

# BOSS

mountain-bike *SUSPENSION*

# VOID

**mtbdhairshock** 

Model Year 2015

User Manual

# Warranty

BOS MTB guarantees to the original purchaser that the BOS product for which they received this warranty is free from defects in material and workmanship for one year from the date of original retail purchase. A proof of purchase will be asked for any warranty claim. This warranty is not transferable to a subsequent purchaser.

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

## Terms

This warranty is subject to legal jurisdictional or warranty rights of the country where it has been originally purchased, which will prevail if different from the terms herein listed.

## Limits

BOS MTB cannot be liable for any loss, inconvenience damages, whether direct, incidental, consequential, resulting from the use of its products, local legislation prevailing.

## Warranty exclusions

This warranty does not cover the following cases:

- Damage to products resulting from improper assembly other than listed below
- Products that have been modified by the owner or a third party
- Improper use
- Damages resulting from an accident, crash under any circumstances
- Invalid servicing procedures and servicing time frame not respected
- Replacement of the original parts by parts from other manufacturers
- Products whose serial numbers have been altered, defaced or removed.

## Warranty procedure

The owner should always refer to an approved BOS center for any warranty claim. A proof of purchase is compulsory for any warranty claim. Otherwise the warranty claim will not be considered. Always contact BOS MTB warranty department before returning any products that may fall under this warranty. If "the faulty parts" do not fall under warranty, the customer will be charged for any costs in respect with warranty such as transport and package back and forth.



# 1. Introduction

Thank you for purchasing a BOS VOID shock. Your shock has been assembled specifically for one bike - yours! - which means that the internal valving and the air chamber volume are adjusted for your bike. The correct mounting kit is also provided with the shock.

## CAUTION

Never try to disassemble your shock. Limit yourself to the instructions given in this manual. This shock is pressurized, for your own safety, do not try to open it. You also risk damaging the shock and its internal mechanisms as well as voiding your warranty.

Contact an authorized service center for any maintenance operation.

# 2. Assembly

Your VOID shock is delivered with the correct mounting kits for the bike specified while ordering.

### Check the mounting direction

By referring to the compatibility table, available on the BOS MTB website : <http://www.bosmtb.com>.

### Refer to the bike's user manual

To follow the specific shock mounting procedures of your bike.

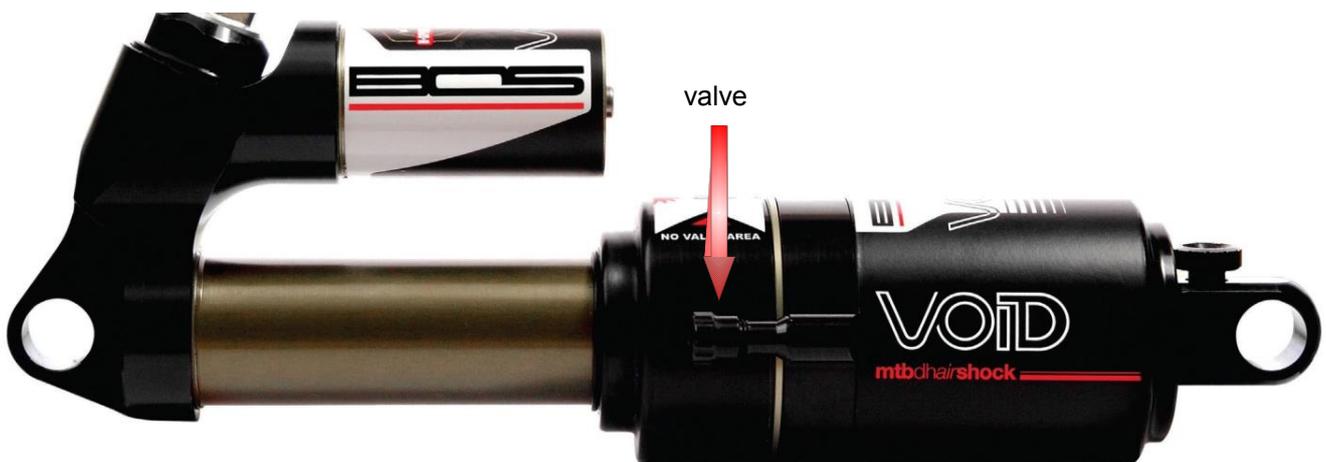
# 3. Settings

## 3.1 AIR PRESSURE

Before using the shock, you must set up the air pressure based on your weight and your bike's rear suspension geometry.

Refer to the compatibility table on BOS MTB's website, in the download area on <http://www.bosmtb.com> for the base recommended air pressure.

Connect a pump equipped with a precise dial to the Schrader valve located on the side of the upper part of the body, and inflate at the recommended pressure.



### 3.2 EQUALIZING AIR CHAMBERS

In order for your shock to function correctly, you must equalize the air chambers after setting your pressure.

To equalize the chambers, the shock must be mounted on the bike.

Place the travel checker O-ring at 11 mm from the seal of the shock, sit on your bike, and slowly compress the suspension until the seal comes into the O-ring. Let the suspension slowly extend to its full travel. Slowly cycle the shock 15 times over the first 11mm of its travel to complete the equalization.



### 3.3 SETTING YOUR SAG

The sag is the amount of travel used by your suspension from your weight on the bike. It has to be set up by adjusting the air pressure.

BOS recommends a sag percentage of 30 to 35 %.

The bike manufacturer may also indicate a percentage of SAG. Please refer to your bike’s user manual for this value. If the manufacturer recommendation differs from ours, you should test the bike on the trail at different sag values to find the right amount for your riding style.

#### How to measure and set your sag

Slide the travel checker O-ring up to your shock’s dust seal.

Sit on your bike (if possible dressed with your riding outfit) feet on the pedals - horizontal position, and let the suspension compress under your weight. Get off the bike without pushing on the suspension any more, extend the rear suspension to its full travel by pulling up the saddle, and measure the distance between the O-ring and the seal. This distance allows you to check the percentage of SAG obtained with the current air pressure. To convert the distance into percentage, refer to the table below.

long. x course (mm)	222x67		240x76		267x87	
SAG (%)	35	30	30	35	30	35
enfocement (mm)	24	23	20	24	23	24

If the sag is not correct, adjust the air pressure in 15psi steps. Equalize the air chambers after each adjustment.

**Too much SAG:** increase the air pressure.

**Not enough SAG:** reduce the air pressure.

### 3.4 HYDRAULIC SETTINGS

The VOID shock is a three-ways adjustable shock, which means there are three types of damping adjustment: rebound, low-speed compression and high-speed compression + a lock out lever that affects low speed compression only. Your shock's base setting (internal) is set up for your bike's geometry when you purchase the shock. We use five basic settings which cover the majority of bikes on the market. If a different setting is necessary for a given bike, we will develop it.

The purpose of damping adjustments is to use all the shock's travel without bottoming-out (or only very occasionally), to give grip to the rear wheel, to stop the bike stalling out in holes, and finally to maintain a good chassis position. Below you will find the base settings for all shocks. Then it's up to you to analyze its performance on the trail and adjust 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. If it's OK, 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 (A)

The low-speed compression (A) affects the shock's performance in compression over small bumps or through the beginning of the travel and low-speed shocks (like whoops).

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

Soften the low-speed compression (by turning the knob anti-clockwise) on steep gradients.

#### High-speed compression (B)

The high-speed compression acts mainly on harsh hits (jump landings, rough rutted 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 anti-clockwise.

#### Rebound (C)

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 accompany this adjustment (especially if the problem persists) by softening the low-speed compression slightly (by turning knob A counter-clockwise).

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 (turn the knob anti-clockwise).



## IMPORTANT

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

Base settings (regardless of internal shock setting):

Low-speed compression: 12 clicks from the fully closed position  
High-speed compression: 17 clicks from the fully closed position  
Rebound: 12 clicks from the fully closed position

Please refer to the chartlist available to download at [bosmtb.com](http://bosmtb.com) for specific pressure and setting suggestions for your bike and weight.

## ATTENTION

BOS has worked hard to develop our compression curve, which allows the VOID shock to maintain the balance of the bike, as well as giving good response, and improving 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. This will make the bike less nervous, and more comfortable.

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 (counterclockwise) on a range of nine.

### 3.5 AJUSTING AIR VOLUME

The progressivity adjustment featured on the VOID, allows you to adjust the air spring rate on the last third of stroke. Thus, if you have found satisfying settings (air pressure and hydraulic) on the first half of the stroke, you can adjust the feel of the last millimeters of travel.

The most frequent and simplest cases are:

The shock has an overall setup to single out comfort and grip, and the bike sits low: by increasing the end-stroke rate you will get a better control of the chassis through the shock and avoid bottoming out. The rate curve should be more progressive (increasing at the end) by adding o-rings.

The overall setup of the shock is more responsive, with a chassis balance high. By decreasing the end stroke rate by removing o-rings, you can make sure that you use all the travel.

This setting is adjusted by adding or removing O-rings placed inside the air can.

We suggest you to go about the set-up step by step. First add or remove two O-rings, then fine-tune the setting with one O-ring at a time. Adding one O-ring in the chamber increases the end of stroke spring rate by 2%.

Usually, the correct setting is between 0 and 4 O-rings. However, the range can go up to 10 O-rings depending on the bike. The installation procedure can be found on the following page.

## WARNING

Only use O-rings provided by BOS. The dimensions and the material are specifically chosen for this purpose.

## Procedure

Place the head of the shock in a soft-jawed vice (figure 1).

Lightly tighten the vice jaws to prevent damaging the shock.

### WARNING

Before tightening the vice, make sure the jaws grip a flat surface and are not touching the rebound knob.

Note your shock pressure, taking into account the loss of pressure when connecting your pump. Slowly deflate the shock. The shock body will retract slightly.

Unscrew the air can (a) while keeping the body (b) in its initial position (figure 2).

### WARNING

The shock body must not be unscrewed. The air can is unscrewed by hand without additional tools.

Remove the air can (figure 3)

Insert the O-ring(s) from the body side of the shock (figure 4) and put them in position. Make sure that the O-ring(s) do not block the hole in the shock.

Align the air can (a) sticker with the rebound knob.

Replace the air can by screwing back by hand until the stickers align to ensure the proper torque (image 6). If the stickers do not align when the air can is hand tight, reinflate and equalize the shock air chambers (chapter 3.2) then finish tightening the air can.

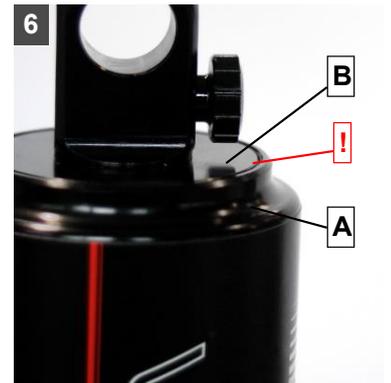
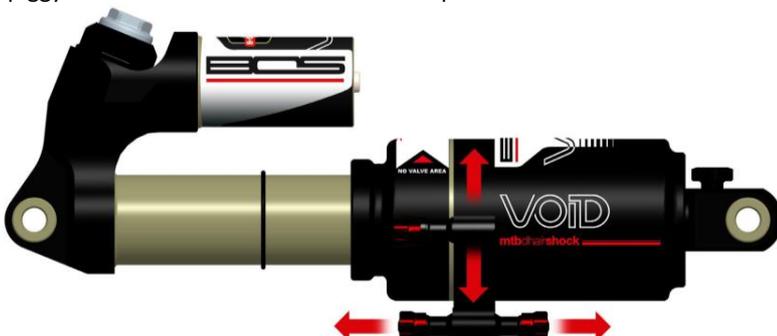
Reinflate the shock.

Mount the shock on your bike.

Equalize the shock air chambers (chapter 3.2).

## 3.6 AIR VALVE ADJUSTMENT

It is possible to position your VOID air valve around the circumference of the air can, and also position it toward or away from the piggyback. This allows the VOID to be adapted to the maximum number of types of frames.



## WARNING

Never position your valve in front of the piggyback, in the no-valve area, even if it is facing away from the piggyback. The piggyback may hit the valve and seriously damage your shock.

To modify the direction of your valve, or rotate it around the air can follow the instructions below.

Place the head of the shock in a soft-jawed vice (figure 1).

Lightly tighten the vice jaws to prevent damaging the shock.

## WARNING

Before tightening the vice, make sure the jaws grip a flat surface and are not touching the rebound knob.

Note your shock pressure, taking into account the loss of pressure when connecting your pump. Slowly deflate the shock. The shock body will retract slightly.

Unscrew the air can (a) while keeping the body (b) in its initial position (figure 2).

The shock body must not be unscrewed. The air can is unscrewed by hand without additional tools.

Remove the air can (figure 3)

Change the position of the valve sleeve.

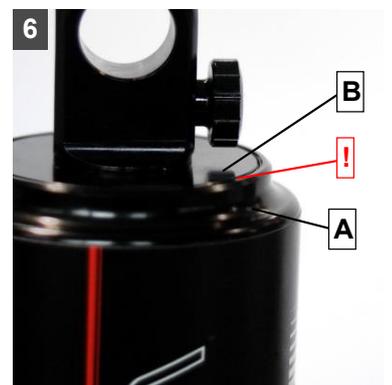
Align the air can (a) sticker with the rebound knob.

Replace the air can by screwing back by hand until the stickers align to ensure the proper torque (image 6). If the stickers do not align when the air can is hand tight, reinflate and equalize the shock air chambers (chapter 3.2) then finish tightening the air can.

Reinflate the shock.

Mount the shock on your bike.

Equalize the shock air chambers (chapter 3.2).



## 3. Maintenance

### Service

It is compulsory to clean your shocks immediately after every use! Nothing is worse for your shock's seals than dry mud.

It is very simple to clean your shocks: wipe off the body and the seal with a clean, soft rag. Occasionally lube the stanchion (with fork oil). Warning: Do not under any circumstances use degreaser, solvent, or any abrasive material.

If you power wash your bike, do not point the hose toward the seals! It will only push the mud inside the seal and get it stuck between the body and the seals and scratch your stanchions.

	Cleaning	Oil service	Full service
Recreational use	After each ride	Once per year	Every two years
Racing use	After each ride	Twice per year	Once per year

### Caution :

We recommend doing the oil service and full service at a BOS approved center. Only the BOS approved centers are able to identify and appraise a damaged or worn part, especially in case of shock or wear on structural elements such as the body, the mounting kits, and the shaft.

### **What is the basic set up?**

Your shock has been set up for your bike, with a specific internal valving and air chamber volume. It is delivered with a pressure of 80 to 100psi. You can find all the information about standard settings for your bike in the chartlist on the BOS website [bosmtb.com](http://bosmtb.com).

### **There is air leaking when I connect the high pressure pump, what can I do?**

Check that your pump is correctly connecting to the valve shell. Make sure that the Shrader valve core is correctly tightened.

### **My shock is too stiff on the first inches of travel and / or the rebound is very fast. What can I do?**

The two air chambers are not correctly equalized. Check out chapter 3.2 to see how to equalize your air chambers.

### **I added/removed anti-volume O-rings. Once reassembled, the shock stickers are not aligned. What can I do?**

To be sure that the stickers will be correctly aligned, the rebound knob must be perfectly aligned with the air can stickers when you start to screw the air chamber back in place. Check out chapter 3.5.

### **My shock has a slight negative travel. Is that normal?**

The air spring of the VOID is designed to obtain the best sensibility on the first inches of travel. As a result, on some types of bikes, you may notice some negative travel.

### **Where can I purchase original stickers and valve cap?**

You can purchase these items through your approved BOS center, or on the BOS store on [bosmtb.com](http://bosmtb.com).

### **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 [bosmtb.com](http://bosmtb.com).

### **My shock is compressing when I deflate it, is that normal?**

When you deflate your shock from the air valve, you are only deflating the positive air chamber. The negative air chamber is still pressurized and pulls on the shock's shaft. If you want to avoid this, deflate step by step (30 to 40psi), and balance the air chambers between each step (5 to 6 slow compressions and extensions over the first 11mm of the shock's travel).

### **My shock makes a whistling or clicking sound when I compress it.**

These sounds are normal to the functioning of the hydraulics when the rebound or low-speed compression circuit is closed or almost closed. Check your settings and bring them closer to the base settings in your product's user manual to reduce this noise.

For any other questions, please visit our FAQ page at <http://www.bosmtb.com/faq.html> or send a message to [customerservice@bosmtb.com](mailto:customerservice@bosmtb.com)