audible is silenced, then PO2 will alternate with EDT until PO2 decreases below the Alarm level.



Fig. 78 - HIGH PO2

HIGH O2 (NORM only)

Warning >> at 80% (240 OTU).

Alarm >> at 100% (300 OTU).

When O2 accumulation (saturation) increases to the Warning level; the audible sounds and the LED flashes.

- S (< 2 sec) >> to acknowledge/silence the audible.
- > The graphics HIGH >> O2 scroll until the audible is silent then UP >> HIGH >> O2 scroll until O2 decreases below the Warning level.
- > The full O2BG is displayed and the Up Arrow icon comes on solid with the graphic O2 in place of EDT.

If O2 reaches 100%, the audible sounds and LED flashes again.

- > The full O2BG, Up Arrow, and graphics UP and O2 flash (Fig. 79) until on the surface, then the O2BG will be solid and the Up Arrow and graphics UP and O2 are removed.



Fig. 79 - HIGH O2

GAS/TRANSMITTER SWITCHING

SWITCHING GAS MIXES AND TMTs

During NORM (or GAUG) dives, the Gas and/or Transmitter (tank) in use can be switched from 1 to 2 to 3, changing FO2 displays, calculations, and the PO2 Alarm from one Gas to another, and if TMTs are used, changing Pressure related displays and calculations from Transmitter 1 to 2 to 3.

Switching cannot be performed while on the surface.

Every dive begins with GAS/TMT 1, and 10 minutes after surfacing operation defaults to #1.

Access to Switch screens can only be accomplished during the time that a Dive Main screen is being displayed and cannot be performed during the time that an Alarm is sounding.

If a Switch to a new Gas mix would expose the diver to a prohibitive PO2 level (\Rightarrow 1.60)*, the Audible will sound, during which the warning LED will flash and the graphics DONT > SWCH will scroll (Fig. 80).

- S (2 sec) >> to acknowledge/silence audible and display the Preview screen for that Gas.

**Due to the possibility that sufficient air may not be available in the Switch From tank to complete the dive, the Switch to the prohibitive Mix can still be made. If the Switch is made while in No Deco, the High PO2 Alarm will activate. If the Switch is made while in Deco, the graphics HIGH >> PO2 will replace the scrolling Deco graphics until the High PO2 condition clears.*

Switching can only be performed during the time that a Gas/TMT Preview screen is displayed. These are accessed from a Dive Main screen.

- M (< 2 sec) while viewing a NORM Dive Main screen will access the GAS/TMT 1* Preview screen. *Gas only, if TMTs are not in use.*
- M (< 2 sec) while viewing a GAUG Dive Main screen will access the TMT 1* Preview screen.

**GAS/TMT 1 is always displayed first, then 2, then 3, regardless of the one in use at the time.*

NORM SWITCH PREVIEW, information includes (Fig. 81) -

- > Graphic GAS1 (or 2, 3).
- > Pressure with PSI (or BAR) icon, if TMT is in use.
- > Gas 1 (or 2, 3) icon.
- > FO2 setting with FO2 icon.
- > NITROX icon, if applicable.
- > Current Depth with FT (or M) icon.
- > NIBG, O2BG, ASC - as applicable.

- M (< 2 sec) >> to access the next GAS/TMT Preview.
- M (2 sec) >> to Switch to the GAS/TMT displayed.
- 10 sec >> revert to Dive Main if no button is pressed.

GAUG SWITCH PREVIEW, information includes (Fig. 82) -

- > Graphic TMT1 (or 2, 3).
- > Pressure with PSI (or BAR) icon.
- > Tank 1 (or 2, 3) icon.
- > Current Depth with FT (or M) icon.
- > ASC, if ascending.

- M (< 2 sec) >> to access the next TMT Preview.
- M (2 sec) >> to Switch to the TMT displayed.
- 10 sec >> revert to Dive Main if no button is pressed.

When a switch is made to a new TMT, there is a delay of 5 to 10 seconds before the DG03's receiver picks up that TMT's signal.

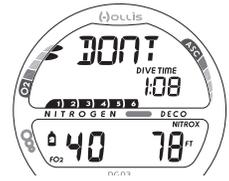


Fig. 80 - DONT SWITCH GAS ALARM



Fig. 81 - NORM SWITCH PREVIEW

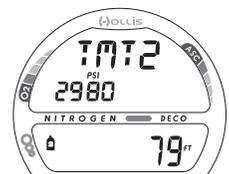


Fig. 82 - GAUG SWITCH PREVIEW

NORM

POST DIVE MODE

POST DIVE SURFACE MODE

When you ascend to 2 FT (0.6 M), the DG03 will enter Surface Mode and begin counting your Surface Interval.

TRANSITION PERIOD

If you descend during the first 10 minutes after surfacing (referred to as the Transition Period), time underwater will be considered a continuation of that dive. The time at the surface (if less than 10 minutes) will not be added as Dive Time.

SURF MAIN, information includes (Fig. 83):

- > Graphic NORM.
- > Battery icon, if Low Battery.
- > Tank Pressure with PSI (or BAR) icon, if TMT is in use.
- > Number of that dive with DIVE icon.
- > Surface Interval (hr:min) with TIME and SURF icons, SURF flashing during the first 10 min.
- > NITROX icon, if any Gas is set for Nitrox.
- > Tank (1, 2, or 3) icon, Gas in use during 10 min.
- > NIBG, O2BG if any after a Nitrox dive.

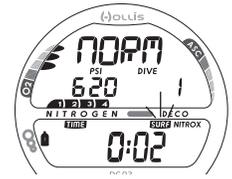


Fig. 83 - NORM SURF MAIN (< 10 min post dive)

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

- A (< 2 sec) >> to access SURF ALT (Fig. 84).
- ALT >> reverts to Main after 5 sec if A is not pressed.
- S (press) >> to activate SmartGlo Backlight.
- A (< 2 sec) while viewing ALT >> to access Log Preview for that dive (Fig. 85).
- S (< 2 sec) >> to access Log 1 (dive data), then again to access Log 2 (O2 data), then again to revert to Main.
- Log >> reverts to Main after 2 min if S is not pressed.

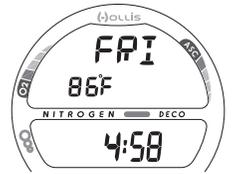


Fig. 84 - SURF ALT

Data for that dive will not be stored in memory until the 10 minute Transition Period on the surface is completed.

After the Transition Period

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

Once the Transition Period has ended, you will then have full access to other surface modes/screens.

- > Plan now displays adjusted NDLs based on residual nitrogen and accumulated oxygen calculated to be remaining from the previous dives.
- > After 2 hours on the Surface, FLY and SAT alternate.



Fig. 85 - LOG PREVIEW (for that dive)

RESET FEATURE

The DG03 is configured with a RESET feature that allows Nitrogen/O2 calculations and data and Log Mode entries to be cleared.

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

Reset procedure:

While the NORM SURF ALT screen is displayed, A & S (2 sec) will access the Clear (Reset) screen displaying the graphics CLR and id, and a 4 digit Code (xx yy) with the first 2 digits (xx) flashing.

- S (hold) to scroll upward through the first digits (xx) at a rate of 8 per sec.
- S (< 2 sec) to step upward through the digits (xx) one at a time.
- A (< 2 sec) to save the first 2 digits (xx) and flash the second 2 digits (yy).
- S (hold) to scroll upward through the second digits (yy) at a rate of 8 per sec.
- S (< 2 sec) to step upward through the digits (yy) one at a time.
- A (< 2 sec) to save the Reset Code, Clear the unit, and turn it Off. All nitrogen/oxygen calculations and data and Log data will be erased.
- M (2 sec), or no button action for 2 min, will revert to NORM SURF Main.



RESET (CLEAR)

GAUGE MODE

GAUGE MODE

When Gauge (GAUG) is selected as the operating mode, the DG03 will operate as a digital depth gauge/timer without performing nitrogen and oxygen calculations.

- M (2 sec) >> to access GAUG SURF MAIN while viewing NORM SURF MAIN.
- M (< 2 sec) while the graphic GAUG is flashing >> to select it as the operating mode.
- > GAUG stops flashing and GAUG is selected when M is released.

GAUG SURF MAIN, information includes (Fig. 86) -

- > Graphic GAUG.
- > Battery icon, if Low Battery.
- > Tank Pressure with PSI (or BAR) icon, if TMT is in use.
- > Number of that dive with DIVE icon.
- > Surface Interval (hr:min) with TIME and SURF icons.
- > Tank (1) icon, TMT 1 is default on surface.
- A (< 2 sec) >> to access ALT, Fly, Log, History.
- A & S (2 sec) >> to access Set A, U, T.
- S (< 2 sec) >> to access Battery/TMT Status.
- S (press) >> to activate SmartGlo Backlight.
- M (2 sec) >> to access FREE Main, if no GAUG dive yet.



Fig. 86 - GAUG SURF MAIN

Operation will enter GAUG Dive mode upon descent to 5 FT (1.5 M) for 5 seconds.

Once a dive is made in GAUG mode, you must wait a full 24 hours after surfacing before the DG03 will operate in NORM or FREE mode.

GAUG DIVE MAIN, information includes (Fig. 87A/B) -

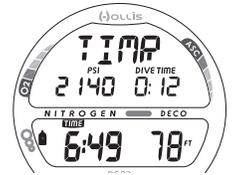
- > Graphic GAUG (or TIMR).
- > Pressure with PSI (or BAR) icon, if the Receiver is Linked with an active TMT.
- > EDT (hr:min) with DIVE and TIME icons.
- > Tank (1, 2, or 3) icon, one in use.
- > Run Time** with TIME icon if set On, 0:00 to 9:59 (min:sec), then 0:10 to 9:59 (hr: min).
- > Current Depth and FT (or M) icon.



Fig. 87A - GAUG DIVE MAIN

**If the Run Timer is active upon surfacing, it will continue to run in the background during the first 10 minutes, then turn Off and reset. If a descent is made during the 10 minutes, it will reappear on the Dive Main

- A (< 2 sec) >> to access ALT 1.
- M (< 2 sec) >> to access the TMT Switch routine.
- S (< 2 sec) >> to start/stop Run Timer, if set On.
- S (2 sec) >> to Reset Run Timer when stopped. Does not reset when S is pressed to acknowledge alarms.
- S (2 sec) >> to acknowledge/silence Alarms.
- S (press) >> to activate the SmartGlo Backlight.

Fig. 87B - GAUG DIVE MAIN
(Timer set On)**GAUG DIVE ALT 1**, information includes Fig. 88) -

- > Day of the Week graphic (MON, TUE, etc.).
- > Temperature with icon and F (or C).
- > Time of Day (hr:min).
- A (< 2 sec) >> to access ALT 2.
- 5 sec >> revert to Main if A is not pressed.



Fig. 88 - GAUG DIVE ALT 1

GAUG DIVE ALT 2, information includes (Fig. 89) -

- > Graphic TMT1 (2 or 3)
- > Pressure with PSI (or BAR) icon.
- > EDT (hr:min) with DIVE and TIME icons.
- > Tank (1, 2, or 3) icon, one in use.
- > ATR (hr:min) with AIR and TIME icons.
- > Max Depth with MAX and FT (or M) icons.
- A (< 2 sec) >> revert to Main.
- 5 sec >> revert to Main if A is not pressed.



Fig. 89 - GAUG DIVE ALT 2

Refer to page 29 for Delayed Violation 3.

Refer to page 32 for TMT Switching.

FREE DIVE MODE

FREE DIVE MODE

When FREE is selected as the operating mode, the DG03 will calculate nitrogen loading based on a default FO2 of AIR. The amount remaining during 24 hours is carried over between FREE and NORM modes.

- M (2 sec) >> to access FREE SURF MAIN while viewing GAUG SURF MAIN.
- M (< 2 sec) while the graphic FREE is flashing >> to select it as the operating mode.
- > FREE stops flashing and FREE is selected when M is released.

FREE Mode Alarms and their settings are independent of those for NORM and GAUG modes, and they cannot be silenced.

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

- > Graphic FREE.
- > Battery icon, if Low Battery.
- > Graphic tot - with DIVE icon and Total number of dives conducted during that session while in FREE mode.
- > Surface Interval Time (min:sec up to 59:59, then hr:min) with TIME and SURF icons.

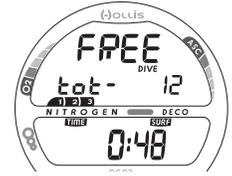


Fig. 90 - FREE SURF MAIN

- A (< 2 sec) >> to access ALT 1.
- A (2 sec) >> to access CDT (Countdown Timer) Status.
- A&S (2 sec) >> to access Set EDT (Elapsed Dive Time) Alarm.
- M (2 sec) >> to access NORM SURF Main.
- S (press) >> to activate the SmartGlo Backlight.

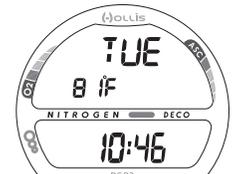


Fig. 91 - FREE SURF ALT 1

FREE SURF ALT 2, information includes (Fig. 91) -

- > Day of the Week graphic (MON, TUE, etc.).
- > Temperature with icon and F (or C).
- > Time of Day (hr:min).

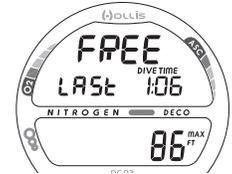


Fig. 92 - FREE SURF ALT 2

- A (< 2 sec) >> to access ALT 2.
- 5 sec >> revert to Main if A is not pressed.

FREE SURF ALT 2, information includes (Fig. 92) -

- > Graphics FREE and LAST, meaning that data is from the dive previously conducted while still in FREE mode.
- > Elapsed Dive Time (min:sec) with DIVE and TIME icons.
- > Max Depth with MAX and FT (or M) icons.

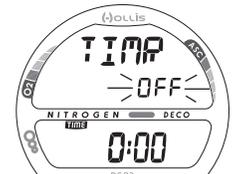


Fig. 93A - CDT STATUS (no time set)

FREE SURF CDT STATUS, information includes (Fig. 93A/B) -

- > Graphics TIMR, and OFF (or ON) flashing.
- > If OFF, the Time (min:sec) previously set or 0:00 will be displayed with the colon solid and TIME icon.
- > If ON and a CD is in progress, the remaining Time (min:sec) will be displayed with the colon flashing.
- > If ON and no time is remaining, 0:00 will be displayed with the colon flashing.



Fig. 93B - CDT STATUS (running)

- S (< 2 sec) >> will toggle between ON and OFF.
- > If a Time has been set, a toggle from OFF to ON will start the CD Timer indicated by the colon flashing.

- A (< 2 sec) >> will revert SURF Main.
- A & S (2 sec) when OFF >> will access Set CDT.
- S (press) >> to activate the SmartGlo Backlight.

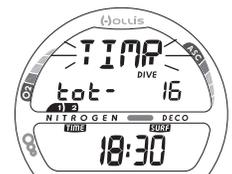


Fig. 94 - CDT STATUS (running)

Once the CD Timer has been Set and Started (by selecting ON), it will continue to run in the background while on the surface until turned OFF (stopped) or the Time reaches 0:00 at which time the Audible will sound (3 short beeps 3 times) during which the graphic TIMR will flash (Fig. 94), then the CD Timer will revert to OFF.

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

During a dive, the CD Timer can be turned OFF (stopped) and ON (started), but not Set.

Set CDT (Surface only), information includes (Fig. 95) -

- > Graphics TIMR and SET, solid.
- > Timer setting (min:sec), colon solid, Minute digits flashing.

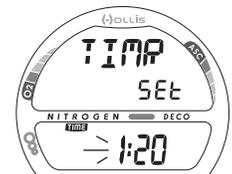


Fig. 95 - SET CDT

- S (press/hold) while the Minute digits are flashing >> will scroll upward through the Set Points at a rate of 4 per second from 0: to 59: in 1 Minute (1:) increments.
- S (< 2 sec) >> will step through the Set Points.
- A (< 2 sec) >> will save the Minute setting and flash the Second digits.
- S (press/hold) >> will scroll upward through the Set Points at a rate of 4 per second from :00 to :59 in 1 Second (:01) increments.
- S (< 2 sec) >> will step through the Set Points.
- A (< 2 sec) >> will save setting indicated by the graphic OFF flashing in place of the graphic SET (Fig. 96).
- S (< 2 sec) >> will toggle to ON and Start the Timer.
- A (< 2 sec), M (2 sec), or if no button is pressed during a period of 2 minutes >> operation will revert to the Main.



Fig. 96 - CDT SET (ready to start)

FREE EDT (ELAPSED DIVE TIME) ALARM

When the alarm is set ON, the audible will sound 3 short beeps every 30 seconds during which the graphic TIME will be displayed momentarily (Fig. 97).

- A & S (2 sec) while SURF MAIN is displayed, >> will access Set EDT Alarm.

The EDT Alarm can only be Set (turned OFF or ON) while on the Surface and cannot be changed during a Dive.

Set EDT Alarm, information includes (Fig. 98) -

- > Graphic EDT.
- > Graphic OFF (or ON), flashing.

- S (< 2 sec) >> will toggle between OFF and ON.
- A (< 2 sec) >> will save the setting and access Set Depth Alarm 1.
- M (2 sec), or if no button is pressed during a period of 2 minutes >> operation will revert to the Main.

FREE DIVE DEPTH ALARMS (FDA)

The DG03 features 3 FREE Dive DEPTH Alarms that can be Set at progressively deeper Depths and turned OFF/ON.

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

When each of the Depths are reached during a dive, 3 short beeps will sound 3 times during which the graphic DPTH will be displayed (Fig. 99).

- A (< 2 sec) while Set EDT Alarm is displayed >> will access Set Depth Alarm 1.

Set Depth Alarm, information includes (Fig. 100A/B) -

- > Graphic FDA (1, 2, or 3), FDA = Free Depth Alarm.
- > Graphic ON (or OFF), flashing.
- > Depth value with MAX and FT (or M) icons, flashing after ON is selected.

- S (< 2 sec) >> will toggle between ON and OFF.
- A (< 2 sec) >> will save the ON/OFF setting.

- > If OFF, operation will revert to the SURF Main.
- > If ON, the Depth digits will flash.

- S (press/hold) >> will scroll upward through Set Points from 30 to 330 FT (10 to 100 M) in increments of 10 FT (1 M) at a rate of 4 per second.
- S (< 2 sec) >> will step through the Set Points.
- A (< 2 sec) >> will save the Depth setting and access Set Depth Alarm 2.
- M (2 sec), or if no button is pressed during a period of 2 minutes >> operation will revert to the Main.

SET FREE DEPTH ALARM 2 and 3 are similar.

FREE DIVE MAIN, information includes (Fig. 101) -

- > Graphic FREE.
- > Temperature with icon and F (or C).
- > EDT (min:sec) with DIVE and TIME icons.
- > DTR (hr:min) with TIME and NDC icons.
- > Current Depth with FT (or M) icon.
- > NIBG, if any from previous NORM or FREE Dives conducted within the previous 24 hours.

- A (< 2 sec) >> to access ALT.
- A (2 sec) >> to access CDT Status.
- S (press) >> to activate the SmartGlo Backlight.

FREE DIVE ALT, information includes (Fig. 102) -

- > Day of the Week graphic (MON, TUE, etc.).
- > Temperature with icon and F (or C).
- > Time of Day (hr:min).

- A (< 2 sec) >> revert to Main.
- 5 sec >> revert to Main if A is not pressed.

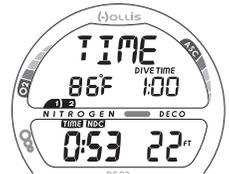


Fig. 97 - FREE EDT ALARM

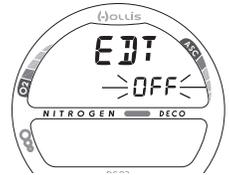


Fig. 98 - SET EDT ALARM

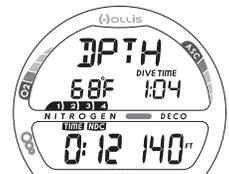


Fig. 99 - FREE DEPTH ALARM



Fig. 100A - SET FREE DEPTH ALARM



Fig. 100B - SET FREE DEPTH ALARM



Fig. 101 - FREE DIVE MAIN



Fig. 102 - FREE DIVE ALT

FREE DIVE CDT STATUS, information includes (Fig. 103) -

- > Graphics TIMR, and OFF (or ON) flashing.
 - > If OFF, the Time (min:sec) previously set or 0:00 will be displayed with the colon solid and TIME icon.
 - > If ON and a CD is in progress, the remaining Time (min:sec) will be displayed with the colon flashing.
 - > If ON and no time is remaining, 0:00 will be displayed with the colon flashing.
- S (< 2 sec) >> will toggle between ON and OFF.
 - > If a Time has been set, a toggle from OFF to ON will start the CD Timer indicated by the colon flashing.
- A (< 2 sec) >> will revert SURF Main.
 - S (press) >> to activate the SmartGlo Backlight.



Fig. 103 - FREE DIVE CDT STATUS

FREE DIVE ALARMS

When alarms strike, the audible will sound 3 short beeps (1 or 3 times) during which a graphic will be displayed.

FREE mode alarms are separate and unaffected by NORM/GAUG mode alarm settings.

CDT (Count Down Timer) Alarm

When the CDT decreases to 0:00 (min:sec), 3 short beeps will sound 3 times, the LED will flash, and the graphic TIMR will flash (Fig. 104).

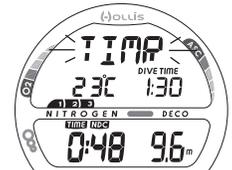


Fig. 104 - CDT ALARM

Depth Alarm(s)

When Depth reaches each of the alarm values set, 3 short beeps will sound 3 times, the LED will flash, and the graphic DPTH will flash (Fig. 105).

If ascent is made above an alarm setting, then a descent is made to a depth below it, the Depth Alarm will sound again.

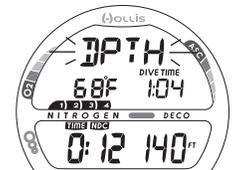


Fig. 105 - DEPTH ALARM

EDT (Elapsed Dive Time) Alarm

When the alarm is set ON, 3 short beeps will sound 1 time, the LED will flash, and the graphic TIME will appear momentarily (Fig. 106). This will be repeated every 30 seconds during the dive.

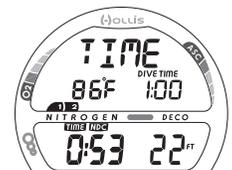


Fig. 106 - EDT ALARM

NIBG (Nitrogen Bar Graph) Alarm

Nitrogen accumulated during a set (series) of FREE dives and any previous NORM dives conducted within 24 hours is displayed as the NIBG.

When nitrogen loading increases to the caution level, the NIBG will display 7 segments and the UP Arrow icon will flash until the NIBG is 6 segments or you surface, 3 short beeps will sound 3 times, the LED will flash, and the graphics UP >> HIGH >> NI will scroll (Fig. 107).

The graphics will continue to scroll until the NIBG recedes to 6 segments at which time the Main display will be restored.



Fig. 107 - NIBG ALARM

Entry into DECO

In the event that nitrogen loading increases to the Deco level, NDC time will be 0:00, the UP Arrow icon and all segments of the NIBG will flash, 3 short beeps will sound 3 times, the LED will flash, and the graphics UP >> VIOL will scroll (Fig. 108).

After the audible is silent, the NIBG and NDC will be removed. The graphics will continue to scroll until you surface, then the graphic VIOL will flash for 10 minutes after the dive.

Upon surfacing, the UP Arrow will be removed, the full NIBG and O2BG will continue to flash (Fig. 109) with access to NORM and GAUG modes blocked until a full 24 hours elapse with no diving.



Fig. 108 - DECO ENTRY

ADDITIONAL INFORMATION REGARDING FREE DIVE MODE

Although breathing apparatus is not utilized for FREE Dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO2 of AIR. Since a user has the option of alternating between NORM (SCUBA) and FREE Dive activities within a 24 hour period, nitrogen calculations and the displayed value of No Deco Dive Time Remaining (NDC Time) are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and offgasing status.

The mathematical model currently used in the DG03 is based on no decompression/decompression multilevel repetitive dive schedules. This algorithm does not take into account the physiological changes associated with the high pressures that competitive type Free diving can expose a diver to.

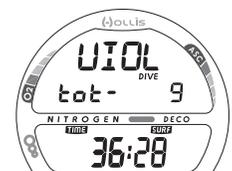


Fig. 109 - VIOLATION (on surface)

REFERENCE

**WARNINGS:**

- Ensure that you know which Operating Mode is selected (NORM, GAUG, or FREE) prior to commencing any dive.
- Conducting Free dives within a 24 hour period after conducting SCUBA dives, combined with the effects of multiple rapid Free Dive ascents, increases your risk of decompression sickness. Such activities may result in accelerated entry into decompression which could cause serious injury or death.
- Combining competitive type Free dive activities that involve multiple descents/ascents with activities utilizing SCUBA during the same 24 hour period is not recommended. Presently, there is no data relating to such activities.
- It is highly recommended that anyone planning to become involved in competitive type Free dive activities obtain proper instruction and training from a recognized Free Diving trainer. It is imperative that the physiological affects be understood and the diver is physically prepared.

PC INTERFACE

The DG03 is configured with a Data Port (Fig. 110a) that enables it to be connected to a PC USB port using a special interface cable that is available as an optional accessory.

The USB Driver required for the PC interface system is available on the setup CD.

The PC interface system can be used to set/change the Set A group (Alarms), Set U group (Utilities), Set T group (Time/Date), and FREE alarms. The Set F group (FO2/PO2 alarm) settings and operating mode selections must be entered using buttons.

Information available for retrieval* (download) from the DG03 to the PC program includes items such as dive number, surface interval time, depth, dive time, start date and time, lowest temperature, sampling rate, Set Points, NIBG, O2BG, VARI, air time, start/end pressure, and Gas/TMT switching events.

**FREE Dive information is only available using the PC interface system.*

The unit checks for the presence of an interface device connection to the Data Port once every second* while in Surface mode.

**Checks are not made if the Wet Activation contacts are wet.*

Upon sensing an interface connection, the requesting device (PC) connects to the DG03 and is prepared for upload of settings or download of data which is then initiated using the PC program. During the process, there is a 2 minute window during which time the upload or download must be started.

Prior to attempting to download data from your DG03 or upload settings to it, review the HELP section of the interface program. Recommended is to print those sections of HELP that you consider appropriate for your interface activities.

PC requirements:

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

For software updates, refer to the HOLLIS web site at ->> www.HOLLIS.com.



Fig. 110 - DATA PORT

CARE AND CLEANING

Protect your DG03 from shock, excessive temperatures, exposure to chemicals, and tampering. Protect the lens against scratches with a Lens Protector. Small scratches will naturally disappear underwater.

- Soak and rinse the DG03 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. 111a), PC interface data port (Fig. 111b), and buttons are free of debris or obstructions. Soak and rinse the regulator with the transmitter attached.
- To dissolve salt crystals, use lukewarm water or a slightly acidic bath (50% white vinegar, 50% fresh water. After removal from the bath, place the DG03 and the regulator assembly under gently running fresh water and towel dry before storing.
- Transport your DG03 system cool, dry, and protected.

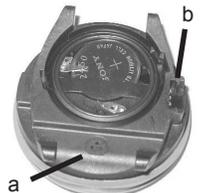


Fig. 111 - CASE BACK

INSPECTIONS AND SERVICE

Your DG02 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 DG03'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 DG03 if it is not pressure tested properly. Ensure that the Service Technician adheres to the following Warning.

⚠ WARNING: Ensure that the DG03 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 DG03 to an Authorized HOLLIS Service Technician.

BATTERY REPLACEMENT

NOTE: Procedures that follow must be closely adhered to. Damage due to improper Battery replacement is not covered by the DG03's 2-year warranty.

When replacing the Battery in the DG03, it is recommended that you also replace the Battery(s) in the Transmitter(s), and vice-versa.

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

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

Inspect the Buttons, Lens, and Housing to ensure they are not cracked or damaged.

If there is any sign of moisture in the unit, DO NOT attempt to use it for diving until it receives proper service by the factory.

Battery Cover Removal

- Locate the Battery Compartment on the back of the module.
- While applying steady inward pressure on the Battery Cover, rotate the Cover Ring clockwise 10 degrees by pressing on the upper/right arm of the Ring with a small blade screwdriver (Fig. 112).

If available, an adjustable face spanner tool or pointed pliers can be used by inserting the tips of the tool in the small holes in the Ring (Fig. 113).

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

Battery Removal

- Remove the Retaining Bar located across the lower portion of the Battery (Fig. 114a).
- Remove the Cover O-ring. *DO NOT use tools.*
- Using care not to damage the Contacts (Fig. 114 b/c), slide the Battery up and out of the right side of the Battery Compartment.

NOTE: DO NOT allow a metal object to short circuit the top of the Battery which is positive (+) to the negative (-) contact of the Compartment.

Transmitter (TMT) Battery Removal

Locate the Battery Cover on the end of the Housing:

- Apply a coin to the recessed slot of the Cover and turn it counter clockwise out of the Housing (Fig. 115).
- Remove the Battery from the Battery Compartment and discard according to local regulations governing disposal of Lithium batteries.

Inspection

- Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- Inspect the Buttons, Lens, and Housing(s) to ensure they are not cracked or damaged.

WARNING: If damage or corrosion is found, return your DG03 system to an Authorized HOLLIS Dealer, and DO NOT attempt to use it until it has received factory prescribed service.

- Remove the Battery Cover O-ring and inspect them for any signs of deterioration or deformity. DO NOT use tools to remove the O-ring.
- To ensure proper sealing, O-ring replacement is highly recommended each time a Battery is replaced.
- Closely examine all Threads for any signs of damage that might prevent proper threading.
- Closely examine the inside of the Battery Compartment for any signs of corrosion indicating entrance of moisture into the unit.
- If corrosion is found, return the DG03 system to an Authorized HOLLIS Dealer, and DO NOT attempt to use it until it has received factory service.
- If moisture is found, it is best to have the unit inspected and cleaned by an Authorized HOLLIS Dealer.
- If it is necessary to clean the Battery Compartment, flush it and all components with a solution of 50% white vinegar and 50% fresh water. Rinse with fresh water, and allow to dry overnight, or blow dry with a hair dryer set at no heat.



Fig. 112 - COVER REMOVAL (using screwdriver)



Fig. 113 - COVER REMOVAL (using spanner tool)

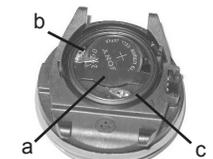


Fig. 114 - BATTERY REMOVAL



Fig. 115 - TMT BATTERY COVER REMOVAL

DG03 Battery Installation

- Slide a new Battery (type CR2450, 3 volt, Lithium), negative (-) side down into the cavity of the battery compartment. Slide it in 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 and carefully push it down into position.
- Replace the Cover O-ring with a new one.

The O-ring must be a genuine HOLLIS part that can be purchased from an Authorized HOLLIS Dealer. Use of any other O-ring will void the warranty.

- Lightly lubricate the new Cover O-ring with silicone grease and place it on the inner rim of the Battery Cover. Ensure that it is evenly seated.
- Slide the Hatch Ring, top portion first (small opening), onto your thumb (Fig. 116).
- Carefully place the clear 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 Cover securely in place and, using your other hand, slide the Cover Ring down off your thumb and into position around the Battery Compartment. 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 a small blade screwdriver or spanner tool, pressing against the upper/left arm of the Ring (Fig. 117).



Fig. 116 - BATTERY INSTALLATION



Fig. 117 - TIGHTENING DG03 COVER RING

Transmitter Battery Installation

- Lightly lubricate the new Battery Cover O-ring with silicone grease and install it onto the Battery Cover. DO NOT roll the O-ring over the threads, instead stretch it slightly to work it down over the slotted end of the Coverp into the groove at the base of the threads (Fig. 118).

The O-ring must be a genuine HOLLIS part that can be purchased from an Authorized HOLLIS Dealer. Use of any other O-ring will void the warranty.

- Place a new Battery (3 volt, CR2 Lithium, Duracell model DL-CR2 or equivalent) positive (+) side down into the Battery Compartment with the negative end facing up/out (Fig. 119).
- Ensure that the Battery is properly oriented and the Cover O-ring is evenly seated around the Battery Cover.
- Carefully place the Battery Cover with Spring into the Housing and turn clockwise slowly by hand to ensure proper threading. Apply a coin and tighten until secure. The outer surface of the Battery Cover should be flush with the outer surface of the Housing (Fig. 120).



Fig. 118 - TRANSMITTER O-RING INSTALLATION

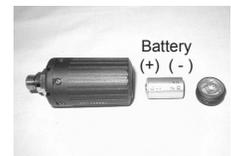


Fig. 119 - TMT BATTERY ORIENTATION

Testing

- Pressurize the Regulator Assembly (with Transmitter).
- Activate the DG03 and watch carefully as it performs a full diagnostic and battery check, and enters Surface Mode. Observe the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen.
- If any portions of the display are missing or appear dim, or if a Low Battery condition is indicated, return your DG03 to an Authorized HOLLIS Dealer for a complete evaluation before attempting to use it.
- Verify that Tank Pressure is displayed.
- Verify all Set Points prior to diving.
- Check the Battery/TMT Status screens.



Fig. 120 - TMT BATTERY COVER INSTALLED

INSTALLING A TRANSMITTER ON A REGULATOR

To install the Transmitter (TMT) on the Regulator First Stage:

- Remove the existing pressure gauge and high pressure hose, or the high pressure port plug from the port marked HP using the proper size hex key.
- Lightly lubricate the o-ring and threads of the Transmitter fitting with a halocarbon based lubricant such as Christo-Lube MCG111 (provided in HOLLIS battery kits).
- Thread the Transmitter clockwise by hand into the regulator's HP Port (Fig. 121) and tighten until secure with a 5/8" open end wrench.
- Attach the Regulator First Stage to a full scuba tank and pressurize by slowly opening the tank valve, listening for any indication of air leaking around the fitting.
- If air leakage is present, DO NOT use, take the complete Regulator Assembly to an Authorized HOLLIS dealer for inspection and service.



Fig. 121 -INSTALLING A TMT ON A REGULATOR

TRANSMITTER COMPATIBILITY WITH NITROX

When packaged and shipped from the factory, HOLLIS DG03 Transmitters are rated for use with compressed Air and/or nitrogen-oxygen (Nitrox) breathing gas mixtures containing up to 99% O₂ by volume and with 100% O₂.

ALTITUDE SENSING AND ADJUSTMENT

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

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

The mathematical model in the DG03 accounts for the reduced No Decompression dive Time available based on National Oceanic and Atmospheric Administration (NOAA) guidelines.

When diving in high altitude waters from 3,001 to 14,000 feet (916 to 4,270 meters), the DG03 automatically adjusts to these conditions providing corrected depth, reduced NDLs, and reduced O₂ times at intervals of 1,000 feet (305 meters).

No adjustments are made during any time that the Wet Contacts are bridged.

At an elevation of 3,000 feet (915 meters), Depth calibration automatically changes from feet of seawater to feet of fresh water.

When the Conservative Factor feature is set ON, allowable dive times are calculated based upon the next higher 3,000 foot (915 meter) Altitude. All adjustments for Altitudes greater than 11,000 feet (3,355 meters) are then made to allowable dive times for 14,000 feet (4,270 meters). If the Conservative Factor is set ON while at Sea Level, calculations are based upon an Altitude of 3,001 feet (916 meters).

The DG03 will not function above 14,000 feet (4,270 meters).

ALTITUDE LEVELS

Display:

- SEA = Level 0 (Sea Level)
- EL2 = Level 2
- EL3 = Level 3
- EL4 = Level 4
- EL5 = Level 5
- EL6 = Level 6
- EL7 = Level 7

Range:

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

OXYGEN EXPOSURE LIMITS (from NOAA Diving Manual)

PO ₂ (ATA)	Max Duration Single Exposure		Max Total Duration 24 Hour Day	
	(min)	(hr)	(min)	(hr)
0.60	720	12.0	720	12.0
0.70	570	9.5	570	9.5
0.80	450	7.5	450	7.5
0.90	360	6.0	360	6.0
1.00	300	5.0	300	5.0
1.10	240	4.0	270	4.5
1.20	210	3.5	240	4.0
1.30	180	3.0	210	3.5
1.40	150	2.5	180	3.0
1.50	120	2.0	180	3.0
1.60	45	.75	150	2.0

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

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

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

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

SPECIFICATIONS

CAN BE USED AS

- Dive Computer (Air or Nitrox)
- Digital Depth Gauge/Timer
- Free Dive activity
- With or without up to 3 Transmitters

DIVE COMPUTER PERFORMANCE

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

TRANSMITTERS

- Battery and Pressure check
 - > every 2 minutes when asleep
 - > every 2 seconds when awake
- Startup
 - > Pressure equal or greater than 120 PSI (8 BAR)
 - > Battery equal or greater than 2.75 volts
- Shutdown
 - > Pressure less than 50 PSI (3.5 BAR)

SURFACE SEQUENCE/MODES

- NORM/GAUG/FREE Surface Mode
- Plan (30 to 190 FT/9 to 57 M) - NORM only
- Time to Fly Countdown - NORM/GAUG
- Time to Desaturation Countdown - NORM only
- Dive Log - NORM/GAUG
- History - NORM/GAUG
- Battery/Tank Pressure Status - NORM/GAUG
- Set FO2/PO2, Alarms, Utilities, Time - NORM/GAUG

FREE MODE SETTINGS

- Count Down Timer (0:00 to 59:59 min:sec)
- Elapsed Dive Time Alarm (Off/On) - fixed every 30 sec
- Depth Alarm 1 (30 to 330 FT /10 to 100 M)
- Depth Alarm 2 (40 to 330 FT /11 to 100 M)
- Depth Alarm 3 (50 to 330 FT /12 to 100 M)
- NIBG Alarm - fixed at 7 segments
- DECO Alarm - fixed at 8 NIBG segments

NORM/GAUG SET MODES

- Set F Group (FO2 items):
 - FO2 Gas 1 (Air, 21 to 100%), Gas 1 PO2 Alarm (1.20 to 1.60 ATA)
 - FO2 Gas 2 (Air, 21 to 100%), Gas 2 PO2 Alarm (1.20 to 1.60 ATA)
 - FO2 Gas 3 (Air, 21 to 100%), Gas 3 PO2 Alarm (1.20 to 1.60 ATA)
 - FO2 Default (On/Off)
- Set A Group (Alarms):
 - Audible Alarm / LED Warning (On/Off)
 - Max Depth Alarm (30 to 330 FT /10 to 100 M)
 - Elapsed Dive Time Alarm (:10 to 3:00 hr:min)
 - Max NIBG Alarm (1 to 7 segments)
 - Dive Time Remaining Alarm (:00 to :20 min)
 - Turn Press Alarm (Off, 1000 to 3000 PSI / 70 to 205 BAR)
 - End Press Alarm (300 to 1500 PSI / 20 to 105 BAR)
- Set U Group (Utilities):
 - Wet Activation (On/Off)
 - Units of Measure (Imperial / Metric)
 - Deep Stop (On/Off)
 - Safety Stop Time, Depth (Off/3/5 min, 10/15/20 FT, 3/4/5/6 M)
 - Gauge Run Timer (On/Off)
 - Conservative Factor (On/Off)
 - Backlight Duration (0/5/10 sec)
 - Sampling Rate (2/15/30/60 sec)
 - Transmitter 1 Link Code (Off/On, 000000 to 999999)
 - Transmitter 2 Link Code (Off/On, 000000 to 999999)
 - Transmitter 3 Link Code (Off/On, 000000 to 999999)
- Set T Group (Time/Date):
 - Hour Format (12/24)
 - Time (hour:min)
 - Date (year/month/day)
- DG03 Serial Number
 - Factory set

NUMERIC DISPLAYS:

	<u>Range:</u>	<u>Resolution:</u>
• Time of Day	0:00:00 to 23:59:59 hr:min	1 min
• Temperature	0 to 140°F (-9 to 60°C)	1°

NORM/GAUG -

• Surface Interval Time	0:00 to 23:59 hr:min	1 min
• Dive Number	0 to 24	1
• Current Depth	0 to 399 FT (120 M)	1 FT (.1 M)
• Max Depth	399 FT (120 M)	1 FT (.1 M)
• Tank Pressure	0 to 5000 PSI (345 BAR)	5 PSI (1 BAR)
• Elapsed Dive Time	0:00 to 9:59 hr:min	1 min
• NORM FO2 Set Point	Air, 21 to 100 %	1 %
• NORM PO2 Value	0.00 to 5.00 ATA	.01 ATA
• Dive Time Remaining	0:00 to 9:59 hr:min	1 min
• Air Time Remaining	0:00 to 9:59 hr:min	1 min
• NORM Deep Stop Time	2:00 to 0:00 min:sec	1 sec
• NORM Safety Stop Time	5:00 to 0:00 min:sec	1 sec
• NORM Deco Stop Time	0:00 to 9:59 hr:min	1 min
• Deco Total Ascent Time	0:00 to 9:59 hr:min	1 min
• Violation Countdown Timer	23:50 to 0:00 hr:min (after violation)	
• GAUG Run Time	0:00 to 9:59 min:sec	1 sec
	0:10 to 9:59 hr:min	1 min
• Time to Fly	23:50 to 0:00 hr:min*	1 min
	(* starting 10 min after the dive)	
• NORM Time to Desat	23:50 max to 0:00 hr:min*	1 min
	(* starting 10 min. after the dive)	

FREE -

• Surface Interval Time	0:00 to 59:59 min:sec	1 sec
	1:00 to 23:59 hr:min	1 min
• Dive Number	0 to 99	1
• Elapsed Dive Time	0:00 to 59:59 min:sec	1 sec
• Countdown Timer	59:59 to 0:00 min:sec	1 sec

SPECIFICATIONS (CONTINUED)

BAR GRAPHS

NIBG:	<u>segments</u>
• No Deco zone	1 to 7
• Deco zone	8 (all)

O2BG:	<u>segments</u>
• Normal zone	1 to 4
• Danger zone	5 (all)

ASC:

Deeper than 60 FT (18 M)			60 FT (18 M) & Shallower		
Segments	Ascent Rate =		Segments	Ascent Rate =	
Displayed	FPM	MPM	Displayed	FPM	MPM
0	0-20	0-6	0	0-10	0-3
1	21-30	6.1-9	1	11-15	3.1-4.5
2	31-40	9.1-12	2	16-20	4.6-6
3	41-50	12.1-15	3	21-25	6.1-7.5
4	51-60	15.1-18	4	26-30	7.6-9
5	60 +	18 +	5	30 +	9 +

OPERATIONAL PERFORMANCE

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

Dive Counter:

- NORM/GAUG displays Dives #1 to 24, FREE displays Dives #1 to 99, 0 if no dive made yet.
- Resets to Dive #1, upon diving (after 24 hours with no dives).

NORM/GAUG Dive Log Mode:

- Stores 24 most recent NORM/GAUG dives in memory for viewing.
- After 24 dives, adds 25th dive in memory and deletes the older dive.

Altitude:

- Operational from sea level to 14,000 feet (4,270 meters) elevation.
- Measures ambient pressure every 30 minutes when not activated, upon activation by push button, and every 15 minutes while in NORM/GAUG/FREE Surface Modes.
- Does not measure ambient pressure when Wet.
- Compensates for Altitudes above sea level beginning at 3,001 feet (916 meters) elevation and every 1,000 feet (305 meters) higher.

Conservative Factor:

- Reduces NORM/FREE NDLs to those for the Altitude 3,000 feet (915 meters) higher (see tables).

Power:

- DG03 Battery (1) 3 vdc, CR2450, Lithium battery.
- Transmitter Battery (1) 3 vdc, CR2, .75 Ahr, Lithium battery (Duracell model DL-CR2 or equivalent).
- Shelf life Up to 5 years.
- Replacement User replaceable (annual recommended).
- Use Life (DG03) 1 year or 300 dive hours if (2) 1 hour dives per dive day.
- Use Life (Transmitter) 300 dive hours if (2) 1 hour dives per dive day.

Low Battery Indication:

- Warning >> icon on solid at 2.75 volts, DG03 Battery change recommended.
- Alarm >> icon on flashing at 2.50 volts, change the DG03 Battery.

Activation:

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

Operating Temperature:

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

Storage Temperature:

- Out of the water >> 14 °F and 158 °F (-8 and 70 °C).

INSPECTION / SERVICE RECORD

DG03 Serial Number: _____

DG03 Firmware Rev: _____

Transmitter1 Serial Number: _____

Transmitter 2 Serial Number: _____

Transmitter 3 Serial Number: _____

Date of Purchase: _____

Purchased from: _____

Below to be filled in by an Authorized HOLLIS Dealer:

Date	Service Performed	Dealer/Technician

DG03

DIVE COMPUTER

OPERATING MANUAL

DG03 was developed by -

Pelagic Pressure Systems/2002 Design
2002 Davis Street
San Leandro, CA 94577
USA