

MEG 15 ASSEMBLY CHECK LIST
APECS 4

MEG 15 DISASSEMBLY CHECK LIST
APECS 4

Name: _____ Date of pre-dive: _____

Date of post-dive: _____

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

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

BATTERY Service dates.	PRIMARY NETWORK Head battery: Handset charged:	SECONDARY NETWORK Head battery: Handset charged:
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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 O₂ and diluent cylinders if necessary. Analyze O₂ _____% Diluent: _____%
3. Analyze bailout/deco cylinders. (O₂/HE) Bailout/Deco 1 _____% 2 _____% 3 _____%
4. Record accumulated service time on CO₂ absorbent canister: _____ min. Expiration date on CO₂ keg: _____
5. Fill scrubber canister if fresh scrubber needed. (Sofnolime 8-12 mesh / 797)
6. Install moisture pads with support stand and than CO₂ canister. (Insure proper stand with correct CO₂ canister).
7. Inspect the two CO₂ canister mating O-rings in head assembly.
8. Inspect sensors for cracks, damage, or leaking of KOH.
9. Insure sensors are screwed down and locked in place by sensor plate and O-ring. No sensor movement allowed.
10. Inspect lid assembly for waterproof integrity (O-rings, and all fixed components).
11. Install lid assembly to gas plenum canister. Insure proper orientation.
12. If required, install Primary handset, HUD and optional 2ndary handset. Lock down Subconn connectors.
13. Mount cylinders and install O₂ and diluent 1st stage assemblies.
14. Install O₂ supply hose to O₂ supply intake on head.
15. Install BC bladder and install back plate assembly.
16. Mount counter lungs to back plate assembly. Inhale on right and exhale on left.
17. Vacuum check DSV/BOV directional valves and mouthpiece. Confirm flow, right to left, with no air leaks.
18. Install DSV/BOV breathing hose assembly to head assembly and counter lungs.
19. Install ADV and low pressure supply hoses to counter lungs and secure all hoses and wired cables to harness assy.
20. Activate electronics and set PO₂ to 0.2 set point.
21. Set electronics calibration reference O₂% and Altitude settings if necessary. O₂ % _____ Altitude _____ m/ft.
22. Conduct ISCAN/2ndary handset air point or 100% calibration at appropriate ambient air pressure. Note **mV values: Min 9mV, Max: 13mV (Air). Minimum mV 100% O₂ 43.0mv.**

Primary	S1:	S2:	S3:	Secondary	S1:	S2:	S3:
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23. Inspect all hand tight fittings.
24. Close vent valve, perform positive pressure test. (Do not use cylinder gas).
25. Perform negative pressure test (30 second test) Check for creeping increase of PO₂ on handset.
26. Slowly open both oxygen and diluent gas supplies.
27. Verify O₂ and automatic diluent bypass valve operation. Observe HP gauge for dipping pressure.
28. 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: Primary handset has an "*" character displayed on the bottom while injecting. Compress the counter lungs to cycle breathing gas through loop.
29. (Optional) Conduct linearity check at maximum O₂ in cylinder. **Note highest mV for O₂ flush. Lowest mV value is 43mV for ISC sensors assuming 100% O₂ and sea level ambient pressure.**

Primary	S1:	S2:	S3:	Secondary	S1:	S2:	S3:
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30. Record cylinder pressures O₂: _____ Diluent: _____ (PSI/BAR)
31. Close O₂ and diluent valves. Wait 2 min. then record pressures O₂: _____ Diluent: _____ (PSI/BAR)
32. Verify PRIMARY Head/Handset voltage _____ / _____ SECONDARY _____ / _____
33. Secure displays to back plate assembly. Fix set point to 0.2. Turn off gases and power unless immediately diving.
34. **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.**
35. Remarks (continue on rear in remarks section if insufficient space).

Diver: _____

1. Rinse CCR in fresh water.
2. Record cylinder pressures O₂, _____ PSI/BAR Diluent: _____ PSI/BAR
3. Log PRIMARY head voltage _____ handset % _____ SECONDARY head voltage _____. Handset % or voltage _____ **Replace or recharge when low battery alarms.**
4. Record battery operational time in Table 2 (optional).
5. Power off the primary and secondary electronics.
6. Close valves on O₂ 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.
11. Remove first stage assemblies from gas supplies.
12. Remove DSV/BOV assembly from head assembly. Disinfect and rinse.
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 CO₂ 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 Subconn 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 O₂ and diluent cylinders. Reanalyze 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 Battery 9V alkaline Handset battery %				12 hrs (720)	
				12 hrs (720)	
Secondary Head Battery 9V alkaline Handset battery 3.6v lithium/1.5 alk AA or % of charge				12 hrs (720)	
				12 hrs (720)	
CO₂ Canister Type: Radial, 5.5lb/2.42kg				218(73°F/23°C) 102 (39°F/4°C) 330ft/100msw. 160 (39°F/4°C) 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: _____