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FORK GOLD VALVE INSTALLATION

STREET / ROAD RACE 20mm – 06+ R6 w/Hi-Speed Adjuster

<IP FMGV S2049.doc> FMGV S2049 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), Hi-strength Loctite (included), Metric Calipers, 0-25mm Metric Micrometer.

SPECIAL TOOLS REQUIRED: Compression Adjuster Socket (TFCA 02), Fork Spring Compressor (TFSC 01), Cartridge Holding Tool (TFCH 04) only if working on the Rebound.

NOTE: You may require different fork springs. Please consult racetech.com/ProductSearch.

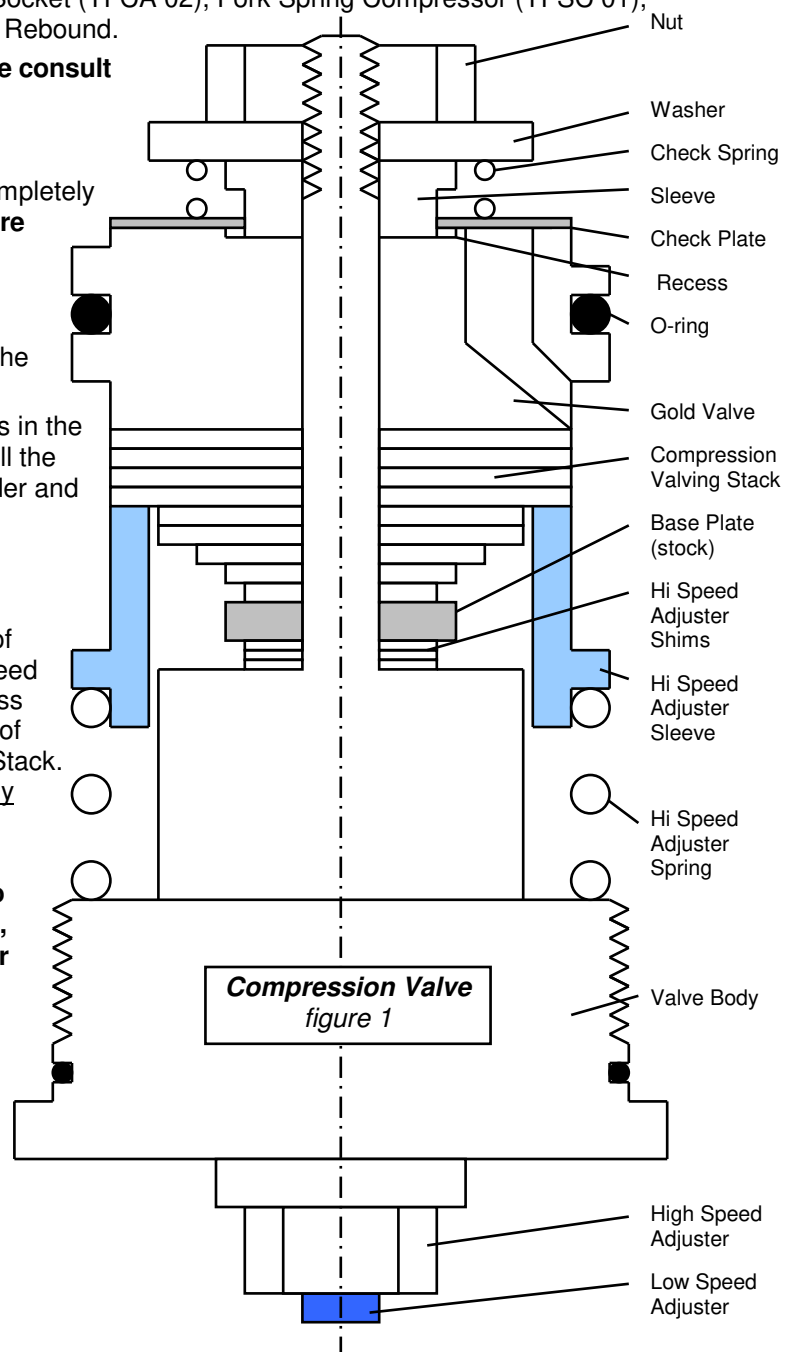
DISASSEMBLY

- 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.
- Unscrew the compression valve assembly** from the fork leg using TFCA 02.
- Disassemble the valving stack.** Lay out the pieces in the order they come off the shaft. **Clean and inspect** all the original parts. Be careful to maintain the original order and orientation of the parts. (You will need to re-use the original Base Plate, do not discard.)

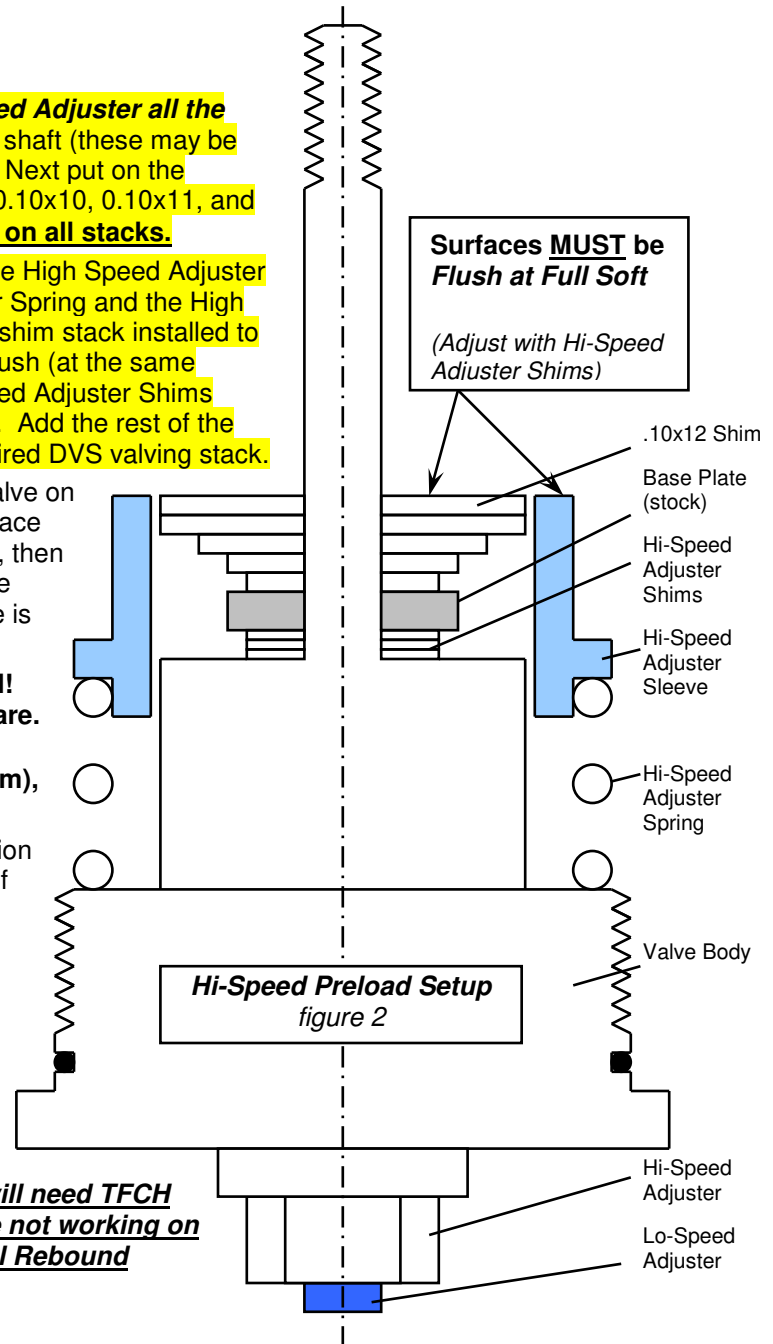
COMPRESSION VALVING

This Compression Valve design allows adjustment of both Lo-Speed and Hi-Speed Damping. The Lo-Speed Adjuster controls the amount of flow through a bypass circuit. The Hi-Speed Adjuster controls the amount of Spring Tension added to the Compression Valving Stack. It is vitally important to set the spring tension properly (see step 7).

- To obtain custom valving settings for your particular application log on to racetech.com, go to DVS Valving Search, insert your Access Code, input your personal specifications and print your Custom Setup Sheet.**



- 6 **Before you begin assembly back out the Hi-Speed Adjuster all the way (figure 1).** Next place (4) 0.10x9 shims on the shaft (these may be changed when the Hi-Speed Adjuster is shimmed). Next put on the original base plate (2.0x10). Then add the 0.10x9, 0.10x10, 0.10x11, and (3) 0.10x12. **This part of the valving is the same on all stacks.**
- 7 **Shim the High Speed Adjuster (figure 2).** With the High Speed Adjuster backed out all the way, install the Hi-Speed Adjuster Spring and the High Speed Adjuster Sleeve. Compare the height of the shim stack installed to the height of the Adjuster Sleeve – they should be flush (at the same height). If they are different, add or subtract Hi-Speed Adjuster Shims below the Base Plate until they are the same height. Add the rest of the 17mm diameter shims as are called out by the required DVS valving stack.
- 8 Put the 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*) on the shaft, then the Check Valve Sleeve and the Spring. Be sure the Sleeve fits into the recess in the piston and the plate is free.
- 9 **Install the nut or the bolt and tighten it. CAUTION! The threads can be damaged without extreme care. You must use Loctite. It 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 the assembled stack.** 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.
- 11 **Install the compression assembly back into the fork tube.**



REBOUND VALVING

R6s benefit from rebound damping changes. A Rebound Gold Valve Kit is available (FRGV S02). Follow the instructions included with the kit. You will need TFCH 04 Cartridge Holding Tool for installation. If you are not working on Rebound you don't have to disassemble the internal Rebound Cartridge.

ASSEMBLY

- 12 **Reassemble the forks according to the procedure in your manual. Use the proper spring rate.** Bleed the cartridge and **set the oil level** with the forks and the damping rod completely bottomed. **Set the oil level and spring preload** according to the DVS Setup Sheet.
- 13 **Install the cap.** Start by unscrewing the adjuster all the way. Thread the stock Special Nut on the Damping Rod all the way. Add the Washer. Use Loctite on the damping rod thread at the cap. Install the Cap on the Damping Rod and tighten it all the way until it stops. Tighten the Jam Nut and torque it to manufacturer's specs.
- 14 **Adjust the Lo and Hi-Speed Compression and Rebound Adjusters** according to the Digital Valving Search Setup Sheet.
- 15 When the forks are put on the bike it is very important to **align the fork tubes**. This is done by first tightening the axle all the way, and 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.
- 16 If you have **any questions** please call Technical Support at 951.279.6655.