

# SECTION : 4C

## POWER BOOSTER

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### SPECIFICATIONS

#### FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Booster-to-Dash Panel Nuts	22	16	–
Booster Pushrod Hex Nut	18	13	–
Pushrod Clevis	18	13	–

### DIAGNOSIS

#### POWER BOOSTER TEST

1. With the engine off, eliminate vacuum in the booster by pumping the brake pedal several times.
2. Push the pedal down and hold it in this position.

3. Start the engine.
4. The booster is OK if the pedal drops further because of the extra force produced.

If the brake pedal does not drop, the vacuum system (vacuum hoses, check valve, etc.) is probably defective and should be checked.

If no defect is found by checking the vacuum system, the defect is in the booster itself.

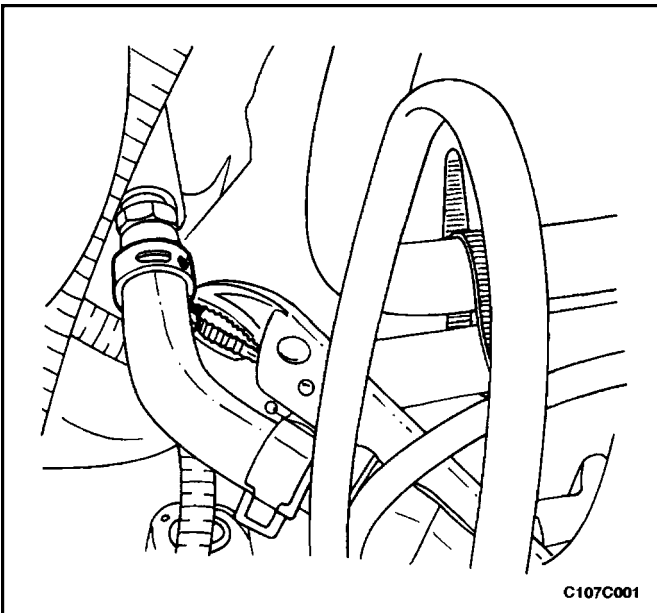
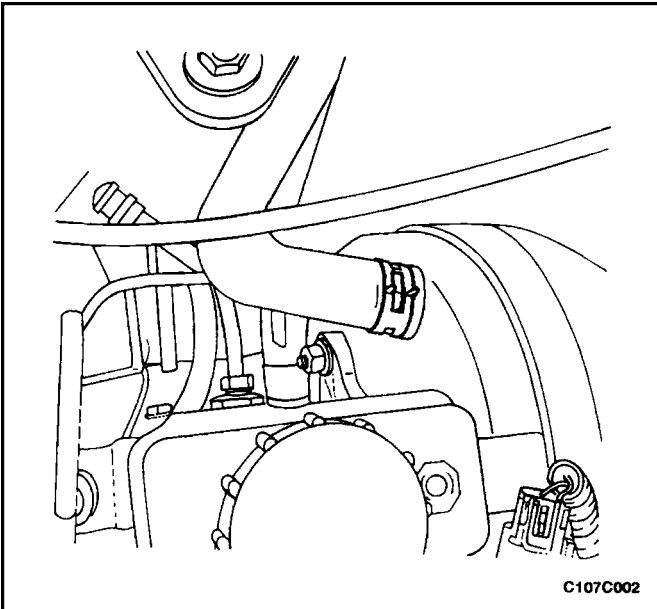
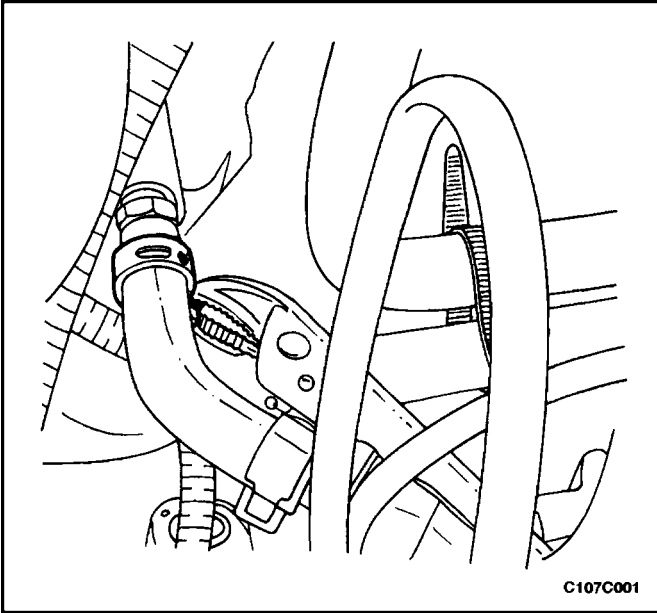
## MAINTENANCE AND REPAIR

### ON-VEHICLE SERVICE

#### VACUUM HOSE

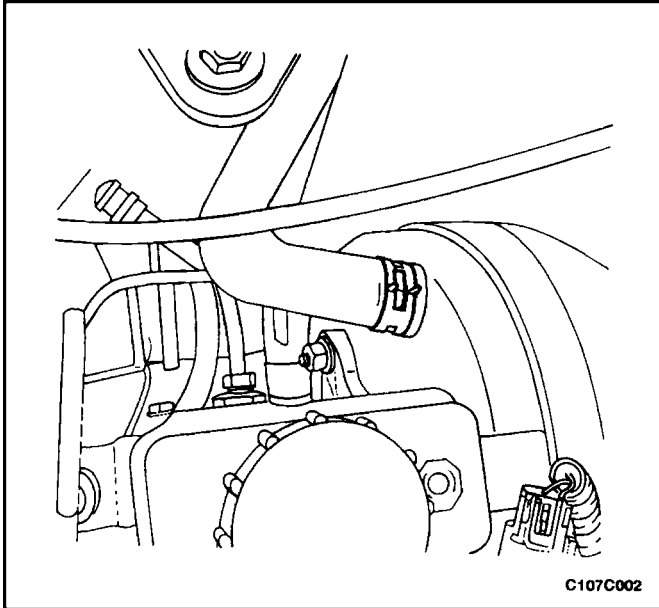
##### Removal Procedure

1. Remove the clip on the vacuum hose connection at the intake manifold.
2. Remove the hose from the union nut connection.
3. Remove the clip on the vacuum hose connection to the brake booster.
4. Remove the vacuum hose.



##### Installation Procedure

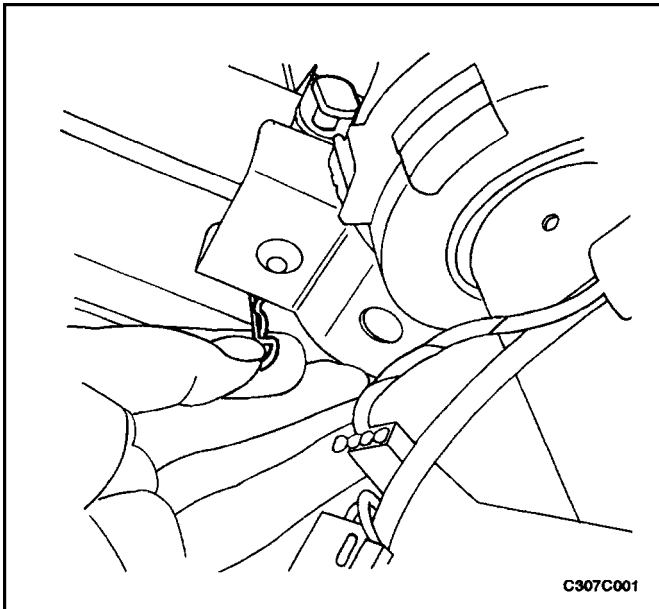
1. Mount the vacuum hose and ensure the connections are tight on each end.
2. Install the vacuum hose clips.
3. Check the function of the booster. Refer to the "Power Booster Test" in this section.



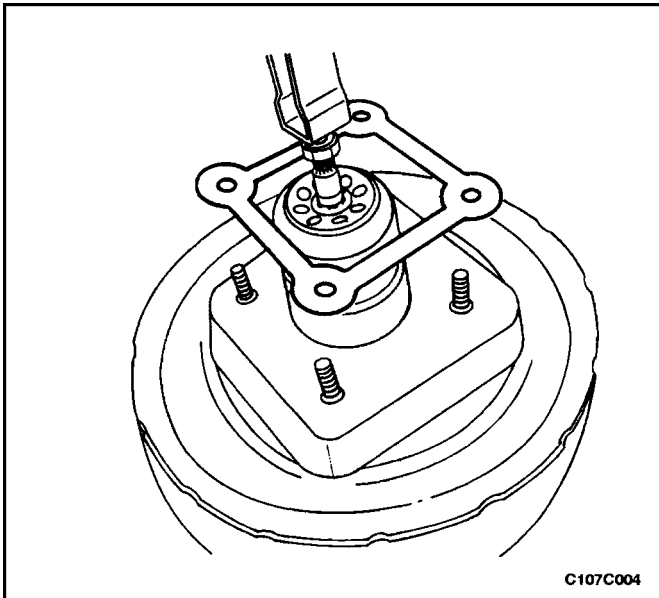
## POWER BOOSTER ASSEMBLY

### Removal Procedure

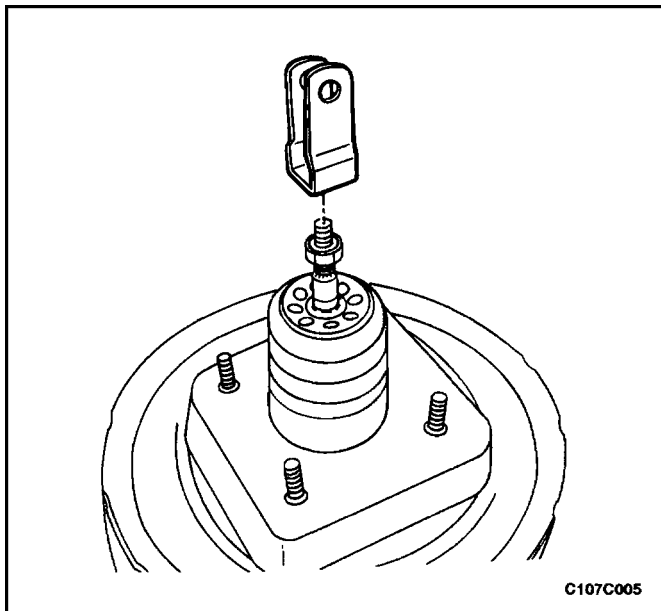
1. Remove the master cylinder. Refer to *Section 4B, Master Cylinder*.
2. Remove the clamp on the vacuum hose connection to the booster.
3. Remove the vacuum hose from the booster. Refer to "Vacuum Hose" in this section.



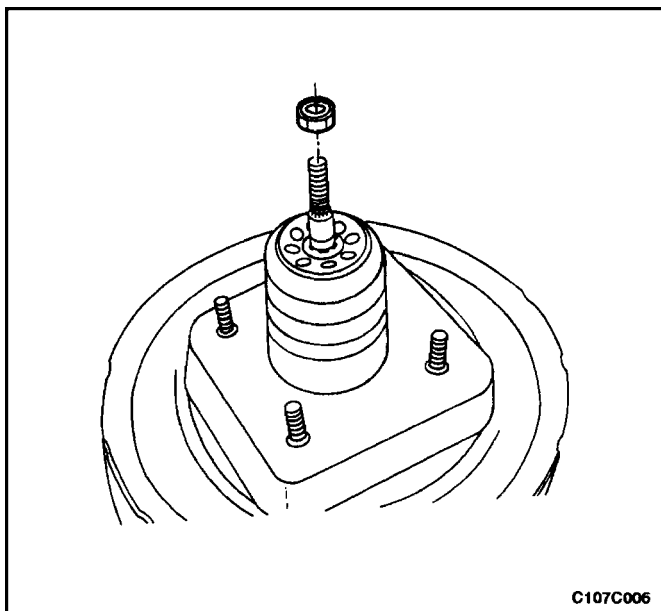
4. Disconnect the brake stoplamp switch. Refer to *Section 4A, Hydraulic Brakes*.
5. Remove the brake pedal spring.
6. Disconnect the clip and remove the pushrod pin from the pedal bracket assembly.



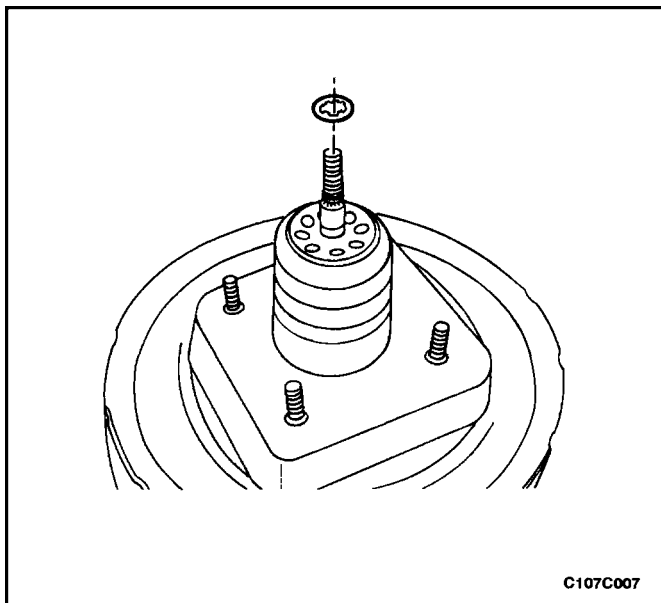
7. Remove the booster mounting nuts from the studs protruding from the dash panel, and remove the booster.
8. Remove and discard the gasket.



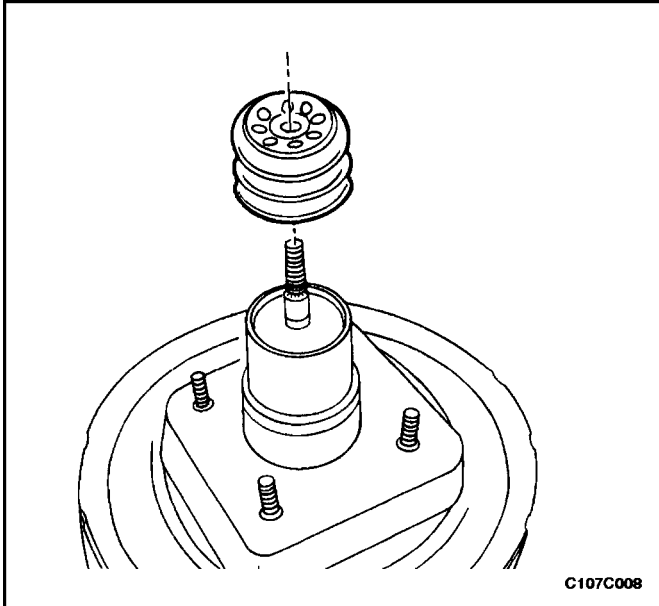
9. Remove the pushrod clevis.



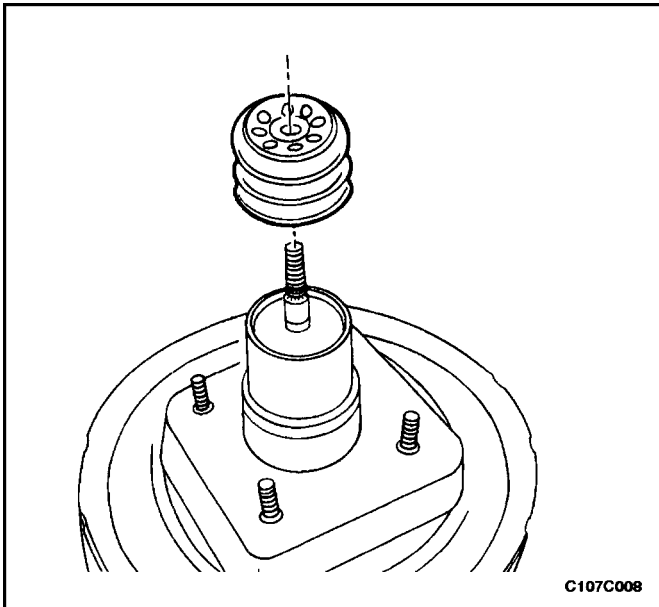
10. Remove the hex nut from the pushrod.



11. Remove the spring clip.

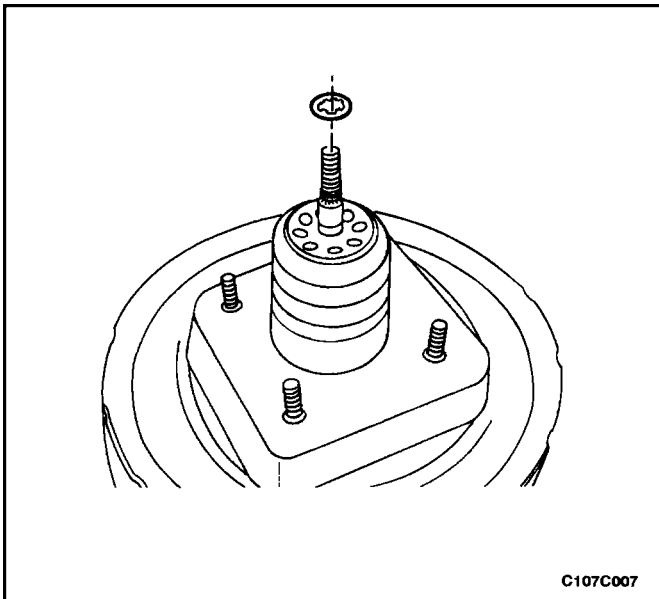


12. Remove the rubber boot and the packings.
13. Discard the rubber boot, if deteriorated, and discard the packings.

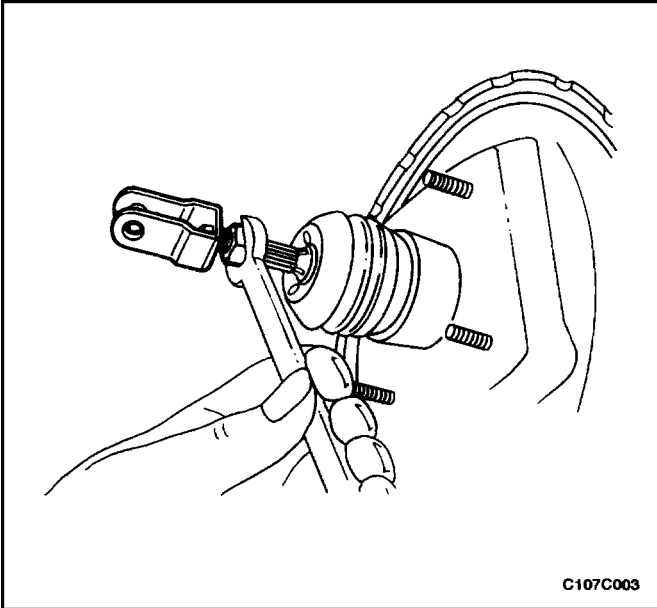


### Installation Procedure

1. Check the pushrod and the pushrod clevis for damage and proper fit.
2. Install the new foam rubber and fiber packings, and install the new rubber boot on the booster shaft.



3. Install the spring clip.

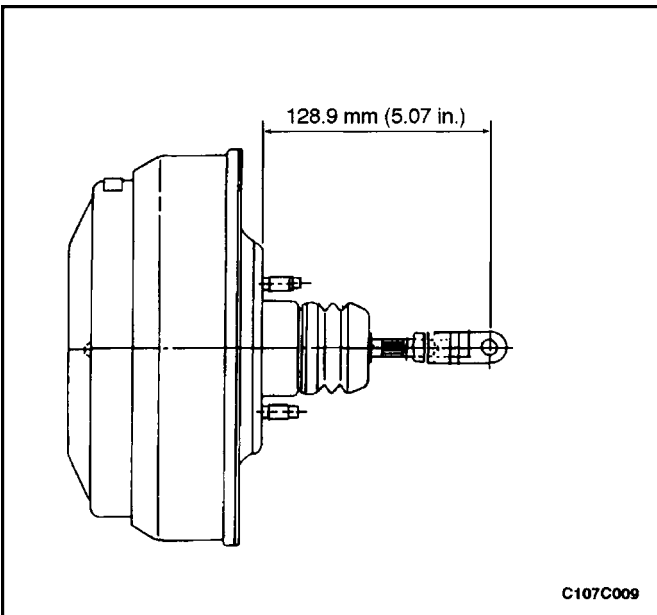


4. Install the hex nut and the pushrod clevis.

### **Tighten**

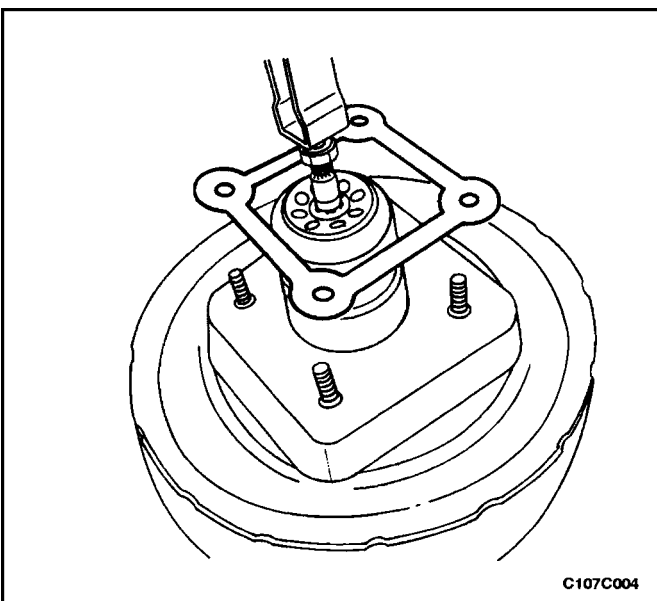
Tighten the booster pushrod hex nut to 18 N•m (13 lb–ft).

Tighten the pushrod clevis to 18 N•m (13 lb–ft).



5. Measure the distance from the booster to the center of the fork bin bore.

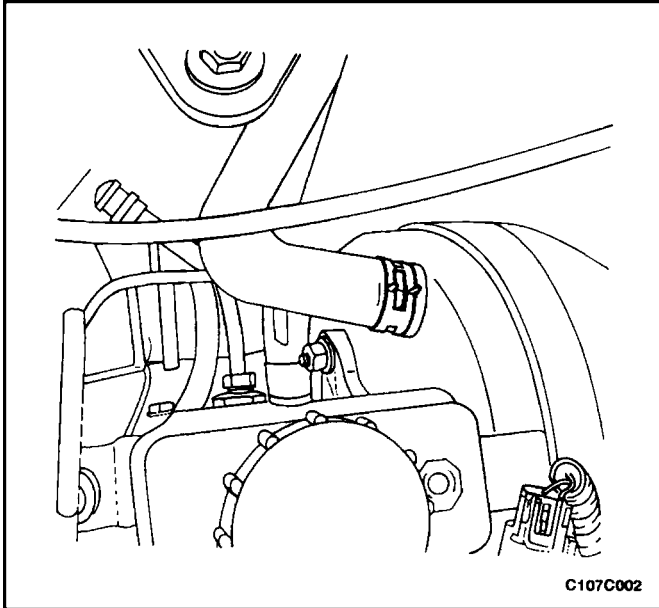
**Important :** This measurement should be 128.9 mm (5.07 inches).



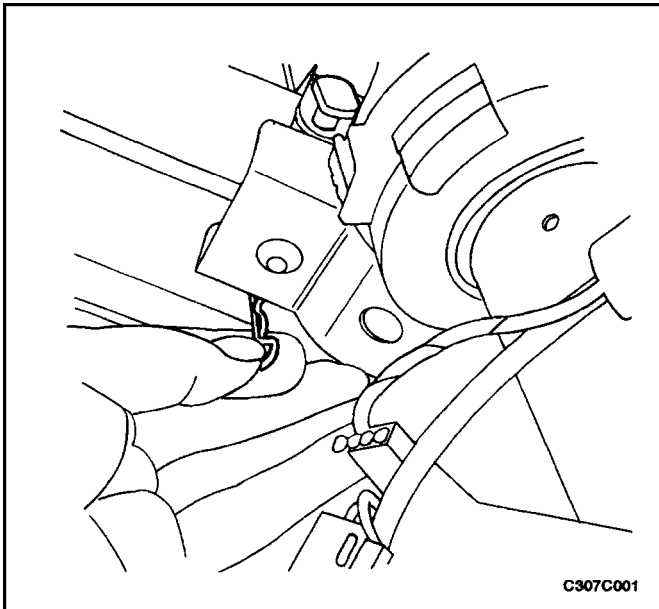
6. Install the new gasket.
7. Install the booster and the mounting nuts to the dash panel.

### **Tighten**

Tighten the booster-to-dash panel nuts to 22 N•m (16 lb–ft).



8. Install the master cylinder onto the booster. Refer to *Section 4B, Master Cylinder*.
9. Install the new vacuum hose to the booster. Refer to "Vacuum Hose" in this section.
10. Install the hose clamp on the vacuum hose.



11. Install the pushrod pin to the brake pedal bracket assembly and connect the clip and the spring.
12. Connect the brake stoplamp switch. Refer to *Section 4A, Hydraulic Brakes*.

## GENERAL DESCRIPTION AND SYSTEM OPERATION

### POWER BOOSTER

The power booster is a single-diaphragm, vacuum-suspended unit. In normal operating mode, with the service brakes in the release position, a vacuum-suspended booster operates with a vacuum on both sides of its dia-

phragm. When the brakes are applied, air at atmospheric pressure is admitted to one side of the diaphragm to provide the power assist. When the brakes are released, atmospheric air is shut off from that side of the diaphragm. The air is then drawn from the booster through the vacuumcheck valve by the vacuum source.

**Important :** If any hydraulic component is removed or disconnected, it may be necessary to bleed all or part of the brake system. Refer to *Section 4F, Antilock Brakes*.