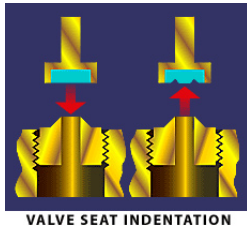
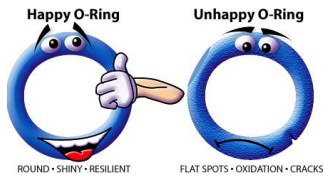


What Every Diver Needs to Know About Equipment Maintenance



Why Annual Service?

SOME OF THE PEOPLE who bring dive stores equipment for service do not appear to understand the need for annual regulator maintenance. These people tell store personnel that they just want to have the store “check their regulator out,” and that their regulator has only been used “a couple of times” since it was last serviced. Apparently these people believe that, because their regulator has received little or no use since it was last worked on, it requires little or nothing in the way of maintenance. This is seldom the case.

Equipment manufacturers all specify a minimum one-year service/inspection interval for regulators — regardless of how little they are used.

Why? Regulator performance is affected by far more than just how little or how much use it receives.

- Every regulator contains numerous O-rings. These O-rings are critical to the regulator’s ability to function safely. Over time, these O-rings can dry out, oxidize, shrink and crack. This occurs regardless of whether the regulator is used or not.
- Each regulator first or second stage contains either a high- or low-pressure seat. As time passes, these seats harden and shrink. They become deeply indented by the sharp valve orifices against which they are constantly being pressed. This can cause a regulator’s intermediate pressure to “creep” and second stages to free flow.

Therefore, even though a regulator may not have been used in the past year, these O-rings and valve seats may still need replacement if the regulator is to be able to perform safely. The longer a regulator goes without service — used or not — the greater this need becomes.

- Regulators that receive considerable use may require service more frequently than just once a year.
- Even with the most careful rinsing after dives, salt, sand, sediment and corrosion can build up on a regulator’s internal surfaces.
- Use also accelerates the deterioration of O-rings and seating surfaces.

Some active divers, such as resort divemasters and instructors, have their regulators serviced as often as every three to six months.

What’s Involved in a Regulator Overhaul?

BECAUSE ALL REGULATOR SERVICE involves basically the same amount of labor, it is foolish to attempt to solve a single problem when, for the same time and effort, you can solve them all. This is why, when any level of regulator service is needed beyond a mere inspection, there is only one type of procedure that responsible service technicians perform: a complete overhaul. What does this entail?

- The regulator is completely disassembled and all hard components are cleaned in an ultrasonic bath.
- All O-rings and valve seats are replaced.
- The regulator is reassembled and adjusted to manufacturer’s specifications.

This enables your local dive store to return your regulator to you in as close to “as new” condition as humanly possible — and is required if you are to maintain your regulator’s warranty.



The Importance of Warranties

THINK YOU CAN SAVE MONEY on dive equipment by shopping on the Internet? Think again.

The real cost of owning dive equipment isn't what you pay for it up front. It's what you have to pay to maintain it over time — and what you might lose if you don't buy the right item to start with.

- Reputable manufacturers do not allow their products to be sold over the Internet. When you see a name-brand item advertised at a suspiciously low price, it's either: a gray-market item; a used item in what appears to be new packaging; or, stolen. The serial numbers will be missing and some of the parts may have been replaced with used or cheaper components.
- Regardless of where the mail-order item came from, it will not qualify for warranty coverage. This means you will pay up to \$100 or more in additional charges every time you need service — and, if the item is ever subject to a manufacturer's recall, you won't find out about it. (Do you really want to dive with a BC, dive computer or regulator that's been recalled for a safety-related problem?)
- The cheapest BC, regulator or dive computer won't save you a penny if it's not what you really need and you end up replacing it later.

Here's an example of what it might cost over ten years to purchase a BC/regulator/dive computer package from a local, authorized dealer, compared to what it might cost you to purchase what appears to be a comparable package over the Internet:

	Purchased from Local Dealer	Purchased Over Internet
Package Price	\$1,500	\$999
Shipping	No Charge	\$50
Assembly and Bench Testing	No Charge	\$100
System Components	All brand-name, first quality items	No-name items substituted for many system components
Manufacturer's Warranty on All Items?	Absolutely	Not Available
Annual Maintenance Costs for Ten Years	\$450 (Labor only; parts are covered under warranty)	\$1,200 (Parts and labor; no warranty coverage)
Advice Given at Time of Purchase?	Expert advice from knowledgeable instructors who care about this stuff and use it on a regular basis	"You'll have to look on our website. I don't actually dive."
And...	Try it on in the store to make sure it fits; try it out in the pool to make certain it's what you really want	"Oh, it didn't fit? That's too bad. Returns are subject to a 15 percent re-stocking fee — plus return shipping."
Total Cost of Ownership Over Ten Years	\$1,950	\$2,349+ (Assuming you don't have to replace any items because they broke or were not what you really wanted)

Buying from anyone other than a local, authorized, full-service dealer not only won't save you money in the long run, it can actually end up costing you money. ☐