SHIMANO M8220

SHIMANO Deore XT M8220 4-Piston Disc Brake Instruction Manual

1. Introduction

This manual provides essential instructions for the proper installation, operation, maintenance, and troubleshooting of your SHIMANO Deore XT M8220 4-Piston Disc Brake system. This system is designed for trail and enduro cycling, offering high stopping power and precise control. Please read this manual thoroughly before using the product to ensure safe and optimal performance.

2. Product Features

- **High Stopping Power:** The BL-M8200 lever paired with the BR-M8220 Enduro caliper provides maximum braking control.
- **SERVO WAVE Action:** A redesigned power curve ensures a balanced braking feel and optimal pad-to-rotor contact throughout the lever stroke.
- **Temperature-Resistant Performance:** Low-viscosity Shimano mineral oil maintains consistent braking across a wide range of temperatures.
- **Durable Construction:** Features an alloy lever blade (Shimano stamping process) and a robust alloy caliper body for long-lasting reliability.
- **Clean & Efficient Setup:** J-Kit pre-bled system with a 1700mm SM-BH90-SBM hose facilitates easy installation and tidy cable routing.
- **Premium Heat Management:** Includes metal brake pads with radiator fins for improved heat dissipation during prolonged descents.

3. Setup and Installation

Proper installation is crucial for the safety and performance of your disc brake system. It is recommended that installation be performed by a qualified bicycle mechanic. If you choose to install it yourself, follow these guidelines carefully.

3.1 Components Overview



Figure 1: SHIMANO Deore XT M8200 Brake Lever. This image shows the brake lever assembly, including the reservoir, lever blade, and clamp for handlebar mounting.



Figure 2: SHIMANO Deore XT M8220 4-Piston Caliper. This image displays the brake caliper with its four pistons, cooling fins, and mounting points.

3.2 Installation Steps

1. **Mounting the Lever:** Securely attach the BL-M8200 brake lever to your handlebar. Ensure the lever is positioned for comfortable reach and operation.
2. **Mounting the Caliper:** Attach the BR-M8220 caliper to your bike's frame or fork using the appropriate adapter for your rotor size. Ensure the caliper is aligned correctly over the rotor.
3. **Hose Routing:** Route the SM-BH90-SBM brake hose along your bike frame, securing it with cable ties or frame guides to prevent interference with moving parts. The J-Kit system comes pre-bled, but ensure no air has entered the system during routing.
4. **Rotor Installation:** Ensure your disc rotor is clean and properly installed on your wheel hub.
5. **Brake Pad Installation:** Verify that the metal brake pads with radiator fins are correctly seated within the caliper.
6. **Final Adjustments:** After installation, check for proper lever feel and ensure there is no rubbing between the pads and rotor. Adjust caliper alignment if necessary.

Important: Always refer to the detailed SHIMANO dealer's manual for specific torque specifications and advanced installation procedures.

4. Operating Instructions

The SHIMANO Deore XT M8220 brake system provides powerful and modulated braking. Familiarize yourself with its operation in a safe environment before riding.

4.1 Braking Technique

- Apply brake pressure smoothly and progressively. The SERVO WAVE action provides increased power towards the end of the lever stroke.
- Use both front and rear brakes simultaneously for optimal stopping power and control.
- Avoid sudden, hard braking, especially on loose or wet surfaces, to prevent skidding.

4.2 Reach Adjustment

The brake lever features a reach adjustment screw, allowing you to customize the distance of the lever from the handlebar to suit your hand size and preference. Use a small hex key to turn the adjustment screw until the desired reach is achieved.

5. Maintenance

Regular maintenance ensures the longevity and consistent performance of your brake system.

5.1 Brake Pad Inspection and Replacement

- Inspect brake pads regularly for wear. Replace pads when the friction material is worn down to 0.5mm or less.
- Always replace both pads in a caliper simultaneously.
- Use only genuine SHIMANO replacement pads for optimal performance and safety.

5.2 Mineral Oil System

- The brake system uses low-viscosity SHIMANO mineral oil. Do not use any other type of fluid.
- If the lever feels spongy or braking power is reduced, the system may need bleeding to remove air bubbles. This procedure should be performed by a qualified mechanic.
- Check for any oil leaks around the lever, hose, or caliper. Address any leaks immediately.

5.3 Rotor Inspection

- Inspect the disc rotor for wear, bends, or damage. Replace if the thickness is below the minimum specified by SHIMANO or if it is severely damaged.
- Keep rotors clean and free of oil or grease. Clean with isopropyl alcohol if necessary.

5.4 Cleaning

Clean the brake components with mild soap and water. Avoid using high-pressure washers directly on brake components. Do not use solvents that could damage seals or paint.

6. Troubleshooting

This section addresses common issues you might encounter with your disc brake system.

6.1 Reduced Braking Power

- **Possible Cause:** Worn brake pads. **Solution:** Inspect and replace pads if necessary.
- **Possible Cause:** Air in the hydraulic system. **Solution:** Bleed the brake system.
- **Possible Cause:** Contaminated pads or rotor. **Solution:** Clean rotor with isopropyl alcohol; replace pads if contaminated.

6.2 Squealing or Noise

- **Possible Cause:** Contaminated pads or rotor. **Solution:** Clean rotor; replace pads.
- **Possible Cause:** Misaligned caliper. **Solution:** Realign the caliper to ensure even pad contact.
- **Possible Cause:** Loose bolts. **Solution:** Check and tighten all mounting bolts to specified torque.

6.3 Spongy Lever Feel

- **Possible Cause:** Air in the hydraulic system. **Solution:** Bleed the brake system.
- **Possible Cause:** Low fluid level. **Solution:** Check fluid level and top up if necessary, then bleed.

For persistent issues, consult a professional bicycle mechanic.

7. Specifications

Specification	Detail
Brand Name	SHIMANO
Model Number	IM82201JRRXNA170
UPC	192790749037
Manufacturer	Shimano
Included Components	Right brake set
Item Weight	0.64 Pounds
Material Type	Aluminum
Color	One Color (Black)

8. Warranty Information

This SHIMANO Deore XT M8220 4-Piston Disc Brake system comes with a**1-year manufacturer warranty**. This warranty covers defects in materials and workmanship under normal use. For specific terms, conditions, and claim procedures, please refer to the official SHIMANO warranty documentation or contact SHIMANO customer support.

9. Support

For further assistance, technical questions, or service, please contact your authorized SHIMANO dealer or visit the official SHIMANO website. Professional assistance is recommended for complex repairs or adjustments to ensure safety and proper function.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question