Diamond

This is the Set Up Guide for the Diamond.

To access the **DIAMOND BOOST TRAVEL CHANGE GUIDE** click NOW

To access the **DIAMOND NON BOOST TRAVEL CHANGE GUIDE** click NOW

To access the **OWNER'S MANUALS** click HERE

Diamond Set Up

Diamond Owner's Manuals

Travel Adjust / Boost and Non Boost

DIAMOND NON BOOST TRAVEL CHANGE

The Diamond fork itself can be configured in 140mm, 150mm and 160mm. Travel adjustment is done by changing the spacers inside the air springs. The tube should be performed by an Authorized DVO Suspension service center or a qualified suspension mechanic. Below is a video and a step by step PDF guide that tells you how to perform the travel adjust.

WARNING: PLEASE MAKE SURE THAT YOU RELEASE ALL THE AIR OUT OF THE AIR CARTRIDGE BEFORE PERFORMING THIS TASK. SERIOUS INJURY MAY OCCUR IF YOU DO NOT PRESSURE ALL AIR FIRST.

Download Diamond Travel Change Guide (PDF Instructions + Chart)

Video non disponible
Selle vidéo n'est pas accessible

DIAMOND BOOST TRAVEL CHANGE

This is a guide in changing the travel on your **BOOST** Diamond. If you have a **NON BOOST** Diamond, you can find the guide in the lower tab.

The Diamond Boost 27.5 comes has a minimum travel of 140mm, and is now home of 150mm. This Diamond Boost 29 comes has a minimum travel of 150mm and is now home of 160mm. DO NOT go outside of these travel ranges.

Travel adjustment is done by changing the spacers inside the air springs. This tube should be performed by an Authorized DVO Suspension service center or a qualified suspension mechanic. Below is a video that will show you how to perform the travel adjust.

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Fork Installation

FORK INSTALLATION

WARNING

It is extremely important that your fork be installed by a trained and qualified bicycle mechanic. Special knowledge and tools are required to properly install DVO Suspension forks. Common mechanical knowledge may not be sufficient to install a DVO Suspension fork. If you intend on installing the fork by yourself, the whole job needs to be supervised by a trained and qualified bicycle mechanic. Please, have a qualified mechanic supervise the entire installation process. Improper installation can cause damage to the product, serious injury or even death to the rider. Improper installation will void the warranty. Please, read the entire installation instructions before installing the product. Failure to follow these instructions may be considered. Do not try to replace the stear tube with a threaded steer tube. This will void the warranty of your fork and result in a failure of the product or cause serious injuries or even death to the rider.

1. If changing a fork on an existing bicycle, remove the front wheel and brake from your fork. After, remove the headset cover race from the fork.
2. Using a headset cone installer, install the headset cover race on steer tube tube. Make sure it is firmly against the bottom bearing to guide between the cover race and the fork.
3. Install the fork into the frame. Make sure the steer tube is cut to the correct length. Please, refer to the manufacturer's specifications and instructions for accurate measurement to your new DVO Diamond steer tube. If you do not have an existing fork to measure you, install install the fork into the bicycle head tube with the complete headset, bearings and cones. Mark the steer tube at the top of the upper bearing cone and remove the fork. Measure the distance between the top of the upper bearing cone and the top of the steer tube. Add the measured distance to the steer tube length to determine the correct steer tube length.
4. If it is necessary to cut the steer tube, **MEASURE TWICE CUT ONCE.** It is recommended that a cutting guide be used when cutting the steer tube.
5. Install the DVO Diamond fork into the frame head tube. Make sure the steer tube is cut to the correct length.
6. Install the DVO Diamond fork into the frame head tube. Tighten the pre-load bolt so that there is no play in the headset when turning the stem tube.
7. Properly align the stem and handlebars then torque the stem clamping bolts to the stem manufacturer's specifications.
8. Install the front wheel into the fork. Make sure the wheel is centered in the fork and the axle is properly seated. Ensure that brake line length is thus correct length to not affect steering or compression and extension of the fork. **NOTE: Make sure the brake hose is not twisted. Failure to do so will void the warranty.**
9. Install the front brake hose through the cable guide. Make sure the hose is routed on the inside of the leg. Use a 2mm allen key and torque to 3nm to secure hose and cable guide.

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Wheel & Axle Installation

WHEEL INSTALLATION

1. Insert the fork wheel back into the ride. Make sure the fork lay into the drop outs, then insert the thru axle from the non-ride side. Slide the axle until it makes contact with the threads of the axle bolt on the drive side.
2. Make sure the axle is properly seated. Ensure is a small gap between the lever bolt and drop out on the non-drive side. The axle bolt should at both ends handle the grooves of the lever. If the axle bolt is not sitting inside the grooves please remove the axle and re-do the bolt so that you can tighten down to the grooves. The axle bolt will secure tighter when you tighten the axle again.

3. To secure the axle, position the lever in the open position. When you flip the lever half way you should feel resistance and the lever bolt should be touching the drop. Flip the lever to the closed position by hand (original only). The lever should feel non-linear **DO NOT USE YOUR FOOT OR LEVERAGE**

4. If there is too much or too little resistance adjust the axle bolt on the drive side. Unscrew the axle 1/4 turns from (push the axle to the drive side). Then pull pull the axle back out on you you adjust. If the axle has too much resistance then turn the axle bolt counter clock wise. If the axle did not have enough tension then turn the axle bolt clock wise. Rotate axle lever mechanism again and repeat the axle bolt there is proper tension in the closed position.
5. Remove lever from stand. With the front brake on, lightly rock the bike back and forth to ensure the hardened pinned or at the appropriate torque value. **THERE SHOULD BE NO PLAY IN THE HEADSET.**

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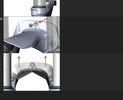
Fender Installation

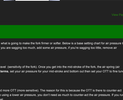
The DVO Diamond comes with an integrated fender that can be used during muddy or wetty conditions. The Diamond fender kit includes the following:

- 1 x DVO Fender
- 1 x Front Fender
- 1 x Brace Bolt

Using a 2mm allen key (ball end recommended), carefully thread in the 2 straps in bolts into the lower holes on the top of the arch and torque to 3Nm. Once these have been installed, these bolts do not have to be removed. The spacer is not around the stanchions during installation.



Line up the fender with the straps in bolts and press down until secure. Fender will "snap" into place. **DO NOT USE PRESSURE OVER THE BRACE BOLT AND NOT ON THE TIP OF THE FENDER.**



Using a 2mm allen key, insert the fender mount bolt into the center of the arch and torque to 3Nm. There should be no play between the fender and the arch.

FENDER REMOVAL

Continued the center mount bolt first. Then pull the fender upwards to release it from the lower straps in bolts. **DO NOT PULL UP** on the tail of the fender. The weight of bolts will very. Ensure it is not lost.

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Air Pressure Guide

Setting the air pressure in the DVO Diamond is setting the spring rate to your fork. This is what is going to make the fork move or stiffer. Below is a basic setting chart for air pressure to get you started. Set your pressure to the recommended PSI then check your SAG point. If you are dragging too much, add some air pressure. If you're sagging too little, remove air pressure.

Proper Set Up

The Diamond comes with an external negative spring adjuster (OTT) to tune the beginning of the travel. Sensitivity of the fork. Once you get the mid stroke of the fork, the air spring can take over. The negative spring adjuster (OTT) controls the initial stiffness of the fork. Set your air pressure, you don't need as much pressure and Enduro Lost then set your OTT to fine tune how it feels of the ride.

How do I know how much OTT is right for my air pressure?

Lighter riders (lower air pressure) will use less OTT. (less sensitive) Heavier riders will need more OTT (more sensitive). The reason for this is because the OTT is there to counter act the force of a higher air pressure to do a good job of initial stiffness and sensitivity. When you are using a lower air pressure, you don't need as much to counter act the air pressure. If you run the air pressure too high, the OTT will not be able to counter act the air pressure and you will miss travel.

How one of the inner tube is learn more about your OTT

To access the air spring inner tube pressure that air spring is at. Attach an inflator (and pressure) and inflate the air spring to the recommended air pressure. After you have dialed the proper amount of air pressure remember to securely replace the air spring cap so that no dirt or moisture can get inside.

To access the air valve you must remove the air spring cap. Attach your service pump and inflate the air spring to the recommended air pressure. After you have dialed the proper amount of air pressure remember to securely replace the air spring cap so that no dirt or moisture can get inside.

Air Pressure Range: 30 - 70psi

Rider Weight	Air Pressure
120-135lbs / 54-61kg	30-40psi
140-160lbs / 64-72kg	35-50psi
165-185lbs / 75-84kg	45-60psi
190-210lbs / 86-95kg	55-70psi
215-235lbs / 97-106kg	60-75psi
240-260lbs / 108-118kg	65-80psi

Video Page

Sag

SAG is the amount your fork compresses under your body weight (dont forget to include your riding gear), also referred to as Rider Weight. Shows how it is an enduro (gravity fun), enduro (up by mounting) and trail which are riding styles and or, adjusting the spring rate(s) setting. This helps position a footpeg, brake and wheels slightly back, helps weighted front body weight on your feet. Every rider has a different riding weight and every position based on rider height and style.

The recommended sag is 15%-25%. Setting proper sag is the very first step in dialing in your air pressure for your fork. Refer to the chart below to find the proper sag.

Travel	Sag in %
140mm	15.00%
150mm	15.00%
160mm	15.00%

Sag in mm
21.00mm
22.50mm
24.00mm

Video Page

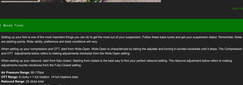
OTT (Off The Top) Guide

The OR Fine Tuner OTT is a function in an exclusive DVO Suspension design. It allows the rider to adjust the initial sensitivity of the fork. Typically, a firm feeling fork (higher air pressure) is required for the rider to get the proper amount of support for the rider and the terrain they are riding on. The OTT allows the rider to adjust the initial sensitivity of the fork independently of the air pressure. Adjusting the spring rate(s) setting (air pressure) in the negative spring chamber (OTT) will make the fork more sensitive (softer) at the beginning stroke. Increasing a lower counter clockwise the OTT will make the fork less sensitive (firmer). The OTT feature will not change the middle or ending stroke of your fork.

YOU WILL NEED A 2MM ALLEN KEY TO ADJUST THE OTT FUNCTION.

OTT Range: 14.5+/-1(stanoo.ldp) (0 clicks per rotation)

Clockwise = Increase Sensitivity
Counter clockwise = Decrease Sensitivity
NOTE: OTT Fine Tuner always adjust the OTT 1 full rotation at a time, not 1 click.



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Rebound and Compression

Rebound **Range:** 20 clicks total

Rebound controls the speed at which the fork extends after compression. Rebound damping control is relative to the amount of air pressure used. Higher air pressure requires more rebound damping and lower air pressure will require less rebound damping to achieve equal smoothness.

Slower = More Rebound Damping

Faster = Less Rebound Damping

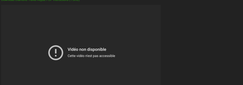
- **Why do you need rebound?**
  Rebound controls the speed at which the fork extends after it is compressed. It needs to be slow enough so the rider isn't bucked off their bike but then fast enough so that it is ready or "ready" for the next bump. Rebound is a very important tune option.
- **What happens if your rebound is too fast?**
  If rebound is too fast, your wheel will bounce back too quickly, instead of stepping over the top of your bump, harshing out the fork and causing it to bottom out.
- **What happens if your rebound is too slow?**
  If rebound is too slow, the fork will not have enough time to fully recover the fork cannot extend fast enough keeping you in the mid stroke. This will result in the wheel going deeper into the bump or even to hard, causing the fork to bottom out.

LOW SPEED COMPRESSION

The Diamond comes with a "Quick Release" low speed compression adjuster that has 3 clicks of adjustment. Setting "1" is wide open and recommended when descending or riding on smooth terrain. When you are climbing, you can remove the quick "1" and you can fine tune setting and best positioning adjuster. Don't forget to change the front wheel and axle to match the proper amount.

Low speed compressions controls the slower vertical movements such as climbing or slower paced trails and bumpy whoop sections. A good example of low speed is sitting down over a large rock and rolling to the backside. Will a slower compression let the compress but at a slower rate and low speed compression shut comes into play. LSC refers to the shaft speed of the compression of the fork (0.1 inch/sec). LS compression is best controlled through a free speed on circuit and a slow pace.

Low Speed Compression (LSC) Range: 8 clicks total



- **Why do you need Low Speed Compression?**
  Low speed compression allows the suspension to compress when the shaft is moving at a slow speed. Low Speed affects small bump performance and controls the slower speed.
- **What happens if you remove the Low Speed Compression?**
  The more low Speed Compression will make it harshness and wheel bounce and traction will be reduced. Turning performance may also suffer because the suspension will ride higher in the travel. Bike may also become unstable.
- **What happens if your Low Speed Compression is too fast?**
  Too much Low Speed Compression will result in the wheel bouncing too fast causing under braking. The suspension will have a healthy feeling and may bottom out to easily.

HIGH SPEED COMPRESSION

High Speed Compression controls the damping force under faster suspension movements regardless of the rider's speed. HSC comes into effect in fast, rough, technical trails, g-outs and hard landings. If you feel yourself early going through the travel feel. Hit hard even you may be another fitter adjust your HSC accordingly.

High Speed Compression (HSC) Range: 24 clicks total

- **Why do you need High Speed Compression?**
  High Speed Compression controls the damping force under faster suspension movements regardless of the rider's speed. HSC comes into effect in fast, rough, technical trails, g-outs and hard landings. If you feel yourself early going through the travel feel. Hit hard even you may be another fitter adjust your HSC accordingly.
- **What happens if you remove the High Speed Compression?**
  Too much High Speed Compression will make it harshness and wheel bounce and traction will be reduced. Turning performance may also suffer because the suspension will ride higher in the travel. Bike may also become unstable.
- **What happens if your High Speed Compression is too fast?**
  If you don't have enough High Speed Compression. The fork will blow through its travel is easily on jump boxes, and will bottom out to easily on large impacts.

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Rider Tune

Air springs, unlike the coil spring of other mount suspension forks give you the ability to change the feel of your compression. Follow these basic tunes and get your suspension dialed. Remember, these are starting points. Rider ability, preference and trails conditions will vary.

When setting up your compression and OTT, start from Stock Tune. Stock Open is defined by setting the adjuster knob counter clockwise until it stops. The Compression and OTT adjustments relate to rotary adjustments clockwise from the Stock Open setting.

When setting up your rebound, begin from closed. Starting from closed is the best way to find your perfect rebound setting. The rebound adjustment allows riders to making adjustments clockwise from the Closed setting.

Air Pressure Range: 30-70psi
Rebound Range: 20 clicks total
Low Speed Rebound Range: 8 clicks total
Low Speed Compression (LSC) Range: 8 clicks total

Rider Weight	Air Pressure	OTT	Rebound	HSC	LSC
120-135lbs / 54-61kg	30-40psi	3-2 clicks	10 to closed	5 to closed	1-2 clicks
140-160lbs / 64-72kg	35-50psi	3-2 clicks	10 to closed	5-3 clicks	1-2 clicks
165-185lbs / 75-84kg	45-60psi	3-1 clicks	8-10 clicks	2-3 clicks	1-2 clicks
190-210lbs / 86-95kg	55-70psi	2-1 clicks	8-10 clicks	2-4 clicks	1-2 clicks
215-235lbs / 97-106kg	60-75psi	1-0 clicks	6-10 clicks	3-5 clicks	1-2 clicks
240-260lbs / 108-118kg	65-80psi	1-0 clicks	6-10 clicks	4-6 clicks	1-2 clicks
245+lbs / 120+kg	140-170psi	11-10 clicks	6-10 clicks	5-7 clicks	1-2 clicks

If you are out of the range of our recommended tune contact your local dealer or tuning shop for help.

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