

Wheels: An e-mail from Kevin states, “I have a 1988 Plymouth Voyager minivan with a 2.5 liter (nonturbo) fuel-injected engine. All of a sudden, it won’t idle down even when the engine warms up. I have replaced every vacuum line and the MAP sensor doesn’t look cracked. It seems to smell like it is running richer than it should since it blows black soot out the tailpipe on startup and rapid acceleration. Which is more likely the problem – the AIS motor, TP sensor, bad MAP sensor, or something else?”

Halderman: There are several possible causes for your engine running problems. The high idle speed and black exhaust smoke may or may not be related. Too high an idle speed is usually due to a vacuum leak. You stated that you have checked all the hoses, but a torn rubber throttle-body injection (TBI) base gasket is a very likely cause. With the engine operating at idle speed, try moving the TBI with your hand. If the engine speed changes, you know the base gasket is the cause. This leak can also cause the vacuum signal to the manifold absolute pressure (MAP) sensor to be lower than normal, which is interpreted by the engine controller (computer) as an extra load on the engine. The computer will then command a richer-than-normal fuel mixture resulting in black exhaust smoke.

If you have a scan tool, look at the AIS (automatic idle speed) counts. They should be about 15-25 if everything is OK. If the counts are low or zero, a vacuum leak is indicated or a defective AIS.

