4717 GOLDEN FOOTHILL BLVD • EL DORADO HILLS, CA 95762 • (916) 933-1080 • FAX (916) 939-9196 • www.comptechusa.com • M-F 8:00 AM—5:00 PM PST

INS-036 VERSION: 5.10.2001

Fuel Pressure Regulator, Factory Calibration

As supplied from Comptech the fuel pressure regulator has the following internal components:

Unplated Steel Spring with 2" Free Length, *P/N 361-013*
3.62" Dia. Calibration Washer, *P/N 361-006-3.62"*

The regulator has been preset from the factory to a static fuel pressure of 62psi.

Tuning the Fuel Pressure Regulator

The following information should prove helpful if tuning the regulator is required. Tuning items supplied with the regulator are as follows:

(1) Unplated Spring, 2" Free Length, *P/N 361-013* (installed from factory)
(2) Plated Spring, 2" Free Length, *P/N 361-012*
(3) Plated Spring, 1.5" Free Length, *P/N 361-011*
(4) 3.63" Dia. Calibration Washer, *P/N 361-006-3.62* (installed from factory)
(5) 2.72" Dia. Calibration Washer, *P/N 361-010-2.72*
(6) Calibration Ring, P/N *361-014-3.0*
(7) Air Bleed, *P/N 361-018-040*
(8) Air Bleed Block Off, *P/N 802-6020* (installed from factory)

Calibration Washers

The calibration washers and ring are used to adjust the amount of fuel pressure relative to boost pressure. In general the larger the washer, the greater the rate of gain of fuel pressure vs. boost pressure. Graphs 1-3 may be used as reference when tuning the regulator's fuel vs. boost curve. The various graph's curves illustrate the regulator's behavior with the 3 springs supplied and both the 3.62" Dia. calibration washer and the 2.72" Dia. calibration washer & ring.

IMPORTANT: The fuel needs to come in on the –6 male inlet marked with an "A" (see diagram part #8)

Springs

The springs supplied with the regulator are used to adjust its range of static fuel pressure. The following table describes the approximate range of the springs supplied with the regulator:

If the static fuel pressure required is not in the range of the spring installed, it will be necessary to install the appropriate spring. Do not bottom the adjustment screw when adjusting the static fuel pressure, this will damage the regulator!

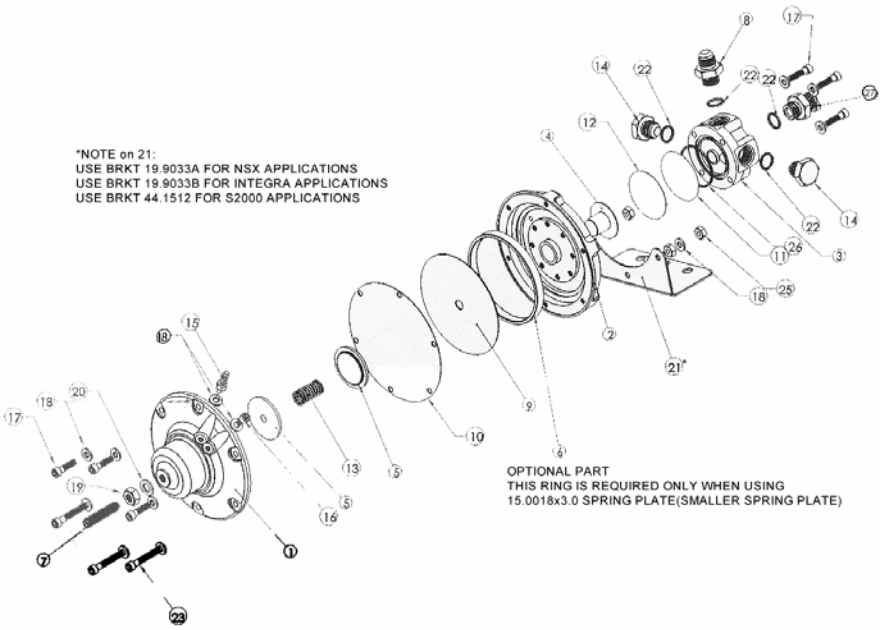
Spring Description	Approximate Range Static Pressure
Unplated, 2" Free Length, *P/N 361-013*	50-80psi.
Plated, 2" Free Length, *P/N 361-012*	28-46psi.
Plated, 1.5" Free Length, *P/N 361-011*	16-40psi.

The slope of the fuel pressure vs. vacuum curve is not affected by either the spring or calibration washer. This curve's slope is approximately .75psi./in.Hg. (i.e. A static fuel pressure of 50psi will drop to approx. 37.5psi @ 20in of vacuum.)

Air Bleed

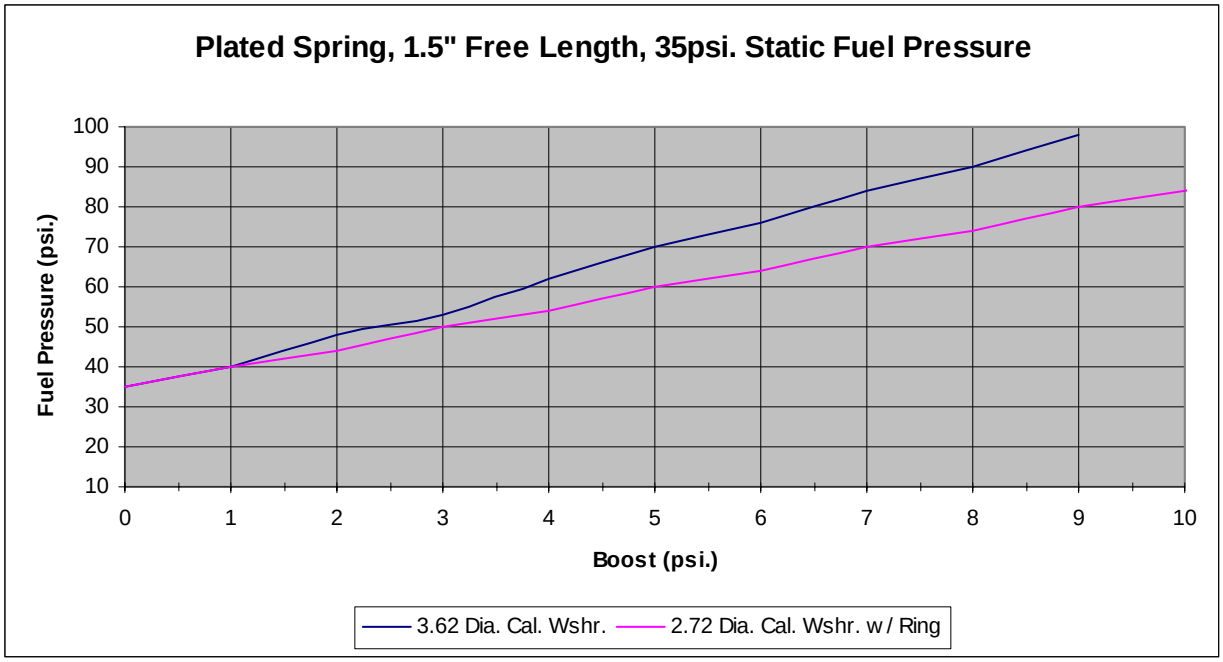
The air bleed provided with the regulator reduces pressure/vacuum signal to the regulator. Reducing this signal has two results. It will both lessen the slope of the fuel pressure vs. boost/vacuum curve and damp any fluctuations in the boost/vacuum signal from the engine. (I.e. If you see max pressure of 70psi @ 10psi of boost with a .040" bleed; you may see a max pressure of 80psi @ 10psi of boost with a .025" bleed.)

		Fuel Pressure Regulator Sub-Assembly:
Drawing	Quan.	Description
1	1	FPR Top Cap
2	1	FPR Body
3	1	FPR Fuel block
4	1	FPR Piston
5	2	Spring Perch
9	1	Calibration Washer (3.620"dia.)
7	1	Jack Screw (fuel pressure adjustment screw)
19	1	Jack Screw Lock Nut 5/16x18
20	1	Sealing Washer
8	2	-6 to -6 Male Fitting (fuel inlet)
14	2	-6 Male Fitting Plug
10	1	Large Diameter Diaphram
12	1	Small Diameter Diaphram
11	1	Steel Diaphram
13	1	FPR Spring (heavy duty)
15	1	10-32 X 1/8" vacuum Barb Fitting
16	1	10-32 x 1/4" SHCS (no Bleed)
18	11	10-32 Washer S.S.
21	1	FPR Mounting Bracket (universal mount)
22	4	O-Ring #906
26	1	O-Ring #028
23	3	10-32 x 1 1/4" S.S. SHCS
17	3	10-32 x 3/4" S.S. SHCS
25	3	10-32 S.S. Nylock Nut
		Optional Parts
13	1	Medium Spring
13	1	Light Spring
9	1	Calibration washer (2.720")
9	1	Calibration washer (3.0")
6	1	Calibration Ring
16	1	10-32 x 1/4" SHCS Drilled w/.040" Bleed
21	1	NSX Mounting Bracket
21	1	S2000 Mounting Bracket
27	1	(-4 to -6) male fitting (replaces 1 of # 15.0017)

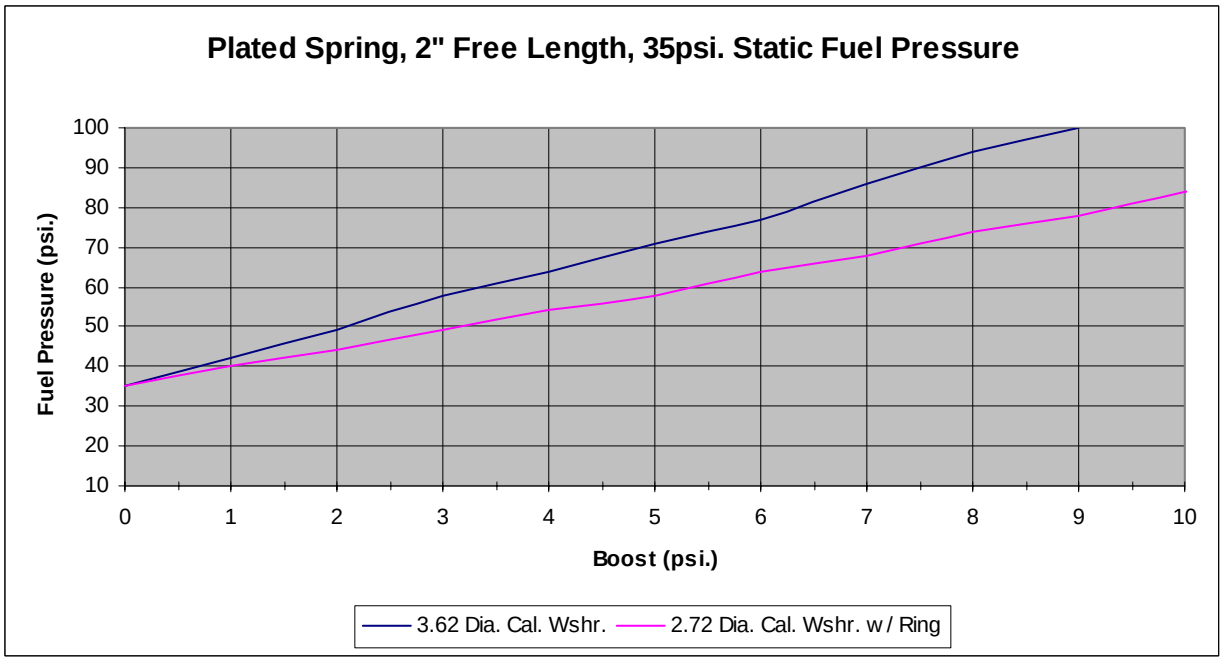


The following graphs are a few examples of what you will see with the variations shown in the Tuning section of these instructions.

Graph 1



Graph 2



Graph 3