

## Dorman M390336

# Dorman M390336 Brake Master Cylinder Installation and Maintenance Guide

## 1. INTRODUCTION

This manual provides detailed instructions for the proper installation, operation, and maintenance of the Dorman M390336 Brake Master Cylinder. This component is engineered to precisely match the design, function, and performance of the original master cylinder in specific Ford and Lincoln vehicle models. Constructed from new, high-quality materials, it ensures a safe and durable replacement for your vehicle's braking system.

Key features of the Dorman M390336 include:

- **Precise Replacement:** Cylinder housing matches the original part's casting material for similar performance.
- **Durable Design:** All rubber components are made from high-quality EPDM compound, resistant to glycol-based brake fluid.
- **100% New Construction:** Made entirely of new materials, not remanufactured, ensuring the highest quality and safety standards.
- **Strict Specifications:** Manufactured to meet rigorous SAE International standards.

## 2. SAFETY INFORMATION

**WARNING: Brake system work requires specialized knowledge and tools. If you are not confident in your ability to perform this installation safely, seek assistance from a qualified automotive technician.**

- Always wear appropriate personal protective equipment, including safety glasses and gloves, when working on vehicle brake systems.
- Brake fluid is corrosive and can damage paint, plastics, and skin. Avoid contact and clean up spills immediately.
- Ensure the vehicle is securely supported on jack stands on a level surface before beginning any work. Never rely solely on a jack.
- Properly dispose of old brake fluid and components according to local regulations.
- Do not reuse old brake fluid. Always use new, clean brake fluid from a sealed container.

### 3. PACKAGE CONTENTS

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Verify that all components are present and undamaged before beginning installation:

- 1x Dorman M390336 Brake Master Cylinder

### 4. VEHICLE COMPATIBILITY

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This Dorman M390336 Brake Master Cylinder is compatible with the following vehicles. Always confirm fitment by checking your vehicle's make, model, and trim level.

- Ford Expedition: 1997, 1998, 1999
- Ford F-150 Heritage: 2004
- Ford F-150: 1999, 2000, 2001, 2002, 2003
- Ford F-250 HD: 1997
- Ford F-250: 1996, 1997, 1998, 1999
- Ford F-350: 1996, 1997
- Ford Lobo: 2001, 2002, 2003, 2004
- Lincoln Navigator: 1998, 1999

### 5. SETUP AND INSTALLATION

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#### 5.1. Tools Required

- Socket/Wrench Set
- Brake Line Wrenches
- Drain Pan
- New DOT-approved Brake Fluid
- Bench Bleeder Kit (recommended)
- Bleeder Bottle or Vacuum Bleeder
- Shop Rags
- Safety Glasses and Gloves

#### 5.2. Preparation

1. Park the vehicle on a level surface and engage the parking brake.
2. Disconnect the negative battery terminal.
3. Place a drain pan under the master cylinder to catch any spilled brake fluid.
4. Clean the area around the master cylinder to prevent contaminants from entering the brake system.

#### 5.3. Removal of Old Master Cylinder

1. Carefully disconnect the brake lines from the master cylinder using brake line wrenches. Be prepared for fluid to leak.
2. Remove the mounting nuts that secure the master cylinder to the brake booster.
3. Gently pull the old master cylinder away from the booster and remove it from the vehicle.

#### 5.4. Bench Bleeding the New Master Cylinder

Bench bleeding is a critical step to remove air from the master cylinder before installation, preventing a

spongy brake pedal.



This image displays the Dorman M390336 Brake Master Cylinder from a top-down perspective, highlighting the fluid reservoir and the black filler cap. The cap includes a warning about using only clean brake fluid from a sealed container.

1. Mount the new master cylinder securely in a vise or use a bench bleeding kit.
2. Install the plastic fittings and hoses from the bench bleeding kit into the master cylinder's outlet ports, routing the hoses back into the reservoir.
3. Fill the reservoir with new, clean DOT-approved brake fluid.
4. Slowly push the master cylinder piston in (using a pushrod or screwdriver) and release it. Repeat this process until no air bubbles are visible in the fluid returning through the hoses.
5. Maintain the fluid level in the reservoir throughout the process.

### **5.5. Installation onto Vehicle**



A side view of the Dorman M390336 Brake Master Cylinder, illustrating its mounting flange and the hydraulic line connection ports. This view is helpful for understanding how the unit connects to the vehicle's brake lines.

1. Carefully position the bench-bled master cylinder onto the brake booster studs.
2. Install and tighten the mounting nuts to the manufacturer's specified torque.
3. Reconnect the brake lines to the master cylinder ports. Ensure they are threaded correctly and tightened securely with brake line wrenches to prevent leaks.
4. If your vehicle has a brake fluid level sensor, transfer it from the old reservoir to the new one if the connectors do not match. Ensure a secure fit.

## 5.6. System Bleeding

After installing the master cylinder, the entire brake system must be bled to remove any remaining air. This typically requires two people.

1. Start with the wheel furthest from the master cylinder (typically the passenger rear).
2. Have a helper pump the brake pedal several times and then hold it down firmly.
3. While the pedal is held down, open the bleeder screw on the caliper/wheel cylinder. Fluid and air will escape. Close the bleeder screw before the pedal reaches the floor.
4. Repeat this process until no air bubbles are visible in the fluid coming from the bleeder screw.
5. Move to the next furthest wheel and repeat the process until all four wheels have been bled.
6. Continuously monitor and refill the master cylinder reservoir with new brake fluid to prevent it from running dry during bleeding.

## 6. OPERATING INSTRUCTIONS

After installation and bleeding, perform the following checks:

- **Fluid Level:** Ensure the brake fluid level in the master cylinder reservoir is at the MAX line.
- **Pedal Feel:** The brake pedal should feel firm and consistent. If it feels spongy or goes to the floor, re-bleed the system.
- **Leak Check:** Visually inspect all brake line connections at the master cylinder and calipers/wheel cylinders for any signs of leaks.
- **Test Drive:** Perform a cautious test drive in a safe area at low speeds to confirm proper braking function before normal vehicle operation.

## 7. MAINTENANCE

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Regular maintenance of your brake system is crucial for safety and longevity.

- **Brake Fluid Level:** Check the brake fluid level in the master cylinder reservoir regularly (e.g., during oil changes). Top off with DOT-approved fluid if necessary. A consistently low fluid level may indicate a leak or worn brake pads.
- **Fluid Condition:** Brake fluid can absorb moisture over time, reducing its effectiveness. Consult your vehicle's service manual for recommended brake fluid flush intervals (typically every 2-3 years).
- **Leak Inspection:** Periodically inspect the master cylinder, brake lines, calipers, and wheel cylinders for any signs of fluid leaks.

## 8. TROUBLESHOOTING

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### 8.1. Spongy Brake Pedal

- **Cause:** Air trapped in the brake system.
- **Solution:** Re-bleed the entire brake system, starting with the master cylinder (bench bleed if possible) and then each wheel in the correct sequence. Ensure the master cylinder reservoir does not run dry during bleeding.

### 8.2. Brake Fluid Leaks

- **Cause:** Loose brake line connections, damaged seals, or a faulty component.
- **Solution:** Inspect all connections for tightness. If leaks persist, check for damaged brake lines or a defective master cylinder.

### 8.3. Poor Braking Performance

- **Cause:** Air in the system, low brake fluid, or other issues within the brake system (e.g., worn pads, faulty calipers).
- **Solution:** Verify fluid level, bleed the system thoroughly. If the problem persists, inspect other brake components.

### 8.4. Brake Fluid Level Sensor Issues

- **Cause:** Incompatible sensor connector or faulty sensor.
- **Solution:** If the new master cylinder's reservoir sensor connector does not match your vehicle's harness, carefully transfer the original sensor from your old master cylinder reservoir to the new one. Ensure it is properly seated and sealed.

## 9. SPECIFICATIONS

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Attribute	Value
Manufacturer	Dorman Products
Brand	Dorman
Model	M390336
Item Weight	3.2 pounds

Attribute	Value
Product Dimensions	9.5 x 6.9 x 4.2 inches
Manufacturer Part Number	M390336
OEM Part Numbers	10-2827; 13-2827; 130.65053; 130.65084; 130.65142; 131.65053; 13268; 13355; 13585; 18M761; 18M782; BRMC-107; BRMC-43; BRMC107; BRMC43; F131972; F140642; M3032; M3045; M4067; M901009; M901012; MC131972; MC140642; MC250220; MC250480; MC390336; MC390339; MC390961; NM3032; NM4067; 3L3Z-2140-BA; F6TZ-2140-AA; F6TZ-2140-AB; F6TZ-2140-EA; F6TZ-2140-EB; F75Z 2140-JA; F75Z-2140-GC; F75Z-2140-GD; XL3Z 2140-GA; YL1Z-2140-BA; YL3Z 2140-BA
Exterior Finish	Painted

## 10. WARRANTY AND SUPPORT

Dorman products are designed and manufactured to high-quality standards. For specific warranty information regarding your Dorman M390336 Brake Master Cylinder, please refer to the documentation included with your purchase or visit the official Dorman website.

For technical support, product inquiries, or further assistance, please visit the [Dorman Store on Amazon](#) or the official Dorman Products website.