

Wheels: Bob writes by email, “I have a 1995 Olds Cutlass Supreme SL with a 3.4 DOHC V-6 engine, and with 121,000 miles. After the car has sat in the garage overnight, the next morning when I go to start the engine the idle speed races, surges and chuggles, from 4,000 RPM to a few hundred RPM. After a couple of minutes, the engine heats up, the RPM becomes steady; and for the rest of the day of stop and go driving it runs just fine.

My friends say it is a vacuum leak but I can't find any problem. In 2002, with 84,000 miles, I had the intake manifold gasket replaced for basically the same reason of RPM surges when the car sits in the garage overnight and is cold the next morning. My service manual says among other things it could be the heated oxygen sensor (HO2S), or vacuum leaks, or air leaks. The spark plugs and wires are new. I need your advice. Thanks.”

Halderman: While the intake gasket could have failed again, other possible causes include a defective engine coolant temperature (ECT) sensor. When the engine is cold, the resistance of the sensor is high and becomes lower as the engine warms. If there is a poor electrical connection on the sensor, the engine computer would then assume that the engine is colder than it actually is and command a higher idle speed. I suggest that you have it tested by a professional technician who should look at the idle air control (IAC) valve commanded position to determine whether or not the high idle is being commanded or is a result of an air (vacuum) leak. Normal IAC counts or percentages should be 15 to 25. If being commanded high (higher IAC counts), then the ECT sensor is the most likely reason. If the IAC is not being commanded high, then this would tell me that there is a vacuum leak.

