

# 1999 HEADSHOK® SUPER FATTY® M AND P-BONE™ M OWNER'S MANUAL

Congratulations and thanks for your purchase of a HeadShok suspension fork. You have invested in a suspension system which features long travel, lightweight, and absolute steering precision. This owner's manual contains important and useful information regarding the proper operation, care, and maintenance of your HeadShok Super Fatty M or P-Bone M fork. Please read it carefully and follow its instructions for miles of safe, high performance riding. If you have any questions about your fork or the contents of this manual, don't hesitate to contact us. See the back page for phone numbers and E-mail contacts.

## **STEM SELECTION**

All HeadShok equipped bicycles come with a CODA® Suspension Stem that is designed to work specifically with the unique head tube arrangement of the HeadShok front suspension system. These stems are supplied in sizes proportional to the different bicycle frame sizes. There are a total of 14 different stem sizes available, and all of these stems can be inverted, for a total of 28 possible unique rider positions. This allows any rider to customize the fit of his or her bicycle. See your Authorized Cannondale Retailer for replacement CODA stems. Framesets and aftermarket forks do not include a stem.

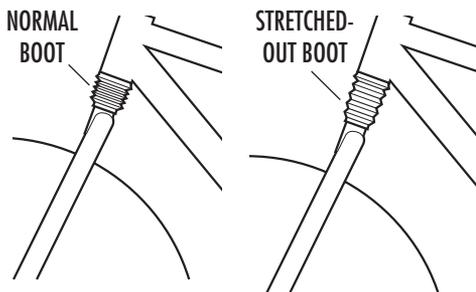
## **REQUIRED MAINTENANCE**

It is recommended that you take your Super Fatty M or P-Bone M to your Authorized HeadShok Service Center for a regular tune up every two months or 40 hours of riding. Your fork is a high performance suspension system and needs regular inspection, lubrication, and maintenance. Your mechanic will check the following items and service the fork as necessary. Between these tune ups, you should also occasionally check the top bearing seal and boot as outlined below.

## **WARNINGS:**

- **Any HeadShok fork should be installed and adjusted by a qualified mechanic. Brakes must also be installed and adjusted by a qualified mechanic. (This applies to either cantilever-type or disc brakes.) If the brakes are improperly installed or misadjusted, the bicycle will not be safe to ride. Improper installation, service, or adjustment of the fork or brakes will place the rider in danger of serious injury or death.**
- **Only use brakes designed to be mounted to existing cantilever bosses or disc brake mount on the fork. Do not attempt to add any brake mount or use any brake device that requires adapting the fork's existing brake mounts. Altering or adapting existing brake mounts or installing new brake mounts will void the fork's warranty, and may result in structural failure of the fork. Structural failure of fork will result in loss of control of the bicycle, placing the rider in danger of serious injury or death.**
- **If the suspension fork ever begins to make "knocking" or "klunking" noises, or if it ever shows an unexplained increase in travel, or looks like it is extended farther than it was originally, stop riding the bike and bring it to a HeadShok dealer for inspection. Possible indications of a problem are:**
  - \* **An increase in the fork's extension or travel.**
  - \* **A stretched-out fork boot (See below.)**
  - \* **A stretched or strained front brake cable.**
  - \* **"Knocking" or "klunking" noises coming from fork.**

***If any of the above symptoms manifest themselves and are ignored, the result could be a separation of the fork from the bicycle frame, leading to an accident with risk of serious injury to, or death of the rider.***



## HEADSET BEARINGS:

Every few rides, or every time the bicycle is exposed to water (rain, mud, or washing) a few drops of lightweight oil should be applied to the upper headset bearing seal (located just below the stem.) This seal must be kept lubricated, as it protects the headset cartridge bearings from contamination by water and dirt. Failure to keep headset bearing seal lubricated will result in premature bearing wear.

## SUSPENSION FORK BOOT:

Frequently inspect the rubber boot at the base of the headtube for tears or cuts which could allow contamination. If the boot is damaged in any way, it must be replaced immediately. Since boot replacement requires the suspension fork be removed from the frame, this job should be performed only by an experienced bicycle mechanic at an Authorized HeadShok Service Center. Damage to the HeadShok due to contamination by water or dirt will not be covered under warranty.

## NEEDLE BEARING LUBRICATION:

The needle bearings which provide the smooth travel of the suspension in the HeadShok fork should be lubricated every two months or 40 hours of riding. This procedure requires partial disassembly of the suspension fork, and therefore must be performed only by an experienced bicycle mechanic at an Authorized HeadShok Service Center.

## **SUPER FATTY M**

The Super Fatty M suspension fork offers 80mm of travel with the HeadShok Advanced Spring System. This system uses a coil spring with a column of MicroCellular Urethane (MCU) running through its middle.

**P-BONE M**

The P-Bone M suspension fork utilizes the HeadShok Advanced Spring System to provide 60mm of suspension travel. This fork also uses the coil spring with a column of MicroCellular Urethane (MCU) running through its middle.

For both of these forks, there are three different coil springs available, allowing the fork to be customized to suit riders of different sizes. Refer to the tables below for information on which spring came with your bicycle, and recommendations for custom tuning your fork’s spring. The springs are interchangeable, and are color coded by stiffness. Each of these springs also allow fine tuning by adjusting the preload.

<i><b>BIKE SIZE</b></i>	<i><b>COMES WITH...</b></i>
Small . . . . .	Green
Medium . . . . .	Blue
Large . . . . .	Blue
Extra Large . . . . .	Red

<i><b>RIDER WEIGHT RANGE</b></i>	<i><b>RECOMMENDED SPRING</b></i>	<i><b>SPRING KIT CODE</b></i>
150 lbs. or less	Green	HD110/GRE for P-Bone M HD155/GRE for Super Fatty M
140 - 200 lbs.	Blue	HD110/BLU for P-Bone M HD155/BLU for Super Fatty M
180 lbs. or more.	Red	HD110/RED for P-Bone M HD155/RED for Super Fatty M

*NOTE: All aftermarket HeadShok forks come with a Blue spring installed.*

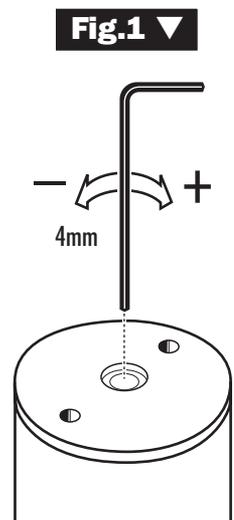
## PRELOAD ADJUSTMENT

Before the bike is ridden, the spring preload must be adjusted to suit the weight of the rider. If too much preload is applied, the suspension will be stiff and unresponsive; too little preload and the rider may feel some amount of “bouncing” while climbing or sprinting, and may tend to bottom out the shock (compress to the limit of its travel) on large bumps.

Beyond changing the coil spring in the Super Fatty M or P-Bone M forks, the spring preload can be fine-tuned to suit rider weight and riding style as follows:

1. Unscrew plastic mud cap from the top of the fork.
2. With the rider off of the bike, measure from the floor to the center of one end of the handlebar with the bicycle standing perfectly upright. Then position the rider on the bike in a seated, natural riding position. With only the rear brake applied, again measure the distance from the floor to the center of one end of the handlebar.

3. The difference in these two measurements is the preload sag. Most riders find the best suspension performance with about 1/8” sag compression. To change the amount of sag, insert a 4mm Allen wrench into the hole in the top of the fork. Turn the preload adjustment screw clockwise for greater pre-load (less sag compression) or counter-clockwise for less preload (more sag compression.) See Fig. 1. Note that Cannondale recommends running the Super Fatty M in the soft end of the adjustment range to allow more shock sag for full suspension use.



4. When desired preload is set, replace mud cap.

*NOTE: This procedure is to be used as a guideline only. We encourage riders to experiment with preload adjustment. Some prefer a stiffer suspension, some a softer, more compliant suspension. Replacement springs are available from your Authorized HeadShok Retailer.*

## **DISC BRAKE MOUNT**

The mount on the left side dropout of the Super Fatty M fork is designed to fit a CODA Compact Disc Brake caliper. Other brands of disc brakes may also fit.

## **SUSPENSION UPGRADES AND OPTIONS**

The HeadShok is a modular cartridge system with several different suspension systems which may be installed in your HeadShok suspension fork. See your Authorized HeadShok retailer about different options currently available.

## **MUD CAP**

The plastic mud cap atop the stem must be kept in place at all times. Never ride without the mud cap in place. The mud cap protects the inner workings of the suspension fork from water, dirt, and other contaminants that could damage the suspension fork. Any Damage resulting from riding with a missing mud cap will not be covered under warranty.

## **SUPER FATTY M SPECIFICATIONS**

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<i>Weight</i>	3.40 lbs.
<i>Steerer Tube</i>	HeadShok telescoping with 88 needle bearings
<i>Travel</i>	80mm
<i>Blades</i>	TIG-welded 6061-T6 aluminum, swaged and tapered with Disc Brake mount
<i>Spring</i>	Advanced Spring System, coil with nested MCU
<i>Damper Cartridge</i>	MC80 Mechanical with air damping
<i>Adjustments</i>	Preload, spring rate
<i>Upgrades</i>	DD80 cartridge with air spring and On-The-Fly lockout FT80 cartridge with air spring and 4-circuit damping

## **P-BONE M SPECIFICATIONS**

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<i>Weight</i>	3.25 lbs.
<i>Steerer Tube</i>	HeadShok telescoping with 88 needle bearings
<i>Travel</i>	60mm
<i>Blades</i>	TIG-welded 6061-T6 aluminum
<i>Spring</i>	Advanced Spring System, coil with nested MCU
<i>Damper Cartridge</i>	MC60 Mechanical with air damping
<i>Adjustments</i>	Preload, spring weight
<i>Upgrades</i>	DD60 cartridge with On-The-Fly lockout FT70 cartridge with air spring and 4-circuit damping (will not increase travel)

## **HEADSHOK WARRANTY**

All HeadShok forks and their internal assemblies are warrantied against manufacturing defects in materials and/or workmanship for a period of one year from the date of original retail purchase.

Not covered under warranty is damage resulting from improper adjustment or maintenance, lack of maintenance, crashes, or use judged by HeadShok to be excessive or abusive.

## **GETTING IN TOUCH WITH HEADSHOK**

For warranty related questions or for more information on this or any HeadShok product, please feel free to contact us.

USA and Canada: (888) HEAD-SHK

Europe (EC): (31) 5415-89898

Japan: (81) 722-99-9399

Australia: (612) 9979-5851

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