DNM AO-39RC

DNM AO-39RC Mountain Bike Air Rear Shock Instruction Manual

Model: AO-39RC | Brand: DNM

1. Product Overview

The DNM AO-39RC is a high-performance air rear shock absorber designed for mountain bikes, suitable for XC and TRAIL riding styles. It features adjustable rebound, a multi-stage lockout system, and adjustable air pressure to optimize your bike's suspension for various terrains and riding preferences. The shock body is constructed from durable AL-6061 aluminum, with a hard-anodized AL-7075 shaft for enhanced strength and lighter weight.

Image 1.1: The DNM AO-39RC rear shock absorber, available in multiple lengths. This image displays three units, highlighting the compact and robust design of the shock.

Dual-Chamber Design

The shock incorporates a dual-chamber design where primary and secondary air chambers work in coordination to deliver enhanced damping performance and a smoother ride. This design helps in absorbing impacts effectively and providing consistent suspension action.

Image 1.2: Explanation of the Dual-Chamber Design, showing how the primary and secondary air chambers contribute to enhanced damping performance.

2. Specifications

- **Model:** AO-39RC
- **Manufacturer:** DNM
- **Brand:** MEROCA (as listed by seller)
- **Material:** Hard-anodized AL-6061 shock body, Hard-anodized AL-7075 Ø 10mm (0.39 in) shaft
- **Riding Style:** XC/TRAIL
- **Adjustments:** Rebound, Lockout, Air Pressure
- **Valve Type:** American Valve
- **Maximum Air Pressure:** 275 PSI (main chamber)

- **Available Sizes (Eye to Eye x Travel):**
  - 165x35mm (6.50x1.38 in)
  - 190x50mm (7.83x1.97 in)
  - 200x55mm (7.87x2.17 in)
- **Weight (including bushing):** 293g (165mm), 315g (190mm), 324g (200mm)
- **Package Dimensions:** Approximately 8 x 3 x 3 inches
- **Item Weight:** Approximately 1 pound

Length	165mm	190m	200mm
Travel	35mm	50mm	55mm
Weight (including bushing)	293g	315g	324g
Notice	MAX: Air Pressure Not Exceeding 275 PSI (Negative chamber pressure must not exceed main chamber pressure)		

Image 2.1: Detailed specifications and dimensions for the DNM AO-39RC rear shock, including length, travel, and weight for different variants.

3. Installation

This section provides general guidance for installing the DNM AO-39RC rear shock. Professional installation by a qualified bicycle mechanic is recommended if you are unfamiliar with bicycle suspension systems.

1. **Prepare Your Bicycle:** Ensure your bicycle is securely mounted in a repair stand. Remove the existing rear shock, if applicable, following your bicycle manufacturer's instructions.
2. **Identify Mounting Points:** The DNM AO-39RC comes with mounting hardware. Identify the correct eye-to-eye length and travel for your bicycle frame.
3. **Install Bushings:** Insert the appropriate bushings into the shock's eyelets if they are not pre-installed.
4. **Mount the Shock:** Carefully align the shock with the mounting points on your bicycle frame. Insert the mounting bolts and tighten them to your bicycle manufacturer's recommended torque specifications. Do not overtighten.
5. **Check Clearance:** Before riding, compress the suspension fully to ensure there is no interference with the frame or other components.

Note: *The package includes the rear shock absorber and mounting hardware. Specific mounting instructions may vary based on your bicycle frame design.*

4. Operation and Adjustments

The DNM AO-39RC offers several adjustment features to fine-tune your riding experience. Understanding these adjustments is key to optimal performance.

4.1 Key Components

Image 4.1: Labeled diagram of the DNM AO-39RC rear shock, indicating the Damping Adjustment Knob, Main Air Chamber Valve, Negative Air Chamber Valve, and Lockout Switch.

- **Damping Adjustment Knob:** Controls the rebound damping.
- **Main Air Chamber Valve:** Used to adjust the main air pressure.
- **Negative Air Chamber Valve:** Used to adjust the negative air pressure.
- **Lockout Switch:** Engages the 3-stage lockout feature.

4.2 Air Pressure Adjustment

The shock features both a main air chamber and a negative air chamber. Proper air pressure is crucial for performance and rider comfort. Use a high-pressure shock pump (not included) with an American valve fitting.

- **Main Air Chamber:** Inflate the main air chamber according to your weight and riding style. The maximum air pressure should not exceed 275 PSI. Refer to your bicycle manufacturer's recommendations or a sag setting guide for initial pressure.
- **Negative Air Chamber:** The negative air chamber influences the initial sensitivity of the shock. Ensure the

negative chamber pressure does not exceed the main chamber pressure. Adjusting this can fine-tune small bump compliance.

Caution: *Always check the pressure with a reliable gauge. Over-inflation can damage the shock and pose a safety risk.*

4.3 Rebound Adjustment

Rebound damping controls how quickly the shock extends after compression. Adjusting the rebound knob allows you to fine-tune this speed.

Image 4.2: Visual guide for rebound adjustment. Turning clockwise (S) increases damping for slower rebound, while turning counter-clockwise (F) decreases damping for faster rebound.

- **Clockwise Rotation (+ direction):** Increases damping, resulting in a**slower** rebound. This is suitable for widely spaced, high-impact obstacles where a more controlled return is desired.
- **Counter-clockwise Rotation (- direction):** Decreases damping, resulting in a**faster** rebound. This is suitable for closely spaced obstacles with low impact intensity, allowing the shock to recover quickly.

4.4 Lockout Feature

The lockout switch provides a 3-stage compression adjustment, allowing you to stiffen the shock for different riding conditions.

- **Lockout Status (Fully Locked):** Ideal for road cycling or climbing, minimizing suspension movement for maximum pedaling efficiency.
- **Semi-Lockout Status:** Suitable for light off-road terrain, offering some suspension travel while maintaining efficiency.
- **Open Status (Fully Open):** Provides full suspension travel for rough terrain and aggressive off-road riding.

Note: *The lockout feature is designed to reduce suspension movement, not eliminate it entirely. Some minimal movement may still occur.*

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your DNM AO-39RC rear shock.

- **Cleaning:** After each ride, especially in dirty or wet conditions, clean the shock body and shaft with mild soap and water. Wipe dry with a soft cloth. Avoid high-pressure washers directly on seals.
- **Inspect for Damage:** Periodically check the shock for any signs of damage, leaks, or wear on the seals and shaft.
- **Check Air Pressure:** Verify air pressure in both chambers regularly (e.g., before every few rides or weekly) and adjust as needed. Air pressure can fluctuate with temperature changes.
- **Service Intervals:** For advanced maintenance, such as seal replacement or oil changes, consult a professional bicycle mechanic or refer to DNM's official service guidelines (if available).

6. Troubleshooting

If you encounter issues with your DNM AO-39RC rear shock, consider the following common troubleshooting steps:

- **Shock feels too soft or bottoms out easily:**
  - Check and increase air pressure in the main chamber.
  - Ensure the lockout is not accidentally engaged if you desire full travel.
- **Shock feels too stiff or harsh:**
  - Check and decrease air pressure in the main chamber.
  - Ensure the lockout is not engaged if you desire full travel.
  - Adjust negative air pressure for better small bump compliance (ensure it doesn't exceed main chamber pressure).
- **Shock rebounds too slowly:**
  - Turn the rebound adjustment knob counter-clockwise (towards 'F' for faster).

- **Shock rebounds too quickly (pogo stick effect):**
  - Turn the rebound adjustment knob clockwise (towards 'S' for slower).
- **Lockout not fully engaging or disengaging:**
  - Check for any obstructions around the lockout lever.
  - Ensure the lever is fully rotated to the desired position.
- **Air leak:**
  - Inspect valve cores for tightness.
  - Check for visible damage to the shock body or seals. If a persistent leak is detected, professional service is required.

If these steps do not resolve the issue, please contact customer support.

7. Warranty and Support

For any questions, concerns, or assistance with your DNM AO-39RC rear shock, please refer to the following:

- **After-Sale Service:** If you have any questions, you can contact the seller or manufacturer. They commit to assisting you within 24 hours.
- **Warranty Information:** Specific warranty details are typically provided at the point of purchase or on the manufacturer's official website. Please retain your proof of purchase for warranty claims.
- **Online Resources:** For additional information, product updates, or detailed service manuals, visit the official DNM website or the MEROCA store page on Amazon.