

# VACUUM POWER BRAKE BOOSTER REMOVAL AND INSTALLATION

## REQUIRED TOOLS:

- Assorted Hand Tools

## PRIOR TO REMOVAL

**NOTE:** You are urged to refer to a suitable service manual for detailed booster removal, installation and testing procedures specific to your vehicle. If you do not have such a manual or lack the experience to make these repairs, you should use the services of a qualified technician.

- Before beginning work, be sure vehicle is parked on a level area and that wheels are chocked to prevent unintentional movement.

## REMOVAL INSTRUCTIONS

1. Disconnect the ground cable from the battery. Vent any vacuum from the booster by applying the brakes several times. You will notice the pedal action change to a firm pedal when all vacuum has been vented.
2. Remove the master cylinder from the booster. Some master cylinders can be removed without disconnecting the brake lines. If that is not possible, clean fitting areas of debris or contamination and mark line locations to assist reassembly. Disconnect brake lines from the master cylinder, taking care to avoid spilling fluid on painted surfaces.

**NOTE:** Brake fluid will damage painted surfaces; flush spills immediately to protect paint. Plug master cylinder ports and hoses to prevent fluid loss and contamination of brake fluid.

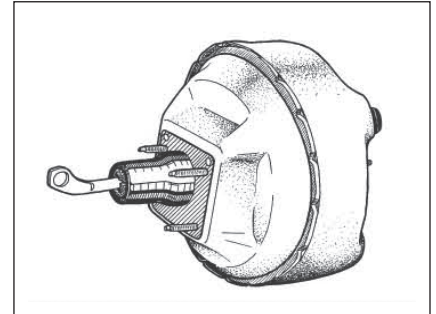
3. Disconnect vacuum hoses from the power booster. Disconnect electric wires or connectors attached to the booster. Mark position of hoses and wires to assist installation as needed.
4. Working under the instrument panel, disconnect the power booster rod linkage from the brake pedal.

**NOTE:** Two-piece rods may have to be disassembled before the linkage can be removed from the vehicle.

5. Remove the nuts or fasteners holding the power brake booster unit to the firewall.

**NOTE:** The fasteners may be located under the dash or on the engine-side of the firewall.

6. Remove the booster, guiding the brake pedal rod through the firewall, rotating the pedal rod as needed to facilitate removal. Do not force the rod against the hub, as this could damage the hub and reduce the booster's core credit value.
7. Remove sensors, switches or linkage parts from the original power booster for installation on the replacement unit.



Vacuum Power Brake Booster

(Figure 1)

**IMPORTANT:** Be sure to save any spacers or non-riveted mounting brackets, since they may need to be re-used when installing the replacement unit.

8. Put the old power booster into the replacement unit's shipping carton to ensure proper core credit upon return.

### **INSTALLATION INSTRUCTIONS**

1. Install sensors, switches, brackets or linkages from the old unit onto the replacement unit (if applicable).

**IMPORTANT:** Refer to any supplemental instructions supplied with the booster for additional information regarding re-use of such parts.

2. Mount booster on the vehicle, guiding the pedal rod or linkage through the firewall. Do not force the rod against the booster hub, as this could damage the plastic hub and void the booster warranty.

**NOTE:** Two-piece rods may have to be reassembled after the replacement booster is installed in the vehicle.

3. Install and tighten the power booster mounting nuts or fasteners. Refer to the vehicle service manual for all tightening specifications.
4. Working under the instrument panel, connect the pedal rod linkage to the brake pedal.

**NOTE:** Pedal free play should be 1/16 inch to 1/4 inch. Refer to your service manual for the specific adjustment. Adjust pedal stop or stop light switch behind brake pedal – if necessary.

5. Carefully position the master cylinder onto the power booster mounting studs.
6. Install and tighten the master cylinder-to-booster mounting nuts as per service manual.

**IMPORTANT:** Ensure that the clearance between the booster intermediate push rod and the master cylinder piston are according to service manual specification. If the clearance is too large, the result will be excessive pedal travel. Insufficient clearance will cause the brakes to drag or lock-up.

7. Connect hydraulic lines to the master cylinder and tighten to specification, if previously removed.
8. Connect the vacuum hose(s) and sensor or switch wiring to the power brake booster.
9. Refer to the vehicle service manual for proper master cylinder bleeding procedures, if needed.
10. Reconnect the ground cable to the battery.
11. Make sure the braking system functions correctly before moving the vehicle. If the pedal is soft or has excessive travel, it may be necessary to bleed the entire braking system. Do not operate the vehicle until the brakes are working correctly.