

OWNERS 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 proceded 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

FOR RIDERS BY RIDERS

WWW.DVOSUSPENSION.COM

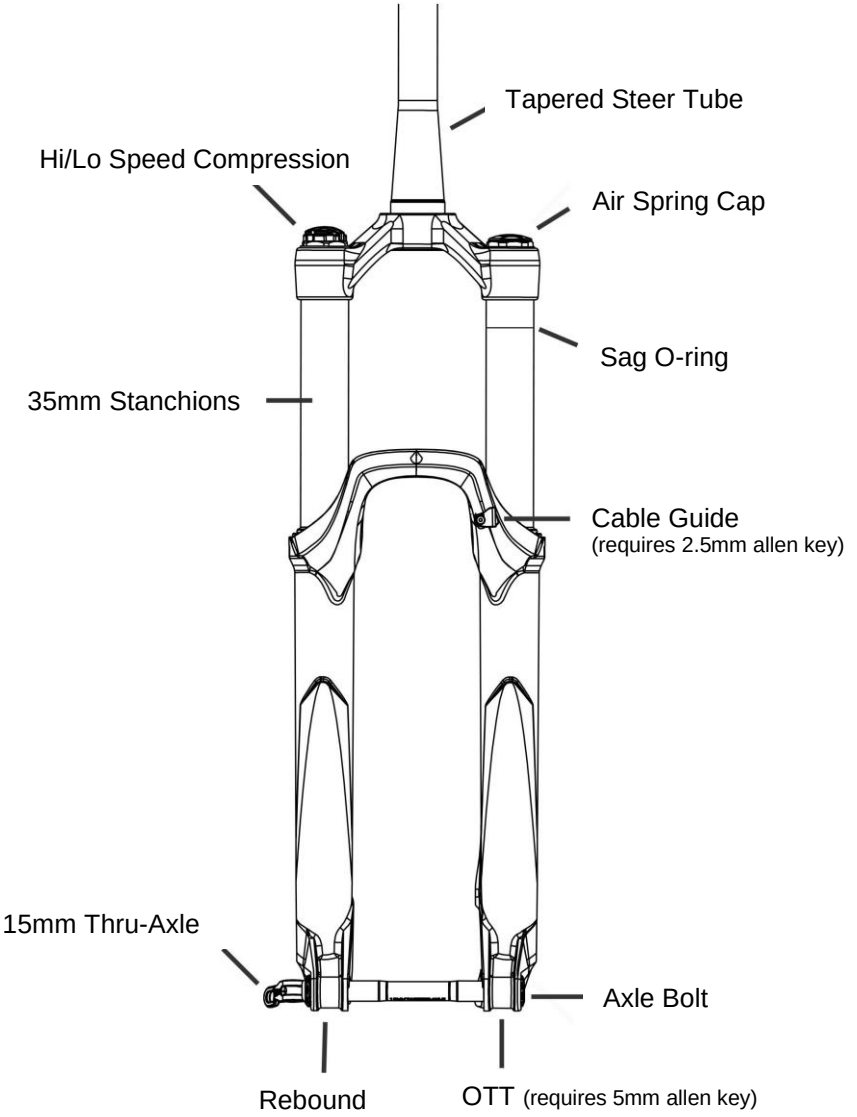
WARNING!

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 DVO suspension. 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. Nevertheless, please be informed that special knowledge and tools are essential to install, service and to maintain DVO Suspension. Common mechanical knowledge may not be sufficient to repair, service or maintain your suspension. Therefore we strongly recommend getting your suspension installed, serviced and/or maintained by a trained and qualified bicycle mechanic. Improper installation, service or maintenance can result in an accident.
- Forks and 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 forks and 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 fork and rear shock according to your frame manufacturer specification. Installing suspension that does not match the geometry of your frame could result in a failure of the suspension itself and void the suspension warranty. Installing a fork or rear shock not designed for your frame 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.

DIAMOND DVO DEVELOPED SUSPENSION

PRODUCT OVERVIEW



DVO DEVELOPED SUSPENSION

FOR RIDERS BY RIDERS

WWW.DVOSUSPENSION.COM

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 fork 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 fork? Check hidden areas like behind the fork arch under the crown and main seals. If so, please consult a trained and qualified bicycle mechanic to check your fork or bike.
- Make sure your wheels are perfectly centered in order to avoid any contact with suspension fork or brake system.
- Make sure the thru-axle system is secure. There should be no play between hub and fork lower. Reference wheel installation section for proper instructions.
- Compress your fork with your body weight. If it feels too soft, inflate to the proper pressure to achieve accurate SAG, inflate until your SAG is between 15-20%. 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 and extension of your fork.

FORK INSTALLATION

WARNING!

DVO Suspension strongly recommends that your fork be installed by a trained and qualified bicycle mechanic. Special knowledge and tools are essential 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 inspected by a trained and qualified bicycle mechanic. Please note, that improperly installed forks are extremely dangerous and cause damage to the product, serious injury or even death.

All DVO Suspension forks come with a threadless steer tube. Do not add a thread to it! DVO Suspension fork steer tubes are for one-time press fit only which cannot be removed. Do not try to replace the steer 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 crown race from the fork.

2. Using a headset race installer, install the headset crown race on new steer tube. Make sure it is firmly against the fork crown leaving no space between the crown race and the fork crown. (Refer to your headset manufacturer's instructions to make sure the crown race is properly installed)

3. Measure the steer tube length of existing fork and transfer this measurement to your new DVO Diamond steer tube. If you do not have an existing fork to measure you must install the fork into the bicycles head tube with the complete headset, stem and spacers. (Refer to your stem manufacturer's instructions to be sure there will be enough clamping surface for the stem.) In this case you may need to cut your steer tube slightly shorter (3mm) to allow enough clamping surface so that the stem cap bolt can pull up on the steer tube, ensuring a snug and proper fit.

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 star nut into the steer tube using a star nut installation tool to the proper depth.

6. Install the DVO Diamond fork into the frame head tube. Tighten the star nut bolt so that there is no play or drag in the headset when turning the steer tube.

7. Properly align the stem and handlebars then torque the stem clamping bolts to the stem manufacturer's specifications.

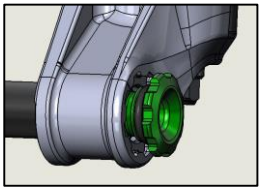
8. Install the front brake according to the manufacturer's instructions and make sure you adjust the brake pads properly. Ensure that brake line length is the correct length to not effect steering or compression and extension of the fork. **NOTE: Rotor size must be between 160mm-203mm**

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.

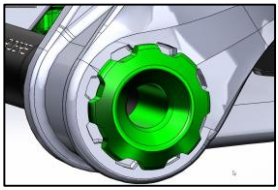
WHEEL INSTALLATION

1. Insert the front wheel back onto the bike. Make sure the hub fit into the drop outs, then insert the thru axle from the non-disc side. Slide the axle until it makes contact with the threads of the axle bolt on the disc side.

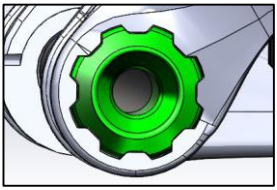
2. Rotate the axle lever clockwise until there is a small gap between the lever bolt and drop out on the non-disc side. The axle bolt should sit flush inside the grooves of the lower. If the axle bolt is not sitting inside the grooves release tension on the axle and line up the axle bolt so that you can lightly press it into the grooves. The axle bolt will secure itself when you tighten the axle again.



Axle Bolt Open

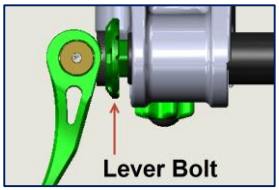


Incorrect Position

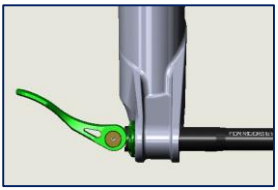


Correct Position

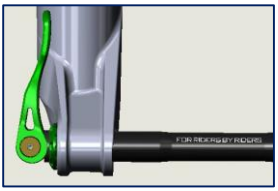
3. To secure the axle, position the lever in the open position. When you flip the lever half way you should feel resistance and the lever bolt should be touching the drop out. Flip the lever to the closed position by hand strength only. The lever should feel very secure. **DO NOT USE ANY TOOLS FOR LEVERAGE.**



Open



Resistance Starts



Closed

4. If there is too much or too little resistance adjust the axle bolt on the disc side. Unthread the axle 3 full turns then push the axle to the drive side. This will push the axle bolt out so you can adjust it. If the axle has too much tension 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 clockwise again and secure lever until there is proper tension in the closed position.

5. Remove bike from stand. With the front brake on, lightly rock the bike back and forth to ensure the headset preload is at the appropriate torque value. **THERE SHOULD BE NO PLAY IN THE HEADSET.**

DIAMOND DVO DEVELOPED SUSPENSION

WARNING!

DO NOT ROTATE THE AXLE LEVER WHILE IT IS IN THE CLOSED POSITION. THIS CAN CAUSE THE AXLE TO LOOSEN UP AND RESULT IN AN ACCIDENT, PERSONAL INJURY OR DEATH.

TIRE CLEARANCE

The DVO Diamond is available in 27.5” and 29” models. Please make sure you have the correct wheel size for your fork model. The clearance between your tire and fork needs to be checked to make sure it does not come in contact with any part of the fork.

There should be at least 6mm of clearance between the top of the tire and the bottom of the arch and fender (if installed).

WARNING!

INADEQUATE TIRE CLEARANCE WILL RESULT IN AN ACCIDENT, PERSONAL INJURY OR DEATH.



For more details about tire clearance please visit DVO TECH
http://tech.dvosuspension.com/setup

DVO DEVELOPED SUSPENSION

FOR RIDERS BY RIDERS

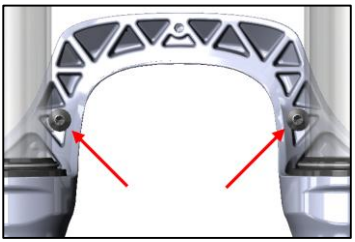
WWW.DVOSUSPENSION.COM

FENDER INSTALLATION

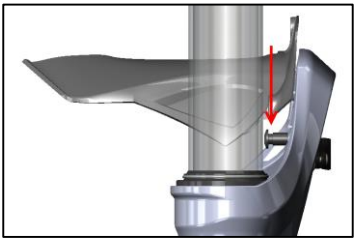
The DVO Diamond comes with an integrated fender that can be used during muddy or sandy conditions. The Diamond fender kit includes the following:

- 1 x DVO Fender
- 1 x Mounting Bolt
- 2 x Snap-In Bolts

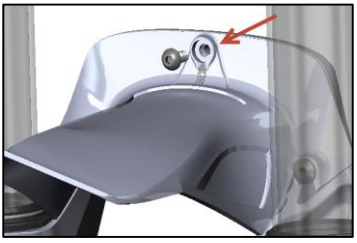
1. Using a 3mm allen key (ball end recommended), carefully thread in the 2 snap-in bolts into the lower holes on the rear of the arch and torque to 3Nm. Once these have been installed these bolts do not have to be removed. *Be careful to not scratch the stanchions during installation.



2. Line up the fender with the snap-in bolts and press down until secure. Fender will “snap” into place. **BE SURE TO APPLY PRESSURE OVER THE MOUNT BOLT AND NOT THE TAIL OF THE FENDER.**

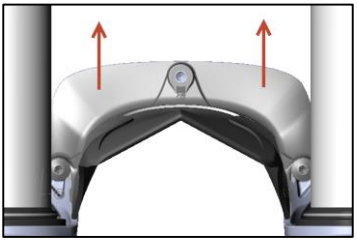


3. Using a 3mm allen key, insert the fender mount bolt into the center of the arch and torque to 3Nm. There should be no play between the fender and the arch.



FENDER REMOVAL

Unthread the center mount bolt first. Then pull the fender upwards to release it from the lower snap-in bolts. **DO NOT PULL UP** on the tail of the fender. The snap-in bolts will stay threaded into the arch.



ADJUSTMENTS

Below is basic information about the damping and adjustments of the DVO Diamond. For complete information about how these adjustments work and more detailed tuning information please visit DVO TECH: http://tech.dvosuspension.com

Air Pressure Range: 90-170psi
OTT Range: 14 full rotations total (6 clicks per rotation)
Rebound Range: 20 clicks total
High Speed Compression (HSC) Range: 29 clicks total
Low Speed Compression (LSC) Range: 6 clicks total

AIR SPRING
The DVO Diamond is an air sprung fork. Increasing air pressure will create a firm feeling fork. Decreasing air pressure will create a softer feeling fork. Please refer to the base settings chart to achieve the correct air pressure setting.

OFF THE TOP SENSITIVITY (OTT)
The Off-The-Top (OTT) feature is 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) will have poor or no small bump sensitivity. DVO has solved this problem with OTT. Now a firm set-up can also have amazing small bump sensitivity. This is accomplished by externally adjusting the preload on the negative springs. Increasing (rotate clockwise) the OTT will make the fork more sensitive (softer) at the beginning stroke. Decreasing (rotate 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 5MM ALLEN KEY TO ADJUST THE OTT FEATURE.



Clockwise = Increase Sensitivity

Counter-clockwise = Decrease Sensitivity

MAKE SURE that you always adjust the OTT 1 full rotation at a time, not 1 click.

DIAMOND DVO DEVELOPED SUSPENSION

LOW SPEED COMPRESSION (LSC)
The Diamond comes with a “Quick Range” low speed compression adjuster that has 6 clicks of adjustment. Setting “1” is wide open and recommended when descending or riding on technical terrain. When you are climbing, you can switch the LSC to “6” to give you the firmest setting and best pedaling platform. Don’t forget to change this back when you start to descend!

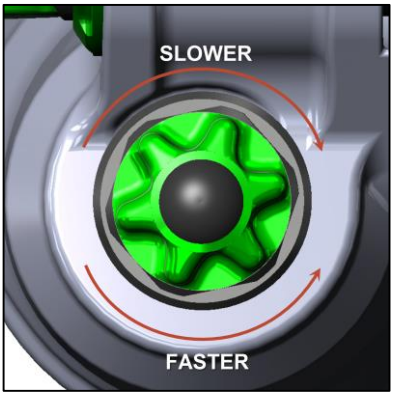


HIGH SPEED COMPRESSION (HSC)
High Speed Compression controls the damping force under faster suspension movements regardless of the rider’s speed. HSC comes into effect on fast, rough, technical trails, g-outs and hard landings. If you find yourself easily going through the travel then 1st make sure your sag is correct then adjust your HSC accordingly.

REBOUND
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 so please adjust accordingly.

Slower = More Rebound Damping

Faster = Less Rebound Damping



DVO DEVELOPED SUSPENSION | FOR RIDERS BY RIDERS

WWW.DVOSUSPENSION.COM

BASE SETTINGS

Below is a base settings chart to help you set up your initial sag and adjustments.

- OTT starts from 0 preload
- Rebound settings starts from closed (slowest)
- Compression settings start from wide open (least resistance)

Diamond Base Setting Chart

Rider Weight	Air Pressure	OTT	Rebound	HSC	LSC
120-139lbs | 54-63kg	90-100psi	0-2 rotations	10-14	0-1	1-2
140-159lbs | 64-72kg	100-110psi	2-4 rotations	10-14	0-2	1-2
160-179lbs | 73-81kg	110-125psi	3-7 rotations	8-12	2-3	1-2
180-199lbs | 82-90kg	125-130psi	6-8 rotations	8-12	2-4	1-2
200-219lbs | 91-100kg	130-135psi	7-9 rotations	6-10	3-5	1-2
220-239lbs | 100-108kg	135-140psi	8-10 rotations	6-10	4-6	1-2
240+lbs | 109kg+	140-170psi	11-14 rotations	6-10	5-7	1-2

Remember that these are only starting points and adjustments will vary based on rider ability, trail conditions and personal preference.

After you are done setting up your suspension fork according to the recommended base settings, check your sag to make sure you are within the recommended sag settings. (see sag chart 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!

SAG

SAG is the amount your fork compresses under your body weight (don't forget to include your riding gear), also referred to as Rider Weight. Since this is an enduro specific fork, measure sag by mounting your bike with your riding gear on, standing up and in the ready position. The ready position is basically, knees and elbows slightly bent, bars weighted but body weight on your feet. Every rider has a different riding weight and ready position based on rider height and style.

The recommended sag is 15%-20%. Setting proper sag is the only way to find the right air pressure for your fork. Refer to the chart below to find the proper sag.

Travel	Sag in %	Sag in mm
140mm	15-20%	21-28mm
150mm	15-20%	23-30mm
160mm	15-20%	24-32mm



Proper position when measuring sag

For detailed instructions and videos on how to properly measure and setup sag visit DVO Tech: http://tech.dvosuspension.com/setup

FOR RIDERS BY RIDERS

WWW.DVOSUSPENSION.COM

SERVICE & SUPPORT

WARNING!

Failure to properly maintain your fork 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.

Recommended Maintenance Schedule	
Maintenance	**Interval**
Clean Stanchion Tubes	Every ride
Check Air Pressure	Every ride
Inspect Stanchion Tube for Scratches	Every ride
Check Torque Settings	25 hours
Remove Lowers, Clean/Inspect Bushing & Change Oil	50 hours
Service Air Spring Assembly	100 hours
Service Damper Cartridge	100 hours
Recommended Max Torque Specifications	
Part	**Torque Specification**
Cable Guide Bolt	3 N.m / 26.5 in.lbf
Fender Mount Bolt	3 N.m / 26.5 in.lbf
Fender Snap-In Bolts	7 N.m / 62 in lbf
Compression Loader	9 N. m / 80 in lbf
Top Plug Air Cartridge	15 N.m / 132 in.lbf
OTT Foot Nut	10 N.m / 88 in.lbf
Top Plug Damper Cartridge	15 N.m / 132 in.lbf
Rebound Foot Nut	10 N.m / 88 in.lbf

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.

FOR RIDERS BY RIDERS

WWW.DVOSUSPENSION.COM

910300-00

Connect with us on social media

FaceBook: Facebook.com/dvosuspension
Instagram: Instagram.com/dvosuspension
Youtube: Youtube.com/developedsuspension
Twitter: Twitter.com/dvosuspension

Use our HASHTAGS with your SOCIAL MEDIA POSTS!
#dvosuspension #dvodiamond

DVO
DEVELOPED SUSPENSION

WWW.DVOSUSPENSION.COM
29033 AVE. SHERMAN SUITE 203
VALENCIA CA, 91355