GIANT®
BICYCLES
DUAL-SUSPENSION
www.giant-bicycles.com
OWNER'S MANUAL
SUPPLEMENT

Version 1.2

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NOTE: This manual is a suppliment for full-suspension bicycles. It is not a stand alone Owner's Manual and it should be read in conjunction with the Owner's Manual that came with your bicycle. Both manuals contain important information regarding the safety and operation of your bicycle.

INTRODUCTION

Congratulations on your purchase of a Giant full suspension bicycle. We at Giant Bicycle, Inc. are very proud of the bicycles we sell and are sure you will be happy with the performance of your new full suspension bicycle. Full suspension bicycles represent the latest in design and engineering and require special care. The pivots and links that are designed into your frameset allow movement and are high tolerance precision mechanisms. While Giant Bicycle engineers have strived to use the highest quality, most durable and lowest maintenance materials in these mechanisms, there are certain guidelines you must follow to attain optimal performance and proper wear characteristics from these mechanisms. For that reason, it is important that you take the time to read the following guidelines and the sections of the supplement that pertain to your bicycle.

Shock Basics & Terminology

Compression Damping:

Compression damping aids in preventing the shock from bottoming out over big hits by absorbing some of the energy of the bump. While all shocks have compression damping, the ability to adjust it is only available on higher end coil shocks. Increasing the compression damping will make the shock compress more slowly when you hit a bump. When you increase the compression damping, you will effectively make the bike ride “higher” in the suspension travel curve and the shock will not be as supple over small bumps. Increased compression damping is usually reserved for high speed riding where “big hits” are encountered. For most off road riding conditions, the compression damping is kept low. It is also a personal preference that can be experimented with to find the optimal performance level for your style of riding and terrain.

Rebound Damping:

Rebound damping controls the rate of speed that the shock returns to its original position after your wheel hits an obstacle. The rebound damping prevents the shock from springing back so quickly that it can cause the bike to “buck” after hitting an obstacle. It also prevents the shock from topping out or rapid shock unloading. If the rebound damping is set too high the shock will “pack up”, or not extend to its full length over successive hits. This will cause the bike to eventually ride “lower” in the shock’s range of travel. The rebound damping is critical to the proper tracking of the wheel. With no rebound damping, the wheel may react too quickly to any encountered bump. A low setting is desirable for very rough broken terrain. A higher setting will help the shock react more smoothly where smooth, large gradual compressions are encountered as opposed to smaller repetitive hits. Increased damping will aid in control in high speed situations where a fast rebound of the shock may not coincide with the terrain.

Standard Setting: Ride the bicycle off a curb and the shock should bounce once. If not, adjust damping knobs.

Spring Rate: The amount of force required to deflect a spring a given distance. Usually the amount of force in lbs. to compress the spring one inch.

Sag: Compression of the suspension caused by the riders weight.

Rebound: The extension or return stroke of the shock or fork.

Preload: The amount a spring is compressed on an extended shock or fork.

Compression Stroke: The motion of the shock or fork in response to an impact.

Bottoming Out: When all the suspension travel has been used.

Topping Out: When all the suspension travel is available.

GENERAL MAINTENANCE

1) Do not use high-pressure water sources to wash or rinse your bicycle. High-pressure water will force its way into the pivots and blow away lubricants as well as force contaminants into the mechanism. This can cause premature wear. Instead, use household dish soap and a soft nylon bristled brush to clean your bicycle and use a light spray to rinse. This is the same technique used by our race team mechanics while working on our team members' bikes. Towel dry and re-apply lube where necessary.
2) While we strongly recommend that an Authorized Giant Dealer perform maintenance on the suspension, we realize that you may do some of your own maintenance. If you disassemble the pivots of your Giant bicycle, please note:
   a) Do not use harsh solvents on the pivots. Use soapy water or a citrus based degreaser instead.
   b) Do not use cleaners that contain any type of abrasive no matter how gentle. Wipe the individual components of the pivot clean with a fresh, soft, low lint rag or towel.
   c) Re-apply a small amount of high grade, low viscosity silicon or Teflon based lubricant to the pivot or bushing surface. Do not use a petroleum based lubricant or white lithium grease.
   d) Be extra careful to not get lubricant on the threads of the pivot parts.
3) Components that thread directly into the frameset or other component need to have ***blue*** Loctite™ applied to the threads. It is very important that Loctite™ only be applied to the threads and not contaminate the pivot or bushing surface. Use of any other color Loctite™ besides ***blue*** will void your warranty. These steps will assure you of a smooth working pivot that will not become loose under normal riding conditions.
4) If you have purchased a complete bicycle, it must be assembled by an Authorized Giant Dealer in order for the warranty to be valid. If you purchased a frameset, the dealer must "de-burr" the bottom bracket threads prior assembly to assure proper bottom bracket installation. Giant Bicycle, Inc. is not responsible for damage to the frame due to incorrect assembly.
5) **WARNING: With exception of the Giant DH model bicycles, all Giant bicycles are engineered for single crown forks only. Use of dual crown forks on any Giant bicycle besides the DH models will void the warranty and may result in frame failure, which can cause injury or death. Giant Bicycle, Inc. is not responsible for damages to the bike and rider resulting from the use of dual crown forks.**

XTC NRS

Your new XTC NRS bicycle is the result of collaboration between Giant Bicycle Manufacturing and Renault Sport Formula One suspension engineers.

This frameset is built for **cross country riding**. It is a full suspension mountain bike that sprints and climbs like a hardtail with the control and comfort of a dual suspension.

The NRS or “No Resonance System” requires a “No Sag” set up. This is different than other suspension systems, which incorporate sag. To get the most from your XTC NRS bicycle, please follow the following set-up guidelines.

“No Sag” Setup (See Drawing #1):

1) As a starting point, set the positive air chamber (B) on the rear shock at 10psi over the rider’s riding weight. This is the weight while wearing all your riding gear. (For example, if the rider’s weight is 160 lbs set the shock at 160 psi + 10 psi = 170 psi)
2) To measure the travel, you can position the rubber “O” ring (D) on the shaft of the shock to measure the amount of compression/movement.
3) Set the negative air chamber (A) at 50psi.
4) The rider should be able to sit on the bike at rest without compressing the rear shock. If the rider compresses the suspension, add 10 psi to the positive air chamber (B) and retry setup.
4) Tune rebound damping (C) to personal tastes(see Shock Basics and Terminology).
5) If you have difficulty setting up the suspension, please see your Authorized Giant Dealer for assistance.

Drawing #1

Maintenance (See Drawing #2):

Before every ride, it is important that you inspect the frame pivots and links for any looseness or play.

1) If there is play, make sure that the pivot bolts are tightened to the appropriate torque value (see below).
2) If the pivot bolt is not tightened to the apporpriate torque value, unthread the bolt enough to expose the receiving threads on frameset or linkage.
3) Put one drop of ***blue*** Loctite™ on the exposed receiving threads.
4) Tighten the bolt to the appropriate torque value.
5) Wipe off excess ***blue*** Loctite™ on the back of the threads.
6) If there is still play in the pivot or linkage, please see your Authorized Giant Dealer to have your bike inspected for any needed repairs.

Torque values:

1. Main swingarm pivot (bottom bracket)	= 120-150 Kgf/cm. or 105-130 in-lbs.
2. Chainstay pivot	= 120-150 Kgf/cm or 105-130 in-lbs.
3. Main linkage pivot (seat tube)	= 120-150 Kgf/cm. or 105-130 in-lbs.
4. Seatstay pivot	= 120-150 Kgf/cm. or 105-130 in-lbs
5. Upper shock mount	= 120-150 Kgf/cm. or 105-130 in-lbs.
6. Lower shock mount	= 100-120 Kgf/cm. or 86-105 in-lbs.

Drawing #2

Setup for AC Air (See Drawing #4):

1) For initial setup, set the positive air chamber (B) to the rider's weight set the negative air chamber (A) to the riders weight minus 20 psi. (for example if the rider weight is 150 lbs, set the positive air chamber to 150 psi. and the negative air chamber to 130 psi.). It is important that the positive air chamber is set first. **NOTE: The negative air chamber can never have more air pressure than the positive air chamber. This will result in poor bicycle performance and cause premature wear of the shock.**
2) To measure the travel, you can position the rubber "O" ring (D) on the shaft of the shock to measure the amount of compression/movement.
3) If the shock moves less than 12mm, reduce the air pressure by 10 psi. in the negative air chamber (A) followed by the positive air chamber (B).
4) If the shock moves more than 12mm, increase the air pressure by 10 psi. in the positive air chamber (B) followed by the negative air chamber (A).
5) Tune rebound damping (C) to personal tastes(see Shock Basics and Terminology).
6) If you have difficulty with set-up, please see your Authorized Giant Dealer.

Drawing #4

Giant Bicycle Limited Warranty

Giant Bicycle, Inc. (“Giant”) warrants the steel frame and rigid steel fork of each new Giant-brand bicycle to be free from defects in material and workmanship for as long as the original purchaser owns the bicycle. All Aluminum and Carbon Fiber frames and rigid forks as well as suspension frames are warranted to be free from defects in materials and workmanship for the original owner for a period of 5 years from the date of purchase. All other original components and all Giant brand repair parts, replacement parts and accessories are warranted to be free from defects in material or workmanship for a period of one year from the original date of purchase.

REQUIRED ASSEMBLY WHEN PURCHASED

An Authorized Giant Dealer is required to assemble your Giant brand bicycle, without charge, at the time of purchase.

FREE 60-DAY REPAIR LABOR

If your Giant brand bicycle is found to be defective in materials, workmanship, or assembly within 60 days of purchase, it will be repaired for you without charge for labor or materials. To receive this service, simply bring your Giant brand bicycle to the Authorized Giant Dealer from whom the bicycle was purchased.

LIMITED REMEDY

Unless otherwise provided, the sole remedy under the above warranty or any implied warranty is limited to the replacement of defective parts with those of equal or greater value at the sole discretion of Giant. Unless covered by the free 60-day repair labor period, you will be responsible for labor costs associated with warranty replacements. IN NO EVENT SHALL GIANT BICYCLES, INC. BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR PRODUCT LIABILITY, OR ANY OTHER THEORY, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY DAMAGES, PROPERTY DAMAGE, OR ECONOMIC LOSSES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

EXCLUSIONS

THE ABOVE WARRANTY, OR ANY IMPLIED WARRANTY, DOES NOT COVER NORMAL WEAR AND TEAR, AND ALL WARRANTIES ARE VOID IF THE BICYCLE IS USED FOR OTHER THAN NORMAL ACTIVITIES. INCLUDING, BUT NOT LIMITED TO THE FAILURE TO FOLLOW THE OWNER'S MANUAL OR USING THE BICYCLE FOR COMMERCIAL ACTIVITIES OR IN COMPETITIVE EVENTS, INCLUDING BUT NOT LIMITED TO BICYCLE RACING, BICYCLE MOTORCROSS RACING, STUNT RIDING, RAMP JUMPING OR SIMILAR ACTIVITIES, AND TRAINING FOR SUCH ACTIVITIES OR EVENTS.

GIANT, MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THAT OF THE EXPRESS WARRANTIES STATED ABOVE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WHAT YOU SHOULD DO

Bring your bicycle along with a purchase receipt or other proof of the date of purchase to an Authorized Giant Dealer or write to the Customer Service Department at:

Giant Bicycle, Inc.
3587 Old Conejo Rd.
Newbury Park, CA 91320

Contact Numbers

Giant Bicycle, Inc.	1-800-US-GIANT	www.giant-bicycle.com
Rock Shox	1-800-677-7177	www.rockshox.com
Marzocchi	1-800-227-5579	www.marzocchi.com
Manitou	1-800-423-0273	www.answerproducts.com

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