

# Hydraulic Disc Brake (for Downhill/Freeride)



User's manuals in other languages are available at :  
<http://si.shimano.com>

## IMPORTANT NOTICE

- Contact the place of purchase or a bicycle dealer for information on installation and adjustment of the products which are not found in the user's manual. A dealer's manual for professional and experienced bicycle mechanics is available on our website (<http://si.shimano.com>).
- Do not disassemble or alter this product.

**For safety, be sure to read this user's manual thoroughly before use, and follow them for correct use.**

## Important Safety Information

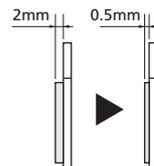
Guidelines that require replacement, contact the place of purchase or a bicycle dealer.

### WARNING

- Downhill bicycle riding and freeriding are inherently dangerous activities. There is a risk of being involved in an accident that can result in a serious injury or even death. It is strongly recommended that riders wear protective head and body gear and perform thorough safety checks of their bicycles before riding. Please remember that you are riding at your own risk and that you have to consider your experience and your skills very carefully.
- The brake system is designed for downhill bicycle riding and freeriding, and its braking performance is much higher than for other brakes. Riders must become accustomed to the higher performance of this brake in a controlled environment before riding the bicycle as described above. If you do not familiarize yourself with the performance level of this brake, you may be involved in an accident that could result in serious injury or even death. Furthermore, the performance of the brakes makes them unsuitable for riding on city streets. If riding the bicycle on streets is unavoidable, take extreme care while doing so.
- The 203 mm and 180 mm rotors provide a higher braking force than the 160 mm rotors. Make sure that you have a complete feel for the braking characteristics before using the brakes.
- Please use extra caution to keep your fingers away from the rotating disc brake rotor. The rotor is sharp enough to inflict severe injury to your fingers if caught within the openings of moving rotor.



- The calipers and rotor will become hot when the brakes are operated, so do not touch them while riding or immediately after dismounting from the bicycle, otherwise you may get burned.
- Be careful not to allow any oil or grease to get onto the rotor and brake pads, otherwise the brakes may not work correctly.
- If any oil or grease does get on the pads, you should consult a dealer or an agency. There is the danger that the brakes may not work correctly.
- If noise occurs during brake operation, the pads may have been worn down to the usable limit. Check that the brake system temperature has been cooled down sufficiently, and then check that the thickness of each pad is 0.5 mm or more. Or, consult a dealer or an agency.



- If the rotor is cracked or deformed, immediately stop using the brakes and consult a dealer or an agency.
- If the rotor becomes worn down to a thickness of 1.5 mm, immediately stop using the brakes and consult a dealer or an agency. The rotor may break, and you may fall off the bicycle. For an Ice-Technologies rotor, if the aluminum surface becomes visible, immediately stop using the brakes as well.
- Vapor lock may occur if the brakes are applied continuously. To relieve this condition, momentarily release the lever.

Vapor lock is a phenomenon in which the oil inside the brake system becomes heated, which causes any water or air bubbles inside the brake system to expand. This can then result in a sudden increase in the brake lever stroke.

- The disc brake is not designed to work with the bicycle upside down. If the bicycle is turned upside down or on its side, the brake may not work correctly, and a serious accident could occur. Before riding the bicycle, be sure to operate the brake lever a few times to check that the brakes operate normally. If the brakes do not operate normally, stop using the brakes and consult a dealer or an agency.
- If you feel no resistance when depressing the brake lever, immediately stop using the brakes and consult a dealer or an agency.
- If fluid leaks occur, immediately stop using the brakes and consult a dealer or an agency.
- It is important to completely understand the operation of your bicycle's brake system. Improper use of your bicycle's brake system may result in a loss of control or a fall, which could lead to severe injury. Because each bicycle may handle differently, be sure to learn the proper braking technique (including brake lever pressure and bicycle control characteristics) and operation of your bicycle. This can be done by consulting your professional bicycle dealer and the bicycle's owners manual, and by practicing your riding and braking technique.
- If the front brake is applied too strongly, the wheel may lock and the bicycle may fall forward, and serious injury may result.
- Always make sure that the front and rear brakes are working correctly before you ride the bicycle.
- The required braking distance will be longer during wet weather. Reduce your speed and apply the brakes early and gently.
- If the road surface is wet, the tires will skid more easily. If the tires skid, you may fall off the bicycle. To avoid this, reduce your speed and apply the brakes early and gently.
- After reading the user's manual carefully, keep it in a safe place for later reference.

### CAUTION

#### ■ Cautions on the mineral oil

- Contact with eyes may result in irritation. In the event of eye contact, flush with fresh water and seek medical assistance immediately.
- Contact with skin may cause a rash and discomfort. In the event of skin contact, wash well with soap and water.
- Inhalation of mineral oil mist or vapors may cause nausea. Cover nose and mouth with a respirator type mask and use in a well ventilated area. If mineral oil mist or vapor is inhaled, go immediately to an area with fresh air. Cover up with a blanket. Stay warm and stable and seek professional medical advice.

#### ■ Burn-in period

- Disc brakes have a burn-in period, and the braking force will gradually increase as the burn-in period progresses. Make sure that you are aware of any such increases in braking force when using the brakes during the burn-in period. The same thing will happen when the brake pads or rotor are replaced.

### Note

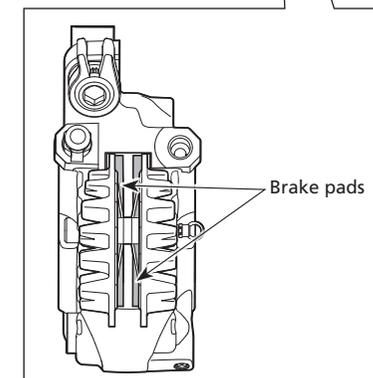
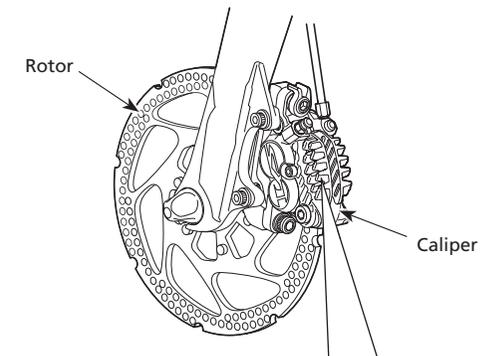
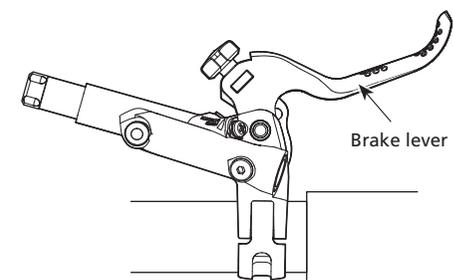
- When the bicycle wheel has been removed, it is recommended that pad spacers should be installed. Do not depress the brake lever while the wheel is removed. If the brake lever is depressed without the pad spacers installed, the pistons will protrude further than is normal. If that happens, consult a dealer.
- Use soapy water or a dry cloth when carrying out cleaning and maintenance of the brake system. Do not use commercially-available brake cleansers or silencing agents, as they can cause damage to parts such as seals.
- This product is not warranted against damage resulting from use such as jumping while riding or if the bicycle falls over, except if such malfunctions result from non conforming materials or manufacturing methods.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

## Regular inspections before riding the bicycle

Before riding the bicycle, check the following items. If any problems are found with the following items, contact the place of purchase or a bicycle dealer.

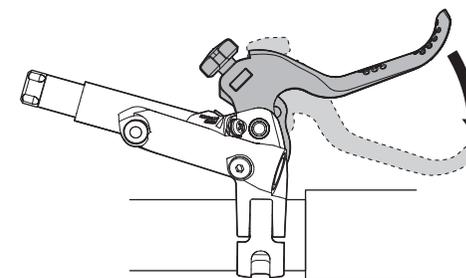
- Is the brake oil leaking?
- Do the front and rear brakes work correctly?
- Does each pad have a thickness of 0.5 mm or more?
- Is the rotor cracked or deformed?
- Are there any abnormal noises?

## Names of parts



## Operation

This product is equipped with a reach adjustment function. If you feel that the brake lever is far and difficult to use, consult a dealer or an agency.



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Please note: specifications are subject to change for improvement without notice.  
(English)

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