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FORK GOLD VALVE INSTALLATION

DIRT with ADJUSTABLE COMPRESSION BASE

<IP FMGV 2001w.doc> **FMGV 2001** P Thede © 12.5.15

TOOLS REQUIRED: *(In addition to those required for fork disassembly - like a 14mm Allen socket and 1/2" air impact.)* In-lb Torque Wrench that accurately measures 0 to 50 in-lbs (0.58 kgf-m), 1/2" Socket, Hi-Strength Loctite (included), Metric Calipers, Metric Micrometer 0-25mm.

NOTE: Many riders require different fork springs. Please consult www.racetech.com or call Race Tech.

STANDARD INSTALLATION

1 **You do not have to completely disassemble your forks to revalve them.** If they are due for a service this is, of course, the perfect time for that job. **If you require assistance, STOP! Do not proceed. Seek out a qualified suspension technician to complete the installation.**

2 **Remove the stock compression body** that holds the compression valving. This is usually a 14mm Allen wrench located on the bottom of the forks. Use a 1/2" air impact to make it easier.

3 **Place the original copper washer and o-ring on the Gold Valve Body and install it in the fork**. Check your owner's manual for the proper torque setting. Set the compression adjuster. A good starting point is 2 turns out from all the way in (there are no "clicks"). That's it, you're done!

VALVING

To obtain custom valving settings go to Digital Valving Search, insert your Access Code, input your personal specifications and print the custom setup information. If you do not have access to the web, contact our Technical Support Hotline 951.279.6655 for recommendations. Note: The Access Code is good for one limited-time use.

The standard valving that comes installed on the Gold Valve is Single Stage ***cL1007 (1502) and cH148 (104) with NO Crossover****.* ***If you need to change valving, follow these steps:***

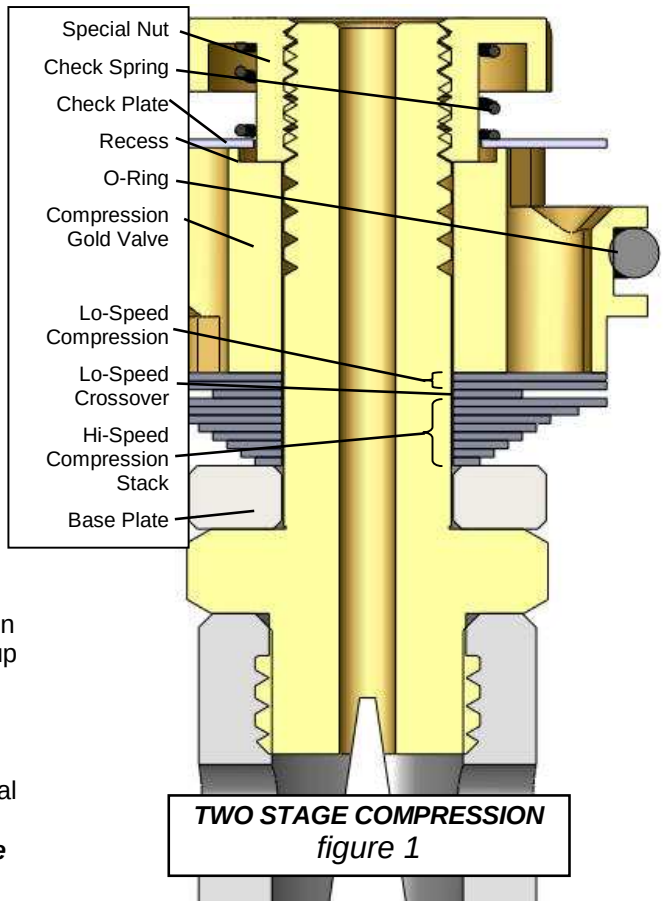
1 Once you have selected your valving **begin assembling the valve**. (figure 1) Place the original Base Plate on the shaft of the compression valve.

1a **Single Stage Stacks** - A Single Stage Stack is a two-part stack made up of **a combination of a Lo-Speed Stack and a Hi-Speed Stack with NO Crossover**. Put the valving on the shaft in the order listed, starting with the smallest diameter shim of the Hi-Speed Stack. Then the Lo-Speed Stack gets placed on top of the Hi-Speed Stack. **You will not use a Crossover**.

1b **Two Stage Stacks (figure 1) -** For Two Stage Stacks the total valving stack is made up of **a combination of a Lo-Speed Stack, a Lo-Speed Crossover and a Hi-Speed Stack**. Put the valving on the shaft in the order listed, starting with the smallest diameter shim of the Hi-Speed Stack. Then the Lo-Speed Crossover gets placed on top of the Hi-Speed Stack, then the Lo-Speed Stack ends up closest to the Gold Valve.

2 Make sure the o-ring is on the Gold Valve. **Place the Gold Valve on the shaft** with the recess on the piston facing up.

3 Put the check spring and the check valve plate on the special nut. Use Loctite on the threads and loosely install the nut assembly. **Check to see that the check valve plate *(large***



TWO STAGE COMPRESSION
figure 1

ID washer) **is free** and can move up and down against the spring.

4 ***CAUTION! The threads can be damaged without extreme care. To install the bolt you must use Loctite. The 6mm nut (10mm wrench) must be torqued with a torque wrench to 25 in-lbs (2 ft-lbs or 0.29 kgf-m), NO MORE! Do not take this step lightly.***

5 **Inspect your work**. For two stage stacks, hold the compression stack up to the light and look for the gap at the cross-over between the Lo-Speed and Hi-Speed stack *(the small shim near the top of the stack).* This gap should be visible, if it isn't, disassemble the stack and look for burrs to surface and/or dirt in the valving. Reassemble and check again.

REASSEMBLY

If the forks have been completely disassembled

1 **Reassemble the forks according to the procedure in your manual**. Torque the compression valve body to manufacturer's specs. Consult your owner's manual for specs. Bleed the cartridge and set the oil level.

NOTE: *Upside-down KYB forks without a bleed hole in the inner (chrome) tube, require special care to set the oil level. There is a space between the inner and outer tube and without a bleed hole there is no way to know how much oil is in this space. To deal with this situation extend the outer tube all the way before setting the level, this will dump all the oil from this space into the inner tube. This will call for slightly higher oil level settings than the manufacturers recommend.*

2 **Install the cap**. Use Loctite on the damping rod threads at the cap and torque it to manufacturers specs *(typically 16 ft-lbs 21.7 NM).* Consult owner's manual for specs.

3 ***Adjust the compression and rebound adjusters, spring preload, and oil level*** according to the Digital Valving Search Setup Sheet. Be sure to bleed the cartridge.

4 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, 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.

5 If you have **any questions** please call our Technical Support Hotline at 951.279.6655.

TUNING NOTES

- **Damping depends on vertical wheel velocity, not position in the stroke**.
- **If the forks feel too soft all the way through**, increase compression damping with the external adjuster. If that is not enough, change the compression stack internally.
- **The compression damping adjuster** controls the lowest speed damping and affects the entire range. NOTE: The closer to maximum damping (full clockwise) the more effect one click makes. In other words going from 3 to 2 out has a lot more effect than going from 14 to 13. Adjusters are numbered from all the way clockwise (the slowest or firmest setting).
- **If your valving needs to be stiffer, move to the right on the valving chart**. Moving to the right on the Lo-Speed Valving Chart will stiffen up Lo-Speed damping. This will improve bottoming resistance with minimum increase in harshness. Moving to the right on the Hi-Speed Valving Chart will increase damping overall, making it stiffer through the entire speed range particularly landing off jumps. If the forks are too firm, go to the left.
- **Spring rate affects ride height, dive and bottoming**. Typical spring preload should be 2-5mm (0.1–0.2").
- **Oil level can drastically alter bottoming resistance** and only affects the last part of the travel (near bottoming). If you like the action but the forks bottom too easily, raise your oil level by 10mm (0.4").

BUILDING the VALVING STACK - DIRT 20mm

Welcome to the wonderful world of Gold Valving. **To obtain your personal Custom Suspension Settings:**

1. **Go to Digital Valving Search (DVS)**
2. **Input your Access Code when prompted**
3. **Input your personal specifications**
4. **Print your DVS Custom Suspension Setup Sheet**

If you do not have access to the Internet, contact our Technical Support Hotline 951.279.6655 for recommendations. Note: The Access Code is good for one bike, limited-time use.

Once you have your valving settings, build your valving stacks.

Single Stage - made up of a Lo-Speed and a Hi-Speed Stack. You will not use a Lo-Speed Crossover.

Two Stage - made up of a Lo-Speed Stack, Lo-Speed Crossover and a Hi-Speed Stack.

Example Single Stage:

Starting from the Gold Valve piston face:

Lo-Speed Stack

(2) .15x17

Hi-Speed Stack

(1) 0.10x17
(1) 0.10x15
(1) 0.10x14
(1) 0.10x13
(1) 0.10x12
(1) 0.10x11
(1) 0.10x10
(1) 0.10x9

Example Two Stage:

Starting from the Gold Valve piston face:

Lo-Speed Stack

(2) .15x17

Crossover

(1) .10x11

Hi-Speed Stack

(1) 0.10x17
(1) 0.10x15
(1) 0.10x14
(1) 0.10x13
(1) 0.10x12
(1) 0.10x11
(1) 0.10x10
(1) 0.10x9

OIL LEVEL, EXTERNAL ADJUSTERS, SPRING RATE, and PRELOAD are all listed on the DVS on racetech.com.

NOTE: All measurements are metric *(for inches divide by 25.4)*. The valving list starts at the piston face and goes towards the base plate. Valve specs are listed by (QUANTITY) THICKNESS x DIAMETER. A number in parentheses means quantity. If there is no number in parentheses the quantity is one. Example: (2).15x17 means quantity two, 15 hundredths of a millimeter thick by 17 millimeters in diameter.