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Dorman M544

Dorman M544 Brake Master Cylinder User Manual

Model: M544 | Brand: Dorman

PRODUCT OVERVIEW

This Dorman M544 Brake Master Cylinder is engineered to provide a precise replacement for the original master cylinder in specific vehicle years, makes, and models. It is manufactured using new, high-quality materials to ensure a safe and durable replacement part.

Key features include:

- **Precise replacement:** Cylinder housing constructed to match the casting material of the original part for similar performance.
- **Durable design:** All rubber components are made of high-quality EPDM compound, resistant to glycol-based brake fluid.
- **100% new:** Made entirely of new materials, not remanufactured, to ensure the highest quality and safety.
- **Strict specifications:** Manufactured to meet rigorous SAE International standards.
- **Vehicle Fitment:** Designed for specific Dodge and Plymouth models. Users should verify fitment using their vehicle's make, model, and trim level.

PACKAGE CONTENTS

The Dorman M544 Brake Master Cylinder package typically includes:

- One (1) Dorman M544 Brake Master Cylinder unit.





Image: Front view of the Dorman M544 Brake Master Cylinder, showing the main body and reservoir cap area.

SETUP AND INSTALLATION

Installation of a brake master cylinder requires automotive knowledge and specialized tools. It is recommended that installation be performed by a qualified mechanic. Refer to your vehicle's specific service manual for detailed instructions.

General Steps (Consult Vehicle Manual for Specifics):

1. **Preparation:** Ensure the vehicle is safely lifted and supported. Disconnect the battery.
2. **Fluid Drainage:** Drain the brake fluid from the master cylinder reservoir.
3. **Disconnection:** Disconnect brake lines and any electrical connectors from the old master cylinder.
4. **Removal:** Unbolt and remove the old master cylinder from the brake booster.
5. **Bench Bleeding (Recommended):** Before installation, bench bleed the new Dorman M544 master cylinder to remove air. This involves filling the reservoir with new brake fluid and using a bleeding kit to cycle fluid through the cylinder until no air bubbles are present.
6. **Installation:** Install the new master cylinder onto the brake booster, ensuring proper alignment. Reconnect brake lines and electrical connectors.
7. **System Bleeding:** Bleed the entire brake system to remove any remaining air. This typically involves bleeding each wheel caliper starting from the furthest from the master cylinder.
8. **Fluid Level Check:** Top off the brake fluid reservoir to the appropriate level with new, compatible brake fluid.
9. **Testing:** Test the brake pedal for firm feel and proper operation before driving the vehicle.

For a detailed installation guide, you may refer to the official PDF document provided by Dorman:

[Dorman M544 Installation Manual \(PDF\)](#)



Image: Side view of the Dorman M544 Brake Master Cylinder, showing the main body and mounting points.

OPERATING PRINCIPLES

The brake master cylinder is a critical component of a vehicle's hydraulic braking system. When the brake pedal is pressed, the master cylinder converts the mechanical force into hydraulic pressure. This pressure is then transmitted through the brake lines to the wheel cylinders or calipers, which in turn apply the brake pads or shoes against the rotors or drums, slowing or stopping the vehicle.

The Dorman M544 is designed to replicate the original equipment's performance, ensuring consistent and reliable braking action. It typically features a dual-circuit design, providing a safety redundancy where if one circuit fails, the other can still provide some braking capability.

MAINTENANCE

Proper maintenance of your vehicle's braking system, including the master cylinder, is crucial for safety and longevity.

While the master cylinder itself is a sealed unit and generally not serviceable, regular checks of the brake fluid and overall system are essential.

- **Brake Fluid Level:** Regularly check the brake fluid level in the master cylinder reservoir. It should be between the MIN and MAX marks. Low fluid levels can indicate a leak in the system or worn brake pads.
- **Brake Fluid Condition:** Inspect the brake fluid for color and clarity. Old or contaminated fluid can appear dark or murky. Brake fluid should be flushed and replaced according to your vehicle manufacturer's recommendations, typically every 2-3 years.
- **Leak Inspection:** Periodically inspect the master cylinder and surrounding areas for any signs of brake fluid leaks. Leaks can appear as wet spots or stains.
- **Brake Pedal Feel:** Pay attention to the feel of your brake pedal. A spongy or soft pedal, or a pedal that slowly sinks to the floor, can indicate air in the system or a failing master cylinder.

Always use the type of brake fluid specified by your vehicle manufacturer (e.g., DOT 3, DOT 4). Mixing different types of brake fluid or using incorrect fluid can damage the braking system components.

TROUBLESHOOTING

If you experience issues with your vehicle's braking system, the master cylinder may be a contributing factor. Here are common symptoms and potential causes:

Symptom	Potential Cause	Action
Spongy or Soft Brake Pedal	Air in the brake lines, low brake fluid, failing master cylinder seals.	Bleed the brake system. Check fluid level. Inspect master cylinder for leaks. Consider professional diagnosis.
Brake Pedal Sinks Slowly to Floor	Internal leak within the master cylinder (fluid bypassing seals).	Master cylinder replacement is likely required. Seek professional assistance.
Brake Fluid Leaks Around Master Cylinder	Damaged master cylinder seals, loose connections, cracked reservoir.	Inspect connections and reservoir. If leaks persist from the cylinder body, replacement is necessary.
Brakes Dragging or Not Releasing	Master cylinder not allowing fluid to return, seized caliper/wheel cylinder, collapsed brake hose.	Check for proper pedal return. Inspect calipers/cylinders and hoses. Professional diagnosis recommended.

Warning: Brake system issues are critical for vehicle safety. If you are unsure about diagnosing or repairing brake problems, always consult a certified automotive technician.

SPECIFICATIONS

Attribute	Detail
Brand	Dorman
Model Number	M544
Manufacturer	Dorman Products
Item Weight	4.8 pounds

Attribute	Detail
Product Dimensions	12.13 x 6.5 x 4.63 inches
Country of Origin	USA
Exterior Finish	Painted
OEM Part Numbers	10-40544; 13-35126; 130.81004; F544; M900000; MC511180; MC544; 1191397; 1797432; 5461375; 695696

WARRANTY INFORMATION

Specific warranty details for the Dorman M544 Brake Master Cylinder are typically provided by Dorman Products at the time of purchase or can be found on their official website. Please retain your proof of purchase for any warranty claims. For detailed warranty terms and conditions, please visit the official Dorman website or contact their customer support.

CUSTOMER SUPPORT

For further assistance, technical questions, or support regarding the Dorman M544 Brake Master Cylinder, please contact Dorman Products directly. Their official website often provides contact information, FAQs, and additional resources. You can also visit the Dorman Brand Store on Amazon for more product information and support resources:

[Dorman Brand Store](#)

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

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

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