



TUNING GUIDE



WE CANNOT STRESS ENOUGH THE IMPORTANCE OF CORRECT SPRING RATES WHEN TUNING. IF YOU ARE NOT SURE WHAT RATES YOU NEED FOR YOUR WEIGHT/BIKE PLEASE CONTACT US AND WE WILL BE HAPPY TO SELL YOU THE CORRECT SPRING PACKAGE.

STEP 1 – Checking Sag

- Ensure the bike and stand are on level ground. The process outlined will be easiest with some help from a friend. Start by setting your bike on a stand with the rear shock fully extended and rear tire off the ground.
- Measure vertically from the center of the swingarm pivot bolt to a point on the rear fender or number plate and mark this point. **MAKE SURE** you are measuring vertically and that the tape measurer is not angled forward or backward; this will give you incorrect sag numbers.
- Once you have marked a spot on the bike to measure to, measure the distance from the rear axle to the vertical point that you have marked. This measurement will be called D1 (write this measurement down).
- Have the rider (race ready, gear, water, etc.) stand on the bike and hold onto something to balance himself.
- Have a friend compress the rear suspension $\frac{1}{2}$ " - 1" and release it. Once the suspension has been compressed and released, have your friend take a measurement and label it D2 (write this measurement down).
- Now have your friend lift the rear of the bike $\frac{1}{2}$ " – 1" and release. Once the suspension has been raised and released, have your friend take a measurement and label it D3 (write this measurement down).
- Add L2 and L3, then divide this number by two and you have the correct sag measurement.



- **** To INCREASE SAG you will need to decrease the amount of preload on the spring by turning the spring collars counterclockwise. To DECREASE SAG you will need to increase the amount of preload on the spring by turning the spring collars clockwise. ****

STEP 2 – Tuning The Rear Shock

- Tune bottom out compression. Start by finding a G-Load style ramp/bump. This can be a ramp face, or any other type of bump where you would feel the suspension compress fully in a slower motion. At a moderate speed you will want to use ALL of the compression stroke on a bump like this. If you notice that you are running through the travel quickly and hitting the bump stop hard, turn the low-speed compression adjuster three clicks clockwise until you are using all of the travel comfortably.
- Tune bottom out rebound. Find a set of whoops. You will want to run these at a moderate pace until the rebound is tuned. While riding the whoops you will want the rebound loose enough to ensure the wheel is tracking the ground between whoops, but slow enough that the bike is not bouncing.
- Tune High-Speed compression. Find a series of whoops that have a cupped face, or a section that is rocky. The object of tuning high-speed compression is to ensure that the sharp edge bumps do not kick the back of the bike. If the back of the bike is kicking or deflecting try decreasing the amount of high-speed compression by one full turn until the kick or deflection is gone. High speed compression damping can also aide in slowing bottoming resistance at higher speeds.
 - Rear End Kick Causes
 - Rear end kick can be caused by a number of things. Identifying what is causing the rear end kick or deflection is crucial when tuning the rear shock.
 - 1. Too much high-speed compression damping. The wheel cannot absorb the bump fully. This is one of the most common causes of the rear end kicking. To tune this, you will want to reduce the amount of high-speed compression damping, and possibly reduce the amount of low-speed compression damping as well.
 - 2. Bottoming out. This sensation typically feels like you have used all of the travel and then you'll notice a bounce "kick". Most of the time you can increase the amount of low-speed compression damping to eliminate this issue or increase spring rate.



- 3. Too much rebound damping. In a situation where too, much rebound damping causes the rear to kick, you may notice this through a set of whoops. The bike will handle the first few whoops okay, and then will kick hard. This is typically because the rear wheel cannot recover or rebound quick enough between bumps in order to absorb the next bump. This is known as “packing up.” To eliminate this problem, you will need to decrease the amount of rebound damping.
- 4. Not enough rebound damping. This is quite noticeable; the rear of the bike may feel bouncy or loose. This can easily be remedied by increasing the amount of rebound damping.

** Keep in mind that when adjusting rebound damping you are affecting low speed compression equally (unless you have a rebound separator nut installed on the shaft). If you are adding rebound damping via the adjuster you may need to decrease the amount of low-speed compression as well in order to maintain ride quality. There is a fine balance here that takes some experience in order to tune a shock correctly. **

STEP 3 - Tuning The Fork

- Tuning the Compression Stroke. Start by finding a series of whoops and riding at a moderate pace, note how the forks feel. If it feels like the fork is not carrying high enough in the stroke, increase the compression three clicks by turning your adjuster clockwise. If you reach a point where the increased compression starts to feel harsh, decrease the amount of compression damping. Once you are happy with how the fork feels through the whoops find a turn with a burm. You will now want to tune the compression stroke to ensure that the bike is not diving too far under braking. This can be achieved by tuning the compression stroke of the fork AND the rebound stroke of the shock to ensure the bike is not transferring weight too quickly.
- Tuning the rebound stroke. You will want the fork rebound stroke to be slightly faster than the rear. This will help ensure the front wheel is tracking through the rough, as well as recovering quick enough to absorb the next bump. If you notice that the fork is rebounding too fast and feel as though it is clunking you will need to increase the rebound damping by turning your adjusters clockwise.

Feel free to email us with any questions, or concerns.

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