IQ Dive Computer User's Guide

Contents

Installing the IQ Dive Computer App

- Connect your watch your PC
- Wait for the watch to appear as a USB drive on your PC
- Copy the desired version of the app into the \GARMIN\APPS folder
- Eject the watch's USB drive
- Disconnect the watch from your PC

Diving with the IQ Dive Computer

Using the IQ Dive Computer app is as simple as launching the app on the surface or dive boat and descending into the water. There is no need to press any buttons after opening the app. When you enter the app you will see the page shown in Figure 1. Also shown in the figure are the button names that will be used throughout this guide.

Figure 1: Diving page with button names

This is called the **diving page** and it is the only page displayed while diving. The Fenix 3 buttons are not rated for high pressure button presses and may fail at depth if pressed. For this reason, there is only one diving page and all app functionality while on the water is automatic.

When the app starts it reads the surface pressure and goes into **surface mode**. The diving page will not display any information while in surface mode. The app will go into **immersion mode** when the diver descends deeper than 3 feet (1 meter) of water. The app will go back to surface mode when the diver ascends to a depth shallower than 1.5 feet (0.5 meters).

The current layout of the diving page includes a compass bezel and five data fields. The top center field displays the current depth. The top left field displays the maximum depth. The top right field displays the ascent/descent rate. The middle field is **deco field** and displays either the no-decompression time or the decompression ceiling. The bottom right field displays the total immersion time.

The deco field displays the **no-decompression time**. No decompression time is the amount of diving time left before the diver is required to perform a decompression stop. When the no-decompression time is exhausted, the deco field will begin to display the decompression ceiling, which represents the shallowest depth that the diver is allowed to ascend to. **Warning: Do not perform decompression dives unless you are certified to do so.**

Multiple Dives

The app keeps track to inert gas saturation levels that account for inert gas on-loading while diving and off-loading while on the surface. Saturation levels are then taken into account when computing decompression information during your next dive or when using the dive planning feature. You can even exit the app while on the surface. In fact, we recommend doing so to preserve battery life. When the user exists the app, the saturation levels and current time are stored in persistent storage. When the app starts again, saturation levels are updated based on the elapsed time and ambient pressure.

Surface Mode Operation

When the app is in surface mode, the watch buttons can be used to navigate to other features of the app. The app interface is composed of multiple **base pages** that the user can cycle through using the **[Next]** or **[Prev]** buttons. Each base page represents a feature or functionality of the app. Figure 2 illustrates the base pages currently available. The **[Select]** button is used to enter the feature associated with the currently displayed base page. The **[Back]** button is used to go back to the base page. The application will exit if the **[Back]** button is pressed in one of the base pages. The **[Back]** button is disabled while in immersion mode to prevent the user from accidentally existing the app while diving.

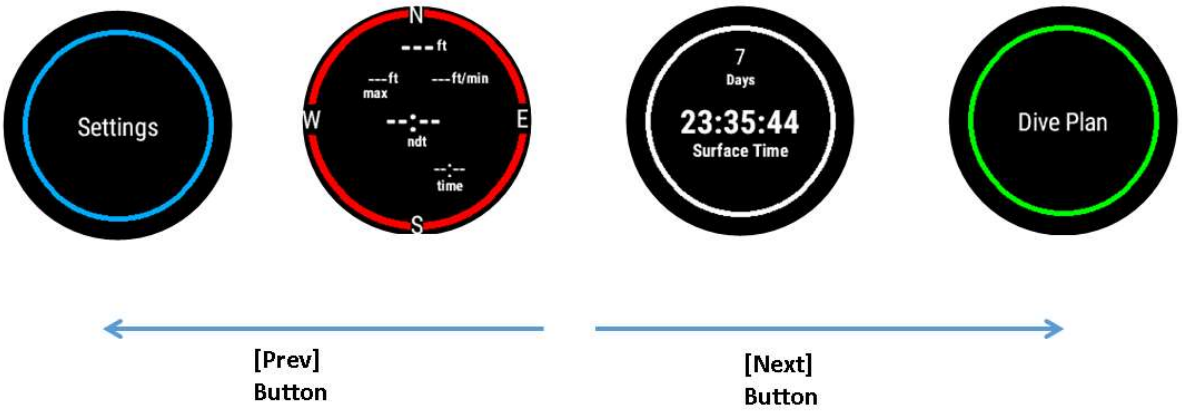

Figure 2: Base Pages

Surface Time

The surface time base page displays the elapsed time since surfacing from the last immersion.

Figure 3: Surface time base page

Dive Planning

Dive planning displays the current no-decompression dive times available at different depths. The no-decompression times are computed according to the current saturation levels and surface pressure. When surfacing between dives, the no-decompression times will gradually increase as surface time goes by. Figure 4 shows the **dive planning page**. The top field shows the selected depth for which the no-decompression time should be displayed. The bottom field displays the no-decompression time for the

selected depth. The **[Next]** and **[Prev]** are used to select different depths in increment of 10 feet (3 meters).

Figure 4: Dive Planning Page

Settings

The settings menu is displayed by pressing the **[Select]** button while in the settings base page. The following sections describe the different options currently available in the setting menu.

Simulator

The simulator menu allows the user to enable or disable the simulator mode. Please refer to the Simulator Model section for details about this feature.

Nitrox

The Nitrox menu allows you to select the percentage of Oxygen (PO) in your Nitrox mix. . A PO of 21% is displayed as “Air”. The currently selected PO is displayed above the Up arrow.

Figure 5: Nitrox Settings

Units

The units menu allows the user to select between feet and meters for all fields displaying depth information, including current depth, maximum depth and ascend/descend rate.

Dive Recording

Dive recording consists of saving an immersion's dive data as an activity that shows up on Garmin Connect (http://connect.garmin.com) web site or the Garmin Connect mobile app for iPhone or Android. It is similar to activities recorded by built-in sport apps such as running or cycling. A Dive activity includes the dive profile, maximum depth and location of the dive site. A dive profile is a graph that displays depth as a function of time. The dive location will be displayed on a map. A dive activity also includes information that is common any type of activity, such as date, time, and duration (dive time). Dive recording requires no user intervention. It is completely automated. To ensure that the dive site location is recorded, make sure to start the app at least a minute or two before descending to allow the GPS to acquire a signal.

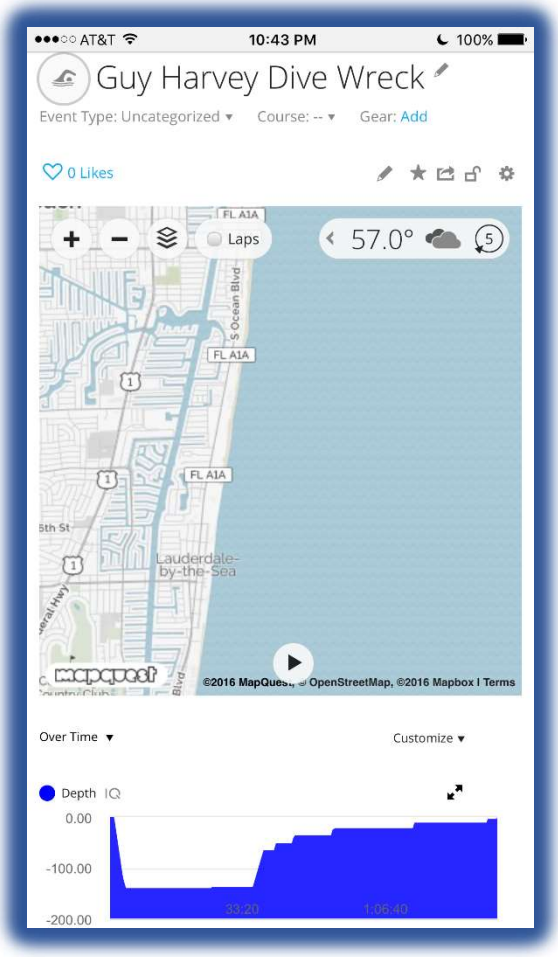

Figure 6: Dive recording as show in Garmin Connect mobile app

Recording custom data such as the dive profile or maximum depth requires a special app installation procedure available only to customers that have purchased the release version of the app. Please contact us for instructions.

Simulator Mode

The simulator is an integrated testing feature that allows users to experiment with the dive computer without having to wait until their next diving trip. When the simulator is turned on, the simulated surface pressure will be set to sea level and tissue saturation levels will be reset accordingly.

When the diving page is entered in simulator mode, The **[Next]** button will start the simulation. Every subsequent press of the **[Next]** button will increase the descent rate by 15 feet per minute. Every press of the **[Prev]** button will decrease the descent rate by the same amount. When the ascent rate is zero, every subsequent press of the **[Prev]** button will increase the ascend rate back to the surface by 15 feet per minute. Ascent rates are printed as negative numbers. Note that in simulator mode the **[Next]** button will no longer cycle forward through the base pages of the apps. The **[Prev]** button will only cycle backwards when the depth is zero. This means that the only way to exit the diving page while simulating an immersion is to use the **[Prev]** button to ascend back to the surface, then press the **[Prev]** button one more time to go to the previous base page.

Don’t forget to turn the simulator off or exit the app before your next dive. Otherwise, the app will not display real-time information while diving. The app always starts with simulation mode tuned off.