

# Computer Cressi Newton

There's something special about Italian designer products. They're generally stylish, simple and elegant but, as with all fashion items, chic and functionality don't always go hand in hand.

Dive-gear maker Cressi has produced its own wristwatch-style dive computer, and at first glance seems to have the balance right.

It's called the Newton, and I was sent one to try out over a series of dive-trips in the Caribbean, Far East and Red Sea.

## The Hardware

The Cressi Newton is powered by a single user-replaceable CR2430 button-type lithium battery and has a 48mm-diameter body with a 35mm display set behind a mineral glass face.

The body and strap are crafted from reinforced rubberised ABS plastics with a stainless-steel bezel and buckle and stainless screws to anchor the strap to the main body. The computer is depth-rated to 150m.

The display uses oversized digits on a backlit dot-matrix screen with functions and menus accessed via a four-button interface set at 2, 4, 7 and 9 o'clock positions. The Newton has an all-black colour scheme with a further choice of grey, pink, yellow or blue accents.

## The Software

The Cressi Newton is an air, nitrox and freediving-compatible instrument incorporating the new Cressi RGBM algorithm created through collaboration between Cressi and Bruce Wienke.

This algorithm is based on the Haldane model, integrated with RGBM factors for safer deco calculations in repetitive multi-day dives.

The software allows switching between two hyper-oxygenated gas mixes (21-99%) selectable during the surface or dive phase, with options to set the O<sub>2</sub> partial pressure between 1.2 and 1.6 bar.

A graphic CNS O<sub>2</sub> toxicity indicator allows for O<sub>2</sub> tracking during repetitive nitrox dives over multiple days.

Dive phase alarms are both visual and auditory and warn of overfast ascent rates, decompression obligations, PO<sub>2</sub> and CNS O<sub>2</sub> loadings.

The computer can be used every day as a 12- or 24-hour timepiece with the addition of a precision stopwatch and an alarm clock with the option of imperial or metric units.

The menus can be locked to deactivate the dive programs and prevent needless alarms or unwanted battery consumption while snorkelling or swimming.

Dives are logged in the computer's memory with a maximum of 70 hours or 60 dives complete with the profiles for each dive, and a history function saves all dives. There is also a dive-planning function with decompression curve scrolling to take into account the nitrogen tissue-loading of previous dives.

## In Use

The first thing I noticed was that the face of the Cressi Newton appeared to be larger and less obstructed than other wristwatch-style computers I have used in the past. The contrast on the screen created crisp and legible digits, giving my ageing eyes a chance to read and digest the information on show quickly.

I soon got used to the layout of information on the dive-mode screen, ascertaining current and maximum depth, no deco times, dive duration and water temperature with just a glance.

The display shows maximum depth in the top right-hand segment. This changes to deco information, showing a depth ceiling and duration of stop if the no-stop times are exceeded, or safety-stop info with a 3min countdown after ascending shallower than 5m on recreational dives. This critical information is shown using one of the smallest fonts displayed on the screen, although I could read it easily.

The ascent rate is displayed as a three-dot indicator in the centre of the screen. Exceeding 12m/min results in all three being shown, along with an audible warning.

The dives I conducted while testing the Newton were all single-tank recreational dives; some were on air but the majority were done using nitrox mixes between 29 and 34%.

I didn't need to change gases under water, so can't comment on the ease of this switching operation.

The four buttons include a mode button (top right) to access the menus using long or short presses. The bottom left and right buttons scroll the menu functions up or down and the top-left button activates the screen's backlight. A longer push of this button shuts down the display to reduce power consumption by turning off the time and date (as long as the no-fly time has expired).

The default safety factors incorporated in the algorithm gave sensible no-stop times without being either too conservative or too restrictive. There is a facility to adjust these safety factors depending on conditions or personal risk factors that may lead to a greater risk of decompression illness.

By adding a more conservative setting, no-stop times will be reduced accordingly.

### **Conclusion**

I found the Cressi Newton to be a practical piece of diver jewellery, and one of the most important features for me was the ability to change the battery myself without having to send it back to the maker.

The display was clear and easy to read, with critical information arranged logically on the screen.

The crisp digital fonts enabled me to digest information quickly, leaving me to enjoy the underwater vistas instead of spending unwanted time gawking at the screen.

Cressi has done a good job with this electronic gem. It won't appeal to those who use helium-based gas mixes or rebreathers, but for everyone else it's an excellent blend of Italian style and practical function.

**PRICE** £379

**MODES** Air, Gauge, Nitrox

**NITROX** Two gases, switchable

**O2** 21-99%

**PO2** 1.2-1.6 bar

**ALGORITHM** Cressi dual-mixture RGBM

**SIZE** Case 48mm, screen 35mm

**POWER** User-changeable lithium CR2430 battery.

**ALARMS** Visual and audible

**CONTACT** [www.cressi.co.uk](http://www.cressi.co.uk)

**DIVER GUIDE**