

## MAINTENANCE SCHEDULE

Maintenance frequency may vary depending on the number of hours the shock is ridden and the condition under which it is ridden. Heat, violent impacts, dust, mud, and adjustment settings are all factors that need to be taken into consideration in determining the frequency of basic maintenance and oil changes.

|   | AFTER EACH USE | END OF EACH SEASON | ANNUALLY |
|---|----------------|--------------------|----------|
| Clean under the bottom-out bumper                                     | Yes            | Yes                | Yes      |
| Clean shock absorber exterior   | Yes            | Yes                | Yes      |
| Check shaft for damage or rust  | Inspect        | Inspect            | Inspect  |
| Check seal head for leaks or loosening                                | Inspect        | Inspect/Replace    | Replace  |
| Check nuts for loosening  | Inspect        | Inspect            | Inspect  |
| Check DU bushings   | Inspect        | Inspect            | Inspect  |
| Check spring  | Inspect        | Inspect            | Inspect  |
| Change oil, piston and wearband, clean interior parts, check nitrogen |                | Recommended        |          |

### IMPORTANT NOTE:

NOTE: MRP RECOMMENDS SENDING YOUR SHOCK EXCLUSIVELY TO MRP OR A RECOMMENDED SERVICE CENTER FOR ALL YOUR OIL CHANGE AND SEAL REPLACEMENT MAINTENANCE.

MORE TUNING INFORMATION AT

***mrpbike.com***

# MRP

## RAZE 2CR

### OWNER'S

# MANUAL



Congratulations on your purchase of another cutting-edge suspension product from MRP! Please read this manual completely before you ride. It will help you to set your shock for optimum performance.

### **IMPORTANT CONSUMER SAFETY INFORMATION**

**WARNING: RIDING A BIKE IS DANGEROUS. NOT PROPERLY MAINTAINING OR INSPECTING YOUR BIKE AND ITS COMPONENTS IS EVEN MORE DANGEROUS. IT IS ALSO DANGEROUS TO NOT READ AND FOLLOW THESE INSTRUCTIONS.**

Thank you for choosing MRP. This owner's manual is your reference guide to using and fine-tuning your shock absorber for optimum suspension performance and comfort. It also provides important information about the proper maintenance of your shock. Carefully read this manual before installing your shock. If you need further assistance, our experienced team is able to advise and assist you to find the exact set up to meet your personal needs.

The shock is an important part of your mountain bike and this owner's manual explains how to install and use it properly. We recommend that it be installed by a qualified bicycle mechanic. Improperly installed shocks might cause serious harm to you and may severely damage your mountain bike. Never take any chances with your safety. Before installing and using your new shock, carefully read this owner's manual to learn the correct installation and adjustment procedures and avoid the consequences of an incorrect installation or improper adjustment.

When your shock requires an oil change or other internal maintenance, MRP and experienced suspension service centers are best qualified to provide the necessary service or repairs.

### **WARRANTY:**

MRP suspension products are the highest quality and as such are warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase for the original purchaser. If date of purchase cannot be verified by product registration or proof of purchase then the warranty is one year from the date of manufacture. On receipt of the product by MRP, if it is found to be defective, MRP will determine replacement or repair of the product at its sole discretion. MRP shall not be liable for any indirect, special or consequential damages. Warranty does not apply to any product that has been installed improperly or adjusted using methods not outlined

travel upon impacts or repetitive bumps, add more resistance by turning the adjuster one click at a time until you bottom out only once in a while upon major impacts.

### **INCREASING HIGH-SPEED COMPRESSION (MORE RESISTANCE BEFORE BLOWING OFF)**

To increase the high-speed compression threshold, thus increasing the level of force to activate the blow-off valve, turn the black high-speed compression adjuster knob clockwise (screw in). There are 14 clicks of high-speed compression adjustment. When the high-speed setting gets too hard, the shock absorber will not be able to effectively absorb impacts, thus making the ride harsh.

### **REDUCING HIGH-SPEED COMPRESSION (LESS RESISTANCE BEFORE BLOWING OFF)**

To reduce the high-speed compression thresholds, thus decreasing the level of force to activate the blow-off valve, turn the black high-speed compression adjuster knob counterclockwise (unscrew). When the high-speed setting gets too soft, the suspension will use more travel upon impacts and become more prone to bottoming out.

*The goal is to run as little high-speed compression as possible to have a plush and comfortable ride without bottoming out.*

### **IMPORTANT NOTE:**

**WHEN TURNING THE HIGH-SPEED COMPRESSION ADJUSTMENT KNOB, THE LOW-SPEED COMPRESSION ADJUSTMENT KNOB WILL FOLLOW ALONG WITHOUT AFFECTING ITS SETTING.**

### **CLEANING PROCEDURES**

A well-maintained shock absorber will last longer and perform better. For cleaning, use a gentle detergent and pay attention to areas where debris can become lodged. Do not use any abrasive cleaning products or high pressure washers.

#### **CLEANING PROCEDURES:**

1. Clean the threads under the preload ring using a soft brush
2. Clean around the rebound knob so that no foreign particles damage the adjustment mechanism.
3. Clean around the compression adjustment knobs delicately, be careful not to force water within the mechanism.
4. Use compressed air to clean beneath the bottom out bumper.

### **IMPORTANT NOTE:**

**DO NOT USE COMPRESSED AIR OR HIGH PRESSURE WATER WHEN CLEANING THE SEAL HEAD AS THIS COULD POSSIBLY DAMAGE THE SEALS.**

plush and comfortable or firm and fast rolling.

You should start in the middle of the adjustment range. To adjust properly, turn the adjuster one click at a time and take a test ride. The adjustment is more sensitive towards the fully in

position (slowest). When the low-speed setting gets too hard, the shock absorber will not be able to absorb low-velocity impacts and weight transfers, thus making the ride harsher. When the low-speed setting gets too soft, the shock absorber will be too active, will wallow more under pedaling and become more prone to bottoming out.

### INCREASING LOW-SPEED COMPRESSION DAMPING (STIFFER SUSPENSION)

To increase the low-speed compression damping, thus making the suspension stiffer, turn the blue low-speed compression adjuster knob clockwise (screw in). There are approximately 30 clicks of low-speed compression adjustment.

### REDUCING THE LOW-SPEED DAMPING (SOFTER SUSPENSION)

To reduce the low-speed compression damping, thus making the suspension softer, turn the blue low-speed compression adjuster counterclockwise (unscrew).

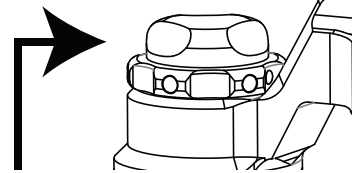
## HIGH-SPEED COMPRESSION

The Raze's high-speed compression circuit is an adjustable blow-off valve that momentarily relieves the pressure building up inside the shock upon a harsh impact, instantly providing additional plushness then increasing resistance as needed. The adjustment controls the level of force (threshold) required to open the blow-off valve upon fast movements of the shock's shaft (high velocity) which can be caused by square-edged impacts, roots, rocks, potholes, vibrations or brake bumps. When set properly, the high-speed compression circuit allows the wheel to effectively absorb all impacts without bottoming out or using too much travel.

Start with the adjustment in the fully open position (completely turned counterclockwise) and take a test ride. If you tend to bottom out often or use too much



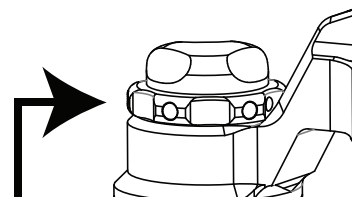
**RANGE**



**ADJUSTER LOCATION**



**RANGE**



**ADJUSTER LOCATION**

in this manual. Warranty also does not cover products that have been misused or products that have missing/altered serial numbers. The product is not warranted against damage in the appearance of the product or for modifications not outlined in this manual. This warranty does not cover breakage, bending, or damage that may result from crashes, falls, or abuse. Normal wear and tear items such as; seals, wipers, bushings, stanchion coating, stanchions, piston bands, foam rings, bottom out and top out bumpers, or damage caused by lack of proper maintenance as outlined in this manual is not covered by this warranty.

### What to do if you need warranty inspection or service:

1. Go to [MRPbike.com](http://MRPbike.com) and locate the warranty contact form in the support section of the site. Alternatively, call or email MRP about the troubles you are having and to set up a RA# (Return Authorization Number).
2. Carefully pack and ship your product, be sure to insure the package in case it is lost or damaged in transit. (Only the return shipping to the customer is covered under warranty)
3. Wait for an email confirming MRP has received your shipment.

## DISCLAIMER

BECAUSE MRP SUSPENSION PRODUCTS ARE DESIGNED FOR USE IN RACING AND EXTREME RIDING CONDITIONS, MRP SUSPENSION CANNOT GUARANTEE ANY OF ITS SUSPENSION PRODUCTS, OTHER THAN FROM MANUFACTURING DEFECTS, BECAUSE WE HAVE NO CONTROL OVER HOW THE PRODUCTS ARE USED AFTER INSTALLATION. IN ADDITION, THE PURCHASER ASSUMES FULL RESPONSIBILITY TO THE EXTENT LEGALLY PERMITTED FOR THE RISKS OF PERSONAL INJURY AND/OR DAMAGE TO THE PURCHASER'S BIKE OR TO ANY THIRD PARTY THAT MAY BE INVOLVED IN AN INCIDENT WITH THE PURCHASER.

## MOUNTING HARDWARE

MRP uses 1/2" (12.7mm) DU bushings on both ends, which is compatible with the original mounting hardware found on most recent mountain bikes. Ordering new hardware with your shock is recommended as this will ensure you have the proper hardware for your shock and bike. If you contact MRP or your local MRP dealer, we can verify that you can use the original mounting hardware that came with your bike.

Before installing your mounting hardware check the direction the piggy back should face on your frame. This is important so not to damage your frame also for frames that require different mounting hardware sizes for each end of the shock. Start with the steel sleeve and insert it through (the correct side) the bushing in the eyelet and center it on the eyelet as best as you can. Take the frame spacers and insert the provided seals into the flanged side of the sleeve. With the seals installed slide the frame spacers over the sleeve so that the seal rests against the eyelet of the shock.

### SPRING REMOVAL & INSTALLATION

To remove the spring, start by turning the preload adjuster ring counterclockwise to remove all preload until the spring become loose. Push down on the spring retainer clip then slide it off the shock, being careful not to damage the shaft with the sharp sides of the spring clip. Once the clip is removed, you can slide the spring off the shock.

#### IMPORTANT NOTE:

ALWAYS MAKE SURE THAT THE END OF THE SPRING'S COIL IS ALIGNED ON THE OPPOSITE SIDE OF THE SLOT IN THE SPRING RETAINING CLIP. THIS WILL PREVENT THE SPRING FROM BENDING THE CLIP.

### PRELOAD

Spring preload is the compression applied to the shock's spring when at rest, using the preload adjuster ring. The preload adjustment is used to achieve the optimal amount of sag and proper ride height.

#### INCREASING THE PRELOAD:

To increase the preload on your spring, turn the preload ring clockwise. Increasing the preload will increase the ride height, thus reducing the sag. This will result in a more responsive ride. Be careful not to apply too much preload. This can cause "coil binding", which is when the coils of the spring rub against each other under compression. This can damage the spring, the shock, and can be dangerous for the rider.

#### REDUCING THE PRELOAD:

To reduce the preload on your spring, turn the preload ring counter-clockwise. Reducing the preload will decrease the ride height, thus increasing the sag. This will result in a more comfortable ride. Make sure to apply enough preload so the spring is firmly held in place and does not spin freely on the shock.

#### IMPORTANT NOTE:

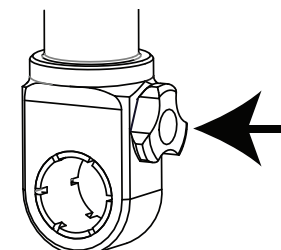
IF MORE THAN 5MM OF PRELOAD (5 TURNS) IS NEEDED TO ACHIEVE PROPER SAG, IT IS RECOMMENDED TO CHANGE TO A HIGHER SPRING RATE. IF SAG IS NOT ENOUGH WITHOUT ANY PRELOAD APPLIED TO THE SPRING, IT IS RECOMMENDED TO CHANGE TO A LIGHTER SPRING RATE.

### REBOUND

The rebound adjustment controls the speed the shock will return to its initial extended state after being compressed upon an impact. If the rebound adjustment is set properly, the rear wheel should keep maximum traction by tracking the ground without catapulting the rider off the bike. You should start in the middle of the adjustment range. To adjust properly, turn the adjuster one click at a time and take a test ride. The adjustment is more sensitive towards the fully in position (slowest). When the rebound setting gets too slow, the shock absorber will not have time to resume to its initial position when a series of close bumps is encountered. In this case, the bike will run out of travel (packing), possibly bottoming out, and may give the impression of the compression being too soft. When the rebound adjustment is set too fast, the rear end of the bike will kick and move from side to side after hitting a series of close bumps and the rider will feel catapulted by the bike.



#### RANGE



#### ADJUSTER LOCATION

#### INCREASING THE REBOUND DAMPING (SLOWER RETURN):

To increase the rebound damping, thus making the shock return slower upon an impact, turn the rebound adjuster knob clockwise (screw in). There are approximately 30 clicks of rebound adjustment.

#### REDUCING THE REBOUND DAMPING (FASTER RETURN):

To reduce the rebound damping, thus making the shock return faster upon an impact, turn the rebound adjuster knob counterclockwise (unscrew).

#### IMPORTANT NOTE:

MRP'S REBOUND VALVING IS TUNED IN SUCH A WAY THAT IT PROVIDES MORE DAMPING (SLOWER RETURN) WHEN DEEP WITHIN THE STROKE TO PREVENT THE RIDER FROM BEING CATAPULTED OFF THE BIKE UPON MAJOR IMPACTS.

### LOW-SPEED COMPRESSION

The low-speed compression adjustment controls the damping level (resistance) for slow movement of the shock's shaft (low velocity), such as under pedaling, when cornering and when preloading the suspension for jumping. The low-speed compression damping level provides the overall stiffness feeling of the bike's suspension, making it either