

## Subject: What do all the suspension adjustments do?

This is a guide to the various external suspension adjustments.

- In most cases each adjustment affects something else. For example; reducing the rider sag may require you to make the shock rebound slower because you have made the spring stiffer.
- Always make notes so you can keep track of the action and the result.
- All adjustments are made from fully in (clockwise) and then measured as turned out - either number of clicks or number of turns.
- *Tip: If you make ½ turn / 2 click adjustments it's often much easier to feel the effect of the change. When you've gone too far, go back ¼ / 1 click.*

<b>Shock</b>			
<b>Adjustment</b>	<b>Position</b>	<b>What it Does</b>	<b>How to Adjust</b>
Rider Sag	Shock Spring Preload	Changes bike geometry – Increasing the sag dimension makes steering more stable and makes the rear less likely to kick off jumps and into corners. Decreasing sag makes the steering sharper and stops the bike squatting out of turns. Rider sag also has an effect on traction.	Tighten spring down to decrease sag dimension Loosen spring to increase sag <b>Good starting point on most bikes with a linkage is 105 to 108mm</b>
High Speed Compression	Large Nut on Top	High speed compression controls how much the rear end moves on square edged bumps like braking bumps and sharp whoops.	Screwing the nut in clockwise stiffens the damper and makes it more resistant to bottoming in whoops, etc. Screwing it out softens the damper to absorb the bumps better.
Low Speed Compression	Screw on Top	Low speed compression controls how much the rear end moves out of corners, over rolling bumps and landing from jumps.	Turning the screw in clockwise stiffens the damper and makes the rear ride higher. Turning the screw out softens the damper and absorbs the bumps better, but also allows the rear to ride lower.
Rebound	Screw on Bottom	On most shocks the rebound adjustment also has an affect on compression damping (resistance to bottoming) so the further in the screw is, the slower the damper returns and the stiffer it is	Turning the screw in makes the damper return slower; turning the screw out makes the damper return faster.

<b>Fork</b>			
<b>Adjustment</b>	<b>Position</b>	<b>What it Does</b>	<b>How to Adjust</b>
Compression	Screw on Top	Compression controls how high the fork rides and resistance to bottoming	Turning the screw in clockwise stiffens the fork and makes it ride higher in the turns; turning the screw out softens the fork and makes it ride lower in turns. Normally this adjustment also has an affect on steering.
Rebound	Screw on Bottom	On most forks the rebound adjustment also has an affect on compression damping (bigger affect than a shock). The further in the screw is, the slower the fork returns and the stiffer it gets.	Turning the screw in makes the fork return slower, turning the screw out makes the fork return faster.

<b>Common Problems</b>	<b>Possible Solution</b>
Fork bottoms	Adjust compression (top screw) in. <i>Note: If the fork also feels bouncy you can also turn rebound (bottom screw) in.</i>
Fork feels stiff	Bleed the air out and/or adjust compression (top screw) out.
Shock bottoms on whoops or big breaking bumps	Adjust high speed nut in. <i>Note: If the rear feels bouncy you can also turn rebound (bottom screw) in.</i>
Shock bottoms on jumps	Adjust low speed (top screw) in. <i>Note: If the rear feels bouncy you can also turn rebound (bottom screw) in.</i>
Fork bounces after landing	Adjust rebound in (bottom screw)
Front wheel has no traction in bumpy corners	Adjust rebound out (bottom screw)
Rear wheel kicks off jumps	Adjust rebound in (bottom screw)
Rear wheel swaps in whoops	Adjust rebound out (bottom screw)
Steering lazy	Tighten shock spring preload to decrease rider sag and/or lift fork in the triple clamps
Steering too sharp or nervous	Reduce shock spring preload to increase rider sag and/or lower fork in the triple clamps