Guerrilla Gravity

# MEGATRAIL

Owner's Manual



# **Contents**

- Assembly
  - Frame fittings
  - Fastener torque
- Setup
  - Fork
  - Shock install & orientation, Coil shock?
  - Suspension sag, air volume spacers, and damper settings
- Trail Mode/ Gravity Mode
- Maintenance and Small Parts
- Warranty
- Safety



# Assembly

### Frame Fittings

- Headset: EC49/40 lower, ZS49/28 for tapered steer tube
- BB: Standard 73mm BSA threaded
- Seat post: Ø30.9mm, Clamp: Ø34.9mm, stealth routing compatible
- Rear hub: 12x142
- Rear brake mount: International Standard
- Shock: 200x57, 8x22 front, 8x40 rear hardware



# Assembly – Fastener Torque

#### Main Pivot Axle

- 1. Adjust pre-load on angular contact bearings (8mm hex)
- 2. Then tighten pinch bolt to 5 Nm (45 in-lb) (5mm hex)

#### 2. Rocker Pivot Axle

- 1. Adjust pre-load on angular contact bearings (5mm hex)
- 2. Then tighten pinch bolt to 5 Nm (45 in-lb) (5mm hex)
- 3. Seatstay/Rocker Bolts: 5 Nm (45in-lb) (5mm hex)
- 4. Seatstay/Axle Block Bolts: 5 Nm (45in-lb) (5mm hex)







# Assembly – Fastener Torque

#### Rear Axle

1. Pinch bolt holds axle nut insert and derailleur hanger, to remove rear wheel, only loosen axle head

#### 2. Derailleur Hanger

- 1. The pinch bolt clamps the nut insert and attaches the derailleur hanger
- 2. Tighten pinch bolt to 5 Nm (45 in-lb) (5mm hex)







# Setup – Shock & Fork

- 1. Install Both Shock Bolts Before Tightening, Torque Spec: xxx Nm
- 2. Are Coil Springs Recommended?
  - 1. The Megatrail's leverage curve is optimized for air springs, however, if your riding style and preferences end up using Gravity Mode most/all of the time, a coil sprung shock can be used
- 3. Recommended Fork Sizes:
  - 1. 27.5" Frame: Axle to crown height of 555mm ±5mm; eg Rockshox Pike 27.5 160, MRP Stage @170, most 27.5" 160mm travel forks
  - 2. 26" Frame: Axle to crown height of 545mm ±5mm; eg Rockshox Pike 26 160, MRP Stage @16

mm travel forks





# Gueravita Setup – Sag, Air Volume, Dampers

#### 1. Air Volume Recommendations

- 1. The Megatrail is optimized for mid to high volume air springs, such as the DB Air, DB Inline, Monarch Debonair, etc.
- 2. Bottom out resistance can be tuned with air volume spacers independent of sag, if desired

#### 2. Are Coil Springs Recommended?

1. The Megatrail's leverage curve is optimized for air springs. If you prefer a more coil-like feel in a bike, we recommend the DB Air CS or Monarch Plus Debonair on the Megatrail.

#### 3. Sag Recommendations, See RideGG.com For Additional Detail

- 1. Sag numbers are obtained by measuring the suspension travel used to statically support your weight, geared up to ride.
- 2. To measure sag, set the damper settings relatively soft, sit on the bike in climbing position, with the seatpost at full height, naturally weight the handlebars. This method produces the most usable and repeatable measurements.
- 3. Lightly bounce up and down to break any seal stiction, return to the seated climbing position and push the fork and shock Orings against the shock/fork seals. Lean to the side to dismount without further compressing the suspension.
- 4. Measure the shock/fork travel used to support your weight
- 5. Front sag recommendation: 15% = 24mm on a 160mm travel fork
- 6. Rear sag recommendation: 12-14mm on the Megatrail

#### 4. Damper Settings, See RideGG.com for Additional Detail. A Quick Baseline Can Be Obtained:

- 1. The spring supports your weight, and should be optimized first
- 2. Compression damping then controls dive speed. Insufficient compression damping makes the bike dive too easily under braking and feel unstable in hard cornering. Excessive compression damping diminishes small bump compliance and makes the wheel deflect off obstacles.
- 3. Rebound damping controls how fast the suspension returns from being compressed. In general, the fastest rebound setting that doesn't allow wallowing works best. Rebound damping is a function of spring stiffness, so if spring rate is increased, rebound damping will need to be proportionally increased as well.

#### 5. Tuning

- 1. Suspension settings are iterative and personal for different terrain and rider weights and riding styles
- 2. Baselines are meant to be exactly that. Further tuning is encouraged to refine the ride for you and your terrain. Feel free to ask us for advice: Bikes@RideGG.com



# Trail Mode & Gravity Mode

#### Trail Mode



All mountain geometry with more mid stroke support that provides a very efficient pedaling platform with a slightly taller BB setting. This mode is ideal for sustained climbing, technical climbing, and all-around descending.

More aggressive, DH-inspired geometry and suspension feel, with a softer mid-stroke that is best suited for downhill domination. The pedaling platform is still perfectly adequate for mild climbs, such as fire roads.





# **Super Trail & Super Gravity**

#### Super Trail



The geometry and travel of Trail Mode with an extra stiff mid-stroke and a lot of progression. This mode would be best for long, smooth climbs or pedal sections.

The geometry and travel of Gravity

Mode™ with the leverage curve of Trail

Mode. This mode is designed for going

mach-stupid, carrying speed over the rough

and hitting big jumps.





# Maintenance

#### 1. Every Ride Checklist

- 1. Check for loose bolts. This does not mean to over-tighten the bolts every ride. Check to see if any bolts have loosened, and if so, then retighten them to the torque specs provided in this manual.
- 2. Check the brakes for proper operation
- 3. Check tire pressure
- 4. Clean and lube the chain and drivetrain
- 5. Make sure your headset is tight by holding the front brake and rocking the bike back and forth and feeling for play or slop at the headtube, headset bearing cup junction
- 6. Clean all stanchions, including the fork, shock and dropper post.

#### 2. Every 10 Rides Checklist

- 1. Check to make sure your brake pads have sufficient pad material left, replace if they are close to being worn down to the metal base
- 2. Make sure your tires are safe to ride on. Look for damaged casings, knobs are still in tact, and there is no dry rotting.
- 3. Check chain wear. Bike shops have a tool to measure this, if the wear is beyond 75% of the usable range, replace it.
- 4. Check spoke tension for both wheels. If a spoke is loose, tighten it so that it's tension is uniform with the other spokes.

#### 3. Every 20 Rides Checklist

- 1. Clean frame and check for damage or cracks
- 2. Replace shifter cable and housing
- 3. Check brakes, suspension and dropper seat post for smooth operation and service them if necessary.



# Maintenance

#### 1. Washing Your Megatrail

 Avoid high pressure washing, especially near any bearings or seals. We designed the pivot bearings to be shielded from water spray as much as practical, but gentle washing will produce longer bearing lives. Use a mild soap and water.

#### 2. Small Parts

1. 12x142 Rear axle, derailleur hanger, nut insert and hanger bolt are all standard Syntace parts, available from Guerrilla Gravity or most bike shops





# Bearings

#### 1. Replacement

- 1. The main pivot and rocker pivot have single row angular contact bearings (7901 upper, 7903 lower), and the orientation is critical. When replacing, the black rubber seal must face outwards as shown below. The blue seals all face inwards.
- 2. With all bearing replacement, apply a thin layer of grease to the outer bearing race or bearing bore in the frame before install.
- 3. It is also critical to get the new bearings to go in straight. Don't use a hammer. An arbor press (shown below) is best. A vice is the second best tool. If you don't have either, we recommend having a qualified mechanic/shop do the work.

#### **Black Seals Face Outwards**





#### The Ideal Tool For The Job





# Warranty

#### 1. One-year frame warranty

- 1. For one year, we will repair or replace frame component failures that are the result of defective materials or workmanship
- 2. This is assumed that the failure is the result under normal riding conditions
- 3. This warranty does not cover any components on the bicycle
- 4. This warranty is void if the failure is the result of improper assembly of components or hardware. If you are unsure if components or hardware are improperly assembled, contact a GG representative before riding the bike

#### 2. Eight-year crash replacement

- 1. For the first eight years of the frame's life we will provide an at-cost replacement for the front or rear triangle regardless of the situation under which the failure occurred.
- 2. All bicycle frames have a usable life, especially ones made of aluminum, simply due to the natural aging of the materials

#### 3. A note on component failures

1. We are not responsible for any component failures attached to the bike, but we will help connect you with the proper manufacturer to rectify the issue. We do make an attempt to only provide components we are confident in, but failures do happen.



# Safety

- 1. Mountain biking is an inherently dangerous sport, and the risk is yours to keep yourself safe while riding by wearing the proper protective equipment and riding within your abilities at all times. Guerrilla Gravity is not liable for any injuries you incur while riding and/or crashing.
- 2. If you ride at night, use lights and reflectors.
- 3. If your bike is less than fully assembled when you receive it, take it to a qualified mechanic. If you assemble it yourself, we assume no responsibility for improper construction leading to equipment failure or personal injury. If you're in doubt about who is a qualified mechanic, call us and we'll help you find one in your area.
- 4. Minimum leg length If there is less than one inch between your crotch and the top tube, the bike is too big for you.

  Oops. Let us know if this is the case for you.
- 5. Serial number Each Guerrilla Gravity bike has a serial number on the bottom of the bottom bracket. This number denotes the model, date of fabrication, and manufacturing location. Make a note of this number in your records in case your bike is stolen.