

**Haynes**
shows you how

BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.

12 Power brake booster - testing, removal and installation

Note:

On models with ABS and Traction control (ASC+T) or Dynamic stability control (DSC), removal of the power brake booster involves removal of the ABS/ASC+T and/or DSC control unit. Due to the need for special diagnostic equipment, this task should only be carried out by a BMW dealer or suitably-equipped specialist.

Testing

1 To test the operation of the power brake booster, depress the brake several times to remove the vacuum, then start the engine while keeping the pedal firmly depressed. As the engine starts, there should be a noticeable give in the brake pedal as vacuum increases. Allow the engine to run for at least two minutes, then switch it off. If the brake pedal is now depressed it should feel normal, but further applications should result in the pedal feeling firmer, with the pedal stroke decreasing with each application.

2 If the booster does not operate as described, first inspect the booster's check valve as described in [Section 13](#).

3 If the power brake booster still fails to operate satisfactorily, the fault lies within the unit itself. Repairs to the unit are not possible - if faulty, the power brake booster must be replaced.

Removal

Note:

New retaining nuts will be required on installation.

4 Remove the master cylinder as described in [Section 10](#).

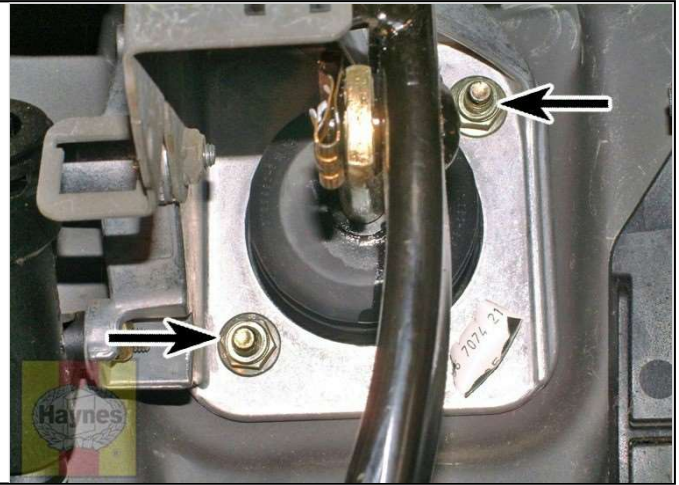
5 Disconnect the vacuum hose from the power brake booster check valve.

6 Loosen and remove the retaining screws securing the driver's side lower dash panel. Unclip the panel and remove it from the vehicle.

7 Referring to [Section 11](#) , unhook the brake pedal return spring, then slide off the retaining clip and remove the clevis pin securing the pedal to the power brake booster pushrod (see illustration 11.4) .

8 Loosen and remove the power brake booster retaining nuts, then return to the engine compartment and remove the power brake booster from the vehicle (see illustration) .

12.8 Remove the power brake booster retaining nuts



Installation

9 Installation is the reverse of removal, noting the following points.

- A. Check the power brake booster check valve sealing grommet for signs of damage or deterioration, and replace if necessary.
- B. If a new power brake booster is being installed, remove the sound insulation material from the original, and transfer it to the new one.
- C. Ensure that the power brake booster pushrod is correctly engaged with the brake pedal, then fit the new retaining nuts and tighten them to the specified torque.
- D. Apply a small amount of grease to the booster pushrod clevis pin, and secure it in position with the retaining clip.
- E. Install the master cylinder as described in [Section 10](#) of this Chapter.
- F. Install the brake-light switch as described in [Section 18](#) .
- G. On completion, start the engine and check for air leaks at the vacuum hose-to-power brake booster connection; check the operation of the braking system.