

Bulletin BPI 00-06
ALL VEHICLES

Subject: Low brake pedal isolation procedure

Vehicle Involved: all

Condition: Pedal is low

Repair Procedure: Isolate system

There are three conditions that will cause a brake pedal to be low. Mechanical adjustment, Internal/external leak, and trapped air.

External leaks and out of adjustment components are not difficult to find. A visual inspection of the system will readily expose the location and condition of the component that is causing the pedal to fail.

Internal leaks and trapped air, are the most difficult to locate. It may require a process of elimination. The first step is to segment the system.

With the use of special hose clamps, isolate each wheel circuit, by applying a clamp to each brake hose. Clamps should be used in accordance with the manufacturer instructions to insure not damaging the hose. With all the hoses clamped, depress the brake pedal.

If the pedal remains at its normal operating position, the problem exists in the wheel circuits. Release one clamp at a time until the pedal fails. You have located the section of the hydraulic circuit that is causing the failure.

Thoroughly inspect the components of that section for operation and installation. Keep in mind that air remains at the highest point and bleeders must be located as to expel the air in the system.

Repair or replace components that are causing the failure. If air is trapped in the circuit, bleed the circuit in the normal acceptable way.

If the brake pedal fails, with the hoses clamped off, the problem is in the master cylinder, the ABS modulator, or the brake lines.



Bleed the master cylinder at the line connections, using the same procedure as bleeding the wheels. With the air removed, check the pedal position.

If the pedal is still low, remove the brake lines from the master cylinder and plug the ports. With the air bleed from the master cylinder plug connections, depress the brake pedal. If the pedal fails, replace the master cylinder. If the pedal remains at its normal position, the master cylinder is good.

If the vehicle is equipped with ABS, the modulator may be leaking internally. Verify the modulator is leaking in accordance with repair manual.

After verifying that the master cylinder and the modulator are good, you can conclude air is trapped in the lines. Keeping in mind that air becomes trapped at the highest point, you may have to use a pressure bleeder to purge air that may be located in a brake line loop .

CAUTION:

BE SURE TO REMOVE ALL HOSE CLAMPS BEFORE ROAD TESTING THE VEHICLE. FILL MASTER CYLINDER RESERVOIR WITH A QUALITY GRADE OF BRAKE FLUID, OF THE TYPE INDICATED ON THE MASTER CYLINDER COVER.