

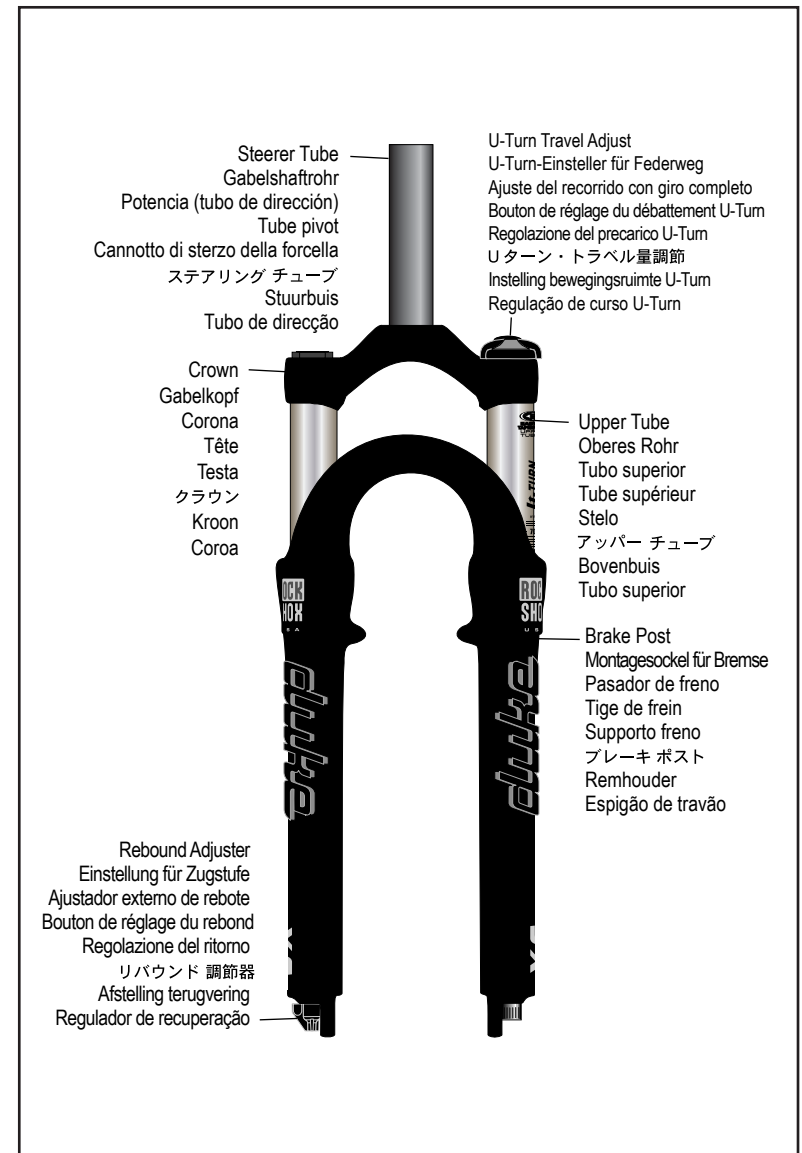


# *duke*

2004 USER MANUAL

POWERED BY **SRAM**

Congratulations! You have the best in suspension components on your bicycle! This manual contains important information about the safe operation and maintenance of your fork. To ensure that your RockShox fork performs properly, we recommend that you have your fork installed by a qualified bicycle mechanic. We also urge you to follow our recommendations to help make your riding experience more enjoyable and trouble-free.



NOTE: YOUR FORK'S APPEARANCE MAY VARY FROM THE ILLUSTRATIONS/PHOTOS IN THIS MANUAL.

FOR THE LATEST INFORMATION ABOUT YOUR FORK VISIT OUR WEBSITE AT [WWW.ROCKSHOX.COM](http://WWW.ROCKSHOX.COM).

## I M P O R T A N T

### Consumer Safety Information

1. The fork on your bicycle is designed for use by a single rider, on mountain trails, and similar off-road conditions.
2. Before riding the bicycle, be sure the brakes are properly installed and adjusted. If the brakes do not work properly, the rider could suffer serious and/or fatal injuries.
3. Your fork may fail in certain circumstances, including, but not limited to, any condition that causes a loss of oil; collision or other activity bending or breaking the fork's components or parts; and extended periods of non-use. Fork failure may not be visible. Do not ride the bicycle if you notice bent or broken fork parts, loss of oil, sounds of excessive topping out, or other indications of a possible fork failure, such as loss of shock absorbing properties. Instead, take your bike to a qualified dealer for inspection and repair. In the event of a fork failure, damage to the bicycle or personal injury may result.
4. Always use genuine RockShox parts. Use of aftermarket replacement parts voids the warranty and could cause structural failure to the shock. Structural failure could result in loss of control of the bicycle with possible serious and/or fatal injuries.
5. Use extreme caution not to tilt the bicycle to either side when mounting the bicycle to a carrier by the fork drop-outs (front wheel removed). The fork legs may suffer structural damage if the bicycle is tilted while the drop-outs are in the carrier. Make sure the fork is securely fastened down with a quick release. Make sure the rear wheel is fastened down when using ANY bike carrier that secures the fork's drop-outs. Not securing the rear can allow the bike's mass to side-load the drop-outs, causing them to break or crack. If the bicycle tilts or falls out of its carrier, do not ride the bicycle until the fork is properly examined for possible damage. Return the fork to your dealer for inspection or call RockShox if there is any question of possible damage (See the International Distributor List). A fork leg or drop-out failure could result in loss of control of the bicycle with possible serious and/or fatal injuries.
6. Only mount cantilever-type brakes to the existing brake posts. Forks with hangerless style braces are only designed for 'V'- style or hydraulic cantilever brakes. Do not use any cantilever brake other than those intended by the brake manufacturer to work with a hangerless brace. Do not route the front brake cable and/or cable housing through the stem or any other mounts or cable stops. Do not use a front brake cable leverage device mounted to the brace.
7. Observe all owner's manual instructions for care and service of this product.

**ROCKSHOX FORKS ARE DESIGNED FOR COMPETITIVE OFF-ROAD RIDING AND DO NOT COME WITH THE PROPER REFLECTORS FOR ON-ROAD USE. YOUR DEALER SHOULD INSTALL PROPER REFLECTORS TO MEET THE CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) REQUIREMENTS FOR BICYCLE STANDARDS IF THE FORK IS GOING TO BE USED ON PUBLIC ROADS AT ANY TIME.**

## INSTALLATION

It is extremely important that your RockShox fork is installed correctly by a qualified bicycle mechanic. Improperly installed forks are extremely *dangerous* and can result in *severe and/or fatal injuries*.

1. Remove the existing fork from the bicycle and the crown race from the fork. Measure the length of the fork steerer tube against the length of the RockShox steerer tube. The RockShox steerer tube may need cutting to the proper length. Make sure there is sufficient length to clamp the stem (refer to the stem manufacturer's instructions).

### WARNING

DO NOT ADD THREADS TO ROCKSHOX THREADLESS STEERERS. THE STEERER TUBE CROWN ASSEMBLY IS A ONE-TIME PRESS FIT. REPLACEMENT OF THE ASSEMBLY MUST BE DONE TO CHANGE THE LENGTH, DIAMETER OR HEADSET TYPE (THREADED OR THREADLESS).

DO NOT REMOVE OR REPLACE THE STEERER TUBE. THIS COULD RESULT IN THE LOSS OF CONTROL OF THE BICYCLE WITH POSSIBLE SERIOUS AND/OR FATAL INJURIES.

2. Install the headset crown race (29.9mm for 1 1/8" steerers) firmly against the top of the fork crown. Install the fork assembly on the bike. Adjust the headset until you feel no play or drag.
3. Install the brakes according to the manufacturer's instructions and adjust brake pads properly. Use the fork only with V-type or hydraulic cantilever brakes mounted to the existing brake posts or disc style brakes mounted through the provided mounting holes. Do not use any cantilever brake other than those intended by the brake manufacturer to work with a hangerless brace.
4. Adjust the front wheel quick release to clear the dropout's counter bore. The quick release nut must be tightened after the wheel is properly seated into the dropout's counter bore. Make sure four or more threads are engaged in the quick release nut when it is closed. Orient the quick release lever in front of and parallel to the lower tube in the locked position.
5. Keep in mind tire clearance as you choose tires. Maximum size is 26" x 2.4" wide or 348 mm radius installed. Be sure to check this radius whenever you change tires. To do this, remove the top caps and spring stack assemblies and compress the fork completely to make sure at least 5 mm of clearance exists between the top of the tire and the bottom of the crown. Exceeding maximum tire size will cause the tire to jam against the crown when the fork is fully compressed.

## PERFORMANCE TUNING

RockShox Duke forks can be tuned for your particular weight, riding style, and terrain.

### Setting Sag

Duke forks are designed to sag when you are sitting on your bike. Sag is the compression of the fork caused by the rider's weight. Proper sag allows the front wheel to follow the contour of the terrain as you ride.

### Checking Sag for Models with Positive Air (Race, SL and XC)

Sag is adjusted by increasing or decreasing the positive air pressure of your fork (less air equals more sag).

## POSITIVE AIR PRESSURE GUIDELINES

| Rider Weight (lb)  | Air Pressure |
|--------------------|--------------|
| <140 (63 kg)       | 80-115 psi   |
| 140-160 (63-72 kg) | 115-130 psi  |
| 160-180 (72-81 kg) | 130-145 psi  |
| 180-200 (81-90 kg) | 145-160 psi  |
| >220 (99 kg)       | 180 psi      |

To measure sag, use the travel indicator included with your fork or install a zip tie on the upper tube of the fork flush against the wiper seal. Sit on the bike with normal riding apparel. Step off the bike, and measure the distance between the wiper seal and the travel indicator or zip tie. This is your sag. The sag should be approximately 20 percent of the maximum travel.

### ADDING POSITIVE AIR PRESSURE

Remove the air cap to expose the air valve. Using a RockShox Air Pump (with schrader valve), add the recommended air pressure (see "Air Pressure Guidelines").

**NOTE: MAXIMUM RECOMMENDED AIR PRESSURE IS 180 PSI.**

### Checking Sag for Duke SL U-Turn and XC U-Turn

To measure sag, set the fork to maximum travel (108 mm). Install a zip tie on the upper tube of the fork flush against the wiper seal. Sit on the bike with normal riding apparel. Step off the bike, and measure the distance between the wiper seal and the zip tie. This is your sag. The sag should be approximately 20 percent of maximum travel. If you're unable to achieve optimum sag you may need to change the fork's spring.

### CHANGING THE SPRING RATE

Spring rate is the amount of force needed to compress a spring one inch. Changing your fork's coil spring for a spring of a higher or lower rate will alter the overall feel of your fork. Higher spring rates make the fork feel more "stiff", while lower spring rates make the fork more "supple". Contact your local RockShox dealer to order replacement springs.

**NOTE: WHEN DECREASING TRAVEL (SEE "U-TURN TRAVEL ADJUST"), YOU INCREASE THE SPRING RATE.**

### External Rebound Adjustment (Race, SL and XC models)

Rebound damping controls the speed at which a fork returns to its full extension following compression. Located at the bottom of the right fork leg is the rebound adjuster knob. Turning the adjuster in the direction indicated by the "rabbit" on the rebound speed decal decreases rebound damping, causing the fork to return to full extension faster. Turning the adjuster in the direction indicated by the "turtle" increases rebound damping, slowing the return of the fork to full extension.

Excessive rebound damping will cause the fork to "pack up" over successive bumps, reducing travel and causing the fork to bottom out. Set your fork to rebound as fast as possible without "topping out" or kicking back. This allows your fork to follow the contours of the trail, maximizing stability, traction and control.

**DUKE XC, XC U-TURN:** The knob offers 90 degrees of adjustment.

**DUKE RACE AND SL:** The knob offers three complete turns of adjustment.

## PURE SYSTEM (RACE MODEL)

Your fork uses the Pure Damping System. This system provides maximum ride control with on-the-fly adjustable compression damping (including lockout).

## Climb-It Control Performance (Race)

To change the compression damping adjustment on your fork, locate the adjuster knob on the top of the right leg. A clockwise adjustment increases the compression damping. Turning the adjuster completely clockwise provides on-the-fly lockout to minimize movement while sprinting or climbing. Integrated into the lockout system is a big-hit blow-off feature, allowing fork movement in the event of an unexpected change in terrain.

To maintain lockout control and damping quality, the Pure Damping system should be rebuilt once a year. We recommend that a qualified bicycle mechanic with proper tools should rebuild the Pure Damping System. For more detailed service information, contact your local RockShox dealer or visit [www.rockshox.com](http://www.rockshox.com).

## PURE DeLITE SYSTEM (SL MODELS)

Pure DeLite offers a wide range of rebound damping adjustment. Adjusting the air pressure in this chamber helps fine-tune the small bump ride (threshold or break-away) of the fork. This chamber should be inflated to a **minimum of 10 psi and a maximum of 60 psi**. Less air pressure will make the fork feel softer and helps absorb smaller bumps, while more air pressure will make the fork feel stiffer.

We recommend adjusting the positive pressure before you adjust the air pressure in the Pure DeLite chamber (right side, rider's perspective).

**NOTE: AIR PRESSURE IN THE PURE DeLITE SYSTEM SHOULD NOT BE USED TO TUNE THE SPRING RATE OR BOTTOM OUT FORCE REQUIRED FOR THE FORK.**

## U-TURN TRAVEL ADJUST (SL AND XC U-TURN MODELS)

Duke U-turn forks can be adjusted from 63 to 108 mm of travel. To determine the travel on your fork, use the travel gradients on the upper tube.

### Changing Travel

Turning the U-turn adjuster knob counterclockwise increases travel. From minimum travel, there are approximately six turns to achieve maximum travel (108 mm). Each turn increases or decreases the travel by 7.5 mm (fig. 1).

**IMPORTANT: STOP TURNING THE U-TURN ADJUSTER KNOB AFTER YOU HAVE REACHED 108 MM OF TRAVEL (MAXIMUM TRAVEL). TURNING THE KNOB PAST THIS POINT MAY CAUSE DAMAGE TO THE U-TURN FEATURE.**

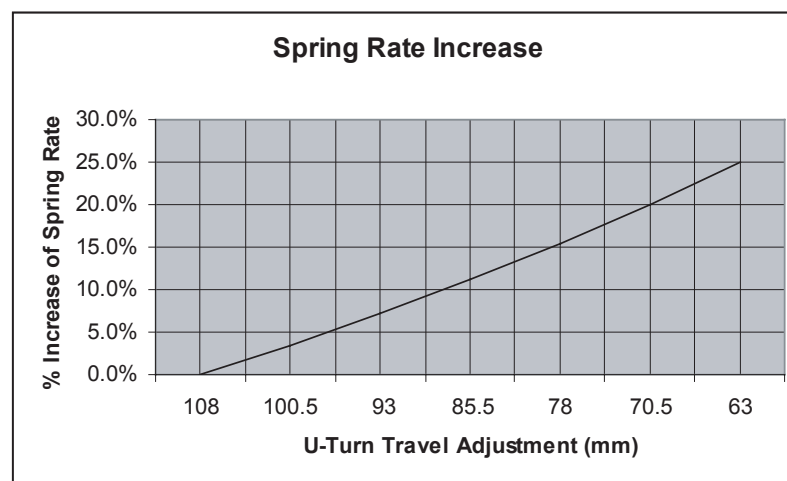


Fig. 1

## MAINTENANCE

To maintain the high performance, safety, and long life of your fork, periodic maintenance is required. If you ride in extreme conditions, maintenance should be performed more frequently.

| Duke Model   | Maintenance                                                                  | Every Ride | 25 Hours | 50 Hours | 100 Hours | 200 Hours |
|--------------|------------------------------------------------------------------------------|------------|----------|----------|-----------|-----------|
| All          | Clean dirt and debris from upper tubes                                       | ✓          |          |          |           |           |
| All          | Check upper tubes for scratches                                              | ✓          |          |          |           |           |
| All          | Check top caps, brake posts and shaft bolts for proper torque                |            | ✓        |          |           |           |
| All          | Apply 2 to 3 drops of Teflon-based oil to the upper tube/lower tube junction |            | ✓        |          |           |           |
| All          | Remove lower casting, clean bushings and change oil bath                     |            |          | ✓*       |           |           |
| SL/Race      | Change oil in pure system                                                    |            |          |          | ✓*        |           |
| U-Turn XC/SL | Clean and lubricate U-Turn spring assembly                                   |            |          | ✓*       |           |           |
| SL/Race      | Rebuild Pure System                                                          |            |          |          |           | ✓*        |

\* WE RECOMMEND THIS SERVICE BE PERFORMED BY A QUALIFIED BICYCLE MECHANIC. TO OBTAIN SERVICE INFORMATION OR INSTRUCTIONS, VISIT OUR WEBSITE AT [WWW.ROCKSHOX.COM](http://WWW.ROCKSHOX.COM) OR CONTACT YOUR LOCAL ROCKSHOX DEALER OR DISTRIBUTOR.

### Torque Tightening Values

|                            |          |
|----------------------------|----------|
| Top Caps                   | 65 in-lb |
| Brake Posts                | 80 in-lb |
| Shaft Bolts                | 60 in-lb |
| Climb-It/U-Turn Knob Screw | 12 in-lb |

## WARRANTY

SRAM Corporation warrants its products for a period of two years from original date of purchase to be free from defects in materials or workmanship. SRAM, or an authorized SRAM Agent must inspect all SRAM products. If a product is found by SRAM or its authorized agent to be defective in materials or workmanship, replacement or repair is at the option of SRAM. This warranty is the sole and exclusive remedy. SRAM shall not be held liable for any indirect, special, or consequential damages.

### Exclusions of Warranty

This warranty does not apply to products which have not been properly installed and adjusted according to RockShox installation instructions. The warranty does not cover any product that has been subject to misuse or whose serial number has been altered, defaced or removed. This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturer's specifications, or any other circumstances in which the product has been subjected to forces or loads beyond its design. This warranty does not cover paint damage or modifications to the product.

Original proof of purchase is required. Warranty repair/replacement is only valid upon presentation of proof of purchase, directly submitted to SRAM at the time of warranty evaluation. Warranty repair or replacement is at the discretion of SRAM or its authorized agent, upon physical product evaluation and proof of purchase.

This warranty does not include or cover common 'wear and tear' parts which are subject to damage as a result of normal use, failure to service product according to SRAM recommendations, wet conditions, racing, use of disc brakes, rider weight, riding or installation in conditions or applications other than recommended.

**'Wear and Tear' parts are identified as:** External dust seals, bushings, foam rings, rubber moving parts (such as air sealing o-rings and glide rings), stripped threaded shafts or bolts, upper tubes (stanchions), rear shock mounting hardware and springs, and fork drop outs.

### Pioneer Support Program

In the event parts are unavailable at the time of your repair, at the option of SRAM or its authorized agent, a replacement fork may be provided at a determined discount price.

### Warranty Expenses Incurred

The SRAM warranty policy excludes expenses incurred as a result of transportation of product from a SRAM dealer to SRAM, or its authorized distributor, labor performed by a SRAM dealer for removal of RockShox product, or warranty repair work performed by a SRAM dealer. Warranty work performed by a SRAM dealer is voluntary.

### Warranty Repair

If for any reason it should be necessary to have warranty work done, return the product to a SRAM dealer. In the USA, dealers are required to call for a Return Authorization number (RA#) prior to returning product. Outside the USA, dealers are required to call an authorized SRAM Distributor.

For more technical information, visit our website at [www.rockshox.com](http://www.rockshox.com). Dealers outside the USA must contact their local distributor. For a complete list of Authorized Distributors outside the USA, visit [www.rockshox.com](http://www.rockshox.com).