

SHIMANO IR9270DRRDSC170E

Shimano DURA-ACE Di2 ST-R9270/BR-R9270 Hydraulic Disc Brake Set User Manual

Model: IR9270DRRDSC170E

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Shimano DURA-ACE Di2 ST-R9270/BR-R9270 Hydraulic Disc Brake Set. This high-performance component combines wireless electronic shifting with powerful hydraulic disc braking for road cycling. Please read this manual thoroughly before use to ensure safe and correct handling.

The Shimano DURA-ACE Di2 ST-R9270 dual control lever offers enhanced ergonomics and wireless shifting. The BR-R9270 hydraulic 2-piston caliper features a sleek, compact, and rigid mono-body construction for precise brake modulation.

2. SAFETY INFORMATION

Always prioritize safety when working with bicycle components. Improper installation or maintenance can lead to serious injury or damage to your bicycle.

- **Professional Installation Recommended:** For optimal performance and safety, it is highly recommended that installation and initial setup be performed by a qualified bicycle mechanic.
- **Brake Fluid:** Use only Shimano genuine mineral oil for the hydraulic system. Do not mix with other types of brake fluid.
- **Brake Pads:** Always use genuine Shimano brake pads. Non-genuine pads may compromise braking performance and safety.
- **Rotor Compatibility:** Ensure your disc brake rotors are compatible with resin pads and are in good condition.
- **Tightening Torque:** Adhere strictly to specified tightening torques for all bolts to prevent loosening or damage.
- **Regular Inspection:** Periodically check brake levers, calipers, hoses, and pads for wear, damage, or proper function.
- **Battery Safety:** The shifter uses a CR1632 battery. Follow proper disposal guidelines for batteries.

3. PACKAGE CONTENTS

Verify that all components are present and undamaged upon unpacking:

- Shimano DURA-ACE ST-R9270E Di2 Shift/Brake Lever (Right)
- Shimano DURA-ACE BR-R9270 Hydraulic Disc Caliper (Rear)
- Hydraulic Brake Hose (1700mm)
- Resin Brake Pads (installed in caliper)
- Mounting Screws and hardware
- User Manual (this document)



Image 1: Overview of the Shimano DURA-ACE Di2 Hydraulic Disc Brake Set, showing the right-hand shift/brake lever and the rear hydraulic disc caliper with hose.

4. SETUP AND INSTALLATION

Installation of the Shimano DURA-ACE Di2 Hydraulic Disc Brake Set requires specialized tools and knowledge. Refer to the official Shimano dealer manual for detailed, step-by-step instructions. The following

is a general overview:

1. **Mounting the Shift/Brake Lever:** Secure the ST-R9270E lever to the right side of your handlebar. Ensure proper positioning for comfortable reach and control.
2. **Mounting the Brake Caliper:** Attach the BR-R9270 caliper to the rear flat mount on your bicycle frame. Ensure correct alignment with the disc rotor.
3. **Connecting the Hydraulic Hose:** Route and connect the hydraulic hose from the lever to the caliper. Cut the hose to the appropriate length, ensuring no kinks or sharp bends.
4. **Bleeding the Hydraulic System:** Perform a thorough bleeding procedure to remove any air from the hydraulic system. This is critical for proper brake function. Use Shimano mineral oil and a dedicated bleeding kit.
5. **Di2 Wireless Setup:** Pair the Di2 shifter with your Di2 system components (e.g., rear derailleur) according to Shimano's Di2 setup instructions.
6. **Adjusting Lever Reach:** The lever features adjustable reach. Use the appropriate tool to set the lever position for your hand size and preference.



Image 2: Close-up view of the Shimano DURA-ACE Di2 ST-R9270E right-hand shift/brake lever, highlighting its ergonomic design.



Image 3: Detailed view of the Shimano DURA-ACE BR-R9270 hydraulic disc caliper, showing its compact design and flat mount interface.

5. OPERATING INSTRUCTIONS

Once properly installed and set up, your DURA-ACE Di2 system provides precise shifting and powerful braking.

- **Shifting:** The Di2 system offers intuitive electronic shifting. Use the buttons on the lever to shift gears. The wireless connection ensures fast and responsive gear changes.
- **Braking:** Apply pressure to the brake lever to engage the hydraulic disc brake. The system provides consistent and powerful stopping power with excellent modulation. Avoid sudden, hard braking, especially in wet conditions.
- **Adjustable Reach:** The lever reach can be adjusted to suit individual hand sizes and preferences, enhancing comfort and control.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and performance of your brake set.

- **Brake Pad Inspection and Replacement:** Regularly check brake pad wear. Replace pads when the friction material is worn down to the wear indicator line or if braking performance degrades.
- **Hydraulic System Bleeding:** If braking feels spongy or inconsistent, the hydraulic system may need bleeding. The BR-R9270 caliper features a maintenance-friendly bleeding process. Refer to the Shimano dealer manual for detailed instructions.
- **Hose Inspection:** Check hydraulic hoses for any signs of damage, kinks, or leaks. Replace damaged hoses immediately.
- **Cleaning:** Keep calipers, rotors, and levers clean. Use a clean cloth and mild soap and water. Avoid using harsh chemicals or solvents that could damage components.
- **Shifter Battery Replacement:** The ST-R9270E shifter uses a CR1632 coin cell battery, offering approximately 1.5 to 2 years of battery life. Replace the battery when the low battery indicator appears or shifting performance declines.
- **Rotor Cleaning:** Keep disc brake rotors free of oil, grease, and dirt. Clean with isopropyl alcohol if contaminated.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

- **Poor Braking Performance:**
 - Check brake pad wear; replace if necessary.
 - Bleed the hydraulic system to remove air.
 - Inspect rotors for contamination (oil/grease) and clean with isopropyl alcohol.
 - Ensure rotors are not bent or damaged.
- **Rotor Rubbing:**
 - Check caliper alignment; realign if needed.
 - Ensure wheel is properly seated in the dropouts.
 - Check for bent rotor; true or replace if necessary.
 - Verify brake pads are fully retracted.
- **Inconsistent Shifting:**
 - Check shifter battery (CR1632); replace if low.
 - Ensure Di2 components are properly paired.
 - Check for firmware updates for your Di2 system.
- **Brake Lever Feels Spongy:**
 - This indicates air in the hydraulic system. Bleed the brakes thoroughly.

If issues persist, consult a qualified bicycle mechanic or contact Shimano customer support.

8. SPECIFICATIONS

- **Model Numbers:** ST-R9270E (Lever), BR-R9270 (Caliper)
- **Product Model Number:** IR9270DRRDSC170E
- **System Type:** Hydraulic Disc Brake, Di2 Electronic Shifting
- **Drivetrain Speeds:** 2x12-speed

- **Lever Use:** Right (for Rear Brake)
- **Brake Caliper Mount:** Flat Mount
- **Pad Compound:** Resin
- **Hydraulic Fluid Type:** Shimano Mineral Oil
- **Hydraulic Hose Length:** 1700mm
- **Shifter Battery:** CR1632 (estimated 1.5-2 years life)
- **Adjustable Reach:** Yes
- **Color:** Black
- **Approximate Item Weight:** 1 pound (454 grams)
- **Product Dimensions:** 11 x 8 x 3 inches (packaging)

9. WARRANTY AND SUPPORT

Shimano products are covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty information provided with your product or visit the official Shimano website.

For technical support, service, or warranty claims, please contact your authorized Shimano dealer or visit the Shimano support portal online. When contacting support, please have your product model number (IR9270DRRDSC170E) and proof of purchase available.