

PureFlow AirDog® Diaphragm Fuel Pressure Regulator

# **AirDog**®

## **FUEL PREPATOR**®

### **FUEL PRESSURE REGULATOR INSTALLATION INSTRUCTIONS**



**PLEASE READ THESE INSTRUCTIONS THOROUGHLY  
BEFORE BEGINNING THE INSTALLATION**

## CAUTION!

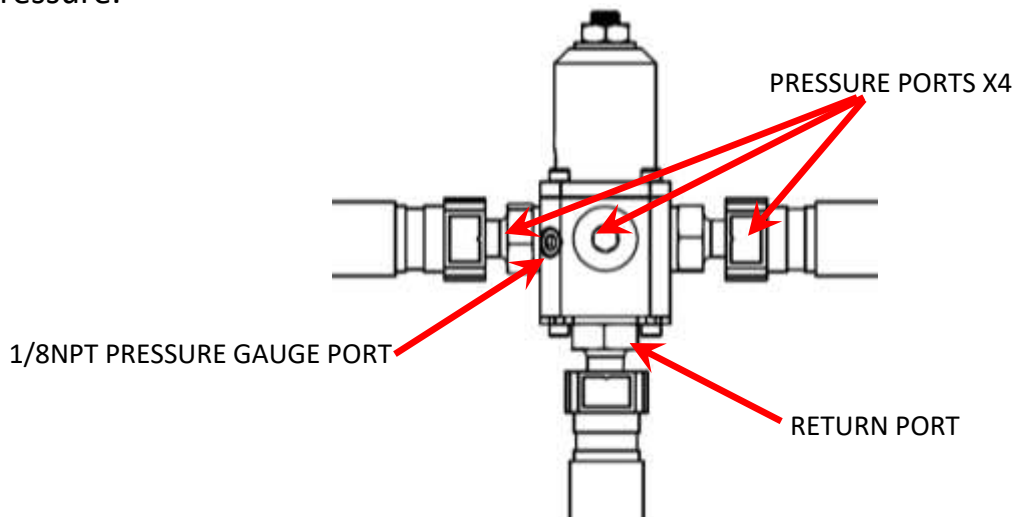
There are many ways to which this regulator can be mounted in conjunction with a fuel system. The user must have detailed knowledge of fuel systems to perform this installation. While performing an installation, it is highly recommended to wear safety glasses/goggles.

## OVERVIEW

Thank you for your purchase of the PureFlow AirDog® Diaphragm Fuel Pressure Regulator. This is a premium regulator that can support pressures from 7 to 70psi. This regulator is corrosion resistant with anodized aluminum, stainless steel, and zinc plated components. All of the ports on this regulator are -8 O-ring boss besides the 1/8NPT gauge port. There are two provided -8 plugs that can be moved depending on what the regulator is desired to do.

## PORT IDENTIFICATION

There are a total of 5 ports on this regulator. The four larger ports on the top are pressure ports and the port on the bottom of the regulator is the return port. The 1/8NPT port is for a pressure gauge or sending unit to monitor fuel pressure.

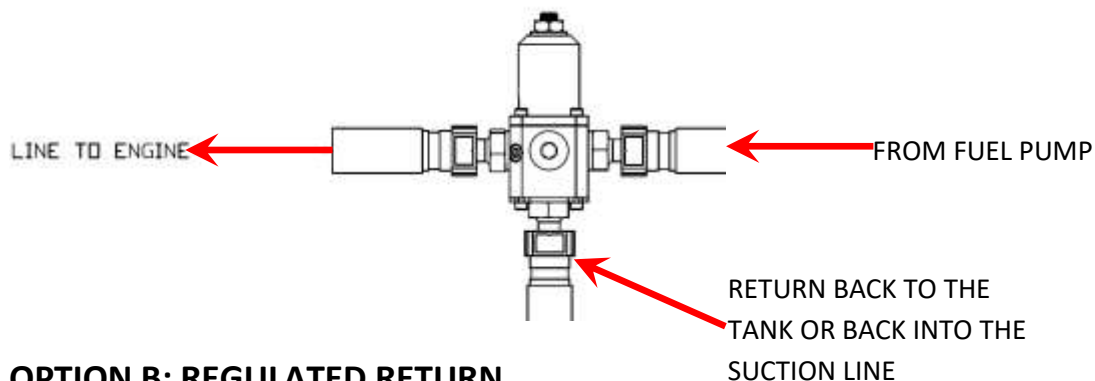


## REGULATOR PLUBING

This regulator can be plumbed in one of two ways: In-line on the pressure side of the pump or mounted on a return line. If the regulator is mounted on the return side of the pump, a third 3/4-16 O-ring boss plug will be needed.

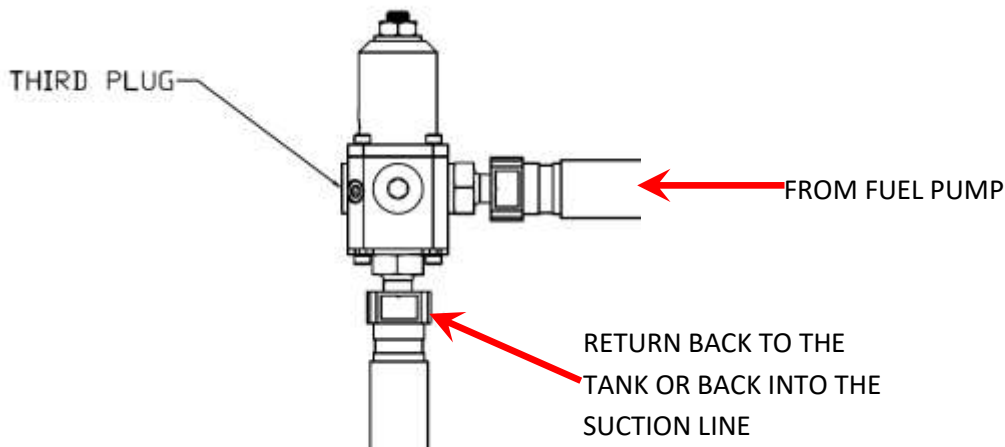
### OPTION A: IN-LINE ON THE PRESSURE SIDE OF THE PUMP BEFORE THE INJECTION PUMP.

This is for most applications. Once the pressure in the line exceeds the pressure set in the regulator, the excess fuel is returned either back through the suction line of the fuel pump or back to the fuel tank.



### OPTION B: REGULATED RETURN.

This option is for engines to where a regulated return is desired.



## MOUNTING THE REGULATOR

Figure out the orientation of the regulator that is desired and mount the bracket to the regulator using the supplied cap screws. Tighten the cap screws down with a 9/64 allen. Do not overtighten or the screws may strip out or break.



The regulator can be mounted by either drilling a new mounting hole or using an existing non-structural bolt on the frame. If you do decide to drill the frame for a mounting location, be careful to not drill through any brake lines or wiring. The mounting bracket has one hole that is to be used.



## FITTINGS

You must source your own fittings for your setup. The large ports are a 3/4-16 O-ring boss -8 female and the pressure gauge port is a 1/8NPT female. PureFlow AirDog® does sell the -8 fittings. We offer two types: J2044 quick connects or JIC style fittings. All of these fittings have a 1/2" male barbed end to press into 1/2" fuel line. The two are pictured below. If you wish to purchase these fittings, call PureFlow AirDog® at 877-421-3187 to order.

J2044 Quick Connect



JIC



## MAINTENANCE

The regulator is fairly maintenance free. If you notice a drop in fuel pressure and find fuel leaking from the regulator, call into tech support at 877-421-3187. A diaphragm assembly can be sold separately. The steps to replace the diaphragm are as follows:

- Step 1. Back the adjuster screw out to relieve spring tension by loosening the jam nut with a 5/8 wrench and backing the adjustment screw out with a 3/16 allen wrench.



- Step 2. Remove the 4 cap screws holding the regulator cap down by using a 9/64 allen wrench and remove the cap.



PureFlow AirDog® Diaphragm Fuel Pressure Regulator

Step 3. Remove the springs and dimple washer.



Step 4. Remove the old diaphragm assembly and install the new in its place.



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Step 5. Install the small spring first, the large spring second, and the dimple washer third. Be sure the concave part of the washer is up.



Step 6. Reinstall the regulator cap using the cap screws. Do not torque over 40 in-lb.



Step 7. Reinstall on the truck and reset the desired fuel pressure.



## SETTING THE FUEL PRESSURE

The fuel pressure can be set by backing the jam nut off with a 5/8 wrench and adjusting the pressure by turning the set screw with a 3/16 allen wrench. Turning the set screw clockwise will increase fuel pressure and counter clockwise will decrease fuel pressure. You will need to monitor fuel pressure while you adjust it. There is an 1/8" NPT pipe plug in the regulator that can be used to mount a gauge or a pressure sending unit.



***1 YEAR LIMITED EXPRESS WARRANTY***  
**FOR**  
**DIAPHRAGM FUEL PRESSURE REGULATOR**

PureFlow AirDog® (hereafter collectively, “SELLER”) warrants and guarantees only to the Original Purchaser (hereafter collectively, BUYER) that the PureFlow AirDog® DIAPHRAGM FUEL PRESSURE REGULATOR (hereafter collectively, PRODUCT) shall be free from defects of materials and workmanship in the manufacturing process for 1 (one) year from date of purchase.

The 1 Year Limited Express Warranty is limited to the PRODUCT purchased by the original BUYER of the PRODUCT and limited solely to the parts contained within the PRODUCT and EXCLUDES ALL ELSE. Any PRODUCT that is in question of Warranty must be returned, shipped prepaid, to PureFlow AirDog. All Warranty claims are subject to the approval of PureFlow AirDog®. If it is determined that a Warranty claim exists, PureFlow AirDog® will, at its sole discretion, replace the defective PRODUCT with a comparable PRODUCT, or repair the defective PRODUCT. Repairs or replacements are warranted for only the remainder of the original warranty period and only to the original BUYER.

Under no circumstances shall the SELLER be liable for any labor charged or travel time incurred in the diagnosis for defects, removal, or reinstallation of the PRODUCT, or any contingent expense.

Under no circumstances will the SELLER be liable for any damage or expense incurred by reason of the use or sale of the PRODUCT.

Other than expressly set forth herein, the SELLER shall in no way be responsible for the proper or improper use and service of the PRODUCT. In no event shall the SELLER be liable for any special, incidental, indirect or consequential damages of any kind or nature, whether or not the BUYER of the PRODUCT was advised of the possibility of damage or harm, arising or resulting from the use or performance of the PRODUCT and BUYER hereby waives the right to any and all such claims.

BUYER, acknowledges that he/she is not relying on SELLER’S skill or judgment to select or furnish goods suitable for any particular purpose and that SELLER has no liability that will extend beyond the scope of the LIMITED EXPRESS WARRANTY contained herein, and BUYER hereby waives all remedies or liabilities, expressed or implied, arising by operation of law or otherwise.(including, without limitation, any obligation of SELLER with respect to fitness for any particular purpose; merchantability; and special, incidental, indirect or consequential damages) or whether or not occasioned by SELLER’S negligence.

SELLER disclaims any warranty and expressly disclaims any liability for personal inquiry or damages related to BUYER’S use of the PRODUCT. BUYER acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and BUYER agrees to indemnify SELLER and hold SELLER harmless from any claim related to the PRODUCT and its use or performance. Under no circumstances will SELLER be liable for any damages, liabilities, costs or expenses incurred as a result of or by reason of use, performance or sale of the PRODUCT, including without limitation, any damages, liabilities, costs or expenses incurred by reason of BUYER’S negligence related to those uses of the PRODUCT.

The proper installation of the PRODUCT is the sole responsibility of the BUYER. The SELLER assumes no liability regarding improper installation or misapplication of the PRODUCT.

SELLER hereby provides the following limited warranty as to description, quality, merchantability, fitness for the PRODUCT’S purpose, productiveness, or any other matter of SELLER’S PRODUCT sold herewith. The SELLER shall be in no way responsible for the open use and service of the PRODUCT and the BUYER hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by SELLER and BUYER.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT, THE BUYER MAY PROMPTLY RETURN THE PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN THIRTY (30) DAYS FROM THE DATE OF PURCHASE FOR A FULL REFUND. THE BUYER AGREES THAT THE INSTALLATION OF THIS PRODUCT CONFIRMS THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS THE TERMS AND CONDITIONS OF THIS AGREEMENT.