

TABLE OF CONTENTS

Consumer Safety & Warranty information 1
Installation Instructions 2
Spare Parts List 3
Exploded View 4
Maintenance & Disassembly 7
Inspection. 8
Re-assemble 8
Inner Fork Leg, Crown & Break Arch 9
Adjusting the Ride Qualities. 10
Trouble Shooting 11

ANSWER PRECISION SUSPENSION

CONGRATULATIONS FOR CHOOSING THE LATEST STATE OF THE ART MOUNTAIN BIKE SUSPENSION FORK AVAILABLE. THE 1998 XVERT FORK MODELS HAVE STATE OF THE ART MCU/SPRING COMPRESSION SYSTEMS. THE XVERT SERIES ALL USE THE NEW TWIN PISTON CARTRIDGE SYSTEM (TPC) THAT SURPASSES ALL OTHER TYPES OF OIL DAMPED SYSTEM IN PERFORMANCE AND DURABILITY.

Your 98 XVERT Fork is fully assembled and ready to be installed onto your bicycle and comes equipped with a 1 1/8" threadless steer tube. 98 XVERT and XVERT R forks are available with the V-Brake cable hangerless arch.

CONSUMER SAFETY INFORMATION

IMPORTANT: The 98 XVERT 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. Stanchions may be removed from the upper and lower triple clamps.
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 or condition 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 in working order 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.

1. Remove old forks from bicycle.
2. Measure and cut the steer tube to fit your bicycle head tube.
3. Remove crown race from old forks and press onto 98 XVERT Steerer 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 and screw, tighten until slack just disappears.
9. Install handlebars to desired height. Torque stem handlebar pinch screws and stem clamping system to manufacturer's instructions.
10. Install brakes and adjust per manufacturer's instructions.

Note: All 98 Manitou Forks are equipped with a secondary catch dropout.

11. 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 wider adjustment. Install front wheel to bicycle per manufacturer's specification.
12. Install brake cable per manufacturer's instructions.

Note: The XVERT comes equipped with a hangerless arch. Brake cable hangers that attach to the arch are available through your dealer P/N 85-3644. See Figure 2

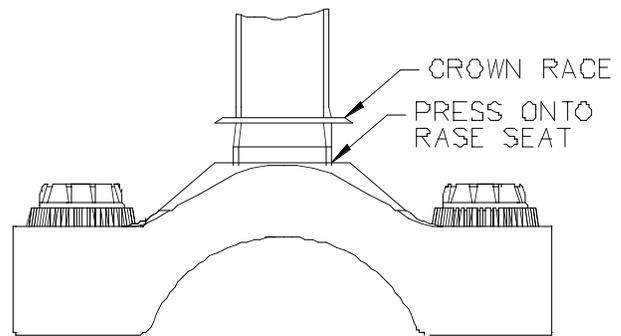


FIGURE 1: RACE INSTALLATION

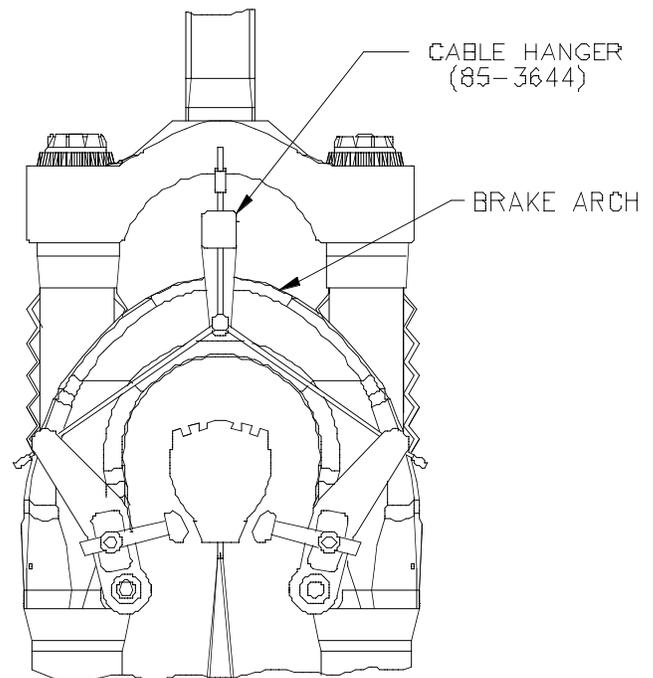


FIGURE 2: BRAKE CABLE ROUTING

! 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 is as follows:

XVERT SC 3.2" (81MM)

XVERT R 4.0" (102MM)

XVERT TI 5.0" (129MM)

Any less clearance can result in accident resulting in serious injury or death. Figure 3

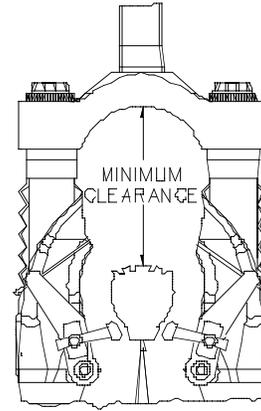


FIGURE 3: TIRE CLEARANCE

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 (805) 257-4411, 8:00 AM to 5:00PM, Pacific Standard, Monday through Friday, In addition helpful information can be found on the Answer Products Web Site, <http://www.answerproducts.com>. Included on the site is down loadable manuals and e-mail technical support.

DESCRIPTION	PART NUMBER
5 WEIGHT FORK OIL, 8 OZ BOTTLE	85-3470
2.5 WEIGHT FORK OIL, 8 OZ BOTTLE	85-3471
DH FORK CAR RACK ADAPTER	85-3534
98 VERT STICKER SET	85-3567
98 XVERT TI STICKER SET	85-3568
98 XVERT R STICKER SET	85-3569
1 1/8" TO 1" HEADSET KIT	85-3645
XVERT INNER LEG PLUG REMOVAL KIT	85-3654
100CC 5 WEIGHT FORK OIL	85-3656
98 OEM REFLECTOR BRACKET KIT	85-3674
X-VERT/R/HAYES BUSHING KIT	85-3733
98 SOFT KIT SX/SX R/SX RR	85-3538
98 MEDIUM KIT SX/SX R/SX RR	85-3839
98 FIRM KIT SX/SX R/SX RR	85-3840
ADJUSTER KIT ALUMINUM SX & XVERT	85-3848
98 CROWN STEER INNER LEG SET XVERT CROMOLY	85-3858
98 CROWN STEER INNER LEG SET XVERT ALUMINUM	85-3859
98 REBOUND DAMPER REBUILD KIT XVERT/R	85-3864
98 REBOUND DAMPER REBUILD KIT XVERT TI	85-3865
98 COMPRESSION DAMPING REBUILD KIT SX/R/XVERT	85-3866
98 COMPRESSION DAMPING KIT XVERT R	85-3868
98 COMPRESSION DAMPING REBUILD KIT XVERT TI	85-3869
98 SOFT RIDE KIT XVERT R	85-3871
98 MEDIUM RIDE KIT XVERT R	85-3872
98 FIRM RIDE KIT XVERT R	85-3873
98 CROWN STEER SET XVERT R ALUMINUM	85-3875
98 CROWN STEER SET XVERT TI ALUMINUM	85-3876
98 INNER LEG SMALL XVERT R	85-3877
98 INNER LEG LARGE XVERT R	85-3878
98 INNER LEG MEDIUM XVERT R	85-3879
98 INNER LEG SMALL XVERT TI	85-3880
98 INNER LEG LARGE XVERT TI	85-3881
98 INNER LEG MEDIUM XVERT TI	85-3882
98 XVERT RED CASTING ASSEMBLY	85-3890
98 XVERT/R MANGO CASTING ASSEMBLY	85-3891
98 BUSHING REMOVAL TOOL	85-3892
98 BUSHING SIZER TOOL	85-3893
98 XVERT HAYES MANGO CASTING ASSEMBLY	85-3895

MAINTENANCE

IMPORTANT: The 98 XVERT 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 XVERT 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 98 XVERT 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.

Note: The best way to prevent sticktion is to lift the fork boots up and apply a light spray of lube to the stanchion area in and above seals. Be sure to use a lubricating oil, not a penetrating fluid like WD 40. Stroke the fork several times adding more lube. Wipe off excess lube from just the seal area while keeping the stanchions moist with lubricant. Reposition the boots. When cleaning the fork do not direct water spray at the seals. Figure 7

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 slack.
4. Insure that the front brake cable is properly seated in the cable retainer & check brake adjustment

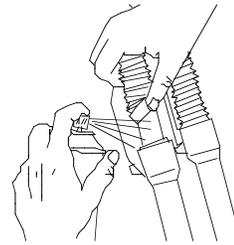


FIGURE 7: LUBRICATING THE BUSHINGS

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 left leg. Leave the right 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 5.75" (146MM) below the crown where the damping assembly screws in. The recommended level is 4.75" (120MM). Use SAE 5WT Maxima fork oil or equivalent. Figure 8

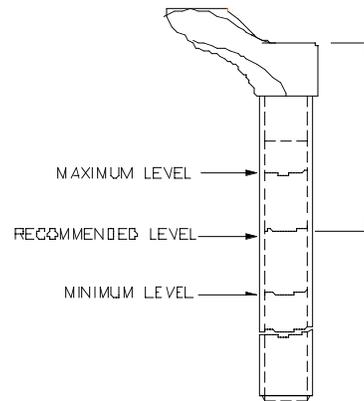


FIGURE 8: TPC OIL LEVEL

Model	Minimum	Maximum	Recommended
Xvert	4.5" (114mm)	3" (76mm)	3.75" (95mm)
Xvert R	9" (228mm)	7" (178mm)	8" (203mm)
Xvert TI	7" (178mm)	5" (127mm)	6" (152mm)

GENERAL DISSEMBLY

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 98 Manitou Forks for compression Elastomer replacement. Elastomer replacement is accomplished by removing the adjuster assembly per Figure 10.

Removal of outer leg / arch assembly XVERT & XVERT R Figure 9:

1. Use a 4MM allen wrench to remove the M6 lower compression rod screw from the right leg dropout. Pop out the damping adjuster knob from the left dropout. A small screwdriver may be helpful. Use a 8MM allen wrench to remove the dropout nut. Fully compress the fork to prevent the compression rod and damper shaft from turning while removing screws.
2. Pull outer leg assembly down to remove from the inner legs and crown.
3. Remove fork boots.

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

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