



# iSHOCK®

## HYDRODYNAMICS USA

Tuning a shock absorber takes time patience and organization. iShock recommends utilizing the services of iShock technicians whenever possible. Our technicians are available to take your calls, answer your question and help you in any way possible to insure maximized performance and allow you to reap all the benefits that modern day, state of the art, aftermarket suspension has to offer.

Whether it's tuning a shock or jetting a carburetor, the methodical steps remain the same...Only make one change at a time, record results with detailed notes , be consistent with your testing parameters and always consider safety first. The most efficient form of testing is called bracketing which simply means make large changes at first and work your way towards a happy medium.

The compression adjuster located at the reservoir end of the shock controls the velocity on the compression side of the shock stroke. All compression clickers restrict flow, making the shock stiffer, by turning the clicker in a clockwise direction. Some shocks feature both "hi and low" speed adjustments. A common misconception is that this means "big or little" bumps. Actually, the size of the bump is irrelevant, all that matters is the "speed" of the shock shaft during compression; small braking bumps can easily match or exceed the shaft speeds of a flat land off a huge jump for example. Without data acquisition type devises, only good old fashion seat of the pants testing will tell you what to adjust and when. We recommend beginning your test session with the clickers all the way out, in the softest position. On an iShock, the small flat head screw is the "low" speed adjuster while the recessed "hex Head" or "Allen Screw" adjusts the hi-speed.

Some iShock models come equipped with our exclusive ABT (Anti-Bottoming Technology). This adjustment allows you to control the actual volume of the nitrogen chamber to control bottoming resistance. When the hex shaped adjuster is turned in, clockwise, using a deep socket, the volume is decreased adding a more progressive spring force curve which will only be felt in the last part of the shock stroke and leave the initial stroke virtually unaffected. This adjustment will allow you to run a softer than normal setting on the compression clickers to help you obtain the ever elusive "soft on the top stiff on the bottom" feeling.

Setting the "sag" or height of the vehicle is always the first step in suspension tuning. Both the "static" and "race" sag can be adjusted by adding or removing spring pre-load using the supplied HDUSA pre-load tools. The fundamentals of sag are simple, tighten the spring pre-load nuts to raise height and vise versa to lower. However, the proper setting for your exact application may take time to determine. We highly recommend consulting an iShock technician to provide you with a starting point for this procedure. Once you have set the proper pre-load, don't forget to tighten the rings against each other to lock them into place.

The Rebound adjuster is located at the "rod end" of the shock and controls the rate at which the shock extends. Typically, a good starting point for this adjustment can be determined by a simple push test. Press down on the seat as far as possible, release and observe the rebound of the vehicle. Starting at the fasted speed that does not result in an oscillation effect at the top of the stroke is best. In otherwords you want the shock to extend and the vehicle to come back to ride height and stick there; no bouncing up and down. As with all settings, testing will help you fine tune this setting.

