

**Build check**Date: Build number#: Planned depth + site: 

- ☐ Analyse O2 tank:  %O2:  bar:
- ☐ Analyse Dil tank:  %O2:  %He:  bar:
- ☐ Install both tanks on the unit; check fixings correctly installed
- ☐ Connect regulators to tank valves

- ☐ Turn on Petrel and Nerd. Batteries OK?  Petrel V:  Nerd V:
- ☐ Cell milliVolts in air:  c1:  c2:  c3:  c4:  c5:
- ☐ Petrel SP = 0.7
- ☐ Fire solenoid 3x; external battery voltage > 6.5V  v:
- ☐ Petrel SP 0.19
- ☐ Check oxygen sensor life: youngest sensor is < 7 months old? If not add/replace sensor and mark date

- ☐ Check remaining scrubber  time/new:  If needed refill with fresh sorb
- ☐ Install moisture absorber in inhale lung, UNDER non-collapse tube
- ☐ Correctly install sensor grid and solenoid grid (ADV at 9 o'clock); check cable routing
- ☐ Install scrubbers; RMS arrows pointing up; "TOP" marker on exhale scrubber
- ☐ Check scrubber O-rings; clean sealing surfaces; grease if needed
- ☐ Close cover, screw hand tight

- ☐ Check breathing loop hoses:  
squeeze out any remaining liquid in loop (concertina);  
perform stereo check (non-return valves);  
check bite-piece, O-rings breathing loop, clean sealing surfaces, grease DSV if needed
- ☐ Install breathing loop on rebreather
- ☐ Wrap Nerd cable 3-4 times clockwise around loop (under)
- ☐ Attach hose protectors if used

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**Closed check**date: 

- ☐ Open O2; add O2 manually; pressure  bar:
- ☐ Turn on Petrel and Nerd. Batteries OK (>1.25V/3.30V)?  
 Petrel V:  Nerd V:
- ☐ Change Shearwater controller to set-point high; check solenoid fires 3x?
- ☐ External battery voltage > 6.5V  v:
- ☐ Change Shearwater controller set-point to 0.19
- ☐ Full O2 flush: 3 X / DSV in mouth / close DSV / re-open gap
- ☐ Shearwater Petrel calibrate OK? Cal mV: c1:  c2:  c3:
- ☐ Shearwater Nerd calibrate OK? Cal mV: c4:  c5:
- ☐ Close O2 / pressure drops OK (orifice)? Depressurise O2 line

- ☐ Open Dil; suck ADV; close loop
- ☐ Add Dil manually; pressure  bar:
- ☐ Overpressure test; OPV releases pressure?
- ☐ Inflate wing to max; check dumps
- ☐ Flush dil : PPO2 0.21 – 0.22 ?
- ☐ Close dil: pressure stays?
- ☐ Negative test (start)

- ☐ Analyse content of bailout tank(s):  
 Tank1: %O2:  %He:  bar:   
 Tank2: %O2:  %He:  bar:
- ☐ Check Petrel & Nerd: gasses correctly programmed in CC/OC
- ☐ Check bailout(s) regulators, hoses correctly assembled?
- ☐ Open bail-out(s): pressure? breathe, pressure remains?
- ☐ Close bail-out(s); check mushroom valve regulator by inhaling
- ☐ Check sufficient scrubber time for the next dive?  time/new:
- ☐ Negative test ok? Turn off Shearwaters

- ☐ Check suit inflate cylinder assembled & attached? Pressure  bar:
- ☐ Check umbilical lights connected to battery; suit heater cable connected; batteries charged?
- ☐ Check harness, crotch strap, gag strap, lights....  weight:

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