# TIBURON ASSEMBLY CHECK LIST
DiveCAN®

Name: _____ Date of pre-dive: _____

MEG ID: _____ Sensor S/N: (1) _____ (2) _____ (3) _____

| BATTERY<br>Service dates. | PRIMARY NETWORK<br>Solenoid battery 9V:<br>Handset battery: | SECONDARY NETWORK<br>HUD 3.6VSAFT:<br>NERD battery: |
|---|---|---|

**Table 1**

**Initials** **Note:** Initial **only** when task has been performed.

____ 1. During assembly inspect all parts for dirt, deterioration, damage, and lubrication.
____ 2. Charge $O_2$ and diluent cylinders if necessary. Analyze $O_2$ _____%. Diluent: _____%
____ 3. Analyze bailout/deco cylinders. ($O_2$/HE) Bailout/Deco 1 _____% 2_____ % 3_____%
____ 4. Mount cylinders and install $O_2$ and diluent 1st stage assemblies.
____ 5. Install BC bladder and install back plate harness assembly.
____ 6. Mount counter lungs to back plate assembly. Inhale on right and exhale on left.
____ 7. Record accumulated service time on $CO_2$ absorbent canister: ____ min. Expiration date on CO2 keg:_____
____ 8. Fill scrubber canister if fresh scrubber needed. (Sofnolime 8-12 mesh / 797)
____ 9. Install moisture pads with support stand and then $CO_2$ canister. (Ensure proper stand with correct CO2 canister).
____ 10. Inspect the two $CO_2$ canister mating O-rings in head assembly.
____ 11. Inspect sensors for cracks, damage, or leaking of KOH.
____ 12. Ensure sensors are screwed down and locked in place by sensor plate and O-ring. No sensor movement allowed.
____ 13. Inspect lid assembly for waterproof integrity (O-rings, and all fixed components).
____ 14. If required, grease cable connectors and install Petrel 2 handset, and HUD. Lock down connectors.
____ 15.Activate all electronics and set PO2 to 0.19 set point.
____ 16. Set electronics calibration reference $O_2$% and Altitude settings if necessary. $O_2$ %_____ Altitude _____m/ft.
____ 17. Note **mV values: Min 9mV, Max: 13mV (Air)@ Sea level ambient pressure.**

| Petrel 2 | S1: | S2: | S3: | NERD option | S1: | S2: | S3: |
|---|---|---|---|---|---|---|---|

____ 18. Calibrate at maximum $O_2$ in cylinder. **Note highest mV for $O_2$ flush. Lowest mV value is 43mV for ISC sensors assuming 100% O2 and sea level ambient pressure.**

| Petrel 2 | S1: | S2: | S3: | NERD option | S1: | S2: | S3: |
|---|---|---|---|---|---|---|---|

____ 19.Install lid assembly to gas plenum canister. Ensure proper orientation.
____ 20. Install $O_2$ supply hose to $O_2$ supply intake on head.
____ 21.Vacuum check DSV/BOV directional valves and mouthpiece. Confirm flow, right to left, with no air leaks.
____ 22. Install DSV/BOV breathing hose assembly to head assembly and counter lungs.
____ 23. Install ADV and low pressure supply hoses to counter lungs and secure all hoses and wired cables to harness assy.
____ 24. Inspect all hand tight fittings.
____ 25. Close vent valve, perform positive pressure test. (Do not use cylinder gas).
____ 26. Perform negative pressure test (30 second test) Check for creeping increase of PO2 on handset. (Sol activate?).
____ 27. Slowly open both oxygen and diluent gas supplies.
____ 28. Verify $O_2$ and automatic diluent bypass valve operation. Observe HP gauge for dipping pressure.
____ 29. Program set point to 0.7 ata/(bar), listen for oxygen injections and compare displayed information between handsets and HUD. Injections should cease when the set point is reached. Note: Compress the counter lungs to cycle breathing gas through loop.
____ 30. Fix set point to 0.19 to prevent possible solenoid activation on next step.
____ 31.Record cylinder pressures $O_2$: _____ Diluent: _____ (PSI/BAR)
____ 32.Close $O_2$ and diluent valves. Wait 2 min. then record pressures $O_2$: _____ Diluent: _____ (PSI/BAR)
____ 33.Verify PRIMARY Head/Handset voltage_____/_____ SECONDARY _____
____ 34.Secure displays to back plate assembly. Turn off gases and power unless immediately diving.
____ 35.**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 CCR! Consult the operation manual or call ISC.**
____ 36. Remarks (continue on rear in remarks section if insufficient space).

**Diver: _____**




# TIBURON DISASSEMBLY CHECK LIST

Date of post-dive: _____

**Note**: Initial **only** when task has been performed.

____ 1. Rinse CCR in fresh water.
____ 2. Record cylinder pressures $O_2$, _____PSI/BAR Diluent: _____ PSI/BAR
____ 3. Log PRIMARY head voltage_____ Petrel _____ NERD voltage_____. **Replace when low battery alarms on DiveCAN® HUD.**
____ 4. Record battery operational time in Table 2 (optional).
____ 5. Power off the primary and secondary electronics.
____ 6. Close valves on $O_2$ and diluent cylinders.
____ 7. Bleed down gases and disconnect all L.P/H.P. hoses. Remove all electrical cables from routing points but do not disconnect from head. Let all hoses and cables hang down from workbench.
____ 8. Remove DSV/BOV assembly from counter lungs only.
____ 9. Remove counter lungs, and disinfect. Hang upside down to dry.
____ 10. Remove back plate assembly and BC if necessary.
____ 11. Remove oxygen supply connector and first stage assemblies from gas supplies.
____ 12. Remove DSV/BOV assembly from head assembly and disinfect.
____ 13. Remove lid assembly from gas plenum canister. Install dust caps on the head hose couplings.
____ 14. Wipe down lid assembly and dry.
____ 15. Remove scrubber canister and write dive time on tape and label canister.
____ 16. Record accumulated $CO_2$ scrubber absorption time in Table 2 and label canister.
____ 17. If scrubber absorbent service time expired, remove scrubber and dump. If scrubber absorbent service time remains, store intact in airtight container.
____ 18. If removing electrical connectors, lightly lube rubber (EPDM) and gold contacts with Dow Corning 111 or Moly coat 111. To clean gold contacts use electrical contact cleaner that will not damage rubber/ EPDM seals.
____ 19. Remove and fill $O_2$ and diluent cylinders. Reanalyze and label gas contents.

NOTE: Battery times are minimal. Battery endurance depends on temperature, electronics load, and battery itself. Time and voltage will indicate estimated life.

| Accumulated Time: (Minutes) | Previous (Min) | This Dive (Min) | Total Used (Min) | Time Allowed (Min) | Time Remaining (Min) |
|---|---|---|---|---|---|
| **Primary Head**<br>Battery 9V alkaline<br>**Handset battery**<br>See installed battery time in manual. | | | | 12 hrs (720)<br><br>35 hours AA<br>100 hours Saft<br>See DiveCAN manual. | |
| **HUD 3.6/V Saft**<br><br>**NERD battery** | | | | See Manual<br><br>18 hours<br>See Manual. | |
| **$CO_2$ Canister**<br>**Type: Radial,**<br>5.5lb/2.42kg | | | | 218(73°F/23°C)<br>102 (39°F/4°C)<br>330ft/100msw.<br>160 (39°F/4°C)<br>132ft/40msw | |

**Table 2**

Note: Above CO2 endurance times are based on the U.S. Navy combat swimmer pace and European 14143 CE standard.

**Remarks**:

**Diver: _____**