General Installation

When Installing the injector on the blower or tunnel ram manifolds, tighten the bolts evenly to prevent distortion. A gasket or silicone seal must be used between the injector and the supercharger or tunnel ram.

K-Style Metering Valve

The idle check valve should be installed where the housing is marked “RET”. The upper check valve is the secondary check valve and should also have a return line. The fuel line from the pump should be connected to the fitting marked “IN”.

Square Style Metering Valve

The idle check valve should be installed where the block is marked “IN” on a tee fitting. Connect the return line to this check valve. The fuel line from the pump will be connected to the tee fitting. The secondary check valve should be installed where the housing is marked “OUT” Connect your second return line to this check valve. The fitting in the rear corner of the barrel valve should be connected to the distribution block. Systems using a blower with port nozzles will have an 3/8”NPT outlet installed in the bottom of the metering valve.

Idle Control

The idle mixture is controlled by the turnbuckle on the side of the injector. To richen the idle, rotate the turnbuckle towards the rear of the injector, (shortening the linkage leans the mixture, extending richens the mixture). This adjustment is for idle and throttle response only and has no effect on full throttle. The idle RPM is controlled by the butterfly shaft stops on each side of the injector.

Main Bypass Jet

Each fuel injector is furnished with a set of bypass pills. This bypass controls the fuel mixture at full throttle and has little or no effect on the idle. The bypass pill is located under the 9/16 hex plug on the “K-style” metering valve. On a “Square” style metering valve the bypass pill is located on the tee fitting under the idle check valve. Use a smaller bypass to richen the fuel mixture and a larger bypass to lean it.

High Speed Bypass System

Certain applications require the use of a hi-speed lean out. This consists of a bypass pill controlled by a high pressure check valve which leans the fuel mixture at high RPM. The check valve pressure is adjusted with shims to tailor the fuel curve to the engine’s requirements. The check valve opens when the fuel pressure is able to overcome the spring tension. The bypass pill controls the volume of fuel returned. Adding shims will make the check valve open at higher RPM. Removing shims will make the check valve open at a lower RPM. The hi-speed should be thought of as a fine tuning device. The main bypass pill is the primary control of the overall fuel mixture.
Maintenance

The fuel system should be drained between races. It is important to lubricate the fuel pump with Prolong SPL100, light oil or some other type of lubricant. Remove the inlet line from the metering valve and lubricate the metering piston to prevent stickiness and drying out.

WARNING

You must use a 3-way fuel shutoff with a return line to the fuel tank.
A 2-way style shutoff will damage the fuel pump.

Notes
Most return lines can be looped back to the inlet of the fuel pump. This saves weight, cost and assembly time. For multiple return lines we recommend the use of a fuel log.