

RACETECH

FORK GOLD VALVE INSTALLATION STREET / ROAD RACE SPECIAL 20mm

FK code

<IP FMGV S2044.doc> FMGV S2044, FMGV S2045 P Thede © 6-15-22

TOOLS REQUIRED: (In addition to those required for fork disassembly.) In-lb Torque Wrench that accurately measures 0 to 50 in-lbs (0.58 kgf-m), 5mm Allen Wrench, 1/2" Wrench, Hi-Strength Loctite (included), Metric Calipers, 0-25mm Metric Micrometer, Drill Motor and 1-60 Numbered Drill Set or Metric Drills by 0.01mm (see step 3).

NOTE: Many riders require different fork springs. Please consult racetech.com/ProductSearch

DISASSEMBLY

- CLEANLINESS IS CRITICALLY IMPORTANT.** Completely disassemble and clean your front forks. *If you are unfamiliar with this process, STOP!!!! Do not proceed. Seek out a qualified suspension technician to complete the installation.*
- Remove the cartridge. Once the cartridge is out, **remove the compression valve body from the cartridge.** The compression adjuster assembly screws into the bottom of the cartridge tube. This type uses a thread locking compound. Heat can be very helpful in disassembly to loosen the Loctite. Light tapping with a small ball peen hammer on the outside of the cartridge tube at the threads also works. Loctite must be used on reassembly on this type as well. Be very careful when holding the cartridge tube, it is very easy to dent or distort it (TFSH 20 Shaft Holding Tool is helpful).

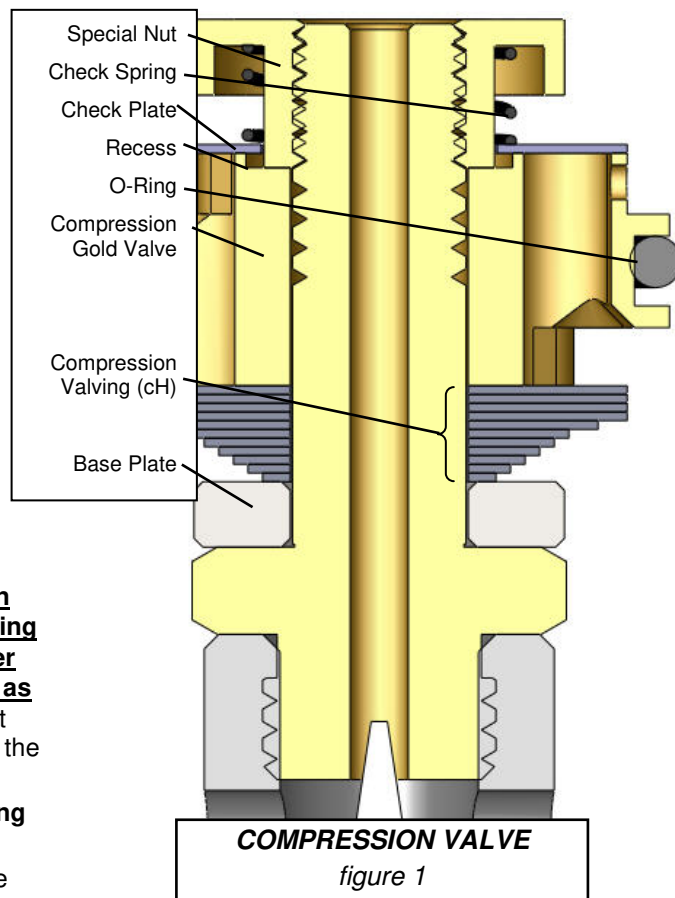
COMPRESSION VALVING

- To obtain custom valving settings for your particular application log on to www.racetech.com, go to Digital Valving Search, insert your Access Code (printed on the top of the first page), input your personal specifications and print the DVS Custom Setup Sheet.

- If your Custom Setup requires a Compression Bleed Hole - Drill one hole horizontally, through one of the port walls just above the step for the o-ring on the Compression Gold Valve. Placement is not critical.

Your model will require a Bleed if your fork does not have an external compression adjuster or some other type of fixed bypass hole in the cartridge tube. (89-95 ZX7 requires a bleed hole, ZX7R does not). (If there is an existing bleed in the cartridge tube it is usually located approximately 40mm (1.5") up from the bottom of the tube as with some models of FZR 1000.) If your forks have an external compression adjuster or another type of fixed bypass, ignore this step.

- Begin assembling the compression valving assembly by first **installing the valving bolt into the large base bolt.** Use Loctite.
- Put the valving on the shaft in the order listed, starting with the smallest diameter shim and ending with the 17mm shim closest to the Gold Valve.
- IMPORTANT NOTE:** There are two different size o-rings in this kit. Most applications (ZX7 and ZX7R) take the fat o-ring as they seal on the 21mm bore of the cartridge tube. Other applications (FZR1000 and 96 YZF600) use the thin o-ring as they seal on the 20mm bore. Select the proper o-ring. Put the proper o-ring on the Gold Valve. Place the Gold Valve on the shaft with the recess on the piston facing up.
- Place the check valve plate (*large ID washer*) and the spring on the shaft.
- Install the special nut. Be sure the check plate is free before



tightening or you will damage it. Torque the nut. **CAUTION! The threads can be damaged without extreme care. You must use Loctite. The 6mm bolt must be torqued with a torque wrench to 30 in-lbs (2.5 ft-lbs or 0.35 kgf-m), NO MORE! Do not take this step lightly.**

- 10 **Inspect your work.** Hold the compression stack up to the light and look for proper assembly. If there are any problems, disassemble the stack and look for burrs to surface and/or dirt in the valving. Reassemble and check again.

CARTRIDGE BUSHING IMPORTANT!!

Most applications for this kit (most KYBs, ZX6R, ZX7, ZX7R, YZF750 and FZR1000) have aluminum shaft bushings that wear and leak badly. Special bushings (FKRB 1015P) cures this problem. **They should be installed at this time.**

- 11 **Install the compression assembly into the cartridge.**

REBOUND VALVING (optional)

Many models benefit from rebound damping changes using a Rebound Gold Valve Kit FRGV S01. These models are: KAWASAKI 91-95 ZX7, 91-94 ZX7R, 94-96 ZX9R. If you have this kit, install it at this time. If you are using FRGV S01 Rebound Kit use USF05.

REASSEMBLY

- 12 **Reassemble the forks according to the procedure in your manual.** Bleed the cartridge and set the oil level with the forks and the damping rod completely bottomed. **Set the spring preload and oil level** according to the Digital Valving Search Setup Sheet. If you are using FRGV S01 Rebound Kit use USF05.
- 13 **Use Loctite on the damping rod threads at the cap and torque it to manufacturers specs.** Some models require careful positioning of the rod in the cap so the proper number of rebound clicks are available for adjustment. If the rod is threaded too far into the cap there will not be the full number of clicks. If the cap is not threaded on far enough, it will not touch the adjuster and it could come off the shaft. On this type, set the total number of available clicks to 15 to 20 (or 4 turns if there are no "clicks"). Consult owners manual for the proper procedure.
On most **KYBs**, screw the adjuster in all the way and back it out 2 clicks with the cap off. On some models, there's no stop when you screw the adjuster in, so the procedure is a little different. Screw the adjuster out all the way, then screw it in 3 to 4 turns. Then for either type, install the cap onto the rod until it starts to feel tight (the adjuster needle is bottomed out). Hold the position of the cap in relation to the rod, back out the adjuster 5 clicks (so the needle isn't damaged when the slop is taken up in the threads) and tighten the jam nut. Check to see you have the proper number of clicks.
- 14 **Adjust the compression and rebound adjusters** according to the DVS Setup Sheet. **NOTE: 91-95 ZX7/R spring adjustment is not a preload adjustment, it is a travel and ride height adjustment. The more you screw it in the more travel and the higher the ride. This will affect turning characteristics.**
- 15 **Install the forks on the bike.** It is very important to align the fork tubes. This is done by first tightening the axle all the way, then the tubes are aligned by pumping the forks up and down with the right-hand axle clamp loose. This will line the tubes up so they won't bind. Finally, tighten the axle clamp. Some models do not grip the axle this way. You may need to make spacers or washers to create the proper width.
- 16 **If you have any questions** please call Technical Support at 951.279.6655.