

Gear Review: DIVESOFT Freedom Dive Computer

By: Mazimages Underwater Photography



Over the few years that I have used close circuit rebreathers (CCRs), I had the opportunity to try a few different brands of dive computer. I believe that I have found the computer that in my opinion is the best on the market. Divesoft is a computer manufacturer based out of Czech Republic. They are relatively new to the technical diving market when compared to the more reputable and well known brands such as Shearwater. In this gear review I hope to share some of the features that make this computer special compared to other brands.

Upgradable

First and foremost what I like about this computer is that it is truly 'real' computer that runs on an operating system similar to your home desktop computer. But what is truly

amazing about it, is that this computer is user upgradable. This means the user has the ability to upgrade their computer as they develop their diving skill and training. They do not need to invest in a full trimix computer while diving with recreational nitrox.

Divesoft offers six different software configurations: Basic Nitrox, Advanced Bottom Timer, CCR Bottom Timer, Advanced Nitrox, Full Trimix, CCR computer. All of which have the same hardware and only the installed software is different.

The computer cost around 438 EUR (\$630 CAD) for the Basic Nitrox version. For only 794 EUR (\$1140 CAD) you can get the advanced CCR computer. This price also includes the sensor cable that is used to connect the computer to your rebreather. A bargain compared to other competitors. The user is essentially purchasing one computer. The computer can be upgraded to any of the configurations mentioned above by purchasing an upgrade.

Let's stop and think about this concept! Ask yourself how many computers and bottom timers did you purchased since your basic open water course. How many times you which you could just upgraded your computer as you developed your dive training?

With other brands such as Shearwater you have only two options: Trimix computer (\$1000) and CCR Trimix computer (\$1800). The user can't not purchase the Trimix computer and upgrade

to CCR version with external ppO2 measuring capability. Recreational divers have to purchase the Trimix computer and spend the money for it.

Batteries

Another feature I like about this computer is that it has factory sealed researchable batteries. No more purchase of batters or chance of flooding the battery compartment. It has a number of features which will enable the user to prolong the battery duration during a dive. For example, the screen can be turned off during the dive while the computer is running in the background and while all alarm including the vibrating alarm are active to warn the diver. When an alarm is initiated the screen turns on, the vibrator will let the diver know to look at the screen and the screen displays the alarm.

Pre-dive screen

When the computer is booted, the first screen presented is a pre-dive screen which shows the user information such as date, time, surface time, maximum altitude the diver can ascent to and the no fly time.



computer senses the pressure and initiate the 'default' dive mode.



The dive start menu allows you choose the type of diving you like to do. This is very convenient because to change the dive mode in shearwater you must go through setup menu. On the Freedom you can change the modes on the go.



After the type of dive is selected, the user is presented with start dive settings.

I recall once using my Petrol computer during a deco dive and the computer was asking me to change to a gas that I didn't have on me during dive. I realized that I had programmed the gas in computer but forgot to turn it off for the subsequent dive.

What is really interesting is that Divesoft will list all the mixtures that are currently turned on so that user has the chance to see the mixtures before starting the dive. If a mixture is not going to be used on the dive and it is listed, the user can go back and turn off the mixture so that it cannot be used in the ascent gas switching algorithm. This check list also forces the user to evaluate the GFs are set correctly.



Dive Mode

Once the default settings are confirmed, the computer will show the default dive screen.

Vibrating Alarms

Freedom has a built in vibrator that is strong enough to be sensed through the thickest drysuits. This feature allows warning to be communicated to the diver while the diver is task loaded. For example while taking pictures. The vibrating alarm is similar in a sense to a heads up display used on many rebreathers. Alarms are user programmable. The user can set ppO2 alarms, depth alarms, ceiling alarm, gas switch alarm, remaining soda lime canister time alarm..... Anything you want the Freedom to warn you while you are diving can be programmed in.

Pre-dive Check List

The feature I really like about this computer is that it has a pre-dive check list. The pre-dive check list can be initialed by pressing dive start menu. Off course if you jump in the water the



The default dive screen is very intuitive and very easy to understand. Every bit of information is well organized. The screen can be optimized to user's needs. While in the dive mode the user can toggle between other user customized screens which if required can be turned on or off. There is even a live depth plot which shows the diver's profile during the dive.



The user can select and display information that is relevant to them in large or small fonts.



These fonts are large enough for someone to read them even without a dive mask underwater!



The ppO2 and the millivolt for oxygen sensors can easily be displayed on well organized screen with grids separating each parameter.



Navigation through the menu while diving is wonderful: full menu screen while important information such as depth, ppO2 and time are displaced with small fonts on the bottom.

Nitrox & Helium Analyzer



Another feature of this computer is its ability to become a nitrogen analyzer! The user simple has to purchase a \$100 cable. This feature is available on all configurations including the bottom timer version. The Freedom also has the ability to hook up to a Helium cell for

analyzing trimix. Current models do not have this capability. However these computers are currently being used on the Liberty CCR rebreather which has two helium cells. I suspect in the future the manufacturers will unlock the helium analyzing capabilities to be used by all.



Deco Games

There are even games available to entertain you for those long boring deco times.



Dive Simulation

There is even a feature build in that will allow you to simulate a dive. The dive can be planed and simulated before actually getting into the water. The simulation allows for bailouts, switching gases and so on.