**Wheels:** Dave B. writes by e-mail: "I have a 1992 Chevy Astro van with 206,000 miles. I have never had anything major wrong with it but in the last couple of months it has developed a problem with the idle. While stopped at red lights, or anytime while in gear, the idle is pretty rough. It is especially rough when the AC is on. There is no hesitation in acceleration, no lack of power, except uphill with the AC on. It was suggested that I might have a vacuum leak but could not find any. Thanks for any help you can give."

**Halderman:** There are many possible causes for this problem, but from my experience, a fault in the high-voltage ignition system is the most common. Have the spark plug wires inspected or replaced if they are original. Original wires have a date printed on them such as 9/02. Also inspect the distributor cap and rotor as these can also cause your problem. A fault in the ignition system, while often detected as a misfire, is often noticed at idle.

**Wheels:** What if the ignition system including the spark plugs and spark plug wires are Okay? What else can Dave check?

Halderman: Other causes include:

- A leaking gasket at the intake manifold (most likely). This leak could be internal, meaning that it
  is drawing air from under the intake manifold and therefore, will not be detected using usual
  methods.
- A fault in the fuel injection system, such as a clogged or inoperative fuel injector
- An engine mechanical fault, such as a burned valve or a worn camshaft
- A partially stuck open exhaust gas recirculation (EGR) valve

**Wheels:** What do you suggest that Dave do to find the root cause of the problem?

**Halderman:** For this type of problem where the root cause could be anything from a simple problem such as a stuck EGR valve or a major engine fault, I suggest that Dave take the vehicle to have it diagnosed by a professional service technician. While the shop will charge for the diagnosis, I believe that this is worth it as it helps prevent unnecessary parts being replaced.

