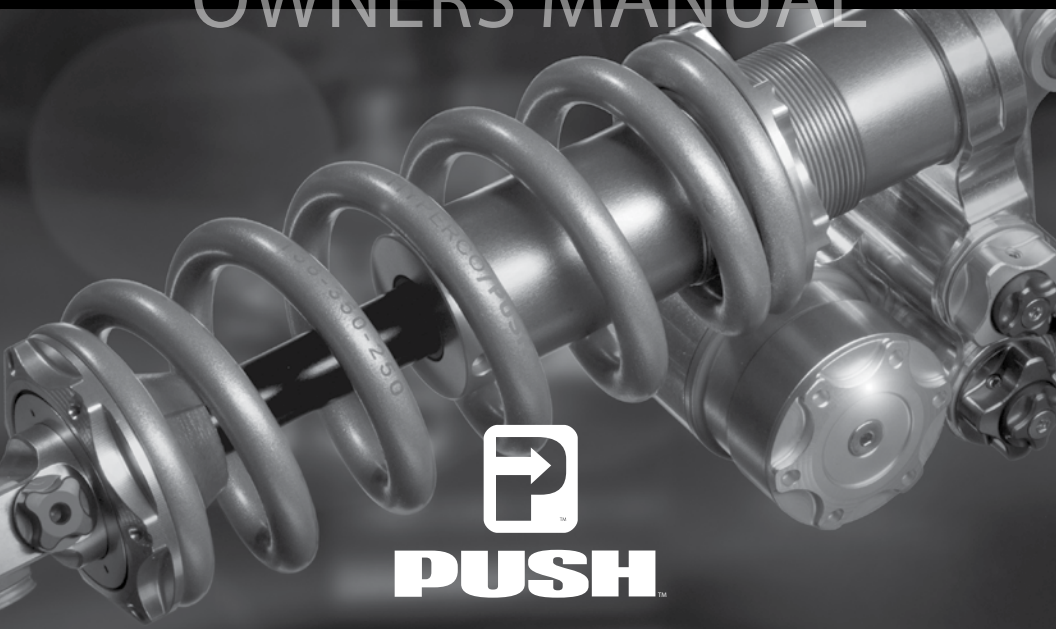
# ELEVENSIX
# OWNERS MANUAL



PUSH™

Thank you for choosing PUSH Industries. All PUSH suspension products are designed, engineered, machined, assembled, tested and ridden by the PUSH staff in Loveland, Colorado, USA.

This owner's manual is your reference guide to understanding and setting up your PUSH 11.6 rear shock. It also provides important information about proper installation, set-up, and maintenance of your shock. If you have questions, visit PUSHIndustries.com or contact PUSH at (970) 278-1110.

## Contents





## Warranty

PUSH Suspension Warranty

PUSH Industries Incorporated, hereafter referred to as PUSH, a Colorado corporation having offices at 1520 Taurus Ct., Loveland, CO 80537. PUSH makes the following LIMITED WARRANTY with respect to its suspension products. PUSH LIMITED WARRANTY

LIMITED ONE (1) YEAR WARRANTY ON SUSPENSION PRODUCTS

Subject to the limitations, terms and conditions hereof, PUSH warrants, to the original retail owner of each new PUSH suspension product, that the PUSH suspension product, when new, is free from defects in materials and workmanship. This warranty expires one (1) year from the date of the original PUSH suspension product retail purchase from an authorized PUSH dealer or from a PUSH authorized Original Equipment Manufacturer where PUSH suspension is included as original equipment on a purchased bicycle, unless otherwise dictated by requirement of law.

TERMS OF WARRANTY

This warranty is conditioned on the PUSH suspension product being operated under normal conditions and properly maintained as specified by PUSH. This warranty is only applicable to PUSH suspension purchased new from an authorized PUSH source and is made only to the original retail owner of the new PUSH suspension product and is not transferable to subsequent owners. This warranty is void if the PUSH suspension product is subjected to abuse, neglect, improper or unauthorized repair, improper or unauthorized service or maintenance, alteration, modification (to include, but not limited to, using a non-PUSH branded spring or non-PUSH branded coil and/or using non-PUSH branded mounting hardware), accident or other abnormal, excessive, or improper use.
Should it be determined, by PUSH in its sole and final discretion, that a PUSH suspension product is covered by this warranty, it will be repaired or replaced, by a comparable model, at PUSH's sole option, which will be conclusive and binding. THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.
This limited warranty does not apply to normal wear and tear, malfunctions or failures that result from abuse, improper assembly, neglect, alteration, improper maintenance, crash, misuse or collision. Subject to the terms and conditions of this warranty, leaking seals will be replaced within 90 days from the original date of purchase. Such replacement notwithstanding, seals are subject to relative movement between parts and are normal wear and tear items not subject to warranty coverage.
This limited warranty gives the consumer specific legal rights. The consumer may also have other legal rights which vary from state to state or country to country. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, so the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this limited warranty does not apply, such determination shall not affect any other provision of this limited warranty and all other provisions shall remain in effect.

THIS IS THE ONLY WARRANTY MADE BY PUSH ON ITS SUSPENSION PRODUCTS AND COMPONENTS, AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED.

## Safety Warnings

The rear shock is an important part of your bike. Before installing and using your new rear shock, carefully read this owner's manual to learn the correct installation and adjustment procedures of the shock.

**⚠WARNING**

Improperly installed and/or adjusted rear shocks can cause serious harm or death and may severely damage your bicycle.

**⚠WARNING**

A broken or malfunctioning shock may cause loss of bicycle control and result in **SERIOUS INJURY OR DEATH.** If the shock ever loses oil, air or makes unusual noises, stop riding and have the shock inspected by PUSH or a PUSH Authorized Tuning Center.

**⚠WARNING**

Modification, improper service or use of aftermarket replacement parts voids the warranty and may cause the shock to malfunction, resulting in loss of bicycle control and **SERIOUS INJURY OR DEATH. Do not modify your bike frame or shock.** Use only genuine PUSH 11.6 parts.

Follow service maintenance recommendations. Shock service should be performed by PUSH or a PUSH Authorized Tuning Center. Visit PUSHIndustries.com or contact us at (970)-278-1110 to locate a PUSH Authorized Tuning Center.

**⚠WARNING**

PUSH rear shocks contain a high pressure nitrogen charge in the reservoir. Opening a nitrogen pressurized shock is dangerous and can result in **SERIOUS INJURY OR DEATH.** The shock should only be opened by PUSH or a PUSH Authorized Tuning Center. Never apply heat to any part of the shock.

**⚠WARNING**

PUSH rear shocks are manufactured exclusively for the bike model for which they are ordered. Switching units between different bicycles may not only decrease the shocks performance but might also cause damage to the bike and can result in **SERIOUS INJURY OR DEATH.** Always contact PUSH or a PUSH Authorized Tuning Center to verify compatibility before switching a shock from one bike to another.

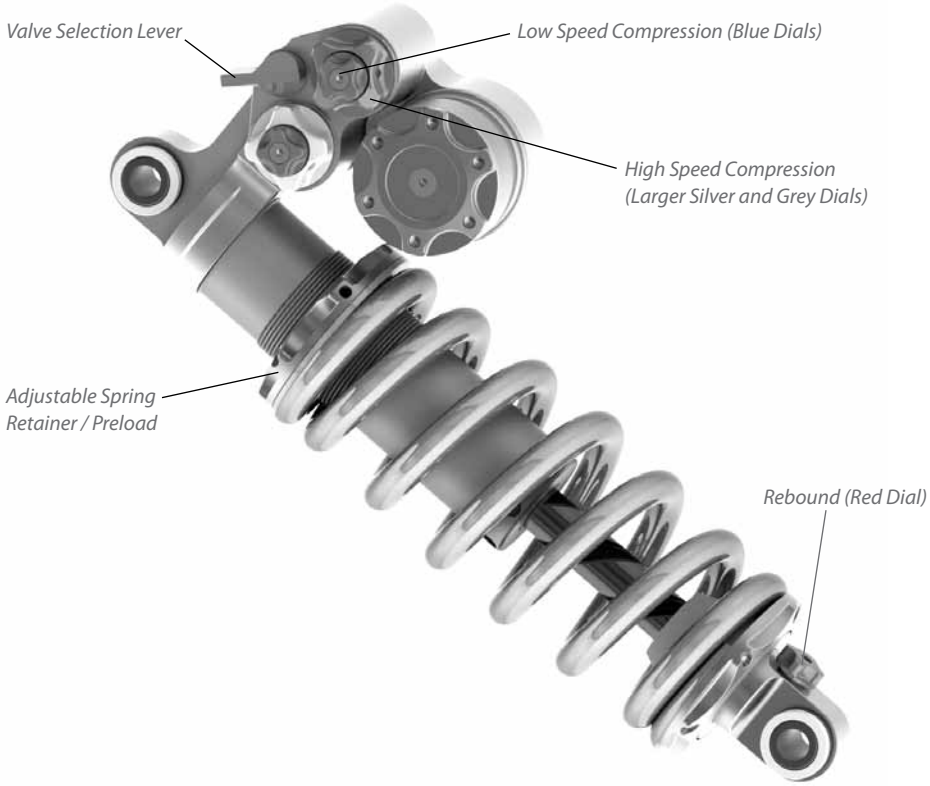


## Shock Installation

**1 -** Remove the spring and install shock for test fitment if the bike is equipped with water bottle holder or other aftermarket accessories that could contact the shock.
**2 -** Cycle the suspension through its full travel to guarantee clearance.
**3 -** Reinstall the spring
***4 -*** Install the shock.
***5 -*** Torque all mounting bolts to frame manufacturer's recommended values.
**6 -** Adjust the sag to frame manufacturer's recommendation, approximate sag setting will be 25% to 33 % of travel.

## Shock Adjustments

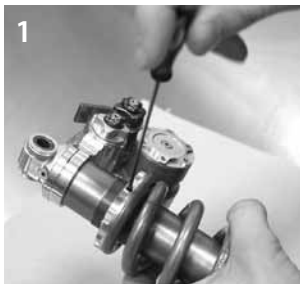
Proper set-up of your new PUSH rear shock is critical in achieving the ride you desire. This section of the manual will take you through the correct set-up procedure to ensure that you are getting the maximum out of your new PUSH Suspension product. The PUSH rear shock comes pre-configured with two of the six baseline settings. PUSH recommends starting with a baseline setting as this will drastically reduce the set-up time of the shock and allow the rider time to adjust to the new suspension. After the shock is properly installed on the bike, the sag (static ride height) will need to be set. The shock will not come preset with this setting so it is mandatory that the rider complete this step to yield the full performance of the shock. Follow the instructions given in the "Setting Sag" section of this manual for proper procedure.



## Spring Removal/Installation

**1 -** Using a 2mm hex key, loosen lock set screw in adjustable spring retainer
**2 -** Turn retainer counter clockwise to remove the preload and allow spring to float
**3 -** Invert shock so shaft end is upward
**4 -** Pull down on outer portion of lower spring retainer to expose the wire snap ring
**5 -** Locate the two ends of the wire snap ring.
**6 -** Remove snap ring, being careful not to expand ring excessively.
**7 -** Slide lower retainer off of shock
**8 -** Remove spring from shock.

Install in reverse order, making sure that snap ring is fully seated in groove during installation.













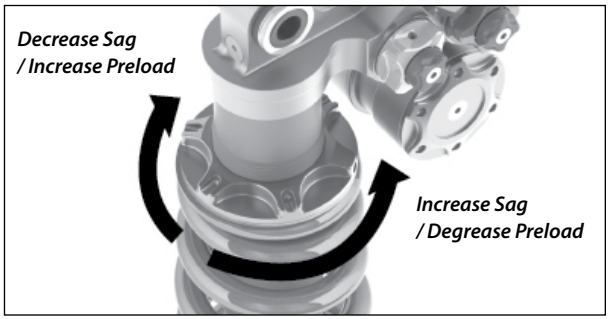
## Setting Sag

Spring preload is the initial spring compression and is used to adjust the ride height of the bicycle. Preload controls the static energy in the spring. The preload should be set between 1 to 5 turns of the adjustable spring retainer. If proper sag cannot be achieved within the recommended preload numbers, then a different rate spring is required. Contact PUSH or a PUSH Authorized Service Center about the correct rate and getting the appropriate spring.

**Adjusting Spring Preload**
Adjusting the spring preload is a simple process.

**1 -** Using a 2mm hex key, loosen the set screw in the adjustable spring retainer.
***2 -*** Turn the adjustable spring retainer clockwise or counter clockwise on the shock body to adjust the preload.
**3 -** Lock the set screw in place once to ensure that preload stays consistent.

*Note: Perform sag settings while in full riding gear, preferably with two additional persons, one to support the rider and one to measure the shock length.*




**⚠ WARNING**
Spring preload should not exceed 5 turns. Failure to comply with these instructions may result in the destruction of the spring on the shock and void warranty of suspension product and/or spring. Failure of the spring may result in damage to your bike and/or **SERIOUS INJURY OR DEATH.**

**1 -** Mount your bike.
**2 -** Have the first person support you and your bike by the handlebars.
**3 -** Bounce once on the seat to settle the suspension.
**4 -** Remain seated and put your pedals level.
**5 -** Have the second person measure the eye-to-eye distance of the shock.
**6 -** Calculate the shock sag percentage.
**7 -** If the calculation doesn't match the recommendation then make a preload adjustment and repeat the procedure until the percentage is correct.

## Sag Limits Table

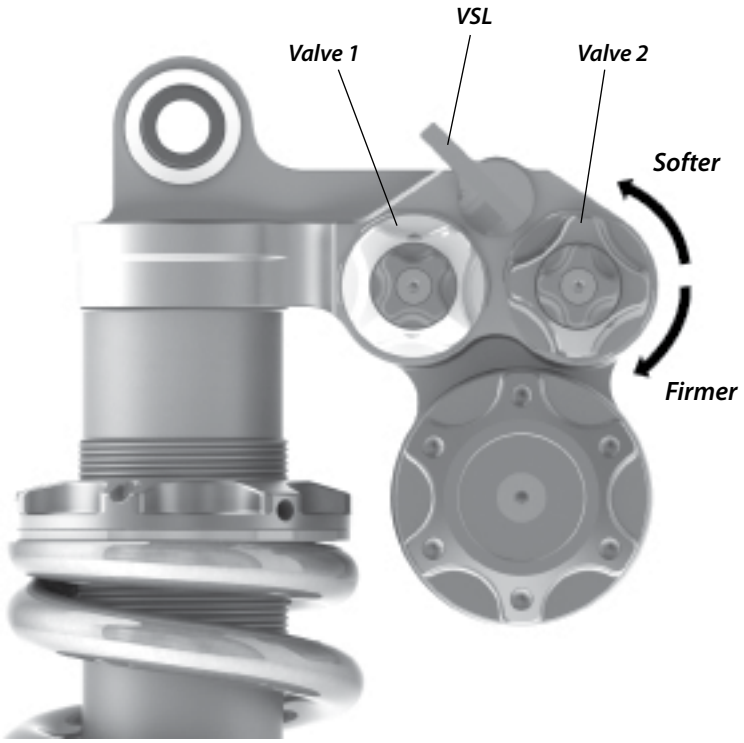
The manufacturer's specified sag will most likely fall between the limits in the table shown.

| | Sag limits (in) | |
|---|---|---|
| | Low | High |
| **Stroke (in)** | 25% | 33% |
| **2.25** | 0.563 | 0.743 |
| **2.385** | 0.596 | 0.787 |
| **2.5** | 0.625 | 0.825 |

## Compression Settings

11.6 contains four different compression settings, two of which are active at any given time. The shock has externally adjustable low speed compression dials, high speed compression dials, and a valve selection lever.

Note: All dial adjustments should be adjusted from the fully closed or tight position. This guarantees accurate, consistent, and repeatable settings.




## Low Speed Compression *(Blue Dials)*

Low speed compression affects the performance of the damper during events that compress the suspension at slow rates. This includes obstacles such as smooth jump take offs, smooth jump landings, g-outs, pedaling, and overall wheel traction. Turn the blue dial clockwise to increase (firmer) or counter-clockwise to decrease (softer) the low speed compression. The low speed compression has approximately 20 clicks of adjustment in each dial. Please refer to the PUSH Personal Factory Build/Set-up card for specific configuration information.

## High Speed Compression *(Larger Silver and Grey Dials)*

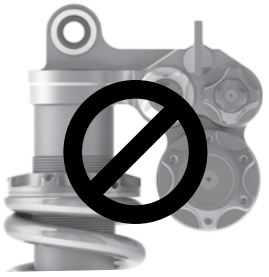
High speed compression affects the performance of the damper during events that compress the suspension at medium to fast rates. This includes obstacles such as square edge bumps, rocks, quick jump faces, and flat jump landings. Turn either dial clockwise to increase (firmer) and counter-clockwise to decrease (softer) the high speed compression damping. The high speed compression has approximately 15 clicks of adjustment in each dial. Please refer to the PUSH Personal Factory Build/Set-up card for specific configuration information.

## Valve Selection Lever, VSL *(Grey Lever in Center)*

The 11.6 shock contains two completely independent compression valving systems as described in the previous sections (see Low speed compression and High speed compression). It's literally like owning two shocks in one. The Valve Selection Lever allows the user to toggle between each independent valving configuration while on-the-fly. The lever will be pointing towards the valve that is active. The VSL has two adjuster settings. The lever should always be set to one of the two positions shown below. Do not operate the shock with the VSL in the middle position. Operation in the middle position will result in a reduction in performance..

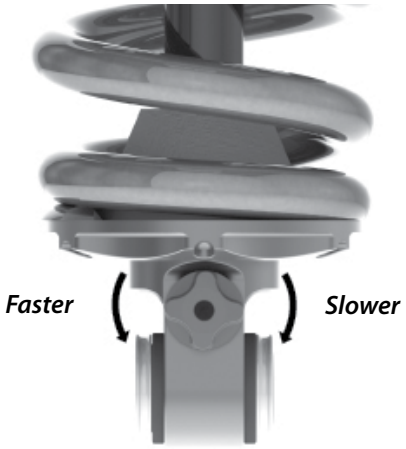
*Valve 1 Active*

*Valve 2 Active*



## Rebound Setting *(red dial)*

The rebound setting determines the rate at which the shock returns to full extension after being compressed. The setting affects how well the tire is able to follow the terrain and the pitching of the bicycle. Turn the red dial clockwise to increase (slower) or counter-clockwise to decrease (faster) the rebound damping. The rebound has approximately 15 clicks of adjustment.

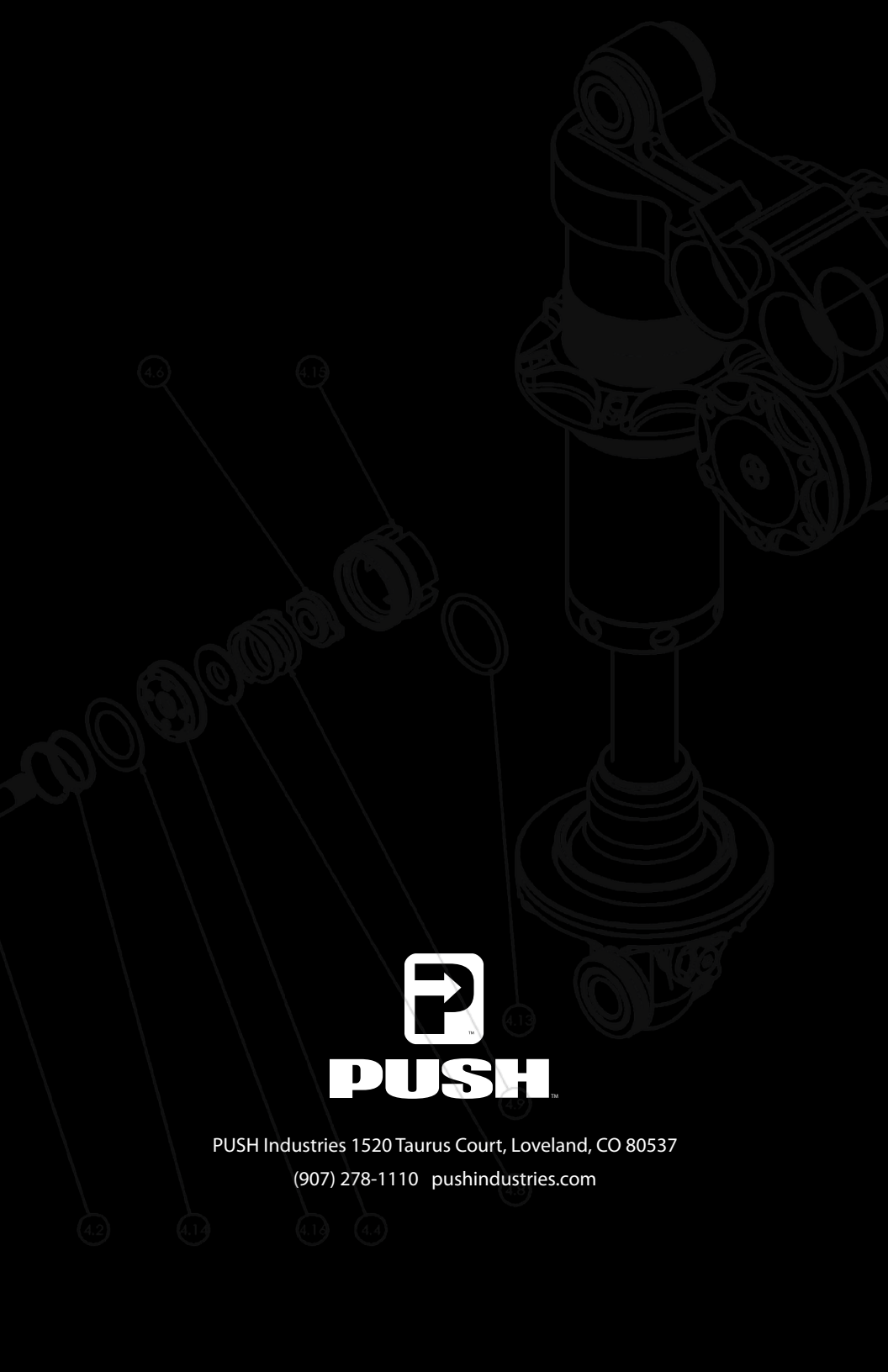



## Service and Inspection Intervals

| Service Item | New | Every Ride/Race | Every 30 hours | Every 100 Hours/ Annually |
|---|---|---|---|---|
| Visual Inspection | | X | | |
| Set sag | X | | | |
| Set damper adjustments | X | | | |
| Exterior cleaning with water and mild soap | | X | | |
| Clean and Inspect polymer eyelet bushings (replace if necessary) | | | X | |
| Damper fluid service/Nitrogen charge | | | | X |

## Tuning Tips

| | Symptom | Adjustment |
|---|---|---|
| **Stiff Suspension** | Stiff on small, rounded bumps, rollers, or smooth jump faces. | 1. Decrease the low speed compression settings.<br>2. If the suspension still feels stiff continue with softer low and high speed compression settings. |
| | Stiff on square edge hits, sharp jump faces, rocks, or flat landings. | 1. Decrease the high speed compression settings.<br>2. If the suspension still feels stiff continue with softer low and high speed compression settings. |
| | Stiff throughout suspension travel | 1. Decrease the low and high speed compression settings. |
| **Soft Suspension** | Suspension uses excessive travel while on smooth jump faces, pedaling, or rollers. | 1. Increase the low speed compression settings.<br>2. If the suspension still feels soft continue with firmer low and high speed compression settings. |
| | Suspension uses excessive travel while on sharp jump faces, square edge hits, or flat landings. | 1. Increase the high speed compression settings.<br>2. If the suspension still feels soft continue with firmer low and high speed compression settings. |
| **Suspension Bottoms** | Suspension bottoms on jump landings | 1. Increase the high speed compression settings.<br>2. If the suspension still bottoms increase low and high speed compression settings. |
| | Suspension is harsh or bottoms after continuous bumps | 1. Test faster rebound settings.<br>2. If the suspension still bottoms increase low and high speed compression settings. |
| **Suspension Rebounds/ kicks** | Suspension kicks off jump faces, or deflects of bumps | 1. Test slower rebound settings. |



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