

SECTION : 4C

POWER BOOSTER

CAUTION : Disconnect the negative battery cable before removing or installing any electrical unit or when a tool or equipment could easily come in contact with exposed electrical terminals. Disconnecting this cable will help prevent personal injury and damage to the vehicle. The ignition must also be in LOCK unless otherwise noted.

TABLE OF CONTENTS

SPECIFICATIONS	4C-1	ON-VEHICLE SERVICE	4C-2
FASTENER TIGHTENING SPECIFICATIONS .	4C-1	VACUUM HOSE	4C-2
DIAGNOSIS	4C-1	POWER BOOSTER ASSEMBLY	4C-3
POWER BOOSTER FUNCTIONAL CHECK ...	4C-1	GENERAL DESCRIPTION AND SYSTEM	
MAINTENANCE AND REPAIR	4C-2	OPERATION	4C-7
		POWER BOOSTER	4C-7

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Booster-to-Dash Panel Nuts (Right-Hand Drive)	22	16	–
Booster Pushrod Hex Nut	18	13	–
Brake Line Fittings	16	12	–

DIAGNOSIS

POWER BOOSTER FUNCTIONAL CHECK

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

3. Start the engine.
4. The booster is OK if the pedal drops further because of 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 revealed by checking the vacuum system, the defect is in the booster itself.

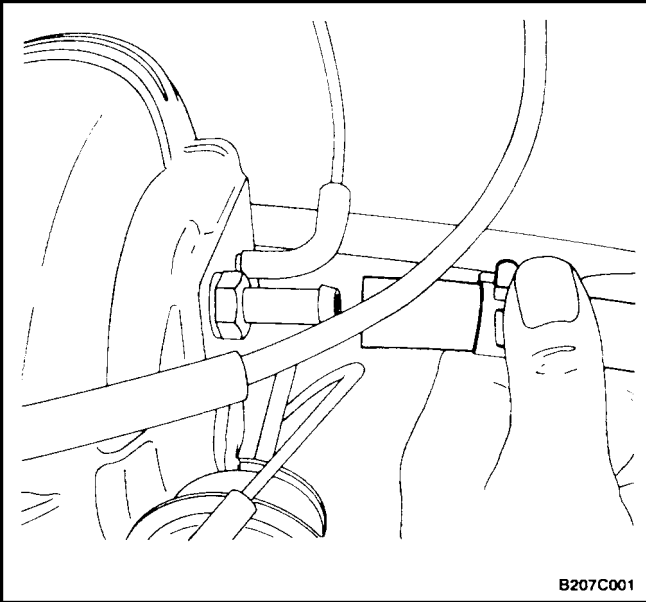
MAINTENANCE AND REPAIR

ON-VEHICLE SERVICE

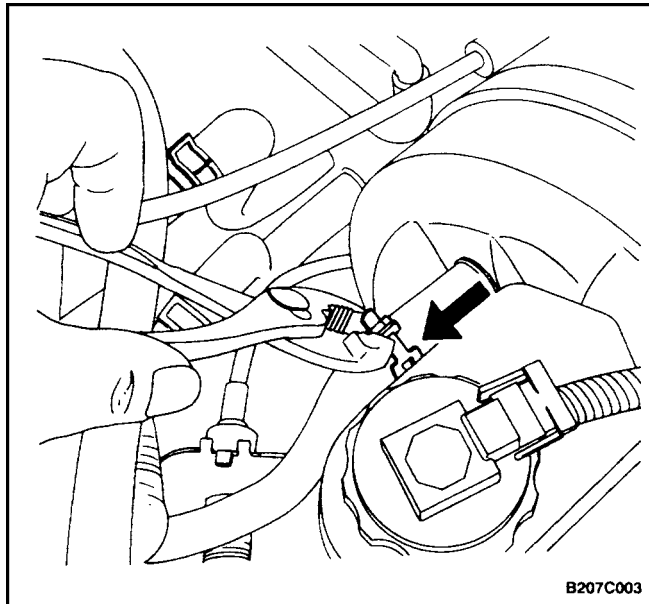
VACUUM HOSE

Removal Procedure

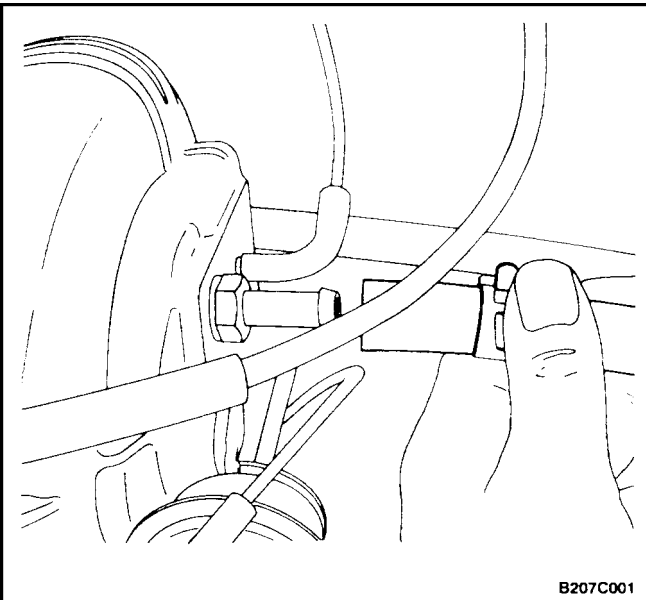
1. Spread the clip on the vacuum hose connection at the intake manifold and move the clip slightly toward the brake booster.
2. Pull the hose from the union nut connection. If the hose does not remove easily or is deteriorated, pry off and discard the hose.
3. Spread the clip on the vacuum hose connection to the brake booster, and move the clip clear of the booster.
4. Remove the vacuum hose.



B207C001



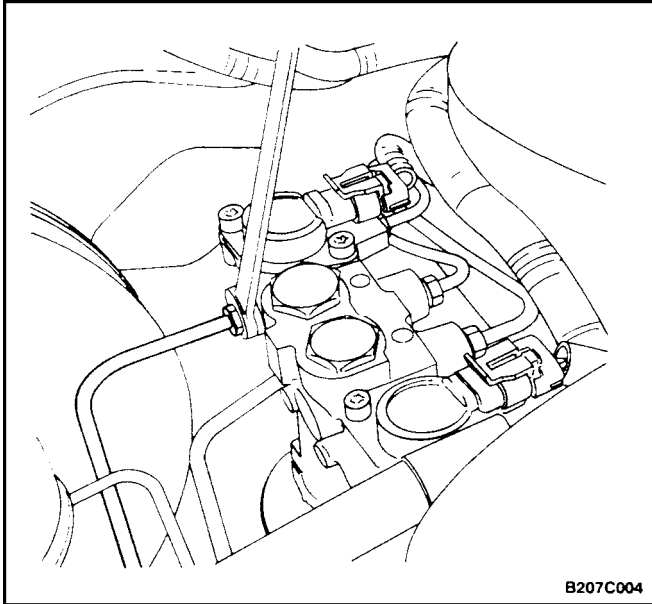
B207C003



B207C001

Installation Procedure

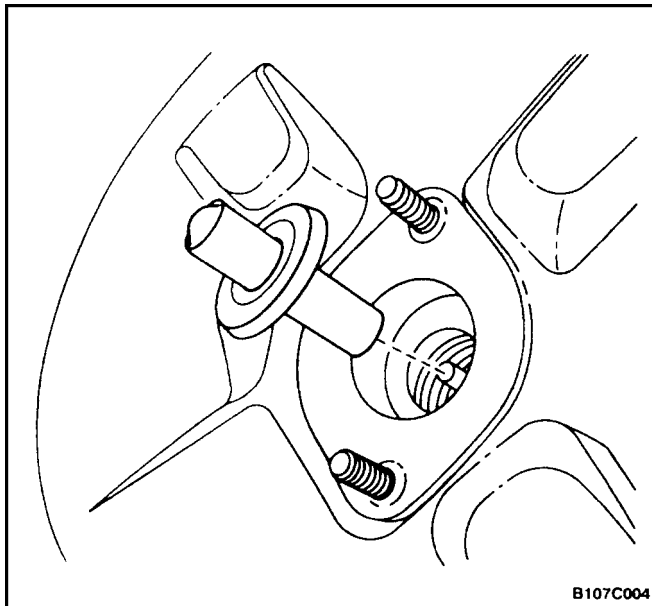
1. Mount the vacuum hose and ensure the connections are tight on each end.
2. Install the vacuum hose clips.
3. Check the function of the booster. Refer to the "Power Booster Functional Check" in this section.



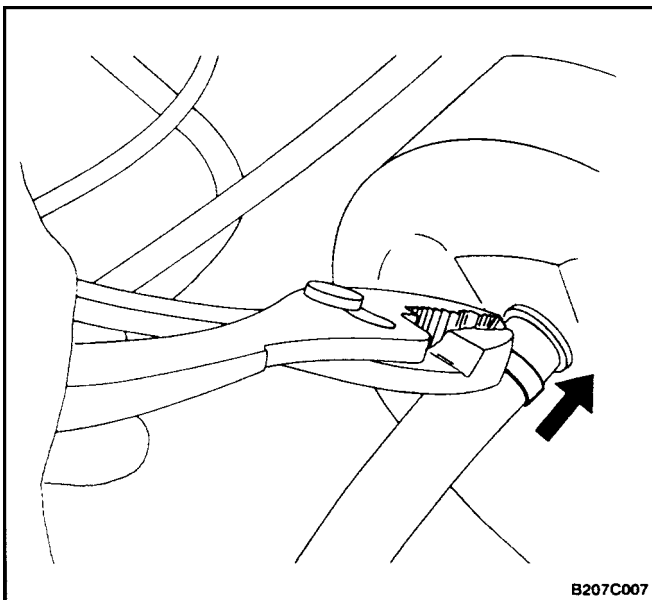
POWER BOOSTER ASSEMBLY

Removal Procedure

1. Remove the master cylinder. Refer to *Section 4B, Master Cylinder*.
2. Remove the brake lines to the hydraulic modulator for vehicles equipped with ABS.

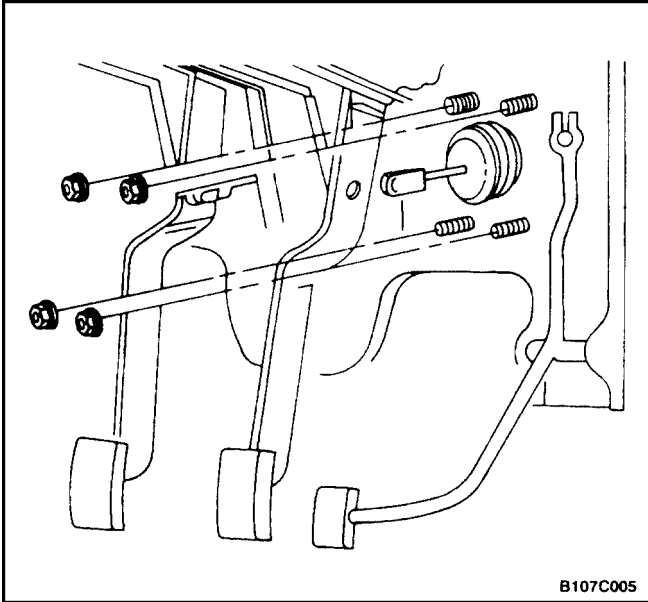


3. Remove the shaft and the rubber O-ring.

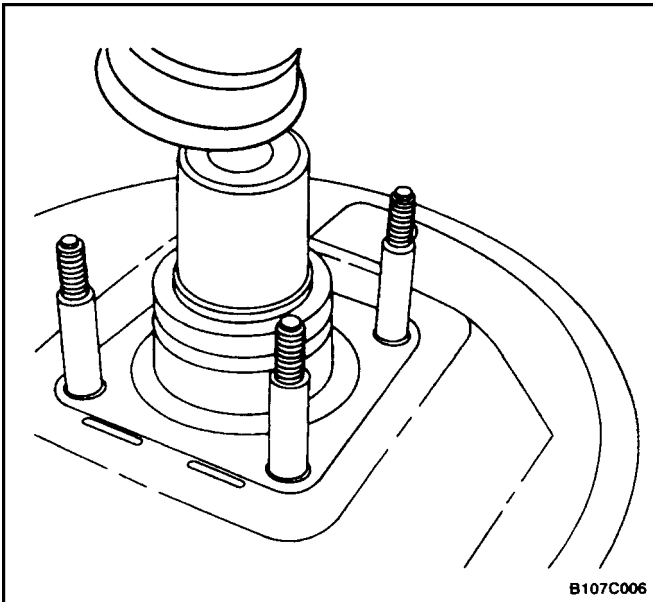


4. Remove the clip on the vacuum hose connection on the booster.
5. Disconnect the brake stoplamp switch from the brake pedal bracket.
6. Remove the brake pedal spring.
7. Disconnect the clip and the pushrod pin from the pedal bracket assembly. Refer to *Section 4A, Hydraulic Brakes*.

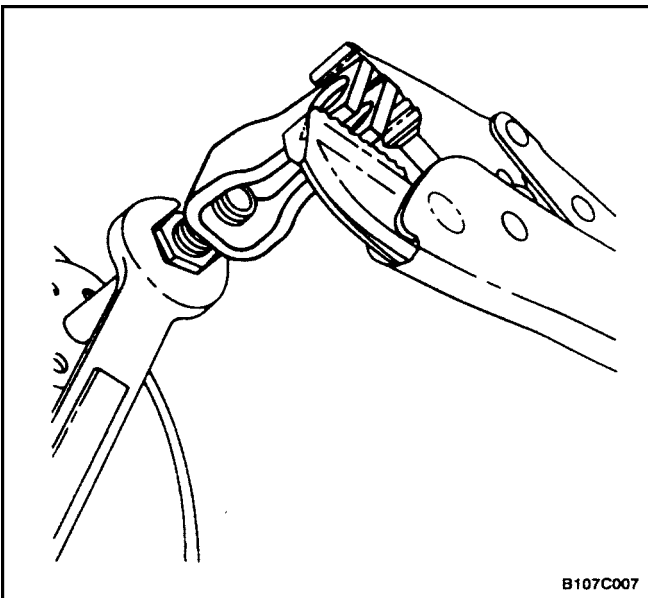
4C – 4 POWER BOOSTER



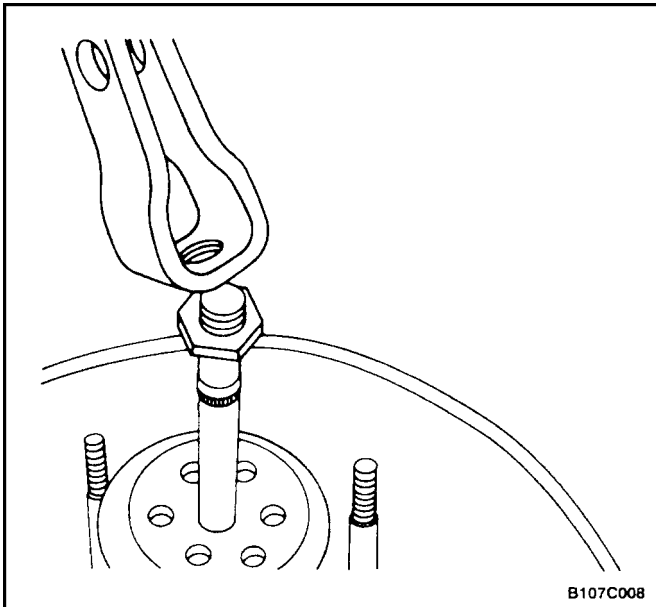
8. Remove the booster mounting nuts from the studs protruding from the dash panel and remove the booster.



9. Remove the rubber boot.



10. Holding the hex nut, twist off the pushrod clevis.
11. Remove the hex nut from the pushrod.

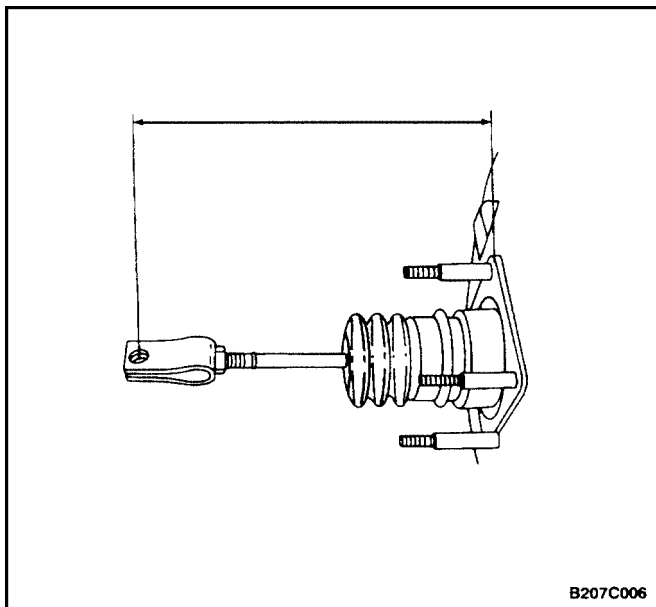


Installation Procedure

1. Check the pushrod and the pushrod clevis for damage and proper fit.
2. Install the hex nut and the pushrod clevis on the booster shaft.

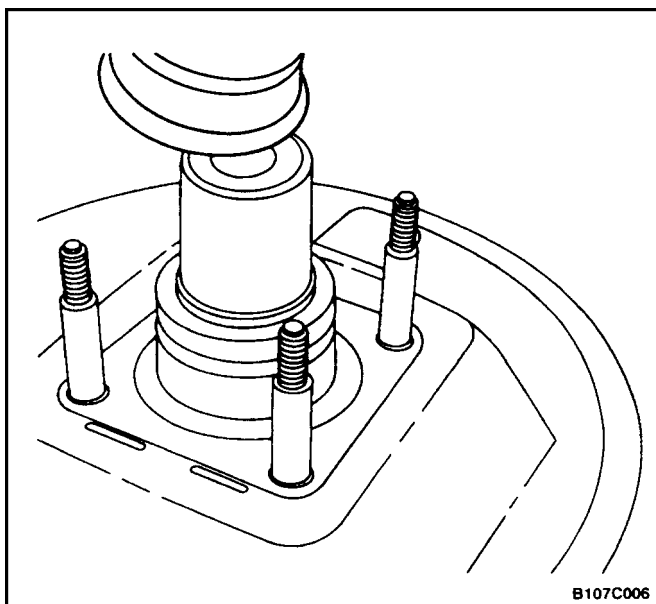
Tighten

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

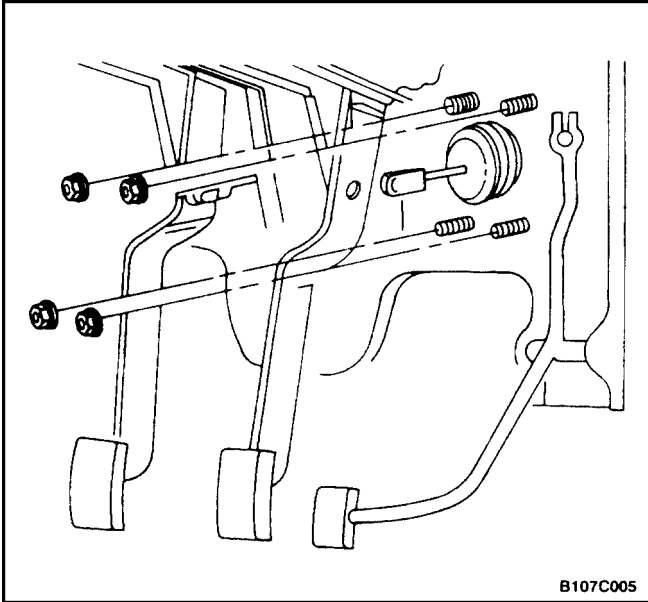


3. Measure the distance from the booster to the center of the clevis bore.

Important : This measurement should be 203 mm (8 inches).



4. Install the rubber boot on the booster.

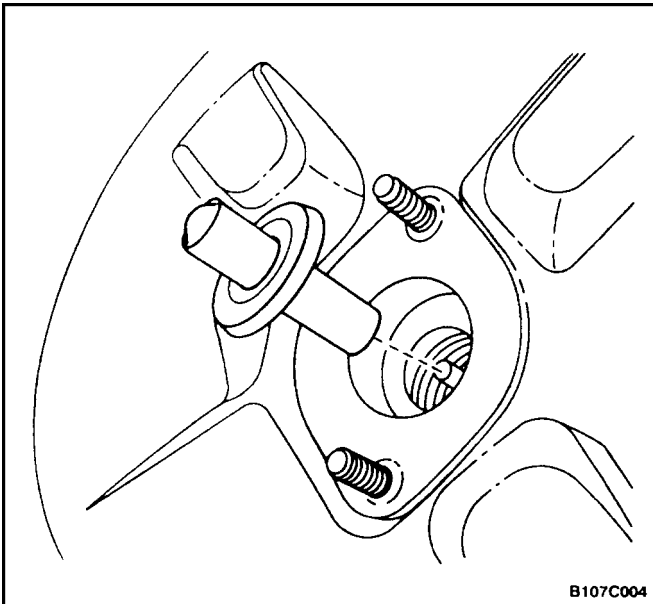


B107C005

5. 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).

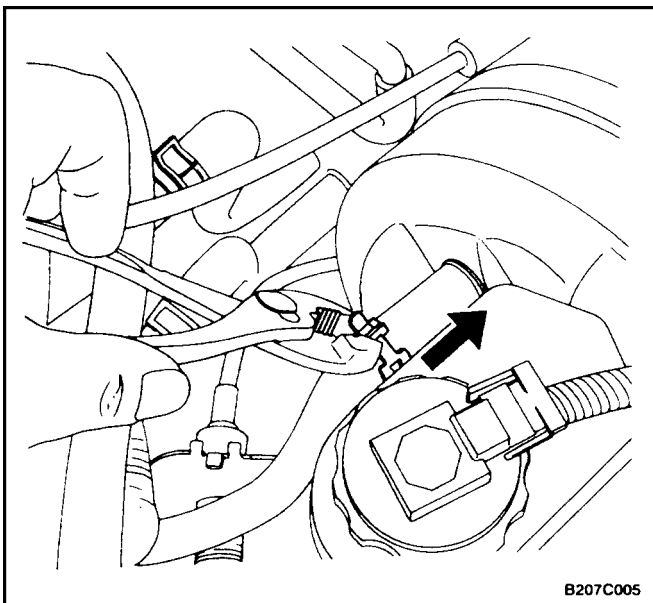


B107C004

6. Insert the shaft and the rubber O–ring into the power booster.
7. Connect the master cylinder to the booster. Refer to *Section 4B, Master Cylinder*.
8. Connect the brake line fittings to the hydraulic modulator, if applicable.

Tighten

Tighten the brake line fittings to 16 N•m (12 lb–ft).



B207C005

9. Install the new vacuum hose to the booster. Refer to "Vacuum Hose" in this section.
10. Install the hose clamps on the vacuum hose, and snap the vacuum hose in the revolving clip.
11. Install the pushrod pin to the brake pedal bracket assembly and connect the clip and the spring. Refer to *Section 4A, Hydraulic Brakes*.
12. Install the brake stoplamp switch onto the brake pedal bracket.

GENERAL DESCRIPTION AND SYSTEM OPERATION

POWER BOOSTER

The power booster is a single diaphragm, vacuum operated unit. When the brakes are not applied, there is no power assist because equal pressure (vacuum) exists on both sides of the power booster diaphragm. When the brakes are applied, vacuum is present on one side of the

diaphragm, and air, at atmospheric pressure, is admitted to the other side. Power assist is provided when there is unequal pressure on opposite sides of the diaphragm. When the brakes are released, atmospheric pressure is shut off, and the vacuum source creates equal pressure on both sides of the diaphragm by means of a one-way valve in the power booster.

Important : If any hydraulic component is removed or disconnected, it may be necessary to bleed all or part of the brake system.