

Megalodon Pre-dive Check List (COPIS 1, 2 & 2.70)

Name _____ Date of Pre dive check _____

Rig ID # (inside bottom of can) _____ Sensor s/n # (1) _____ (2) _____ (3) _____

Battery install date. _____ Secondary battery (if installed) _____

Pre dive start time _____ end time _____

Initials **Caution, initial only after task is complete!**

- _____ 1. During assembly, inspect all parts for dirt, deterioration, damage, and lubricate as necessary.
- _____ 2. Charge O2 and diluent cylinders. Analyze Oxygen content of O2 _____% (98% minimum, otherwise calibration necessary)
- _____ 3. Install diluent and ambient pressure blocked O2 regulator first stages on their respective cylinders and mount the cylinders to Meg housing. Lay housing on its back with open end facing you.
- _____ 4. Analyze diluent and bailout/deco cylinders if using mixed gas. Diluent _____(O2/HE) Bailout/deco 1 _____ 2 _____ 3 _____
- _____ 5. Install BC, or Wings, back plate, and harness to Meg housing, secure tight with wing nuts.
- _____ 6. Mount top of counter lungs to top of back plate/harness. Inhale on right, exhale (with exhaust valve) on left.
- _____ 7. Insert counter lung moisture pads into counter lungs (optional).
- _____ 8. Install ADV (if equipped) to exhale CL, route and attach LP hoses and HP hoses with gauges and secure to CL straps.
- _____ 9. Elongate breathing hoses to remove any residual moisture and conduct breathing check on DSV to verify proper check valve operation. Inspect hoses for cuts, cracks, and deterioration.
- _____ 10. Install breathing loop assembly to counter lungs, close DSV.
- _____ 11. Record accumulated service time on scrubber CO2 absorbent. _____min or _____:_____ hours. Record expiration date on scrubber: _____
- _____ 12. Fill Scrubber canister, if fresh scrubber is required. Wipe any dust off of black mating ring. Deep dive=Fresh scrubber!
- _____ 13. Install moisture pads into tower spacer and install assembly into Meg housing, align the notches up and down.
- _____ 14. Install Scrubber canister into Meg housing, tabs in first, aligned up and down. Verify the fit to the tower spacer.
- _____ 15. Inspect sensors, wiring, sensor connectors and o-rings on base of head and sensor carriage.
- _____ 16. Install sensor carriage assembly, verify ease of install, do not force, verify that o-rings are still properly seated.
- _____ 17. Install sensor moisture pad into carriage, end flap toward center.
- _____ 18. Install sensor carriage lock plate, press down and twist locking plate until lock button snaps up.
- _____ 19. Positive pressure test the sensor carriage assembly.
- _____ 20. Negative pressure test the sensor carriage assembly.
- _____ 21. Inspect scrubber canister mating O rings on lock plate.
- _____ 22. Inspect head assembly for watertight integrity. (O-rings clean, damage free and components tight)
- _____ 23. Inspect battery housing(s) and verify connectors are hand tight.
- _____ 24. Power on the battery supplies. (as equipped)
- _____ 25. Check handset and secondary (if equipped) for low battery warnings, replace batteries if necessary. (COPIS 2.x has low BAT indicator engaged when battery voltage drops below 5.2v.)
- _____ 26. Verify display operation, backlight operation and display readings in air. If backlight will not operate, replace system battery as soon as possible.
- _____ 27. Calibrate system if necessary. Flood sensor carriage with oxygen using end cap and dust cap to capture, taking care not to pressurize the entrapped gas.
- _____ 28. Connect oxygen injection line to top of head. Turn on oxygen cylinder (slowly), verify flow from oxygen injection to be .5-1.0 LPM using a flow meter.
Flow _____ L/min Interstage Pressure _____ psi/bar
- _____ 29. Disconnect oxygen injection hose. Install head assembly to Meg housing. Attach breathing hoses to head, observe RH and LH threads.
- _____ 30. Route HUD (if equipped) wire around inhale hose and attach to DSV, bracket between HUD and nut.
- _____ 31. Re-inspect all hand tight fittings.
- _____ 32. Tighten to limit OPV in exhale CL (clockwise) and conduct positive pressure loop test. You should be able to blow through the OPV with lung pressure. Loop must hold pressure for 2 min.
- _____ 33. Open O2 and Diluent cylinder valves 1 ½ turns.
- _____ 34. Verify O2 and Diluent bypass (add) valve operation.
- _____ 35. Verify ADV operation.
- _____ 36. Record exact cylinder pressures. O2 _____psi/bar Diluent _____psi/bar.
- _____ 37. After 1 minute, close O2 and Diluent cylinder valves and wait 2 minutes.
- _____ 38. Record cylinder pressures and note that any changes are an indicator of leaks in the system and must be repaired prior to diving.
O2 _____psi/bar Diluent _____psi/bar.
- _____ 39. Perform negative loop pressure test. Verify 30 seconds no leaks. Listen for leaks around fittings. Note: regulators must be attached to a cylinder to prevent leakage through reg.
- _____ 40. Install O2 supply hose to head and turn on O2 cylinder valve.
- _____ 41. Breathe on unit, verify that PO2 display(s) track.
- _____ 42. Attach handset to loop until ready to dive. Turn off O2 until ready to dive.
- _____ 43. (COPIS-1 only) Turn off handset (menu button for 2+sec.) until ready to dive.
- _____ 44. **Note: If the performance of any of the above tasks is in question or the performance/operation of the CCR is in question, do not dive the unit. Consult the operation manual or contact ISC.**
- _____ 45. Fill in pre dive complete time above.

Remarks:

Diver signature _____ Date: _____