MAINTENANCE SCHEDULE

MAINTENANCE DESCRIPTION	FREQUENCY (in hours)	
REPLACE BATH OIL	NORMAL CONDITIONS: 50 MUDDY CONDITIONS: 30	
REPLACE WIPER SEALS	NORMAL CONDITIONS: 100 MUDDY CONDITIONS: 75	
CHANGE DAMPER OIL	200	
CHECK FASTENERS	30	
INSPECT STANCHIONS	EVERY RIDE	
CLEAN DIRT AND MUD FROM STANCHIONS	EVERY RIDE	
CHECK ADJUSTMENT CONTROLS	EVERY RIDE	

TORQUE VALUES

FASTENER	TORQUE	
COMPRESSION BOLT (DAMPER SIDE)	70-75 LB-IN 8 NM	
COMPRESSION BOLT (AIR SPRING SIDE)	70-75 LB-IN 8 NM	
TOP CAPS	110 LB-IN 12 NM	

REGISTER YOUR FORK ONLINE AT MRPBIKE.COM

A link to registration can be found under the "SUPPORT" heading. While there check out our "TECH RESOURCES" section for more information on the tuning, maintenance, and the technology found in your MRP fork.

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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 suspension fork for optimum performance and comfort. It also provides important information about the proper maintenance of your fork. Carefully read this manual before installing your fork. 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 fork 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 forks 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 fork, 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 fork requires an oil change or other internal maintenance, MRP and experienced suspension service centers are best qualified to provide the necessary service or repairs.

FORK INSTALLATION

- 1. Remove your old fork from the bicycle. Measure the diameter and length of your old fork's steerer tube to ensure that your new steerer tube is the correct diameter and sufficient length for the installation. If your MRP fork has a tapered steerer tube, be sure to leave enough room above the taper to allow for proper stem installation.
- 2. Remove the crown race from your old fork.
- 3. Press the crown race onto your new fork. (See Figure #1)
- 4. Preassemble the fork on the bike with the headset, stem, and spacers (optional). Refer to your stem manufacturer's instructions to determine how much room is needed to clamp the stem.
- 5. Mark the steerer tube at the top of the stem. The steerer tube will now need to be cut to the correct length. Disassemble and cut 3mm

MAINTENANCE LOG

DATE	PROCEDURE

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 in this manual. Warranty also does not cover products that have been misused or products that have missing/altered serial numbers. This warranty does not cover breakage 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 and locate the warranty contact form in the support section of the site. Alternatively, call or e-mail MRP (info@mrpbike.com) about the troubles you are having and to set up a RA# (Return Authorization Number).
- Carefully pack and ship your product, be sure to insure the package in case it is lost or damaged in transit. Clearly write the RA number on the outside of the box. (Only the return shipping to the customer is covered under warranty)
- 3. Wait for an e-mail confirming MRP has received your shipment.

COMPRESSION ADJUSTMENT

The compression adjustment knob is located on the top of the damperside fork leg. There are **8 clicks** of adjustment. Your fork comes from the factory in the first, least damped position.

As you turn the dial clockwise, you are adding compression damping or slowing the forks compression stroke. It is an adjustment that is subtle, and often overlooked, but can make a big difference in how your fork performs. Aggressive riders tend to like more compression damping because it provides a firmer, more supportive feel. Comfort oriented, less aggressive riders tend to like less damping in order to maximize small bump sensitivity. Do not confuse compression damping with spring rate. They are very different adjustments, and while adding compression damping may make the fork feel "stiffer", it is not changing the spring rate.

REBOUND ADJUSTMENT

Adjustments to rebound can be made by turning the red knob on the bottom of the damper-side fork leg. The total usable range of rebound adjustment on the Raven is approximately **20** clicks.

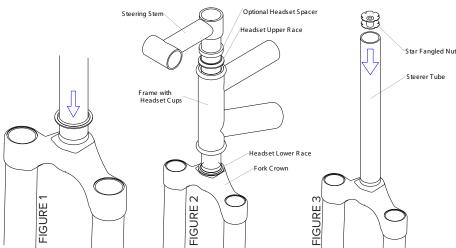
Rebound damping is what prevents your suspension fork from feeling like a pogo stick. It controls the rebound stroke of the fork after a compression stroke (bump) has occurred. Increasing (turn knob clockwise) rebound damping slows the rebound stroke of the fork. Decreasing (turn knob counter clockwise) rebound damping speeds up the rebound stroke of the fork. Ideally, you want to arrive at a setting that allows your wheel to track the terrain and not get bounced off line.

OPERATING THE BOLT-ON AXLE

- 1. Seat hub into the dropouts of the fork.
- 2. Insert axle through the disc brake side dropout, through the hub and into the captive nut on the non-disc brake side dropout.
- 3. Using a 6mm hex tool, thread axle into the captive nut and tighten to 12-15 Nm. **DO NOT TIGHTEN THE BOLT-ON AXLE USING THE 8mm HEX FITTING ON THE CAPTIVE NUT.**

IMPORTANT:

WHEN INSTALLING THE WHEEL OR A NEW TIRE, CHECK FOR MINIMUM CLEARANCE. RELIEVE AIR PRESSURE IN THE AIR SPRING AND COMPRESS FORK COMPLETELY TO BOTTOM OUT. THERE MUST BE 1/8" OR 3mm OF CLEARANCE BETWEEN THE CROWN AND HIGHEST POINT ON THE TIRE AT FULL BOTTOM OUT TO ENSURE ADEQUATE CLEARANCE IN ALL RIDING CONDITIONS.



- (1/8") below the mark. Consult your dealer or mechanic if you don't have the proper tools to cut the steerer tube.
- 6. The star-fangled nut must now be installed into the steer tube. If you don't have the set tool, we recommend dealer installation of this part. (See Figure #3)
- 7. Clean and grease all headset bearings and races to prepare them for assembly. Note: Replace the bearings if there is any sign of wear or corrosion.
- 8. Now loosely assemble the headset, stem and handle bars as done in step four.
- 9. Install the headset according to the manufacturer's instructions until there is no play and the fork turns smoothly.
- 10. Install your front brake and adjust according to the manufacturer's instructions.
- 11. Install the wheel on the fork. Proper installation of the axle is communicated in the next section of this manual.
- 12. Check to see that the brakes are adjusted and properly working. Make sure that the brake cable does not interfere with any part of the bike and is secured under the brake hose clamp on the fork brace. Make sure your brakes are adjusted and functioning properly, and the brake hose does not interfere with any part of the bike when the fork is compressed and released.

IMPORTANT BRAKE INFORMATION:

THE RAVEN FORK FEATURES A POST MOUNT FOR 180mm ROTORS.
SHOULD YOU WANT TO USE A LARGER ROTOR, MAKE SURE TO USE
THE APPROPRIATE DISC BRAKE ADAPTOR AS RECOMMENDED BY
YOUR BRAKE MANUFACTURER. FAILURE TO DO SO COULD RESULT IN
SERIOUS INJURY OR DEATH.

AIR SPRING SETUP

The Raven uses MRP's FulFill™ air spring system with independent positive and negative chambers. It is critical the you follow the steps below in order for proper suspension function.

Because the Raven is a high-performance fork and its desired feel is highly subjective, we recommend experimenting with different air pressure settings in conjunction with air-volume modifications (using the included Huck Pucks).

In testing, we've found that the common usable range for air pressure is between 48 - 150 PSI. A good starting point for most riders on our 150 and 160mm forks seems to be a positive pressure (in PSI) equal to approximately 40-45% of body weight in pounds (lbs.). For example, a 175 lb. rider should start with 70 PSI in the positive chamber. Shorter travel forks may require more pressure than this, and longer (170mm) forks less, but this a good baseline. Most riders like slightly more pressure in the negative chamber. You may inflate the negative chamber to as much as 10% or 10 PSI (whichever is greater) more than the positive chamber.

If you are unfamilar with lbs. (pounds) the conversion from kg. (kilograms) is: $kg. \times 2.2 = lbs.$

Here, below, are some examples of baseline settings, including rebound settings (counted as "clicks from closed"):

PRESSURE					
WEIGHT	POSITIVE	NEGATIVE	REBOUND		
120 lbs. / 54 kg.	48	53	14		
130 lbs. / 59 kg.	52	57	14		
140 lbs. / 64 kg.	56	62	13		
150 lbs. / 68 kg.	60	66	13		
160 lbs. / 73 kg.	64	70	12		
170 lbs. / 77 kg.	68	75	11		
180 lbs. / 82 kg.	72	79	11		
190 lbs. / 86 kg.	76	84	10		
200 lbs. / 91 kg.	80	88	10		
210 lbs. / 95 kg.	84	92	9		

AIR PRESSURE FILL PROCEDURE

- 1. Unthread and remove the negative air chamber cap found on the bottom of the spring leg.
- 2. Attach a high-pressure, suspension specific pump to the valve and using the pump's bleed button, remove all pressure. Remove the pump.
- 3. Locate the positive air chamber cap at the top of the spring leg. Unthread and remove the positive air chamber cap and attach a high-pressure suspension specific pump to the valve.
- 4. Fill the positive air chamber to the desired pressure. Remove the pump and re-install the positive air chamber cap.
- 5. Return to the negative air chamber; attach the pump, fill to the desired pressure, remove the pump, and re-install the negative air chamber cap.

HUCK PUCK (AIR VOLUME) TUNING

Some Raven models come stock with Huck Pucks installed. The maximum number of huck pucks your fork can accomodate depends on chassis (wheelsize) and travel. The installation of Huck Pucks reduces the volume of the positive air spring and thereby changes the overall spring curve. With additional Huck Pucks, the biggest change occurs at the end of the stroke, where it becomes more progressive (less susceptible to bottom-out).

27.5" MODELS 170 and 160: 0 installed, 5 max.

150: 0 installed, 6 max. 140: 1 installed, 7 max

27.5+ / 29" MODELS

160: 0 installed, 5 max. 150: 0 installed, 6 max. 140: 1 installed, 7 max. 130: 2 installed, 8 max. 120: 3 installed, 8 max.

HUCK PUCK INSTALLATION OR REMOVAL

- 1. Release all air pressure from the negative air spring by depressing the Schrader valve core on bottom of the air leg of the fork. Repeat the same for the positive spring (at the top of the air leg of the fork). To ensure all air is released from both chambers, cycle the fork 2-3 times and depress the positive valve core again.
- 3. Unthread the spring-side top cap from the crown of the fork using a cassette tool.
- 4. With the top cap removed, install or remove Huck Pucks. Use up to a 4mm hex key or something of similar diameter inserted into the side of the pucks to tighten or loosen the pucks. Tighten any installed pucks onto the bottom of the top cap snugly so they do not come loose over time.
- 5. Re-install the top cap by threading it back into the fork crown and tighten to 12 Nm.
- 6. Inflate the air spring as outlined in the previous section. Added Huck Pucks will require slightly lower air pressure values to preserve the previous sag level.