GFB FX-S

Fuel Pressure Regulator

for factory Bosch replacement

Part # 8051

INTRODUCTION

The FX-S 8051 Bosch replacement kit is the ideal drop-in fuel pressure regulator upgrade to handle a larger fuel pump without having to change the factory fuel rail. It flows more than double most factory regulators (more than enough capacity to handle a 460lph pump for example), and is suitable for regular unleaded, methanol, or ethanol blended fuels.

Warning!!! – Fuel systems operate under considerable pressure both during operation and when powered down. Extreme caution must be taken when working with fuels as they are extremely flammable and dangerous.

Legal Disclaimer:

Any modification of a vehicle's fuel system is accompanied by a certain level of risk associated with combustible materials and methods of ignition.

Go Fast Bits accept no responsibility for any damage to property, or personal injury, which occurs due to improper installation, use, or adjustment, or failure to adequately address the risks associated with the use of this product.

GFB products are engineered for best performance, however incorrect use or modification of factory systems may cause serious damage to or reduce the longevity of the engine.

This product is intended for racing use only, and it is the owner's responsibility to be aware of the legalities of fitting this product in their state/territory regarding emissions and modifications.

Installation Recommendation:

The installation of this product is a modification of the vehicle's fuel system, which requires in-depth training and knowledge of automotive systems and repair methods.

Due to the hazardous nature of installing fuel system components, Go Fast Bits recommend that this product is installed only by a qualified automotive technician.

Installation of this product involves handling of combustible materials. Ensure installation takes place in a well-ventilated area free from sources of ignition, with an approved fire extinguisher nearby. Always follow relevant workplace safety procedures including the use of appropriate protective equipment when installing this product.

Included in 8051 kit:

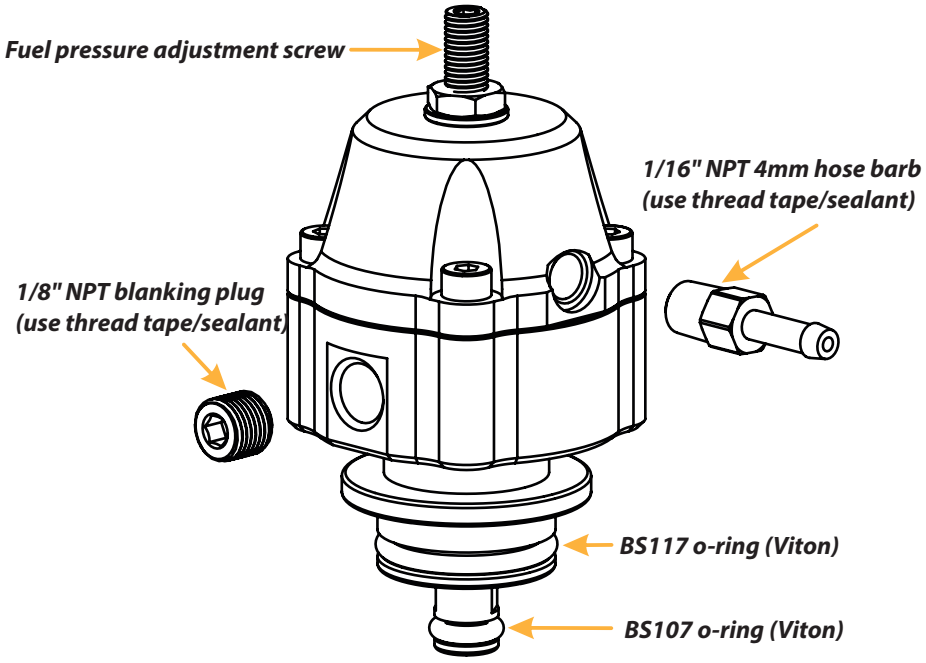
»FX-S Fuel Pressure Regulator

»1/16" NPT 4mm hose barb

»1x 1/8" NPT blanking plug

»1x BS107 o-ring (pre-installed)

»1x BS117 o-ring (pre-installed)



The FX-S has a single 1/8" NPT port on the body that can be used for a fuel pressure gauge/electronic pressure sensor, or it can be plugged with the supplied 1/8" NPT plug. Fuel-safe thread tape or sealant will be required on this thread to prevent a fuel leak. If using thread tape, ensure there is no tape on the leading edge of the thread as pieces of tape could break off and go into the fuel system.

Please ONLY use 1/8" NPT fittings, and note that whilst 1/8" BSP fittings look very similar and will seem to screw in, they will not provide a leak-proof joint.

The 1/16" NPT hose barb does not need thread tape/sealant to prevent fuel leaks, but it does ensure a leak-proof joint in the pressure reference chamber.

INSTALLATION

Step 1:
Remove fuel pump relay or fuse to run the engine until it stalls. This will relieve the majority of the fuel pressure from the existing system.

Step 2:
Let engine cool down. This will minimize any chance of fuel vapour igniting due to hot exhaust etc.

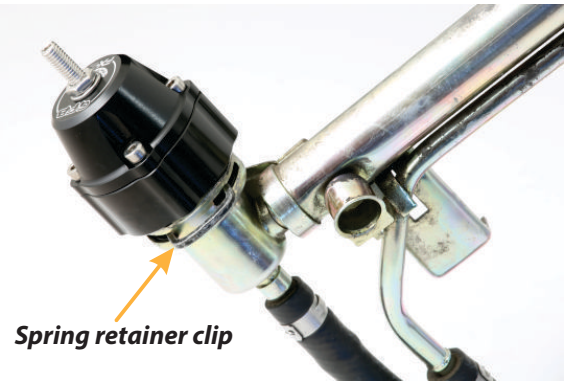
Step 3:
Disconnect battery terminals to prevent potential ignition of fuel in the event of an accidental short circuit.

Step 4:
Remove the fuel pressure regulator vacuum hose, then pull the spring retainer clip out. Carefully pull the regulator out of the fuel rail - it may help to twist it first to break the o-ring friction. Putting a cloth under the regulator will help catch fuel that leaks out - clean up any spills before proceeding.

Step 5:
Fit the 1/8" NPT plug (or fuel pressure gauge/sensor if using) and 1/16" NPT vacuum barb, using fuel-safe thread sealant or tape. Ensure no tape or sealant is applied to the front of the male thread, where it could break away and get into the fuel system.

Step 6:
Check that your FX-S has the two supplied o-rings installed as shown. Lubricate the o-rings with a little engine oil to prevent tearing during installation.

Step 7:
Gently push the FX-S into the housing whilst twisting back and forth to help the o-ring slide in. Re-install the original spring retainer clip. The FX-S can be rotated to whatever orientation you need after installation.



Step 8:
Re-connect the battery and fuel pump fuse, then prime the fuel pump to check for any leaks. It is perfectly normal to hear a "squeaking" noise when you prime the fuel pump for the first time. This noise will only be heard until all the air is purged out of the fuel lines.

Step 9:
With no vacuum hose connected to the top of the FX-S, start your engine, and use a 3mm hex key to adjust the base fuel pressure by turning the adjustment screw. Looking from the top of the FX-S, turning the screw clockwise will increase fuel pressure, and anti-clockwise will reduce fuel pressure. Often the factory regulator you are replacing will have the base pressure stamped into the casing as a starting guide. When you are satisfied with your set pressure, tighten the jam nut to prevent vibration from loosening the adjustment screw. Now you can switch the engine off again.

Step 10:
Connect the vacuum/boost reference hose to the hose barb on the FX-S. Please make sure that this hose does not branch off to any other device (i.e. blow off valve, boost controller, etc) for the fastest and most accurate manifold reference.

Step 11:
Check all hoses and fittings again for any possible fuel leaks. If all checks out OK, you are now ready to run. Please note that tuning may be required to obtain the correct air/fuel ratios across the RPM range.