

Wheels: A reader has a 1989 Ford Taurus with a problem with the fuel level gauge. The gauge reads full all the time. The low-fuel light seems to work okay. Do you have any ideas as to what could be wrong?

Halderman: The low-fuel light gets its signal from the fuel gauge sending unit in the fuel tank. When the fuel level in the tank reaches about 1/8 tank, the dashboard low-fuel warning lamp lights.

The sending unit uses a variable resistor and a float to measure the amount of fuel in the tank. On a Ford Motor Co. vehicle, when the resistance is high (about 145 ohms), the dash gauge will read high. When the resistance is low (about 22 ohms), the dash gauge reads low (empty). From your description of the problem, I think the tank unit is working correctly and the problem is in the dash unit or the wiring. The diagnosis of this problem will require an experienced electrical service technician to determine the root cause of the problem.



Wheels: The reader also stated that on an older model Ford, he replaced a small electro-mechanical device behind the dash and that this corrected his fuel gauge problem. Could this be the cause on his 1989 Taurus?

Halderman: The unit the reader is referring to is called an instrument voltage regulator (IVR) and was used in most older Fords to change battery voltage (12 volts) to 5 volts for use by the dash instruments. When the IVR failed, it affected all the dash instruments including the oil pressure gauge (if equipped) engine coolant temperature, and fuel level gauge. Because the reader states that only the fuel gauge is affected, I think the problem is simply due to a fault in the fuel gauge circuit.