

i330R

Dive Computer Owner's Manual

PART NUMBER	DESCRIPTION
NS159000	i330R Wrist
NS159001, NS159012	i330R 2 Gauge PSI
NS159002	i330R 2 Gauge BAR
NS159011	i330R Wrist, White

NOTICES

LIMITED TWO-YEAR WARRANTY

For warranty details and to register your product, refer to www.aqualung.com.

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i330R Dive Computer Owner's Manual, Doc. No. 12-7960

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PATENT NOTICE

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

DECOMPRESSION MODEL

The program within the i330R simulates the absorption of inert gases 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 i330R dive computer model is based upon the latest research and experiments in decompression theory. Still, using the i330R, just as using any 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.

DANGERS, WARNINGS, CAUTIONS, AND NOTES

Pay attention to the following symbols when they appear throughout this document. They denote important information and tips.

-  **DANGERS:** are indicators of important information that if ignored would lead to severe injury or death.
-  **WARNINGS:** are indicators of important information that if ignored could lead to severe injury or death.
-  **CAUTIONS:** indicate information that will help you avoid faulty assembly, leading to an unsafe condition.
-  **NOTES:** indicate tips and advice that can inform of features, aid assembly, or prevent damage to the product.

RESPONSIBLE COMPUTER DIVING

- Always plan each dive.
- Always limit your dive to the level of your training and experience.
- Always make your deepest dive first.
- Always make the deepest part of every dive first.
- Check your computer often during the dive.
- Do a safety stop on every dive.
- Allow adequate surface interval between each dive.
- Allow adequate surface interval between each day of diving (12 Hours or until your computer clears).
- Read and understand this manual thoroughly before using the i330R.



WARNINGS:

- This manual is to be used in conjunction with the Aqua Lung Dive Computer Safety and Reference Manual, Doc. 12-7835. It contains general safety warnings and recommendations for use of this product.
- The i330R is intended for use by recreational divers who have successfully completed a internationally recognized course in scuba diving (for air use) and diving with enriched nitrogen-oxygen (nitrox) breathing gas mixtures (for nitrox use).
- It must not be used by untrained persons who may not have knowledge of the potential risks and hazards of scuba diving and diving with enriched nitrogen-oxygen (nitrox) mixtures.
- You must obtain scuba certification in diving with enriched nitrogen-oxygen mixtures (nitrox) before using the i330R for nitrox diving.
- Before using this product for military or commercial applications, read the recommendations, limitations, and warnings for such use. They can be found at <http://www.aqualung.com/militaryandprofessional>.
- As with all underwater life support equipment, improper use or misuse of this product can cause serious injury or death.
- Never participate in sharing or swapping of a dive computer.
- Conduct your dives in such a manner so as to insure that you continuously check the computer's proper function.
- Read and understand this owner's manual completely before diving with the i330R.
- If you do not fully understand how to use this dive computer or if you have any questions, you should seek instruction in its use from your authorized Aqua Lung dealer before you utilize this product.
- If your i330R 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 tables, oxygen exposure limits, or entering decompression without proper training. If you dive in situations where your trip would be ruined or your safety would be jeopardized by losing the use of your i330R, a backup instrument system is highly recommended.
- Each numeric and graphic display represents a unique piece of information. It is imperative that you understand the formats, ranges, and values of the information represented to avoid any possible misunderstanding that could result in error.
- Remember that technology is no substitute for common sense. The dive computer only provides the person using it with data, not the knowledge to use it. Remember also that the dive computer does not actually measure and test the composition of your body tissue and blood. Using an Aqua Lung dive computer, just as using any other Decompression Tables, is no guarantee of avoiding decompression sickness. 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.
- Diving at high altitude requires special knowledge of the variations imposed upon divers, their activities, and their equipment by the decrease in atmospheric pressures. Aqua Lung recommends completion of a specialized altitude training course by a recognized training agency prior to diving in high altitude lakes or rivers.
- Repetitive dives in a series should only be conducted at the same altitude as that of the first dive of that series. Repetitive dives made at a different altitude will result in an error equal to the difference in barometric pressure, and possibly a false dive mode with erroneous data.
- If the i330R is activated at an elevation higher than 4,270 m (14,000 ft), it will immediately shutdown.
- Decompression diving or diving deeper than 39 m (130 ft) will greatly increase your risk of decompression sickness. This should only be attempted by those properly trained and certified in decompression diving. It is important to completely understand the features, functions, and specifically the limitations of the i330R. Based on this the diver must decide if the i330R is suitable for the dive activities and dive profiles being planned.
- Using an i330R is no guarantee of avoiding decompression sickness.
- The i330R enters Violation Mode when a situation exceeds its capacity to predict an ascent procedure. These dives represent gross excursions into decompression that are beyond the boundaries and spirit of the i330R's design. If you are following these dive profiles, Aqua Lung advises that you should not use an i330R.

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- If you exceed certain limits, the i330R will not be able to help you get safely back to the surface. These situations exceed tested limits and can result in loss of some functions for 24 hours after the dive in which a violation occurred.

EUROPEAN UNION REGULATIONS:

- Depth and time measurements are in conformity with EN13319:2000 - Diving Accessories - depth gauges and combined depth and time measuring devices
- Electronic instruments are in compliance with Directive 2004/108/EC Electromagnetic compatibility (EMC) EN 61000 part 6-1: Generic Standards - immunity for residential, commercial and light-industrial environments



- Depth and time measurements are in conformity with UKCA directives.
- Electronic instruments are in compliance with UKCA Electromagnetic compatibility requirements.

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GETTING STARTED

BASICS

Welcome to your new i330R. The i330R is an easy to use dive computer utilizing a two button interface. Divers may choose between three modes of functionality consisting of Dive, Gauge, and Free Mode. Though the i330R is easy to use, you will get the most out of your new i330R if you take some time to familiarize yourself with its displays and operation. Information has been organized into easy to follow sections to aid you in learning all you need to know. There is also a glossary at the end of this guide for any terms that may sound unfamiliar.

POWER

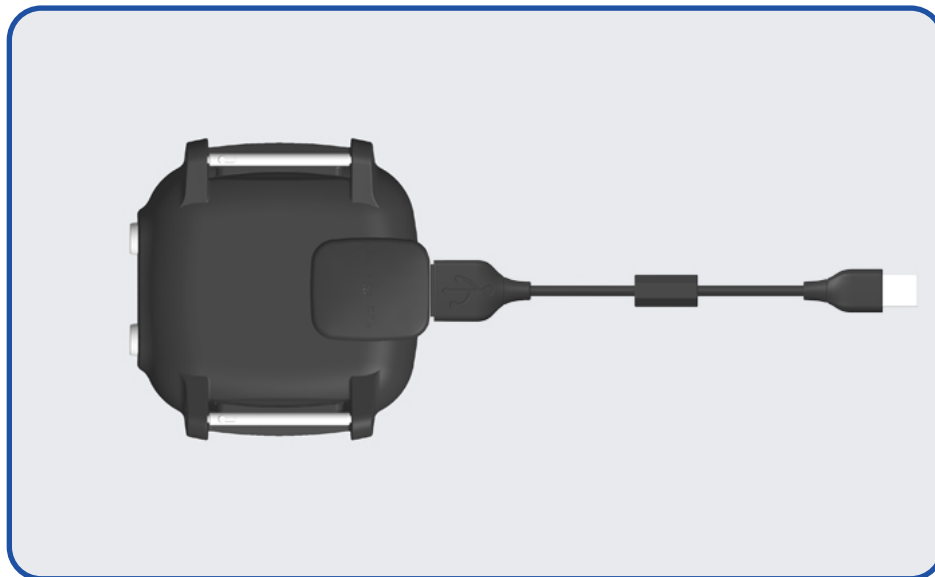
The i330R housing contains a rechargeable lithium battery similar to that of a cell phone. The level of battery charge is displayed on the primary screens. Charge the battery fully before first use. With a full charge you can expect to average 30 dive hours, at 100% brightness with the auto dim setting set off, before needing to recharge.

Keep in mind that the i330R screen is the biggest draw of power. Using full brightness settings will reduce the interval between charges. This setting can be fully customized to your preferences in the i330R settings. Additionally, the i330R screen will sleep after 10 minutes of inactivity to conserve power. Pressing any button will wake the screen up again.

CHARGING THE BATTERY

Use only the included Aqua Lung cable to charge the battery. This process will take an average of 2 hours with a wall charger and 3 - 4 hours charging from a personal computer's USB port.

NOTE: It is recommended that you charge your i330R before any extended storage to avoid loss of battery performance or shortened battery life.



ACTIVATION

To activate the i330R, press and release any button. The i330R will also turn on if you descend below 1.5 m (5 ft) for 5 seconds.

- Upon activation, the unit will display the Activation screen and perform a diagnostic check. The i330R checks the display and voltage at this time to ensure that everything is within tolerance.
- It will also check ambient barometric pressure, and calibrate present depth as 0 m (ft). When at 916 m (3001 ft), or higher, it will adjust for the higher altitude.
- After the Diagnostic check, the i330R will display the Dive Main screen.

NOTE: The i330R has no off button or command. If no buttons are pressed or dives made, the unit will enter Sleep Mode after 10 minutes. Within 2 hours of no buttons being pressed or dives made, the unit will shut itself off. However, the i330R will stay on for a 24 hour period after a dive, counting down FLY (time to fly) and DESAT (desaturation time) if a dive has been made.

ACTIVATION SCREEN



DIVE MAIN SCREEN



DISPLAY ICONS

SYMBOL	MEANING
M or FT	DEPTH (METERS OR FEET)
NO DECO	NO DECOMPRESSION TIME (DIVE TIME REMAINING)
O2 TIME	O2 SATURATION TIME (DIVE TIME REMAINING)
DIVE-T	DIVE TIME
	GAS # (1, 2, OR 3)
	BATTERY CONDITION IS GOOD
	LOW BATTERY WARNING
	LOW BATTERY ALARM
SURF-T	SURFACE TIME
CDT	COUNTDOWN TIMER (FREE MODE)
RUN TIME	RUN TIMER (GAUGE MODE)
MAX M or MAX FT	MAXIMUM DEPTH (METERS OR FEET)
	PRESS BUTTON TO INCREASE A VALUE OR SCROLL
	PRESS BUTTON TO DECREASE A VALUE OR SCROLL
	HOLD BUTTON TO SAVE OR SELECT AN OPTION
	HOLD BUTTON TO FAST SCROLL OR INCREASE A VALUE



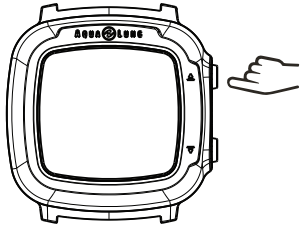
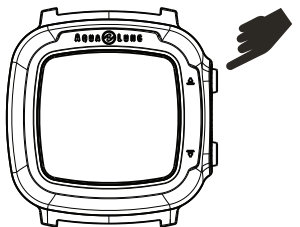
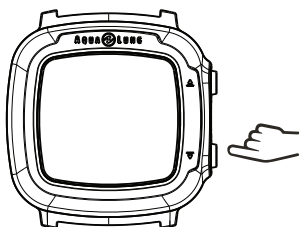
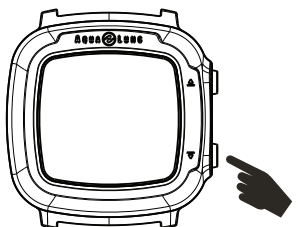
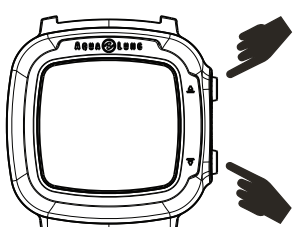
BUTTONS

The i330R utilizes 2 control buttons called the ▼ (Down) and ▲ (UP) buttons. They allow you to select mode options and access specific information. They are also used to enter settings and acknowledge the audible alarm.

Pressing different combinations of these buttons will navigate through different menus and options of the i330R. The symbols in the table below will illustrate how to proceed through the menus.

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

BUTTON FUNCTIONS

ACTION	FUNCTION
	• to move upwards through menu selections • to increase a setting • to toggle a setting • to access Alt screens
	• to access Last Dive screens • to scroll or increase a setting value at a faster rate
	• to move downwards through menu selections • to decrease a setting • to toggle a setting • to acknowledge an alarm
	• to select/save an option or setting • to enter a menu • to access Last Dive screens
	• to exit or return to the Main screen • to Reset Run Timer

DIVE FEATURES

DTR (DIVE TIME REMAINING)

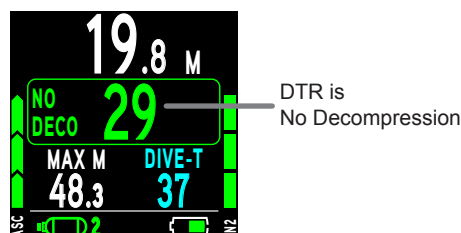
The i330R constantly monitors No Decompression status and O₂ Accumulation, and will display whichever time is the least amount available as DTR on the No Decompression Dive Main screen. The Time being displayed will be identified by the NO DECO (no decompression time) or O₂ TIME icons.

NO DECOMPRESSION

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

Whichever compartment is closest to this maximum level is the controlling compartment for that depth. Its resulting value NO DEC (no decompression) will be displayed. It will also be displayed graphically as the N₂ Bar Graph, see Bar Graphs below.

As you ascend, the N₂ Bar Graph 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 Aqua Lung dive computers offer.



O₂ TIME (OXYGEN TIME REMAINING)

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

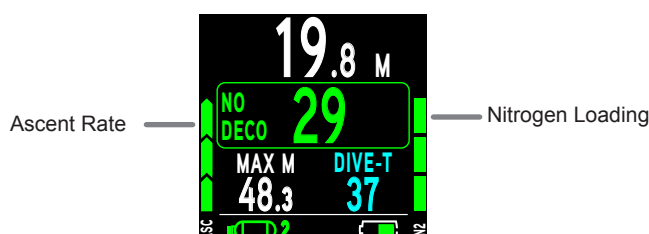
When the O₂ TIME value becomes less than the No Decompression calculations for the dive, DTR (Dive Time Remaining) will be controlled by O₂ SAT (Oxygen Saturation) and the O₂ TIME value will be displayed as the DTR on the Dive Main screen, identified by the O₂ TIME.



BAR GRAPHS

The i330R features two specific bar graphs.

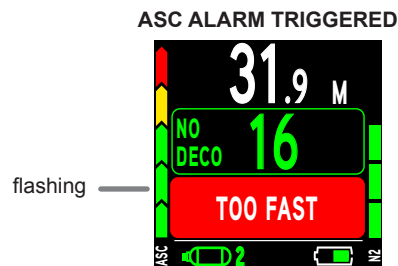
1. The one on the left represents ascent rate. It is referred to as the ASC Bar Graph.
2. The one on the right represents nitrogen loading. It is referred to as the N₂BG (N₂ Bar Graph).



ASC BAR GRAPH

The ASC Bar Graph provides a visual representation of ascent speed (i.e., an ascent speedometer). When the ascent is faster than the recommended 9 mpm (30 fpm), all segments flash for 8 seconds then remain solid until the ascent rate slows.

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



N₂BG (NITROGEN BAR GRAPH)

The N₂BG represents your relative No Decompression or Decompression status. The first four segments represent No Decompression status and the fifth indicates a Decompression condition. As your Depth and Elapsed Dive Time increase segments are added. As you ascend segments recede, indicating that additional No Decompression time is available. The i330R monitors multiple different nitrogen compartments simultaneously and the N₂BG displays the one that is in control of your dive at any given time.

ALGORITHM

The i330R utilizes the Bühlmann ZHL-16C algorithm model to calculate nitrogen tissue loading. To create even greater margins of safety with respect to decompression, a Conservative Factor (via preset gradient factor settings) as well as No Decompression Deep and Safety Stops can be included for No Decompression dives.

GF (GRADIENT FACTOR)

Gradient factors are a method for setting decompression table conservatism. The ZHL-16C model predicts maximum inert gas saturation values that should not result in Decompression Sickness symptoms if the diver were to ascend further during the dive.

Gradient factors take this further by limiting the diver to ascend only with a fraction (factor) of the algorithm's maximum allowed gas saturation values.

The i330R simplifies the selection of these gradient factor values by requiring the diver to select from just three preset gradient factor settings. These settings are referred to as Conservative Factors.

CONSERVATIVE FACTOR

The i330R has three Conservative Factor settings: OFF, MORE (conservative), and MOST (conservative). When the Conservative Factor is set to MORE or MOST, the dive time remaining, NO DECO (No Decompression)/O₂ TIME, which are based on the algorithm and used for N₂/O₂ calculations and displays relating to Plan Mode will have their values reduced.

DEEP STOP

When the Deep Stop selection is set ON, it will trigger after descending deeper than 24 m (80 ft). The i330R then calculates (continually updating) a Stop Depth equal to ½ the Max Depth.

NOTE: The Deep Stop feature only works in DIVE Mode while within No Decompression times.

- While 3 m (10 ft) deeper than the calculated Deep Stop, you will be able to access a Deep Stop Preview screen that will display the current calculated Deep Stop Depth/Time.
- Upon initial ascent to within 3 m (10 ft) below the calculated Stop Depth, a Deep Stop screen displaying a Stop Depth at ½ the Max Depth will appear with a countdown timer beginning at 2:00 (min:sec) and counting down to

0:00. If you descend 3 m (10 ft) below, or ascend 3 m (10 ft) above, the calculated Stop Depth for 10 seconds during the countdown, the No Decompression Main will replace the Deep Stop Main display and the Deep Stop feature will be disabled for the remainder of that dive. There is no Penalty if the DS is ignored.

- In the event that you enter Decompression, exceed 57 m (190 ft), or a High O₂% (Oxygen Saturation) condition, $\geq 80\%$, occurs, the Deep Stop will be disabled for the remainder of that dive.
- The Deep Stop is disabled during a High PO₂ Alarm condition, $\geq$ set point.

SAFETY STOP

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

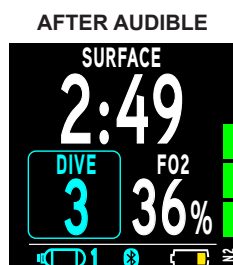
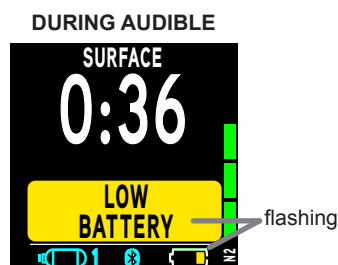
- If the Safety Stop was set for OFF, the display will not appear.
- In the event that you descend 3 m (10 ft) deeper than the Stop Depth for 10 seconds during the countdown, or the countdown reaches 0:00, the No Decompression Main screen will replace the Safety Stop Main screen which will reappear upon ascent to within 1.5 m (5 ft) deeper than the Safety Stop depth set for 1 second.
- In the event that you enter Decompression during the dive, complete the Decompression obligation, then descend below 9 m (30 ft); the Safety Stop Main will appear again upon ascent to within 1.5 m (5 ft) deeper than the Safety Stop depth set for 1 second.
- If the diver ascends to within 0.91 m (3 ft) from the surface for 10 seconds, the Safety Stop is to be canceled.
- There is no penalty if you surface prior to completing the Safety Stop or choose to ignore it.

LOW BATTERY WHILE ON THE SURFACE

Warning Level

When capacity drops to 30% of full charge at the surface, the graphic LOW BATTERY on a yellow background will display at the bottom of the screen and the battery icon shall flash for 10 seconds while the audible alarm sounds. Then the icon shall be solid and the message removed. All functions shall continue to be available.

⚠ WARNING: Recharge the battery before diving if your i330R indicates the Battery Low Warning or Alarm.

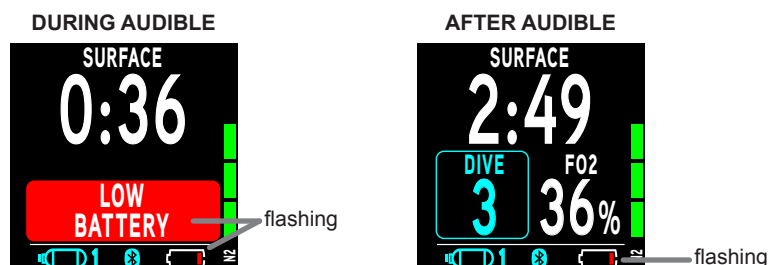


Alarm Level

When capacity drops to 20% of full charge the battery icon will change to red and flash.

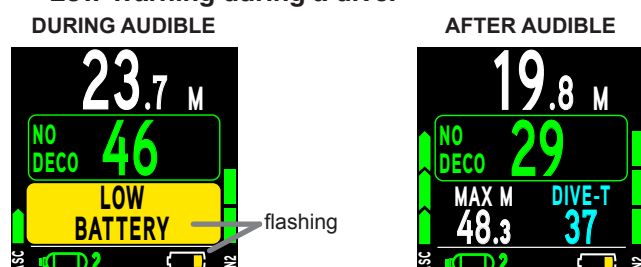
The message LOW BATTERY with a red background will display at the bottom of the screen during the audible alarm. The battery icon shall continue flashing and the LOW BATTERY message will be removed.

⚠ WARNING: Recharge the battery before diving if your i330R indicates the Battery Low Warning or Alarm.

**LOW BATTERY DURING A DIVE****Warning Level**

When capacity drops to 30% of full charge during a dive, the graphic LOW BATTERY on a yellow background will display at the bottom of the screen and the battery icon shall flash for 10 seconds while the audible alarm sounds. Then the icon shall be solid and the message removed. All functions shall continue to be available.

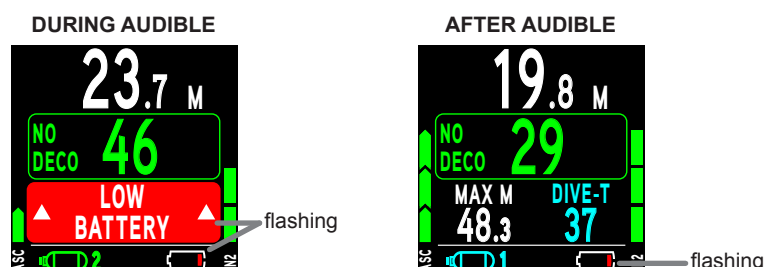
⚠ WARNING: Recharge the battery before making additional dives if your i330R indicates the Battery Low Warning during a dive.

**Alarm Level**

When capacity drops to 20% of full charge the battery icon will change to red and flash.

The message LOW BATTERY with a red background will display at the bottom of the screen during the audible alarm. The battery icon shall continue flashing and the LOW BATTERY message will be removed.

⚠ WARNING: The i330R will shut down when the battery is completely exhausted. Recharge the battery before making additional dives. End your dive as soon as is safe if your i330R indicates the Battery Low Alarm during a dive.



AUDIBLE/VISUAL ALARM

While operating in Dive or Gauge Mode, the audible alarm will emit 1 beep per second for 10 seconds when alarms strike, unless it is set to Off. During that time, the audible alarm can be acknowledged and silenced by pressing the ▼ (Down) button.

An LED warning light, on the side of the housing, is synchronized with the audible alarm and flashes as the audible alarm sounds. It will turn off when the alarm is silenced. The audible and LED alarms will not be active if the audible alarm is set to OFF (a Set Alarms setting).

Free Dive Modes have their own alarms which emit multiple beeps multiple times which cannot be acknowledged or set to OFF.

Events that emit (10) beeps >> each sound for ½ sec with ½ sec silence between beeps:

- Conditional Violation
- Delayed Violation 1
- Delayed Violation 2
- Delayed Violation 3
- Ascent Alarm
- PO2 Alarm
- Depth Alarm
- N2BG Alarm
- High O2 Warning and Alarm
- Entry into Deco
- EDT Alarm
- DTR Alarm
- Gas Switch Alarm

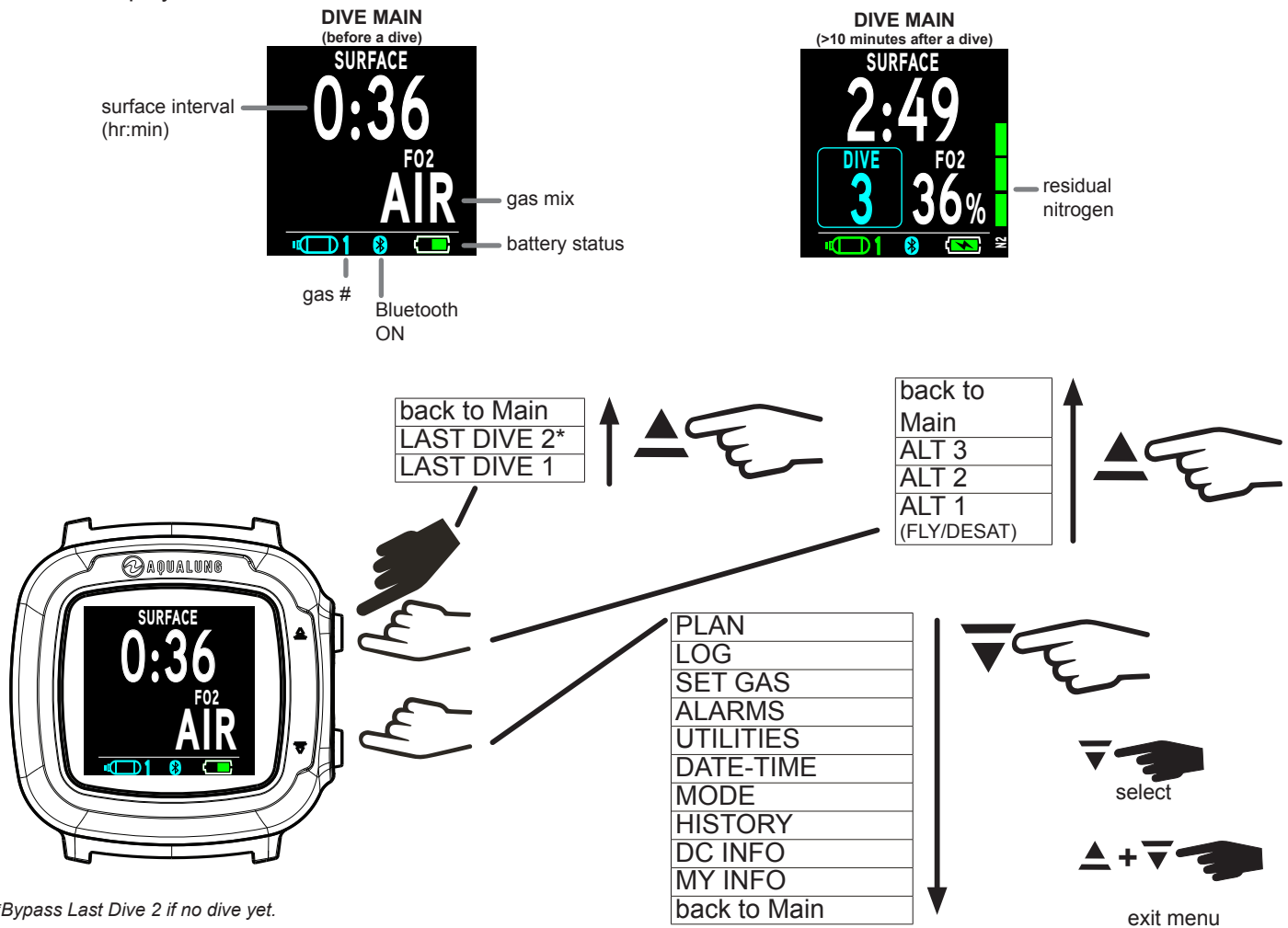
Events that emit (3) short beeps:

- FREE - CDT Alarm.
- FREE - N2 Bar Graph Alarm.
- FREE - Violation, entry into Decompression.
- FREE - DA1 to DA3 Alarms.

DIVE SURFACE MODE

ON THE SURFACE BEFORE A DIVE

The Dive Main screen will display the SURF (Surface Time) and the selected FO₂ of the breathing gas. The surface time displayed is the time since activation or the surface interval after a dive.



ALTERNATE SCREENS

ALT 1 (FLY/DESAT)

Fly

Time to Fly countdown shall begin counting from 23:50 to 0:00 (hr:min), 10 minutes after surfacing from a dive.

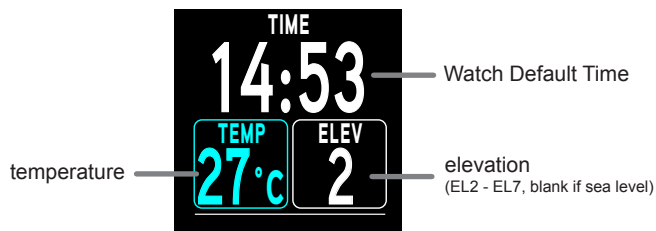
Desat

The counter shall provide calculated time for Tissue Desaturation at sea level taking into consideration the CF (Conservative Factor) if it was set on. It shall begin counting down 10 minutes after surfacing from DIVE or FREE dives counting down from a maximum of 23 to 10 (hr only), then 9:59 to 0:00 (hr:min). When the DESAT countdown reaches 0:00 (hr:min), which will generally occur prior to the FLY countdown reaching 0:00 (hr:min), it will remain on the display as 0:00 until the Fly count down reaches 0:00.

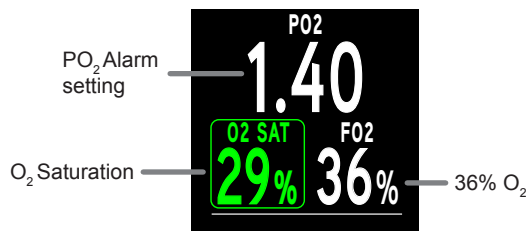


ALT 2

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

**ALT 3**

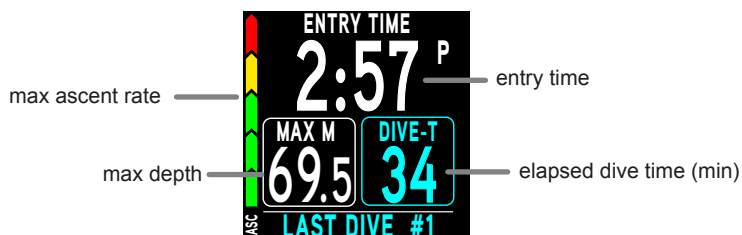
The ALT 3 screen displays only after a nitrox dive. It displays the current oxygen saturation level, PO2 Alarm setting, and the current gas mix.

**LAST DIVE SCREENS**

The Last Dive screens provide convenient access to data from the previous dive.

LAST DIVE 1

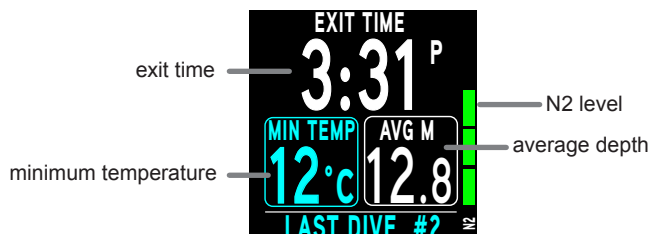
The Last Dive 1 screen displays the dive entry time, max ascent rate, maximum depth, and elapsed dive time.



NOTE: Last Dive 2 screen will be bypassed if there have been no previous dives during the activation period.

LAST DIVE 2

The Last Dive 2 screen displays the dive exit time, minimum temperature, N2 level, and average dive depth.

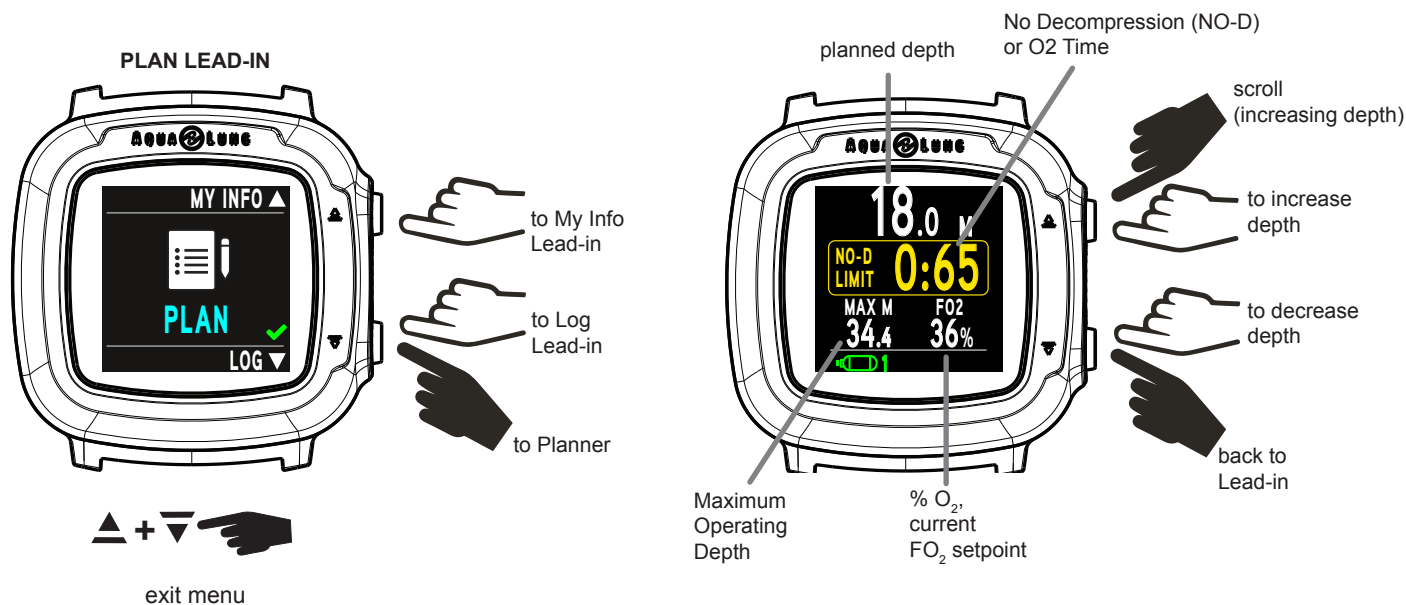


DIVE MAIN MENU

PLAN

This mode calculates dive depth and time limits. To do so, it accounts for any residual nitrogen, oxygen, surface intervals, the programmed gas mix, and PO_2 alarm setting. Either NO-D (No Decompression) or O2 MIN (O_2 Time) limits are displayed, depending on whether nitrogen or oxygen levels will be the limiting factor. The time limit will display as 1-99 minutes, all times greater than 99 display as 99.

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

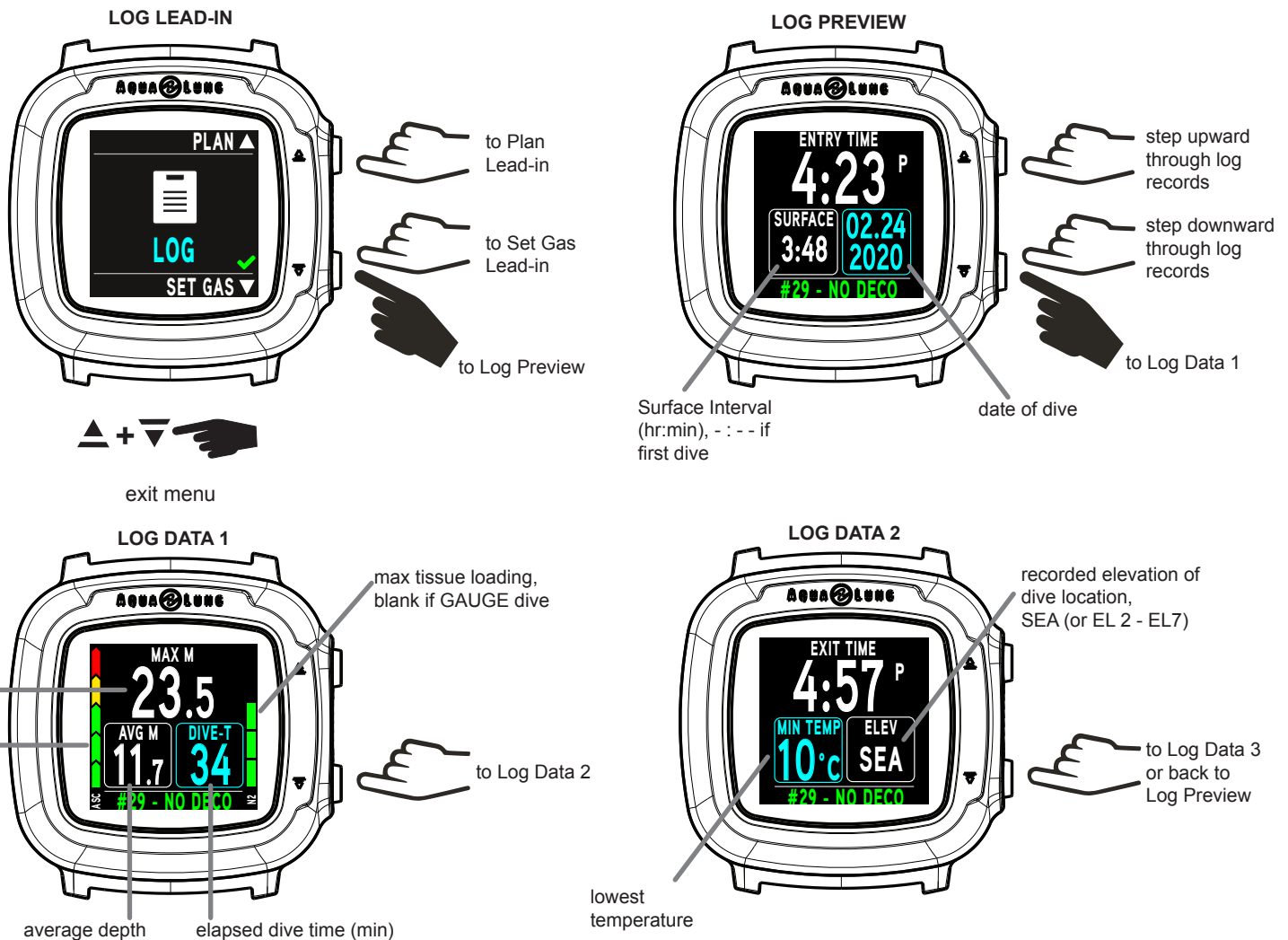


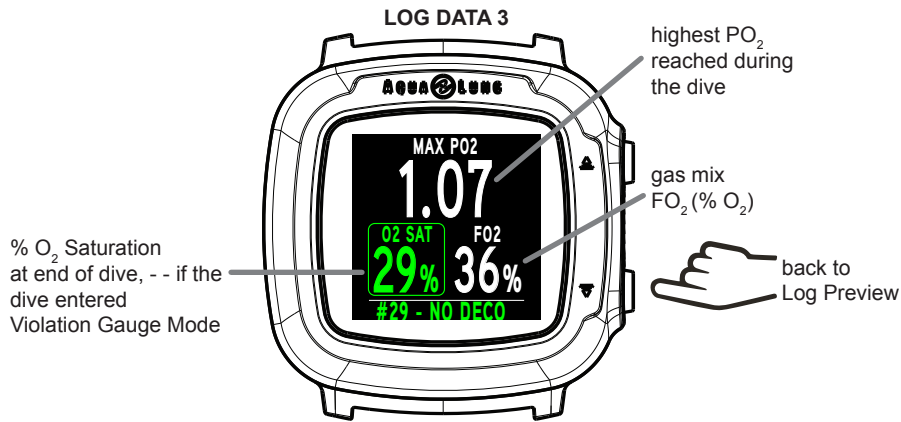
LOG

The log stores Information from the latest 24 Dive and/or Gauge mode dives for viewing.

- If no dives are recorded, the message NO DIVE YET will be displayed.
- After exceeding 24 dives, the most recent dive is stored while the oldest is deleted.
- Dives are numbered from 1 to 24 starting each time a dive is activated in either Dive (or Gauge) mode. After the post dive 24 hour period has elapsed and the unit shuts off, the first dive of the next activation period will be recorded as dive #1.
- In the event that dive time (DIVE MIN) exceeds 999 min, the data at the 999 interval is recorded in the Log upon surfacing of the unit.
- The message GAU (Gauge) or VIO (violation) will display, in the upper left, if applicable on the Log Preview.

NOTE: New data will automatically overwrite the oldest data in memory when the memory becomes full. If you do not remember to log or download your dives, they will be lost when the memory overwrites. See the Uploading/Downloading Data section p. 66 of this manual for instructions on downloading dives.





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

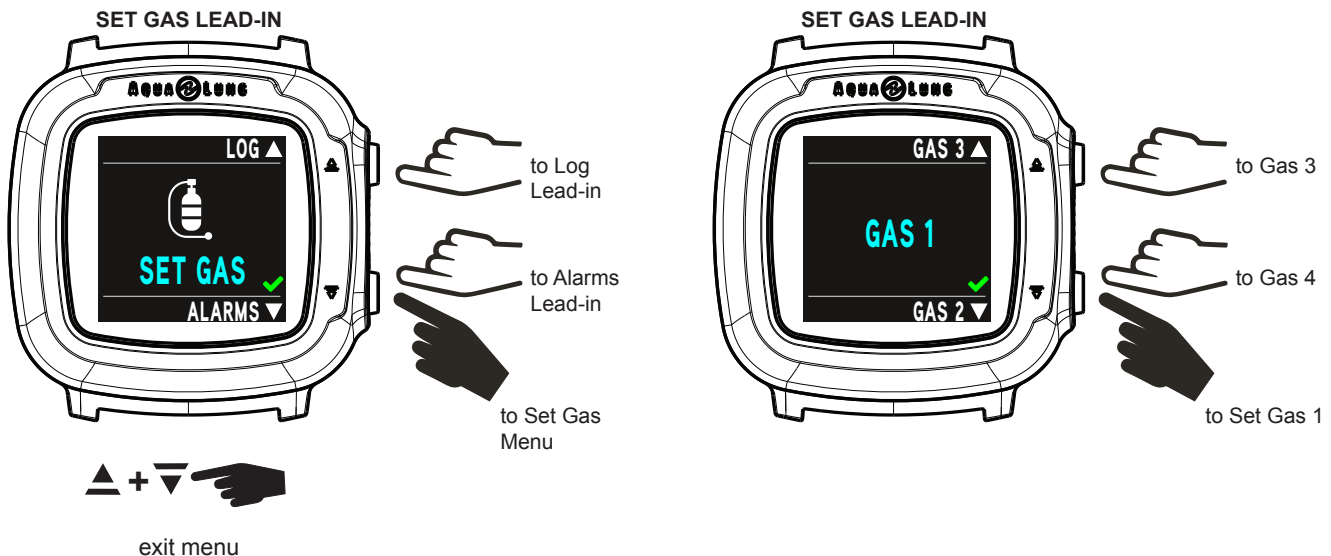
SET GAS

Holding the ▼ (Down) button while viewing the Set Gas Lead-in screen accesses the Set Gas submenu. Within this submenu you can change the available gas mixes from OFF, AIR, or to any nitrox mix between 21 - 100 FO₂ (% O₂). Nitrox mixes are displayed with their corresponding MOD (Maximum Operating Depth) and the current PO₂ Alarm setting for the selected gas. Default settings are FO₂ AIR with no PO₂ alarm value for Gas 1, and OFF for Gas 2 and 3. If you save a nitrox mix value for any gas, the i330R will highlight the PO₂ alarm value allowing it to be set. Additionally, the i330R allows for each gas (1 - 3) to have individual PO₂ alarm settings.

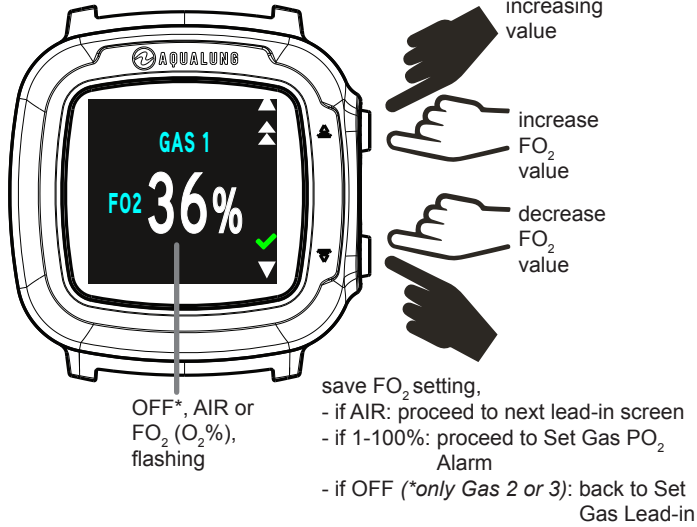
NOTE: Once any Gas is set for Nitrox, any other Gas set for AIR will automatically be set to 21%. If a nitrox dive is made, the AIR option will not be displayed as an FO₂ setting until 24 hours elapse after the last dive.

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

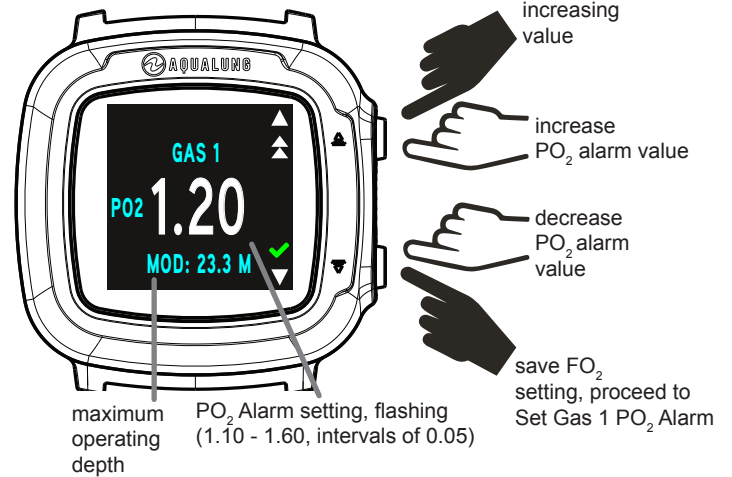
NOTE: Gas 1 cannot be set to OFF.



SET GAS 1 FO₂ (Gas 2 & 3 setting is similar)



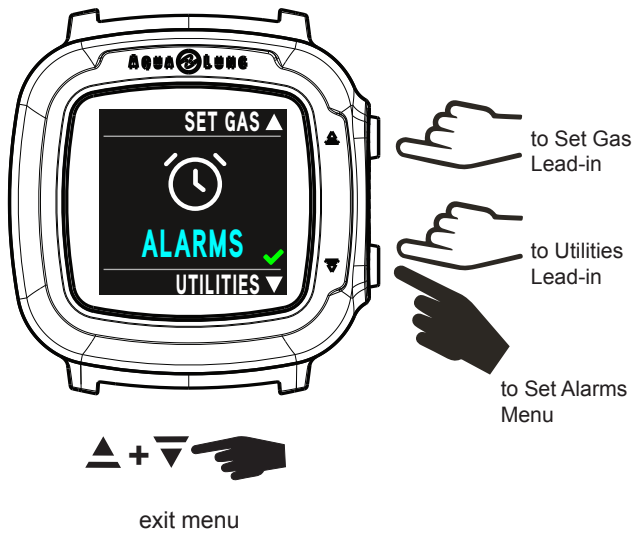
SET GAS 1 PO₂ (bypassed if AIR, Gas 2 & 3 setting is similar)



SET ALARMS

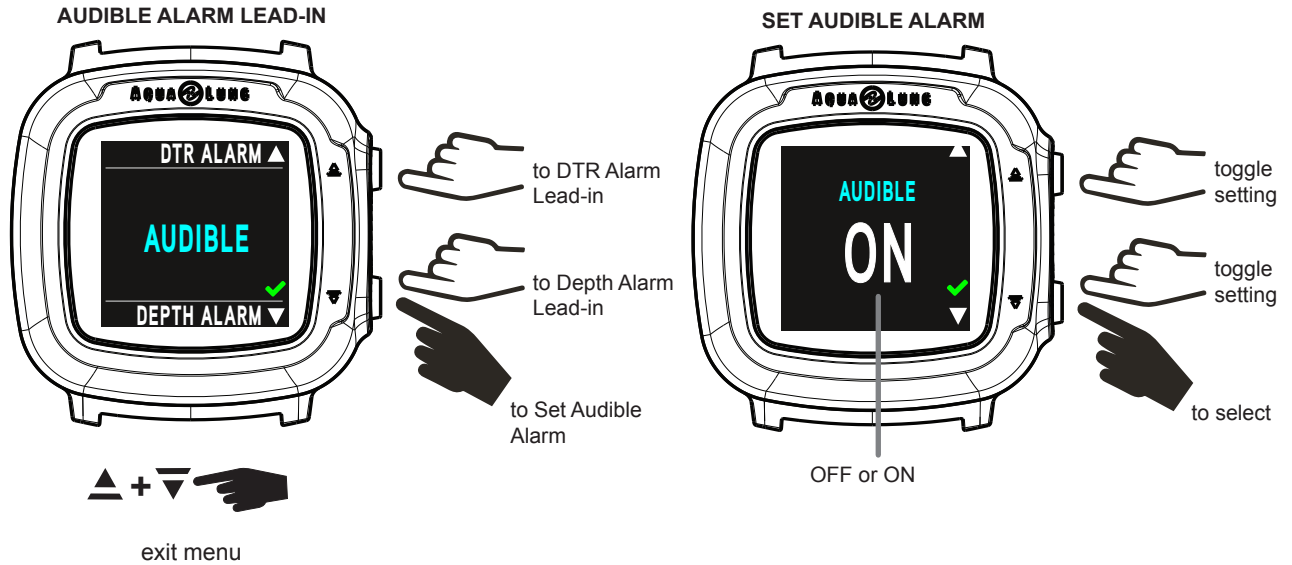
Within this submenu you can customize the following five alarm settings.

SET ALARMS LEAD-IN



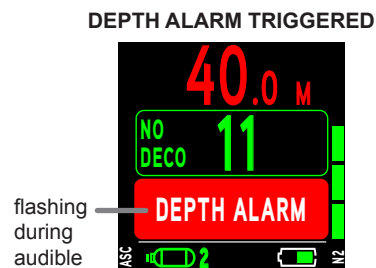
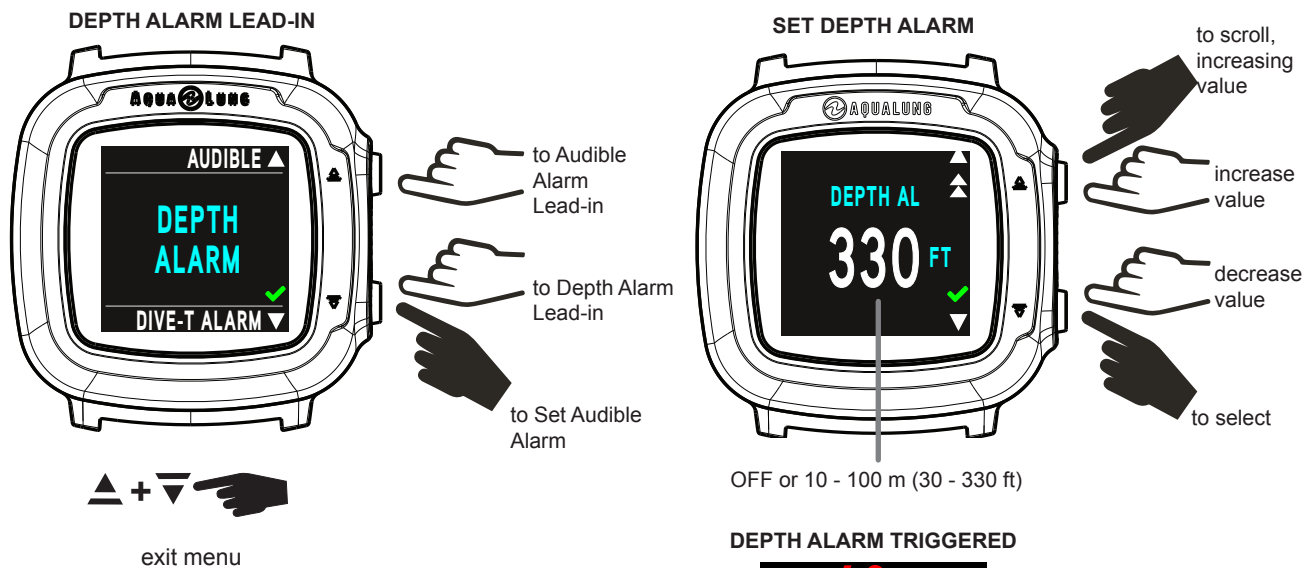
1. AUDIBLE ALARM

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



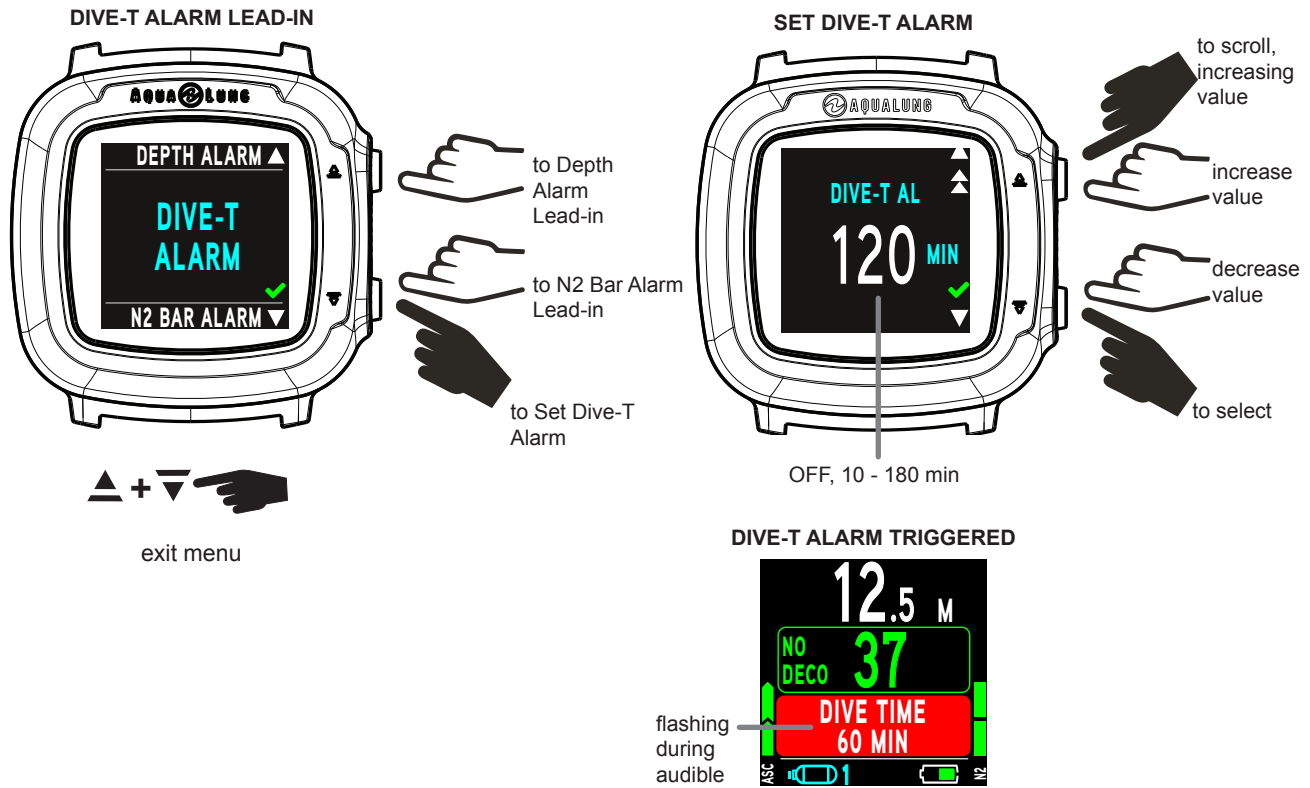
2. DEPTH ALARM

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



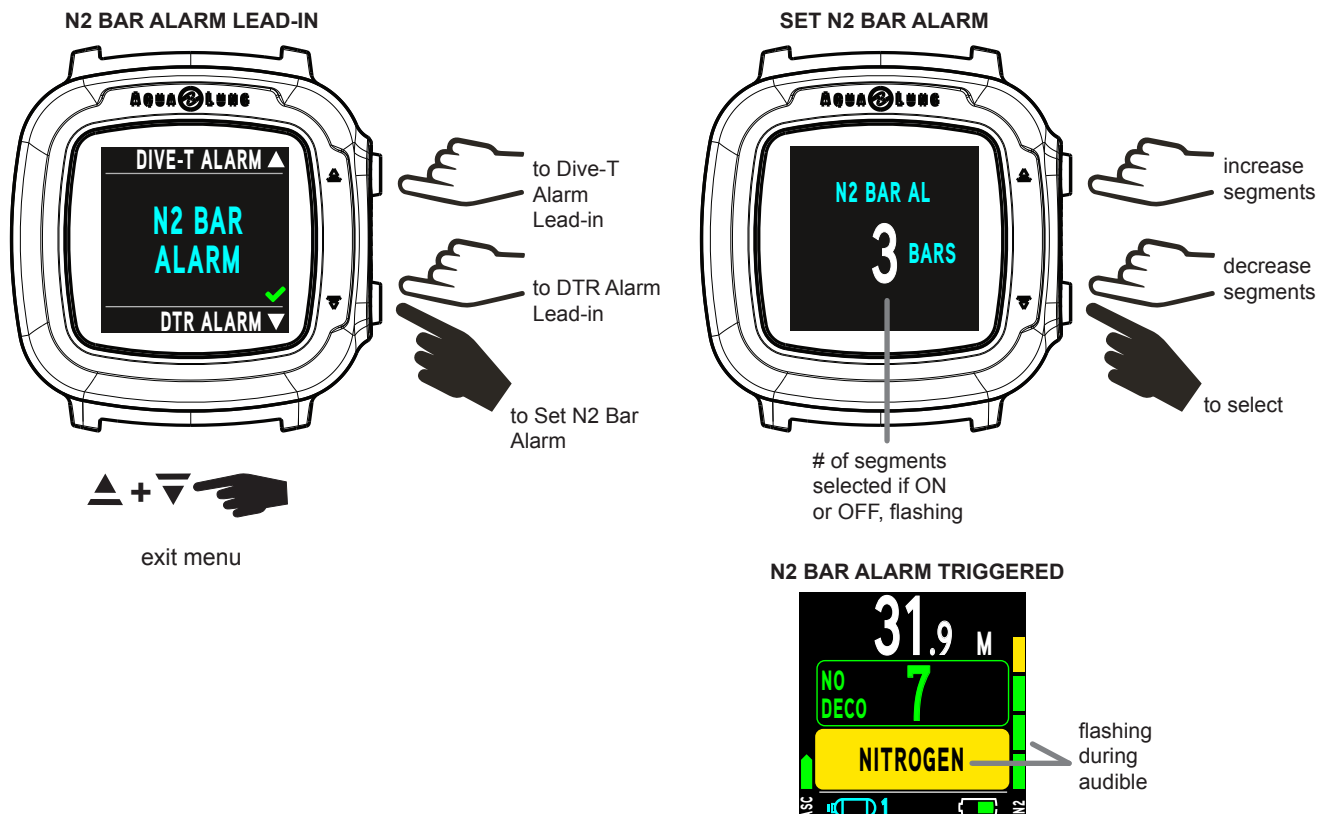
3. DIVE-T (Elapsed Dive Time) ALARM

This feature allows you to set an alarm to go off at a predetermined amount of dive time.



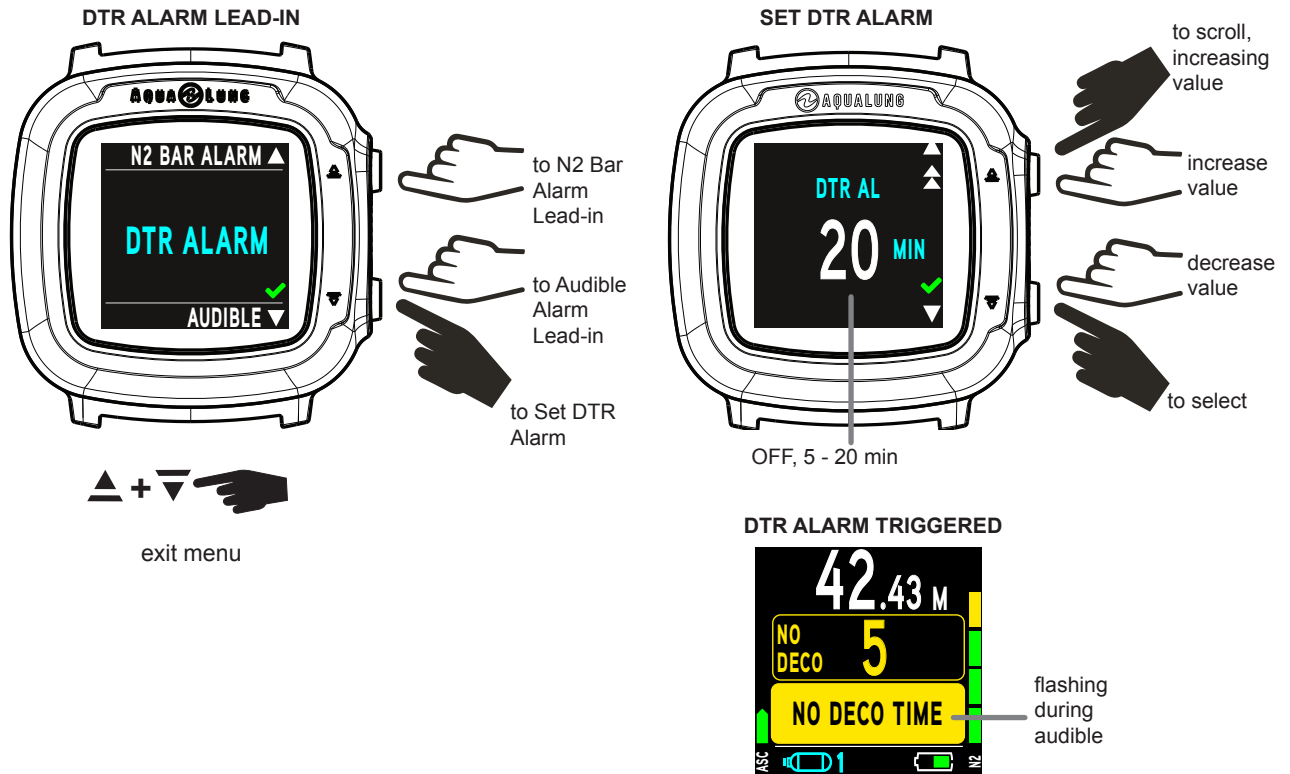
4. N2 (Nitrogen) BAR ALARM

This feature allows you to set an alarm to go off at a predetermined number of N2 bar graph segments.



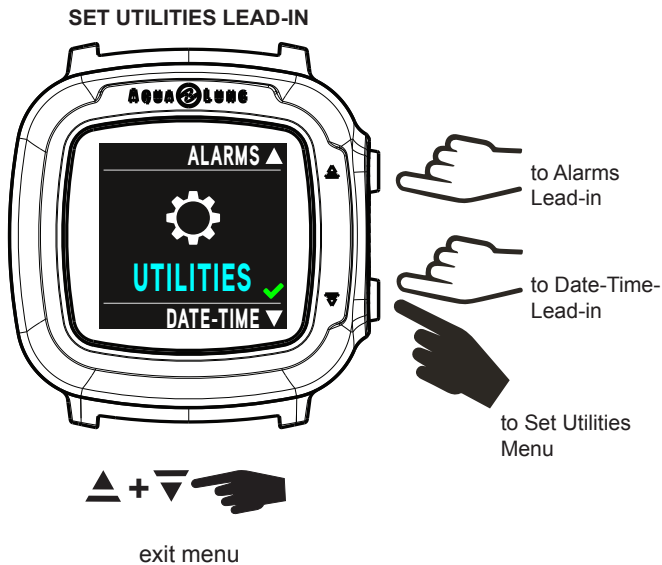
5. DTR (Dive Time Remaining) ALARM

This feature allows you to set an alarm to go off with a designated reserve of dive time remaining.



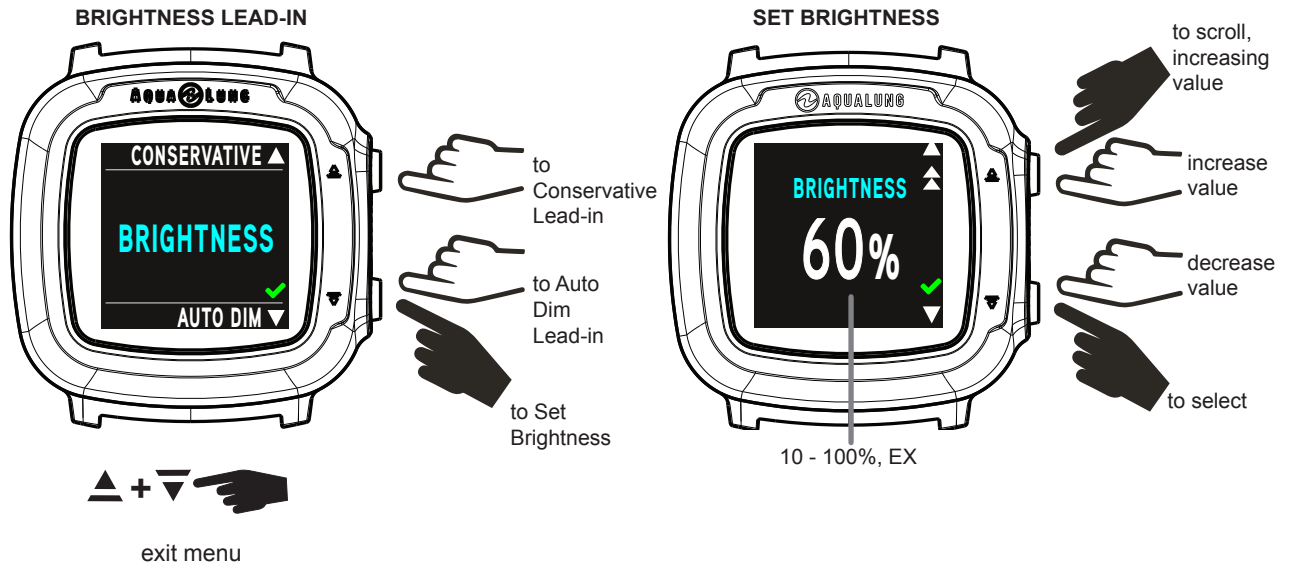
SET UTILITIES

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



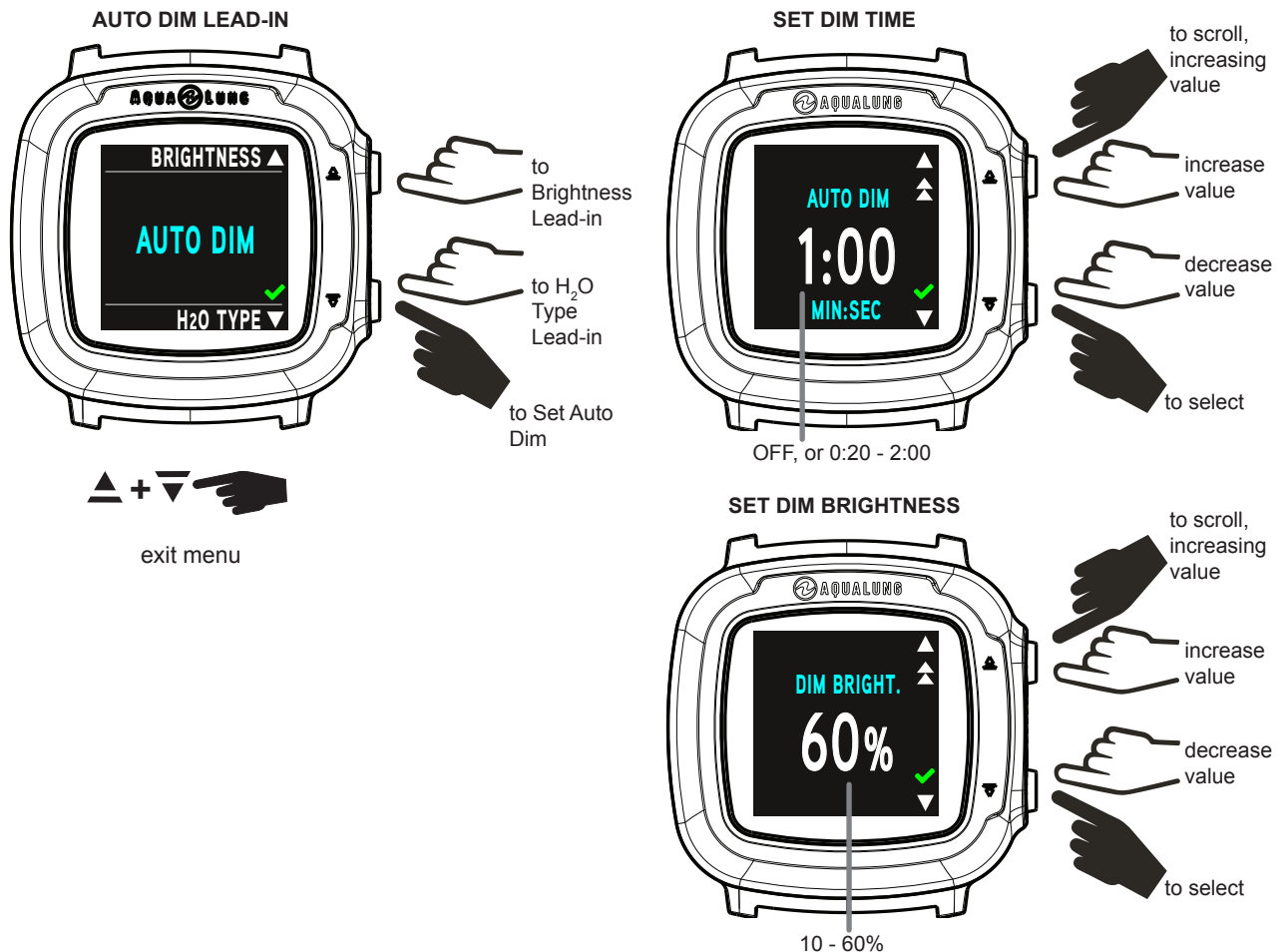
1. BRIGHTNESS

This setting allows you to adjust the brightness of the screen. Settings are from 10-100% and include an additional setting of EX (extra bright). The EX setting is intended for extremely bright environments.



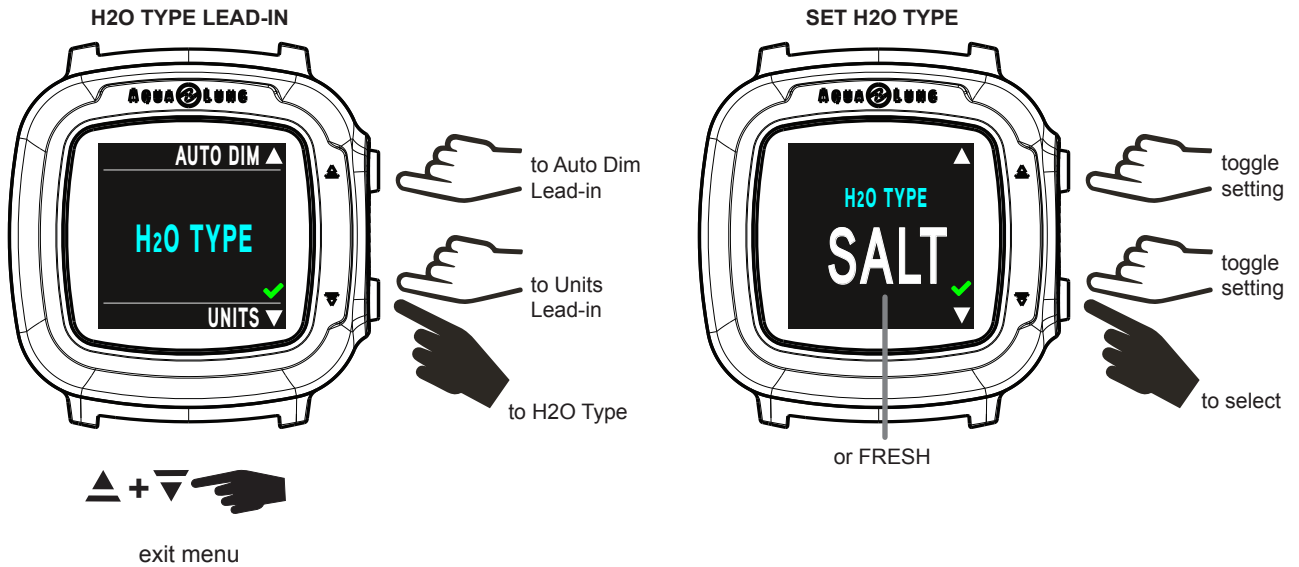
2. Auto Dim

While underwater the i330R screen dims after a set time interval from the last button press. This is done to reduce distractions during the dive and to conserve power. The i330R allows you to customize the time interval and degree of dimming. This feature may also be turned off.



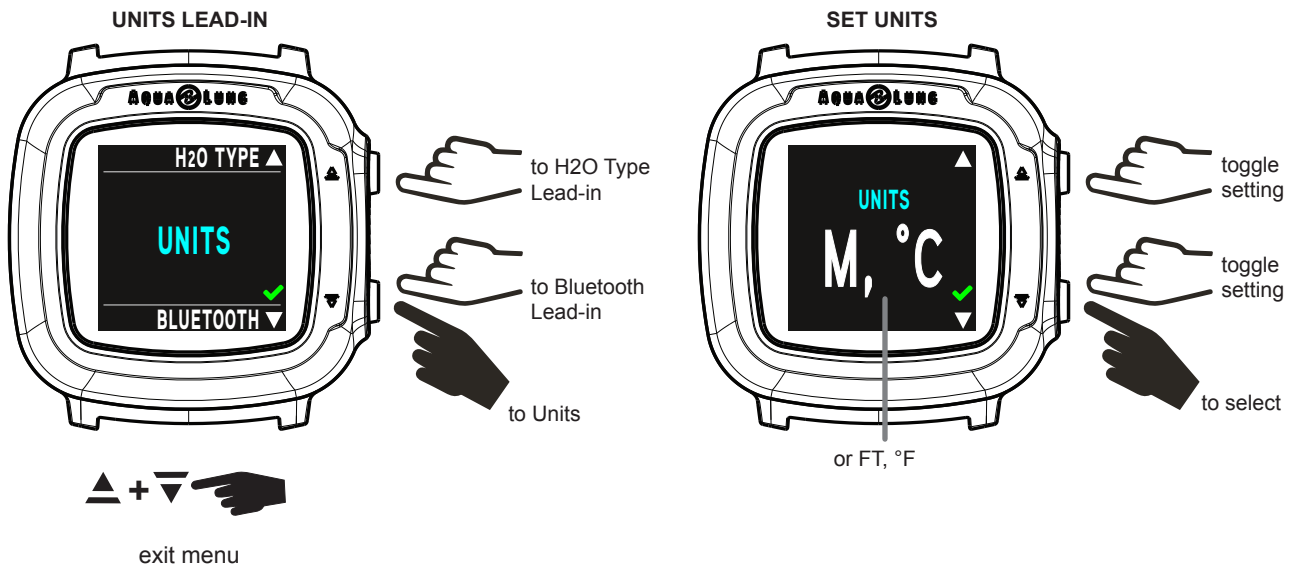
3. H₂O TYPE (Water Type)

The H₂O Type feature allows you to set SALT or FRESH water environment for accurate depth calculations.



4. UNITS (IMP/MET)

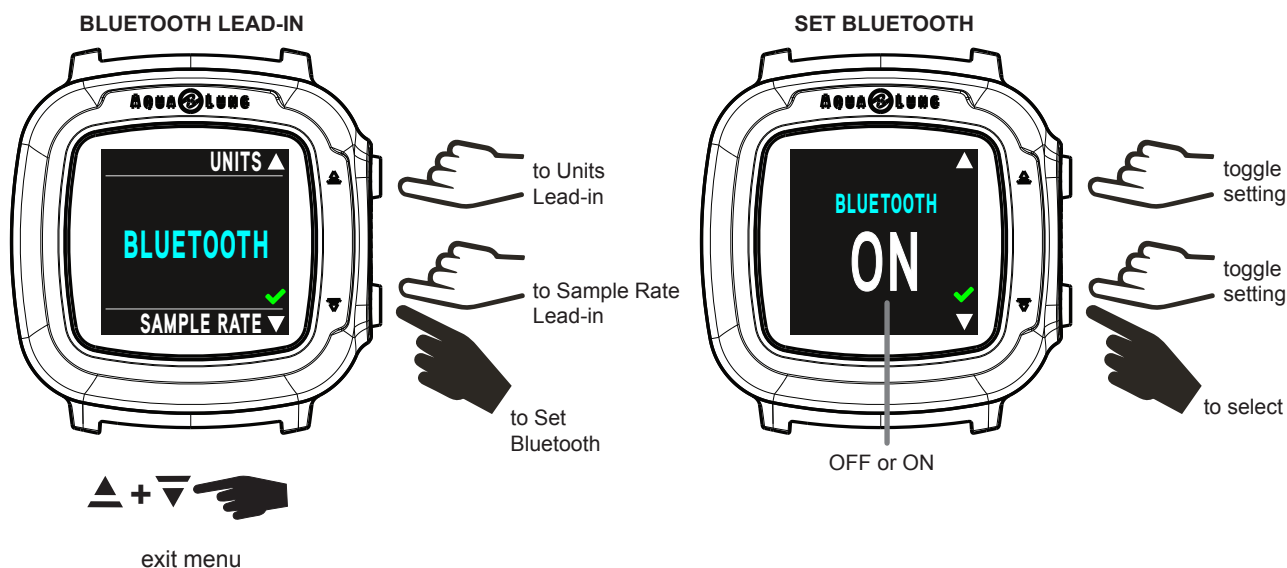
The Units feature allows you to select whether M,°C (metric) or FT,°F (imperial) units of measure will be displayed.



5. BLUETOOTH

Within this screen the Bluetooth® may be turned ON or OFF. When Bluetooth® is turned on it will operate in sniffing mode (searching for compatible devices) while on the surface. Communication with your i330R must be initiated with your mobile device using the DiverLog+ application. Follow the instructional prompts given by the DiverLog+ application.

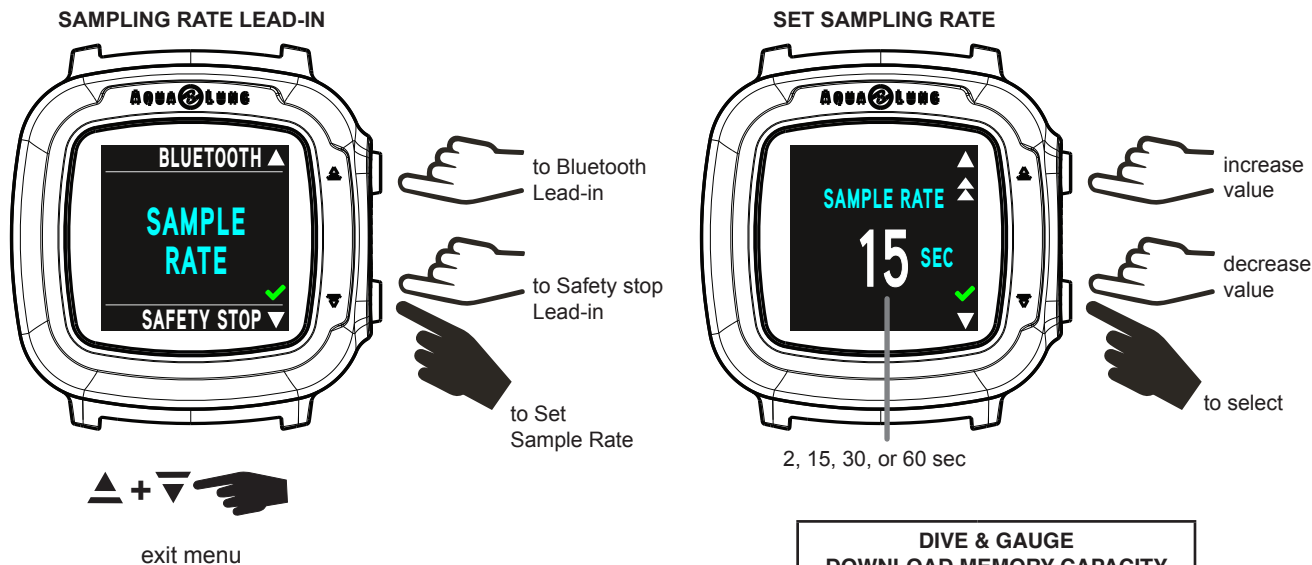
NOTE: When Bluetooth® is ON the Bluetooth® icon will be displayed when on the surface with the screen activated. Bluetooth® is temporarily deactivated when the i330R enters Sleep Mode (screen is turned off) or a dive is started. The i330R reactivates "sniffing" mode when the i330R returns to Surface Mode after a dive or a button is pushed to wake the computer from Sleep Mode on the surface.



6. SAMPLING RATE

The Sample Rate controls how frequently the i330R stores a data snapshot for Diverlog + Download during a dive. Setting options are 2, 15, 30, or 60 second intervals. Shorter intervals will provide a more precise record of your dives.

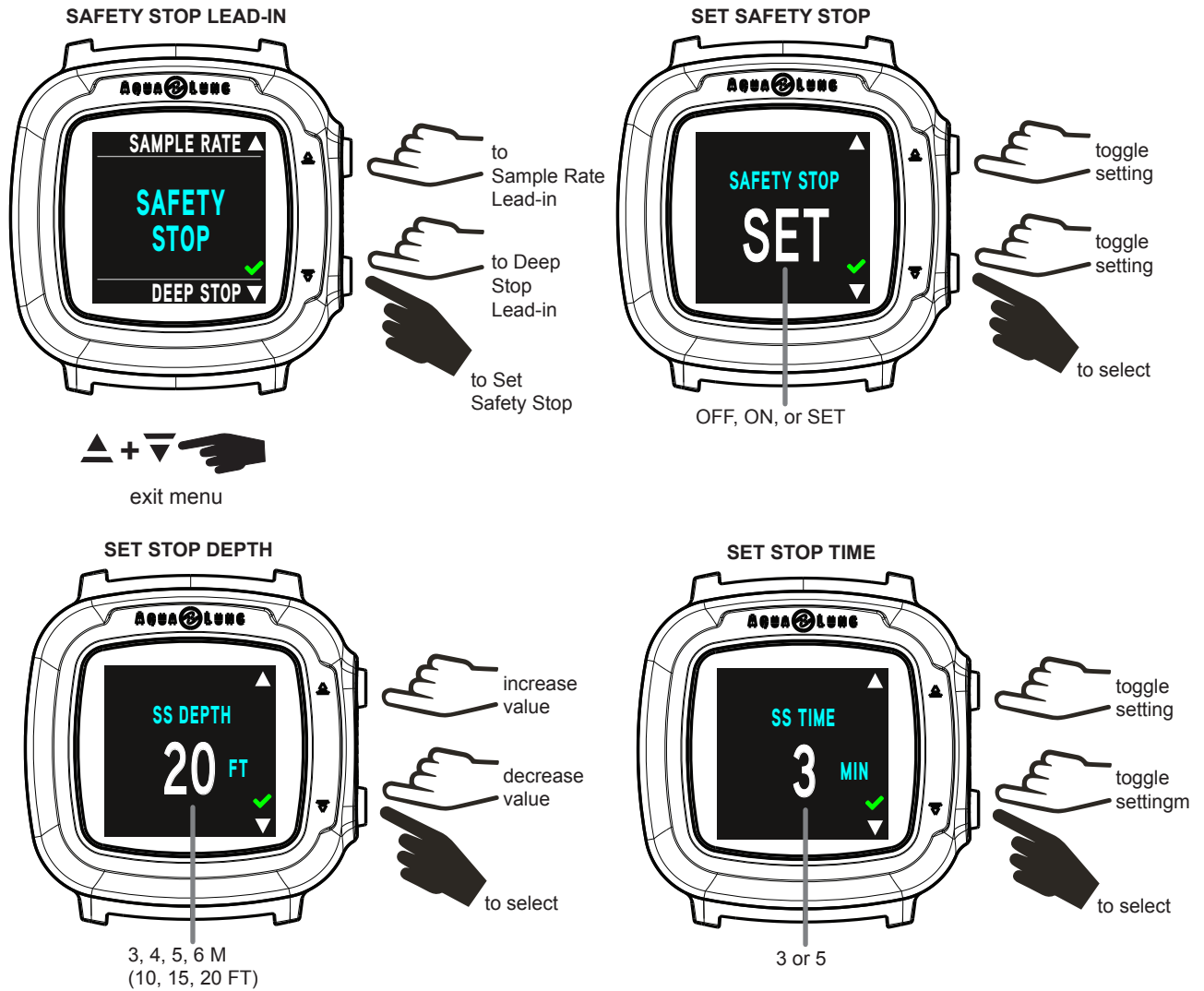
NOTE: New data will automatically overwrite the oldest data in memory when the memory becomes full. The i330R Log and Diverlog + Download data are stored separately in different partitions of the memory. The Log only stores a short summary of each dive. Alternately, the Diverlog + Download function stores much larger files for each dive. Depending on the chosen settings and dive durations, it is possible to see dives stored in the i330R's onboard Log that have already been overwritten in the Diverlog + Download Partition. Choosing a longer Sample Rate interval will consume less memory per dive. Remember to download your dives more frequently if you are using a shorter Sample Rate interval.



DIVE & GAUGE DOWNLOAD MEMORY CAPACITY	
SAMPLE RATE (seconds)	MAXIMUM HOURS
2	100
15	800
30	1600
60	3200

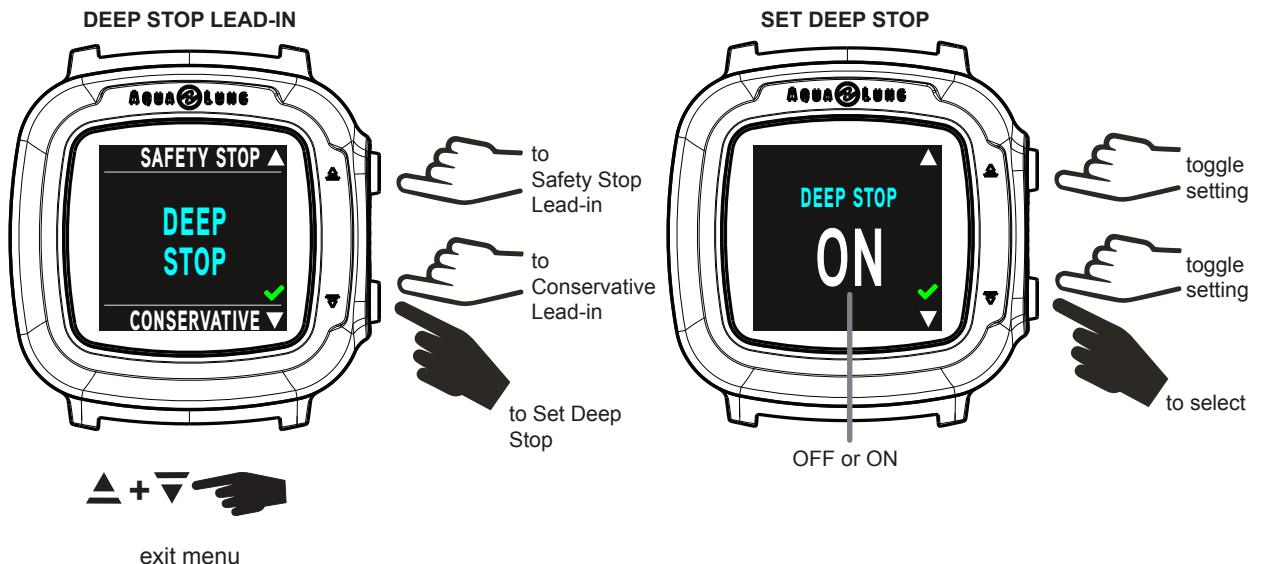
7. SAFETY STOP

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



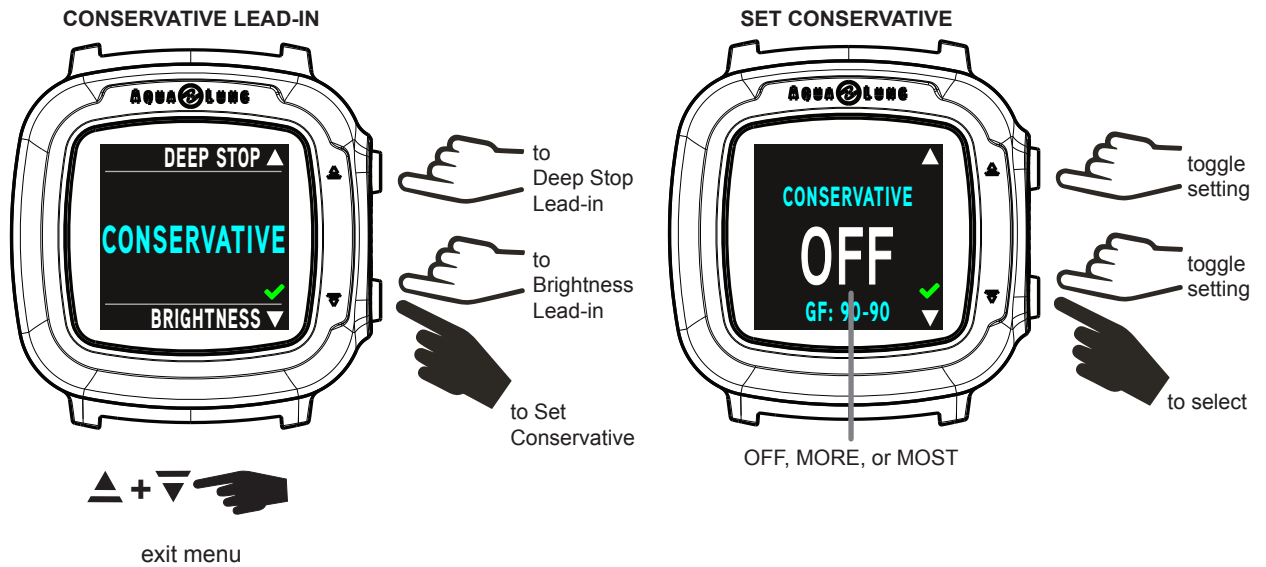
8. DEEP STOP

The Deep Stop feature can be set ON or OFF.



9. CONSERVATIVE FACTOR

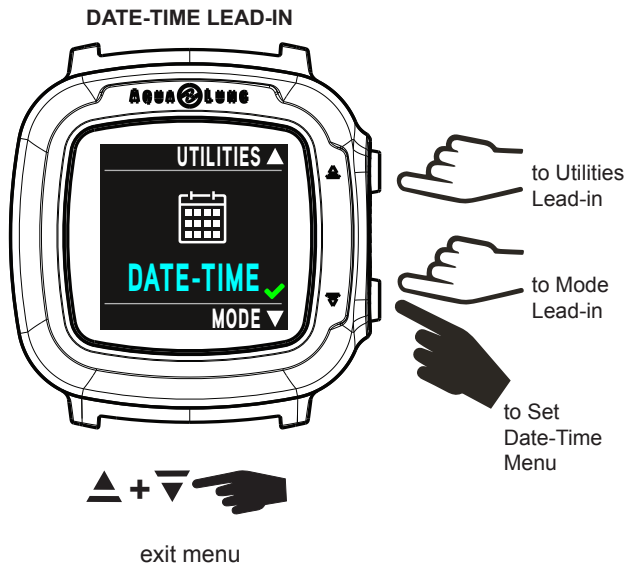
The Conservative factor enables 3 preset options: OFF (GF: 90-90), MORE (GF: 85-35), and MOST (GF: 70-35).



Further information on Gradient Factors can be found in the Dive Mode Features section of this manual.

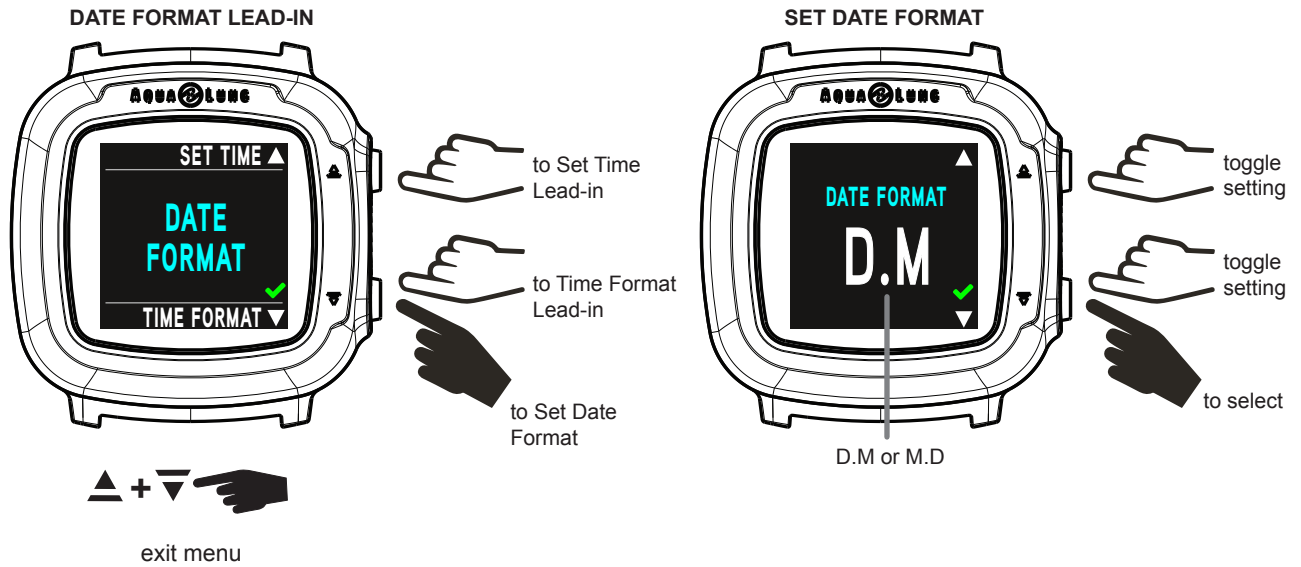
SET DATE-TIME

Within this menu you can set the time formats, date, and time of day.



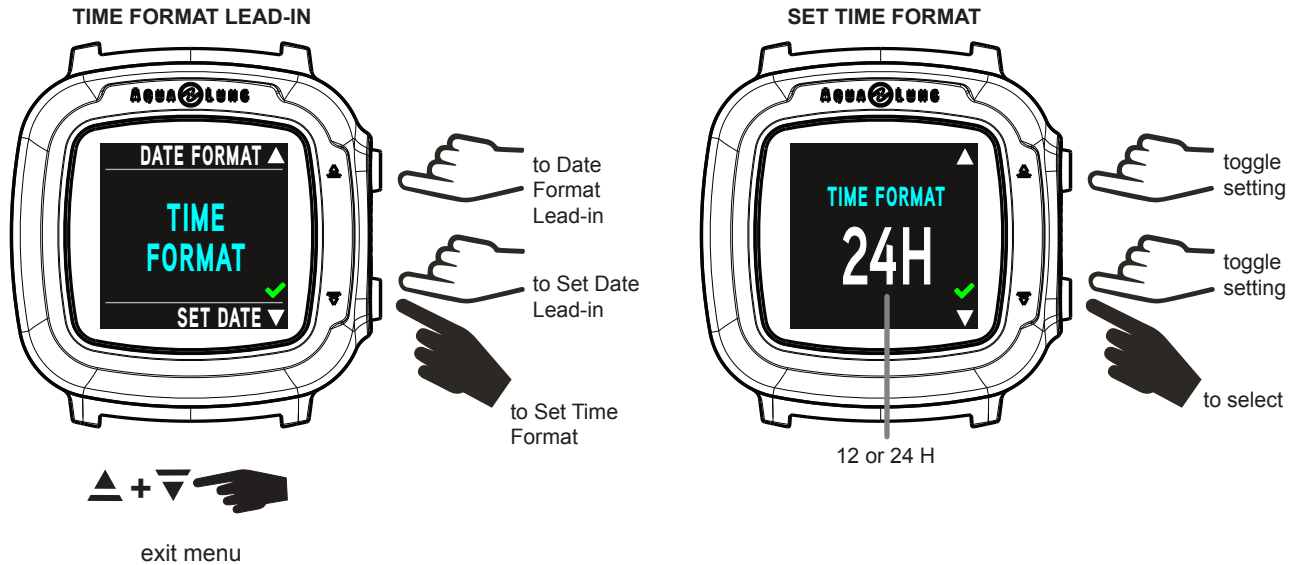
1. DATE FORMAT

You can choose between D.M (Day.Month) and M.D (Month.Day).



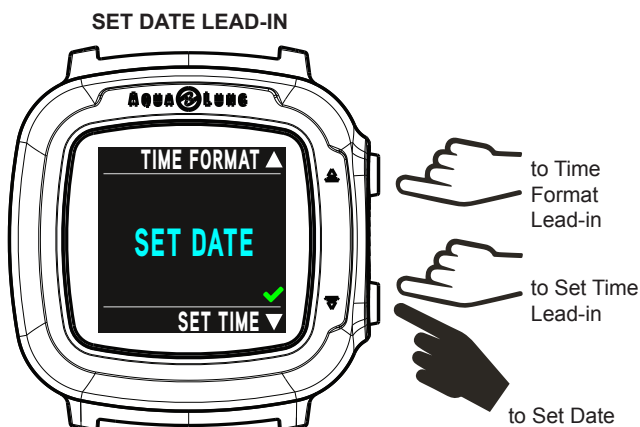
2. TIME FORMAT

Choose your preferred hour format (12 or 24 hr).

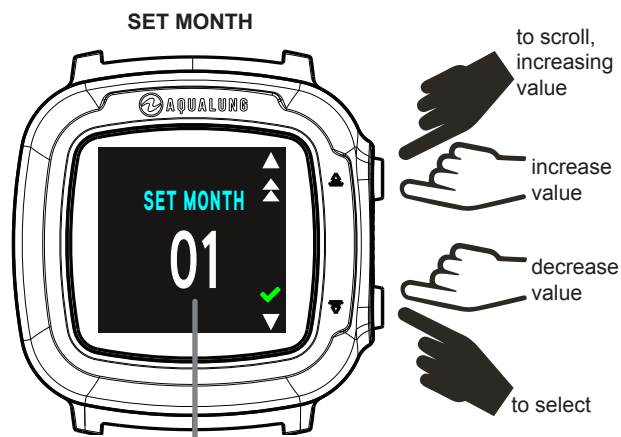
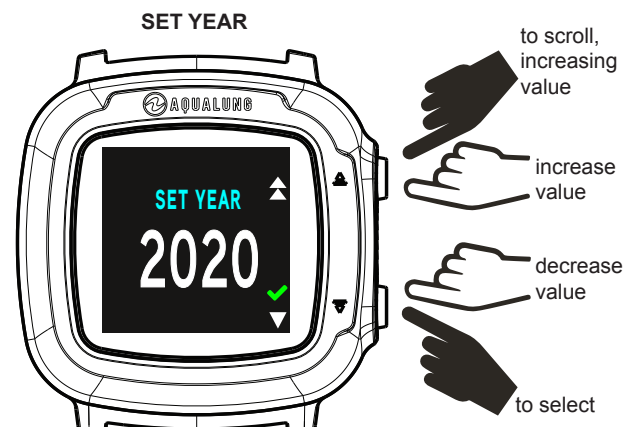


3. SET DATE

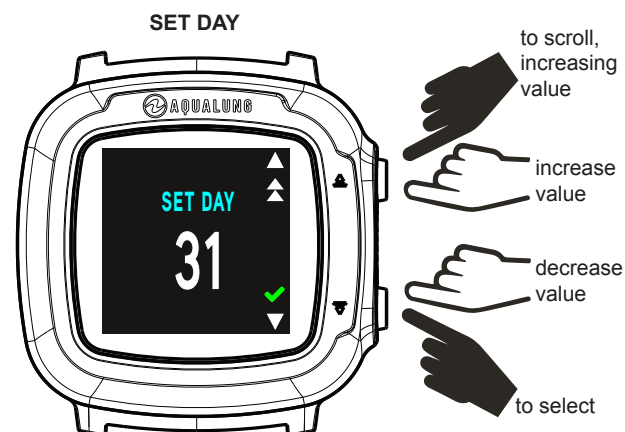
Set the year, month, and day in order.



exit menu

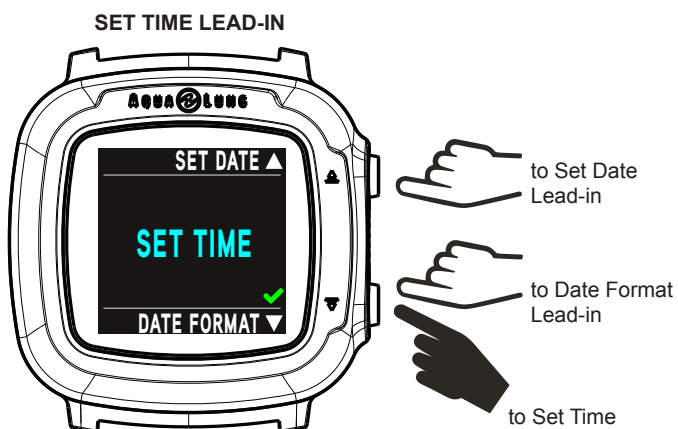


01 - 12

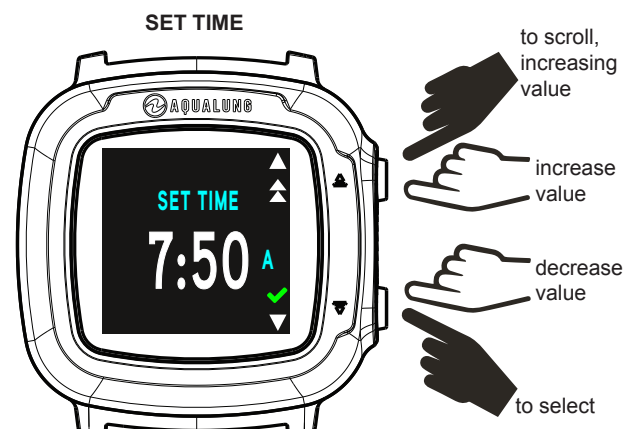


4. SET TIME

Set the time of day.



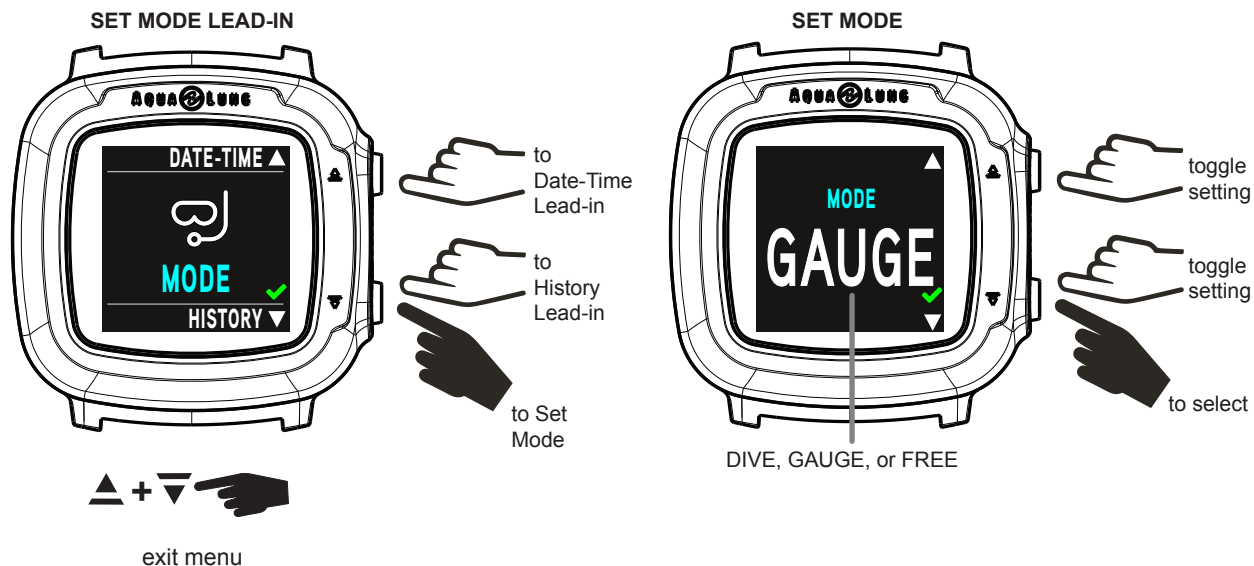
exit menu



SET MODE (OPERATION MODE)

Set Mode allows you to choose between Dive (standard recreational dive), Gauge, and Free (free diving) modes of operation.

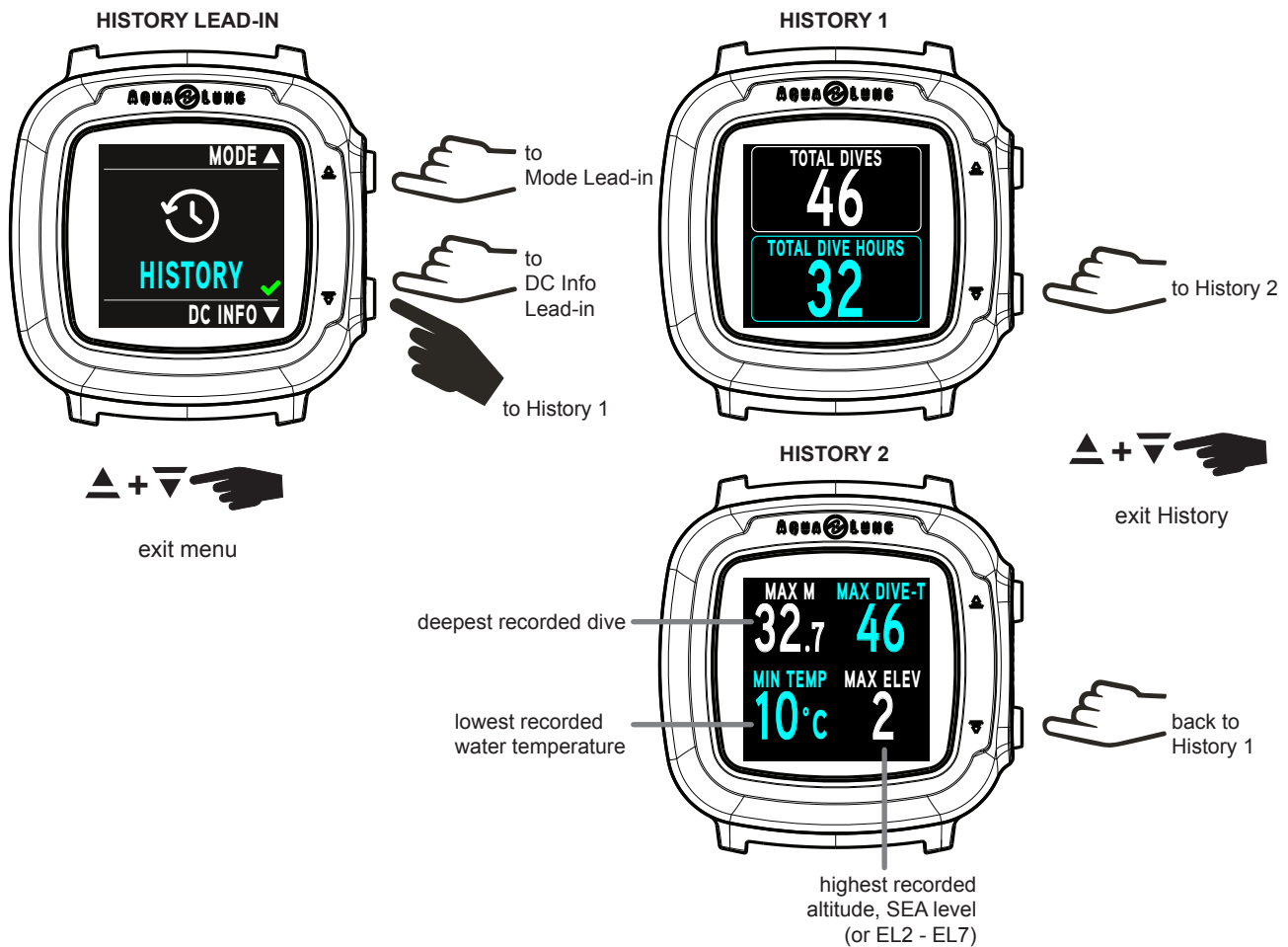
NOTE: Once a dive is conducted in Gauge mode, the i330R shall operate with limited functions without any decompression or oxygen monitoring functions. A 24 hour surface interval shall be required for the unit to operate as a full function dive computer in Dive or Free mode.



HISTORY

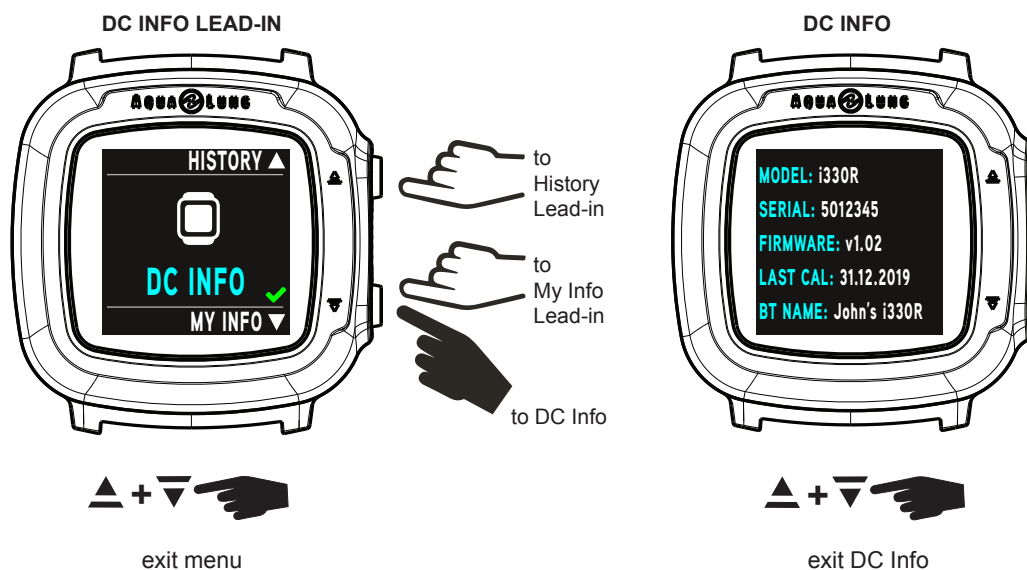
History is a summary of all basic data recorded during Dive and Gauge mode dives.

NOTE: Dives made in Free mode are not shown in History or the Log Mode. Free dive data is only visible using the Download software.



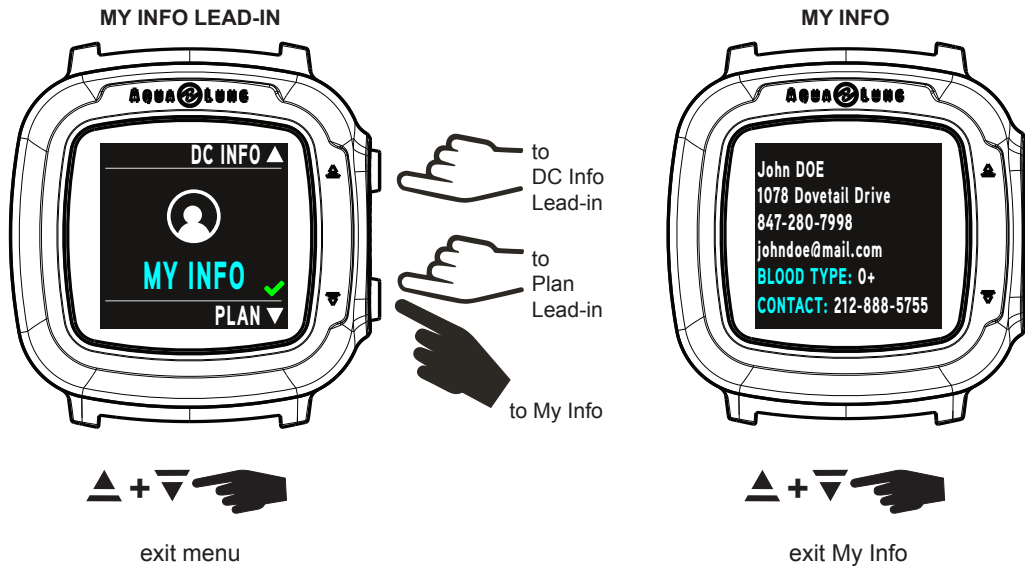
DC INFO MENU

The DC Info Menu allows access to stored information about your i330R.



MY INFO MENU

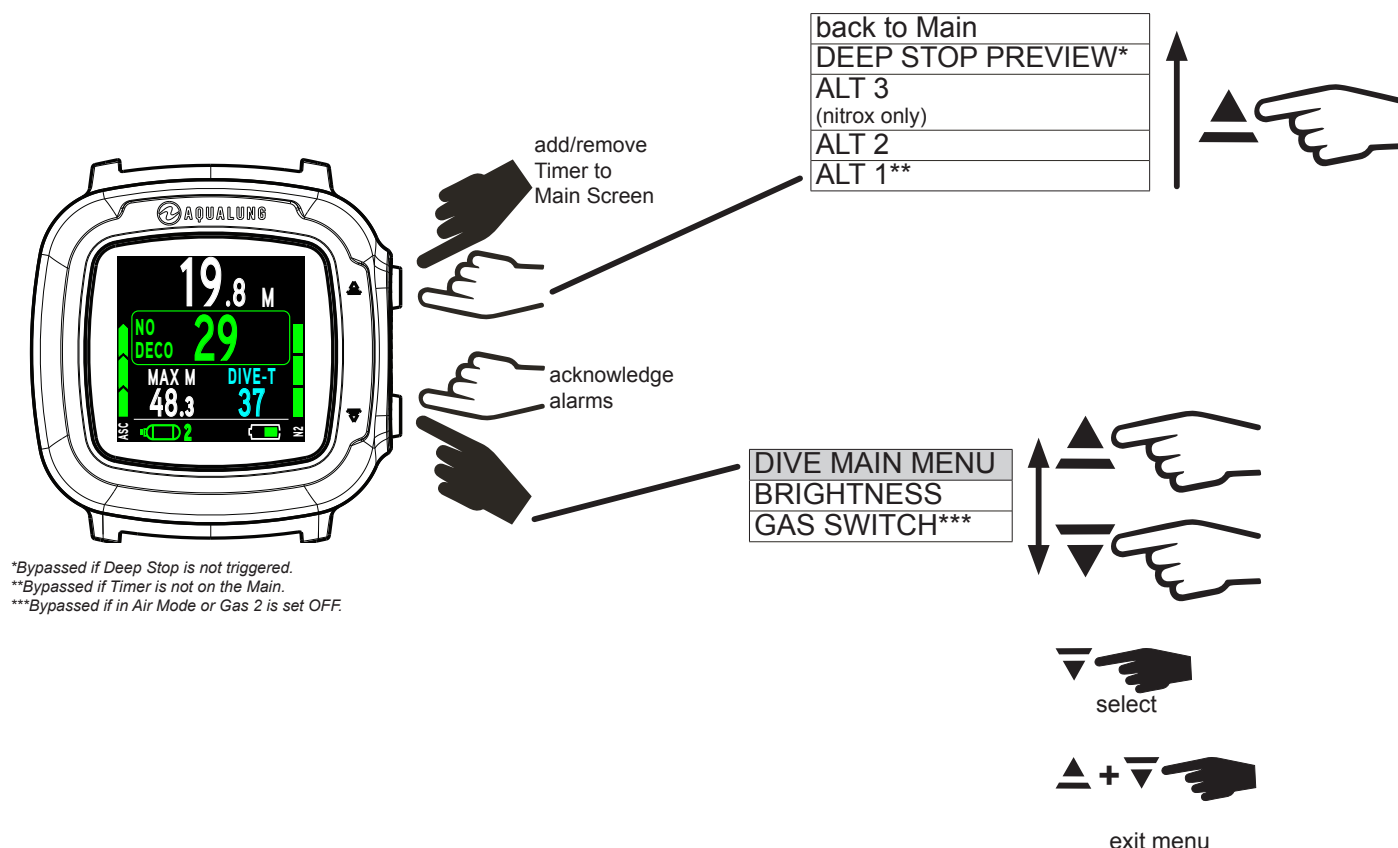
This screen displays personal information. Information must be entered using the Diverlog + application interface.



DIVE OPERATION

INITIATING A DIVE

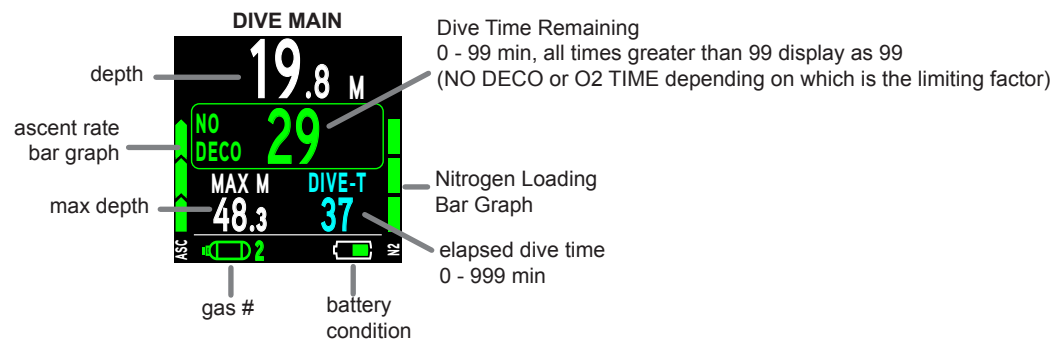
With the i330R in Dive mode, a dive will commence upon descending to 1.5 m (5 ft) for at least 5 seconds. Below is a diagram to help you navigate Dive mode functions.



NO DECOMPRESSION DIVE MAIN

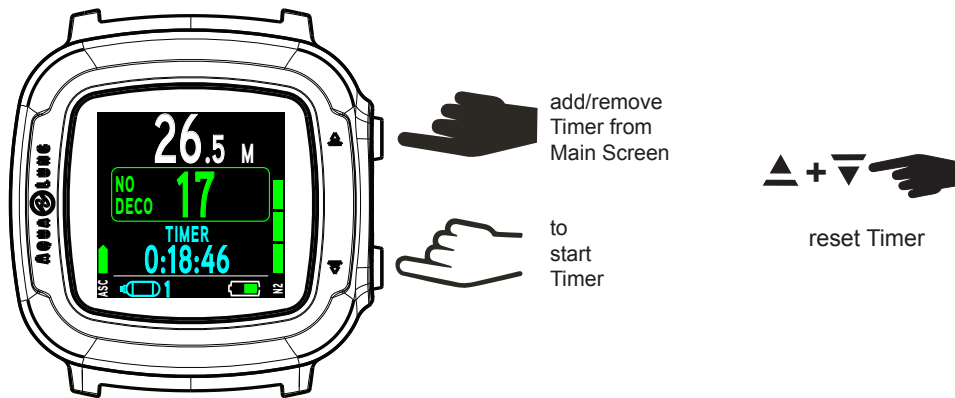
From the Main screen you can see all critical dive parameters. During a dive an audible alarm may sound and the priority of information displayed may change. This is to indicate a safety recommendation, warning, or alarm. The following information in this chapter demonstrates and describes an uneventful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

⚠ WARNING: Before diving with the i330R take time to familiarize yourself with both normal and alarm conditions of operation.



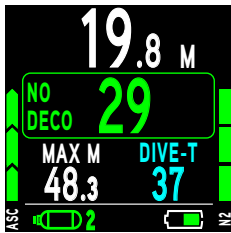
TIMER

The Timer can be added to the Dive Main, temporarily replacing Max Depth and Dive-T (dive time).



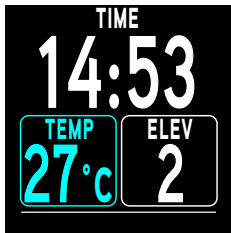
DIVE ALT 1

This screen is the same as the No Decompression Dive Main screen; it is bypassed if Timer is not on the Dive Main Screen.



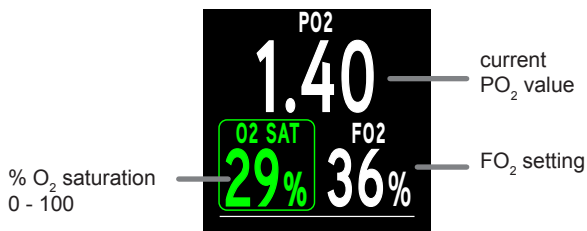
DIVE ALT 2

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



DIVE ALT 3

The ALT 3 screen displays information pertaining to nitrox; it is bypassed if the i330R is set for air.



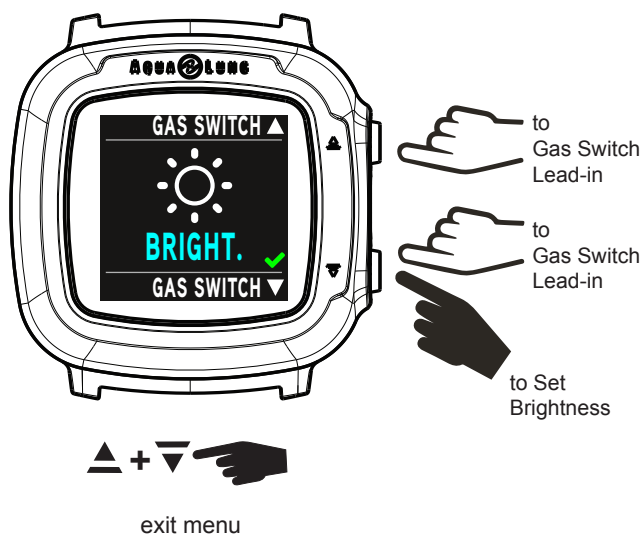
DEEP STOP PREVIEW

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



DIVE MAIN MENU

Within the Dive Menu you can make changes to the display brightness and switch gases.

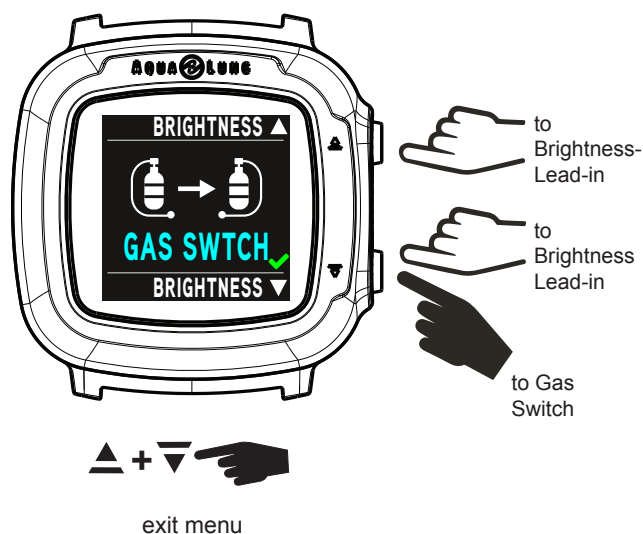


BRIGHTNESS

This feature functions the same as it does on the surface in the Utilities Menu described previously on page 29.

GAS SWITCH MENU

The Gas Switch Menu allows you to manually switch gases during the dive. The Gas Switch Menu Lead-in screen is bypassed if your i330R is set to Air or Gas 2 is set OFF.

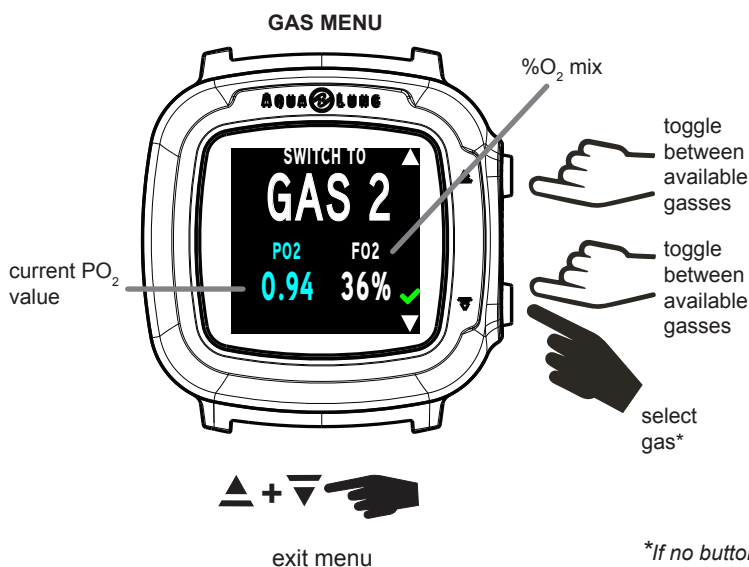


⚠ WARNINGS:

- Historically, many accidents and near misses have occurred by switching to the wrong gas at the wrong depth. **DO NOT** attempt gas switch decompression dives without proper education and training to do so from an internationally recognized training agency.
- Diving deeper than 39 m (130 ft), will greatly increase your risk of decompression sickness.
- Decompression diving is inherently hazardous and greatly increases your risk of decompression sickness, even when performed according to the dive computer's calculations.
- Using an i330R is no guarantee of avoiding decompression sickness.
- The i330R enters Violation Mode when a situation exceeds its capacity to predict an ascent procedure. These dives represent gross excursions into decompression that are beyond the boundaries and spirit of the i330R's design. If you are following these dive profiles, Aqua Lung advises that you should not use an i330R.
- If you exceed certain limits, the i330R will not be able to help you get safely back to the surface. These situations exceed tested limits and can result in loss of some functions for 24 hours after the dive in which a violation occurred.

OVERVIEW

- All dives begin with GAS 1.
- The active gas defaults to GAS 1 after 10 minutes on the surface.
- Gas switches can only be made when gas 2 is set on.
- Gases cannot be switched while on the surface.
- The Gas Switch Menu cannot be accessed during the sounding of alarms.
- If an alarm strikes while in the Gas Switch Menu, the switch operation is terminated (reverting to the Dive Main screen).

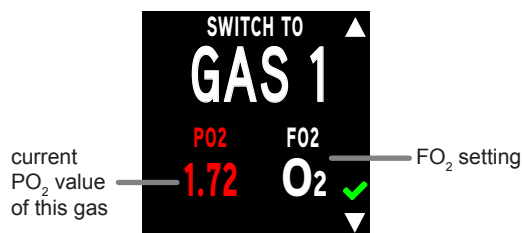


**If no button is pressed the i330R will revert to the Dive Main screen after 10 seconds.*

NOTE: The active gas will not display in the Gas Menu.

If the current PO_2 value is greater than max PO_2 value set, then a warning not to switch will display. The i330R will maintain the current gas without switching. The diver may override the i330R and force the gas switch.

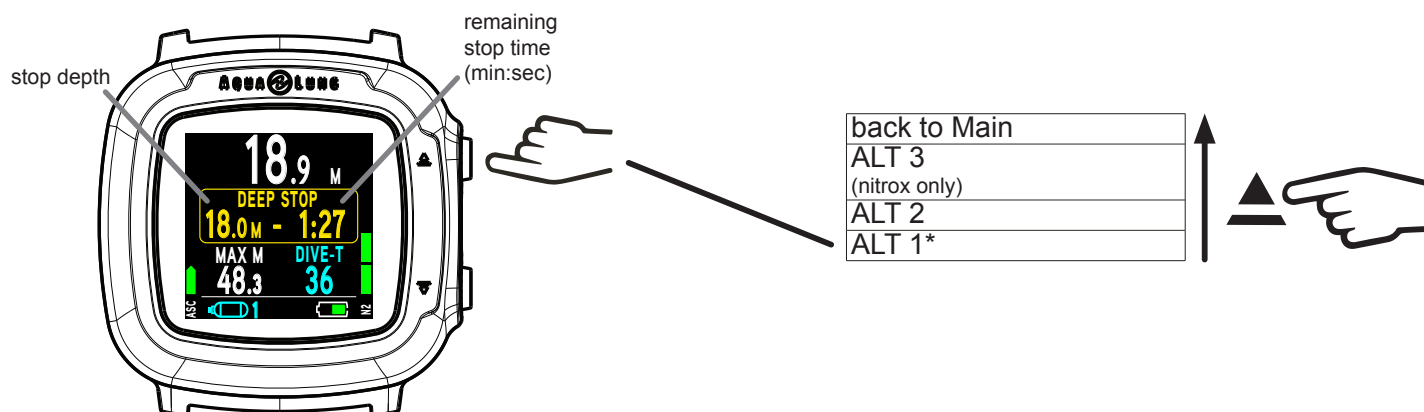
⚠ WARNING: Switching to gases with a PO_2 above 1.6 has a high risk of oxygen poisoning, convulsions, and drowning. Doing so should always be avoided. It is intended as a last resort option because of the likelihood of injury or drowning. Always dive within your training, experience, and skill level.



DEEP STOP MAIN

If triggered, the Deep Stop will activate upon ascending to within 3 m (10 ft) below the calculated Deep Stop depth. The stop time will be displayed and count down to 0:00 as long as you stay within 3 m (10 ft) above or below the stop. While Deep Stop Main is displayed, Dive Time Remaining is moved to ALT 1. The Deep Stop feature is described in greater detail in the Dive Features chapter for further details.

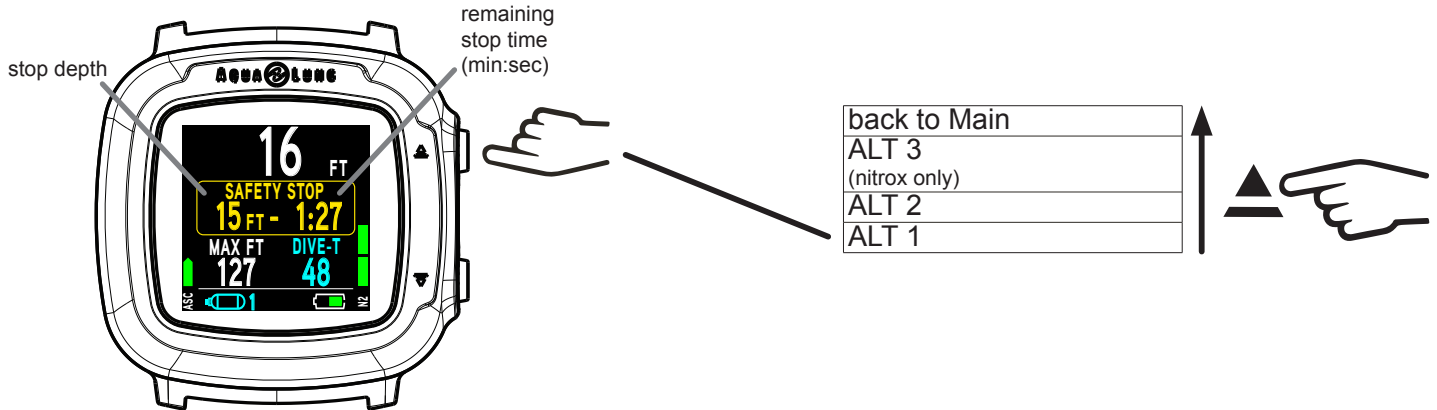
NOTE: The i330R does not penalize for a missed Deep Stop.



SAFETY STOP MAIN

If triggered, the Safety Stop will activate upon ascent to within 1.5 m (5 ft) deeper than the Safety Stop depth on a No Deco dive. The stop time will then countdown to 0:00. While the Safety Stop is triggered, Dive Time Remaining is moved to Alt 1. The Safety Stop feature is described in greater detail in the Dive Features chapter for further details.

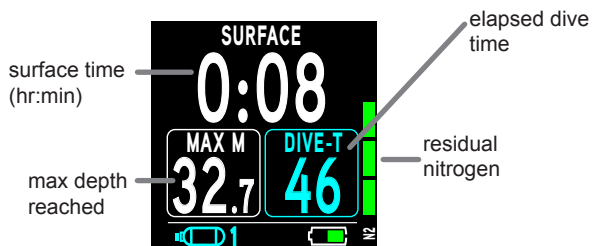
NOTE: The i330R does not penalize for a missed Safety Stop.



SURFACING

Upon ascending to 0.9 m (3 ft) the i330R transitions to Dive Surface mode.

NOTE: The i330R requires a 10 minute surface interval to record a subsequent dive as a separate dive in the Log. Otherwise, the dives will be combined and recorded as a single dive in the i330R memory.



COMPLICATIONS

The preceding information has described standard dive operations. Your new i330R is also designed to help you to the surface in less than ideal situations. The following is a description of these situations. Take some time to familiarize yourself with these operations before diving your i330R.

DECOMPRESSION

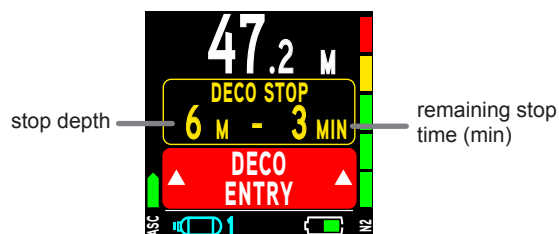
Decompression (deco) mode activates when theoretical No Decompression time and depth limits are exceeded. Upon entry into decompression, the audible alarm will sound and the alarm LED will flash. The full Nitrogen Loading Bar Graph and Up Arrow icon will flash until the audible is silenced.

- Once within 3 m (10 ft) below the required Stop Depth (stop zone), the Full Stop icon (both Arrows with Stop Bar) will be displayed solid.

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

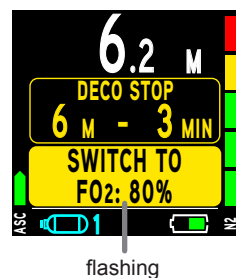
DECOMPRESSION ENTRY

Upon entry into decompression (deco) the audible alarm will sound and the full Nitrogen Loading Bar Graph icons will flash until the audible is silenced. Additionally, the stop depth and stop time values, the message "DECO ENTRY", and 2 up arrows will be displayed. After the audible alarm is silenced, the graphic message "DECO ENTRY" shall be removed, and TTS (XX min) and Dive-T shall replace it.



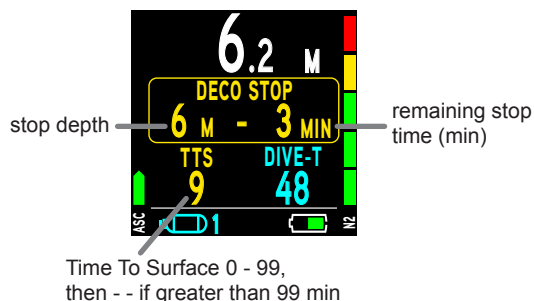
GAS SWITCH WARNING

If gas 2 (3) is set on and the current gas is not the best gas when approaching the decompression stop zone, the i330R will warn you to switch gases.



DECOMPRESSION STOP MAIN

Decompression (deco) Stop Main will display upon ascending to within 3 m (10 ft) below the Decompression Stop depth. The full stop graphic (opposed arrows with stop bar) will be displayed solid. While Decompression Stop Main is displayed, you may access up to 3 ALT displays by pressing the ▲ (Up) button to cycle through them. They are similar to the Dive Alt 1, Dive Alt 2, and Dive Alt 3 displays, respectively.

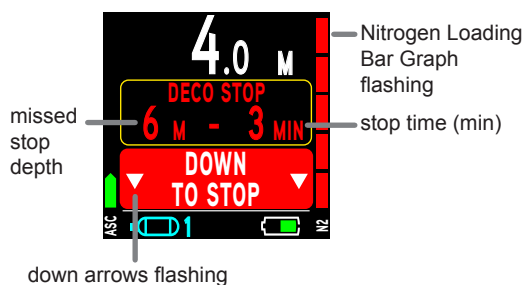


CONDITIONAL VIOLATION (CV)

Upon ascent above the required Decompression (deco) Stop depth, operation will enter Conditional Violation during which time no off gassing credit will be given.

The Audible alarm will sound and the message DOWN TO STOP will flash. The full Nitrogen Loading Bar Graph and down arrows will flash until the audible alarm is silenced, then the Nitrogen Loading Bar Graph will be solid.

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

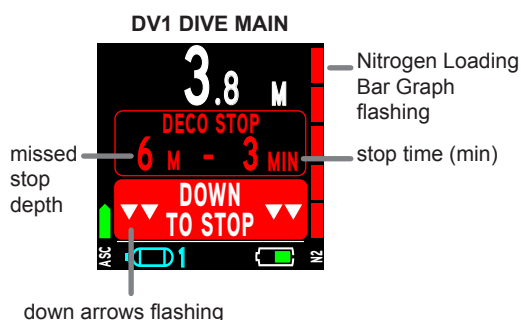


DELAYED VIOLATION 1 (DV 1)

If you remain shallower than a Decompression Stop Depth for more than 5 minutes, operation will enter DV1* which is a continuation of CV with penalty time still being added. Again, the audible alarm will sound and the full Nitrogen Loading Bar Graph will flash until it is silenced. ALT screens are accessed and appear similar to Decompression ALT screens.

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

- The down arrows continue to flash until descending below the required Stop Depth, then the Decompression Stop Main Screen will be displayed.
- If the DV1 status is ignored, the i330R will enter DV1 Surface mode for 5 minutes upon surfacing from the dive. The down arrows and Decompression Stop depth/time will be displayed. After 5 minutes on the surface in DV1 mode, the unit will enter VGM (Violation Gauge Mode).

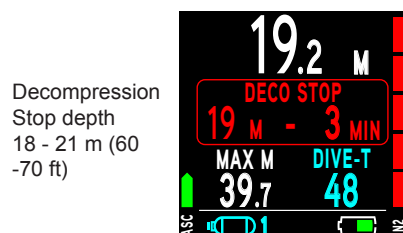


DELAYED VIOLATION 2 (DV 2)

If the calculated Decompression obligation requires a Stop Depth between 18 m (60 ft) and 21 m (70 ft), operation will enter DV2.

The audible alarm will sound and the full Nitrogen Loading Bar Graph will flash until the audible is silenced.

- The up arrow flashes if 3 m (10 ft) deeper than the required Stop Depth.
- Once within 3 m (10 ft) of and below the required Stop Depth, the full stop graphic (opposing arrows with stop bar) will be displayed solid.

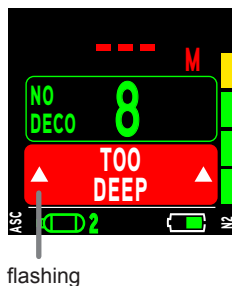


DELAYED VIOLATION 3 (DV 3)

If you descend deeper than the maximum functional depth*, the audible alarm will sound, the message TOO DEEP, and the up arrows will flash. Additionally, Current Depth will only indicate dashes signifying that you are too deep.

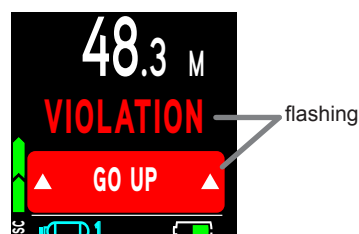
**The maximum functional depth (330 ft / 100 m) is the depth at which the i330R can properly perform calculations or provide accurate display information.*

Upon ascending above the maximum functional depth, current depth will be restored. However, the log for that dive will display dashes for max depth.



VIOLATION GAUGE MODE (VGM) DURING A DIVE

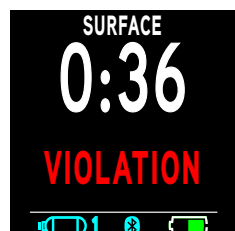
During Dive mode dives, operation will enter VGM when Decompression requires a Stop Depth greater than 21 m (70 ft). It will also enter VGM if Decompression is activated during a dive in Free mode, described later. Operation would then continue in VGM during the remainder of that dive and for 24 hours after surfacing. VGM turns the i330R into a digital instrument without any decompression or oxygen related calculations or displays. Upon activation of VGM, the audible alarm will sound and the message VIOLATION GO UP up with arrows will flash. After the audible alarm becomes silent (10 seconds), the NO DECO (No Decompression) and Nitrogen Loading Bar Graph will not display for the rest of the dive.



VIOLATION GAUGE MODE (VGM) ON THE SURFACE

The message VIOLATION is displayed until 24 hours elapse with no dives. During that 24 hours, VGM lockout does not allow access to the Set Gas, Plan, Sat (Desaturation), and Free mode features/screens.

- The Fly countdown timer provides the time remaining before normal operation can resume with full features and functions.
- In the event that a dive is made during the 24 hour lockout period, a full 24 hour surface interval must then be served before all functions are restored.

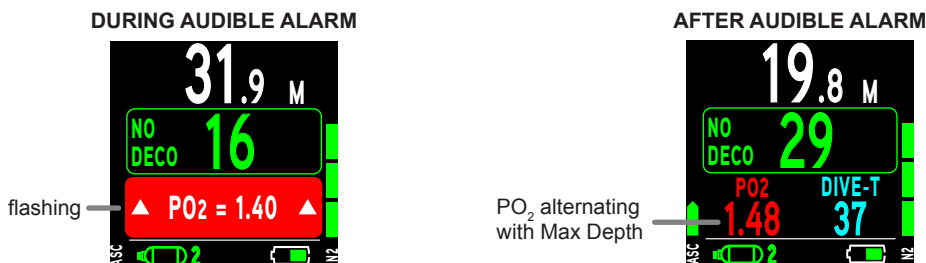


HIGH PO₂

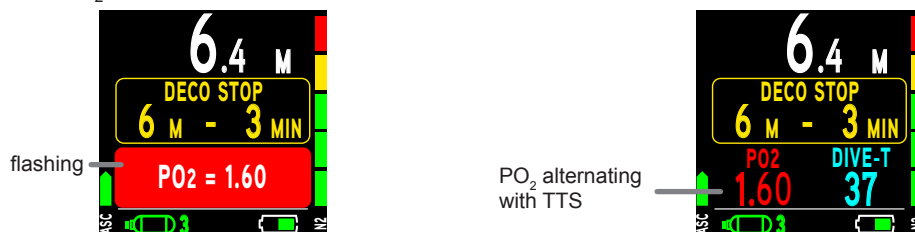
Alarm >> at Set Point value, except in Deco then at greater than 1.60.

Alarm

If PO₂ continues to increase and reaches the alarm set point, the audible alarm sounds. The PO₂ value will flash in place of Max Depth and Dive-t during the audible alarm. After the audible alarm is silenced, the PO₂ value (red) is to alternate with Max Depth. When PO₂ decreases below the Alarm Set Point, Max Depth is to be restored.

**PO₂ During Decompression**

The PO₂ alarm setting does not apply when in Decompression. If PO₂ exceeds 1.60 while at a Decompression Stop, The PO₂ value will flash in place of TTS (Time To Surface) and Dive-t. After the audible alarm is silenced, the PO₂ value (red) is to alternate with TTS. When PO₂ decreases below 1.60 PO₂, TTS is to be restored.

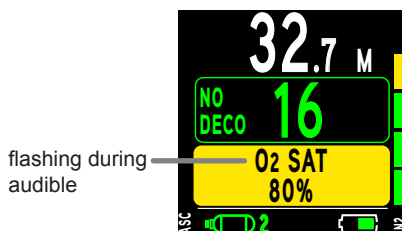
**HIGH O₂ SAT (OXYGEN SATURATION)**

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

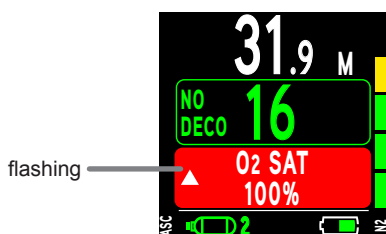
Alarm >> at 100% (300 OTU)

Warning

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

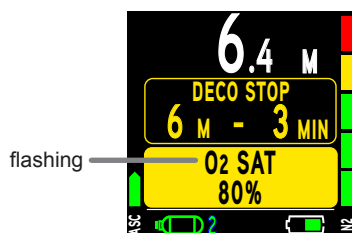
**Alarm**

If O₂ % (O₂ saturation) reaches the Alarm level, the audible alarm sounds. At the same time, the up arrows and the O₂ SAT % (O₂ saturation) value will flash in place of Max Depth and Elapsed Dive Time until surfacing.



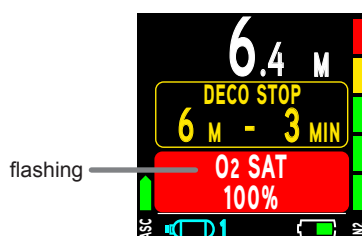
Warning During Decompression

When O₂ % (O₂ saturation) reaches the Warning Level, the audible alarm sounds and the O₂ SAT % (O₂ saturation) value will flash in place of TTS (Time To Surface) and Elapsed Dive Time. The TTS (Time To Surface) and Elapsed Dive Time will be restored when the audible alarm is silenced.



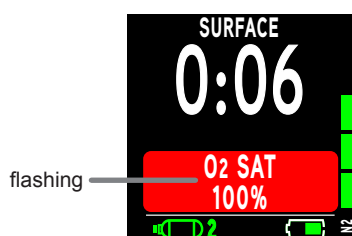
Alarm During Decompression

When O₂ SAT % (O₂ saturation) reaches the Alarm Level, the audible alarm sounds and the O₂ SAT % (O₂ saturation) value will flash in place of TTS (Time To Surface) and Elapsed Dive Time until surfacing.



Alarm On Surface

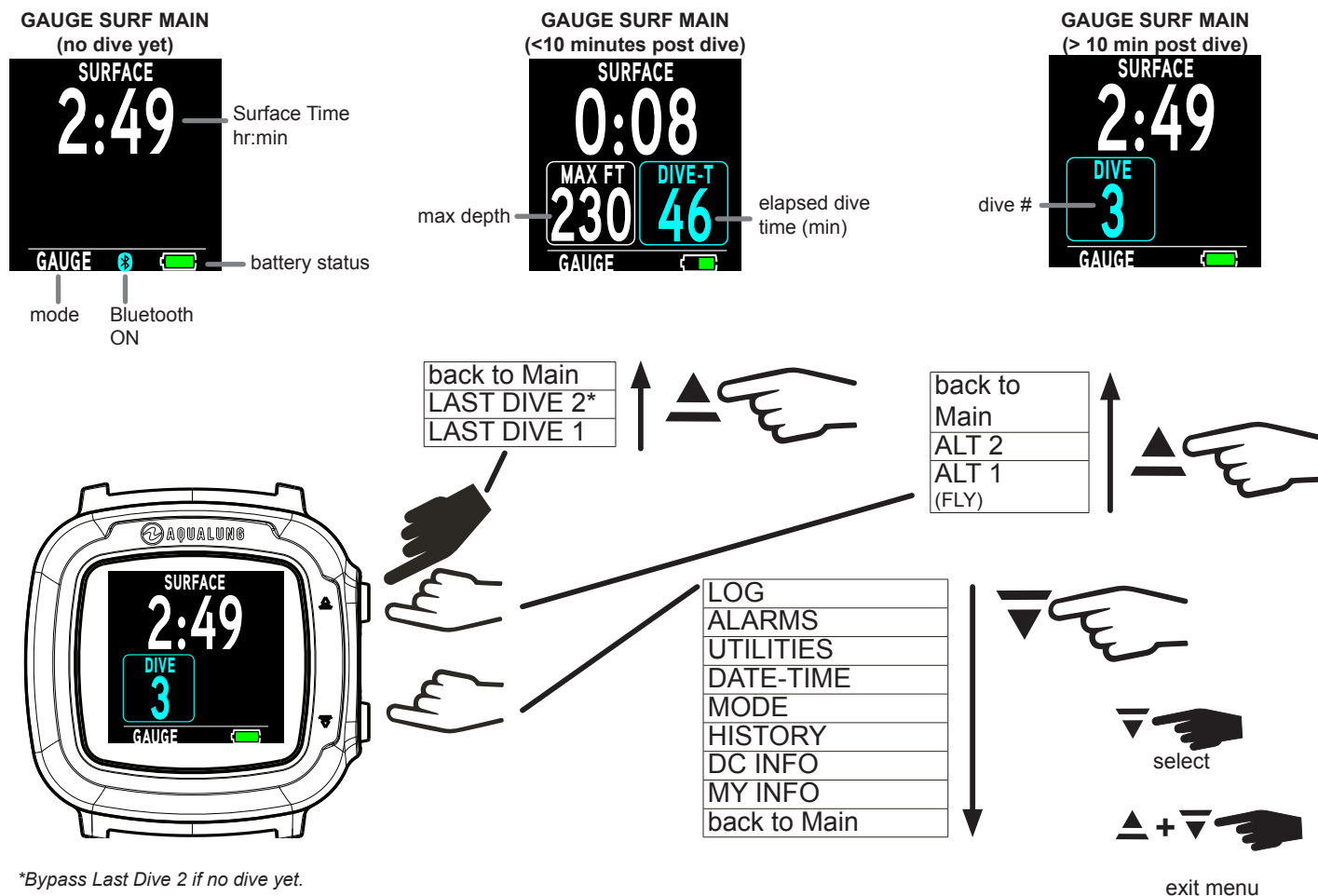
- If O₂ % is 100% upon surfacing while in No Decompression, O₂ SAT (O₂ saturation) 100% will flash in place of the bottom row of data until the O₂ % (O₂ saturation) value decreases below 100%.
- If you surface due to 100% O₂ saturation without having completed the Decompression obligation, the O₂ SAT (O₂ saturation) value (100%) will flash for the first 10 minutes, then operation will enter Violation Gauge Mode.



GAUGE MODE

ON THE SURFACE BEFORE A DIVE

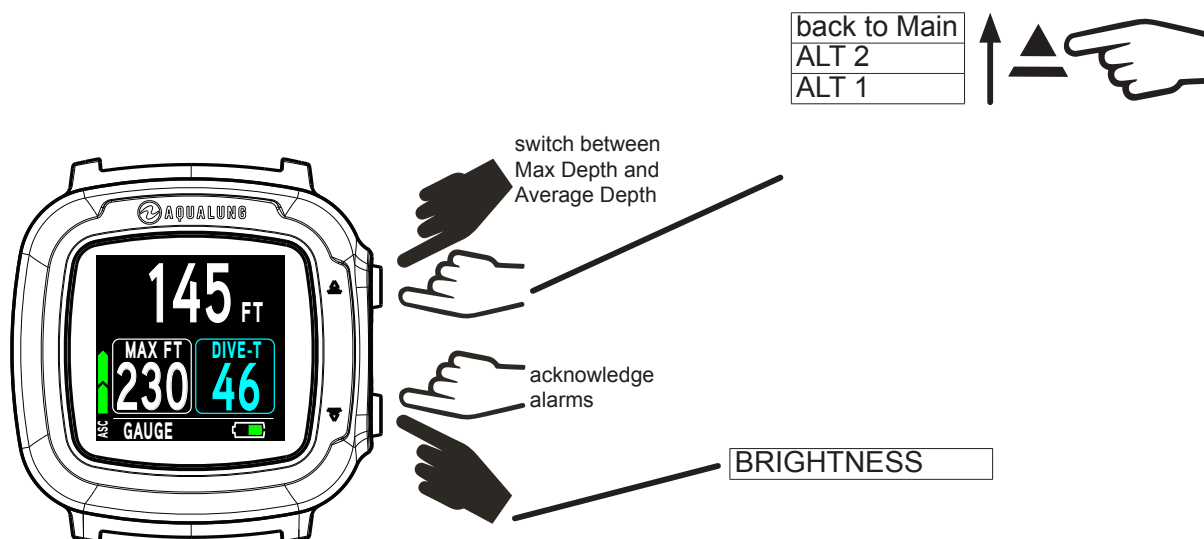
There are three Gauge Surface Main screens. The first screen displays when there have been no dives yet. The second screen displays only during the first ten minutes after a dive. The third screen displays 10 min after surfacing from a dive.



NOTE: Gauge Surface ALT screens and Menu options are similar to those described previously for Dive Mode. See the Dive Surface Mode chapter for further details. Features unique to Gauge Mode are described in the following sections.

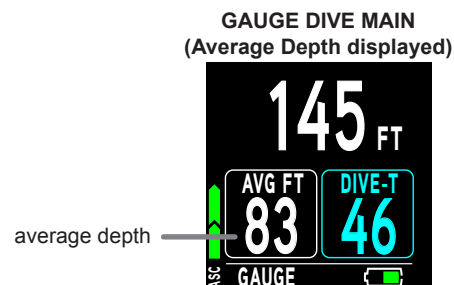
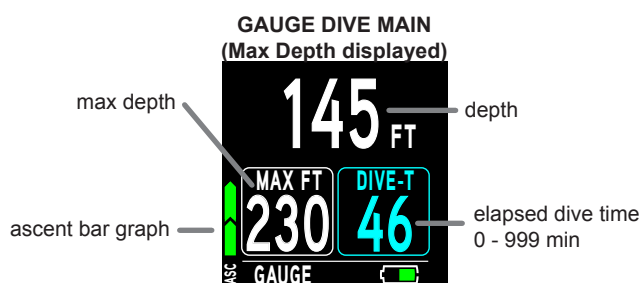
INITIATING A DIVE

With the i330R in Gauge Mode, a dive will commence upon descending to 1.5 m (5 ft) for longer than 5 seconds. Below is a diagram to help you navigate Gauge Dive Mode functions. The dive will end and revert to Surface Mode upon ascent to 0.9 m (3 ft) of depth for at least 1 second.



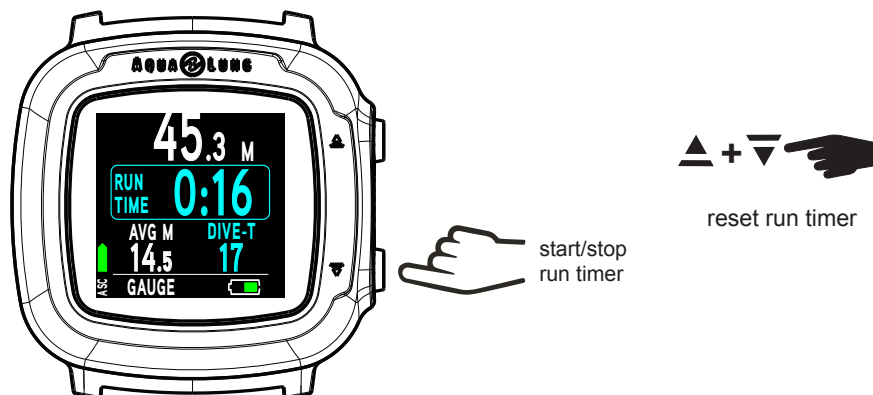
GAUGE DIVE MAIN

The Gauge Dive Main provides basic information including depth, DIVE-T (dive time), max depth, and ascent rate during the dive. The i330R also allows for displaying average depth in place of max depth. To alternate between the two hold the Δ (UP) button.



GAUGE DIVE ALT 1

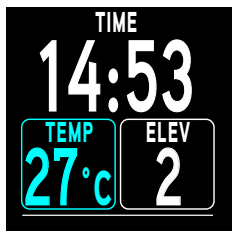
This screen displays the Run Timer. Either max depth or average depth will be displayed. Whichever is not displayed on the Gauge Dive Main screen.



NOTE: The Run Timer shall be reset at the beginning of a new dive.

GAUGE DIVE ALT 2

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

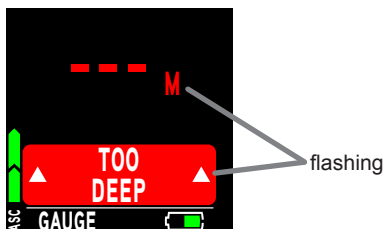


DELAYED VIOLATION 3 (DV3)

If you descend deeper than the maximum functional depth*, the audible alarm will sound and the message TOO DEEP will flash. At the same time, the up arrows will flash and depth will only indicate dashes signifying that you are too deep. The max depth will also be represented by dashes.

**The maximum functional depth (100 m / 330 ft) is the depth at which the i330R can properly perform calculations or provide accurate display information.*

Upon ascending above the maximum functional depth, current depth will be restored, however, max depth will continue to be displayed as dashes for the remainder of that dive. The Log for that dive will also display dashes for max depth.



FREE MODE

FREE DIVE MODE DETAILS

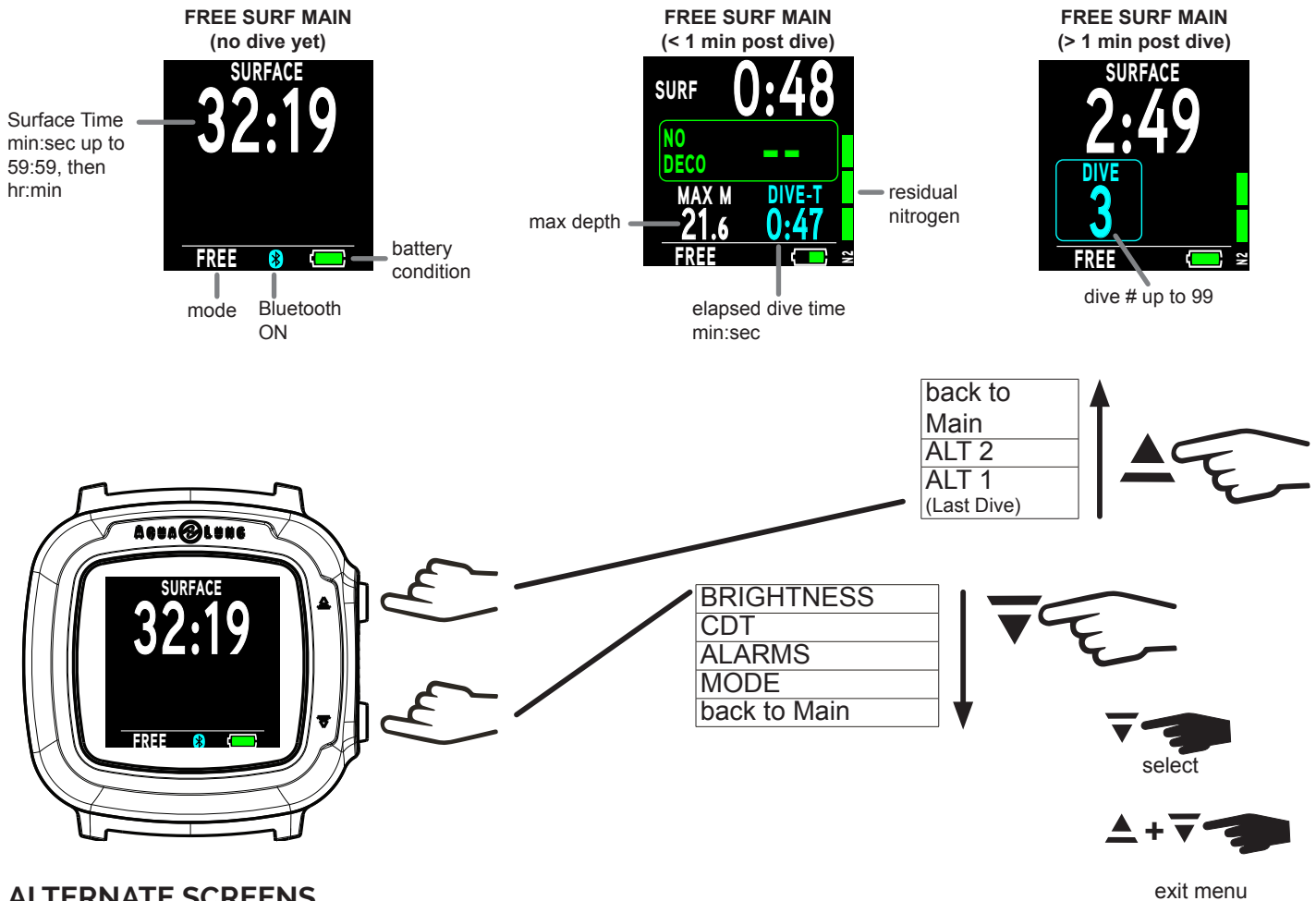
- Although breathing apparatus is not utilized for free dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO_2 of Air.
- Since a user has the option of alternating between SCUBA and free dive activities within a 24 hour period, nitrogen calculations and the displayed value of No Decompression Dive Time Remaining are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and off-gassing status.
- The mathematical models currently used in the i330R are based on no decompression/decompression multilevel repetitive dive schedules.
- These algorithms do not take into account the physiological changes associated with the high pressures that competitive type free diving can expose a diver to.

WARNINGS:

- **Ensure that you know which operating mode is selected (Dive, Gauge, 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 effects be understood and the diver is physically prepared.**

ON THE SURFACE BEFORE A DIVE

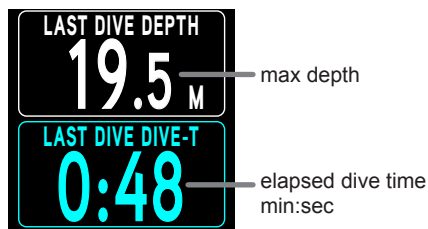
There are three Free Surface Main screens. The first screen displays when no dives have been made. The second screen displays only during the first minute after a dive. The third screen displays after the first minute post dive.



ALTERNATE SCREENS

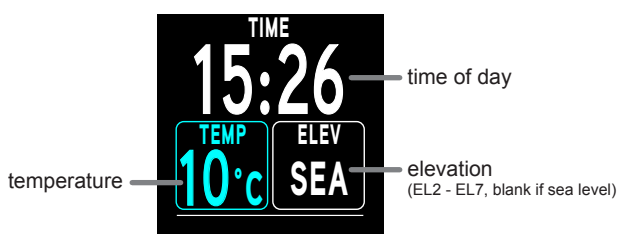
ALT 1 (LAST DIVE)

This screen displays data from the previous dive.



ALT 2

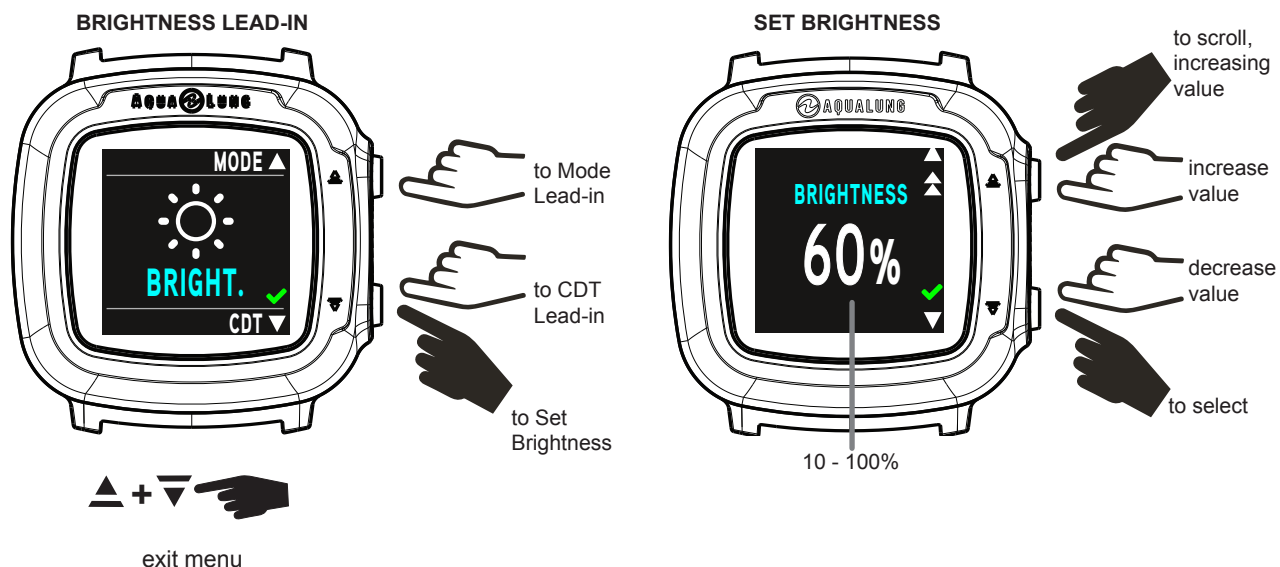
This screen displays current time of day, temperature, and elevation.



FREE DIVE MAIN MENU

BRIGHTNESS

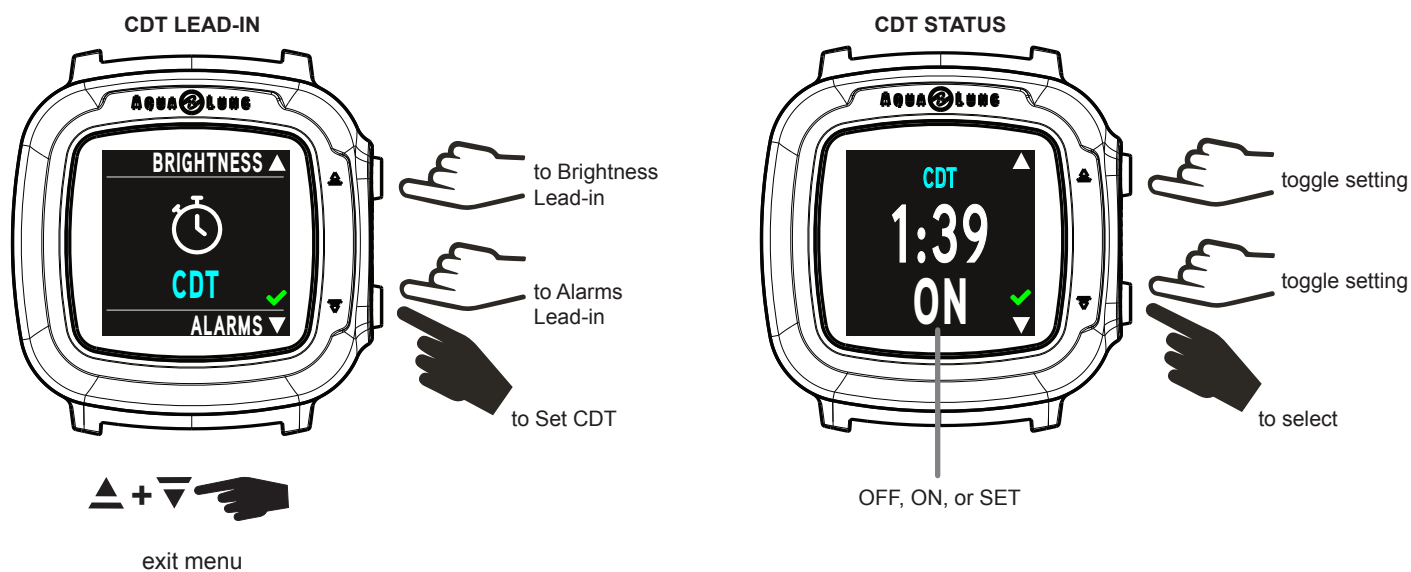
This setting allows you to adjust the brightness of the screen.

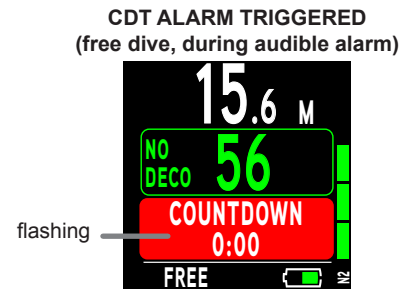
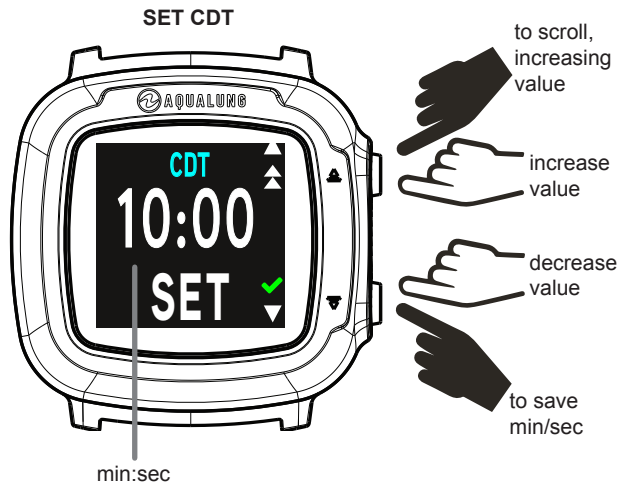


COUNTDOWN TIMER (CDT)

The i330R allows you to set a CDT time from 0:01 - 59:59 (min:sec). On the surface the CDT must be started and stopped in the CDT Status screen by selecting ON or OFF. The CDT will run in the background, while on the surface and during dives, until it counts down to 0:00, or it is turned OFF. When a set CDT time reaches 0:00, the audible will sound. During which time the graphic COUNTDOWN will be displayed flashing on the Surface or Dive Main until the audible is silent.

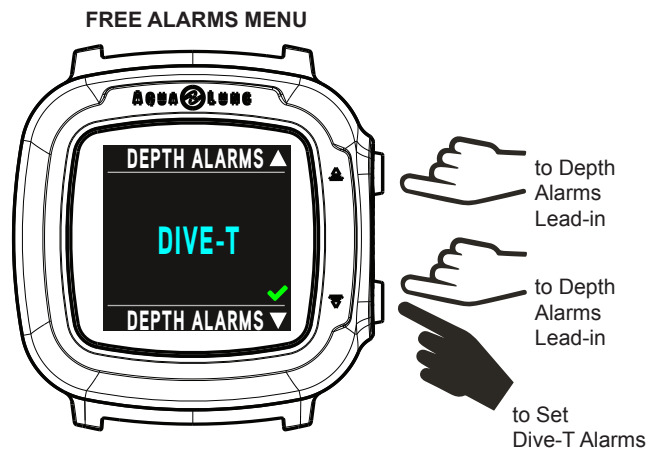
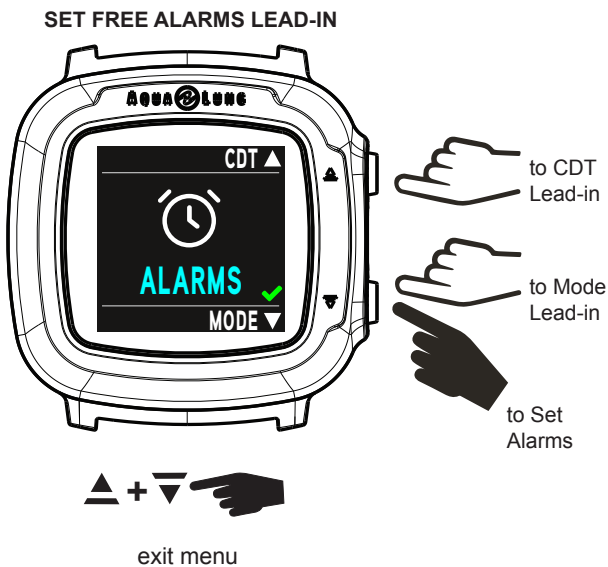
NOTE: Setting the CDT does not start the countdown. You must select ON in the CDT Status screen to start the CDT.





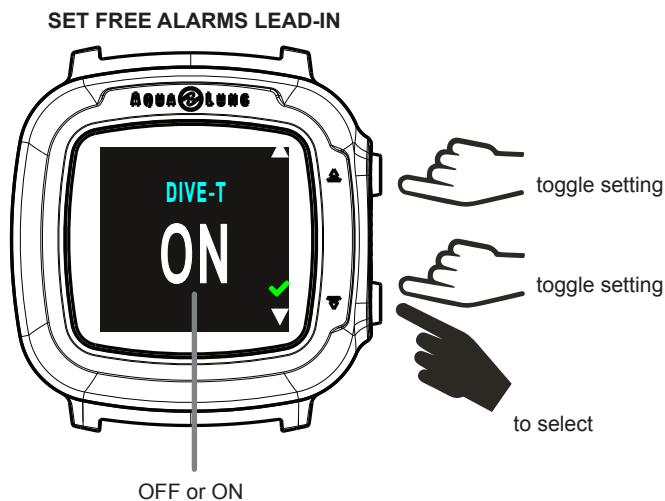
SET FREE ALARMS

Within this submenu you can customize the following Free Mode alarm settings.



1. Dive-T (Dive Time) Alarm

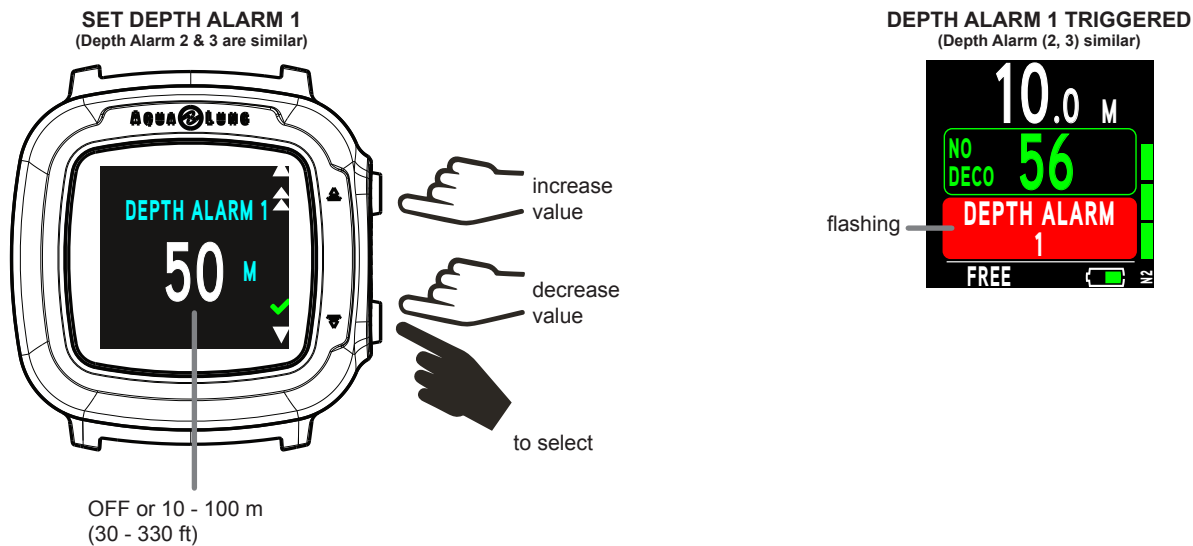
The Dive-T (Dive Time) Alarm sounds the audible alarm every 30 seconds while underwater in Free Dive mode.



2. Depth Alarms 1-3

There are 3 Free Depth Alarms that can be set at progressively deeper depths, in intervals of 1 m (10 ft).

NOTE: Each successive Depth Alarm can only be set deeper than the Depth Alarm that precedes it. For example: If Depth Alarm 1 is set for 10 m then Depth Alarm 2 settings start at 11 m.

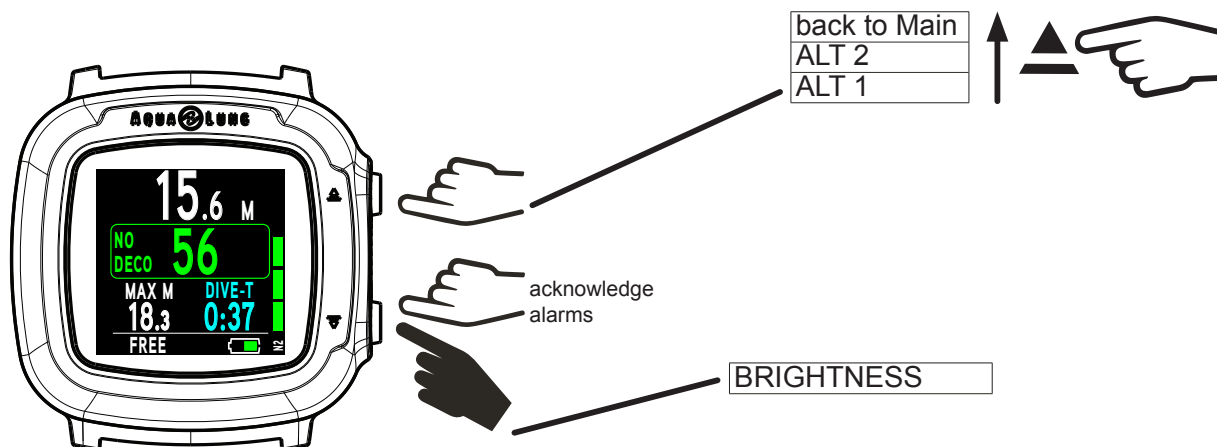


SET MODE (OPERATION MODE)

This feature functions the same as in Dive Mode, see pg. 37.

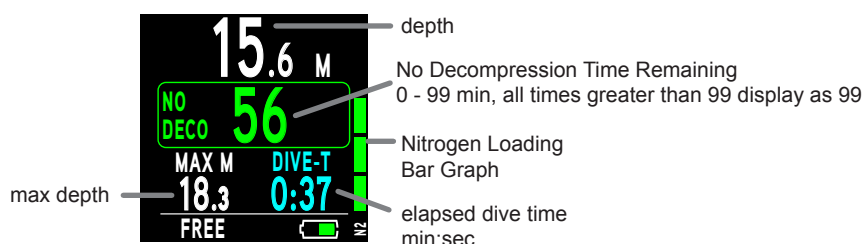
INITIATING A DIVE

With the i330R in Free Mode, a dive will commence upon descending to 1.5 m (5 ft) for longer than 5 seconds. Below is a diagram to help you navigate Free Dive Mode functions. The dive will end and revert to Surface Mode upon ascent to 0.9 (3 ft) of depth for at least 1 second.



FREE DIVE MAIN

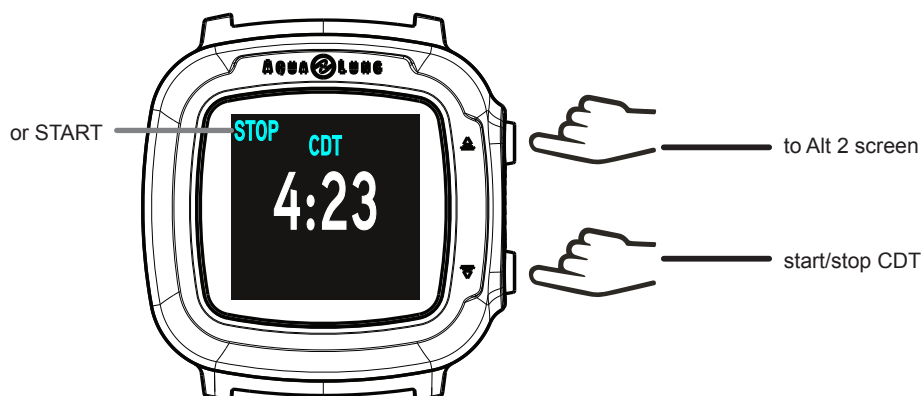
The Free Dive Main provides basic information including depth, no decompression time, Dive-T (dive time), max depth and nitrogen loading during the dive.



FREE DIVE ALT 1

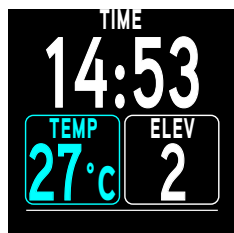
This screen Displays the Countdown Timer status. The Countdown Timer can be started and stopped in this screen by toggling START or STOP.

NOTE: The Countdown Timer must be preset on the surface while in the Free Surface Mode.



FREE DIVE ALT 2

This screen simply tells you the current time of day, temperature, and elevation.



HIGH NITROGEN ALARMS

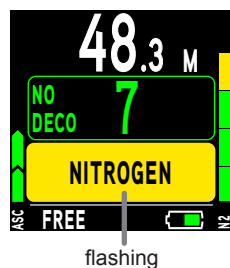
When nitrogen increases to the caution level (4 N2 Bar Graph segments), the audible alarm will sound 3 sets of 3 beeps. During this time the N2 Bar Graph segments will flash on the Free Dive Main screen.

If nitrogen continues to increase to the Decompression level (all 5 N2 Bar Graph segments), the audible alarm will sound again. At this time the N2 Bar Graph segments will flash, and VIOLATION GO UP message will be displayed.

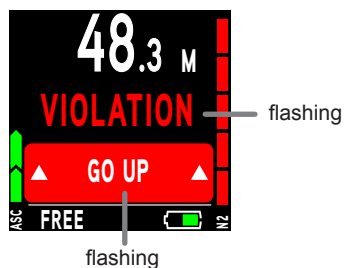
When the audible alarm is silenced, the N2 Bar Graph and NO DECO (no decompression) values are removed. The message VIOLATION GO UP and the Up Arrow continue to flash until on the surface.

After surfacing, the graphic VIOLATION flashes. Then after 1 minute on the surface, the dive computer operation locks into Violation Gauge Mode for 24 hours.

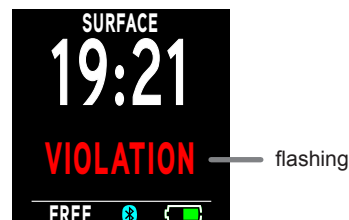
N2 BAR GRAPH ALARM



DECOMPRESSION ENTRY



VIOLATION AFTER
1 MIN ON THE SURFACE



REFERENCE

UPLOADING/DOWNLOADING DATA

As previously described (p. 31), the i330R can be paired using the Bluetooth® feature. This requires a mobile device with Bluetooth® running Diverlog+ software.

The Settings Upload portion of the program can be used to set/change the Gases, Set Alarms group, Set Utilities group, and Set Date-Time group using the same Interface System. The Mode settings must be entered using the i330R button controls.

Information available for retrieval* (download) from the i330R includes items such as dive number, surface interval time, depth, dive time, start dates/time, lowest temperature, sampling rate, set points, N2 Bar Graph, and ASC Bar Graph.

**FREE Dive information is only available using the DiverLog + application.*

Refer to the Diverlog+ software application for further instruction on linking your i330R to your mobile device.

CARE AND CLEANING

Protect your i330R from shock, excessive temperatures, exposure to chemicals, and tampering. The lens is protected against scratches with a factory installed Instrument Lens Protector. Small scratches will naturally disappear underwater.

- Soak and rinse the i330R in fresh water at the end of each day of diving, and check to ensure that the areas around the Low Pressure (Depth) Sensor, electrical contacts, and buttons are free of debris or obstructions.
- To dissolve salt crystals, use lukewarm water or a slightly acidic bath (50% white vinegar/50% fresh water). After removal from the bath, place the i330R under gently running fresh water. Towel dry before storing.
- Keep your i330R cool, dry, and protected during transport.



SERVICE

⚠ WARNING: At a minimum, annually check the altitude reading on the ALT 2 screen (p. 21) and Pre-Dive Planner (p. 22) for accuracy. If your i330R is ever out of calibration (incorrect elevation reading, incorrect No Deco Dive Times in the planner, or showing a depth reading at the surface) or displays an error code message (EEP, ALT, CAL, ERR, CSM, A-D), it must be serviced at the factory before use.

If required to return your i330R to the USA factory:

- Obtain an RA (Return Authorization) number by contacting your regional Aqua Lung customer service. http://www.aqualung.com/distributors_intl.html
- Record all dive data in the Log and/or download the data stored in memory. All data will be erased during factory service.
- Package it using a protective cushioning material.
- Include a legible note stating the specific reason for return, your name, address, daytime phone number, serial number(s), and a copy of your original sales receipt and Warranty Registration.
- Send freight prepaid and insured using a traceable method.
- Non-warranty service must be prepaid. COD is not accepted.
- Additional information is available on the Aqua Lung web site AquaLung.com or on the local Aqua Lung web site that serves your global region.

ALTITUDE SENSING AND ADJUSTMENT

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

- While it is operating in Watch Mode after a dive, 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.
- No adjustments are made during any time that the wet contacts are bridged.

When diving in high altitude waters from 916 to 4,270 m (3,001 to 14,000 ft), the i330R automatically adjusts to these conditions providing corrected depth, and reduced No Deco and O₂ Times at intervals of 305 m (1,000 ft).

At an elevation of 916 m (3,001 ft), Depth calibration automatically changes from feet of seawater to feet of fresh water. This is the first adjustment to the algorithm.

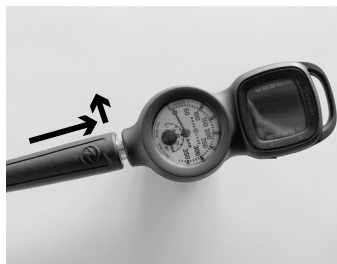
The i330R will not function as a dive computer above 4,270 m (14,000 ft).

QUICK DISCONNECT HOSE (models NS159001, NS159002)

The optional Quick Disconnect allows for convenient removal and storage of your i330R console.

Quick Disconnect Hose Removal

- Push the hose fitting towards the i330R console and turn counterclockwise $\frac{1}{4}$ turn. The hose will release from the console.

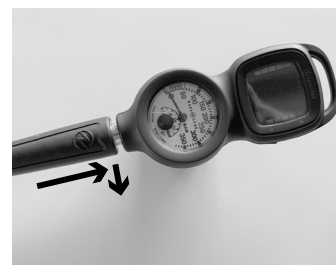
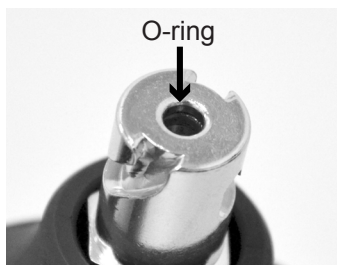


Quick Disconnect Hose Assembly

- Visually inspect the fittings and connection O-ring for damage, corrosion, or deterioration.

⚠ WARNING: If damage, corrosion, or deterioration is found, return your i330R console to an authorized Aqua Lung dealer, and DO NOT attempt to use it until it has received factory prescribed service.

- Line up the Quick Disconnect Hose fitting with the male fitting on the i330R console.
- Then push the two fittings together while turning clockwise $\frac{1}{4}$ turn.



TECHNICAL DATA

ALTITUDE LEVELS

DISPLAY	RANGE: METERS (FEET)
SEA	0 to 915 (0 to 3,000)
EL2	916 to 1,525 (3,001 to 5,000)
EL3	1,526 to 2,135 (5,001 to 7,000)
EL4	2,136 to 2,745 (7,001 to 9,000)
EL5	2,746 to 3,355 (9,001 to 11,000)
EL6	3,356 to 3,965 (11,001 to 13,000)
EL7	> 3,965 (13,000)

OXYGEN EXPOSURE LIMITS

(from NOAA Diving Manual)

PO ₂ (ATA)	MAX DURATION SINGLE EXPOSURE (MIN)	MAX TOTAL DURATION 24 HOUR DAY (MIN)
0.60	720	720
0.70	570	570
0.80	450	450
0.90	360	360
1.00	300	300
1.10	240	270
1.20	210	240
1.30	180	210
1.40	150	180
1.50	120	180
1.60	45	150

SPECIFICATIONS

CAN BE USED AS

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

DIVE COMPUTER PERFORMANCE

- Bühlmann ZHL-16C algorithm
- Decompression in agreement with Bühlmann ZHL-16C
- No Decompression Deep Stops - Morroni, Bennett
- Decompression Deep Stops (not recommended) - Blatteau, Gerth, Gutvik
- Altitude - Bühlmann, IANTD, RDP (Cross)
- Altitude corrections and O₂ limits based on NOAA tables

OPERATIONAL PERFORMANCE

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

Dive Counter:

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

Dive Log Mode:

- Stores 24 most recent DIVE/GAUGE dives in memory for viewing
- After 24 dives, adds 25th dive in memory and deletes the oldest dive

Altitude:

- Operational from sea level to 4,270 m (14,000 ft) elevation
- Measures ambient pressure every 30 minutes when inactive, upon activation, every 15 minutes while activated.
- Does not measure ambient pressure when wet.
- Compensates for Altitudes above sea level beginning at 916 m (3,001 ft) elevation and every 305 m (1,000 ft) higher.

Power:

- Rechargeable Lithium.
- The battery is a factory replacement item and is not user serviceable.

Sleep Mode (surface):

- Activates and turns the screen off when 10 minutes elapse on the surface with no button operations.
- Resume operation from Sleep Mode by pressing any button.

Battery Indication:

- Green (Good)
- Amber (Warning) - All functions shall continue to be available on the surface and during dives.
- Red (Alarm) - If during a dive, the message LOW BATTERY with up arrows is displayed. If on the surface, the message LOW BATTERY flashes. The battery must be recharged before using your i330R.

Operating Temperature:

- Out of the water - between -6.6 and 60 °C (20 °F and 140 °F).
- In the water - between -2.2 and 35 °C (28 °F and 95 °F).

Nitrogen Loading Bar Graph

- No Decompression Normal Zone
- No Decompression Caution Zone
- Decompression Zone

segments

- 1 to 3
- 4
- 5 (all)

Ascent Rate

	<u>Segments</u>	<u>MPM</u>	<u>FPM</u>
• Normal zone	0	0 - 3	0 - 10
• Normal zone	1	3.5 - 4.5	11 - 15
• Normal zone	2	5 - 6	16 - 20
• Normal zone	3	6.5 - 7.5	21 - 25
• Caution zone	4	8 - 9	26 - 30
• Too Fast zone (flashing)	5 (all)	> 9	> 30

NUMERIC DISPLAYS:

- Dive Number
- Depth
- FO₂ Set Point
- PO₂ Value
- Dive Time Remaining
- Time To Surface
- No Decompression Deep Stop Time
- No Decompression Safety Stop Time
- Decompression Stop Time
- DIVE/GAUGE Elapsed Dive Time
- DIVE/GAUGE Gas Pressure
- Free Elapsed Dive Time (< 9 min)
- Free Elapsed Dive Time (≥ 10 min)
- Surface Interval Time
- Free Surface Interval Time
- Time to Fly & Desaturate
- Temperature
- Time of Day
- Free Countdown Timer
- Violation Countdown Timer

Range:

- 0 to 24
- 0 to 100 m (330 ft)
- (0 - 99.9 M, > 99.9 then 100 M)
- Air, 21 to 100 %
- 0.00 to 5.00 ATA
- 0 to 99 min, display 99 if >99 min
- 0 to 99 min, display - - if >99 min
- 2:00 to 0:00 min:sec
- 5:00 to 0:00 min:sec
- 0 to 999 min
- 0 to 999 min
- 0 to 300 bar (0 - 4350 psi)
- 0:00 to 9:59 min:sec
- 10 to 999 min
- 0:00 to 23:59 hr:min
- 0:00 to 59:59 min:sec,
then 1:00 to 23:59 hr:min
- 23:50 to 0:00 hr:min*
- * starting 10 min after the dive
- 18 to 60° C (0 to 99° F)
- if outside of temp range, then displays - -
- 0:00 to 23:59 hr:min
- 59:59 to 0:00 min:sec
- 23:50 to 0:00 hr:min

Resolution:

- 1
- .1/1 M (1 FT)
- 1 %
- 0.01 ATA
- 1 minute
- 1 minute
- 1 second
- 1 second
- 1 minute
- 1 minute
- 1 bar (5 psi)
- 1 second
- 1 minute
- 1 minute
- 1 second
- 1 minute
- 1 minute
- 1°
- 1 minute
- 1 second
- 1 minute

Max Functional Depth:

- Dive/Free/Gauge

Limit:

- 100 m (330 ft)

ABBREVIATIONS/TERMS

ACT = Activation	H2O = Water
AL = Alarm	HIST/HIS = History
ALT = Alternate	IMP = Imperial (measure)
ASC = Ascent Rate	LAST = Previous (dive)
ATA = Standard Atmosphere (unit)	LO = Low (battery)
AUD = Audible Alarm	M = Meters (depth)
AVG = Average	MET = Metric
BAT/BATT = Battery	MFD = Maximum Functional Depth (equipment limits)
CDT = Countdown Timer	MIN = Minutes (time) or Minimum
CF = Conservative Factor	MOD = Maximum Operating Depth
CHNG = Change	N2/Ni = Nitrogen
CHRO = Chronograph	N2BG = Nitrogen Bar Graph
DA/dA = Depth Alarm (Free Dive)	NDL = No Decompression Limit
DCS = Decompression Sickness	NDC = No Decompression (DTR)
DEC/DECO = Decompression	NO-D/NO DECO = No Decompression (DTR)
DFLT = Default	O2 = Oxygen
DIVE-T = Dive Time (Elapsed Dive Time)	O2 MIN/O2 TIME = Oxygen Time Remaining (DTR)
DS = Deep Stop	O2 SAT = Oxygen Saturation
DSI = Dive Surface Interval	PLAN = Dive Planner
DTR = Dive Time Remaining	PO2 = Partial Pressure of O2 (ATA)
DUAL = Dual Time Zones Displayed	SAFE = Safety (stop)
DURA = Duration (backlight)	SAT = Desaturation Time
EDT = Elapsed Dive Time	SEA = Sea Level
ELEV/EL = Elevation (altitude)	SEC = Seconds (time)
ERR = Error	SN = Serial Number
FLY = Time To Fly	SR = Sample Rate
FO2 = Fraction of Oxygen (%)	SS = Safety Stop
FORM = Format (date, time)	SURF = Surface
FREE = Free Dive Mode	TTS = Time To Surface
FT = Feet (depth)	VIO/VIOL = Violation
GAU/GAUG/GAUGE = Digital Gauge Dive Mode	

AQUA LUNG DISTRIBUTORS

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Telephone: (01254) 692200

ADDITIONAL DISTRIBUTORS:

http://www.aqualung.com/distributors_intl.html

