



USER MANUAL



WWW.BOS-SUSPENSION.COM
DRIVEN BY PERFORMANCE



You have just purchased a product from BOS Suspension.
Welcome to our big family!

We have a common passion, MTB and it has led us to design neat and high-end products designed for your discipline: DH, Enduro & All Mountain.

With 20 years of experience in the research, development and production of innovative and efficient products, BOS products are the result of meticulous work and unique know-how. Our entire Toulouse team is proud to accompany you on this great adventure by providing you with the best of our technology, titled in multiple disciplines.

In order to get the most out of your suspensions, we invite you to carefully read the user manual, the assembly instructions and the advice for use in order to make the most of the potential of your new material.

Thank you for choosing BOS Suspension,
Have a good ride,

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WARRANTY

BOS SUSPENSION grants a contractual guarantee under the following conditions:

BOS guarantees its products against all defects in form and manufacturing faults for a period of one year from the date of original purchase. Proof of purchase will be required for any application of the guarantee. The warranty is granted to the original owner and is non-transferable. Wearing parts such as wiper seals, O-rings, guide rings, pins, bushings, screws and bolts are not covered by the warranty.

Application

The application of the warranty is subject to the laws in force in the country or state in which the original owner resides. If the local legislation differs from the warranty as described here, the warranty is deemed to be amendable to comply with it.

Limits

BOS SUSPENSION is not liable for direct, indirect, special, incidental or unforeseen damage resulting from the use of its products, subject to compliance with local legislation.

Exclusion

The guarantee does not apply in the following cases :

- Failure to comply with the installation instructions as described in the installation and adjustment manual.
- Failure to follow the disassembly/assembly instructions as described in the service manual.
- Modifications made to the product by the owner or a third party.
- Inappropriate use.
- Damage resulting from an accident, violent shock,

fall, under any circumstances.

- Failure to comply with the instructions and maintenance intervals.
- Replacement of original parts with parts from manufacturers other than BOS SUSPENSION.
- Alteration of the serial numbers with the obvious aim of making it illegible.

Procedure

Regardless of where the product was purchased, the owner must contact an authorised BOS centre to apply for the guarantee. It is compulsory to produce the purchase invoice. Otherwise, the warranty will not apply. Sending the product is subject to the prior agreement of the BOS SUSPENSION after-sales service department. Outward carriage, dismantling and packaging costs are the responsibility of the customer. In the event of refusal to apply the guarantee, the packaging and return shipping costs are the responsibility of the customer.

SAFETY INSTRUCTION


GENERAL WARNINGS


The fork is an important element that has a direct influence on the stability of the bike.

This manual must be consulted before using your shock absorber and for the duration of its life.

If necessary, or for any service operation, please contact an authorized BOS suspension.



After installation, test your bike at a slow pace to make sure that everything works properly.

 **CAUTION** operations may impair your safety or cause damage to your suspension. Be sure to take note of these warnings.

 **IMPORTANT INFORMATIONS**
These indications are intended to allow you to optimize the operations described in this manual or optimize the performance of your suspension.

TOOLS

To carry out adjustments and routine maintenance of your fork, you will need the following tools :

TOOLS	USE	FIGURE
3mm allen key	Low speed compression adjustment	
10mm Socket	High Speed compression adjustment	




ASSEMBLY PROCESS

This section details the assembly of your BOS STOY shock absorber.

First of all, remove the original suspension from your bike. To do this, refer to your bike's original manual.

 **IMPORTANT INFORMATION**
To make reassembly easier, mark the order of disassembly of the parts and arrange them on your work surface so that you can quickly identify the location of each part.

 Never attempt to disassemble your shock absorber. Restrict yourself to the operations described in this manual. As your shock absorber is assembled under pressure, disassembly may cause injury. There is also a risk of irreversible damage to your shock absorber. Please contact an authorised BOS service centre for any maintenance work.

When choosing the mounting kits for your bike, please refer to the diagram below:



Standard mounting kit :

MKP2-XX-YY

Example: MKP2-30-08

It is necessary to specify a part number for each damper side

SETTINGS

2.1 Checking SAG

The SAG - the negative travel, i.e. how much the suspension will sink under the effect of your weight - is obtained by adjusting the spring preload.

BOS suspension recommends a SAG value of between 25 and 35% of the total shock travel, depending on the use and/or type of riding. (Enduro 25-30% / DH 30-35%) It is likely that your bike manufacturer also recommends a SAG value.

Please refer to your bike's settings manual to check this. If it differs from the values recommended by BOS suspension, you should carry out some tests on the ground to determine the SAG value that suits you best.

The BOS STOY shock absorber is delivered with a spring that corresponds to your weight. The ideal preload to be within the correct SAG range should be between 0 and 4 mm maximum.

If you exceed this value, it is strongly recommended to use a harder spring. If you do not reach the SAG, choose a softer spring.



A spring that is too hard or too constrained can negatively interfere with the hydraulic operation of the shock, and minimize the performance of your bike.

2.2 How to adjust your SAG



Remember that SAG is measured on flat surface, whereas in riding conditions the bike is on the slope, which reduces the "dynamic SAG" (in action).

1. Disengage the compression stop from the damper foot using a flat screwdriver and slide the stop to the rod guide.



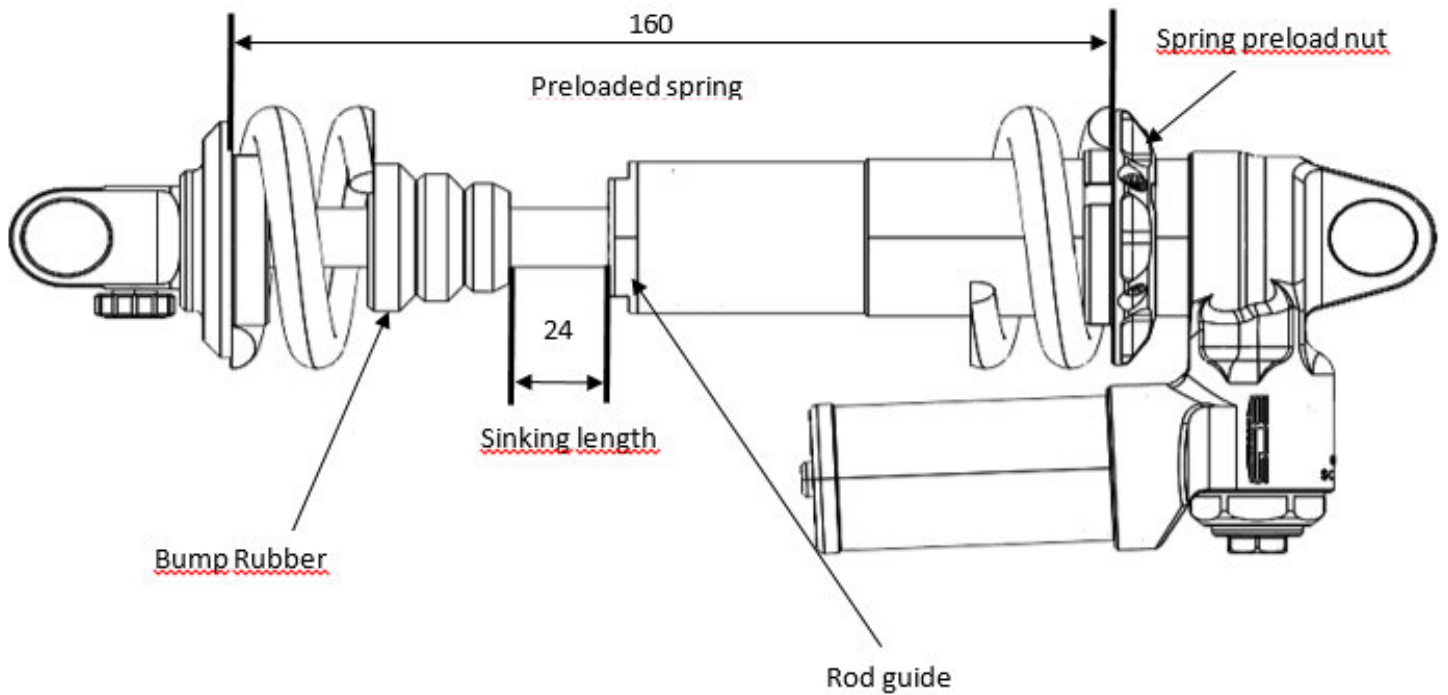
Do not touch the stem as this may scratch it

2. Sit on your bike, if possible in riding gear, put both feet on the pedals (in a horizontal position) and let the rear suspension be compressed by your weight.

3. Get off the bike, fully decompress the suspension, by pulling on the sit post, and measure the length of depression between the compression stop and the rod guide. This distance, in mm, will allow you to check your SAG percentage.



SETTINGS



The STOY shock requires different preload settings depending on the geometry of each bike on the market. We recommend a SAG setting of 30% (relative to the stroke of your shock) for your bike.

Below are the SAG values for given races (to adjust your SAG, play with the spring preload):

Total stroke (mm)	52.5	55	60	63	65	68	70	75	89
SAG (%)	30	30	30	30	30	30	30	30	30
Sinking (mm)	15.75	16.5	18	18.9	19.5	20.4	21	22.5	26.7

SETTINGS

2.3 Hydraulic adjustments

The STOY shock is a three-ways adjustable shock, which means there are three different damping adjustments : rebound, low-speed compression, high-speed compression.

Your shock's base setting (internal) is set up for your bike's geometry when you purchase the shock.

The purpose of damping adjustments is to use all the shock's travel without bottoming-out (or only very occasionally), to give rear wheel grip, but also to avoid the bike stalling out in holes, and finally to maintain a good chassis position.

Below you will find the base settings for your shock, then it's up to you to analyze its performance on the trail and tune the settings to suit your riding style. Do this carefully and methodically, step by step. Only change one setting at a time and only by a few clicks. When it's done, note the setting and type of terrain.

If you get confused with the settings, return to the base settings and start again.

Low speed compression (3 mm golden hexagonal screw on head)

The low-speed compression affects the shock's performance in compression over small bumps or through the beginning of the travel.

Harden the low-speed compression (by turning the screw clockwise) on rolling terrain with big compressions and kickers.

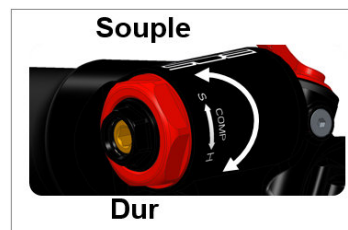
It might be useful to soften the low-speed compression (by turning the screw counter-clockwise) on steep gradients.

High speed compression (10 mm black nut on head)

The high-speed compression acts mainly on harsh hits (jump landings, rough sections). It should be soft enough to get all the travel without bottoming-out. If, on a given track, you bottom-out frequently, harden the high-speed compression by turning the knob clockwise.

However, don't get hung up on bottoming-out if it only happens once or twice during your run. You risk setting your shock for 3% of the course and losing efficiency on the other 97%.

If your shock doesn't get full travel, soften the high-speed compression by turning the knob to counter-clockwise.

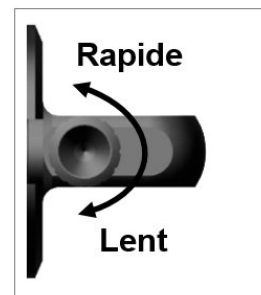


Rebound

The main factor in adjusting the rebound is the position of the bike. A bike shouldn't be "sunken down" all the time, although the back does need to be fairly low. Adjusting the rebound will allow you to maintain this balance.

If you feel like the back of the bike is pushing you forward on a slope or when braking, slow down the rebound (turn the knob clockwise). It can be useful to go along with this adjustment (especially if the problem persists) by slightly soften the low-speed compression.

However, if the bike seems too low at the back and/or the front end has a tendency to drift offline, speed up the rebound



To start your adjustment, turn the knob clockwise until it stops (clicks = 0). Then count the clicks while turning the knob counter clockwise.

Basic settings STOY 3

Rebound	Low speed compression	High speed compression
10 clicks	10 clicks	10 clicks

With a significant hydraulic compression support, the STOY shock allows the bike to maintain a high dynamic balance, as well as giving good response, and improved handling. BOS recommends setting up the bike with a fast rebound to keep the chassis balanced, and avoid the bike sitting low in its travel.



The feeling of «fast» or «slow» rebound will differ from one rider to another. Thus it's difficult to define it precisely. We advise you to define your own range of correct rebound - the range of settings between «too fast» and «too slow». Then, always choose a setting in the faster part of that range, for example the three last clicks (counter clockwise) on a range of nine.

MAINTENANCE



3.1 Service

It is essential to clean your shock absorber after every ride, and without delay! Nothing is more dangerous for the seals than dried mud. However, it is very easy to do: just clean the rod, lift the bump rubber and clean the dust that has accumulated under it.



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.

		After each ride	Every 6 months	Every year	Every 2 years
Cleaning / Pressure check / Screw tightening check		•			
Light service	Wet / muddy conditions		•		
	Race / Frequent use		•		
	Dry / Dusty Conditions			•	
Complete service	Wet / muddy conditions			•	
	Race / Frequent use			•	
	Dry / Dusty Conditions				•

Light service: Change of oil, Inspection of rod guide seals, Cleaning

Complete service : Change of rod guide seals, guide rings and internal seals



Remember to bleed the air from your air cartridge every 5 to 10 rides depending on the use

What is the basic set up?

Your shock has been set up for your bike, with a specific internal valving spring weight. You can find all the information about standard settings for your bike in the chartlist on the BOS website. However, you should refer to the adjustment section of this manual in order to adapt it perfectly to your type of riding.

I noticed some play between my shock and the frame, what can I do?

Check that your mounting hardware is torqued to your manufacturer's specifications. If it is, the rear shock mounting hardware must be replaced. Contact an approved BOS service center, or connect on bos-suspension.com.

Where can I buy replacement stickers ?

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

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

For any other information, you can send us a message to sales@bos-suspension.com



WE KEEP YOU RIDING



METRIC /
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TRUNNION





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