



XCCR

Powered by **SHEARWATER**

CE certified

Expedition Grade Rebreather

DESIGNED AND MANUFACTURED BY



Powered by

Main features

- * Durable and user-friendly design
- * Variable device connections
- * Expandable & upgradable
- * Variable configuration
- * Integrated HP & CO2 sensors
- * Reliable & simple
- * CE certified

XCCR is an expedition grade rebreather developed using years of our experience with CCRs with respect to the needs of divers and explorers.

XCCR has compact and ergonomically designed hardware facilitates easy tool-less assembly and maintenance. Two canister models are available - made of marine grade hard anodized Aluminum or optionally made of Delrin.



Full size **Radial Scrubber** guarantees min. 6 hour duration. There are optionally also smaller sizes - Middle and Hobo.

XCCR is standardly equipped with 3L/232bar (or 300bar) cylinders and is capable to use **variable cylinder sizes** from 2L up to 7L, equipped with quick release fasteners for easy cylinder replacement.

There is compact Diluent manifold with up to 8 outlets and Oxygen manifold with up-to 5 outlets.

Off-board gases can be connected directly via Swagelok QC6 Connectors.

XCCR Head is designed to have advanced air flow paths and eliminate condensation on the O2 cells.



Shearwater SOLO/OBOE board is built in the hermetic compartment inside the Head. It serves ppO2 readings from three O2-sensors, setpoint maintaining, solenoid firing, HUD control, **CO2 reading, HP reading** on Oxygen and Diluent. If any fault on the controller or its cable is cut, the unit will still carry on working and maintain the ppO2 up to surfacing.

The Shearwater electronics has very **low power consumption** and provides long term battery life.

The Primary controller and HUD communicate via DiveCAN, a strong and reliable digital bus.

They are connected to the head via specially developed watertight **X-connectors** made of AISI 316 stainless steel and rated up to 300m / 1000ft.

Three O2-sensors and one built-in CO2 sensor are placed in the easily removable cartridge making it easy to dry up, check or replace the sensors. ppO2 readings are electronically separated one from another. In the event of a short circuit on any sensor or cable, this will not affect ppO2 reading on the remaining sensors or other computer.

Two independent replaceable **Li-Ion batteries 18650** are located in the sealed compartments on the head, out of the breathing loop. Battery #1 powers the solenoid, battery #2 powers the HUD. The controller has its own AA battery. The batteries ensure continuous operation of the unit for dozens of hours. You never have to miss a dive due to battery problems.

User serviceable low power Solenoid of AISI 316 Stainless steel, rated up to 17 bar, equipped with built-in **O2-filter** and swivel fitting.



Primary controller

Petrel2 DiveCAN ppO2 controller with additional features: High pressure readings from tanks, CO2 reading, Stack-Timer as well as Digital O2 sensors.

The Primary controller is connected to the head by the watertight X-connector rated up to 300m. The firmware is easy upgradeable via Bluetooth.

The Shearwater DiveCAN HUD is a compact 3x 4-LEDs display showing ppO2 readings from each sensor. The HUD is completely independent on the controller and is connected to the head by the watertight X-connector.

Head Up Display



Breathing loop

Back-mounted or optionally Front-mounted Counterlungs. ADV is integrated in the low profile T-piece, equipped with a compact Shut-off valve. Easy to use click bayonet locks on the whole breathing loop. **BOV Shrimp** as standard (our long time tested design).



Secondary computer

The unit can be configured with a secondary computer like NERD (DiveCAN or analog) or Petrel2 computer (DiveCAN or analog) or eventually any suitable 3rd party computer. A secondary computer is connectable via cable with the watertight X-connector.

Other features

XCCR unit is tested up to 150m.