

BIO-350 Dive Computer

FEATURES

- **Very Easy to Use** icon based user interface
- **Choice of 8 decompression algorithms:**
 - **Buhlmann ZHL16C90**
 - **UDM18** for extreme dives
 - **DCAPMM11E6** to match rebreathers
 - **DSAT RDP** to match third party computers
 - **Comex-He** for long trimix and heliox dives
 - **DCIEM** for conservative decompression planning
 - **True VPM-B** for intermediate depth technical diving
- **Conservatism (Gradient Factors)** selectable on all Haldanean algorithms with 30/70 as default.
- **Functional safety certified to IEC EN 61508**
- **Nitrox, Trimix and Heliox enabled.**
- Up to **10 active gases**, with full tank sender integration.
- **350m (1,150 ft) depth limit** and tested to 700m (2,300 ft).
- **No Lock-Out:** handles decompression violations automatically.
- **Salinity, cold water and overhead environment compensation.**
- **Multi-lingual:** English, Danish, Finnish, French, German, Italian, Japanese, Mandarin Chinese (Pin-yin text), Norwegian, Portuguese, Russian, Spanish, Turkish and others.
- **UDDF-4 Dive logs with 1mm resolution, 1 sec reporting.**
- **Simulator available, running same SPARK Ada code as BIO-350.**
- **4GB Log can stored a lifetime of dives, and Dive Lab™** provided with every computer has full SQL database to search, analyse and display.
- **Powermat® Inductive Charging** and USB
- **Bluetooth data upload and download**
- **Rechargeable** Lithium Phosphate provides 35 hours of diving and 3 months of standby. Charged using USB cable.
- **Rebreather Support** for SCR, PaSCR, mCCR, eCCR with both automatic and manual PPO2 setpoint changes, bailing out onto any of the four open circuit gas mixtures, and includes RF integration of actual PPO2 and CO2 data.
- **RF PPO2 and CO2 monitoring fitted as standard**, for iCCR pods. Hardwired PPO2 pods also available.
- **Big, Bright displays**, choice of AMOLED and sunlight readable with large characters, easily read underwater.
- **Size curves to fit snugly on the arm:** 86mm x 85mm x 27mm on arm (Curved, 36.3mm max), weight 280g.
- **Very Tough:** aircraft aluminium housing over-moulded in soft touch thermoplastic, 9mm thick glass.
- **Manufactured in Scotland** in a ISO 9001, ISO 14001 and IEC EN 61508 certified process.
- **Lifetime guarantee.**



BENEFITS

- **Ease of Use** means that a user manual is not needed to access all of the features. The intuitive icons allow fast navigation and display of all options.
- **Powerful** means it contains all the features to cover the widest range of sports diving, spanning a career. Special versions cover military and commercial diving.
- **Functional Safety certified** means it is safe, implements every algorithm correctly, and when things go wrong in a dive, the computer is there with you working out what decompression you need to correct matters. There is no lock-out.
- **Lifetime guarantee** means that so long as it is not deliberately abused, we will repair or replace it should it fail. We will transfer the guarantee to new owners, subject to a service being carried out.

SAFE, CERTIFIED and COMPLIANT

The BIO-350 is the first dive computer to meet any recognised Functional Safety standard: in this case, it meets the “Gold Standard” of functional safety, IEC EN 61508, to SIL 2 for the hardware and SIL 3+ for the software.

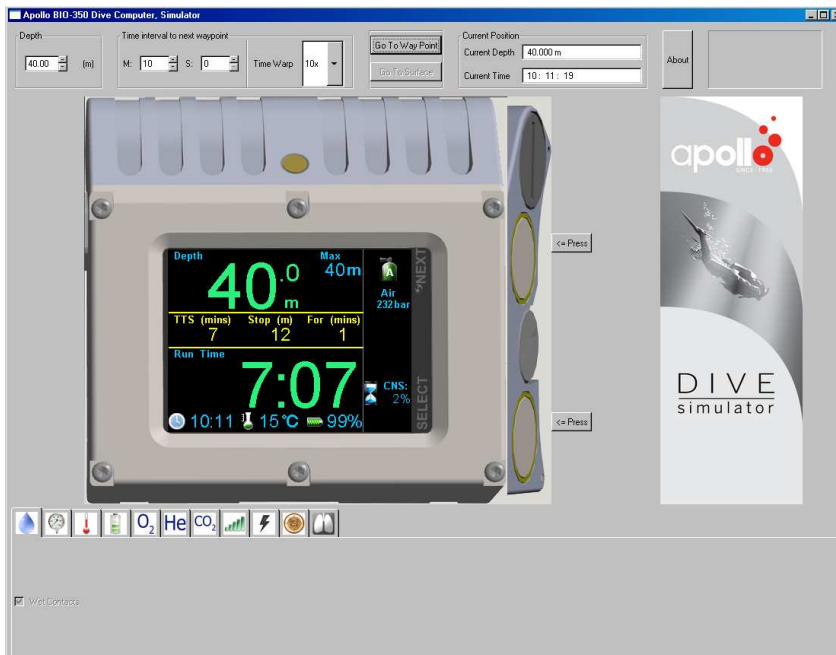
All the software is programmed in SPARK Ada, a specialised language for safety critical systems, used in the Joint European Fighter Jet, for nuclear reactor control, for air traffic control systems and other high integrity systems. This itself is a major departure from the hand coding in assembler, C, C++ in the past.

The BIO-350 has been tested to the highest standards, including all relevant EMI standards (EN61000 and FCC), EN13319:2000 for dive computers, EN 14143:2013 for the PPO2 display.

All decompression algorithms have been fully formally verified, to ensure that the algorithm being run is exactly that specified. The error rate allowed is 1 in 10,000 lines of code, compared to error rates of between 1 in 10 and 1 in 100 for normal commercial grade software.

These safety features extend to the case, which is in solid aluminium with a thermoplastic over-mould, and display, providing toughness.

Simulator and Dive Lab™ software



The full SPARK Ada code that runs on the BIO-350 is also available as a simulator to certified instructors. It is available for the MacOS, Linux and Windows systems.

All BIO-350 dive computers are supplied with the Deep Live Dive Lab software, free of charge: this is the most powerful dive analyser available. All data is stored in a full SQL database, for fast searching of all parameters – these can be plotted on charts, tabulated and compared. Data from multiple computers can be combined.

The dive logs are in UDDF 4.0 format.

Logs can be downloaded, or uploaded to take on an existing decompression loading, via the Bluetooth interface, or via USB.

Offered under agreement with Apollo Sports.

What you get

1. BIO-350 dive computer
2. Velcro straps: 2 off
3. Alternative shock cord strap, 1 off
4. Waterproof carry case
5. Powermat® charger¹
6. USB Cable
7. User manual
8. USB Stick with Dive Lab software for Mac OS, Linux and Windows platforms.

¹ Powermat is a trademark of Samsung Electronics Co., Ltd.