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SHIMANO BR-4700

Shimano Tiagra BR-4700 Front Brake Caliper Instruction Manual

Model: BR-4700 | Brand: SHIMANO

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Shimano Tiagra BR-4700 Front Brake Caliper. Designed for road bicycles, this component offers precise and reliable braking performance. Adhering to these guidelines will ensure optimal function and longevity of your brake caliper.

PRODUCT OVERVIEW

The Shimano Tiagra BR-4700 Front Brake Caliper is engineered for road cycling, featuring a robust and lightweight design. Key characteristics include:

- Construction:** Advanced lightweight aluminum with a durable anodized finish for corrosion resistance.
- Braking Technology:** Super SLR dual pivot mechanism minimizes friction for smooth and efficient braking.
- Compatibility:** Features a 49 mm drop and mid-reach caliper mounting (47mm-57mm), suitable for various road bike frames and fork setups.
- Lever Actuation:** Optimized for short pull brake levers, providing enhanced braking power and control.
- Design:** Sleek gray finish with refined proportions, integrating modern aesthetics with technical functionality.



Figure 1: Shimano Tiagra BR-4700 Front Brake Caliper. This image displays the gray aluminum construction, dual-pivot design, and integrated R50T5 brake pads.

SETUP AND INSTALLATION

Proper installation is crucial for safe and effective braking. If you are unsure about any step, consult a professional bicycle mechanic.

- 1. Prepare the Fork:** Ensure the front fork's brake mounting hole is clean and free of debris.
- 2. Mount the Caliper:** Insert the caliper's mounting bolt through the fork crown. Secure it with the appropriate nut and washer from the backside of the fork. Ensure the caliper is centered over the wheel rim. The BR-4700 uses a mid-reach mount with a 49mm drop.
- 3. Attach Brake Cable:** Route the brake cable from your short-pull brake lever through the caliper's cable

guide and secure it with the cable fixing bolt. Ensure there is no slack in the cable when the brake is disengaged.

4. **Adjust Brake Pads:** Position the R50T5 brake pads so they are parallel to the rim surface and make full contact when the brake is applied. Ensure the pads do not touch the tire. Tighten the pad fixing bolts securely.
5. **Final Adjustments:** Squeeze the brake lever several times to seat the cable and pads. Check for proper lever feel and ensure both pads engage the rim simultaneously and evenly. Adjust cable tension as needed using the barrel adjuster on the caliper or lever.

OPERATION

The Shimano Tiagra BR-4700 brake caliper is designed for responsive and controlled stopping. To operate:

- **Brake Application:** Gently squeeze the brake lever on your handlebars. The Super SLR dual pivot mechanism will engage the brake pads against the wheel rim, initiating deceleration.
- **Modulation:** Apply pressure gradually to control braking force. Avoid sudden, hard braking, especially in wet conditions, to prevent skidding.
- **Braking Power:** This caliper provides increased braking power. Familiarize yourself with its response in a safe environment before riding in traffic or at high speeds.

MAINTENANCE

Regular maintenance ensures consistent performance and extends the lifespan of your brake caliper.

- **Cleaning:** Periodically clean the caliper body, brake pads, and rim braking surfaces with a mild detergent and water. Remove any grit or road grime.
- **Brake Pad Inspection:** Inspect brake pads for wear indicators. Replace pads when they are worn down to the wear line or if they become hardened or contaminated. The one-piece pad design simplifies replacement.
- **Cable Inspection:** Check the brake cable for fraying, corrosion, or kinks. Replace damaged cables promptly. Ensure the cable moves freely within its housing.
- **Pivot Points:** Apply a small amount of light grease to the caliper's pivot points to ensure smooth operation. Avoid getting grease on brake pads or rim surfaces.
- **Bolt Torque:** Periodically check all mounting and fixing bolts for proper torque. Refer to Shimano's official technical documents for specific torque values.

TROUBLESHOOTING

Address common issues with your brake caliper using the following guide:

Problem	Possible Cause	Solution
Weak braking power	Worn pads, loose cable, contaminated pads/rim, incorrect pad alignment.	Replace pads, adjust cable tension, clean pads/rim, realign pads.
Brake squealing	Contaminated pads/rim, incorrect pad angle, loose caliper.	Clean pads/rim, adjust pad toe-in, tighten caliper mounting bolt.

Problem	Possible Cause	Solution
Uneven pad wear	Misaligned caliper, bent rim, uneven pad contact.	Realign caliper, check rim trueness, adjust pad position.
Brake lever feels spongy	Stretched cable, worn housing, insufficient cable tension.	Replace cable/housing, increase cable tension.

SPECIFICATIONS

Feature	Detail
Model Name	Tiagra BR-4700
Part Number	EBR4700AF87X
Material	Aluminum
Color	Gray
Product Dimensions (L x W)	6.5" x 4.75"
Item Weight	0.68 Pounds (approx. 0.31 kg)
Projection Distance (Reach)	49 Millimeters (mid-reach)
Handle Attachment Mechanism	Short Pull
Included Components	Road Caliper Brakes (Front)

WARRANTY INFORMATION

The Shimano Tiagra BR-4700 Front Brake Caliper comes with a Limited Warranty. For specific details regarding coverage, duration, and claims procedures, please refer to the official warranty documentation provided with your purchase or visit the official SHIMANO website.

SUPPORT

For technical assistance, replacement parts, or further inquiries, please contact SHIMANO customer support. You can typically find contact information on the official SHIMANO website or through your authorized SHIMANO dealer.

Online Resources: Visit the official SHIMANO website for product manuals, technical specifications, and frequently asked questions.

Professional Assistance: If you are uncomfortable performing any installation or maintenance procedures, it is recommended to seek assistance from a certified bicycle mechanic.