Repairing Mercedes W123 Door Lock Vacuum Actuator, Early Style

A leak in the door lock system of a W123 will make the locks operate poorly. One place to start is replacing the rubber diaphragms on the actuators themselves. Learn how with this guide.

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INTRODUCTION

The door locks on many W123 Mercedes Benz are locked and unlocked using vacuum produced by the vacuum pump on the engine. Leaks in the door lock system can cause the door locks to operate poorly. One common item that leaks is the vacuum operated lock actuators. The main "moving part" is a set of rubber diaphragms that, with age, get brittle and crack. With this guide, you will learn how to repair these actuators if you have the early style, with four vacuum diaphragms.

TOOLS:

- 8mm socket (1)
- Flathead Screwdriver (1)
- Vacuum hand pump with gauge (1)
- Dielectric Grease (1)
- Socket Wrench (1)

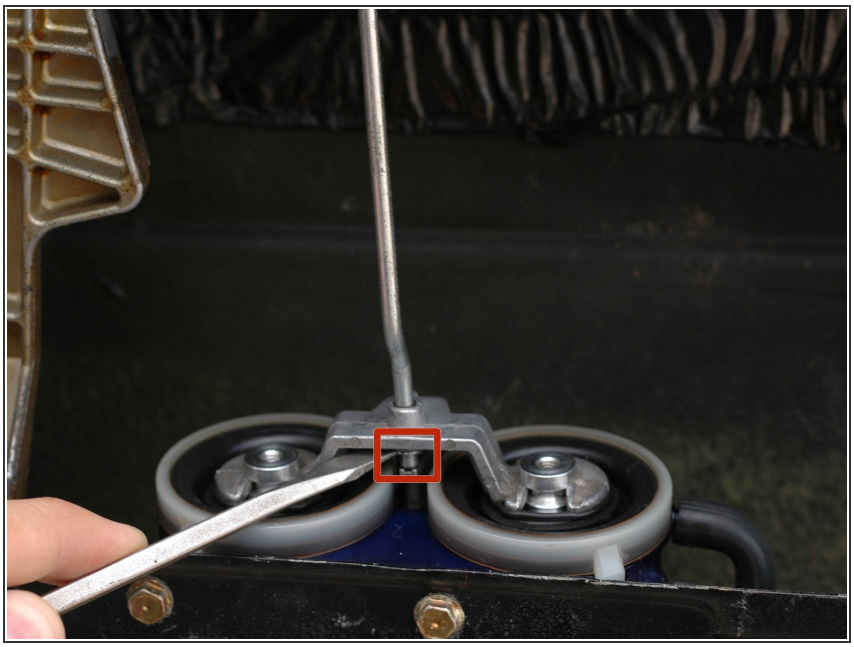
PARTS:

- Door lock diaphragm W123 (4)

Step 1 — Repairing Mercedes W123 Door Lock Vacuum Actuator, Early Style

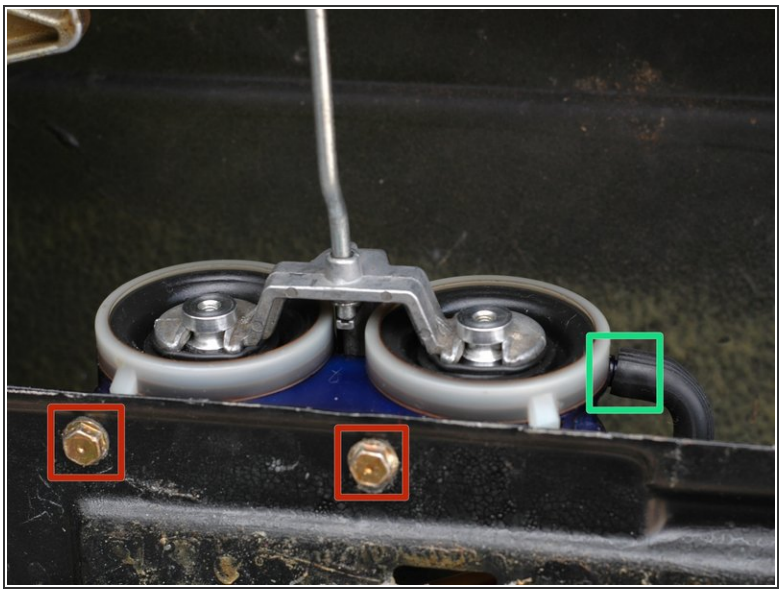
- Before you begin, you'll need to remove your door panels on the doors affected. Click here to review the door panel removal technique guide.

Step 2



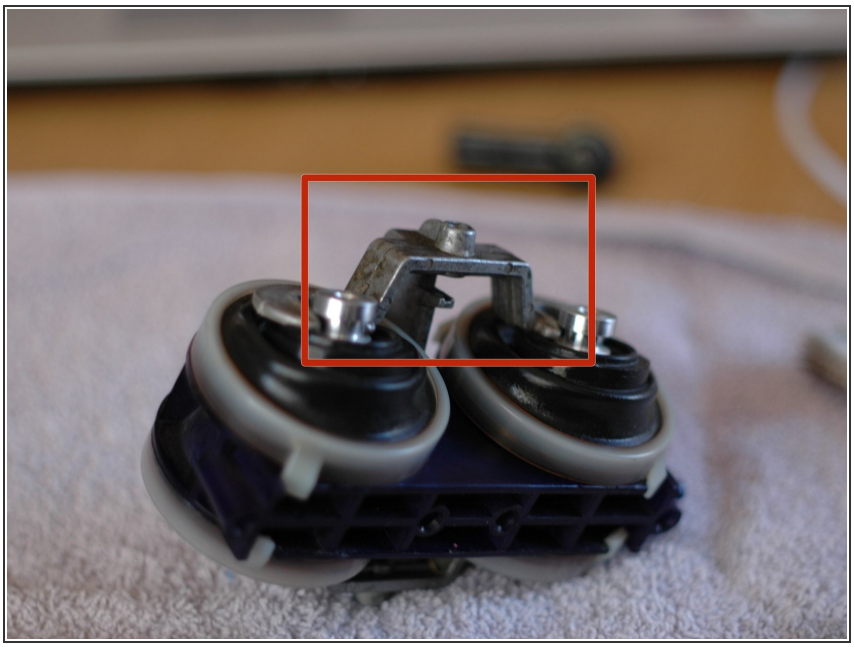
- After removing your door panel you'll find the actuator attached to the bottom edge of the door. There will be two vacuum lines entering it, and a rod connecting it to an armature of the lock mechanism.
- Use a screw driver to remove the c-clip that is holding the rod to the metal cross-piece on the actuator. Be careful to save the c-clip someplace safe.

Step 3



- Next, undo the two 8mm bolts that hold the actuator to the door.
- Gently pull off the vacuum line rubber ends from the actuator. If the lines are stuck, which they often are if they have been attached for many years, carefully use the flat side of a screw driver to pry the rubber part away from the body of the actuator.
- You can now pull the actuator down, away from the end of the lock connecting rod, and then out of the door.
- Note that on each of the three doors with actuators (rear driver's side, and both passenger side doors), the actuators will be oriented in different directions. For example, on the rear passenger side door, the actuator will be oriented so that the vacuum lines are outside of view within the door.

Step 4



- Now that the actuator is out of the door, you're ready to begin replacing the diaphragms. Remove the metal cross-piece between the two sets of diaphragms by gently prying the round metal portion of each diaphragm with a flat blade screwdriver.

Step 5

- Check all four diaphragms for any sign of excess wear. Wear most often shows as cracks. Vacuum "leaks" through these cracks.
- Purchase only as many diaphragms as you need; they are about $10.00 each.
- The top diaphragms, facing up towards the bottom of the windows, are often the most worn due to more exposure to water and dirt that enter the door past the window scraper.
- Before beginning, give the whole assembly a light cleaning. Mild soap and water is sufficient.

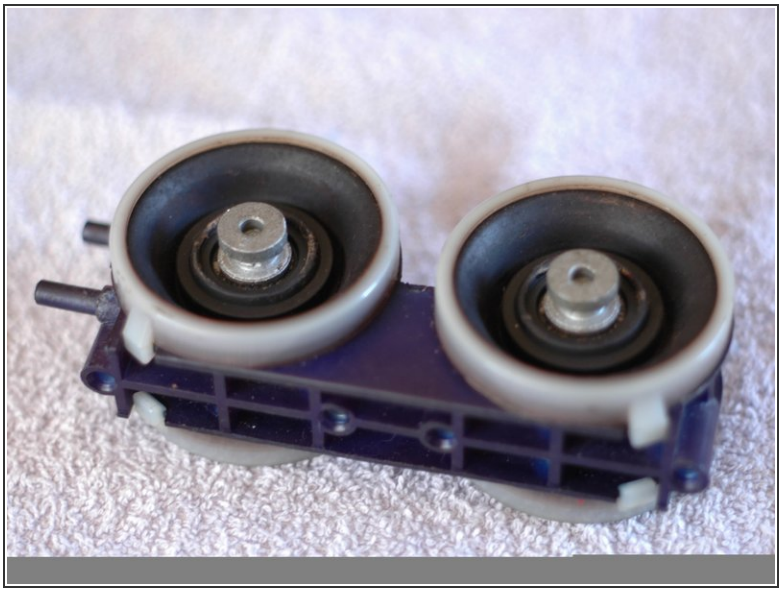
Step 6

- Using a flat blade screw driver, gently pry on one of the two clips that hold the retaining rings over the diaphragms.
- Be gentle, as this is the weakest component of the entire assembly and there are no easily sourced replacements available for these.
- Remove the ring and set it aside after a gentle cleaning of the inside of the ring.

Step 7

- The best way to remove the diaphragms is to firmly squeeze the soft portion between the upper metal portion and the plastic actuator body.
- Pry in one direction, and once the diaphragm is released at one edge it can be pulled off entirely.
- Inspect the inside of the actuator body and clean if necessary.
- Replace the diaphragms with the new ones, and coat lightly with synthetic grease like the dielectric grease used for spark plugs; this will help preserve the rubber.

Step 8



- While you have the actuator out you might as well check the bottom diaphragms. As you can see here, they are often in much better shape.
- However, after removing the retaining rings, you'll probably find some dirt and grit hidden beneath. This can work under the edge and cause slow leaks, leading to overnight leak-down of the system.
- Given this, consider pulling off even diaphragms that look good to give them a gentle cleaning.
- Re-install and grease the diaphragms as well, and then clip the retaining rings back in place.

Step 9

- Re-install the metal connector on the metal portion of each diaphragm. Coming at them from an angle, like shown, can help.

Step 10

- Double check that the rubber of each diaphragm is well greased, and then prepare to re-install it in the door.

To re-install the actuator, follow the removal instructions in reverse.