

Meg manual gas injection valve service

You can easily and quickly un-stick the valve using oxygen safe grease. Inject a small amount of oxygen grease inside the inflator nipple, connect and inject a small amount of gas, rotate the injector button, repeat. This does work, however, it is not a complete fix, just a field service to get one going until the next chance to actually service the valve. Here is how to perform that service with a few simple tools.

First, to remove the valve from the counterlung you must grip the nut, which is inside the CL with one hand, and unscrew the valve with the other. The nut is not too hard to grasp, but you must turn the valve from its very thin base, not the body of the valve itself. If you look closely at the base of the valve and turn the part that normally rotates, you will see the base is not moving. This is the part you have to turn counterclockwise to unscrew it from the nut. See the thin base as shown by the red arrow in this pic. I have seen a tool used to place over the valve that makes it easier to grip this base, but acquiring one might be difficult and for how often you need it, may not be worth the price.

Once you remove the valve, take a thin tipped flat screwdriver or similar tool and peel off the front label from the pushbutton. With careful removal, one could reattach this and have it stay.

Under the sticker is a small allen or hex key screw, it is metric sized and you must use the correct size or risk stripping it out. On the back side of the valve is another hex head that is a bit larger. The larger hex is sized 4mm and the smaller is sized 2.5mm. If you do not have two sets of metric hex sets, there is an imperial size (5/32) that will work on the back side. The front screw backs out counterclockwise, while holding the rear fixed. First pic below is the back side hex.

Under the screw and button you will find a spiral spring, (in the picture here, the spring is actually upside down, my mistake, please be sure yours is put back in with the larger diameter out toward the button) remove and set aside. The rear hex is actually the barrel of the valve and this must be pushed out from the front. Take a hex tool that is just smaller than the bore and push the barrel out the back side.

Slip the Orings off the barrel, and find a couple new ones. I found a couple in my dive kit, but I am not sure what size they are. They must be a standard size as I had a couple in viton. Clean the barrel in a solution of white vinegar and alcohol, rinse with fresh water and dry. Install new viton o rings and lubricate lightly with an oxygen compatible grease, I use Tribolube 71, of course.

Clean the bore of the valve with alcohol or K02 Tribolube cleaner using a Q tip.

Reassemble in reverse order, be sure to tighten the hex screw down snug so it won't loosen during normal use. Plug in the valve and test it prior to putting it back in the counterlung. When installing the valve back into the counterlung, be aware that there is a gasket as well as the nut, and make sure they are both present and lined up before threading the valve back in place.

Here see the soft gasket and the nut below it, line these up and thread the valve into it.

Again, grip the nut and the base of the valve to tighten it up securely. Be sure to check the security of this connection prior to every dive. Having the valve fall out during a dive would not be a good thing.