

SUPER FUEL MANAGEMENT UNIT (SFMU)



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1. MOUNTING AND FUEL LINE ATTACHMENT

- A. Attach the super fuel management unit (SFMU) and bracket to the fender apron or firewall with the supplied screws. The SFMU can be used as a stand alone unit or in series with a standard fuel pressure regulator.
- B. Connect the fuel rail return line to the -6 fitting located on the side of the SFMU. The -6 fitting on the bottom center of the SFMU is to be connected to the return line back to the tank.

2. CALIBRATION RINGS AND DISKS

Three (3) additional calibration rings and disks are included to set the fuel pressure vs. boost pressure slope. Determine the correct calibration ring/disk combination for the particular application by referring to the supplied fuel pressure chart on the back of this page (actual fuel pressure may vary with each vehicle due to differences in fuel pump output, injector size, etc.) The SFMU is assembled at the Vortech factory with a 3.62" calibration disk. If a different disk is required, proceed with the following steps:

- A. Remove the six (6) allen head screws from the top of the SFMU. Carefully remove the lid, diaphragm and disk.

WARNING: Do not remove the four screws holding the valve body to the SFMU housing. Once taken apart, the valve will have to be replaced.

- B. Install the proper replacement ring into the housing. Place the matching disk inside the ring on top of the piston.
- C. Reinstall the diaphragm on top of the disk and line up the holes to the housing.
- D. Reinstall the spring retainer, spring (optional) and cover. Torque the six (6) #10 allen head screws to 24 in./lbs. (2 ft./lbs.) **Do not overtighten.**

3. STATIC FUEL PRESSURE ADJUSTMENT

- A. Loosen the static adjustment jam nut on top of the SFMU and pressurize the fuel system.
- B. Turn the "static" set screw until the desired idle fuel pressure is obtained (typically around 38-40 psig without vacuum supplied). Tighten the jam nut and set screw.

NOTE: Maximum static fuel pressure with the standard SFMU spring is approximately 50-60 psi. DO NOT bottom out the static adjustment screw in order to achieve higher fuel pressure as it will cause internal damage to the unit. If more static fuel pressure is required, replace the standard "static" spring (largest spring in SFMU lid) with the extra spring included in the SFMU box. This spring has a longer free length and will provide higher static pressure along with a slightly faster rate of gain. A third spring, Vortech #7X100-050, is the stiffest spring available but must be ordered separately.

SUPER FUEL MANAGEMENT UNIT (SFMU), CONT'D.

4. VACUUM PORT

- A. Attach a 5/32" or 3/16" vacuum line from the intake manifold to the 3/16" hose barb located on the SFMU lid. Approximately two or three inches from the SFMU, cut the vacuum hose and insert the supplied restrictor. Reconnect both ends of the hose.
- B. Start the engine. Using full idle vacuum and a fuel pressure gauge, adjust the vacuum screw until the desired idle fuel pressure is reached (usually around 32-34 psig).

NOTE: On vehicles with low vacuum at idle (large camshafts), the vacuum adjustment screw may have little or no effect on fuel rail pressure.

5. BOOST PORT

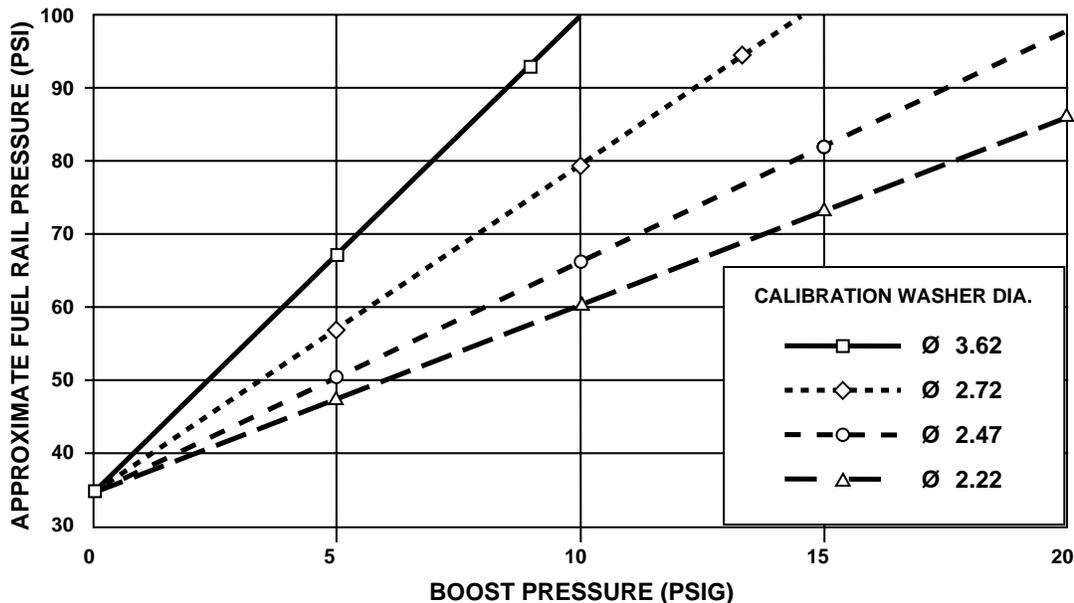
The boost screw limits the maximum fuel pressure under boost. If the screw is set all the way in, it will not regulate and the fuel pressure curve will continue to rise as boost increases. Turning the screw counterclockwise will allow the valve to regulate the internal air pressure and maintain a fuel pressure upper limit.

NOTE: A container of compressed air with a regulator is helpful to simulate manifold pressure when setting up the SFMU fuel curve.

6. BLEED PORT

This port comes from Vortech plugged. If desired, an optional bleed valve is available which can lower the slope set by the calibration disk and dampen the fuel curve transitions.

FUEL PRESSURE CHART
(SPRING INSTALLED, STATIC FUEL PRESSURE SET AT 35 PSI)



*SUPER FUEL MANAGEMENT UNIT (SFMU),
CONT'D.*

NOTE: If the rate of gain that the 2.22" disk gives is still too high, ring #6X070-041 may be used in conjunction with assembly #6Z170-010 or #6Z170-015. #6Z170-015 will give approximately 1.5:1/2:1 rate of gain. #6Z170-015 will be slightly higher. These parts are available separately through Vortech.