DOUBLE BARREL

TUNING FIELD GUIDE

CANE CREEK

DEFINE YOUR GREAT

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CANE CREEK

You are about to ride the most tunable shock on the market. Cane Creek Double Barrel Shocks represent the pinnacle of high-performance suspension systems. Each features a unique design, which moves oil through externally adjustable valves – giving you the power to tune your shock based on your individual preferences. Our goal with this book is to take the mystery out of customized tuning and to walk you through the steps of defining the perfect settings for you and your ride.

No one knows your ride better than you, so we invite you to **DEFINE YOUR GREAT** by exploring the effects of each adjustment to get the most out of your suspension. Don't be afraid to experiment, you can always get back to the starting point.

To learn more about tuning and share tunes with others, get your pass to The Lounge at canecreek.com.

DB DOUBLE BARREL | DEFINE YOUR GREAT

High-Speed Compression (HSC)

High-Speed Compression (HSC) is critical to absorbing energy from high impact forces, such as square edge hits and harsh landings.

High-Speed Rebound (HSR)

High-Speed Rebound (HSR) enables a bike to recover quickly from deep in the suspension travel while enabling controlled take-offs from jump faces.

Low-Speed Compression (LSC)

Low-Speed Compression (LSC) controls traction and frame stabilization. LSC adjustment is used to eliminate pedal induced “bob”, influences small bump sensitivity, and affects how the bike will react to weight changes.

Low-Speed Rebound (LSR)

Low-Speed Rebound (LSR) works with LSC to stabilize the frame and manage traction. LSR ensures maximum traction everywhere from technical climbs, high-speed chatter, off-camber corners, to braking in stutter bumps.

*** It is important to note that each of these terms refer to the shaft speed of the shock, not the speed of the bike.**

Sag

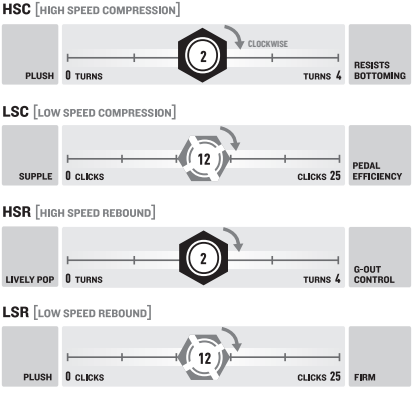
The difference between the suspension when it is fully extended (not compressed) and when the bike is on flat ground under rider weight including riding gear.

If your Shock came with your bike, you will have a Base Tune Card as a part of your Owner's Pack. You can also get your Base Tune at canecreek.com. This is your starting point, and your shock is set at this tune.

If you purchased your shock separately, it is preset from the factory with the following neutral settings. Before you begin, check to make sure this is your starting point.

To reset shock settings turn each adjuster all the way counter clockwise. **BE CAREFUL NOT TO OVER-TORQUE THE LOW SPEED ADJUSTER.** When you feel resistance - **STOP**. You won't feel a hard stop. Move the adjusters clockwise the number of turns /clicks indicated below.

DBCOIL Factory Base Tune

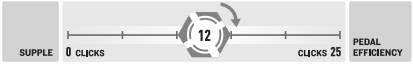


DBAIR Factory Base Tune

HSC [HIGH SPEED COMPRESSION]



LSC [LOW SPEED COMPRESSION]



HSR [HIGH SPEED REBOUND]



LSR [LOW SPEED REBOUND]



DBAIR CS Factory Base Tune

HSC [HIGH SPEED COMPRESSION]



LSC [LOW SPEED COMPRESSION]



HSR [HIGH SPEED REBOUND]



LSR [LOW SPEED REBOUND]



DBINLINE Factory Base Tune

HSC [HIGH SPEED COMPRESSION]



LSC [LOW SPEED COMPRESSION]



HSR [HIGH SPEED REBOUND]



LSR [LOW SPEED REBOUND]



Proper suspension tuning is best achieved in a controlled environment. Choose a section of trail where you are comfortable and can repeat the same lines several times. The trail section should have features typical of your preferred riding terrain, i.e. big G-outs, drops to flat, chop in corners, etc.

Suspension Terminology

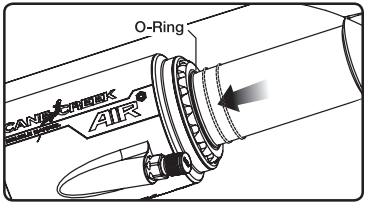
- **PLUSH:** Softness on high speed impacts, soaking up of rough terrain with ease.
- **SUPPLE:** Sensitivity to small bumps and traction control.
- **FIRM:** A more rigid feel to the shock.
- **G-OUT:** The most compressed position in the bikes travel. Noted for how the bike responds coming out of the compression.
- **OFF CAMBER:** Trail that fades unfavorable to tire traction
- **BUCKING:** Feeling of being pitched forward off jumps or rocks from rebound being too fast.
- **CHATTER:** Feeling of never having traction in long areas of continual bumps.

Prior to Run 1 - Set Sag

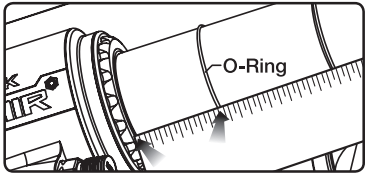
To achieve the best performance from your Double Barrel rear shock, the proper setting of sag is vitally important. Sag controls the ride height of the bike and the amount of damping that will be necessary. As a starting point, we recommend a sag setting equal to 28-33% of available travel. Follow the steps to set sag before your ride.

[DBAIR/INLINE - SETTING SAG]

1 Inflate shock to starting pressure; 20 psi less than your weight (with gear) is a good starting point. Slide travel indicating O-ring down to air can and remove the air pump.



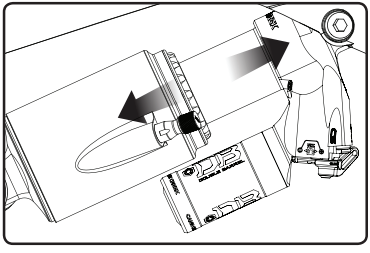
2 Dressed in full riding gear, mount your bicycle and assume your normal riding position. Dismount and measure the distance the O-ring has moved. This measurement is your sag. **You can find recommended sag on the Base Tune card provided with your bike or at: canecreek.com/products/suspension.**



Sag = Distance from air can to O-ring.

[DBAIR/INLINE - SETTING SAG]

3 Cycle the shock to charge the negative air spring. Recheck sag, adjust air and repeat until you have the desired measurement.



Stroke = If you are unsure of your shock's travel, visit canecreek.com or contact the Cane Creek Customer Service Team.

%Sag = [Sag ÷ Shock Stroke] x 100.

When the proper sag value is reached, record the air pressure required to achieve this sag value below (this will make setup faster next time out).

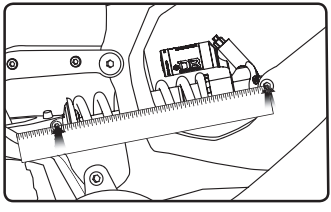
Record Sag Setting

[DBCOIL - SETTING SAG]

To Measure Sag

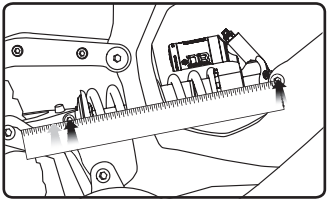
1. Make sure that you are on a level surface. With the rear wheel off the ground, measure the length of your shock from eye-to-eye and record this measurement.

2. Dressed to ride (with gear), position your bike next to a wall or table to support yourself. Mount your bicycle and assume your normal riding position. Measure the shock length again from eye-to-eye. You may need someone to assist in this measurement. Record this measurement.



[DBCOIL - SETTING SAG]

3. The difference between the two measurements is the sag. **See Base Tune for proper sag setting.**



%Sag = [(Free shock length - Weighted Length) ÷ Shock Stroke] x 100

Free Shock Length = Measured in Step 1.

Weighted Length = Measured in Step 2.

Shock Stroke = Stroke is indicated on the spring that came with your DBCOIL. If you are unsure of your shock's travel, visit canecreek.com or contact the Cane Creek Customer Service Team.

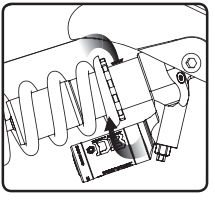
[DBCOIL - SETTING SAG]

Preload affects the energy in spring.

IMPORTANT If less than 1 turn of preload is needed to achieve proper sag, you will need to change to a lower spring rate. If more than 6 turns preload are needed to achieve proper sag, you will need to change to a stiffer (higher rate) spring.

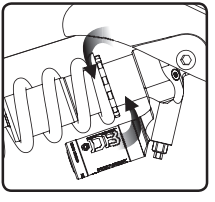
Increasing Spring Preload

Increasing the preload will increase the ride height and reduce sag. To increase the preload on your spring, turn the Spring Adjustment Nut clockwise (no more than six turns).



Reducing Spring Preload

Reducing the preload will decrease the ride height and increase sag. To reduce the preload on your spring, turn the Spring Adjustment Nut counter-clockwise (no less than one turn).



[DBCOIL - SETTING SAG]

For more information on adjusting your Spring Preload, view the suspension instructional videos online at canecreek.com.

Record Sag Setting

PHASE 1

Focus on the overall feel of the bike and the shock. You will not be making any changes on this run. Pay attention to where you are confident and where things get sketchy (if any): flow sections, cornering, chatter, small and large hits. If appropriate, make sure you do some uphill pedaling as well and return to the top of the trail. Record your general observations below.

Things I Like:

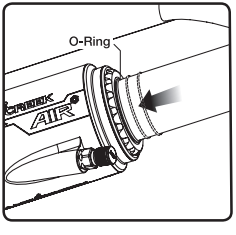
Things to Improve:

PHASE 2

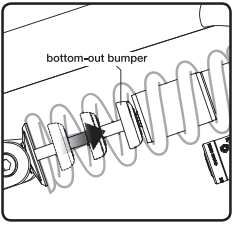
Focus on big features (big hits, berms, landings, G-outs) and on sections where traction is limited (off camber, flat turns). It is more important to concentrate on the ride quality rather than being fast and aggressive. Note how it feels to hit something and how it feels to come out of it. On the following pages you will answer a series of questions about Phase 2.

Before you begin, on the DBAIR/ DBINLINE slide the O-ring so that it rests against the seal of the air can. On the DBCOIL, move the rubber bottom-out bumper up to the shock body (see graphic below).

DBAIR/DBINLINE



DBCOIL



PHASE 2

Step 1 | Set HSC

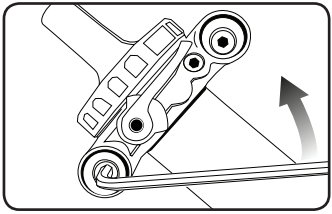
Do you feel like you were getting enough travel? Check the travel indicator (O-ring or bottom-out bumper).

Answers

a. **Yes - Perfect** - Go to Step 2.

b. **No - Not enough travel** - Reduce HSC damping by turning the adjuster 1/2 a turn counter clock-wise (see graphic below). If you made a change - do another run and answer this question again until you are satisfied.

c. **Too much travel** - Go to step 2.



PHASE 2

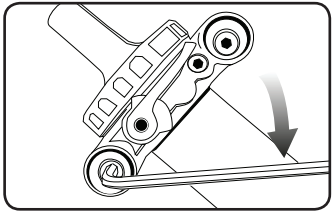
Step 2 | Set HSC

Did you feel like you bottomedout the shock frequently?

Answers

a. **No - Perfect** - Go to Step 3.

b. **Yes - Bottomed out** - Increase HSC by turning the adjuster clockwise 1/2 a turn (see graphic below). If you made a change - do another run and answer this question again until you are satisfied. Go to Step 3.



Record Setting

HSC [HIGH SPEED COMPRESSION]



PHASE 2

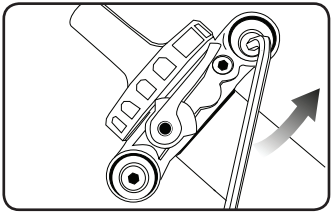
Step 3 | Set HSR

High Speed Rebound: Ride the section of trail again and focus on the bike as it reacts when exiting turns, g-outs, and leaves the face of jumps.

Adjustment:

a. Decrease HSR by turning the valve counter-clockwise 1/2 a turn (see graphic below) and take a run. Repeat runs and 1/2 turns until it feels too lively.

b. Turn the valve back 1/2 a turn clockwise. Go to Phase 3.



Record Setting

HSR [HIGH SPEED REBOUND]



PHASE 3

In Phase 3, repeat the same lines on the same section of trail that you did in the previous phases. During this phase, you will dial in Low Speed Compression (LSC) and Rebound (LSR). If you have a CS shock - you have a selectable mode that changes climbing-specific low speed damping in one simple switch. To dial in low speed damping for non-climbing terrain, you need to place the Climb Switch in the Off position. When you ride, focus on pedaling efficiency, traction and small bump sensitivity.

Notes

PHASE 3

Step 1 | Set LSC

Low Speed Compression: with this adjustment you will be looking for a balance between pedaling efficiency and small bump compliance.

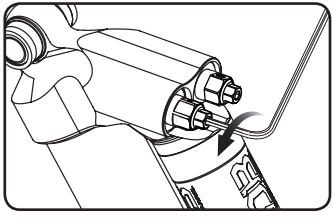
How to adjust the shock:

a. To improve small bump compliance, turn the adjuster 2-4 clicks counter clockwise.

b. For greater pedal efficiency, (less bobbing) increase LSC by turning valve 2-4 clicks clockwise.

Repeat runs until you find your optimal setting. Go to step 2.

Note: LSC is the adjustment most commonly changed to suit varying trail situations such as long uphills and long downhills.



Record Setting

LSC [LOW SPEED COMPRESSION]



PHASE 3

Step 2 | Set LSR

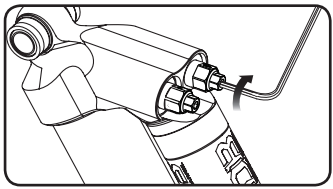
Low Speed Rebound: With this adjustment you will be looking for a balance between traction and chassis control.

How to adjust the shock:

a. To improve the ability for the rear wheel to follow the terrain, decrease LSR by turning the adjuster counter clockwise 2-4 clicks.

b. To decrease chassis movement (get rid of wallowing), increase LSR by turning the adjuster clockwise 2-4 clicks.

Repeat runs until you find your optimal balance. **Done, Go Ride!**



Record Setting

LSR [LOW SPEED REBOUND]



DATE/TRAIL/CONDITIONS

RIDING WEIGHT

SHOCK AND STROKE LENGTH

SAG

SPRING RATE / AIR PRESSURE

HSC [HIGH SPEED COMPRESSION]



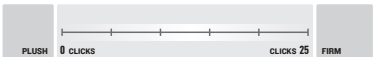
LSC [LOW SPEED COMPRESSION]



HSR [HIGH SPEED REBOUND]



LSR [LOW SPEED REBOUND]



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