Users Manual

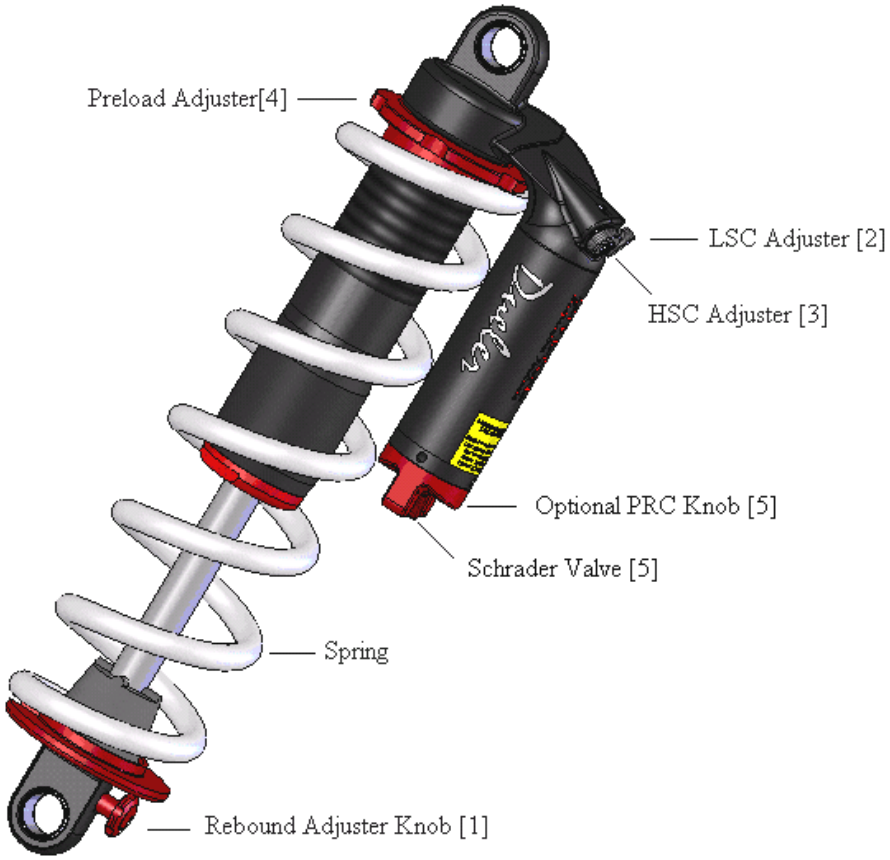
Introduction

Thank you for choosing DSP Racing for your MTB suspension needs. This manual contains important information addressing warnings, item Functions and directions for use. Please read this manual thoroughly before using. You may contact our technical service center at (661) 618-2644 or E-mail service@dsp-racing.com if you have any questions.

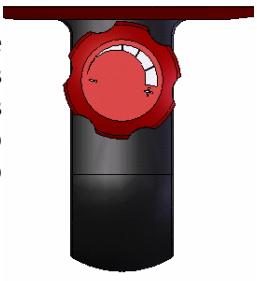
Caution

1. When cleaning, use a clean and non abrasive cloth and/or fresh water. Do not use any corrosive solvents or chemicals when cleaning.
2. Never ride your bike with more than 180 or less than 120 PSI in the reservoir air chamber. Doing so can damage your shock, requiring repairs that are not covered under terms of the warranty.
3. If the product is in need of service, please contact a service center or DSP Racing for a list of service centers near you. Any repairs or servicing done outside service centers voids warranty and may cause injury to user during disassembly and damage to product.
4. Having your Dueler shock not setup properly may cause unwanted suspension feel and action. Adjust shock for rider preference and terrain by calibrating and testing shock settings in an open and safe area.

Dueler Adjustment Description and Explanation



Rebound Adjuster Knob [1]



Rebound refers to rate of speed of the shock returning (Extending) after the shock has been compressed. The user can control this adjustment by turning the rebound knob by hand. The shock rebound should return as quickly as possible without “bucking” the rider off the bike, yet not slow that the shock “packs” and prevents shock from having enough time to return to absorb next bump. If rebound rate is too fast, turn the knob clockwise to increase damping (slow rebound). Conversely, if rebound rate is too slow, turn the knob counter-clockwise to decrease the damping (faster rebound).

DSC (Dual Speed Compression) Adjusters [2] & [3]

DSC (Dual Speed Compression) is separated into two adjusters; LSC (low speed compression) Adjuster [2] and HSC (high speed compression) Adjuster [3]. The terms “low speed” and “high speed” are not referring to the velocity of the bike, but the speed of the rear wheel moving through the travel (shock shaft speed). You can use these adjusters to find the appropriate setting of soft and hard when the shock is in use. LSC adjuster mainly affects the compression damping of shock in the low speed (example: round edged rollers, G-Outs, pedaling, & landing to transitions) and HSC adjuster mainly affects the compression damping under medium & high speed (examples: square edge terrain “curb shots”, whoops, crossing ruts, & landing to flat).

DIVERSE
Suspension Products

HSC: When you feel that shock is too hard at steep jump faces and flat jump landings, turn HSC adjuster counter-clockwise to decrease the damping and turn clockwise to increase the damping if the response of the shock is too soft.

LSC: When you feel the shock is too hard at slow movement of the frame caused by pedaling forces and rollers, turn LSC adjuster counter-clockwise to decrease the damping and turn clockwise to increase the damping if the response of the shock is too soft.

How to set DSC ?

1. Turn both LSC and HSC to the middle setting.
2. Adjust HSC independently of LSC.
3. Lastly adjusts LSC after HSC has been dialed in.

Preload Adjuster [4]

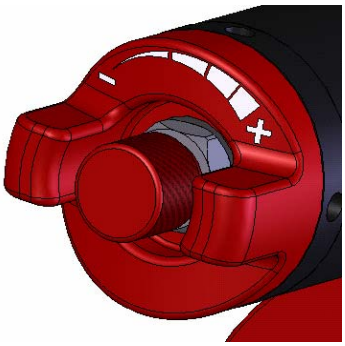
When the fully equipped rider is sitting on the bike, the shock will be under preload causing the shock to settle into its stroke. The amount that the shock is preloaded into its stroke is called “sag”. The sag is usually adjusted as a percentage of total shock stroke. Please see bicycle manufacturer’s sag recommendations.

- Sag percentage too high: Preload will need to be increased on spring by turning preload adjuster clockwise.
- Sag percentage too low: Preload will need to be decreased on spring by turning preload adjuster counter-clockwise.

Recommended preload: 1 – 4 turns clockwise after preload adjuster has begun to compress spring.

Bottom Out Control (Schrader Valve & Optional PRC Knob) [5]

The bottom out controls allows the user to adjust the final part of the shock stroke. Optional PRC (Progressive Ramp Control) knob featured on 9.5x3.0 and 10.5x3.5 Dueler shocks should be in the fully counter-clockwise position when adjusting reservoir pressure. Using a shock pump, apply desired reservoir pressure to the schrader valve. The standard reservoir pressure setting is 150 psi. Adding more pressure will increase bottom out prevention, while decreasing pressure will decrease bottom out prevention. The standard setting for the PRC knob is fully counter-clockwise. Turning the optional PRC knob clockwise (smaller reservoir volume) will cause bottom out progression to be more aggressive while turning the adjuster knob counter-clockwise (larger reservoir volume) will cause bottom out progression to be less aggressive.



CAUTION: DO NOT OPERATE SHOCK OUTSIDE THE USEABLE PRESSURE RANGE OF 120 PSI – 180 PSI.

Specification:

Item No.	Specification Eye-to-Eye x Travel	Ti-spring	Shock Weight (g)
Dueler PRC 10.5	10.5”× 3.5”	250lbs×3.5”	461
Dueler PRC 9.5	9.5”× 3.0”	350lbs×3.0”	443.6
Dueler 8.75	8.75”× 2.75”	450lbs×2.75”	406
Dueler 8.5	8.5”× 2.5”	450lbs×2.5”	405