



BRAKE ROTOR

INSTALLATION INSTRUCTIONS

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Thank you for choosing to use Radic's brake rotors!

This manual will give you the necessary information to complete the initial installation & routine maintenance of your Radic brake rotors.

We welcome any feedback you have about the installation, maintenance and operation of your Radic brake rotors, so please don't hesitate to let us know! We are always looking for ways to improve our products and services.

As we receive feedback and answer questions, we like to add the frequently asked ones to this document. This means this document is continuously evolving with common updates. Be sure to check back in the future for any updates.

If you have any issues, concerns or questions, please email technical@radicperformance.com

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⚠ WARNING

Please read through the entirety of the instructions before beginning any installation or service work on your Radic brake rotors.



Wear gloves at all times.

SAFETY INSTRUCTIONS

1. Follow the safety instructions listed here. Any failure to follow these safety instructions could cause you to crash while riding your bicycle, which could result in serious and/or fatal injuries.
2. We recommend you have your brakes installed, secured, and maintained by a qualified bicycle mechanic. Follow the instructions in the user manual for proper installation.
3. Brakes are a safety-critical component of a bicycle. Improper installation or use of brakes can result in loss of control of the bicycle which can lead to a crash that can cause severe injury and/or death.
4. Disc brakes offer increased stopping power over rim brakes and take less effort to lock up a wheel when braking. Wheel lockup may cause you to lose control and lead to injury. Practice braking techniques on a flat, level, surface prior to aggressive riding.
5. Braking effectiveness is dependent on many conditions over which RADIC has no control including: bicycle speed, braking force, condition of the bike, the weight of the rider, weather, terrain, and a variety of other factors. Always ride under control. It takes longer to stop in wet conditions. To reduce the possibility of a crash avoid locking up your wheels.
6. RADIC levers & calipers are designed as a system. Do not use brake components from another manufacturer other than RADIC.
7. Use the designated fluid for the seals you have chosen to run. Either DOT 5.1 or Mineral Oil fluids with RADIC hydraulic brakes. Do not use any other fluid, or alternate between fluids with changing the seals, as it will damage the system and render the brakes unsafe to use.
8. Do not allow any brake fluid to make contact with the brake pads. If this occurs, the pads are considered to be contaminated and must be replaced.
9. Do not allow any brake fluid to make contact with the rotors. If this occurs, clean the rotors with isopropyl alcohol. Do not touch the braking surface of the rotor with your bare hands as the oils from your fingers will degrade braking performance. Always wear gloves or handle the rotor by the spokes.

10. Do not touch the disc brake rotors or calipers immediately after use as they become very hot during use and could cause burns. Instead, allow the brakes to cool prior to making any adjustments.

INSTALLATION

Before installation check that your frame or fork supports the diameter and thickness disc rotor that you wish to install. Also, check that you have the appropriate brake mount and spacer to support the rotor diameter.

It is also recommended to replace the brake pads when replacing the brake rotor. This way any abnormal wear pattern or contamination on the brake pads is not transferred to the new rotor.

STEPS

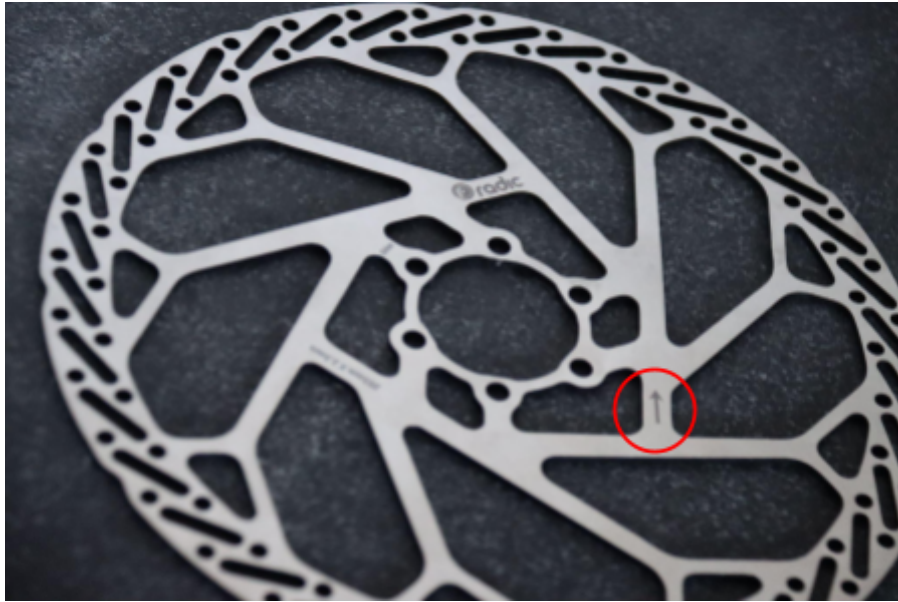
1. Remove the old brake rotor from the wheel by undoing the 6 mounting bolts.



2. Ensure the hub mounting surface and threads are clean and debris-free. If dirty, clean using Isopropyl Alcohol (IPA) or dish soap and warm water. It is best to apply IPA or soapy water to a clean cloth or lint-free shop towel then wipe down the mounting face. Do not spray IPA directly onto the hub mounting face as IPA may work its way into the bearings etc.



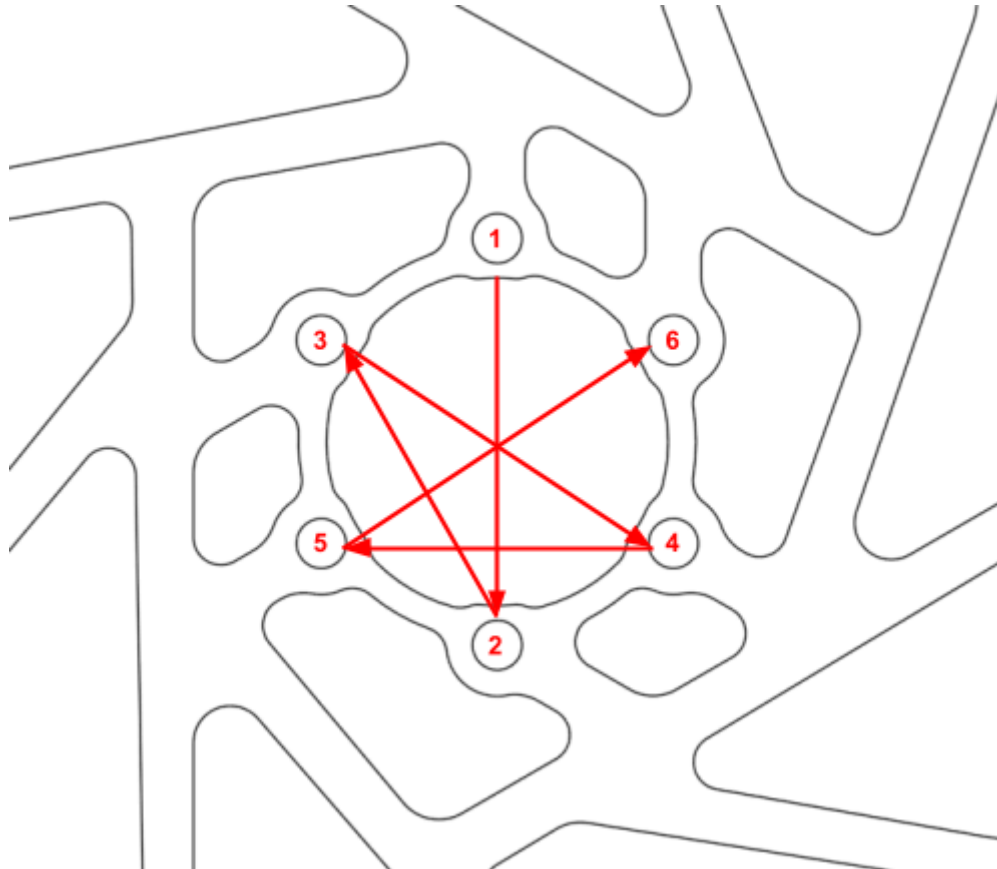
3. Ensure the disc rotor mounting face is also clean and free from contaminants. Use IPA to wipe any finger marks and potential oil from hands off the brake rotor track.
4. Mount the rotor with the direction arrow facing the same orientation as the wheel will rotate.



5. Install the mounting bolts with medium-strength Loctite, tightening firmly by hand.



- Using a torque wrench, tighten each of the mounting bolts between 6-8Nm, in the following order. Repeat this 1 more time to ensure all bolts are torqued correctly.



- Clean the brake track with IPA to remove any potential oil or Loctite that may contaminate the braking surface.
- It is recommended to install fresh brake pads in the caliper at this stage, if heavily worn and possible to do so.
- Reinstall the wheel on the bike.
- Check the free running clearance of the rotor. Specifically check clearance with the frame, fork, brake mount and brake caliper.
- Bed in the brake pads & rotors if not already completed. (*See the "Bedding In" section*).

MAINTENANCE

Regular checks should be carried out to ensure the rotor remains to be in usable condition. The following checks are to be performed regularly:

1. Rotor mounting bolts remain at 6-8Nm to ensure they have not vibrated loose from aggressive braking events. Reapply medium-strength Loctite if necessary.
2. Rotor remains to run true. I.e. the rotor is not bent and the total indicator runout is not more than 0.4mm.
3. Cleanliness of the rotor. Over time, brake dust and various contaminants build up on the rotor. It is best to regularly, and thoroughly clean the rotor to ensure optimal braking performance. After doing so, bed in the brakes again.
4. The minimum thickness of the Heavy Duty 2.3mm rotors is 1.9mm.

CLEANING

Before installing the brakes, ensure the brake rotors are clean from any oils or potential contaminants that could damage the brake pads. If the brake pads have become contaminated, replace them.

(Some contaminants can't be seen and aren't obvious to visually identify, therefore, it is always best practice to wipe the rotors down anyway.)

To clean the rotor:

1. Use isopropyl alcohol (IPA) and a lint-free shop towel.
2. Thoroughly wipe the rotor until the towel wipes clean.
3. Follow the bedding in procedure to re-deposit the transfer layer to the brake rotor.
(Ensure this step is completed otherwise, there may be an initial 'lack of power' feeling.)

General washing shall be completed with soapy water, followed by rinsing with non-soapy water.

DO NOT USE 'AUTOMOTIVE BRAKE CLEANER' ON ANY PART OF THE BRAKING SYSTEM!!!

Automotive brake cleaner is very aggressive and generally leaves a residue that is not able to be burnt off in general bicycle braking events. This will generally end up contaminating the brake pads and rotor requiring replacement.

BEDDING IN

ABOUT

All new disc brake pads and rotors should be put through a wear-in process called 'bed-in'. The bed-in process, which should be performed prior to your first ride, ensures the most consistent and powerful braking feel along with the quietest braking in most riding conditions. The bed-in process heats up the brake pads and rotors, which deposits an even layer of brake pad material (transfer layer) to the braking surface of the rotor. This transfer layer optimizes braking performance.

 **WARNING - CRASH HAZARD**

The bed-in process requires you to perform heavy braking. You must be familiar with the power and operation of disc brakes. Braking heavily when not familiar with the power and operation of disc brakes could cause you to crash, which could lead to serious injury and/or death. If you are unfamiliar with the power and operation of disc brakes, you should have the bed-in process performed by a qualified bicycle mechanic. To safely achieve optimal results, remain seated on the bike during the entire bed-in procedure.

Wear the appropriate safety equipment while completing the bedding-in process.

Do not lock up the wheels at any point during the bedding-in process.

STEPS

1. Accelerate the bike to a moderate speed, then firmly apply the brakes until you are at walking speed. Repeat this approximately twenty times.
2. Accelerate the bike to a faster speed, then very firmly apply the brakes until you are at walking speed. Repeat this approximately ten times.
3. Allow the brakes to cool prior to any additional riding or servicing.
4. After bedding-in the caliper may need to be re-centered.

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