General Fuel Pressure Regulator Instructions

Applies to most Professional Products Fuel Pressure Regulators


10661


10653


10651


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10681

Note: Early model Mustang regulators are basically the same as the one shown but have three mounting points, not two.

Carbureted Regulators - Professional Products has several carbureted regulators:

Compact Style - 10660/10661/10662/10663 - These regulators all have one 3/8-NPT inlet port in the bottom and two 3/8-NPT outlet ports in the side. The 10660/10661 regulators are adjustable from 4.5 to 9 PSI. The 10662/10663 are adjustable from 2 to 4 PSI and are used on side draft carburetors which require lower fuel pressure.

2-Port Regulators - 10650/10651 - These regulators have one 1/2-NPT inlet port in the bottom and two 3/8-NPT outlet ports in the sides. Adjustable from 4.5 to 9 PSI.

4-Port Regulators - 10654/10655/10656/10657 - The 10654/10655 regulators come with (1) -8AN 0-ring style inlet fitting in the bottom and (4) -6AN o-ring style outlet fittings in the side. They are adjustable from 4.5 to 9 PSI.

3 and 5-Port Regulators - 10652/10653 (3-port) and 10658/10659 (5) port. These regulators are commonly called "bypass" or "return style" regulators and require a return fuel line to the fuel tank. The 3-port and 5-port models have a 3/8-NPT port on the bottom of the regulator which is the return lline port.The 3-port model has three 3/8-NPT ports on the side and the 5-port model has five ports on the sides. Any of the side ports can be either an inlet port or an outlet port. Any ports that are not needed can be plugged with a 3/8-NPT pipe plug. These regulators are adjustable from 4.5 to 9 PSI.

EFI Regulators - Professional Products has several regulators for EFI vehicles:

2-Port Regulators - 10670/10671 - These regulators have one 3/8-NPT port in the bottom that is for the return line to the tank and two 3/8-NPT ports in the sides. Either side port can be used as an inlet or outlet. Adjustable from 25 to 75 PSI.

4-Port Regulators - 10652/10673 - These regulators have one 3/8-NPT port in the bottom that is for the return line to the tank and four 3/8-NPT ports in the sides. Any side port can be used as either an inlet or outlet. Any unused ports can be plugged with a 3/8-NPT pipe plug. Adjustable from 25 to 75 PSI.

Mustang Regulators - 10678/10679 (1986-'93 5.0L Ford) and 10680/10681 (1994-'95 5.0L Ford plus some other applications) - These regulators bolt onto the stock (or aftermarket) fuel rails but provide 25-75 PSI adjustability.

Vacuum Fitting on EFI Fuel Pressure Regulators

Certain applications require this fitting be connected to manifold vacuum with a vacuum hose:

1. When running a throttle body system where the injectors are above the throttle butterflies, do not connect to engine vacuum.
2. With port injectors that are below the throttle body butterflies, connect to engine vacuum.
3. When running a blow-through supercharger or turbocharger into the throttle body inlet, connect to engine vacuum.
4. When running a supercharger where injectors are above or ahead of the supercharger inlet, do not connect to engine vacuum.

Special Instructions suitable for all regulators:

Mounting: All Professional Products regulators (except rail mounted Mustang models) come with a stainless mounting bracket. The regulator is packaged in a clamshell with the bracket in the "up" position but it can be unbolted from the regulator and moved to the "down" position if desired. The bracket can be bolted to the firewall, innner fender panel, or special brackets are also available for mounting the regulator direct to a carburetor. On EFI applications it is possible to connect the regulator directly to the end of some aftermarket fuel rails, such as the Professional Products rails, which have a 3/8-NPT thread in the end of the rail. Using a 3/8 to 3/8-NPT pipe nipple, the regulator can mount on the end of one of the rails if you have room. Check the fuel rail section of the Professional Products web site for links to optional mounting methods. While the regulator can be mounted in any position, make sure you will have access to the adjusting screw and nut.

Reading Pressure: Each regulator, except rail mounted Mustang units, has a 1/8-NPT port in the side of the regulator. You can use a Professional Products pressure gauge which screws directly into this port. Use #11112 for carbureted applications and #11113 for EFI applications.

Adjusting: Engine should be at idle when adjusting the fuel pressure. Loosen nut on top of regulator while holding screw in a fixed position with an Allen wrench. To raise the fuel pressure, turn screw clockwise. To lower pressure, turn screw counter-clockwise. Once desired pressure is achieved, hold screw in postion with Allen wrench and lock down the nut.

Optimum Pressure: It is important to recognize that fuel pressure is regulated in a regulator by restricting the flow of fuel for optimum fuel flow on a carbureted vehicle you an run about 6 PSI. Injected vehicles should run about 40 PSI. However, consult your carburetor manufacturer or EFI system manufacturer for their recommendations on fuel pressure.

Ports: If you have a 2-port carbureted regulator and have a carb with only one inlet, you can block the unused regulator port with a 3/8-NPT pipe plug. In fact, any unused outlet port can be blocked on any Professional Products regulator. You cannot use a bypass style regulator on a system without a return line. If you block the bypass or return port, you will destroy the regulator.

Rebuild Kits: Rebuild kits are available for all Professional Products Regulators. See catalog or website for part numbers.