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PLATINA

IQ-600

❶ IMPORTANT

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

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

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury. This signal word is limited to most extreme situations.

⚠ WARNING

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

⚠ CAUTION

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

Contents

1.00 Introduction

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

1.01 Simply Reliable

Congratulations! You are now the owner of a new TUSA Scuba dive computer. You're about to experience the TUSA difference in diving equipment—products that are **simply reliable**. At TUSA, we focus on the type of diving you do, then design products that address your specific needs. The simple, purposeful designs of all TUSA equipment provide you with reliable, trouble-free performance, dive after dive.

1.02 Key Features

Among the IQ-600's key features:

☐ The IQ-600 activates automatically upon descent. It need not be manually activated beforehand.

☐ It automatically adjusts for altitudes up to 19,680 ft/6,000 m, and is capable of functioning at depths as deep as 328 ft/100 m.

☐ The IQ-600 displays a variety of data, including: date; time of day; current and maximum depths; no-decompression dive time elapsed and remaining, and water temperature.

☐ Additionally, the IQ-600 is capable of displaying data specifically related to the use of Enriched Air Nitrox (EANx), including: Fraction of Oxygen (FO_2) setting; Partial Pressure of Oxygen (PO_2); and, an Oxygen Limit Index (OLI) representing the cumulative effect of a diver's exposure to elevated PO_2s ("CNS Clock") as an eight-element bar graph.

☐ Through a combination of audible and visible alarms, the IQ-600 helps alert divers to a number of possibly hazardous situations, including: violation of ascent rate or no-decompression status; and, whether mandatory decompression stops are necessary or divers have ascended above a mandatory stop ceiling. Nitrox-specific warnings occur when users exceed a limiting PO_2 of 1.6 atmospheres, and when cumulative exposure to elevated PO_2s exceeds recommended limits.

☐ If needed, the IQ-600 can calculate decompression stop requirements for stops as deep as 49 ft/15 m.

☐ The IQ-600's Random Access Memory (RAM) enables it to hold and display log data on ten dives. Users can further access up to a cumulative total of 30 minutes of dive-profile information, sampled in one-minute intervals.

☐ Depending on use, the IQ-600's battery can last up to 18 months or more before needing replacement. Battery replacement is recommended to be performed by an authorized TUSA dealer, or by the consumer, following the instructions appearing in this manual.

☐ The IQ-600 fits TUSA's CNC-3™ Compact Navigational Console. This console combines the IQ-600 with an analog submersible pressure gauge (SPG) and easy-to-use top-and side-reading compass. The console also features clip anchors on either side, to help attach it to your BC. The IQ-600 computer module will also fit in most other standard instrument consoles and circular wrist mounts.

1.03 Common Sense Warnings

As is true of every piece of diving equipment—including all dive computers—the IQ-600's abilities are not limitless. Thus, there are certain limitations and restrictions of which you must be aware, and certain precautions you must take, when using the IQ-600.

⚠ WARNING

> Before using your IQ-600, it is extremely important you read the following points—as well as similar warning and caution notices that appear throughout this manual—and follow the recommendations they provide. Failure to do so could result in **damage to or loss of equipment, serious personal injury** or **death**.

☐ The IQ-600 is designed for use by certified, recreational divers who have maintained a sufficient level of knowledge and skill proficiency through a combination of formal training, ongoing study and experience. It is not intended for use by persons who lack these qualifications and, thus, may not be able to identify, assess and manage the risks scuba diving entails. Use of the IQ-600 in conjunction with Enriched Air Nitrox (EANx), further requires that divers be trained and certified for Nitrox diving.

☐ The IQ-600 is not intended for use by commercial, military or technical divers, whose activities may take them beyond the commonly accepted depth limits for recreational diving.

☐ The IQ-600 is designed for use by divers breathing either normal compressed air or Enriched Air Nitrox (EANx) mixtures whose fraction of oxygen (FO_2) falls within a range of from 22 to 50 percent.

☐ Although the IQ-600 is capable of calculating decompression stop requirements, this ability is provided as a safety feature only, should recreational divers accidentally exceed the No-Decompression Limits (NDLs). Dives requiring mandatory stage decompression carry substantially greater risk than dives made well within no-decompression limits. Divers should not use the IQ-600 to plan or execute dives that will intentionally exceed no-decompression limits.

☐ The IQ-600 is designed to be used by only one diver at a time. Divers should not share a single IQ-600—or any other dive computer—on the same dive. Additionally, no diver should lend his or her IQ-600 to anyone else until it calculates that no measurable residual nitrogen remains after previous dives, and displays neither the "Desaturation Time" nor "No Fly" indicators while in Surface Mode. Further, no diver should use his or her IQ-600 for repetitive dives—unless that same IQ-600 has accompanied him or her on all previous dives in the same repetitive dive series.

☐ Neither the IQ-600—nor any other dive computer presently available—physically measures the amount of nitrogen present in body tissues, or the rate at which this nitrogen is being absorbed or released. Instead, the IQ-600 monitors depth and time, and uses this data to work a mathematical formula designed to emulate how individuals in good general health and whose physical characteristics do not place them among those at higher risk of decompression illness are assumed to absorb and release nitrogen from body tissues. Thus, the IQ-600 cannot compensate for factors such as age, obesity, dehydration, cold or exertion, which experts believe place divers at greater risk of DCI. If these, or similar factors apply to you, use the IQ-600—and any other dive computer or dive table—with even greater caution.

☐ Experts still know surprisingly little regarding the exact nature and causes of decompression illness (also known as decompression sickness, DCI or DCS). Susceptibility to DCI may vary substantially from person to person and from day to day. Neither the IQ-600—nor any other dive table or computer—can guarantee that you will not suffer decompression illness. Even though you use these items correctly, you may still suffer DCI. Use your IQ-600 conservatively, and in conjunction with other dive planning devices, such as dive tables. Do not rely on the IQ-600, or any similar device, as your sole means of avoiding decompression illness.

2.00 Using the IQ-600

The key to using the IQ-600 correctly is learning to access, recognize and interpret the data presented in its various display modes. The IQ-600 is capable of displaying far more data than can fit in a single screen. Thus, to help avoid confusion, it displays only that data which is relevant to a particular situation. For example, the data appearing when the IQ-600 is in its Date/Time Set Mode is very different from that appearing when it is in Dive Mode.

The IQ-600 is capable of presenting ten different display modes. In the balance of this manual, we will identify each of these modes, and explain:

☐ What the purpose of each mode is.
☐ How you enter and exit each mode.
☐ What data you will see in each mode, and how to interpret it.
☐ What audible or visible warnings may be sounded or displayed in each mode, and how to respond to them.

2.01 Accessing Display Modes

There are some display modes that the IQ-600 enters and/or exits automatically. For example, by taking the IQ-600 under water, you automatically activate its Dive Mode. Upon surfacing, your IQ-600 will automatically enter its Surface Mode.

To access other modes, you may need to push one of the two large, blue buttons appearing on the IQ-600's face. These are the **A** and **B** buttons.
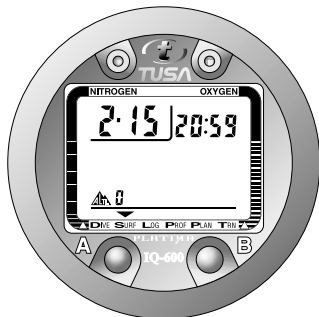
Figure 1: The front of the IQ-600, showing its Liquid Crystal Display (LCD) and the two large **A** and **B** buttons.

You will find both buttons easy to use. In some instances, you may need only press a button once and release it to achieve the desired result. In other instances, you may need to hold the button down until you get the result you wish. This manual will outline clearly which procedure to follow for each mode or task.

Figure 2: The Mode Indicator makes it easy to determine which mode the IQ-600 is currently displaying.

The IQ-600 makes it easy to determine which mode you are in at any time. Simply look for the Mode Indicator arrow at the bottom of the display screen.

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2.02 Surface Mode

Surface Mode is the IQ-600's default mode. In this mode, the IQ-600's Liquid Crystal Display (LCD) displays a minimum of date, time of day and Altitude Rank. Within 24 hours of surfacing from a dive, the IQ-600 will display additional information while in Surface Mode.

To enter this mode: The IQ-600 enters Surface Mode automatically upon surfacing from a dive. Additionally, if you leave the IQ-600 in Plan, Log, FO$_2$ Set or Date/ Time Set Modes for from five to six minutes, without taking further action, the computer will return to Surface Mode automatically.

What you will see: When the IQ-600 is in Surface Mode, it will display the information appearing in Figure 3. This data will or may include:

1. **Date**—The format the IQ-600 uses to display the current date is that common in the USA and Japan, in which the first set of one or two digits signifies the month, and the second set of one or two digits (following the hyphen) signifies the day. Thus, a date of **11-3** would represent the third of November.

2. **Time of Day**—The IQ-600 uses the 24-hour clock format, common in aviation and military service, to signify time of day. Thus, a displayed time of **13:04** would represent 1:04 PM. Whenever the IQ-600 displays time of day, the colon separating hours and minutes will blink.

3. **Altitude Rank**—Among the IQ-600's many features is the fact it adjusts automatically for diving at altitudes of up to 19,680 ft/6,000 m. To show that it has made this adjustment, the IQ-600 displays its altitude settings using the numbers **1**, **2** or **3**, or the letter **E**.
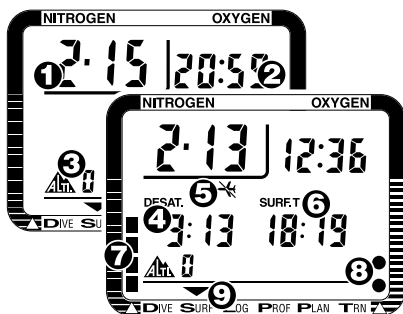
Figure 3: Surface Mode. When at least 24 hours has passed since previous dives **and** the IQ-600 determines there is no significant residual nitrogen present (and the cumulative effect of exposure to elevated PO_2s has sufficiently diminished), it displays only date, time of day and Altitude Rank, as shown in the upper left.

Here is what each Altitude Rank symbol means:

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

Prior to using your IQ-600 at altitudes substantially above sea level, you should find out what the actual altitude of your dive site is, and make certain that the altitude settings your IQ-600 displays accurately matches this height.

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ⓘ IMPORTANT

Do not use your IQ-600 to dive at altitude unless the altitude settings accurately match the actual height above sea level. Doing so could cause the IQ-600 to display inaccurate information. You should also not use your IQ-600 to dive at altitude when the letter E appears instead of the numbers **0**, **1**, **2** or **3**. This means that you are above an altitude of 19,680 ft/6,000 m, which is beyond the IQ-600's ability to function accurately.

It is also important your IQ-600 not be in Dive Mode when making sudden, substantial changes in altitude—such as when flying in an airplane. This would most likely result from storing your IQ-600 with wet dive gear, which might touch its external electrical contacts and fool the IQ-600 into thinking it is under water. This can interfere with your IQ-600's ability to function accurately.

ⓘ IMPORTANT

Do not pack or store your IQ-600 with wet dive equipment. Doing so may cause it to erroneously enter Dive Mode and interfere with its ability to accurately process and display data.

Your IQ-600 monitors and adjusts for changes in altitude in all modes except Dive and Date/Time Set Mode. It will display its current altitude settings in all modes except Log, Date/Time Set, Upload and Profile Modes (in Log Mode it displays the altitude settings applicable to a particular dive).

Upon arriving at altitude, your IQ-600's Residual Nitrogen Bar Graph may show that there is excess nitrogen present, even though you may not have made any dives in the preceding 24 hours. It may also display a surface interval value, which later re-sets itself.

If you have obtained the Altitude Specialty Diver training which everyone should have before diving at altitudes substantially above sea level, you already understand that this should be expected. By ascending to a higher altitude from a lower one, your body will have more nitrogen saturated in body tissues than would be present had you spent the preceding 24 hours at the higher altitude. By displaying residual nitrogen and a surface interval, your IQ-600 is merely reflecting this fact.

If less than 24 hours has passed since a previous dives, your IQ-600 will display additional information while in Surface Mode. This information will or may include:

4. Desaturation Time—If your IQ-600 calculates that there is residual nitrogen present from previous dives, it will display a value for Desaturation Time (DESAT.). This represents the amount of time, expressed in HOURS: MINUTES, that the IQ-600 calculates must pass before residual nitrogen levels drop to the point where subsequent dives may be treated as single (non-repetitive) dives, thus allowing the maximum possible bottom time.

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5. **"No Fly" Symbol**—If less than 24 hours has passed since a previous dive, the IQ-600 will display a "No Fly" symbol while in Surface Mode.

⚠ **WARNING**

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

6. **Surface Interval**—If your IQ-600 calculates that there is residual nitrogen present from previous dives, it will also display up to 24 hours of Surface Interval Time (SURF T.) that have elapsed since ascending, and a symbolic representation of the overall quantity present on its Residual Nitrogen Bar Graph. The format your IQ-600 uses to display Surface Interval Time (SURF T.) is HOURS:MINUTES.

7. **Residual Nitrogen Bar Graph**—This is a row of nine pixels that represents the overall saturation of body tissues with nitrogen. When all nine pixels appear under water, it means you have reached (or exceeded) the No-Decompression Limit (NDL). On the surface, fewer than nine pixels should appear, and the number of pixels appearing should diminish over time—as the level of excess nitrogen present in your system diminishes as your Surface Interval Time passes.

One of the greatest benefits of this symbolic representation of nitrogen levels during surface intervals is that it helps you decide how long to wait before reentering the water. For example, should you elect to make a repetitive dive when there are more than just a few pixels appearing, you will discover that your available no-decompression dive time ends up being very short. Thus, it makes sense to wait until fewer pixels appear, and you can enjoy longer bottom times with a greater margin of safety.

8. **Oxygen Limit Index (OLI)**—This is a column of up to eight circular pixels representing the cumulative effect of your exposure to elevated partial pressures of oxygen (PO_2s). Eight pixels is roughly equivalent to having used up 100 percent of the theoretical "CNS Clock" you learned about during your initial Nitrox Diver training. The number of pixels displayed will tend to increase during dives and decrease during surface intervals. When more than 24 hours has passed since surfacing from your last dive, the last OLI pixel should disappear.

9. **Mode Indicator**—This should point to the abbreviation **S**URF when in Surface Mode.

When the Low Battery symbol appears and is blinking, the IQ-600 will enter Transfer Mode, but cannot enter Dive Mode. When the Low Battery symbol appears and stops blinking, the IQ-600 cannot enter either Transfer or Dive Mode.

The battery that comes with your IQ-600 is designed to last up to 18 months or more under normal use. Several factors may affect battery life; therefore, do not be surprised if you get significantly more or less use from your IQ-600's battery.

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Warnings you may encounter: The only warning that may appear while the IQ-600 is in Surface Mode is the Low Battery symbol. The Low Battery warning means that the IQ-600's battery lacks sufficient voltage to function properly.
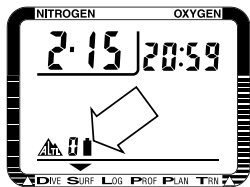

Figure 4: Low Battery Symbol.

ⓘ IMPORTANT

Once the Low Battery warning appears, you must return your IQ-600 to your local authorized TUSA distributor for battery replacement, or replace the battery yourself, following the procedures outlined later in this manual. Before replacing your IQ-600's battery, be sure to upload or copy all dive log data to your log book, as the battery replacement process erases all such data from the IQ-600's Random Access Memory (RAM).

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To exit this mode: You can exit Surface Mode in a variety of ways. Among them:

☐ **Enter Another Mode**—Take the steps outlined shortly to enter Dive Plan, Date/Time Set, Log, Profile or Transfer Modes.

☐ **Go Diving**—You can also simply take your IQ-600 under water, thus activating Dive Mode.

2.03 Dive Plan Mode

Your IQ-600's Dive Plan Mode enables you to answer the question, "If I enter the water right now, how long can I stay at various depths while remaining within the IQ-600's No-Decompression Limits?" Among the benefits of accessing your IQ-600's Dive Plan Mode before taking it under water is that it enables you to "scroll" through Dive Plan Mode to help better estimate and plan your dive.

An even more important benefit of doing so is that accessing Dive Plan Mode prior to every dive allows you to confirm that your IQ-600 is set to a Fraction of Oxygen (FO_2) that accurately matches the concentration of oxygen in the media you will breathe during the dive.

⚠ W A R N I N G

Do not use your IQ-600 without confirming that its FO_2 setting accurately matches that of your breathing media. Failure to do so may mean that your IQ-600 will be unable to accurately monitor your exposure to nitrogen and oxygen, and lead to decompression illness (DCI) or CNS Oxygen Toxicity—conditions that can cause **serious personal injury or death.**

Figure 5: Dive Plan Mode.

To enter this mode: From Surface Mode, simply press the **A** button once and release it.

What you will see: As shown in Figure 5, what you will see when you first enter Dive Plan Mode will depend on its current FO_2 setting (we cover how to change this setting shortly).

1. **Depth**—When you first enter Dive Plan Mode, the initial depth displayed will be 30 feet or 9 meters. You can advance this depth in 9.8-ft/3m increments by pressing and releasing the **A** button. The IQ-600 is capable of displaying 14 different dive-plan depth increments, up to a maximum depth of 157 ft/48m. If you press the **A** button one more time after reaching a depth value of 157 ft/48m, your IQ-600 will return to Surface Mode.

2. **No Decompression Limit (NDL)**—Depending on the depth displayed and its current FO_2 setting, the IQ-600 will display the available No-Decompression Limit (NDL), up to a maximum of 200 minutes. (It takes approximately three seconds for this value to appear.) If the available NDL exceeds 200 minutes, the number **200** will simply appear. If the IQ-600's FO_2 setting has defaulted (meaning that you have not reset the computer's Fraction of Oxygen, following a previous dive in which the FO_2 was set to a value other than Air), a series of horizontal bars will appear. See page 42 for a more extensive discussion of why, when and how your IQ-600's FO_2 setting defaults.

On the facing page are examples of the No-Decompression Limits (NDLs) the IQ-600 displays when it calculates that there is no residual nitrogen present from previous dives. NDLs are shown in minutes.

If your IQ-600 calculates that there is residual nitrogen present from previous dives, the available No-Decompression Limits it displays will be shorter. Depending on how much residual nitrogen the IQ-600 calculates is present, it may not display any available No-Decompression dive time for some deeper depths Instead, it will simply show a series of horizontal bars.

Depth (Feet)	Depth (Meters)	Air NDL	EAN32 NDL	EAN36 NDL
30	9	200	200	200
39	12	104	200	200
49	15	66	117	182
59	18	47	74	92
69	21	35	55	65
79	24	25	41	50
89	27	19	32	38
98	30	16	24	30
108	33	13	19	23
118	36	11	16	- - -
128	39	9	14	- - -
138	42	8	- - -	- - -
148	45	7	- - -	- - -
157	48	7	- - -	- - -

Similarly, for combinations of depth and FO_2 that would cause divers to exceed a limiting PO_2 of 1.6 atmospheres, a series of horizontal bars will appear in place of the No-Decompression Limit, as shown above.

⚠ W A R N I N G

Do not plan dives to depths deeper than those for which the IQ-600 is capable of displaying an available No-Decompression Limit. Doing so could cause you to exceed the No-Decompression Limits or a limiting PO_2 of 1.6 atmospheres-which may, in turn, **substantially increase your risk of decompression illness or CNS Oxygen Toxicity** and can lead to **serious personal injury or death.**

3. **Fraction of Oxygen (FO_2)**—The IQ-600 will display its current FO_2 setting in one of three ways:

- FO_2 NOT SET—If your IQ-600's FO_2 setting has defaulted, a series of horizontal bars appears. Again, see page 00 for a more extensive discussion of why, when and how your IQ-600's FO_2 setting defaults.

- FO_2 SET TO AIR—If you have set your IQ-600's FO_2 to a value of 21percent, the word **Air** will appear and the percent sign, **FO_2** and **Nitrox** notations **will not** appear.

- FO_2 SET TO EAN22–EAN50—The FO_2 percentage appears, along with the percent sign, **FO_2** and **Nitrox** notations.

4. **Altitude Rank**—Current Altitude Rank (just as in Surface Mode).

5. **Mode Indicator**—The Mode Indicator will point to **P**LAN.

In addition to this data, if your IQ-600 determines that there is residual nitrogen present from previous dives, it will also display Surface Interval Time and its Residual Nitrogen Bar Graph during Dive Plan Mode—just as it does during Surface Mode. Similarly, if the IQ-600 determines that the cumulative effect of exposure to elevated PO_2s from prior dives is significant, the Oxygen Limit Index (OLI) will appear while in Dive Plan Mode.

To exit this mode: You may exit Dive Plan Mode in a variety of ways:

- ☐ **Go Diving**—Taking the IQ-600 under water will cause it to automatically leave Dive Plan Mode and enter Dive Mode.

- ☐ **Return to Surface Mode**—To do so, simply press and hold the **A** button for at least three seconds.

- ☐ **Access FO₂ Set Mode**—To do so, press and hold the **A** and **B** buttons for at least six seconds (we will describe FO₂ Mode next).

- ☐ **Do Nothing**—The IQ-600 will return automatically to Surface Mode within five to six minutes.

2.04 FO₂ Set Mode

Prior to every dive, it is important to access your IQ-600's Dive Plan Mode, to ensure the the computer's current FO₂ settings match the oxygen concentration in your breathing media. If these do not match, you must be able to change the IQ-600's FO₂ setting so that it is the same as the gas in the cylinder(s) from which you will breathe. To do so, you must enter and use the computer's FO₂ Set Mode.

To enter this mode: While in Dive Plan Mode, press and hold buttons **A** and **B** for at least six seconds.

What you will see: As shown in Figure 6, when you enter FO_2 Set Mode, the depth and NDL will disappear, and the FO_2 value will begin to blink.
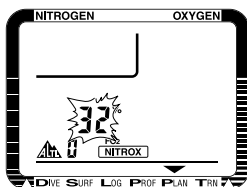

Figure 6: FO_2 Set Mode.

To change settings: Press button **B**. If you press this button once and release it, the FO_2 value will advance by one percent. If you press and hold button **B**, the FO_2 value will begin to scroll. This will enable you to move more rapidly between FO_2 values.

   If the FO_2 setting has defaulted, horizontal bars will appear. Pressing button **B** once will cause the FO_2 value to advance to 21 percent, which the IQ-600 represents using the word **Air** (as it does in Dive Plan Mode). Pressing button **B** again will advance the FO_2 value to 22 percent. As you continue to press button **B**, FO_2 values will advance until reaching 50 percent. If you scroll past 50 percent, the FO_2 value displayed will change to Air, and the cycle will repeat.

To exit this mode: You can exit FO_2 Set Mode in a variety of ways:

☐ **Go Diving**—Taking the IQ-600 under water will cause it to automatically leave FO_2 Set Mode and enter Dive Mode.

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☐ **Return to Dive Plan Mode**—To do so, simply press button **A**.

☐ **Do Nothing**—The IQ-600 will return automatically to Surface Mode within five to six minutes.

2.05 Date/Time Set Mode

Prior to using your IQ-600 under water, you will not only want to check its FO_2 setting, but also that it displays the correct date and time. Doing so not only enables you to use the IQ-600 as a timepiece, it further helps ensure that the date and time data displayed when the computer is in Log and Profile Modes are accurate.

When you first use your IQ-600, you will most likely discover that the month, day and minute are already correct; however, depending on your time zone, the hour may not be.

To enter this mode: From Surface Mode, press and hold buttons **A** and **B** for at least five seconds (be aware, however, that you cannot access Date/Time Set Mode within ten minutes of surfacing from a dive).

What you will see: Upon accessing Date/Time Set Mode, your IQ-600's display should appear exactly as shown in Figure 7. The digits representing the current hour (based on the 24-hour clock) will be blinking.

☐ To change the hour, simply press the **B** button. Each time you do so, the number shown will advance by one. If you press and hold the **B** button, the numbers displayed will advance rapidly. If you accidentally go past the number you were shooting for, simply continue; you will cycle back through to the number desired.
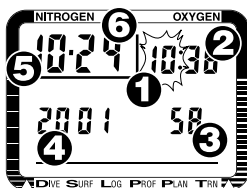
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Figure 7: Date/Time Set Mode.

☐ If the hour displayed is correct—or you have changed it to the correct hour and wish to proceed further—simply press the **A** button. The minutes display will now blink. You can either change this using the **B** button, or continue on to the seconds display.

By repeating this process, you will eventually cycle through all the date/time parameters shown, in the order shown in Figure 7. This is:

1. Hours
2. Minutes
3. Seconds
4. Year
5. Month
6. Day

After you have cycled through to the Day setting, pressing button **A** one additional time will return the computer to Surface Mode. Note that there is no Mode Indicator for Date/Time Set Mode.

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Changing Units of Measurement: While in Date/Time Set Mode, you can also change the how the IQ-600 displays depth and water temperature. Simply press and hold buttons **A** and **B** for 30 seconds. You will hear the computer's audible alarm sound. This signifies that the computer has switched from displaying data in feet and degrees Fahrenheit to meters and degrees Centigrade (or vice versa).

To exit this mode: You may exit Date/Time Set Mode in a variety of ways:

☐ **Return to Surface Mode**—To do so, simply complete the process of scrolling through and, if necessary, changing all the various date and time settings. You will return to Surface Mode automatically.

☐ **Go Diving**—Taking the IQ-600 under water will cause it to automatically leave Date/Time Set Mode and enter Dive Mode.

☐ **Do Nothing**—If you take no further action while in Date/Time Set Mode, the IQ-600 will return automatically to Surface Mode within five to six minutes.

2.06 Dive Mode

Among the IQ-600's key features is the fact it enters Dive Mode automatically upon descent. As discussed previously, we strongly recommend accessing your IQ-600's Dive Plan Mode prior to descending, so that you may double check that: it is functioning properly; the date and time settings are correct; and, the dive you are planning falls well within the available No-Decompression Limits (NDLs). Nevertheless, your IQ-600 will not "lock up" nor make erroneous assumptions regarding altitude or depth if you fail to do so.

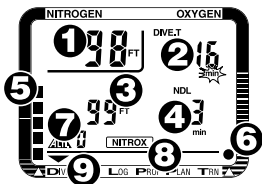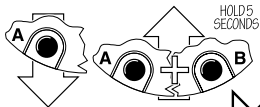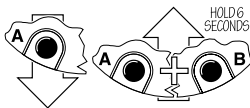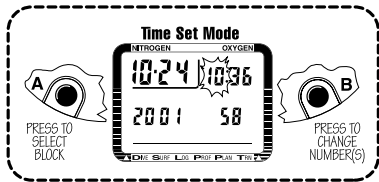**To enter this mode:** Simply take the IQ-600 under water. It will enter Dive Mode automatically.
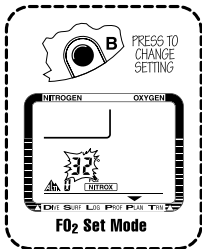

Figure 8: Dive Mode (No Decompression).

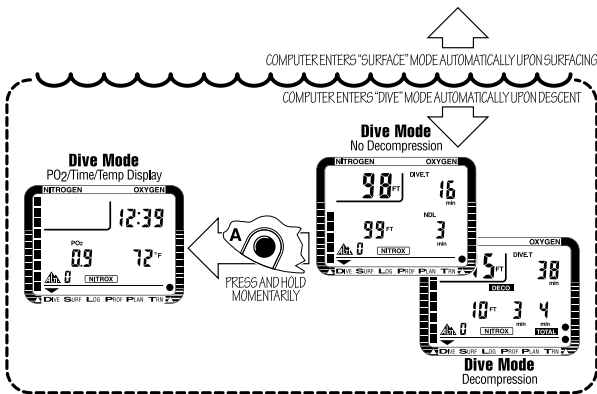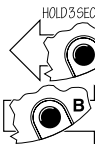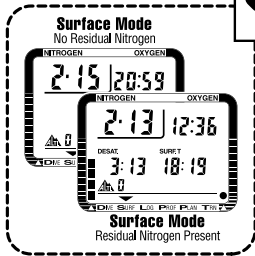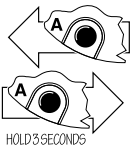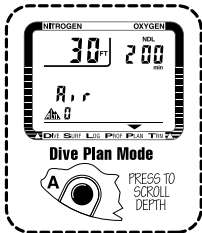**What you will see:** When you first enter Dive Mode, the IQ-600 will display a variety of data, including:

1. **Current Depth**—The depth at which the IQ-600 is at right now.
2. **Dive Time (DIVE T.)**—Time spent (in minutes) under water, measured from the time at which the IQ-600 first descended below a depth of 5 ft/1.5m. Note that the abbreviation min. blinks on and off.
3. **Maximum Depth**—The deepest point reached during this dive.
4. **Remaining No-Decompression Limit (NDL)**—The time remaining (in minutes) before you reach the No-Decompression Limit, assuming you remain precisely at your present depth. The available No-Decompression Limit will increase if you ascend; decrease if you descend.
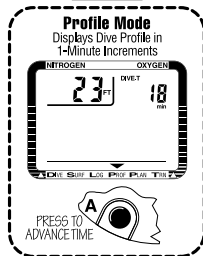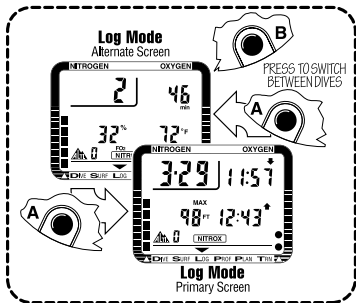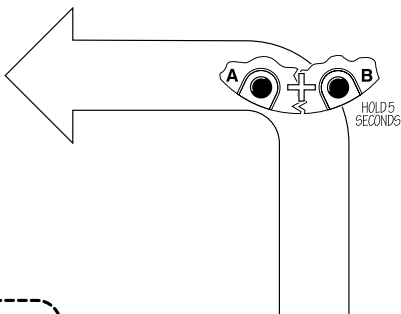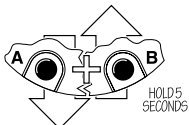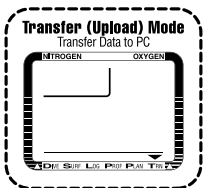
5. **Residual Nitrogen Bar Graph**—A visual representation of how much nitrogen the IQ-600 assumes your body has absorbed. When all nine pixels appear, it means you are at or have exceeded the No-Decompression Limit.

6. **Oxygen Limit Index (OLI)**—Again, this is a column of up to eight circular pixels representing the cumulative effect of your exposure to elevated partial pressures of oxygen (PO_2s). Eight pixels is roughly equivalent to having used up 100 percent of the theoretical "CNS Clock" you learned about during your initial Nitrox Diver training. The number of pixels displayed will tend to increase during dives—particularly at deeper depth. It may, however, decrease during shallower portions of your dive.

7. **Altitude Rank**—Shows the Altitude Rank setting in effect at the beginning of the dive.

8. **Nitrox Symbol**—This appears if your IQ-600's FO_2 has been set to a value of from 22 to 50 percent, or if the FO_2 setting has defaulted, following a prior Nitrox dive (see page 42 for more information).

9. **Mode Indicator**—Points to the word **D**ive.

Should you accidentally exceed the No-Decompression Limits, the IQ-600 can provide you with decompression stop information.

FO₂ Set Mode

PRESS TO CHANGE SETTING

Time Set Mode

PRESS TO SELECT BLOCK

PRESS TO CHANGE NUMBER(S)

HOLD 6 SECONDS

HOLD 5 SECONDS

START

HOLD 3 SEC

Dive Plan Mode

PRESS TO SCROLL DEPTH

HOLD 3 SECONDS

Surface Mode
No Residual Nitrogen

Surface Mode
Residual Nitrogen Present

COMPUTER ENTERS "SURFACE" MODE AUTOMATICALLY UPON SURFACING

COMPUTER ENTERS "DIVE" MODE AUTOMATICALLY UPON DESCENT

Dive Mode
No Decompression

Dive Mode
PO₂/Time/Temp Display

PRESS AND HOLD MOMENTARILY

Dive Mode
Decompression

Transfer (Upload) Mode
Transfer Data to PC

NITROGEN   OXYGEN

DIVE SURF LOG PLAN TRN

A   B
HOLD 5
SECONDS

A   B
HOLD 5
SECONDS

Log Mode
Alternate Screen

B
PRESS TO SWITCH
BETWEEN DIVES

NITROGEN   OXYGEN

2   46
min

32 %   72 °F

FO₂
NTRX

DIVE SURF LOG

A

NITROGEN   OXYGEN

3:29 11:57

MAX
98 FT 12:43

NITROX

DIVE SURF LOG PLAN TRN

Log Mode
Primary Screen

A

B
HOLD 5 SECONDS

Profile Mode
Displays Dive Profile in
1-Minute Increments

NITROGEN   OXYGEN

23 FT   DIVE-T   18
min

DIVE SURF LOG PLAN TRN

A
PRESS TO
ADVANCE TIME

IQ-600
Mode Flow Chart

⚠ WARNING

Decompression diving is widely believed to entail substantially greater risk of decompression illness than dives made well within No-Decompression Limits (NDLs). The IQ-600 provides decompression stop information solely as a contingency in case divers accidentally exceed the No-Decompression Limits. **It is not designed or intended for use as a tool to plan or execute dives that participants know, going in, will entail mandatory decompression.**
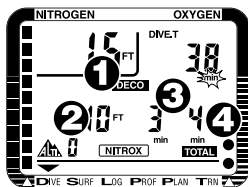

Figure 9: Dive Mode (Decompression).

As soon as your IQ-600 exceeds a No-Decompression Limit (NDL), several things happen. The computer's audible alarm sounds for three seconds. Additionally, as shown in Figure 9, new information appears on the computer's display.

1. The DECO symbol will appear. At first, this symbol will blink for several seconds. Then it will continue to appear, without blinking, until the IQ-600 determines that mandatory decompression stops are no longer required.

2. In place of Maximum Depth, an initial stop depth of 10 ft/3m will appear. If you do not begin an immediate ascent, initial stop depths of 20 ft/6m, 30 ft/9m, 39 ft/12m or 49 ft/15m will eventually appear (this is highly unlikely, however, if you use the IQ-600 solely within the recreational diving limits for which it is designed).

⚠ CAUTION

Do not ascend above the indicated stop depth until either a shallower stop depth appears or the IQ-600 returns to its normal no-decompression Dive Mode.

3. A stop time will appear, showing how long (in minutes) you are to remain at the indicated stop depth.

4. A total ascent time will also appear. This indicates the total of the time you must spend (in minutes) at the current stop, time required at shallower stop depths (if any), plus ascent time required between stops.

If the total ascent time exceeds 99 minutes, the display will alternate between the time required for the current stop and total ascent time. Again, the likelihood of this occurring is almost inconceivable, if you use the IQ-600 solely within the recreational diving limits for which it is designed.

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Be aware that it is possible to make stops at depths deeper than those indicated; however, you may find doing so increases the time you must spend at each stop. For example, let's say that the indicated stop is five minutes at 10 ft/3m. You choose, however, to make your stop at 15 ft/5m. You may discover that, by doing so, it takes seven or eight minutes (or more) before your "five minute" stop clears and the IQ-600 returns to Dive Mode.

Warnings you may encounter: While in Dive Mode, you should be alert for the following warnings:

☐ **FO$_2$ Default Warning**—As you first enter the water and/or begin your descent, you may hear the IQ-600's audible alarm sound. This warning alerts you that the computer's FO$_2$ setting has defaulted, following a previous Nitrox dive (see page 42 for more information on how and why the FO$_2$ setting defaults after such dives). If you hear this warning, halt your descent, return to the surface and reset the FO$_2$ so that it accurately reflects the concentration of oxygen present in your cylinder(s).

⚠ CAUTION

Do not use your IQ-600 under water if the FO$_2$ setting has defaulted. If you do so, **the computer will be unable to accurately track your exposure to elevated partial pressures of oxygen.** You will also be unable to take advantage of the longer No-Decompression Limits (NDLs) that breathing Enriched Air Nitrox (EANx) normally provides.

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☐ **No Decompression Status**—You can help remain within the No-Decompression Limits (NDLs) by monitoring both the remaining No-Decompression Limit displayed on the right-hand side of the screen and the Residual Nitrogen Bar Graph on the left. Bear in mind that the remaining No-Decompression Limit may decrease rapidly if you descend to deeper depths.

A good way to help ensure that you remain well within the No-Decompression Limits is to make certain that the Residual Nitrogen Bar Graph does not enter its Caution Zone (i.e., displays more than six pixels). If you do find yourself entering this Caution Zone, you should immediately either: ascend to a substantially shallower depth; or, ascend to safety stop depth, make a normal safety stop, then surface and end the dive.

☐ **Ascent Rate Warning**—The IQ-600's algorithm (the formula it works to determine your nitrogen uptake and release) assumes you keep your rate of ascent within the following limits:

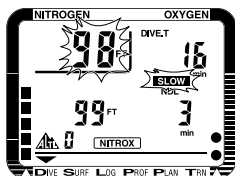| Depth Range	Ascent Rate
0 ft/0m to 20 ft/5.9m	26 ft/8m per Minute
20 ft/6.0m to 59 ft/17.9m	39 ft/12m per Minute
59 ft/18.0m or deeper	52 ft/16m per Minute

Figure 10: Ascent Rate Warning.

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If you exceed these ascent rates, the IQ-600's audible alarm will sound, and the computer will display its Ascent Rate Warning, as shown in Figure 10. This consists of the SLOW symbol and current depth indicators blinking on and off. The Ascent Rate Warning will continue to display until you slow your ascent rate to that which the IQ-600 finds acceptable, or until you reach a depth of 5 ft/1.5m.

☐ **Deco Stop Violation Warning**—In so far as the IQ-600 is not designed nor intended for planned decompression dives, you should consider the very fact the computer indicates a need for mandatory stops as a significant warning in itself. Once you enter this mode, you should further be alert to the possibility of a Deco Stop Violation warning.

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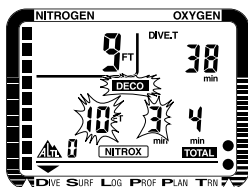

Figure 11: Deco Stop Violation.

If you find yourself in Deco Stop Violation, descend to or below the indicated stop depth and remain for the time shown. If conditions make this impossible, make your stop between 3-7 ft/1-2m, and remain there until the IQ-600 returns to Dive Mode (this may take considerably longer than the display suggests it will).

You should also be aware that, during a Deco Stop Violation, the IQ-600's Ascent Rate Warning does not function. However, in so far as the correct response to a Deco Stop Violation involves not only slowing your ascent, but reversing it, the problem is self-correcting.

ⓘ IMPORTANT

If you cannot correct an indicated Deco Stop Violation, the warnings will continue for five minutes after surfacing. At this point, the computer will not be usable for the next 24 hours.

☐ **PO$_2$ Warning**—As mentioned earlier, your IQ-600 uses a value of 1.6 atmospheres as its absolute limiting PO$_2$. When the computer detects that a combination of depth and FO$_2$ put you within 90 percent of this limit, the computer's audible alarm sounds for three seconds and its PO$_2$ LIMIT and current depth, shown in Figure 12, will blink for three seconds.

If you continue your descent and reach a depth at which the PO$_2$ equals or exceeds 1.6 atmospheres, the audible alarm will again sound for three seconds, and the PO$_2$ LIMIT and current depth will again blink and continue blinking until you ascend to a safer depth.
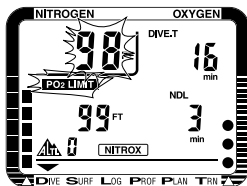
Figure 12: PO₂ Warning.

ⓘ IMPORTANT

Be aware that, should the PO₂ Warning activate
at a depth of 20 ft/6m or less, you most likely
have not exceeded a limiting PO₂ of 1.6 atmos-
pheres. What is more likely is that you forgot to
set the IQ-600's FO₂ prior to the dive. As a
result, the computer has defaulted to an assumed
FO₂ of 99 percent oxygen. Such a high FO₂ will,
of course, set off the PO₂ Warning prematurely.
See page 42 for more information on why and
how the IQ-600's FO₂ setting defaults, and its
implications.

☐ **Oxygen Limit Index (OLI) Warning**—The IQ-600's
Oxygen Limit Index (OLI) reflects the cumulative effect of
your exposure to elevated partial pressures of oxygen.
Where as the PO₂ Warning accounts only for the <u>intensity</u>
of such exposure, the OLI accounts for both its <u>intensity</u>
and <u>length</u>.

When seven of the OLI's eight pixels appear, the IQ-600's audible alarm will sound for three seconds, and the OLI display will blink on and off for the same amount of time.
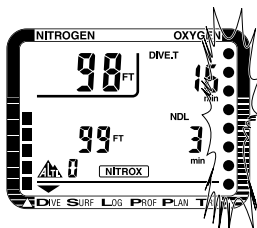

Figure 13: Oxygen Limit Index (OLI) Warning.

If you do not ascend to a shallower depth, and all eight of the OLI's eight pixels appear, the alarm will again sound and the display will again blink. As shown in Figure 13, the this portion of the display will continue to blink until you ascend to a point where the OLI drops to seven pixels.

ⓘ IMPORTANT

Should the OLI and PO₂ Warnings activate at roughly the same time—and at relatively shallows depths, early in the dive—you most likely **have not** exceeded your actual oxygen limits. What has, again, happened is that you forgot to set the IQ-600's FO₂ prior to the dive. See page 42 for more information on why and how the IQ-600's FO₂ setting defaults, and its implications.

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If you remain well within normal recreational diving depth and time limits, the odds that the cumulative effects of your exposure to elevated partial pressures of oxygen will actually exceed the IQ-600's Oxygen Limit Index are almost nonexistent.

☐ **Out-of-Range Warning**—There is one more warning that your IQ-600 is theoretically capable of sounding and displaying. This is the Out-of-Range Warning. This appears in Figure 14.
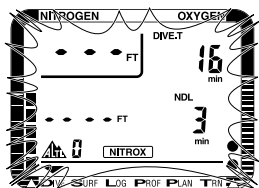

Figure 14: Out-of-Range Warning.

The Out-of-Range Warning consists of:

■ The computer's audible alarm sounding for ten seconds.

■ Horizontal bars appearing in place of current and maximum depth information.

■ The entire display screen blinking.

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

■ Descend below 328 ft/100m.

■ Exceed an Actual Bottom Time (ABT) of 599 minutes.

■ Accrue a decompression obligation requiring stops deeper than 49 ft/15m.

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⚠ W A R N I N G

An IQ-600 displaying an "Out of Range" Warning is incapable of displaying other critical information such as depth, time, Ascent Rate, PO_2, OLI and Deco Stop Violations, and required decompression stops. For this reason, you should not—under any circumstance—use a IQ-600 in such a way that would cause the Out-of-Range Warning to be displayed. Under such conditions, the risk of **serious personal injury** or **death** would be substantial.

Again, so long as you use your IQ-600 within normal recreational diving depth and time limits, the odds that an Out-of-Range Warning will take place are almost nonexistent. Nevertheless, should you manage to do so, the computer will remain unusable for the next 24 hours.

To exit this mode: Assuming you have no Decompression Stop or Out-of-Range violations, your IQ-600 will exit Dive Mode and return to Surface Mode automatically upon ascent.

2.07 How the IQ-600 Measures Actual Bottom, Surface Interval Times

Although the IQ-600 automatically enters Dive Mode as soon as you take it under water, it does not begin to record Actual Bottom Time (ABT) until you descend below 5 ft/1.5m. Conversely, it assumes Actual Bottom Time ends and Surface Interval Time (SIT) begins as soon as you ascend above 5 ft/1.5m.
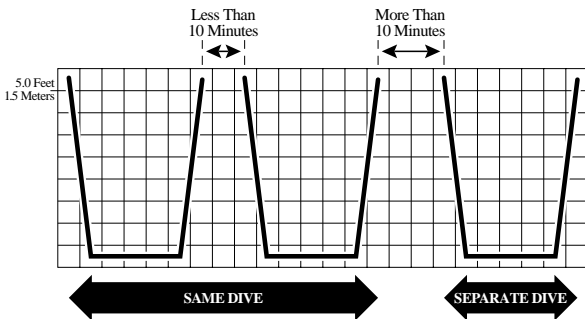
Figure 15: How the IQ-600 measures Actual Bottom Time and Surface Interval Time.

However, as Figure 15 shows, if you spend less than ten minutes at the surface, or above a depth of 5 ft/1.5m, then descend again, the IQ-600 will count both descents—and the surface interval between them—as part of the same dive.

2.08 Understanding FO$_2$ Default

Throughout its descriptions of Dive Plan and Dive Modes, this manual makes several references to what may happen if the IQ-600's FO$_2$ setting "defaults." In this section we will explain why, when and how this occurs, and how it may impact you as an IQ-600 user.

In your entry-level Enriched Air Nitrox Diver training, you learned that among the greatest risks Nitrox (EANx) use poses is that of CNS Oxygen Toxicity. One way CNS Oxygen Toxicity can occur is when divers breathe Nitrox at depths where the partial pressure of oxygen (PO$_2$) exceeds safe limits.

The IQ-600 is designed to help divers avoid such situations by presenting information and warnings regarding current PO_2 levels and cumulative exposure to elevated PO_2s. To do so, however, the IQ-600 must be set to an FO_2 that accurately matches the concentration of oxygen in the gas mixture being breathed.

Similarly, the IQ-600 is designed to help divers avoid decompression illness by providing No-Decompression Limits (NDLs) or mandatory decompression stop information. Again, to do so, the IQ-600 must be set in a manner that accurately matches the concentration of nitrogen in the breathing media.

When it lacks this information, the IQ-600 will attempt to protect divers by basing its oxygen- and nitrogen-exposure calculations on a "worst case" assumption. This is, that divers may be breathing a mixture containing up to 79 percent nitrogen, or up to 99 percent oxygen. This is what we are referring to when we say that the IQ-600's FO_2 setting is in "default."

When and How FO_2 Default Occurs: One factor in determining if and when your IQ-600's FO_2 setting will default is whether you set it for air or Nitrox.

☐ If you set your IQ-600 for air (an FO_2 of 21 percent), it assumes that subsequent dives will be made using air as well. Thus, it remains set for air, dive after dive, without defaulting.

☐ If, on the other hand, you set your IQ-600 for Nitrox (FO_2s of 22 to 50 percent), the computer assumes that subsequent dives may also be on Nitrox. Thus, to protect you from accidentally diving a Nitrox mixture to which it cannot accurately monitor, the IQ-600's FO_2 setting will default ten minutes after surfacing from any dive in which it was set to an FO_2 other than air.

As discussed earlier, if you ascend above a depth of 5 ft/1.5m, then descend below this depth within ten minutes, the computer will treat this descent as a continuation of the same time, made using the same cylinder(s). Thus, the computer will hold its current FO_2 setting for the continuation of the dive.

On the other hand, if your surface interval (or time spent above a depth of 5 ft/1.5m) exceeds ten minutes, the IQ-600 will treat subsequent descents as a separate dive. If the computer was previously set to an FO_2 of 22 percent or more, it will assume you may have switched cylinders prior to descending. Thus, to protect you from the consequences of diving a gas mixture whose FO_2 is unknown, the IQ-600's FO_2 setting will default.

There is one more way in which the IQ-600's FO_2 setting can default. Let's say you set the computer's FO_2 to a value of from 22 to 50 percent, but do not actually go diving. In instances such as these, the IQ-600 will hold its FO_2 setting until midnight, then default. This helps protect you in the event you dive the next day with a cylinder whose oxygen content does not match that of the cylinder you intended to use the day before.

Dealing With FO_2 Default: As outlined previously, the best way to deal with FO_2 default is to simply avoid it. Doing so is easy—simply access Dive Plan Mode prior to every dive and make sure the FO_2 setting displayed accurately matches that of your breathing media.

Okay, what happens if you forget to do so? As you should already know, if the IQ-600's FO_2 setting is in default, the computer's audible alarm will sound as you enter the water and/or begin your descent. If you hear the alarm, halt any descent, surface immediately and reset the IQ-600 to the correct FO_2. Little harm done.

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All right, what if you miss or ignore the FO$_2$ Default Alarm and dive anyway? As discussed previously, the PO$_2$ Warning should sound/appear at a depth of approximately 20 ft/6m. This should be soon enough for you to surface and correct the problem without affecting the computer's Oxygen Limit Index (OLI) too adversely.

How about a "worst case" scenario? That is, you are well into a dive when you notice the OLI and PO$_2$ LIMIT symbol flashing furiously. (And, did we forget to mention that you are in an over-head environment, such as a cavern or wreck, that precludes making an immediate ascent?) In such situations, common sense must prevail.

☐ From the understanding gained during your entry-level Nitrox Diver training, you should know that, unless you have some-how managed, during the preceding 24 hours, to exceed a limiting PO$_2$ of 1.4 atmospheres, or accrue a total of more than 300 minutes of Actual Bottom Time (ABT), you are actually well within your overall oxygen limits.

☐ You should also understand that, although the IQ-600's ability to accurately monitor your exposure to oxygen no longer exists, it still treats your exposure to nitrogen as though you were breathing air. Thus, the No-Decompression Limits (NDLs) or mandatory decompression stop times it reports are, at worst, no less conservative than they normally would be. If you are breathing a gas mixture richer in oxygen content than air, this information may actually be more conservative than it normally would be.

What this means is that you can use the IQ-600's NDL or mandatory stop information to exit and ascend, and be no less safe, with respect to the risk of decompression illness (DCI), than you normally would be.

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Be aware, however, that the computer's ability to accurately track your exposure to elevated partial pressures of oxygen is now shot for the next 24 hours.

Another situation worth addressing would be one typically encountered by dive instructors conducting open-water training. Such training involves numerous back-to-back ascents and descents, with little opportunity to set FO_2 in between. Under such circumstances, users may choose to set their IQ-600s to air, thus eliminating the possibility that the computer will default between dives. In so doing, however, it is important to understand that—if breathing a gas mixture other than air—the computer is no longer able to accurately track users' exposure to elevated partial pressures of oxygen. This becomes something users will have to do so on their own.

Similarly, some divers may choose on occasion to set their IQ-600s to air, or to an FO_2 less than that of the gas mixture they are actually breathing, in a effort gain a safety margin in respect to the risk of DCI. Again, it is critical to bear in mind that doing so robs the IQ-600 of the ability to accurately track your exposure to elevated partial pressures of oxygen, and that the O_2 exposure information it displays will no longer be accurate.

All of the possibilities discussed here point out the need for one further word of caution. You should not rely on your IQ-600 as the sole means of tracking your exposure to elevated partial pressures of oxygen (PO_2s). Use either a second Nitrox-capable computer, or the tracking methods you learned as part of your entry-level Nitrox Diver training, to confirm that the oxygen-exposure information the IQ-600 provides in fact accurately reflects your overall O_2 exposure status.

2.09 PO₂/Time/Temp Mode

If, during the midst of a dive, you are curious as to the current PO_2 level, time or temperature, the IQ-600 can provide you this information.
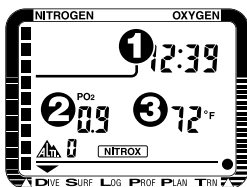

Figure 16: PO_2/Time/Temp Mode.

To enter this mode: While in Dive Mode, press and hold button **A**.

What you will see: Three new items will appear. These are:

1. **Current Time**—Displayed using 24-hour clock.
2. **Current PO₂**—This will vary, depending on depth and FO_2.
3. **Current Temperature**—Displayed in either Fahrenheit or Centigrade, depending on whether the IQ-600 is set to display data in Imperial or Metric units.

To exit this mode: Discontinue holding down on the **A** button. The IQ-600 will return to Dive Mode.

2.10 Log Mode

The IQ-600's Random Access Memory (RAM) can store and display data for up to ten dives. This makes it possible for users to make a series of dives, then later transfer key dive data to a separate log book, or upload it to a personal computer using the available PC software and interface.

To enter this mode: From Surface Mode, press and release button **B**.

What you will see: If your IQ-600 has just had its battery replaced, it will contain no dive data. Therefore, the Log Mode display will consist solely of horizontal bars. Otherwise, after pressing button **B**, the screen will appear as shown in Figure 16.
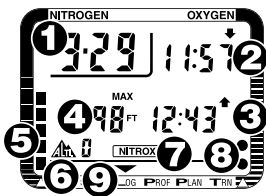

Figure 17: Log Mode (primary screen).

Initially, your IQ-600 will display data for the most recent dive. Pressing **B** again will cause the display to scroll backward to the next most recent dive. You can continue to press and release button **B** until you have scrolled back through all ten dives currently stored in memory. At this point, pressing **B** one more time returns the computer to Surface Mode.

Here is the data that appears on the IQ-600's primary display screen while in Log Mode:

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1. **Date**—The date of the dive.
2. **Start Time**—Time at which the computer first descended below 5 ft/1.5 m.
3. **Stop Time**—Time at which the computer last ascended above 5 ft/1.5 m.
4. **Maximum Depth**—The deepest point reached during the dive.
5. **Residual Nitrogen Bar Graph**—As it appeared at the end of the dive.
6. **Altitude Rank**—The rank in effect at the beginning of the dive.
7. **NITROX Symbol**—This will appear if the IQ-600 was set for an FO_2 of from 22 to 50 percent, or if it was in default during the dive.
8. **Oxygen Limit Index (OLI)**—As it appeared at the end of the dive.
9. **Mode Indicator**—This points to **L**OG.

If you press and release button **A** while in Log Mode, an alternate display screen appears, as shown in Figure 17.
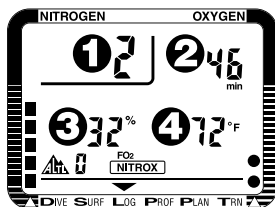

Figure 18: Log Mode (alternate screen).

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This alternate screen displays the following new information:

1. **Dive Number**—This indicates whether, on the date in question, the log data displayed is for dive number 1, 2, 3, etc.
2. **Actual Bottom Time**—This includes any safety stop or mandatory decompression stop time.
3. **FO$_2$ Setting**—This appears the same as it would while in Dive Plan Mode.
4. **Water Temperature**—The water temperature measured at the deepest point during the dive.

While the alternate Log Mode display appears, pressing button **B** will scroll through the ten dives stored in memory, just as it does when the primary display screen appears. Pressing button **A** again will return the IQ-600 to its primary Log Mode display screen.

Warnings you may encounter: Log Mode also provides a record of the warnings that may have appeared during the dive. These will appear largely the same as they did during the dive, and include:

☐ Ascent Rate Warning

☐ Decompression Stop Violation

☐ PO$_2$ Warning

☐ Oxygen Limit Index (OLI) Warning

☐ Out-of-Range Warning

To exit this mode: You can exit Log Mode in a variety of ways, including:

☐ **Go Diving**—The IQ-600 will automatically enter Dive Mode.

☐ **Return to Surface Mode**—You can do so by simply pressing and holding button **B** for at least three seconds.

☐ **Do Nothing**—If you take no further action, the IQ-600 will return automatically to Surface Mode within five to six minutes.

2.11 Profile Mode

Entering Profile Mode enables you to access minute-by-minute depth information from the most recent dives stored in memory. (This same data can be uploaded to a personal computer, using the available PC software and interface.)

To enter this mode: While in Log Mode, select the dive for which you want to obtain profile data. Then press and hold button **A** for at least five seconds.
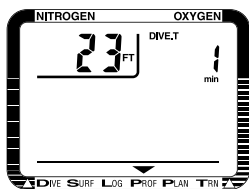

Figure 19: Profile Mode.

What you will see: When you first enter Profile Mode, you will see a depth value and a dive time of 1 minute. This tells you what depth the IQ-600 was at, one minute into the dive in question. The Mode Indicator will point to the word **P**ROF.

By pressing and releasing button **A**, the display will advance to the depth value for the second minute of the dive. Repeating this step will take you through the entire dive profile in one-minute intervals.

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To exit this mode: You can exit Profile Mode in a variety of ways, including.

☐ **Go Diving**—The IQ-600 will automatically enter Dive Mode.

☐ **Return to Log Mode**—You can do so by simply pressing button **B**.

☐ **Do Nothing**—If you take no further action, the IQ-600 will return automatically to Log Mode within five to six minutes.

2.12 Transfer (Upload) Mode

If you have purchased the optional personal computer software and interface for the IQ-600, you will need to be able to access Transfer Mode to upload data from the IQ-600 to your PC.

To enter this mode: While in either Log or Profile Modes, press and hold buttons **A** and **B** for at least five seconds.
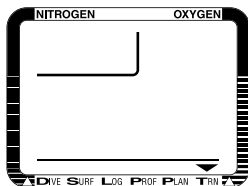

Figure 20: Transfer (Upload) Mode.

What you will see: Upon entering Transfer Mode, the only thing you will see is the Mode Indicator pointing to the word **TRN**. At this point, attach the personal computer interface to your IQ-600 and upload data to your PC, following the instructions supplied with the software and interface.

To exit this mode: You can exit Transfer Mode in a variety of ways, including..

☐ **Go Diving**—The IQ-600 will automatically enter Dive Mode.

☐ **Return to Log Mode**—You can do so by simply pressing and holding buttons **A** and **B** for at least five seconds.

☐ **Do Nothing**—If you take no further action, the IQ-600 will return automatically to Log Mode within five to six minutes.

3.00 Additional Cautions and Warnings

You now know most of what you need to get started using your IQ-600 in as safe a manner as possible. There are a few more things we need to cover, however, before you take your IQ-600 into the water for the first time.

⚠ CAUTION

Before using your IQ-600, read the following points and follow the recommendations they provide. Failure to do so could result in **damage to or loss of equipment, serious personal injury** or **death**.

3.01 General Handling

☐ Do not store the computer in hot and/or humid environments. The pressure transducer is sensitive to both heat and humidity. If impaired, it may cause display of incorrect altitude or depth data.

☐ When in hot and/or humid environments, dip the computer in water for several minutes to cool it to room temperature before using it. Similarly, allow the computer to completely warm to room temperature if it is cold and, again, do not take it under water immediately after doing so. Failure to follow these instructions may result in damage to the IQ-600.

☐ The IQ-600's Liquid Crystal Display (LCD) may darken if left in a hot environment (such as on a car's dashboard). It will return to normal once allowed to cool; however, extensive exposure to heat may shorten LCD life.

☐ Be aware that weather-related changes in air-pressure can cause incorrect display of altitude settings. Be sure to check indicated altitude settings against actual altitude before use.

☐ Other than for battery replacement, following the procedures outlined in this manual, the IQ-600 is not to be disassembled by anyone other than TUSA or its authorized dealers. Unauthorized disassembly will violate the warranty.

☐ If the IQ-600 does not appear to be functioning properly—in any manner—**do not** use it to dive. Return it to your authorized TUSA dealer for repair.

3.02 Battery

☐ All IQ-600 functions may cease within two to three days of the Low Battery symbol first appearing. Always have low batteries replaced promptly.

☐ A depleted battery that is left in a IQ-600 for a long period of time may leak. Again, have batteries replaced promptly.

3.03 While Diving...

☐ Check battery level prior to diving. Remember the computer will not enter Dive Mode if the Low Battery symbol appears.

☐ Do not "push" the No-Decompression Limits (NDLs). Make safety stops before ascending. If you accidentally exceed the No-Decompression Limits, make your decompression stops longer than those indicated. Check your breathing gas supply at all stop depths.

☐ Remember that the IQ-600 does not monitor breathing gas supply. You must monitor this yourself, on every dive, using a submersible pressure gauge or equivalent device.

☐ Do not rely solely on this—or any other—dive computer. Take a back-up dive computer or tables (along with a separate means of monitoring depth and dive time).

☐ Be aware that the IQ-600 makes assumptions regarding residual nitrogen based on altitude settings. Avoid making abrupt changes in altitude following a dive, as doing so may be very dangerous.

4.00 Care and Maintenance

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

☐ Rinse the IQ-600 thoroughly in fresh water following every dive.

☐ Do not use cleansers, chemicals or solvent to clean the IQ-600. Use a soft cloth to gently wipe dirt or water stains from the computer.

☐ The glass display may be damaged (and its water resistance impaired) if exposed to: solvents such as alcohol or gasoline; cosmetic products such as hair spray or liquid soaps; alkaline substances; aromatic hydrocarbon solvents; and, halogenated hydrocarbon solvents.

☐ Store the IQ-600 in a cool, dry location. After diving, wipe the computer dry and store it in a location separate from other damp items.

5.00 Warranty

5.01 Two Year Limited Warranty

☐ TUSA warrants that TUSA Scuba dive computers purchased from authorized TUSA Scuba dealers shall be free from defects in materials and workmanship under normal sport, skin and scuba diving use and with proper maintenance and care for a period of two (2) year from date of original purchase. Under this limited warranty, TUSA will either repair or replace, at its sole option, any original equipment or parts that fail to perform as intended. When this limited warranty is in force, it covers the cost of necessary replacement parts. Labor charges are not included and must be paid by you.

☐ You must save the original purchase receipt. It is proof of when the dive computer was purchased.

☐ This limited warranty applies only to the original purchaser and is not transferable. TUSA makes no warranty or representation regarding the performance of any products used in conjunction with TUSA's products.

☐ This limited warranty applies only to dive computers sold through authorized TUSA Scuba dealers. Authorized TUSA Scuba dealers do not sell dive computers through mail order.

☐ This limited warranty shall be void if the dive computer has been misused, abused, altered, neglected, lost, or changed. The warranty applies only to normal sport, skin or scuba diving use.

☐ This limited warranty shall be void if the product has been modified, or if repairs are performed by anyone other than an authorized TUSA Scuba dealer.

☐ Equipment in question should be returned, prepaid, to your authorized TUSA dealer, along with proof of purchase.

☐ This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

☐ If you have any questions concerning the Two (2) Year Limited Warranty, please address them to:

Customer Relations
TUSA
2380 Mira Mar Ave
Long Beach, CA 90815
U.S.A.
www.tusa.com

5.02 Disclaimer/Limitation of Remedy

Some states do not allow limitations on how long an implied warranty lasts or do not allow exclusion of incidental or consequential damages, so the following limitations or exclusions may not apply to you.

TUSA expressly limits any and all dive computer warranties, expressed or implied, to the two year term of the limited warranty as set forth above. All remedies are waived unless claim is made within the applicable twenty four (24) month period.

Your remedies are limited to those contained herein and are in lieu of all other remedies, whether based on breach of warranty or contract, negligence, strict product liability or other tort. TUSA specifically disclaims liability for any consequential, special or indirect damages arising out of the use of your dive computer.

5.03 Locating Service and Support

Your authorized TUSA Scuba dealer that sold you this dive computer will be able to assist you with additional questions regarding product operation, warranty and service. Please take a moment to record your authorized TUSA Scuba dealer's name, address and telephone number here, if it is not already noted.□

Place dealer stamp here

Service Record – Retain with IQ-600

Date Purchased _____

IQ-600 Serial Number_____

Where Purchased_____

City _____

State_____

Name _____

Address _____

City _____

State, Zip _____

Other _____

Insp. Date _____ Dealer Name _____

Insp. Date _____ Dealer Name _____

Insp. Date _____ Dealer Name _____

Insp. Date _____ Dealer Name _____

TUSA