Universal Bypass Fuel Pressure Regulator (7910 series) Instructions

WARNING!

After operating your vehicle, your fuel system may still be pressurized. Do not open any components of the fuel system until confirmation that fuel pressure has been relieved. Refer to vehicles service manual for procedure and precautionary steps to help relieving the fuel pressure in the system.

~Please be aware~

We recommend installation of this fuel pressure regulator to be completed by a qualified and knowledgeable automotive technician. If not, serious injury and/or damage to the vehicle may occur.

Installation of this part requires handling and exposure to gasoline or other automotive fuels. Be sure to work in a well ventilated area away from any smoking, open flames or sparks. We also recommend an approved fire extinguisher present. When installing this part, be sure to wear protective gear like eye goggles and gloves to protect from spraying fuel.

Your 7910-06 fuel pressure regulator comes equipped with two -06AN ORB inlet threads and one -06AN ORB outlet (return) thread. Note- ORB ports are **not National Pipe Thread (NPT)** and **do not require thread tape/sealant**. Be sure to use RHP 920 series ORB fittings with O-rings to make leak-free connections. RHP AN hose assemblies will be needed to plumb this regulator as well.

The 1/8" NPT gauge port for a fuel pressure gauge (such as RHP 5001 series) will require thread sealant.

The vacuum/boost port on this regulator, when connected to intake manifold pressure, will raise fuel pressure 1 pound per 1 pound of boost (1:1 ratio). If vehicle is naturally aspirated (no power adder) be sure to leave port open (atmospheric).

Note- Redhorse Performance's 7910 series Fuel Pressure Regulators should not be used on emission controlled vehicles

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1) Allow engine to cool down and disconnect the negative battery cable.

2) Relieve any built up fuel pressure in system. Locate Schrader valve (if system is equipped) and use rag to catch any fuel that may spill out.

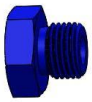
3) Remove existing regulator and disconnect any vacuum lines and connections. Again, a rag may be needed to catch any fuel that may spill out.

4) Find desired location to mount Redhorse 7910 series regulator in engine bay. Make a mark using the holes on mounting bracket as a template. Drill markings to accept #10 screw.

5) Mount the Redhorse regulator to the vehicle using two #10 screws, nuts, and lock washers. Note, you may need to remove the bracket from the regulator and then reattach.

6) Attach fuel line(s) from the fuel rail outlet port(s) to the regulator side ports using ORB-style (size 06, 08 or 10 as required) fittings. If you are using only one inlet/outlet port, install an ORB-style (size 06,08 or 10 as required) port plug with o-ring into the unused port.

AN O-Ring port plug (814 series)

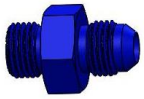


P/N 814-06 (1,2,5)
P/N 814-08 (1,2,5)
P/N 814-10 (1,2,5)

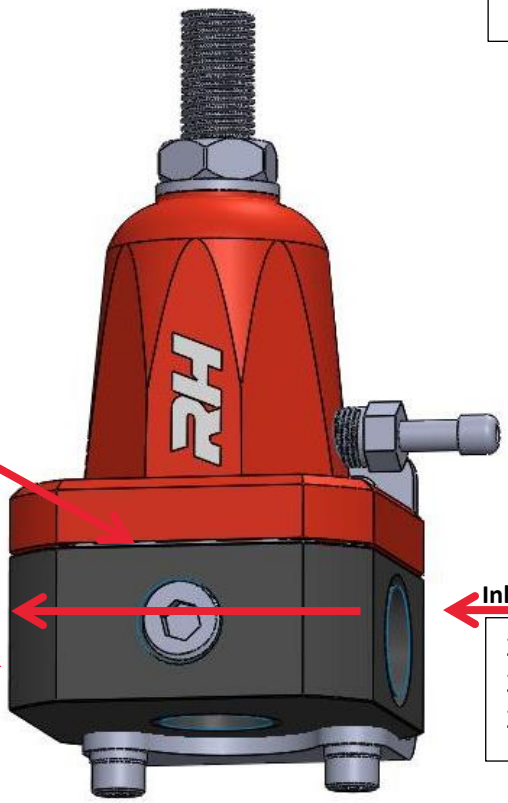
Sold Separately!

AN Port Adapter w/ High-flow radius (920 series)

P/N 920-06-06 (1,2,5)
P/N 920-08-08 (1,2,5)
P/N 920-10-10 (1,2,5)



Sold Separately!



Gauge Port: 1/8” NPT

Return Port: ORB-06

Inlet Ports/Outlet Ports Type/Size

2x ORB-06: P/N 7910-06 (2,3,5)
2x ORB-08: P/N 7910-08 (2,3,5)
2x ORB-10: P/N 7910-10 (2,3,5)

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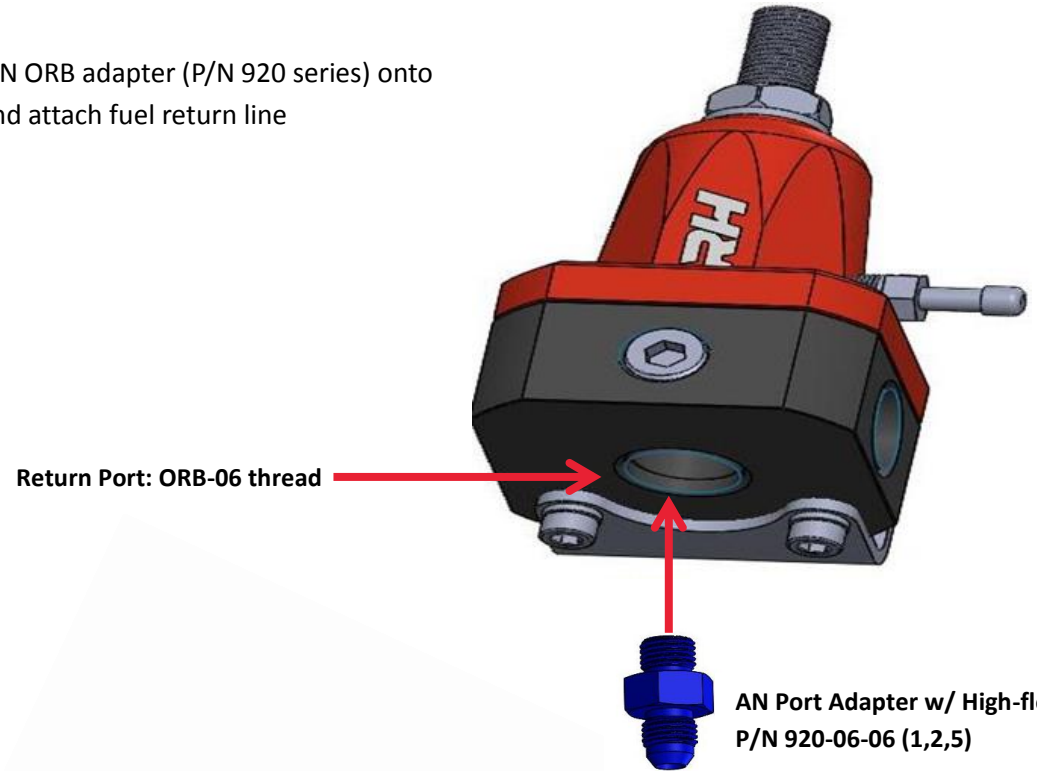
7) Install AN male to AN ORB adapter (P/N 920 series) onto bottom of regulator and attach fuel return line (AN hose assembly).



8) Routing the fuel pressure regulator

Figure 1- Diagrams the optimal way to plumb the regulator into the fuel system for best flow and pressure control, when using dual aftermarket fuel rails (for V6 or V8 engines) ,utilizing both inlet ports.

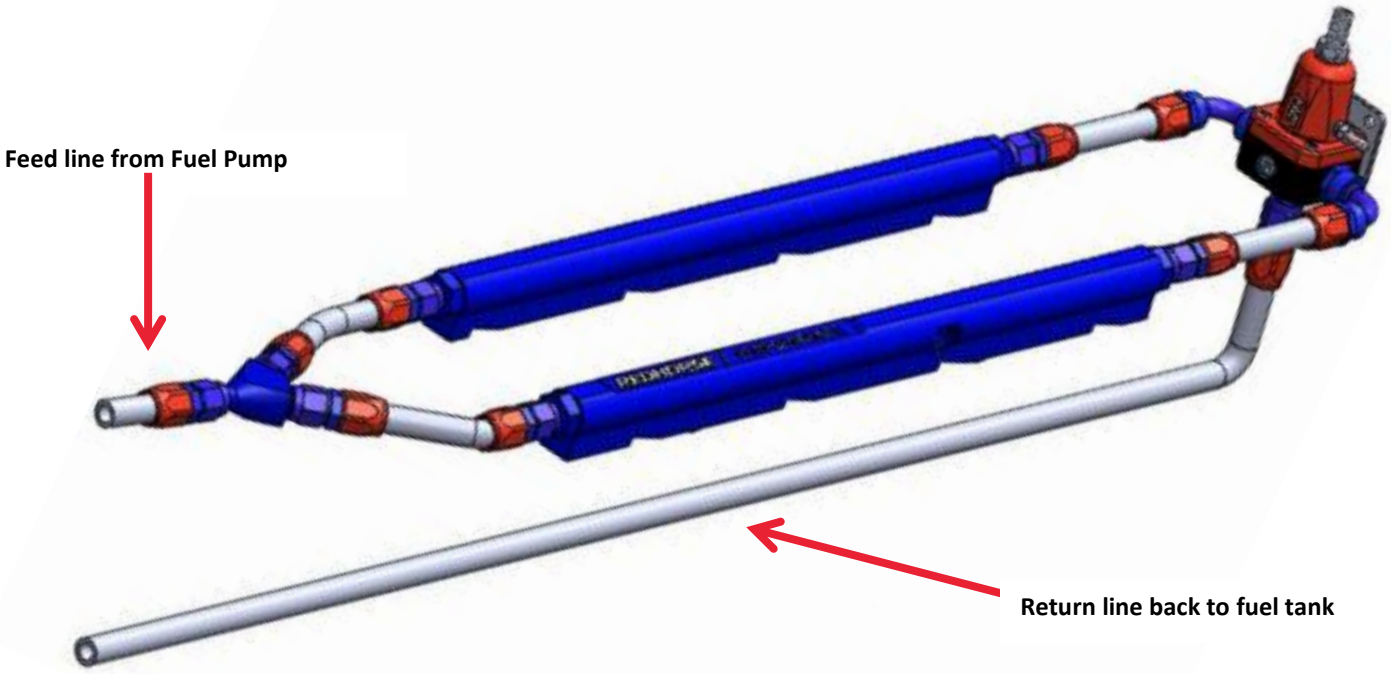


Figure 2- Diagrams the optimal way to plumb the regulator when using a single fuel rail with inlet and outlet ports on each side. Note- the regulator utilizes one supply side and the other is plugged.

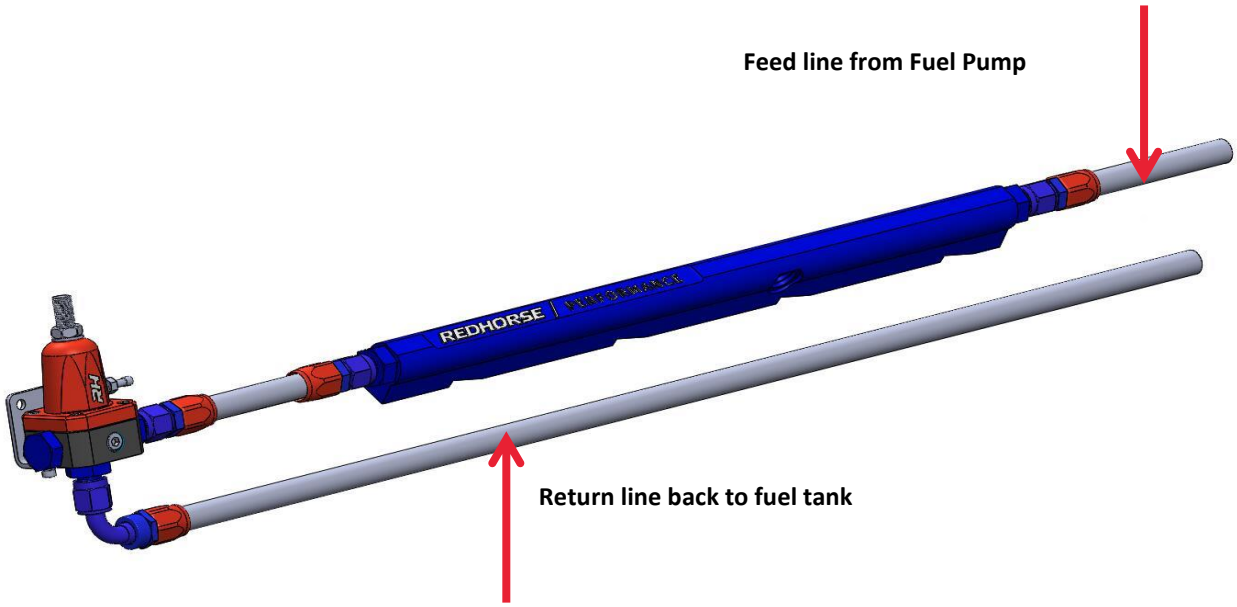
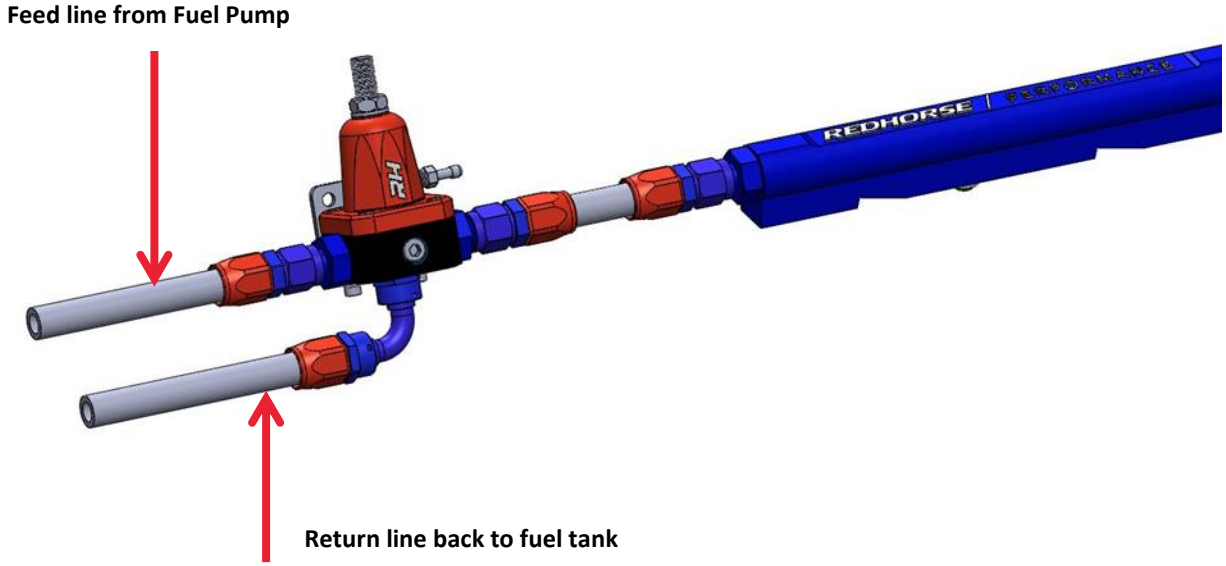


Figure 3- Diagrams the of optimal way to plumb a returnless fuel systems (beginning ~1999) with the only connection at the fuel rail. You can run the regulator like this on OEM 'returnless' setups by flowing the fuel pump feed into the side of the regulator and out through the fuel rail. The return line would be sent back to the fuel tank.



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9) Attach fuel pressure gauge (recommended 100psi gauge, P/N 5001-100) in the 1/8" NPT port on the face of the regulator. **Note- all NPT threads require Teflon sealant.**

10) Double check all connections are tight and that any previously leaked fuel is cleaned up and dried with a rag.

11) Reconnect negative battery cable and prime fuel system by turning key to on position without starting car (KOEO). Check gauge to see if fuel pressure is available. If not, cycle ignition key on and off a few times until fuel pressure shows in gauge.

12) Check again for fuel leaks around all connections. If a leak is found, immediately turn key off and clean up any spilt fuel. Proceed to tighten connections and turn key on to confirm there is no more leak.

13) After verification all connections are leak free, proceed to start engine and adjust regulator to desired pressure. Turn adjustment stud clockwise to raise fuel pressure and counter clockwise to lower fuel pressure.

14) Once pressure is set, tighten jam nut to lock adjustment stud down to prevent pressure from changing.

15) Attach vacuum line to regulator for boosted applications. For naturally aspirated applications, keep port unplugged (atmospheric).

16) Once again, look over fuel system for leaks and fix any that are found. After confirming there are no leaks, and test drive car to ensure proper operation.

Redhorse Performance
9911 S. 78Th. Ave. * Hickory Hills, IL 60457
Phone: (708)430-1603 * Fax: (708)430-1679
www.redhorseperformance.com