



Installation Instructions for KPMI Part No: 60-60600
2005-'08 • Suzuki • GSX-R1000
Lightweight Racing & Stainless Steel Conversion Valve Spring Kit

A) 60-60600 Kit Includes

<u>Qty</u>	<u>Application</u>	<u>Description</u>
16 - Pcs	Intake / Exhaust	Titanium Retainers
16 - Prs	Intake / Exhaust	Chrome Silicon Springs
16 - Pcs	Intake / Exhaust	H.T. Steel Basewashers
16 - Pcs	Intake / Exhaust	Spring Shims
16 - Pcs	Intake / Exhaust	Spring Shims

Note: The provided spring shims have been included to convert this spring kit for use with stainless steel valves. See Section B for details.

B) Recommended Installed Height - Intake / Exhaust (Titanium Valves Only)

1. Installed Height (Outer Spring) **1.330"-1.340"**
2. Seat Pressure **43 lbs**
3. Open Pressure at .370" lift **133 lbs**
4. Open Pressure at .455" lift **152 lbs**
5. Max Valve Lift **0.445"**

Recommended Installed Height - Intake / Exhaust (Stainless Steel Conversion)

1. Installed Height (Outer Spring) **1.240"-1.250"**
2. Seat Pressure **65 lbs**
3. Open Pressure at .370" lift **156 lbs**
4. Max Valve Lift **0.370"**

Note: To achieve the proper installed height when using the stainless valve conversion, it may be necessary to utilize the 0.030" & 0.060" shims provided with the kit.

C) Notes

1. The difference between the installed height and the coil bind height is considered "Free-Travel"
The coil bind height is determined by compressing the spring or springs with the retainer and basewasher in place, a vice can be used for this operation, once springs are compressed measure the distance between the retainer and basewasher where the outer spring contacts them.
2. Free-travel should always be gross valve lift +.060" for safe operation.
3. Retainer to seal and retainer to guide clearance should also be gross valve lift +.060" for safe operation.
4. Failure to check valve train clearances can result in serious damage to an engine

Packaged By: _____

Date: _____

TECH TIPS

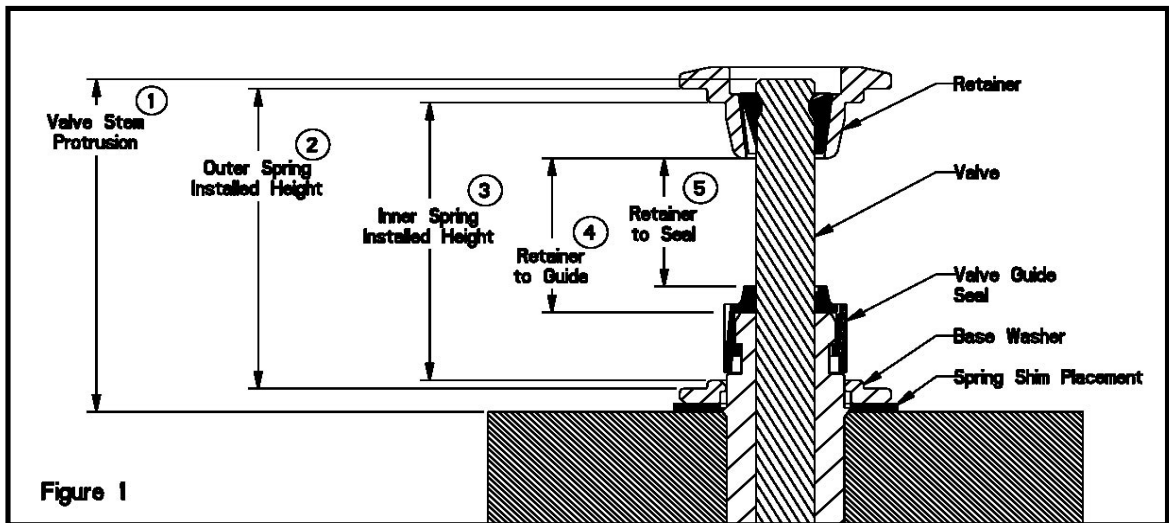


Figure 1

Valve Train Terminology

1. Stem Protrusion is measured from the tip of the valve stem to the cylinder head. See Figure 1.
2. Outer spring installed height is measured where the outer spring contacts the retainer and lower component when assembled. See Figure 1.
3. Inner spring installed height is measured where the inner spring contacts the retainer and lower component when assembled. See Figure 1.
4. Retainer to guide clearance is the distance between the valve guide (w/o the seal) and the bottom of the retainer, with the valve in the closed position. See Figure 1 and Notes 3 & 4.
5. Retainer to seal clearance is the distance between the valve stem seal and the bottom of the retainer, with the valve in the closed position. See Figure 1 and Notes 3 & 4.

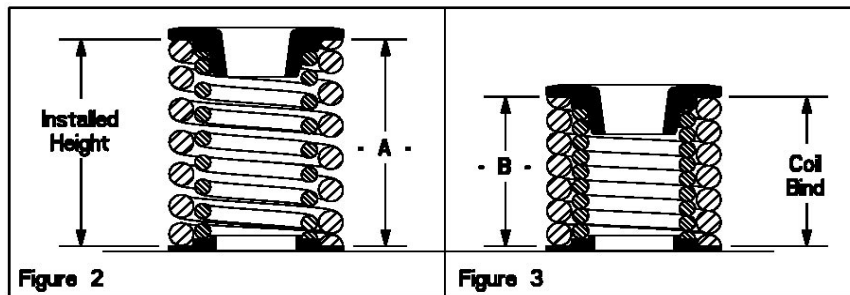


Figure 2

Figure 3

Installed Height

1. In Figure 2 the installed height is measured from where the outer spring contacts the retainer and the basewasher. This measurement is taken when the valve, basewasher, retainer, and keepers are assembled in the cylinder head.

Coil Bind / Solid Height:

1. In Figure 3 the coil bind height is determined by compressing the spring or springs with the retainer and basewasher in place, a vice can be used for this operation, once springs are compressed measure the distance between the retainer and basewasher where the outer spring contacts them.

Notes:

1. The difference between the installed height and the coil bind height is considered "Free-Travel"
2. Free-travel should always be gross valve lift +.060" for safe operation.
3. Retainer to seal and retainer to guide clearance should also be gross valve lift +.060" for safe operation.
4. Failure to check valve train clearances can result in serious damage to an engine.