

SUSPENSION SETUP

STEP 1: Measure suspension "Race Sag": (Most important adjustment there is) All measurements are made between the rear fender and the rear axle. The first measurement is made with the bike on a center stand with the rear wheel in the air.

The second measurement is made standing on the foot pegs with full equipment. The difference between these two measurements must be 95mm Short track and Supercross, 97mm Natural terrain moto-cross, 102mm Gran Prix and desert.

STEP 2: TUNE RACE SAG (*The other "most important adjustment"*)

Adjust the forks to the standard height in the triple clamps before starting any adjustments.

Increasing the preload on your rear spring will decrease the Race sag. This will raise the rear of your bike putting more weight on the front wheel and reduce the front-end rake. This will always make the bike turn sharper. However, if you tighten the spring too far it will make the bike twitchy and promote headshake.

Decreasing the preload on the rear spring will increase the Race sag. This will lower the rear of your bike, putting less weight on the front wheel and causing it to ride like a "chopper". This will reduce head shake, making the bike go straighter and be more secure in high speed sections. However, if you loosen the spring too far the bike will be harder to turn.

To fine tune the spring preload (Race Sag), try tightening the rear spring adjusting nut 1/2 turn at a time and mentally note how much easier the front end will dive into a turn and hold the inside line. Continue this spring tightening until the bike becomes twitchy and unstable, or it feels like you're always pulling up on the handlebars. Measure and record your Race Sag.

Then try loosening the rear preload 1/2 turn at a time and mentally note how the rear end "Squats" down and traction increases as you exit each turn. When you reach the point of excessive front-end lift (wheelies) and loss of steering, or you begin to have trouble holding a tight turn, the spring is too loose and you have too much Race Sag. Measure and compare these two extremes, then reach a compromise between them that balances "stability" and "tight turning".

Tune the front-end ride height to match the rear end!

If the Race Sag compromise you determined above is close to the typical measurements listed above, your fork height adjustment in the triple clamps is probably about right.

Raising the forks in the triple clamps will lower the front end making the bike turn sharper but will reduce high-speed stability. (Similar to increasing the rear preload.)

Lowering the forks in the triple clamps will raise the front end making the bike harder to turn, but will reduce high-speed stability. (Similar to lowering the rear preload.)

NOTE: Once you have established the best overall ride height front and rear, ***record these settings*** as your baseline. For added stability on a Desert or Gran Prix track, I always push my forks down about 3-5mm. For Moto-Cross I pull them back up to improve turning. To further improve turning on a flat Supercross style track, tighten the rear spring about 1 turn.

STEP 3: Break in the new suspension valves and oil.

Leave the settings as received for at least 1/2 hour. Put the bike on a center stand and release the accumulated air from the front forks. Re-measure the rear shock sag to insure this critical adjustment is still 102mm. Ride once again concentrating on any gross problems like suspension bottoming front or rear, definite harshness.

STEP 4: Adjust compression damping for bottoming.

Rear shock: Increasing your compression damping (the screw on the shock reservoir), will slow down the compression stroke and decrease rear end bottoming. Turn your compression adjuster "in" (clockwise) to reduce bottoming. If you never bottom, try turning your adjuster "out" (counter clockwise) to soften the compression damping and use more travel. Slight occasional bottoming is OK, but don't allow the bike to crash down when bottoming.

Front Forks: Increase the compression damping (the screw at the bottom of the forks) to slow the compression stroke and decrease front end bottoming. Turn your compression adjuster "in" (clockwise) to reduce bottoming. If you never bottom, try turning the adjuster "out" to soften the compression damping and use more travel.

NOTE: Softer, screw "out", settings provide a plush mushy feel which works well for cross country racers trying to go straight and conserve energy. Stiffer, clicker "in", settings hold the suspension up and out of holes and provide more lift on jump take-offs. Additionally, body English and throttle changes transfer directly into the dirt instead of getting lost in a mush suspension.

STEP 5: Adjust compression damping front & rear.

(Note: Bring a small screwdriver with you and make adjustments at your test track.) It is important to make all damping decisions with the ***suspension hot*** and to immediately test the change.

Making damping decisions in the garage can lead to nasty surprises. Letting your friends adjust your suspension is also a no - no.

If "bottoming" is noted at either end, the compression damping should be adjusted "in" (clockwise) to reduce the compression stroke. The front fork compression

adjuster is the slotted screw at the bottom of the fork. The rear compression adjuster is the screw in the shock reservoir.

STEP 6: Adjust rebound damping front/rear. (Critical adjustment, change slowly)

If either front or rear tends to kick up, (rebound), more than the other after landing from a large jump, then more rebound damping is needed at that end. Adjusting the rebound damper screw "in" or "clockwise" causes more damping, which causes the suspension to return more slowly to its original ride height. If the front end bounces up after landing from a jump, turn the slotted screw at the top of the forks "in" 1 click at a time to slow their return. If the rear end kicks up after landings, or kicks up side to side down high-speed straights, turn the slotted screw at the bottom of the shock "in" 1 click at a time, to slow the rear wheel return.

But remember, too slow a rebound setting causes "packing" because the suspension does not have time to rebound to its original ride height before you hit the next bump.

Rule Of Thumb: Run your rebound at both ends "faster" rather than "slower". When the bike is on the verge of, but not quite, kicking up after lands, the rebound is just about right.

STEP 7: Balance front end and rear end static ride height.

If the rear end squats under acceleration along with too much front-end lift and/or the bike doesn't want to turn sharp or easily enough adjust your rear sag to 97mm

If the front end rides low, turns too sharp, and/or tends to Head Shake, try a combination of lowering the front forks in the triple clamps and adjust your rear sag to 108mm.