DVO
DEVELOPED SUSPENSION

TOPAZ T3AIR

OWNER'S MANUAL & SET-UP GUIDE

CONGRATULATIONS!

Thank you for purchasing DVO Suspension for your mountain bike. DVO Suspension products are designed by riders for riders. It is very important for your safety that you follow the guidelines, instructions and set-up information in this owner's manual or on our website

RIDER CONNECT

Go to http://rider.dvosuspension.com and create a Rider Connect account. Rider Connect is a website where you can register your product, save and search tuning settings with DVO's own myTunes and create a custom DVO profile where you can share with your friends and fans.

DVO TECH

Go to http://tech.dvosuspension.com for setup, service guides and tuning information. DVO Tech has detailed information and articles on suspension setup and tuning to help you
understand how suspension works and how each adjustment affects the performance of your fork and shock. Detailed step by step instructions and videos are available to show you how to properly perform service jobs such as changing seals and oil to more advanced tasks like damper services. DVO Tech also has a forum where you can communicate with DVO technicians and search a database of questions and answers.

Main Website – http://www.dvosuspension.com
Rider Connect – http://rider.dvosuspension.com
DVO Tech – http://tech.dvosuspension.com
Use Our Hashtags - #dvodiamond #dvosuspension

DVO
DEVELOPED SUSPENSION

⚠ WARNING!

Failure to comply with these warnings and instructions may cause SERIOUS INJURY, DEATH, or DAMAGE TO YOUR PRODUCT.

Be sure to read this manual carefully before using your suspension rear shock. Throughout this manual, reference is made that "an accident" could occur. Any accident may cause damage to the product, SERIOUS INJURY, OR DEATH.

These instructions contain important information about the correct installation, guidelines for set-up, service and maintenance of your suspension rear shock. Nevertheless, please be informed that special knowledge and tools are essential to install, service and to maintain DVO Suspension rear shocks. Common mechanical knowledge may not be sufficient to repair service or maintain your shock. Therefore we strongly recommend getting your shock installed, serviced and/or maintained by a trained and qualified bicycle mechanic. Improper installation, service or maintenance can result in an accident.

Suspension rear shocks contain fluids and air under extreme pressure. DO NOT attempt to disassemble any portion of a DVO Suspension product unless instructed to do so by a DVO Suspension authorized technician.

Only use genuine DVO Suspension replacement parts. Modification, improper service, or the use of aftermarket replacement or spare parts may result in an accident and VOIDS the warranty of your rear shock.

DVO Suspension rear shocks are designed for the usage by a single rider only. DO NOT use DVO Suspension products on any motorized bicycle, or motorized vehicle.

Always be equipped with proper safety gear. This includes a properly fitted and fastened helmet. According to your riding style you should use additional safety protection. Make sure your equipment is in flawless condition.

Make sure you select the correct rear shock according to your frame, size and your riding style. Installing a rear shock that does not match the geometry of your frame could result in a failure of the rear shock itself and void the rear shocks warranty. Installing a suspension rear shock will change the geometry and handling of your bike. Learn how to ride and train your skills. Know your limits and never ride beyond those.

Study all other manuals provided with your bicycle and make yourself familiar with all components mounted to your bike.

PRODUCT OVERVIEW

TOPAZ T3 AIR



TOPAZ T3AIR	
1.	Air Cap
2.	Cooling Fins
3.	Reservoir
4.	T3 Compression Adjust
5.	Rebound
6.	Upper Eyelet
7.	Air Canister
8.	Damper Body
9.	Lower Eyelet

FEATURES OVERVIEW

Topaz Air Shock Features:

-Air Pressure/Spring
-9 Clicks of Dynamic Rebound via Piston & Shims (internally tunable if needed)
-3 Position Dynamic Compression via easy access lever. (internally tunable if needed)
-Rubber Bladder pressure can be adjusted from 170psi (lighter rider) to 200psi (heavier rider).
-Air Canister volume reducers can be used to reduce internal air volume.
-Riding Style: Trail, AM, Enduro

PRE-RIDE CHECK

⚠ WARNING!

- Do not ride your bicycle, if any one of the following test criteria is not passed! Riding your bike without eliminating any defect or carrying out the necessary adjustments can result in an accident, serious injury or even death.
- Do you notice any cracks, dents, bent or tarnished parts of your suspension or any other part of your bicycle? If so, please contact a trained and qualified bicycle mechanic to check your fork and/or complete bike.
- Do you notice any oil leaking out of your shock? Check hidden areas such as the main seals. If so, please consult a trained and qualified bicycle mechanic to check your suspension or bike.
- Make sure your wheels are perfectly centered in order to avoid any contact with suspension fork or brake system.
- Compress your shock with your body weight. If it feels too soft, inflate to the proper pressure to achieve accurate SAG, inflate until your SAG is between 25-30%. Please also refer to SAG section for more details.
- Make sure your brakes are properly installed/adjusted and work appropriately. This also applies to every other part of your bike like handlebars, pedals, crank arms, seat post, saddle, etc. Check the cable length and routing of your components. Make sure they do not interfere with your steering actions or full compression.

CHECK FRAME AND SHOCK CLEARANCE

⚠ WARNING!

DVO Suspension strongly recommends that your shock be installed by a trained and qualified bicycle mechanic. Special knowledge and tools are essential to properly install bicycle suspension. Common mechanical knowledge may not be sufficient to install a DVO Suspension product. If you intend on installing the shock by yourself, the whole job needs to be inspected by a trained and qualified bicycle mechanic. Please note, that improperly installed shocks are extremely dangerous and cause damage to the product, serious injury or even death.

Be sure to refer to your bicycle owners manual for appropriate fitment details. Installing a wrong size shock or incorrect hardware other than what was designed for the bicycle may result in damage, severe injury, and even DEATH. DVO Products should be installed by a qualified bicycle mechanic. After Installation, check for clearance before riding. If you are installing this shock as a replacement to the OEM shock, follow these steps to ensure that the shock does NOT ALLOW any part of the frame, shock, or tire to come in contact with the frame under full compression.

1. Install the shock onto your frame using the appropriate hardware. Do NOT use old or worn hardware & do NOT use bent or rusted fasteners.

2. Remove air cap, depress the schrader air valve while pushing down on the bike to fully collapse the shock.

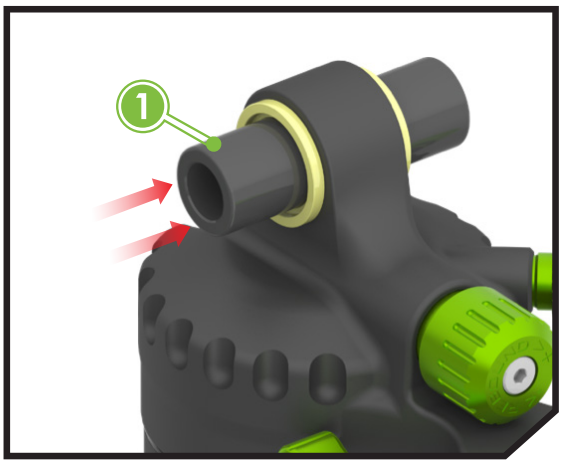
3 While shock is collapsed, check for any interference or contact points on the frame, shock, tire, and linkage. Make sure there are NO contact points, if there are, you may have the wrong size shock and or a defective or damaged frame.

4. Run the shock a few times through its travel, check for any binding that may be coming from the mounting hardware and the shock.

5. After everything checks out and there aren't any clearance issues, inflate the shock to 50 psi and cycle it through the travel a few times then inflate the shock to the recommended air pressure for your weight and riding conditions (200-300 psi). Then bounce on the bike compressing the shock multiple times making sure the negative air chamber is set to the positive air chamber. Set SAG according to the recommended setting and enjoy your ride!

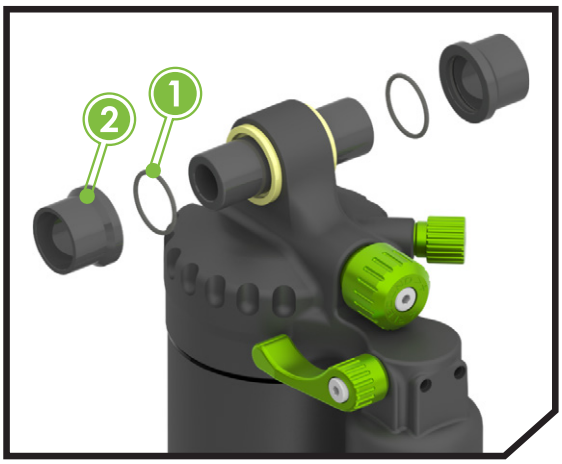
6. After your first trail ride on your new shock, check all fasteners that may have come loose.

SHOCK INSTALLATION



1.

Press axle (1) into the upper shock eyelet and lower shock eyelet.



2.

Lightly grease the O-rings. Slide the pin-cap (2) and o-rings (1) onto each side of the axle in the order shown.



3.

Make sure everything fits securely with no gaps or side-to-side movement.

4. Install both of the mounting bolts before tightening to spec. After they are both installed and everything is aligned, tighten to the bike manufacturer's suggested specification.

5. It is extremely important to check that no side-to-side play exists. Make sure the shock is fit securely.

BASE SETTINGS

Below is a recommended air chart based on rider weight. Remember that these are only starting points and adjustments will vary based on rider ability, trail conditions, frame design, and personal preference. After you are done setting up your suspension according to the recommended base settings, check your sag to make sure you are within the recommended sag settings. (page 9)

WEIGHT (WITH GEAR)	AIR PRESSURE (PSI)	AIR PRESSURE (BAR)
100-130 lbs.	170-180 PSI	11-12 BAR
130-150 lbs.	180-190 PSI	12-13 BAR
150-170 lbs.	190-200 PSI	13-14 BAR
170-190 lbs.	200-210 PSI	14-15 BAR
190-210 lbs.	210-220 PSI	15-16 BAR
210-230 lbs.	220-225 PSI	15-15.5 BAR
230-250 lbs.	225-235 PSI	15-16 BAR

It's important to keep in mind that air pressures will vary depending on the leverage rate of your frame. This is just a starting point until you check your SAG on the following page.

MYTUNES

Once you have your adjustments figured out you can save them as a MYTUNE profile in your Rider Connect account.

MYTUNES was created to give its customer easier and direct access to specific settings and adjustments. MYTUNES is a database of suspension settings for its Rider Connect community that includes DVO Base Tunes, Pro Rider Settings along with terrain specific setups. Users can create several tunes for their own product(s) and can share their tunes on Social Media. Imagine being able to find a tune by someone of your weight and riding ability in Whistler or wondering what setup DVO Pro Riders are running.

If you have not set up your rider connect account please go to http://rider.dvosuspension.com. Once you have created your account and registered your product then you can start creating personal myTune profiles. You can create and save multiple tunes for each product and share them with your friends!

SETTING SAG

SAG is the amount the shock compresses under your own body weight. Make sure you check your SAG with all your riding gear on (riding shoes, hydration pack, etc). The ideal amount of SAG is best determined by your bike manufacturer, there are many linkage designs & each design works best according their design.

1.

Start by inflating the shock to your recommend pressure from the chart on page 8.



2.

Move the O-ring to the top of the shaft. Mount the bike in your riding gear and in the attack position.



3.

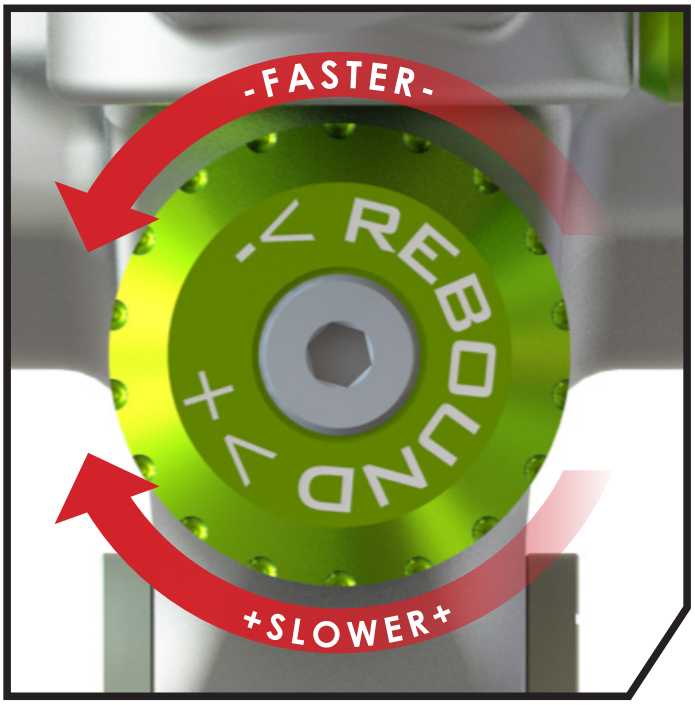
Measure the distance the O-ring has moved. Your SAG equals the distance from the O-ring to the air canister.

SIZE	SAG (MM)	SAG (PERCENT)
216 x 63.5	15.9-19mm	25-30%
200-57	14.3-17mm	25-30%
200-51	15.3-12.8mm	25-30%
190-50	15-12.5mm	25-30%

SAG = DISTANCE FROM AIR CAN TO O-RING

ADJUSTMENTS





T3 COMPRESSION ADJUST

The DVO Topaz offers 3 compression settings to quickly & easily allow the rider to adjust the compression damping for any trail condition.

1. **Open Compression-** reduces compression damping allowing the oil to easily flow through the circuit offering maximum sensitivity. Open position is also best for lighter riders or for dry dusty terrain where maximum traction is required.

2. **Medium compression** is for traversing. Sections of the trail where you need it to be active but still maintain a good pedaling platform.

3. **Closed Compression-** great for climbing to reduce undesirable suspension bob or for heavier/aggressive riders needing maximum support while descending. The heavy/closed setting is NOT a lock-out but does offer significant resistance to weight & pedal induced suspension movement.

REBOUND

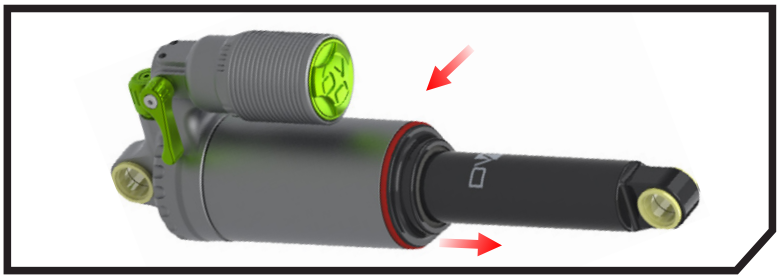
Rebound controls the speed at which the shock extends after compression. Rebound damping control is relative to the amount of air pressure used. Higher air pressure requires more rebound damping and lower air pressure will require less rebound damping so please adjust accordingly.

SLOWER = MORE REBOUND DAMPING

FASTER = LESS REBOUND DAMPING

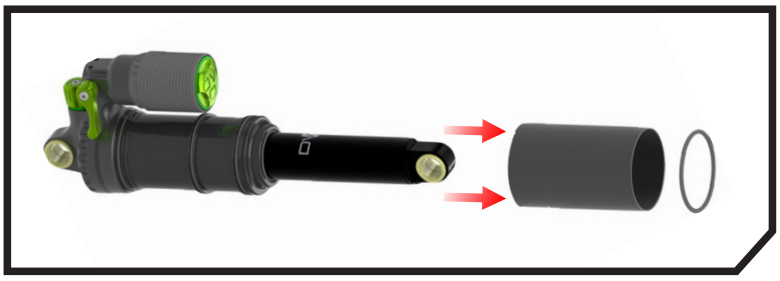
AIR VOLUME TUNING

If you are looking for further tuning, the spring curve of the air shock can be adjusted using volume spacers. Air pressure should be used to achieve the correct SAG. If you are harshly bottoming out, the volume spacers will control the progressiveness of the shock.



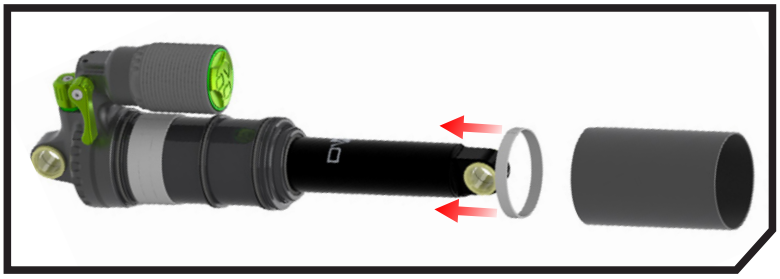
1.

Let the all air out of the main chamber. Remove the o-ring underneath the air canister. Be cautious not to damge the o-ring.



2.

Twist and push downward to remove HV (high volume) air sleeve.



3.

Add or remove your desired amount of air volume spacers. Reinstall the air canister and make sure it is sealed with no gaps present. Reinstall the o-ring and you're ready to ride!

ADDING AIR VOLUME SPACERS

Adding air volume spacers will create a more progressive feel to your air shock. A more progressive feel will prevent harsh bottom outs and keep the shock from sitting deep in the stroke.

REMOVING AIR VOLUME SPACERS

Removing air volume spacers will create a more linear feel to your air shock. A more linear feel will make it easier to use the full stroke of the shock. If you can't achieve full travel or the shock becomes very harsh towards the end of the stroke, removing air volume spacers will help alleviate that.

SERVICE & SUPPORT

⚠ WARNING!

Failure to properly maintain your shock will result in an accident, personal injury, or death.

We recommend all DVO Suspension service should be performed by a qualified bicycle mechanic. Service information and detailed instructions can be found at http://tech.dvosuspension.com or by contacting your local DVO Suspension dealer or distributor.

Terrain, location and riding ability can greatly affect the interval in which maintenance should be performed. Always inspect your products, and lean towards caution if maintenance is in question. When in doubt, consult a qualified bicycle mechanic, or contact DVO Suspension directly.

SERVICE	INTERVAL	NOTES
Inspect exterior for oil leaks or damage to the shock shaft such as pitting or chips.	EVERY RIDE	
Clean any dirt or mud with soapy water & a clean towel. Do Not use harsh solvents that can damage rubber seals.	EVERY RIDE	Debris on the shaft body can accelerate seal wear & failure, keep shock shaft clean!
Inspect SAG Setting	EVERY RIDE	Air pressure can be reduced over time, this is a normal occurrence.
Check mounting hardware	REGULARLY	Loose or worn shock hardware can damage the shock and or frame, keep them tight!
Check bladder air pressure	REGULARLY	Air pressure can be reduced over time, this is a normal occurrence.
Inspect rebound knob	REGULARLY	Check for a loose & properly functioning knob.
Inspect compression lever	REGULARLY	Check for a loose & properly functioning lever.
Replace all seals & oil change	EVERY YEAR OR 150 RIDE HOURS WHICH EVER COMES FIRST	Seal Kit part #1569008
Air Spring Service	EVERY YEAR OR 150 RIDE HOURS WHICH EVER COMES FIRST	Air Spring Service kit part #1569010

LIMITED TWO (2) YEAR WARRANTY

LIMITED TWO (2) YEAR WARRANTY
If any component of your DVO Suspension product is found to be defective in materials or workmanship within the term of this Limited Two Year Warranty (the "Agreement"), the defective component will be repaired or replaced, at the option of DVO Suspension free of charge, within thirty (30) days after receipt of the Suspension product by an authorized DVO Suspension dealer, freight prepaid, together with the original retail invoice or other evidence of the date of purchase.

NOT COVERED: This warranty does not cover damage resulting from accidents, alteration, neglect, misuse, abuse, or improper use, lack of reasonable or proper maintenance, improper assembly, repairs improperly performed or replacement parts or accessories not conforming to DVO Suspension's specifications, modifications not recommended or approved in writing by DVO Suspension activities such as acrobatics, stunt jumping, ramp riding, racing, commercial use, and / or normal wear or deterioration occasioned by the use of the product. Items subject to normal wear or deterioration include but are not limited to oil, dust seals, oil seals, and bushings. In addition, this warranty is void in the event that the forks are used with any rental bicycles, unless DVO Suspension provided prior approval in writing for such use. This warranty also does not include any expenses related to the transportation of the DVO Suspension product to or from an authorized DVO Suspension dealer, labor costs to remove the DVO Suspension product from the bicycle, or compensation for inconvenience or loss of use while the DVO Suspension product is being repaired. This warranty will be automatically void if serial number of the DVO Suspension product is altered, erased, defaced or otherwise subject to any tampering.

PURCHASER. This warranty is made by DVO Suspension with only the original purchaser of the DVO Suspension product and does not extend to any third parties. The rights of the original purchaser under this warranty may not be assigned.

TERM. The term of this warranty shall commence on the date of purchase and shall continue for a period of two (2) years from the date of the original purchase.
PROCEDURE. In event of a defect covered by this warranty, the purchaser should contact an authorized DVO Suspension dealer or a DVO Suspension Service Center.

ENTIRE AGREEMENT. This warranty supersedes any and all oral or express warranties, statements or undertakings that may previously have been made, and contains the entire agreement between the parties with respect to the warranty of this DVO Suspension product. Any and all warranties not contained in this warranty are specifically excluded.

DAMAGES. Except as expressly provided by this warranty, DVO Suspension SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ASSOCIATED WITH THE USE OF THE DVO SUSPENSION PRODUCT OR A CLAIM UNDER THIS AGREEMENT, WHETHER THE CLAIM IS BASED ON CONTRACT, TORT OR OTHERWISE. The foregoing statements of warranty are exclusive and lieu of all other remedies. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

DISCLAIMER. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL IMPLIED WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OF TRADE, BY STATUTE OR OTHERWISE, IS HEREBY STRICTLY LIMITED TO THE TERM OF THIS WRITTEN WARRANTY. This Agreement shall be the sole and exclusive remedy available to the purchaser with respect to this purchase. In the event of any alleged breach of any warranty or any legal action brought by the purchaser based on alleged negligence or other tortious conduct by DVO Suspension the purchaser's sole and exclusive remedy will be repair or replacement of defective materials as stated above. No dealer and no other agent or employee of DVO Suspension is authorized to modify, extend or enlarge this warranty.

WARNING. Always install, repair and use your DVO Suspension product in strict compliance with it's owner's manual. OTHER RIGHTS. This warranty gives you the specific legal rights, and you have also other rights which vary from state to state (USA only).

APPLICABLE LAW. Any disputes arising out of this agreement or the use of this DVO Suspension product will be governed by the laws of the country of United States and will be decided by the Courts of California.

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