

LIBERTY ADVANTAGES

The Liberty in the Sidemount configuration demonstrates an entirely encompassed system with gas delivery systems fully enclosed within the system. The unit in Sidemount configuration weights ready to dive with shortened scrubber 22.8kg (50.3lb) thus making the unit optimal for travel and expedition.



The Liberty in the Sidemount configuration can work as an extreme bailout rebreather system and the electronics can be set to remain in a bailout configuration to monitor decompression obligations and maintain a preset PO_2 within the loop for when needed in a bailout situation.



The Liberty in a Sidemount configuration has one of the industries best work-of-breathing of any Sidemount rebreather while encompassing all gas systems on board the unit and maintaining a neutral trim orientation of the diver.

Divesoft, s.r.o.

Hálkova 2495. Roudnice nad Labem
413 01 Czech Republic
tel.: +420 416 857 057

www.divesoft.cz
www.divesoft.us
www.ccrliberty.com



TECHNICAL SPECIFICATION LIBERTY SIDEMOUNT UNIT



Dimensions	Length 800mm (2.62ft) - shortened scrubber, 880mm (2.89ft) - standard scrubber, Height 205mm (0.67ft), Width 220mm(0.72ft)
Weight	<p>Weight empty no cylinders: shortened scrubber – 12.9kg (28.4lb), standard scrubber 13.8kg (30.4lb)</p> <p>Weight empty with EUR cylinders: shortened scrubber – 19.2kg (42.3lb), standard scrubber 20.2kg (44.5lb)</p> <p>Weight ready to dive: shortened scrubber – 22.8kg (50.3lb), standard scrubber 23.7kg (52.2lb)</p>
Oxygen sensors	<p>4 in total (O₂ block is individually sealed)</p> <p>2 sensors for each control unit</p> <p>Sensor type: DIVESOFT R22D</p>
Helium sensors	2 Helium sensors – redundant method to calculate PPO ₂
Pressure sensors	<p>4 in total inside of head two for each side</p> <p>fine – low pressure – sea level, PPO₂ calibration, accuracy of depth data in shallow depth</p> <p>coarse – hydrostatic pressure – measures to 300m</p>
Solenoids	<p>2 in total – Interconnected with manifold</p> <p>Fed from left side O₂ inlet.</p>
Batteries	<p>2 Li-ion batteries 3,6V, 5,7Ah, individually sealed and tested to 600m</p> <p>Work time: 20hrs, Charging time: 8hrs</p> <p>Batteries equipped with OPV which allow to let the battery fluid flow outside the unit in case of failure.</p>
Computers	2 individually sealed and independent control units communicating with each other.
Handsets	2 handsets – Divesoft – redundant, waterproof connectors
Buddy display	On top of the head – red, green
Heads Up Display (HUD)	<p>Yes, red, blue, green, possibility of colorblind diver setting.</p> <p>Can show emergency, hypoxo, hyperoxy and PO₂ value display, PPO₂ coding by Smithers code</p>
Scrubber canister	<p>Type: Radial</p> <p>Size: SHORTENED - 2,5kg (5.58lb) – provides between 4-6 hours of runtime (compact size)</p> <p>STANDARD - 2,5kg (5.58lb) – provides between 4-6 hours of runtime</p> <p>EN 14143:2013 – stress test - 2 h 48 min at - 4°C, breathing 40 l/min, CO₂ production 1.6 l/min</p>

Type of Soda lime	Sofnolime 797 manufactured by Molecular Products
Oxygen cylinder	<p>Right side (diver wearing the unit) – exhaling side</p> <p>2 L steel cylinder, 105mm diameter / 200 bar</p> <p>USDOT approved for US Cylinders</p>
Oxygen cylinder valve	230 bar / M26x2 / DIN for USA / Burst Disk equipped for USA
Diluent cylinder	<p>Left side (diver wearing the unit) – inhaling side</p> <p>2 L steel cylinder, 105mm diameter / 200 bar</p> <p>USDOT approved for US Cylinders</p>
Diluent cylinder valve	230 bar / DIN G 5/8" / Burst Disk equipped for USA
Counter lungs volume	2 counter lungs with total approximate volume of 6L
Direction of breathing	Left to right (diver wearing the unit)
Frame	Titanium
Regulators	Apeks Flight
Depth rated	EN 14143:2013: 100m (330 ft), precision test: 350m (1,150 ft), Pressure test of all components: 600m (1,960 ft)
Oxygen control	3 setpoint ranges + High + Low + descent, can be switched to any range between 0.4-1.6 bar anytime during the dive
Oxygen warnings	0.3 bar (low) – 1.6 bar (high)

