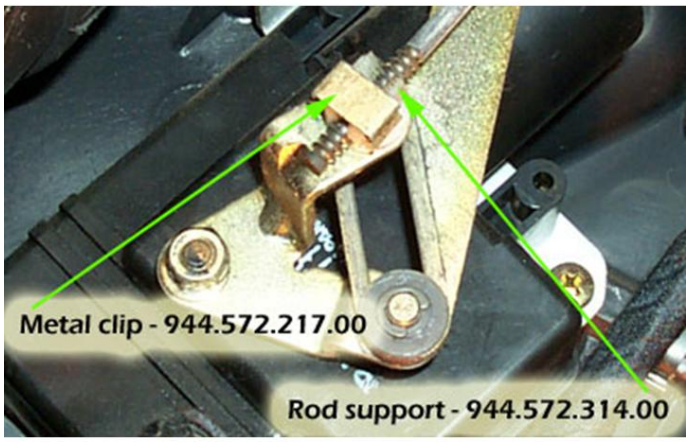
HVAC-01, 944 Heater Malfunctions

Introduction

There are several heater problems that seem to be common on 944s. I'll try to describe them here and tell you what to look for to try and fix them.

Full Heat at All Temperature Settings

There are two problems which most commonly cause this condition. The first and most common problem is a damper linkage in the driver's side footwell (for left-hand drive cars). Stick your head in the footwell and look up and toward the center console. You should see a small diameter metal rod which rests in a white plastic support and is held in place by a metal retaining clip. On later model 944s, there are two damper linkages instead of one and they are located behind a plastic cover. One of the plastic clips on the linkage may be broken preventing the linkage from operating the damper. When the damper fails to operate, the system fails to full heat. Most German cars are designed to fail this way. It's a safety feature to keep you from freezing in winter. The first picture below shows a linkage that has come loose from the support because the metal clip is broken. The second picture show the linkage properly in place with a new support and clip along with the part numbers for the support and clip.



The second problem is with the heater control valve. The heater control valve is vacuum operated and located at the back of engine near the firewall. There is a vacuum line which goes from the valve to a vacuum connection at the firewall where the heater hose connections penetrate the firewall. Check this vacuum line to make sure it is connected and doesn't show any signs of cracking. There is another vacuum line fitting near the heater hose connections which goes to a rubber "Y" connector. One side of the "Y" goes to a small check valve attached to the large brake booster vacuum line at the back of the firewall. The other side of the "Y" goes through the firewall to a plastic vacuum retention canister next to the battery. Make sure all these lines are connected and don't show any signs of cracking. If all vacuum lines are properly connected you may wish to remove the heater control valve from the system and check it's operation with a vacuum tester.

Intermittent Heat

If your car's heater works fine while driving down the road but the air from the vents becomes cold at idle, you probably have air in the coolant system. Air pockets in the coolant system often accumulate in the heater core. At higher engine RPMs the coolant pump will develop enough discharge head to force some coolant through the heater core. However, at idle, the air pocket will keep coolant from flowing through the core. If you are experiencing these symptoms, vent the coolant system using the COOL-02, Coolant System Draining, Filling, and Venting.