TABLE OF CONTENTS

Consumer Safety & Warranty Information 1
Installation Instructions 2
Spare Parts List 3
Exploded View 4
Maintenance & Disassembly. 6
Inspection. 7
Re-assemble 7
Inner Fork Leg, Crown. & Brake Arch 8
Adjusting the Ride Qualities. 8
Trouble Shooting. 9

ANSWER PRECISION SUSPENSION

CONGRATULATIONS FOR CHOOSING THE LATEST STATE OF THE ART MOUNTAIN BIKE SUSPENSION FORK AVAILABLE. THE 2000 MAGNUM FORK MODELS HAVE STATE OF THE ART MCU/SPRING COMPRESSION SYSTEMS. THE MAGNUM R IN THE MAGNUM SERIES USES THE NEW TWIN PISTON CARTRIDGE SYSTEM (TPC SPORT) THAT SURPASS ALL OTHER TYPES OF OIL DAMPED SYSTEM IN PERFORMANCE AND DURABILITY.

Your 2000 MAGNUM Fork is fully assembled and ready to be installed onto your bicycle and comes equipped with a 1 1/8" threadless steer tube. 2000 MAGNUM's are available with the V-Brake cable hangerless arch and have an optional attachable cable hanger kit P/N 85-4100, which is available through your dealer.

CONSUMER SAFETY INFORMATION

GENERAL WARNING: Bicycling is a hazardous activity that requires that the rider stay in control of his or her bicycle at all times. Reading this manual entirely and properly maintaining your bicycle and suspension fork and rear shock will reduce the possibility of injury or possible death. Prior to riding your bicycle, you should inspect your suspension fork and shock to ensure that no damage has occurred during the course of riding. Do not ride your bicycle if the fork or shock shows any signs of bending, cracking, leaking, or if it is missing any of the originally supplied components. Any fall from your bicycle can result in serious injury or even death. Following these instruction can help you reduce the risk of being injured.
If you are a moderate or aggressive off-road rider, or ride at least three times a week over rough terrain, Answer recommends returning your suspension fork or shock every 2 years for a though inspection and update. Take your fork to a Manitou authorized dealer who can arrange for shipment to Answer Products, or you may call Answer to have your fork shipped directly at (661) 257-4411.

IMPORTANT: The 2000 MAGNUM Fork is an off road fork and as such, does not come with the reflectors for on road use installed. Reflector bracket kit P/N 85-3674 is available through your dealer. Have your dealer or mechanic install the kit to meet the Consumer Product Safety Commission's (C.P.S.C.) Requirements for Bicycles if the fork is going to be used on public roads at any time. If you have questions regarding C.P.S.C. Standards contact your dealer.

1. Never remove or have the steer tube or stanchions (inner legs) removed from the crown. The steer tube and stanchions are press fit assembled at the factory. Pressing them out will permanently damage the crown, steer tube, and stanchions beyond repair and render them unsafe for any continued use.
2. Never attempt to thread a threadless steer tube. Machining threads will weaken the steer tube and cause an unsafe condition. The only safe thing to do is to obtain the proper crown/steerer from your dealer.
3. Any other alterations or modifications to your fork should be considered unsafe. Contact Answer Products Technical Support prior to modifying your fork in any way for safety information.
4. Do not use any Manitou Fork if any parts appear to be broken, bent, cracked, or damaged. Contact your dealer or Answer Products Technical Support, (800) 670-7446, if you have any questions concerning the integrity, condition, or safe operation of your fork.
5. Answer Products recommends that you periodically inspect your fork for wear and damage. Inspect the Crown, Inner Legs, and Outer Leg Dropout and Brake Arch areas for cracks or damage. Before every ride check to ensure that the proper preload exists and that the positive rebound stop is installed to ensure that the fork can not over extend.

WARRANTY INFORMATION

Any Answer Products fork found by the factory to be defective in materials and/or workmanship within one year from the date of purchase will be repaired or replaced at the option of the manufacturer, free of charge, when received at the factory, freight prepaid. This warranty does not cover breakage, bending, or damage that may result from crashes or falls. This warranty does not cover any fork that has been modified, subject to misuse or whose serial number has been altered, defaced or removed. This warranty does not cover paint damage. Any modifications made by the user will render the warranty null and void. This warranty is expressly in lieu of all other warranties, and any implied are limited in duration to the same duration as the expressed warranty herein. Answer Products shall not be liable for any incidental or consequential damages.

If for any reason warranty work is necessary, return the fork to the place of purchase. In the USA, dealers should call Answer Products for a return authorization number (RA#). At that time instructions for repair, return, or replacement shall be given. Customers in countries other than USA should contact their dealer or local distributor.

INSTALLATION INSTRUCTIONS

Figures 1,2, &3

Insure that the proper steer tube has been delivered on your fork. The steer tube may need to be cut to length to fit your bicycle head tube. If you are not familiar with this procedure or do not have the proper tools to cut the steer tube it is recommended that you seek a dealer with a qualified bicycle mechanic to perform installation.

WARNING: The steer tube and stanchions (inner legs) are a one time precision press fit at the factory and cannot be removed from the crown. Replacement of the entire crown/steerer assembly must be done to change steer tube lengths or diameters. Removing and replacing the steer tube or stanchions will result in an unsafe condition and should never be done.

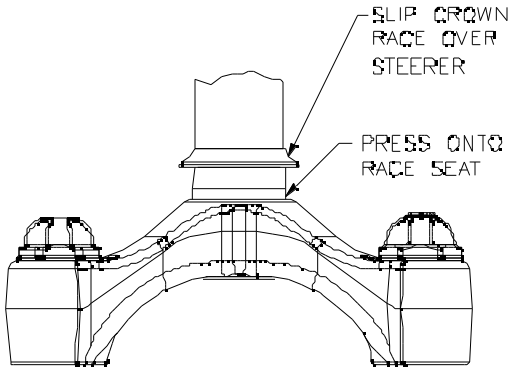


FIGURE 1: RACE INSTALLATION

1. Remove old fork from bicycle.
2. Measure and cut the steer tube to fit your bicycle head tube.
3. Remove crown race from old fork and press onto steer until seated on crown. Figure 1
4. Clean and grease headset bearings and races of bicycle.
5. Install lower bearings on fork crown race.
6. Insert steer tube into head tube of frame.
7. Install upper bearings, spacers, and stem.
8. Install stem cap, adjust, and tighten headset per manufactures instructions.
9. Install handlebars to desired height. Torque stem handlebar pinch screw and stem clamping system to manufacturer's instructions.
10. Install handlebars to desired height. Torque stem handlebar pinch screws and stem clamping system to manufacturer's instruction's.
11. Install cantilever brakes and adjust per manufacturers instructions.

Note: All 2000 MAGNUM Forks are equipped with a secondary catch dropout.

12. Adjust front wheel quick release to clear the 0.275" (7mm) thick secondary catch dropout. The quick release must be tightened after it is properly seated into the dropout counter bores. Ensure that there is adequate thread engagement (4 or more threads with the release adjusted to lock) due to the wide adjustment. Install front wheel to bicycle per manufacturers specification.
13. Install brake cable per manufacturers instructions.

Note: The 2000 MAGNUM comes equipped with a hangerless arch. Brake cable hangers that attach to the arch are available through your dealer. See Figure 2

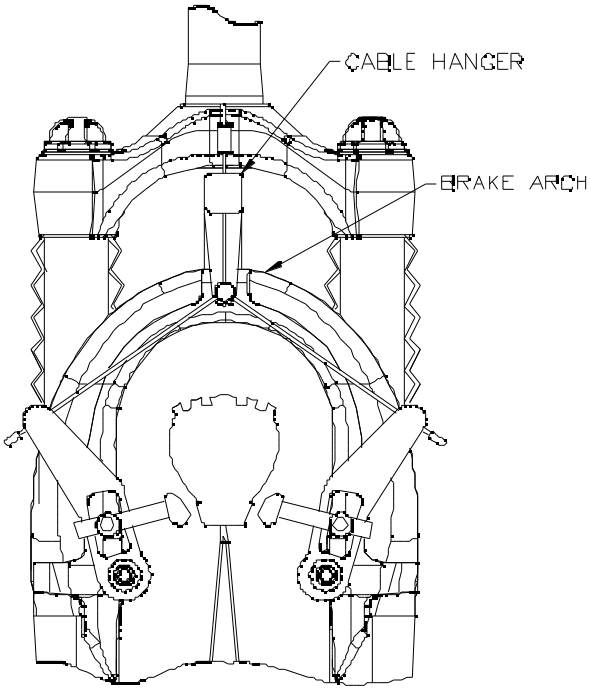


FIGURE 2: BRAKE CABLE ROUTING

WARNING: When installing wheel or any new tire check the minimum tire clearance. Measure from the highest point on the tire to the bottom of the crown. The minimum clearance allowed for 76MM travel forks models are 3.1"(78.7MM). Any less clearance can result in accident resulting in serious injury or death. Figure 3

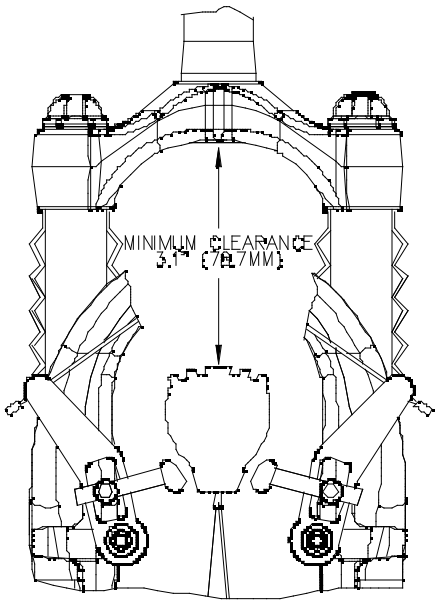


FIGURE 3: TIRE CLEARANCE

SPARE PARTS: Table 1

Spare parts can be ordered through your local dealer. If you have any problems that you cannot resolve with your dealer, you may call Answer Products Technical / Warranty Service Department at (661) 257-4411, 8:00 AM to 5:00 PM, Pacific Standard, Monday through Friday. In addition helpful information can be found on the Answer Products Web Site, http://www.answerproducts.com. Include on the site is down loadable manuals and e-mail to technical support.

DESCRIPTION	PART NUMBER
2000 BUSHING SIZE TOOL	85-3911
2000 MAGNUM RED STICKER KIT	85-4080
2000 MAGNUM BLACK STICKER KIT	85-4081
2000 MAGNUM R FIREBALL ORANGE STICKER KIT	85-4082
2000 MAGNUM R BLUE STICKER KIT	85-4083
2000 MAGNUM CABLE HANGER KIT	85-4100
2000 ADJUSTER KIT MAGNUM MAGNUM R	85-9103
2000 MAGNUM R LOWER SHAFT ASSY	85-9106
2000 MAGNUM R UPPER SHAFT ASSY	85-9107
2000 RED MAGNUM OUTER ASSY KIT W/O STICKER	85-9114
2000 BLACK MAGNUM OUTER ASSY KIT W/O STICKER	85-9115
2000 FIREBALL MAGNUM OUTER ASSY KIT W/O STICKER	85-9116
2000 BLUE MAGNUM OUTER ASSY KIT W/O STICKER	85-9117
2000 MAGNUM BUSHING SEAL KIT	85-9123
2000 SOFT RIDE KIT MAGNUM	85-9124
2000 STOCK RIDE KIT MAGNUM	85-9125
2000 FIRM RIDE KIT MAGNUM	85-9126
2000 MAGNUM STEER LEG KIT	85-9130
2000 WHITE MAGNUM OUTER ASSY KIT W/O STICKER	85-9140
2000 SILVER MAGNUM OUTER ASSY KIT W/O STICKER	85-9141
2000 COBALT MAGNUM OUTER ASSY KIT W/O STICKER	85-9142
2000 TREK COBALT MAGNUM STICKER KIT	85-9147
RALEIGH/BE-ONE BLUE MAGNUM STICKER KIT	85-9151
2000 DECATHLON RED MAGNUM R STICKER KIT	85-9155
2000 SPECIALIZED FIREBALL MAGNUM R STICKER KIT	85-9156
2000 SPECIALIZED BLACK MAGNUM R STICKER KIT	85-9157
2000 SPECIALIZED RED MAGNUM STICKER KIT	85-9166
2000 SPECIALIZED BLACK MAGNUM STICKER KIT	85-9167
RALEIGH BLACK MAGNUM R STICKER KIT	85-9176
UNIVEGA BLACK MAGNUM R STICKER KIT	85-9177

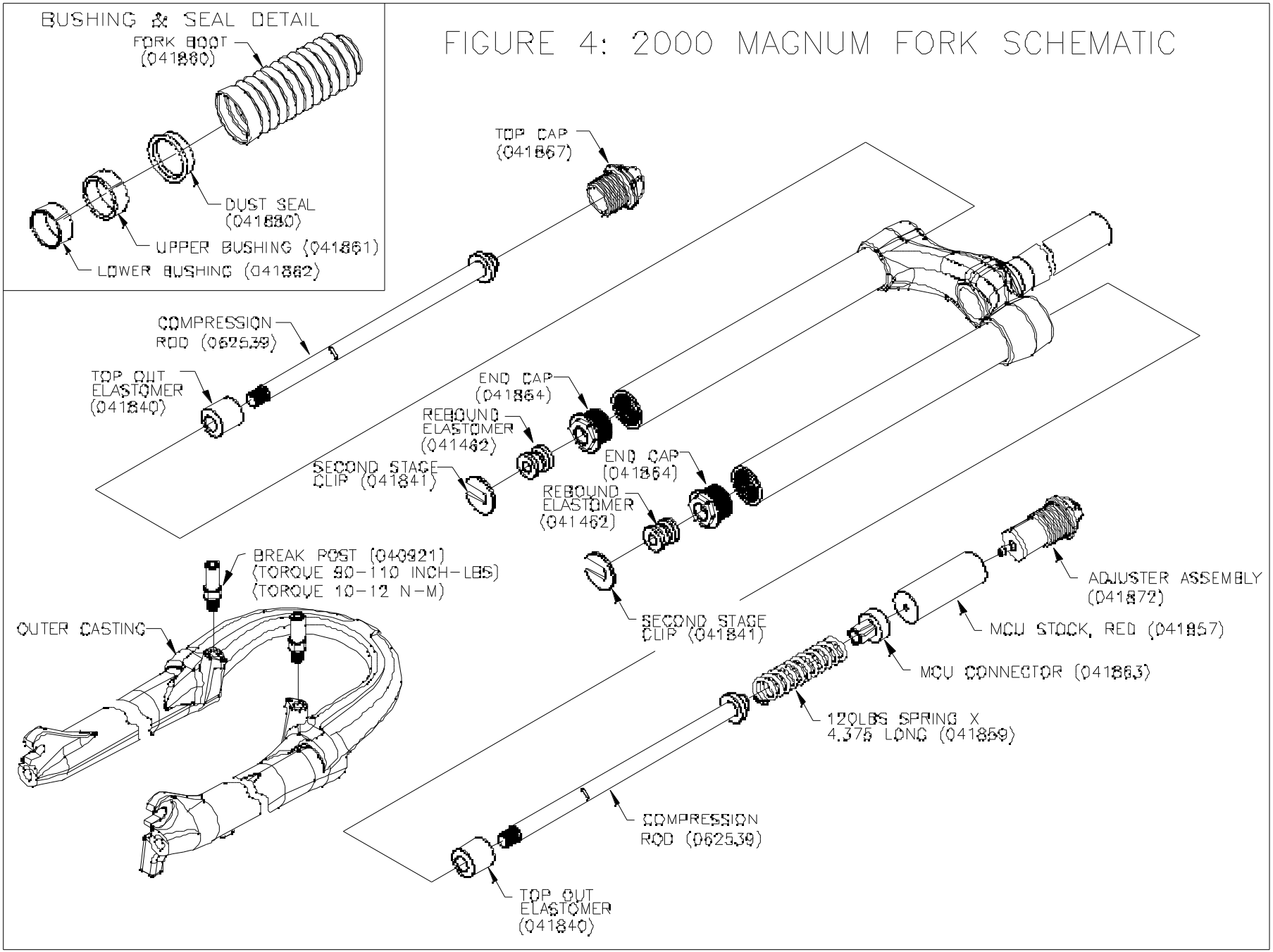
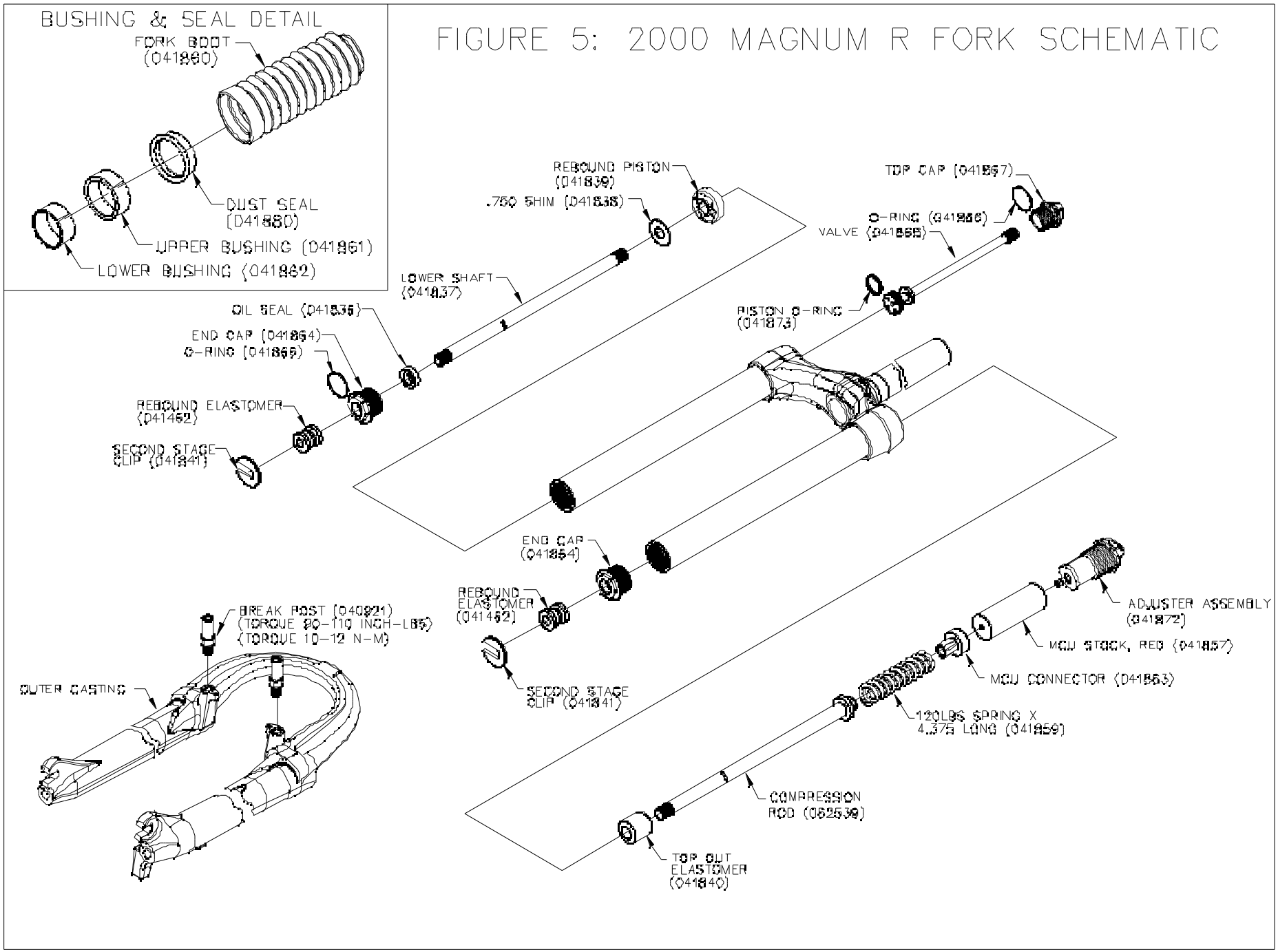

BUSHING & SEAL DETAIL
FORK BOOT (041860)
DUST SEAL (041850)
UPPER BUSHING (041861)
LOWER BUSHING (041862)
FIGURE 4: 2000 MAGNUM FORK SCHEMATIC
TOP CAP (041867)
COMPRESSION ROD (062539)
TOP OUT ELASTOMER (041840)
END CAP (041864)
REBOUND ELASTOMER (041462)
SECOND STAGE CLIP (041841)
END CAP (041864)
REBOUND ELASTOMER (041462)
BREAK POST (040921) (TORQUE 90-110 INCH-LBS) (TORQUE 10-12 N-M)
OUTER CASTING
SECOND STAGE CLIP (041841)
ADJUSTER ASSEMBLY (041872)
MCU STOCK, RED (041857)
MCU CONNECTOR (041863)
120LBS SPRING X 4.375 LONG (041859)
COMPRESSION ROD (062539)
TOP OUT ELASTOMER (041840)

FIGURE 5: 2000 MAGNUM R FORK SCHEMATIC



MAINTENANCE

IMPORTANT: The 2000 MAGNUM should not be used if any parts appear to be or are damaged. Contact your local dealer or Answer Products for replacement parts.

IMPORTANT: Use of fork boots is required to keep your 2000 MAGNUM performing well and your warranty in effect. Use of this fork with the boots removed will shorten the life of the fork, reduce the performance and void the warranty.

Your 2000 MAGNUM Fork requires periodic maintenance, cleaning, and inspection. Moisture and contamination may build up inside the fork depending on the severity of riding conditions. To maintain top performance it is recommended that the fork be periodically disassembled, cleaned, dried and re-greased.

IMPORTANT: When filling the fork with grease through the grease ports it is important to note the grease is being forced between the upper and lower bushing. If the area is overfilled the force of the grease may force the upper bushing and dust seal out.

IMPORTANT: Before every ride you should:

1. Ensure that quick release skewers are properly adjusted and tight.
2. Wipe the inner legs clean, lubricate and check entire fork for any obvious damage.
3. Check headset adjustment.
4. Insure that the front brake cable is properly seated in the cable retainer & check brake adjustment.

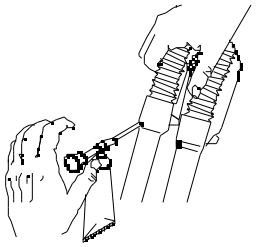


FIGURE 6: LUBRICATING THE BUSHINGS

IMPORTANT: Maintaining the proper oil level in your TPC is very important. Not enough oil will allow foaming and reduce the performance. Too much oil will restrict travel and may cause damage to the system and an unsafe riding situation. Finish reading this entire section prior to making any changes to the oil level.

To check the oil level remove only the compression damping assembly located in the top of the right leg. Leave the left side compression stack (adjuster, MCU, spring assembly) in place to keep the fork fully extended. Use a tape measure or "dip stick" to determine the oil level. Oil level should be between 3.5" (89MM) and 4.75" (120MM) below the crown where the damping assembly screws in. The recommended level is 4.00" (101MM). It is recommended that you replace your oil at least once during the season, twice if it has been contaminated with dirt, mud, or other foreign substance. Use SAE 5WT Maxima fork oil or equivalent. See Figure 7.

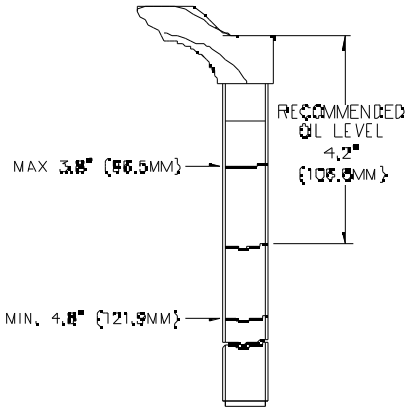


FIGURE 7: TPC OIL LEVEL

GENERAL DISASSEMBLY

NOTE: The Fork does not need to be removed from the bicycle for general disassembly-assembly or cleaning. It is also not necessary to disassemble the 2000 Manitou Forks for compression Elastomer replacement. Elastomer replacement is accomplished by removing the adjuster assembly per Figure 9

Removal of outer leg / arch assembly Figure 8:

1. Unscrew adjuster assembly from left leg and remove elastomer stack.
2. Unscrew adjuster assembly from right leg and remove compression valve assembly.
3. Pour oil out of the top of the fork and discard appropriately.
4. Use a 6mm Allen wrench to unscrew the compression rod on the left and the oil shaft on the right.
5. Pull outer leg assembly down to remove from the inner legs and crown.
6. Remove fork boots.

Note: It is not recommended to remove the dust seal every time the fork is disassembled. The seal and bushings may be cleaned and re-greased in place.

7. Bushing replacement will require the use of the bushing removal and installation tool available from Answer Products. It is recommended that the bushing be left installed unless they absolutely require replacement.

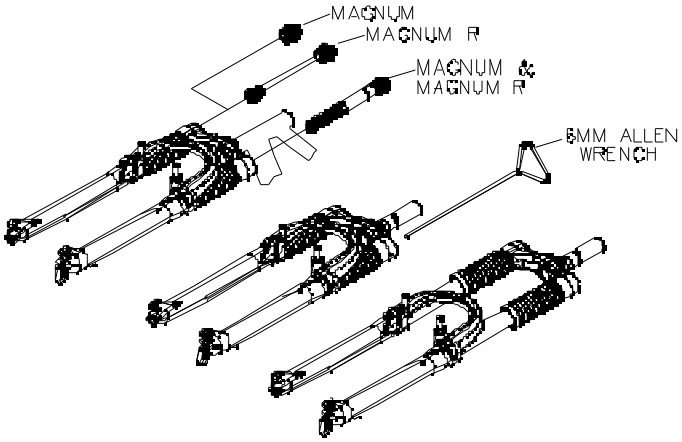


FIGURE 8: OUTER LEG REMOVAL

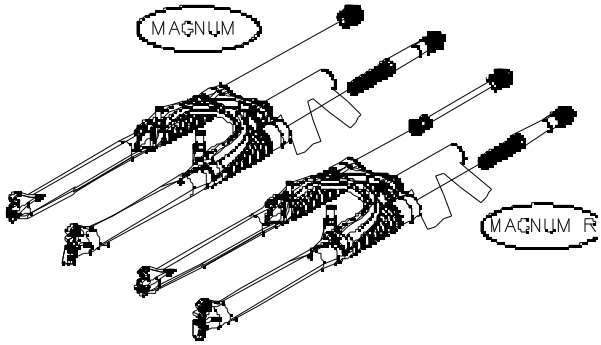


FIGURE 9: COMPRESSION STACK

DAMPER INSPECTION

1. Check the shaft for scratches, wear, or other obvious damage.
2. Check the seal gland and end cap seal grooves for damage.
4. Check shims for permanent bends or damage.
5. Check all other parts for obvious damage replace if necessary.
6. Replace all seals that have been removed.

FORK INSPECTION

1. Check the fork boots for obvious damage.
2. Check the dust seal for tears, wear or damage. Replace if needed.
3. Inspect the lower and upper bushing for damage to the Teflon coating. Replace using the bushing removal and replacement kit if necessary.
4. Check all MCU & springs for obvious damage. Replace if necessary.
5. Check the preload adjuster and connectors. Replace of damaged.
6. Check the outer leg/arch assembly for nicks or deep gouges on outside and inside. Replace of damaged.
7. Check the inner leg for deep gouges and other obvious damage. Minor wear resulting in color change is not detrimental to the gold anodized surface. Replace if wear is excessive or damaged.
8. Check inner legs at the bottom of the crown for cracks or for flaking anodize. Replace crown steer leg assembly if cracked or if gold anodize is beginning to flake.
9. Check the underside of the crown for cracks. Replace if cracked.

COMPRESSION ROD & BOOTS FIGURE 10:

1. Clean all parts thoroughly.
2. Grease compression rod lightly. Make sure top out elastomer is in place.
3. Drop compression rod down into inner legs. Shake inner leg to get rod through.
4. Slide on rebound elastomer.
5. Slide Boots onto inner leg.

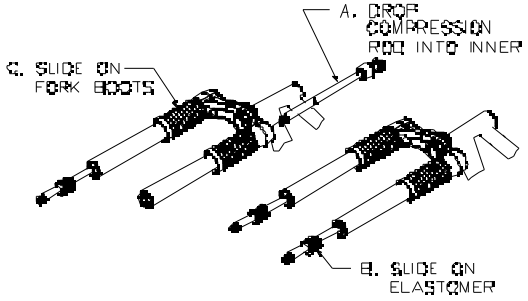


FIGURE 10: COMPRESSION ROD & BOOTS

OUTER LEG ASSEMBLY FIGURE 11:

1. Slide Outer leg/Arch assembly onto inner legs and fully compress.
2. Use a 6mm Allen wrench to tighten compression rod and lower shaft (Magnum R only) to 10 in/lbs.
3. Install adjuster and elastomer stack into left leg. Hand tight only.
4. For MAGNUM R only, Fill right leg with oil. Refer to Figure: 7 for recommended oil level.
5. For MAGNUM R only, install compression valve assembly into right leg. Hand tight only.
6. Slide fork boots down and snap over dust seal flange.

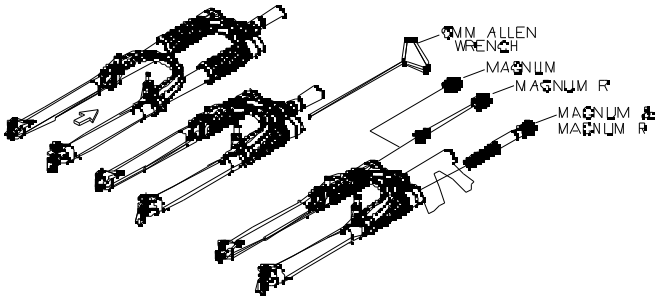


FIGURE 11: OUTER LEG ASSEMBLY

INNER FORK LEGS & CROWN

The inner fork legs and steer tube are press fit into the crown and may never be removed. Removing them will make the fork unsafe to use. If you see any slippage contact Answer Technical Staff immediately (800) 670-7446.

BRAKE ARCH

NOTE: The 2000 MAGNUM arch and outer leg assembly is a one-piece unit. If the unit is damaged at all it must be replaced. Using the fork with a damaged outer leg unit is unsafe and could cause serious injury. Contact Answer Products if you suspect that your outer leg/arch unit is damaged.

ADJUSTING RIDE QUALITIES

2000 MAGNUM forks offer a wide adjustment range to suit individual riding preference and rider weight by simply changing the MicroCellular Urethane (MCU's). Fine tune adjustments can be made using the preload adjusters located on top of the fork crown. Softer blue and harder yellow MCU's are available from your Dealer.

COMPRESSION SPRING FINE-TUNING: FIGURE 12

Fine tuning adjustments to the spring rate are made by rotating the preload adjuster knob located on top of the crown. Note the 2000 MAGNUM and MAGNUM R uses a compression spring system in the left leg only. Only the left knob on top of the crown adjusts preload. Rotating the knob clockwise will firm the ride, adding preload to the compression stack. Rotating the knob counter clockwise will soften the ride. Four full revolutions will take the adjuster from full soft to the extreme firm setting.

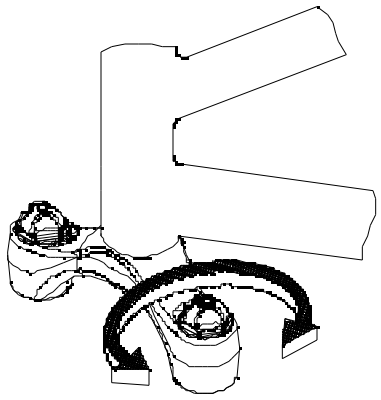


FIGURE 12: PRELOAD

COMPRESSION/REBOUND DAMPING FINE-TUNING

The MAGNUM R uses TPC sport for compression AND rebound damping and is not adjustable. However the use of lighter oil weight will decrease overall damping and the use of heavier oil will increase overall damping.

TROUBLE SHOOTING

Fork seems to "top out" or has a slight clunking feel when front wheel comes off the ground:
Excessive preload or insufficient rebound damping will result in a "top out". Select MCU's that better fit your weight and riding style, having the preload adjuster set mid to low range. For MAGNUM R increase the rebound damping by using a heavier weight oil.

The fork feels less active and is not getting the travel it used to when it was new:
Chances are that the fork is developing stiction. Cleaning and applying light oil to the stanchions will help.

Outer legs feel loose on inner legs and bushings, a knock or rock can be felt when pushed from side to side:
A very small knock is normal with the new 2000 harder bushings. If the knock is excessive or you can feel the fork rocking then the bushings should be removed and replaced. To do this you must have the Answer Products Bushing Removal and Replacement Tool Kit.

A small amount of oil seems to be leaking from top of the left leg at the adjuster cap:
If the 2000 MAGNUM R is stored upside down for a period of time a small amount of oil may leak through the adjuster cap / knob assembly. The cap area is not subjected to damping pressure. A small leak in that area will not affect the performance of the fork or cause any type of damage. We recommend that you store your Manitou right side up. If this condition causes you some problems please contact your Answer Products dealer or call our warranty tech department for prompt service.

CYCLE COMPUTER INSTALLATION INSTRUCTIONS:

WARNING: DO NOT DRILL A HOLE IN THE DROPOUT FOR CYCLE COMPUTER INSTALLATION. THIS MAY WEAKEN THE DROPOUT, WILL VOID THE WARRANTY, AND MAY CAUSE AN UNSAFE CONDITION WITH RISK OF INJURY. DO NOT USE THE TEMPLATE PROVIDED IN THE 95 OR 96 SERVICE MANUAL.

2000 MAGNUM SERVICE MANUAL
P/N 85-3687

MANITOU

ANSWER PRODUCTS, INC

28209 AVENUE STANFORD, VALENCIA, CA 91355
(661) 257-4411
www.answerproducts.com