

GIANT MPH BRAKE SYSTEM

USER MANUAL



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1. INTRODUCTION

Congratulations on the purchase of your new GIANT MPH BRAKE SYSTEM.

The MPH BRAKE SYSTEM provides an affordable entry into hydraulic disc braking, operating via a mechanical lever but offering more power than a mechanical disc-brake system.

KEY FEATURES

- Operates a hydraulic disc brake with a mechanical system combined brake/shift lever, or convert an existing mechanical brake setup to a semi-hydraulic system without the need to replace the brake & shift levers.
- Cable-actuated master cylinder blends the simplicity of mechanical disc brakes with the power and smooth feel of a hydraulic system.
- Balanced lever pull allows riders to modulate braking power and speed with more precision and ease.
- Even under heavy use or on long/steep descents, resists fading of braking power.
- Tuned for optimal braking performance in both dry and wet conditions.
- Easily mounts onto a GIANT CONTACT AEROLIGHT stem faceplate creating an integrated outlook.

CAUTION

To ensure the safety, please follow below instructions:

1. This cable-operated hydraulic disc brake is a sealed system that has passed high-pressure testing. Unless specified otherwise, DO NOT loosen any bolts/screws as leakage and/or brake failure may occur as a result.
2. Any sign of leakage of brake fluid is not allowed. If there is any sign of leakage on the hydraulic system, STOP RIDING IMMEDIATELY & return to the local authorized GIANT/LIV dealer for assistance.
3. Before each ride, make sure to confirm the brake system functions properly.
4. Discs and brake pads must never be contaminated by oil or grease, otherwise there is a risk of brake failure. Unless otherwise specified, DO NOT apply any product to the brake system.
5. Brake pads and discs are consumables; therefore, wear and tear are to be expected. Light scratches on the surface of the disc are normal. Check the condition of the disc before each ride. If the disc is deformed or has deep wear marks (thickness < 1.5mm), please replace it with a new disc.
6. After prolonged or strong braking, the surface temperature of the disc will be very high. DO NOT touch it at all to avoid the risk of burns. DO NOT attempt cooling by splashing any liquid on the brake components, unrepairable damage or failures may occur as a result. Before adjusting the brake, always check and confirm

that the brake components have been fully cooled.

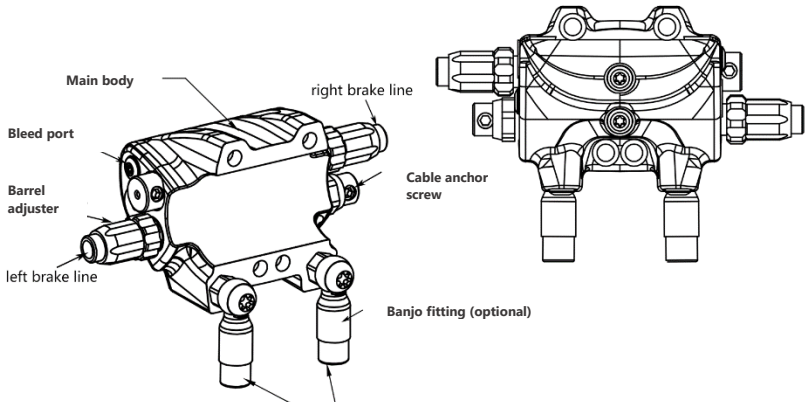
7. Contaminated or worn brake pads should be replaced immediately. The minimum pad thickness is 2.7mm including the back plate.
8. The brake performance inevitably drops under rainy/muddy condition. Noise or squealing may as well be much more pronounced, but it should return to normal state once it dries up.
9. DO NOT adjust, poke, touch the brake disc while it is rotating. This can cause serious injury & should be viewed as hazardous.
10. Constant squealing along with drop of braking power indicates that the pads and disc are contaminated. Consult your local authorized GIANT/LIV dealer for assistance.

2. SPECIFICATIONS & COMPATIBILITY

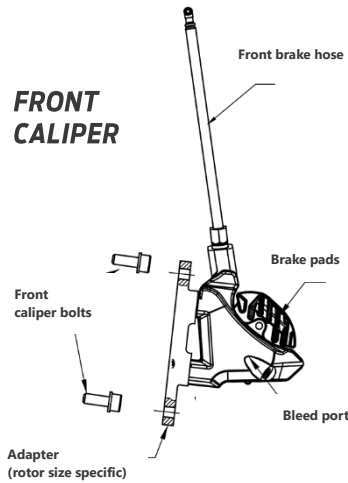
	Compatible stem	GIANT CONTACT AEROLIGHT
Fitment	Compatible handlebar	Road, drop bar with center section 31.8mm diameter
	Caliper mount	Flat mount
Mechanical	Rotor size	140mm, 160mm with respective adapter fitted
	Rotor thickness	1.8mm
	Compatible brake lever	Road, drop bar style brake lever
	Brake cable	Road, ø1.5mm brake cable
	Brake housing	Conventional road ø5mm wound brake housing
	Barrel adjuster	Yes
	Brake pad	Genuine GIANT MPH BRAKE pads
	Min. Brake pad thickness	2.7mm including back plate
Hydraulic	Fluid	SHIMANO Hydraulic Mineral Oil
	Standard fitting	Yes
	Banjo fitting	Optional, only at main body side.

3. PARTS LIST

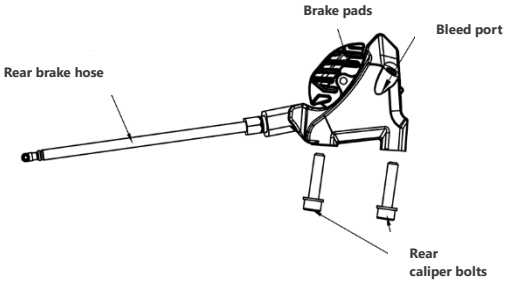
BRAKE MAIN BODY



FRONT CALIPER



REAR CALIPER

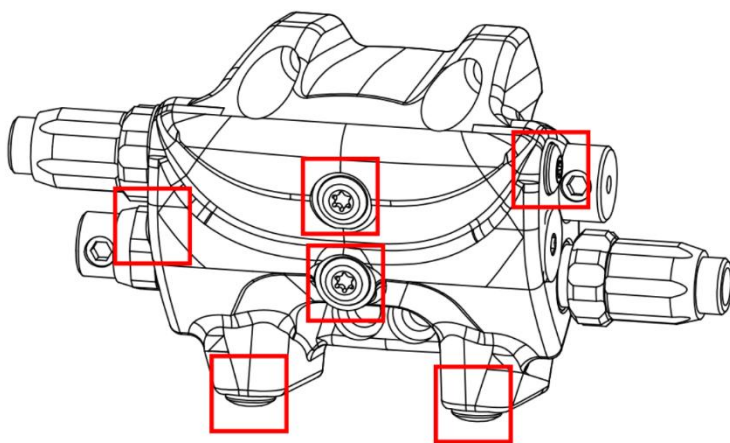


4. IMPORTANT NOTICE

GIANT MPH BRAKE SYSTEM is a cable operated hydraulic system. The main brake body has several unused ports needed in the highly specialized manufacturing process. These unused ports are covered by special screws to ensure they meet proper sealing requirements. Below image highlights these unused ports & the special screws used to seal them.

DO NOT ATTEMPT TO LOOSEN, TIGHTEN, ADJUST THESE SCREWS BY ALL MEANS.

If any leak, corrosion, or damaged part is found, stop riding immediately and consult your local authorized GIANT/LIV dealer.



⚠WARNING

Fail to comply with above notice may result in abrupt brake failure.

5. OPERATION

⚠WARNING

Insufficient brake power compromises both riding quality and safety. You should ascertain that **BOTH** brakes are in working order at all time.

Before each ride, please always test the operation of the brakes.

- Pull the brake and feel the lever action. The brake feel should be responsive and solid with swift action.
- While standing over the bike top tube, pull the brakes firmly and push the bike forward. The bike should stay in place. If the bike still advances, the brake power is too low.

📖 NOTE

- If you are not confident with the brake performance, consult your local authorized GIANT/LIV dealer.

6. MAINTENANCE

It is always good practice to inspect your brake system after a ride. Use a damp cloth to wipe off any dirt or sweat on the main brake body. Do not use any product on the brake main body, hose, caliper, brake pads and discs.

Given the nature of brake fluid, its quality degrades over time & use, MPH brake system requires periodical maintenance to ensure prolonged performance.

The suggested interval of brake fluid replacement is 1 year of riding.

Brake fluid replacement requires proper skill set and experience. Consult authorized GIANT/Liv dealer for service.

Action	Post each ride	1 year of riding
Clean, inspect	✓	
Brake fluid replacement		✓ Consult authorized GIANT/Liv dealer

7. BRAKE PADS REPLACEMENT

NOTE

For long trips or events like Grand Fondo, it's always a good idea to bring a spare set of brake pads. This section covers the proper replacement procedures. Please consider your own skill level. And most importantly, perform the task in a safe environment. When performing field repairs/maintenance, always follow local laws & do not interfere with traffic. Find a safe/clean location & pay attention to your surroundings.

Parts and Tools required are:

1x genuine MPH brake pads

1x long-nose pliers

1x Vernier caliper

1x plastic tire lever

1. Remove the wheel.

2. Bend the tail of safety pin straight, then remove it from the caliper. Fig. A

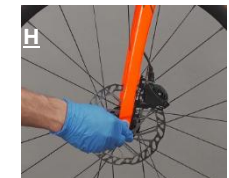
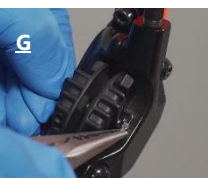
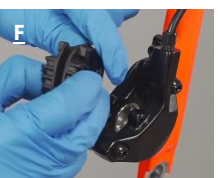
3. Remove the brakes pads. Fig. B

4. For periodical inspection. Use a Vernier caliper to measure pad thickness. Minimum is 2.7mm including back plate. Fig. C

5. Use a plastic tire lever to gently push the pistons back into the caliper. Fig. D

CAUTION

If the piston is stubborn, do not use excessive force to push the piston back into the caliper. Do not press the brake lever with pads removed. Consult your local authorized GIANT/LIV dealer if any difficulty.



6. Identify the correct orientation of the brake pads. Place spreader spring in between the brake pads before placing the set in between the caliper opening, from atop. Fig. E & F
7. Insert a new safety pin and bend the tail 90 degrees. Fig. G
8. Re-insert the wheel in the bike, pay attention to place it correctly on its mounting interface. Insert & tighten the axle or skewer to torque. Fig. H
9. Pull the brake a few times to set-in new brake pads. Test ride in a safe environment.

CAUTION

- Once new brake pads are fitted, the lever pull may appear much longer/deeper than before. This is due to the design of the brake calipers & this sensation should be gone after a few lever pulls. Under normal circumstances, it is never needed to adjust the cable throw of the brake levers after brake pad replacement. If the sensation persists, contact your local authorized GIANT/LIV dealer.
- When new brake pads and/or rotor is fitted, braking force may not be optimized in the first couple rides. Perform a bed-in operation in a safe environment.
- To proper bed-in a new brake, find a safe environment and ride the bike at cruising speed, then apply the brake firmly, but not so aggressively that the tire starts skidding. Pay attention to not lock up the front wheel while attempting this procedure, avoiding a potential accident. The brake force should increase noticeably after a few attempts.

8. GIANT LIMITED WARRANTY

Giant guarantees the GIANT MPH BRAKE SYSTEM for a period of two (2) years from the date of purchase for the original owner only.

REQUIRED ASSEMBLY WHEN PURCHASED

This warranty applies only to this product when purchased new from an Authorized Giant or Liv Dealer and assembled by that dealer at the time of purchase.

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. This warranty extends from the date of purchase, applies only to the original owner, and is not transferable. In no event shall Giant be responsible for any direct, incidental or consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, product liability, or any other theory.

EXCLUSIONS

The above warranty, or any implied warranty, does not cover:

- Normal wear and tear on parts in situations where there are no assembly or material defects.
- Products serviced by other than an authorized Giant dealer.
- Modifications of the product from its original condition.
- Use of this product for abnormal, competition and/or commercial activities or for purposes other than those for which this product was designed.
- Damage caused by failing to follow the instructions in this manual..
- Paint, finish and decal damage resulting from taking part in competitions, manual... downhill and/or training for such activities or events or as a result of exposing the product to, or operating the product in, severe conditions or climates.
- Labor charges for part replacement or changeover.

Except as is provided by this warranty and subject to all additional warranties, Giant and its employees and agents shall not be liable for any loss or damage whatsoever (including incidental and consequential loss or damage caused by negligence or default) arising from or concerning any Giant product.

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.

Any claim against this warranty must be made through an Authorized Giant Dealer or distributor. The purchase receipt or other proof of the date of purchase is required before a warranty claim may be processed. Claims made outside the country of purchase may be subject to fees and additional restrictions. Warranty duration and details may differ by country. This warranty gives you specific legal rights, and you may also have other rights which may vary from place to place. THIS WARRANTY DOES NOT AFFECT YOUR STATUTORY RIGHTS.

SERVICE CENTERS

To find a Giant retailer near you, please visit: www.giant-bicycles.com