General Safety Information

**WARNING**

Please use caution to keep your fingers away from the rotating disc brake rotor during installing or servicing the wheel. The rotor is sharp enough to inflict severe injury to your fingers if caught within the openings of moving rotor.

- Adjust the inner cable so that the protruding length is less than 20 mm (3/4 inch). If the protruding length is any longer, the end of the inner cable may become stuck in the rotor, which could cause the wheel to lock and the bicycle could fall forward causing serious injuries.
- The calipers and rotor will become hot when the brakes are operated, so do not touch them while riding or immediately after disconnecting from the bicycle, otherwise you may get burned. Check that the brake components have cooled down sufficiently before attempting to adjust the brakes.
- Always make sure that the front and rear brakes are working correctly before you ride the bicycle.
- Before riding the bicycle, check that the thickness of each pad is 0.5 mm or more.
- 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 gets on the rotor, you should clean the rotor. If this is not done, the brakes may not work correctly.
- Check the brake lever for rust and fraying, and replace the cable immediately if any such condition is observed. If this is not done, the brakes may not work correctly.
- 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.
- Check that the quick release lever is on the right side of the rotor (the opposite side to the rotor). If the quick release lever is on the same side as the rotor, there is the danger that it may interfere with the rotor, so check that it does not interfere.
- 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 an accident, 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 owner's manual, and by practicing your riding technique.
- If the front brake is applied too strongly, the wheel may lock and the bicycle may fall forward, and serious injury may result.
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- The RS0 disc brakes are designed for optimum performance when used in combination with the BR-RS00 (calipers), BR-RT920 (brake lever), SM-RT85, SM-RT822 (brake) and Shimano pad unit (M06). Use 2.5 finger levers for carri brake shoes such as the BL-R770 or ST-57A levers such as the ST-6600 for road bikes as the brake levers. Do not use in combination with V-BRAKE brake levers. If used in combination with V-BRAKE brake levers, it is possible to obtain sufficient braking force. If using in combination with 4-finger levers such as the BL-T040/ST-T400, the braking force will be higher.
- Accordingly, under some conditions such as certain riding positions or overall weight, the bicycle may fall over and injury may result if proper care is not taken.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn or damaged parts may cause the bicycle to fall over and serious injury may occur as a result. We strongly recommend only using genuine Shimano replacement parts.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

**CAUTION**

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**

- If the brake caliper mounting boss and the dropouts are not parallel, the rotor and caliper may not align. If this occurs check with a 0.5 mm feeler gauge whether or not the mounting is parallel.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

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**Installation**

**Wheel spoke lacing**

Check that the spokes have been laced as shown in the illustration. A radial lacing pattern is used.

Lace the spokes as shown in Figure 1 below for the left side of the front wheel (the side where the rotor is installed), and the left and right sides of the rear wheel, and as shown in Figure 2 below for the right side of the front wheel.

1. Adjust the inner cable so that the protruding length is less than 20 mm (3/4 inch). If the protruding length is any longer, the end of the inner cable may become stuck in the rotor, which could cause the wheel to lock and the bicycle could fall forward causing serious injuries.

2. 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.

3. Adjust the calipers so that the protruding length is less than 20 mm (3/4 inch). If the protruding length is any longer, the end of the calipers may become stuck in the rotor, which could cause the wheel to lock and the bicycle could fall forward causing serious injuries.

4. Adjusting when the pads are worn

Use a 3 mm Allen key to tighten the pad adjustment screw on the calipers so that clearances (A) and (B) are 0.2 – 0.4 mm.

5. Installing the calipers

1. Install the bicycle wheel. Loosen the caliper fixing bolts, and then install the calipers to the frame so that the calipers are set at the left and right side of the bicycle.

2. While wearing protective gloves, apply pressure to the adapter in the counterclockwise direction while tightening the caliper clamp bolt.

3. Securing the cable

Pass the inner cable through the cable adjusting bolt, and then tighten the caliper fixing bolt.

4. While depressing the brake lever, set the calipers to the required position and then tighten the caliper fixing bolts.

5. Loosen the pad adjustment screw by two clicks.

6. Depress the brake lever about 10 times until it touches the grip, and check that there are no problems with any components, and also that the rotors and the pads do not interfere with each other when the wheel is rotated.

7. Turn the cable adjusting bolt to take up any slack in the cable.

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**Replacing the brake pads**

If the brake pads are worn down to a thickness of 0.5 mm, replace the brake pads.

1. Remove the bicycle wheel from the frame, and then remove the brake pads as shown in the illustration.

2. Loosen the pad adjusting screw, and turn the cable adjusting bolts at the caliper body clockwise to loosen them.

3. Install the new brake pads. Be careful not to forget to install the snap ring at this time.

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**Technical Service Instructions**

Disc Brake System (For road bikes)

In order to realize the best performance, we recommend that the following combination be used.

- **Caliper**
  - BR-RS05
- **Brake Lever**
  - BL-R770 / ST-6600 / ST-5600
- **Brake pad unit (Metal Pads)**
  - SM-RT85, SM-RT822
- **Brake cable**
  - M06

**Please install QR in the following order**

1. Secure the assembly with the installation nut on the outside of the bracket. Pull the brake cable over and use a 3.5 mm Allen key to tighten the bolt.

2. Install the new brake pads. Be careful not to forget to install the snap ring at this time.

3. Adjusting when the pads are worn

Use a 3 mm Allen key to tighten the pad adjustment screw on the calipers so that clearances (A) and (B) are 0.2 – 0.4 mm. Use a 3 mm Allen key to tighten the pad adjustment screw on the calipers so that clearances (A) and (B) are 0.2 – 0.4 mm. Use a 3 mm Allen key to tighten the pad adjustment screw on the calipers so that clearances (A) and (B) are 0.2 – 0.4 mm.

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2. Loosen the pad adjusting screw, and turn the cable adjusting bolts at the caliper body clockwise to loosen them.

3. Install the new brake pads. Be careful not to forget to install the snap ring at this time.

4. After checking that the brake pad and the rotor are not touching each other, check that there are no problems when the brake lever is rotated.

The service instruction explains how to use and maintain the Shimano bicycle parts which have been used on your new bicycle. For any questions regarding your bicycle or other matters which are not related to Shimano parts, please contact the place of purchase or the bicycle manufacturer.

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* Service instructions in additional languages are available at:

http://techdocs.shimano.com

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