

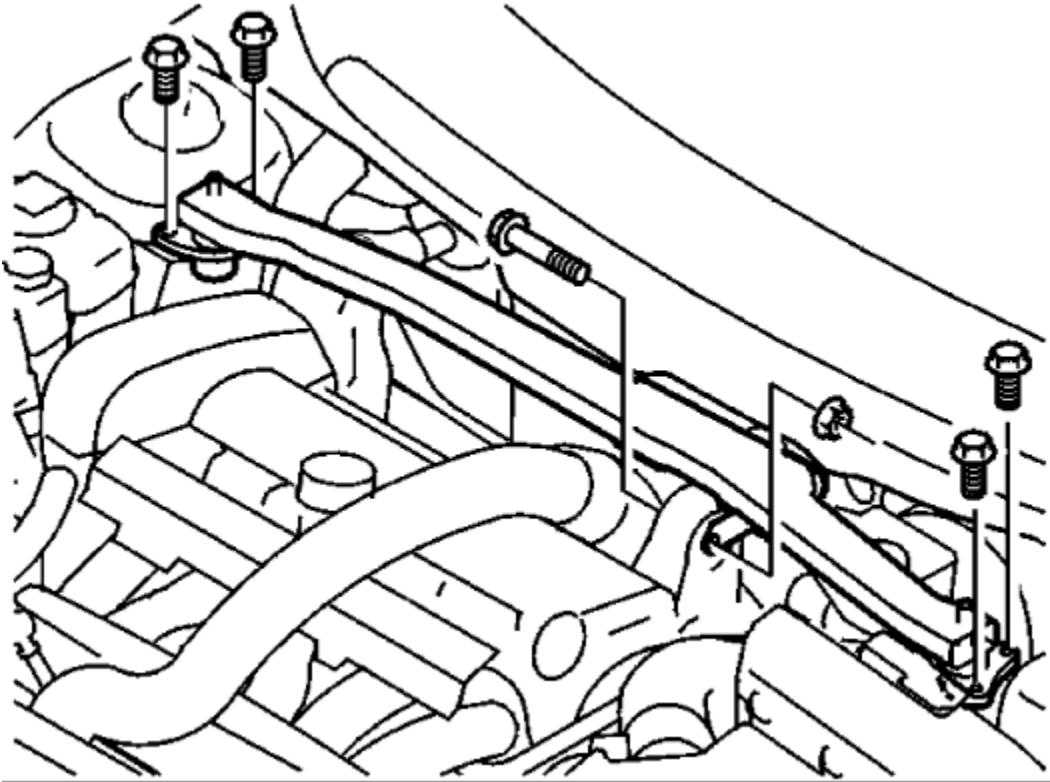
Testing and Inspection Vacuum System, Checking

Preparation

Disconnect the battery lead.

Preparations for checking the check valve

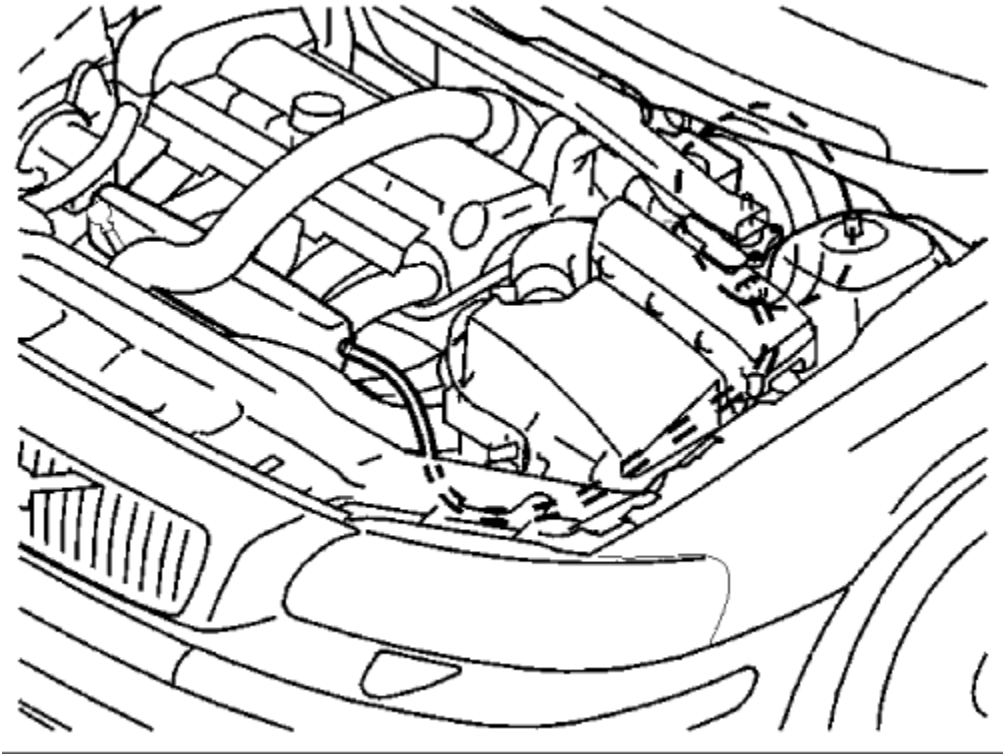
Remove:



- the mounting screws for the torque rod
- the screw and nut for the engine mounting in the torque rod
- the torque rod.

Check the vacuum hose

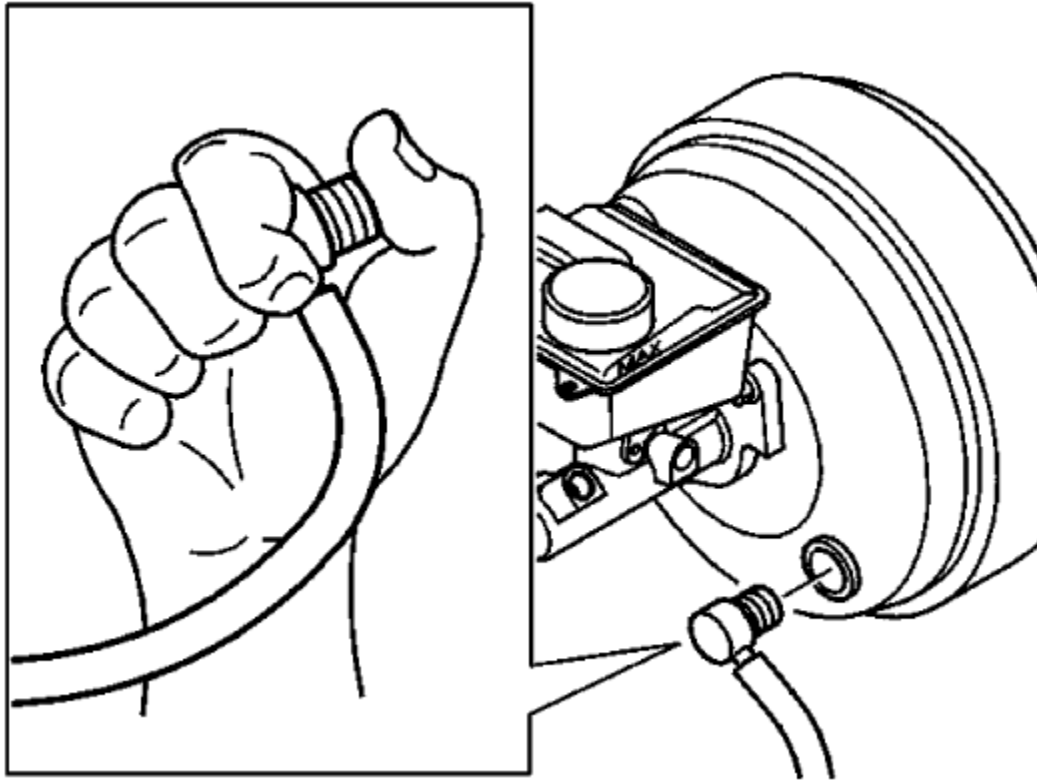
Check:



- the vacuum hose connections at the manifold and the check valve
- that the vacuum hose is not crimped or rubbing anywhere
- that the vacuum hose inner weave has not broken and blocked the through flow.

Disconnect the hose. Start the engine. Check the vacuum.

Check the check valve



Check the function of the check valve.

Start the engine.

Remove the check valve from the power brake booster.

Check that there is a vacuum. Feel the check valve.

Reinstall the check valve.

Press the vacuum hose. Listen for a leak. Replace the rubber bushing if there is a leak.

Switch off the engine.

NOTE: Replace a defective check valve.

Check the function after replacing the check valve

Depress the brake pedal several times so that it has no travel.

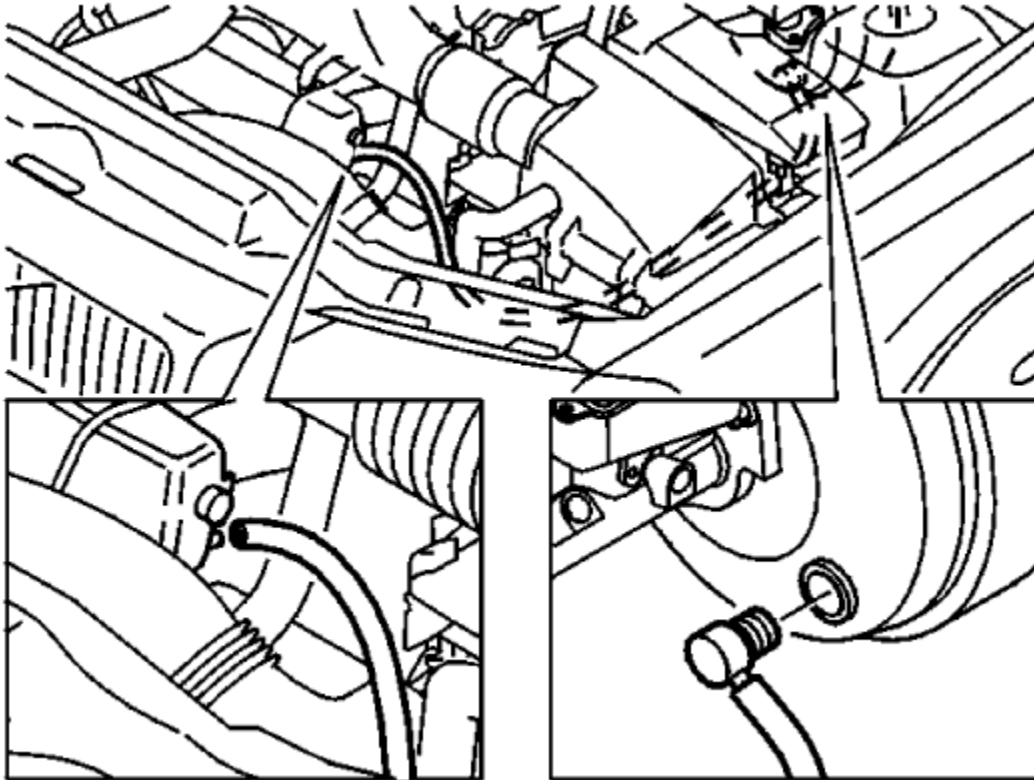
Hold the pedal down. Start the engine. The pedal should travel and feel softer.

Release the brake. switch off the engine. Wait **1 minute** . Then depress the pedal. The pedal should still feel soft but should become stiffer when it is depressed several times.

Replacing the vacuum hose

Remove the air cleaner (ACL) housing.

Remove the check valve from the power brake booster. Remove the vacuum hose



Pull out the check valve.

Remove the hose from the intake manifold.

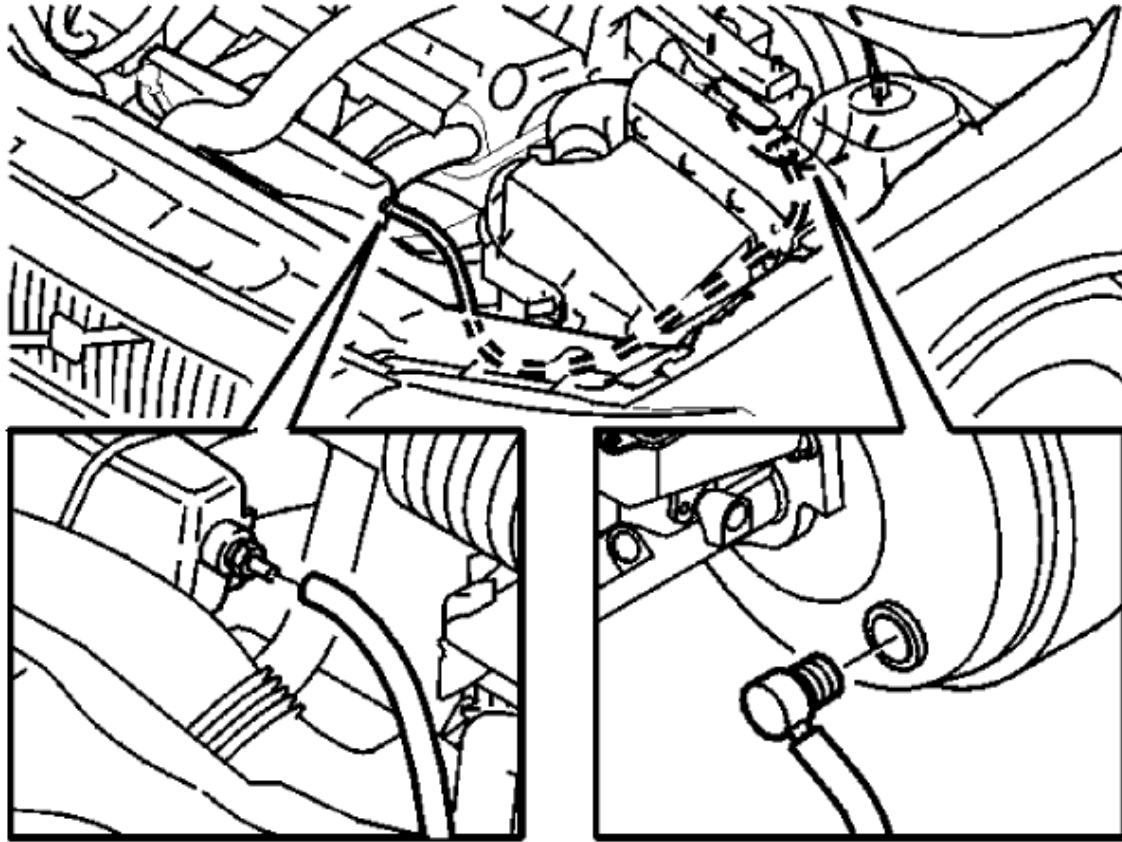
Pull the hose forwards between the bracket for the ABS hydraulic modulator and the side member.

Replace the part of the hose which is damaged.

Transfer the check valve to the new hose section.

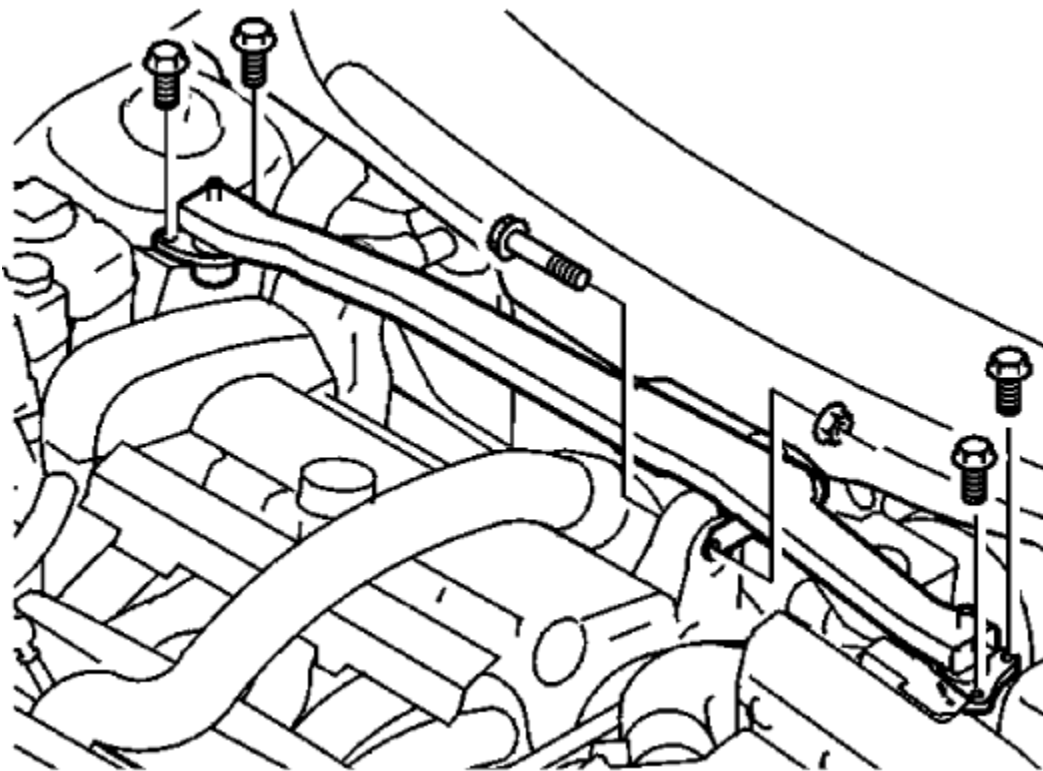
Install the vacuum hose

Install:



- the hose with the check valve behind the bracket for the ABS hydraulic modulator
- the check valve in the power brake booster
- the hose to the intake manifold.

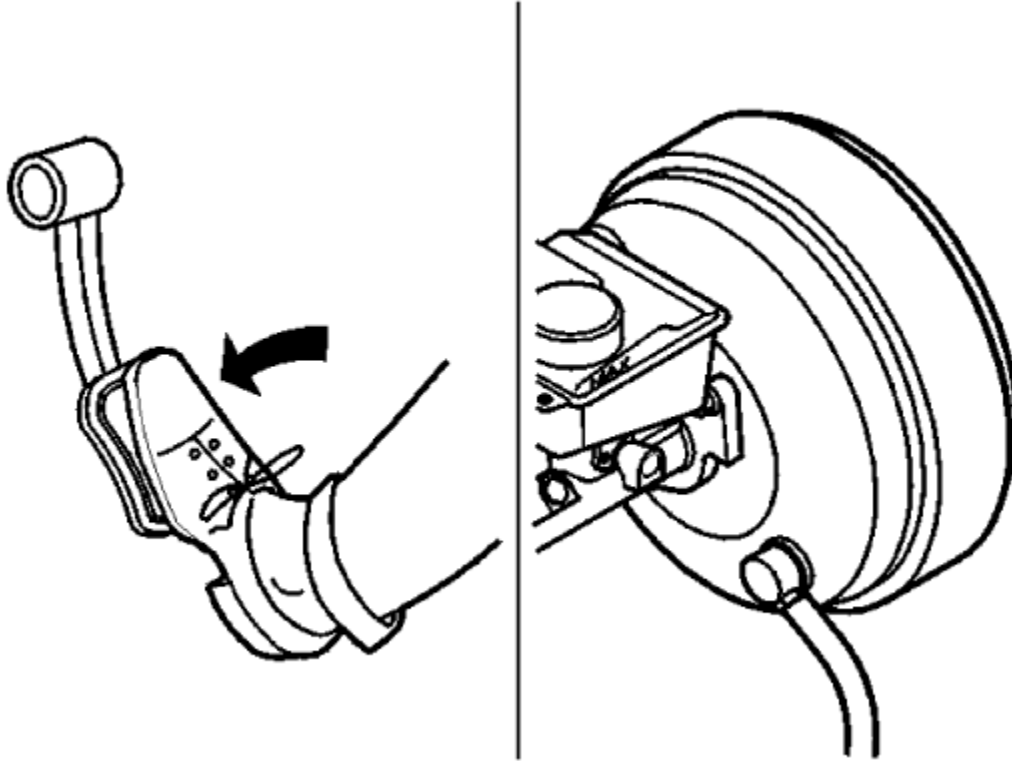
Install the torque rod



Install:

- the torque rod. Tighten the mounting screws. Tighten to **50 Nm**
- the screw and a new nut for the engine mounting. Tighten to **80 Nm** .

Check the power brake booster



Check if there is a vacuum to the power brake booster. Do this by removing the hose from the check valve.

Depress the brake pedal several times to so that it has no travel.

Hold the pedal down. Start the engine. The pedal should travel and feel softer.

Release the brake. switch off the engine. Wait **1 minute** . Then depress the pedal. The pedal should still feel soft but should become stiffer when it is depressed several times.

Replace the power brake booster if the pedal feels hard and unresponsive when the engine is idling.