

BOS

SUSPENSION



Deville

DEVILLE II

User Manual



BOS Suspension

4 Impasse Léonce Couture
ZA du Mont Blanc
31200 Toulouse - FRANCE



BOS SUSPENSION thanks and congratulates you on your choice of damper for your MTB.

Your new BOS high performance damper is developed from our years of experience on two and four wheels in official teams on all type of terrain thanks to our successful co-operation with winning. Our success and results gained in few years show the full and the exclusive implication of BOS SUSPENSION in the research of performance.

The BOS damper you just bought is especially developed for your bike and your type of race. The choice of our technical solutions, the quality of our materials, the precision and the attention brought to the assembly operations allow your new BOS damper to be an absolute weapon to win.

You will find on this user guide all the information needed to get the best of your BOS damper in term of mounting, setup or maintenance. This handbook talks about lots of subjects for which a private or professional pilot can be confronted to setup his damper.

We wish you a good reading and hope this document will guide you in your life of pilot...

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Bos Suspension’s limited warranty

Bos Suspension warrants to the original owner that the Bos Suspension product when new, is free from defects in material and workmanship. This limited warranty expires one year from the date of the original retail purchase. A copy of the original proof of purchase will be required for any warranty claim.

This limited warranty is only applicable to Bos Suspension purchased new from an authorized Bos Suspension source. The limited warranty is made only to the original customer and is not transferable to subsequent owners.

Wear and tear parts such as dust seals, O-ring, bushings, rear shock mounting hardware, shafts, threaded parts and bolts are not covered by this warranty.

TERMS

This limited warranty is subject to legal jurisdiction or warranty rights of the original purchase country which will prevail if different from the terms herein listed.

LIMITS

This limited warranty is conditioned on the Bos Suspension product being operated under normal conditions and properly maintained as specified by Bos. The liability of Bos Suspension will not be implied for any and all other damages, including but not limited to, incidental, consequential or punitive damages.

EXCLUSIONS

This warranty doesn’t cover :

- Damages resulting from improper assembly
- Damages resulting from an accident, crash or collision under any circumstances
- Malfunctions that results from abuse
- Modification, alteration, improper or unauthorized repair by the owner or a third party
- Improper or excessive use.
- Violation of the maintenance procedures and/or the time allowance between service.
- Replacement of the original parts
- Warranty is void is the serial number is removed or altered.

PROCEDURE

When making a claim under this limited warranty to the Bos Warranty Department you’ll be required to provide a copy of the original proof of purchase otherwise the claim will not be considered. Please contact the Bos Suspension Warranty Department before returning a product that may be covered by this limited warranty. If the warranty doesn’t apply the packaging and shipping costs will be charged to the customer.

MANUAL SYMBOLS



CAUTION operations may impair your safety or cause damage to your suspension.

Be sure to take note of these warnings.



These indications are provided to enable you to perform the operations described in this manual and to optimize the performance of your suspension.

GENERAL WARNINGS

The shock absorber is an important element which has a direct influence on the behaviour of your vehicle.

This manual must be read before using the BOS shock absorber and throughout its life.

If necessary, or for any service operation, please contact an authorized BOS Suspension center or consult the service manual. After installation, test your vehicle at low speed to make sure that everything is working properly.

To make adjustments and routine maintenance on your shock absorber, you will need the following tools:

Tools	Use
Metal saw	Pivot cutout
6 Point Wrench 5mm	Wheel axle

Fork	1 Piece
User manual	1 Piece

Fitting your Deville onto your bike requires care and attention. For your safety, please follow these instructions.

1.1 Steer tube

Before cutting the steer tube, first take some measurements taking into account the total height of the headset, the length of the frame's head tube, the height of the stem, then add 5 to 10mm.

Calculate the length as below:

Length of the head tube of the frame + height of the complete headset + height of the stem + 5 to 10mm.

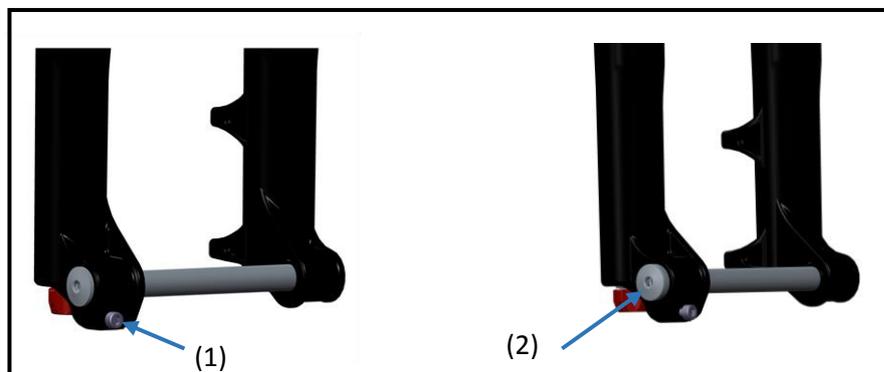


Never attempt to remove or replace the steer tube or stanchions independently from the crown. Modifying the integrated crown, steer tube, or stanchions can cause an assembly failure. It is mandatory to replace the complete assembly for important safety reasons.

1.2 Installing the front wheel

To assemble the front wheel, follow this procedure:

1. Release the pinch bolt on right side of the fork (1).
2. Unscrew the axle (2) and remove it.
3. Install the wheel.
4. Insert the axle and screw it completely until it stops, do not overtighten.
5. Screw the axle pinch bolt to lock the axle (Torque between 4 and 4,5 Nm).



To disassemble the wheel, follow these instructions in reverse.

1.3. Brake caliper installation

The Deville brake caliper bolt pattern uses PostMount 180 standard (PM180).

To assemble the disc brakes, follow this procedure:

1. Install the disc brake caliper, according to disc brake manufacturer's specifications.
2. Be sure to torque all fasteners and bolts to manufacturer's recommendations. Consult the instructions that came with your disc brakes for proper installation procedures. It is recommended to install new brake pads, to ensure proper alignment.
3. Route the disc brake hose or cable housing from the caliper to the inside of the lower leg and through the supplied disc brake hose guide.
4. Test the brakes for proper operation on ground level before hitting the trails.

The disc brake caliper mounting bolts must have 10 mm of thread engagement with the fork.

The disc brake caliper mounting bolt tightening torque level must never exceed 10 nm.

2.1 Air spring

The first adjustment that should be done on the fork is to set the air pressure. This adjusts the stiffness of the air spring according to your weight. The stiffness of the air spring induces a degree of fork travel when you sit on your bike. This value, commonly called sag, can vary based on your usage. This value should be between 20% and 30% of the fork overall travel. The sag measurement should be taken standing with both feet on the pedals and both hands on the bars. The Deville has an o-ring on the fork upper tube in order to measure the SAG position. You can experiment and vary your sag percentage to better suit your riding style and overall feel.



To achieve the best performance from your BOS product, it is important to set your optimal pressure. **The chart below will give you some base values based on your weight. Your specific pressure may vary based on your riding style and personal preference.** However, do not stray too far from the indicated pressures, or you may risk changing the performance of your fork.



It's recommended to use our BOS high pressure pump with a digital manometer more accurate and comfortable to use, available at your Bos suspension dealer.

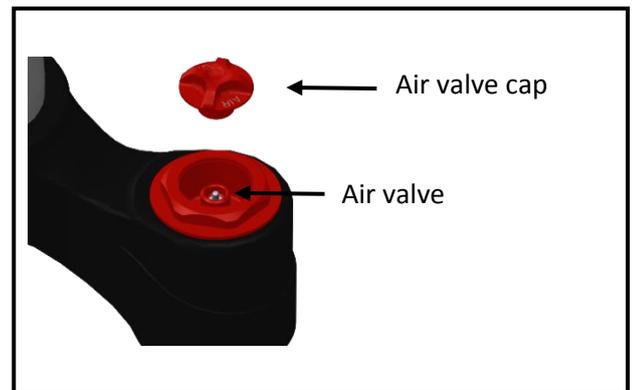
Recreational use

Weight (kg)	55	65	75	85	95	105
Pressure (psi)	50	65	80	95	105	110

Add an additional 5 PSI per weight bracket for race use.



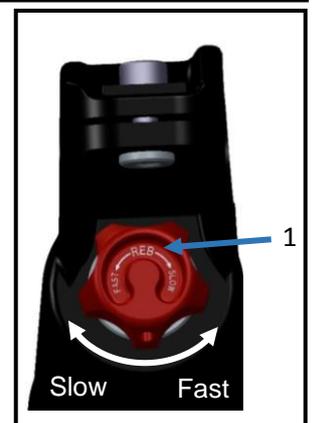
Maximum air pressure : 110 PSI



2.2 Hydraulic adjustments

The Deville 35 offers an hydraulic adjustment of the rebound, a traction control adjustment, a compression adjustment, and a rapid compression platform.

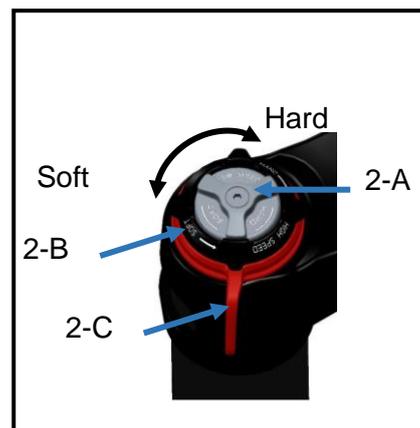
The rebound adjustment is done by rotating the red knob located at the bottom of the right fork leg (1).



Low speed compression is adjusted using the gray dial located at the top of the right plunger (2-A). Allows the fork's harshness to be adjusted during small impacts by regulating the hydraulic flow

High speed compression is adjusted via the black dial located at the top of the right plunger (2-B). Allows to adjust the harshness of the fork during big shocks by regulating the hydraulic flow.

The traction control is adjusted using the red lever (2-C). By acting on this lever, the upstream oil flow is adjusted, before it can shift into high and low speed compressions. Its effect is to stiffen all speeds as it reduces oil flow, without going so far as to block. This results in better support and therefore increased efficiency.



To start setting your suspension adjustment, turn the knob all the way in the clockwise direction (=click 0) then turn your adjuster counterclockwise one click at a time.

Tuning tips:

When it comes to hydraulic settings, there is no such thing as a “magical formula”; many factors have to be taken into account (bike balance, bike geometry, and rider preferences to name a few). Having that said, the following may help guide your adjustments:

- Excessive diving of the fork under braking : harden the traction control
- Frequent bottom-out : harden compression
- Feeling of harshness on roots and rocks (square edges) : soften compression
- Discomfort, arms getting sore : soften compression, and/or traction control
- Fork stays low over successive impacts and doesn't spring back : speed up rebound
- Bike sits too high in travel : slow down rebound

Whenever you are far from the standard settings (Starting point settings), it's always good to consider what influences the performance of the fork. Proceed step by step, one setting at a time by hardening or softening just a few clicks each time.

If you ever get lost while you are setting up the forks, always go back to the starting point settings.

Starting point settings – Deville 35

Rebound	Low speed compression	High speed compression
14 clics	11 clics	10 clics

3.1 Service

It is essential to clean your shock after each ride using without waiting long time! There is nothing more dangerous for damper seal than dry mud. Operation is very easy, you just have to clean the shaft and protect it with silicon spray or protective grease.



Be carefully to not use aggressive or alkaline cleaning product. If you use high pressure cleaning machine, do not guide water jet directly on the seals.

It is also efficient to rise the Rubber bump stop from his seat to clean properly the damper foot.

		After each ride	Every 6 months	Each year	Every 2 years
Cleaning		x			
Simple revision	Wet / muddy conditions		x		
	Race / Frequent use		x		
	Dry / Dusty Conditions			x	
Full maintenance	Wet / muddy conditions			x	
	Race / Frequent use			x	
	Dry / Dusty Conditions				x
Inspecting the guide rings	Wet / muddy conditions		x		
	Race / Frequent use		x		
	Dry / Dusty Conditions			x	



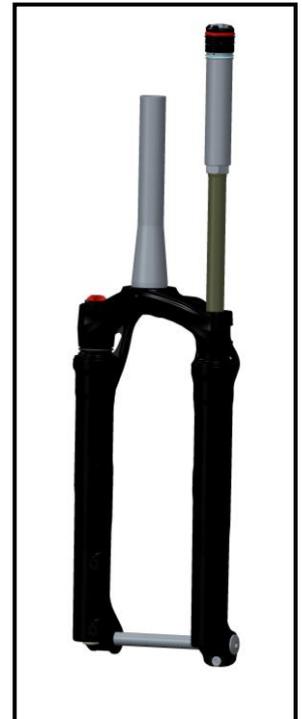
The oil service and full service must be performed by a BOS approved center. The BOS approved centers are the only able to identify and appraise a damaged or worn part especially in case of shock or wear on structural elements such as the shafts, rods and piston.

3.2 Oil Height

Deville 35 oil levels

You will find below the indicative oils volumes used during your fork service by an approved service center.

Lubrification : Bi'Oil	Deville 35 150	Deville 35 160	Deville 35 170
Hydraulic side (right)	45 ml	45ml	45ml
Air Spring side (left)	10 ml	10 ml	10ml



It is necessary to use BOS Bi'oil for lubrication and AMX1 for the closed cartridge, at risk of notably affect the damping performance and reduce wear and tear parts lifespan.



The air side lubrication oil has to be introduced in the fork leg and not in the air rod.



FAQ

My fork loses pressure when I remove the pump, what can I do?

Check the valve core tightness using a Schrader valve core tool.

My fork has negative travel, is this normal?

The BOS air spring is designed to lower the engagement threshold as much as possible. Therefore, it is possible that on some bikes there is a small negative travel.

Where can I buy replacement stickers or a valve cap?

You can go to the BOS Suspension website on the online shop to find all the spare parts of your damper.

My new fork has bushing play, what should I do?

The unique bushing alignment and tolerance on BOS forks results in less friction, more sensitivity, and some bushing play from the factory. If the bushing play feels abnormally excessive, please contact a BOS service center for help.

My fork is lowering as I deflate it, what is happening?

When you deflate the fork by the Schrader valve, you are only emptying the positive air chamber. The negative air chamber stays under pressure and exerts an opposing force on the air piston that pulls the fork down. To avoid this phenomenon, be sure your fork is completely extended during the deflation, then slowly deflate your fork thanks to your high pressure pump.

I inflated my fork and it is really hard, what can I do?

Did you change your fork's settings? Check that your settings are close to our recommended base settings given in the setup section of your product's user manual.

If the issue is still present, you may have some internal pressure from the production process. You can eliminate this pressure by slipping a thin zip-tie between your fork dust seals and your stanchion until you hear the sound of air escaping. Then set again your fork air pressure.

If your fork is still hard, please contact our customer service on sales@bos-suspension.com .

I have about 5mm of travel unused when I ride normally.

Our forks are designed to be very progressive at the end of travel to give you a bottomless feeling. This means that those last couple millimeters of travel might only be used on the biggest hits or when you ease a landing. You can think of them as insurance to get you out of the trickiest situations.

If more than about 5% of your travel remain unused, try lowering your air pressure by 5PSI and check your compression settings. If your compression settings are much harder than our recommended values, try bringing them closer to the base settings in your product's user manual.

I have grease/oil coming out of my brand new fork seals.

This is not unusual at the beginning of the life of a fork. Clean off the stanchions and the seals and it will disappear after a few rides.

My fork has been sitting for a couple of weeks and some oil came out of the seal when I rode it the first time.

BOS seals can let out a little bit of oil when they have been sitting and dried out. Wipe off any oil, and none more will come out when the seal is lubricated again.

I have grease/oil coming out of my well-ridden fork seals.

It's time for a service! Contact your nearest BOS authorized service center for a full service.

But I haven't reached your recommended service interval yet

Our recommended service intervals cannot cover 100% of customer's usage cases. Use in wet/muddy conditions; a prolonged storage out in the sunlight; frequent use; or improper care can all cause a quicker wear out of the seals.

Where can I find my serial number?

The serial number is engraved under the steer tube; it's composed of 7 digits.

How can I adjust my FCV?

The FCV is a very precise, internal system who is preset in our factory.

For any other questions, please feel free to contact us by e-mail at sales@bos-suspension.com

www.bos-suspension.com



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