

SHIMANO ST-R7025

SHIMANO 105 ST-R7025 Hydraulic STI Shifter and Disc Brake Caliper Instruction Manual

Model: ST-R7025 (Shifter), BR-R7070 (Caliper)

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your SHIMANO 105 ST-R7025 Hydraulic STI Shifter and BR-R7070 Disc Brake Caliper. Please read this manual thoroughly before use to ensure safe and optimal performance of your bicycle components. Keep this manual in a safe place for future reference.

SETUP AND INSTALLATION

Proper installation is crucial for the safety and performance of your hydraulic shifter and disc brake system. If you are unsure about any step, it is recommended to consult a professional bicycle mechanic.

1. Unpacking and Inspection

Carefully remove all components from the packaging. Inspect for any visible damage. The package should include the ST-R7025 shifter and the BR-R7070 flat mount disc brake caliper, along with necessary hardware and hydraulic hose.



Image: SHIMANO 105 ST-R7025 Hydraulic STI Shifter. This image shows the ergonomic design of the shifter lever, which integrates both shifting and hydraulic braking functions.



Image: SHIMANO 105 BR-R7070 Flat Mount Disc Brake Caliper. This image displays the disc brake caliper with its hydraulic hose, designed for flat mount frames.

2. Shifter Installation

1. **Mounting to Handlebar:** Position the ST-R7025 shifter on your handlebar. Ensure it is at a comfortable angle for both braking and shifting. Tighten the clamp bolt to the manufacturer's specified torque.
2. **Routing Hydraulic Hose:** Route the hydraulic hose from the shifter to the brake caliper. Ensure the hose is not kinked

and has sufficient slack for handlebar movement.

3. **Connecting Shift Cable:** Install the shift cable according to your derailleur's instructions. Ensure smooth cable routing without sharp bends.

3. Caliper Installation

1. **Mounting to Frame/Fork:** Attach the BR-R7070 flat mount caliper to your frame or fork using the appropriate bolts. Ensure the caliper is correctly aligned with the disc rotor.
2. **Connecting Hydraulic Hose:** Connect the hydraulic hose to the caliper. Ensure all connections are secure and leak-free.
3. **Bleeding the Hydraulic System:** The hydraulic brake system must be properly bled to remove any air bubbles. Follow SHIMANO's official bleeding procedure using genuine SHIMANO mineral oil and bleeding kit. This step is critical for brake performance and safety.

4. Adjustments

1. **Reach Adjustment:** The ST-R7025 levers feature reach adjustment, allowing you to customize the distance from the handlebar to the lever. Use a small hex key to adjust the screw located on the lever body until the desired reach is achieved.
2. **Brake Pad Clearance:** Ensure there is no rubbing between the brake pads and the rotor when the brake is disengaged. Adjust caliper position if necessary.
3. **Shifting Adjustment:** Fine-tune your derailleur adjustments to ensure crisp and precise shifting across all gears.

OPERATING INSTRUCTIONS

The SHIMANO 105 ST-R7025 combines shifting and hydraulic braking into a single, ergonomic unit.

1. Shifting Gears

- **Upshifting (to a larger cog/chainring):** Push the main lever blade inwards towards the handlebar. The lever will click, and the chain will move to a larger gear.
- **Downshifting (to a smaller cog/chainring):** Push the smaller lever behind the main lever blade inwards. The lever will click, and the chain will move to a smaller gear.
- The ST-R7025 offers a shorter lever throw for crisper shifting compared to previous generations.

2. Hydraulic Braking

- **Engaging Brakes:** Squeeze the main lever blade towards the handlebar. The hydraulic system will actuate the caliper, pressing the brake pads against the disc rotor to slow or stop the bicycle.
- **Braking Power:** The BR-R7070 caliper provides consistent braking performance. Apply pressure smoothly and progressively for controlled braking. Avoid sudden, hard braking, especially in wet conditions.
- The improved ergonomics of the R7025 levers allow for more comfortable braking, particularly for riders with smaller hands, as the reach is 4mm closer to the handlebar compared to standard R7020 levers.

MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your SHIMANO components.

1. Cleaning

- Clean the shifter and caliper regularly with a mild soap and water solution. Avoid using high-pressure washers directly on

the components, especially near seals.

- Keep disc rotors clean and free of oil or grease. Use a dedicated disc brake cleaner if necessary.

2. Brake System Checks

- **Brake Pad Wear:** Regularly inspect brake pads for wear. Replace pads when the friction material is worn down to the wear indicator line or if braking performance diminishes significantly. Use genuine SHIMANO Ice-Tech brake pads for optimal performance and heat dissipation.
- **Hydraulic Fluid:** Check the hydraulic fluid level and condition periodically. If braking feels spongy or inconsistent, the system may need bleeding or a fluid change. This should be performed by a qualified mechanic.
- **Hose and Connections:** Inspect hydraulic hoses for any signs of damage, kinks, or leaks. Ensure all connections are tight.

3. Shifting System Checks

- **Cable Condition:** Inspect shift cables for fraying or corrosion. Replace worn cables promptly.
- **Lubrication:** Ensure pivot points on the shifter and derailleur are clean and lightly lubricated.

TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
Spongy Brake Lever	Air in hydraulic system, low fluid level	Bleed the hydraulic system. Check for leaks.
Weak Braking Power	Worn brake pads, contaminated rotor/pads, air in system	Replace brake pads. Clean rotor/pads. Bleed system.
Brake Rubbing	Misaligned caliper, bent rotor	Realign caliper. True or replace bent rotor.
Poor Shifting Performance	Incorrect cable tension, worn cable/housing, bent derailleur hanger	Adjust cable tension. Replace cable/housing. Check derailleur hanger alignment.
Lever Not Returning	Contamination, internal mechanism issue	Clean and lubricate. If issue persists, seek professional service.

SPECIFICATIONS

- **Lever Model:** SHIMANO 105 ST-R7025
- **Caliper Model:** SHIMANO 105 BR-R7070
- **Speed:** 11-speed (rear shifter)
- **Brake Type:** Hydraulic Disc Brake
- **Mount Type:** Flat Mount (caliper)
- **Actuation:** Hydraulic
- **Lever Adjustability:** Reach adjustment
- **Material:** Aluminum (lever and caliper)
- **Included Components:** BR-R7070, ST-R7025 (Left or Right, depending on purchase)

- **Weight:** Approximately 1.95 pounds (combined, as per product data)
- **Special Features:** Improved ergonomics for smaller hands (4mm closer reach), Ice-Tech brake pad compatibility for better heat dissipation.

WARRANTY INFORMATION

This product is covered by a Limited Warranty. For detailed information regarding the terms, conditions, and duration of the warranty, please refer to the official SHIMANO website or contact your authorized SHIMANO dealer. Keep your proof of purchase for warranty claims.

SUPPORT AND CONTACT

For further assistance, technical support, or to locate an authorized service center, please visit the official SHIMANO website at bike.shimano.com or contact your local SHIMANO distributor.