

Anthem service manual



- Maestro suspension performance. No brake influence, no pedal kick-back, linear rising rate, superb traction, and absolute efficient pedaling.
- Rock-solid lateral rigidity which increase sprinting efficiency and tight cornering stability in racing courses and singletrack.
- The Anthem is built on the basis of our Maestro suspension technology with all the features that meet today's XC racing demand.
 - Aggressive and agile XC racing geometry
 - Lightweight frame design
 - Newly designed rear shock. Works well even when set up with little to no sag without sacrificing the original Maestro suspension performance & characteristics.

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Notice to authorized Giant dealers

The Anthem is a new XC racing bike based on the Maestro suspension system. It inherits the strengths of Maestro suspension technology and is tuned and perfected to yield most efficient XC racing machine. The Anthem is designed to get from start to finish fastest, and take the rider to the podium.

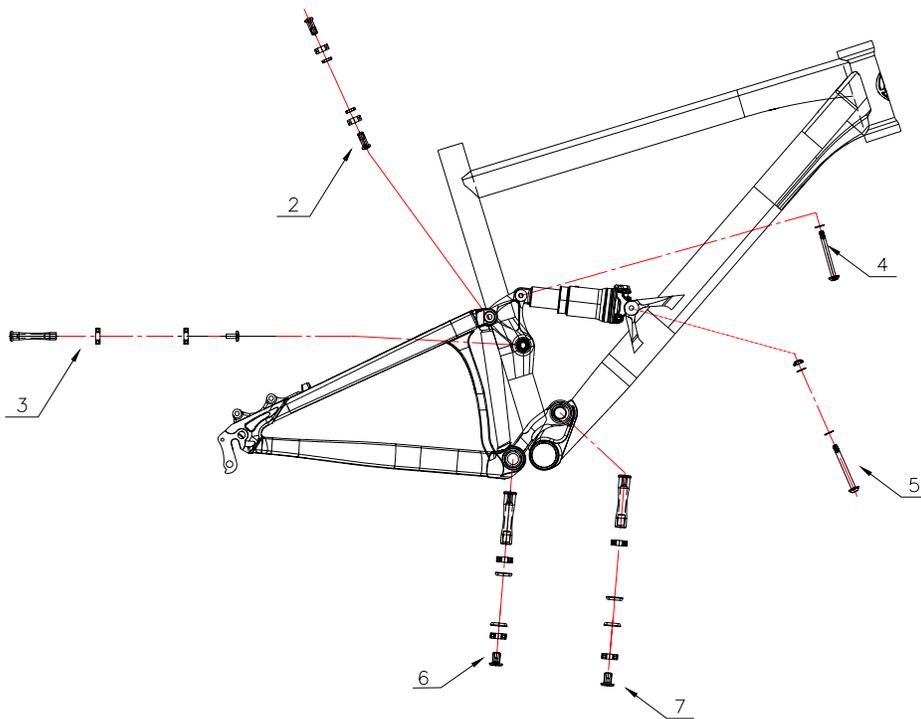
WARNING

Please read this service manual carefully. Improper assembly of the rear shock or malfunction of the shock system can be extremely hazardous, and may lead to an accident causing injury or death.

WARNING

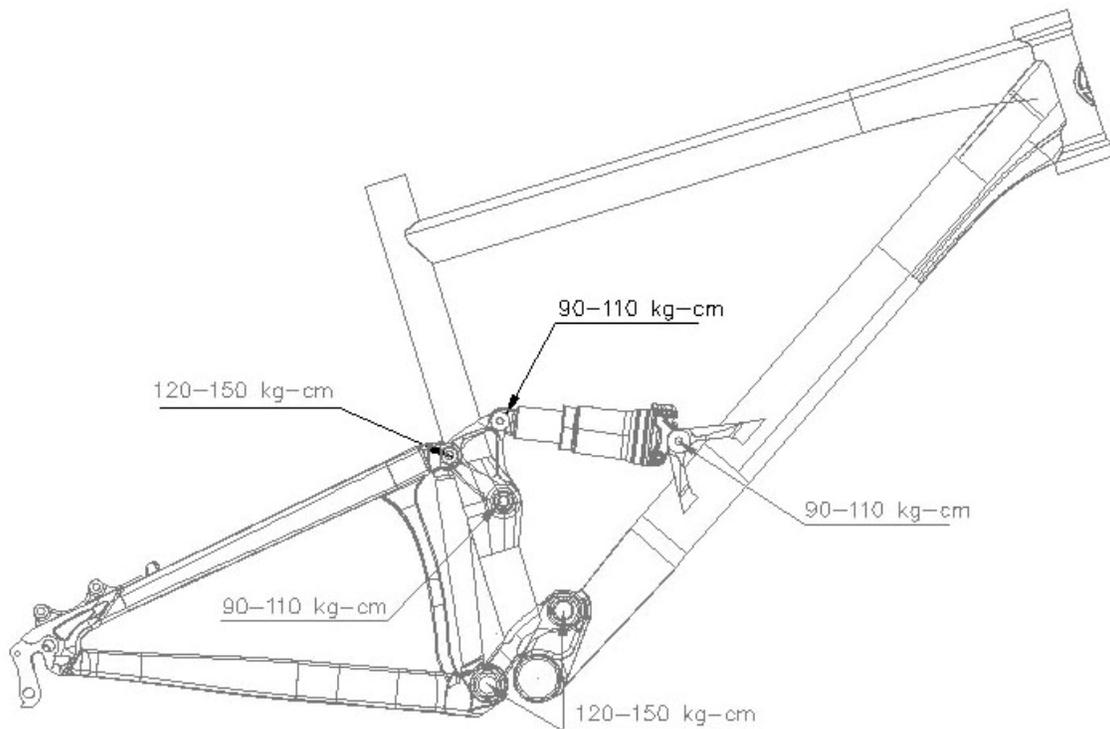
Only Giant Glory™, Faith™, and AC™ model bicycles are engineered for use with dual crown suspension forks. Use of dual crown suspension forks on any Giant bicycle other than these models will void the warranty and can result in frame failure, which may cause injury or death. Giant is not responsible for damage or injury resulting from the improper use of dual crown forks.

Spare parts



Seq#	Articl#	(GSC)/no	Name	Description
0420	12806GU0051A1	12806GU0051A1	LINK BOLTSET	GS804H ROCK ARM BOLT SET(2+3+4)
0430	12806GU0048A4	12806GU0048A4	D.LINK BOLT	GS804H DOWN PIVOT BOLT SET(6+7)
0440	12806GU0041A6	12806GU0041A6	R.FRAME BOLT	GS804H R.FRAME PIVOT PARTS SET(2+6)
0450	12806GU0040A9	12806GU0040A9	SHOCK BOLT	GS804H REAR SHOCK BOLT SET(4+5)

Mounting bolt torque settings



Dual Suspension Quick Start Guide

Basic Terms & Shock Set-Up Overview

TERMS

Bottomed Out: When a shock absorber or suspension fork (herein after referred to as “shock”) is compressed completely and all the suspension travel has been used.

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

Damping: Internal mechanism to control the speed of compression or rebound.

PSI: Pounds per square inch

Rebound: The extension or return stroke of the shock.

Sag: Compression of the shock caused by the rider’s weight.

Spring Rate: The amount of force required to compress the spring.

Topped Out: When shock or fork returns to its fully extended position rapidly and produces an audible “clunk”.

SET-UP

Please refer to the individual shock manufacturer’s technical manuals for specific information on how to adjust the shocks on Giant dual suspension bicycle.

The shocks on Giant dual suspension bicycle can be adjusted to meet riding style and weight. This booklet is intended as a quick-start guide to help get started. It may take a few rides to find your preferred settings.

Platform Valve

On bikes equipped with a Manitou Stable Platform Valve™ (SPV)™ rear shock, you can adjust the bike's pedaling efficiency by increasing the air pressure in the SPV air cartridge. Increasing the air pressure will resist pedal-induced bobbing. Decreasing the air pressure will make the suspension more sensitive to small bump forces. Please refer to the individual shock manufacturer's technical manual for specific information on how to adjust SPV shock.

Sag

All Giant dual suspension bikes rely on sag for their suspensions to work efficiently. Please take a few moments to read through this guide to understand sag as it applies to your bicycle. Setting bike's sag will greatly enhance your riding experience and the performance of bicycle.

Rebound Damping

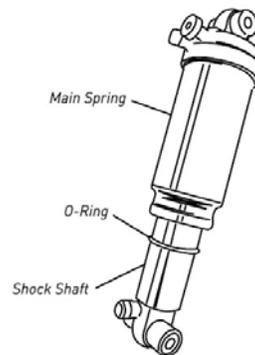
Rebound damping controls the rate of speed at which the shock returns to its original position after responding to a bump force. Rebound damping prevents the shock from returning to its fully extended position too quickly. This is desirable because it improves the rear suspension's sensitivity to small bumps and the tire's ability to stay in contact with the ground. It also helps reduce unwanted motion from the rear suspension when the bike encounters a bump while the rider is seated. Typically, the heavier the rider [and higher the necessary spring rate], the more rebound damping is required. Please refer to this guide for details on how to set rebound damping date. You should also refer to the individual shock manufacturer's technical manual for specific information.

AIR SHOCK SET-UP

Giant cross-country and trail bikes feature an air shock equipped Maestro suspension design. All rely on sag for proper riding performance.

SETTING AND ADJUSTING MAESTRO (ANTHEM) SAG (air shock)

1. Pump the main air chamber to a psi (pounds per square inch) equivalent to rider's body weight .
2. Push the rubber O-ring that is around the shock's shaft all the way against the base of shaft (closest to shock body).
3. Position your bicycle next to a wall so that you can sit on the bike with both feet on the pedals while steadying yourself with one arm. Gently sit on the saddle without bouncing. Dismount gently and look at how far the O-ring has moved down the shaft. Measure distance O-ring has moved.



4. Add or remove air until desired shock movement is obtained. Refer to the Sag Recommendation Guide below for proper sag measurements.

Maestro Sag Recommendations: Anthem: 1/4" (6mm) O-ring movement

SETTING AND ADJUSTING REBOUND DAMPING

1. If you are unfamiliar with rebound damping, perform this procedure: With full body weight, push down on the saddle forcefully to compress the shock. Watch (and feel) how the shock rebounds from compression.
2. Next, turn the rebound damping knob clockwise until it stops and compress the shock under full body weight. Note that the shock rebounds very slowly. Next, turn the damping knob counterclockwise a few turns and re-perform your compression testing until the shock rebounds just slightly more slowly than with no damping.
3. To check the rebound damping rate while riding, ride off a curb while seated. The rear suspension should bounce only once upon rebound (the heavier the rider, the more damping will be required). Adjust accordingly to accomplish this motion. If the suspension bounces more than once, turn the damping knob in the appropriate direction until one bounce is achieved.

FRONT SUSPENSION TRAVEL & SAG GUIDE

To determine bike's front suspension travel adjustments and recommended settings, please refer to the fork manufacturer's technical manual.

A suspension fork is effective at both absorbing bump forces and helping the tire to track the ground for improved traction and braking control.

When in active mode, a fork will rely on sag to keep the front tire in better contact with the ground during braking. The chart should be used as a general guideline.

AIR SPRUNG FORKS

As a general guide, pump the main chamber (main spring) to a psi equal to 70% of your body weight. Ride off a curb or similar object. If there is little or no movement from the fork, decrease psi in 10-psi increments until desired movement is achieved. If the fork bottoms out, increase the psi in 10-psi increments until desired movement is achieved.

To check rebound, turn the rebound damping knob (if applicable) counter clockwise until it stops. With full body weight, push down on the fork forcefully with the front brake on and watch (and feel) how the fork rebounds. Turn the rebound damping knob clockwise until the fork rebounds slightly slower than with no damping (the heavier the rider, the more damping will be required).

SPRING AND ELASTOMER SPRUNG FORKS

Springs on these types of forks are set at the factory. Most have a simple adjuster that allows the rider to make the fork firmer or softer depending on rider weight. The heavier the rider, the firmer the spring setting should be.

SUGGESTED FRONT SUSPENSION SAG GUIDE (ALL TYPES)	
FORK TRAVEL (mm)	SAG* (mm)
75	12-15
80	12-16
100	15-20
120	18-30
145	29-37
170	34-50
180	36-54
200	40-60

*Manitou Forks with SPV may not sag upon initial rider weight. To check sag on an SPV fork, inflate the main spring cartridge to 70% of rider's weight, and the SPV cartridge to 30% of rider's weight (check the manufacturer's technical info for details).

Maintenance

General Maintenance

- Inspect all suspension bolts and tighten if necessary to required torque settings.
- Do not use high-pressure water sources to wash or rinse bicycle. Doing so can displace any lubricants that are present, as well as possibly forcing water and/or contaminants into the bearing that can harm the pivot and bearing, reduce performance, and cause premature wear. Use only low pressure water, or bucket water with a soft nylon bristle brush and mild dish soap to clean the frame and components.
- Always use Loctite™ Primer (#7649) and Loctite™ blue Removable Threadlock (#242) or similar material on thread of fixing bolts of calipers and rotors during re-assembly.

Replacement of rear shock



Steps 1:

Loosen the shock mounting bolt and remove the shock.

Repeat Step 1 in reverse to reassemble the rear shock.

⚠ WARNING

Recommended torque for the shock mounting bolt is 90-110 kgf-cm.

Replacement of rocker arm

Before dismantling the rocker arm:

- Remove the rear shock.



Step 1:
Loosen the bolt and remove the rocker arm.

Repeat Step 1 in reverse to reassemble the rocker arm.

⚠ WARNING

Recommended torque for the rear triangle bolt is 120-150 kgf-cm.

Recommended torque for the rock arm bolt is 90-110 kgf-cm.

Recommended torque for the shock mounting bolt is 90-110 kgf-cm.

Replacement of Rear Triangle

Before dismantling the rear triangle:

- Remove the rear wheel set.
- Remove the crank, chain wheel, chain.
- Remove the rear brake.
- Remove the rear ends, derailleur.



Step 1:
Loosen the rear triangle bolt and remove the rear triangle.

Repeat Step 1 in reverse to reassemble the rear triangle.

⚠ WARNING

Recommended torque for the rear triangle bolt is 120-150 kgf-cm.

Replacement of Joint/clev

Before dismantling the Joint/Clev:

- Remove the crank,
- Remove the chain wheel.



⚠ WARNING

Recommended torque for the rear triangle bolt is 120-150 kgf-cm.

Recommended torque for the Joint/Clev bolt is 120-150 kgf-cm.

Replacement of front frame

Step 1: Remove the rear shock, rocker arm.

Step 2: Remove the rear triangle (follow rear triangle disassembly steps).

Step 3: Remove the saddle, seat post, seat post clamp.

Step 4: Remove the front fork, heat parts, stem

Step 5: Remove the Joint/Clev (follow Joint/Clev disassembly steps).

Troubleshooting

Q1: If the frame pivots and links for any looseness or play

1. Make sure that the pivot bolts are tightened to the appropriate torque value
2. If the pivot bolt is not tightened to the appropriate 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.