

**DIVE LAB AIR CONTROL CONSOLE
(XLDS 2-D & 3-D)
ANNUAL INSPECTION CHECKLIST**

APPENDIX A2.1

11-07-13

NOTE: This inspection and maintenance should be performed at least annually and as dictated by condition revealed during daily/monthly inspection. Monthly inspections determine necessity for overhaul with more accuracy than simply placing a number of hours of use.

Complete System Overhaul: A complete system overhaul is defined as disassembly of all major components for inspection, cleaning, and soft goods replacement, followed by a leak test of all systems, as well as a flow test of each diver supply circuit.

The frequency or periodicity for a complete overhaul of the XLDS console is dependent on frequency of use, and conditions under which the system is used. XLDS console systems used up to 30 hours a week for commercial diving, i.e. salvage, marine harvesting work, and construction, especially if used with an LP compressor, should be overhauled at least every two years. Users that only use HP air, (no LP air) and only use the system five to ten times a month should be able to go five years between major overhauls. Systems used more than 250 days a year under extreme or harsh conditions such as extremely hot or cold environments may require more frequent overhauls.

Generally, if the XLDS console system is used with LP compressors it will need more care and service than those used with HP air systems only. XLDS consoles normally used with LP air compressors are far more susceptible to contamination from moisture and the corrosive effects from moisture than XLDS consoles used with HP air only. Dive Lab recommends systems being supplied by LP compressors undergo more frequent inspections to determine frequency of overhauls.

Typically, XLDS consoles used by public safety, law enforcement, and military divers with HP air supply systems only, used less than 20 times a year resulting in less than 100 hours use a year, should perform a complete overhaul every 5 years.

The above recommendations are based on keeping and maintaining a good log book on the XLDS console, the use, maintenance and repair record will help in determining how often routine maintenance and overhauls are required.

FOR THE REASONS ABOVE, THE FINAL DECISION FOR OVERHAUL IS DETERMINED BY THE END USER

NOTE: XLDS consoles being used around polluted waters, or extreme environments will require more frequent inspection.

NOTE: Check the Dive Lab website for the latest product improvement bulletins concerning the XLDS CONSOLE.

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Date:
XLDS CONSOLE Serial #:
Associated Equipment Serial #(s):
Technician (print name):

XLDS CONSOLE Panel & Case	
PROCEDURES	INITIALS
1. Remove the pneumofathometer supply valve stems, clean, inspect, and lightly lubricate the stem threads, inspect the valve body internal surfaces for contamination and corrosion clean as necessary. Guidance O & M Manual.	R___G___ Y___
2. Inspect umbilical supply, and pneumofathometer fittings for wear and damage. Change fittings and components as necessary if any damage is found. (Quick Disconnect soft goods) Guidance O & M Manual.	R___G___ Y___
3. Compare all gauges with gauges of known accuracy, and document. Guidance O & M Manual.	R___G___ Y___
4. With no pressure supplied to the system, check the HP valves on HP manifolds for smooth operation.	R___G___ Y___
NOTE: If HP valves do not operate smoothly they must be serviced.	
5. Inspect the HP hoses for damage in the form of worn or damaged fittings, hose fitting slippage, blisters, cracking, and bulges any wear. Change HP yoke filters if equipped. Guidance O & M Manual	R___G___ Y___
6. Check LP umbilical shut off valves for smooth operations by opening and closing. Guidance O & M Manual	R___G___ Y___
7. Lift check relief valves.	R___G___ Y___

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8. LP air check valve, Perform functions check; With 350psi loaded on HP regulator close all outlet valves, secure HP air source and vent. Check valve should maintain 350psi +/- 0psi for 05min. If it fails overhaul check valve. Guidance O & M Manual	R____G____ Y_____
9. HP regulator, perform functions check, with 3000 psi lined to regulator, load regulator to 350 psi and hold for 05 min, regulator should not drift more than 10 psi or vent off. If it fails, overhaul regulator. Guidance O & M Manual	R____G____ Y_____
10. Inspect all external fittings, manifolds, valves, and console box surfaces for signs of corrosion and damage. Clean as necessary. Perform a leak check of all circuits.	
11. Perform a liquid leak check of all fittings, and then perform a pressure test of the LP system to 400 psig for a minimum of ten minutes zero leakage allowed.	
12. Perform a liquid leak check and then a 3400 psig pressure test or maximum supply pressure test of all HP components for a minimum of 10 minutes.	
13. Complete a flow test of the control console using a supply pressure of at least 1000 psig. Set loader to 100 psig. The flow at the outlet fitting of each outlet should be a minimum of ____ LPM.	
14. Test the communications unit, charge the battery if necessary. Guidance O & M Manual	

The complete system inspection procedure is intended to be used as a guide for persons that have received factory authorized training in the maintenance and repair of DIVE LAB XLDS surface support air control consoles.

Dive Lab **highly** recommends that a certified Dive Lab Repair Technician make all repairs and that only genuine Dive Lab repair and replacement parts be used. Owners of Dive Lab products that elect to do their own repairs and inspections should only do so if they possess the knowledge and experience. All inspections, maintenance, and repairs should be completed using the appropriate Dive Lab Operations and Maintenance Manual(s). Persons performing repairs should retain all replacement component receipts for additional proof of maintenance history. Should any questions on procedures, components, or repairs arise, please contact Dive Lab, Inc., by telephone at (850) 235-2715 or via e-mail at divelab@aol.com or divelab@divelab.com

