

WHEELS: Gary from Dayton writes by e-mail: “The voltmeter on my dash was showing lower than 12 volts at times while driving on my 2004 Chevrolet Avalanche. I took my truck to two parts stores and they both tested my alternator. Both places said my alternator was fine. I happen to have a dual post battery that is it has both side and top terminals. The side posts are used for the cables that go to the engine and starter. The reason I have top terminals also is to easily hook up my ham radio equipment. When I started having problems I decided to disconnect the top terminal ham radio-designated connections. From that point the problems I was describing to you seemed to slowly go away.

What I think might have happened is the wires I have connected to the top terminals went thru the firewall and originally I had a rubber grommet to protect the wires insulation. Well the grommet was missing. The wire seemed a bit frayed and I think there might have been some kind of beginning short. This might account for the ammeter running up the voltage during charging and possibly why the needle in the ammeter not going down any lower than 12 volts.

Everything is working fine now so I am going to keep an eye on it.

What do you think of my logic & diagnostics?”

Halderman: Obviously you have a solid background in electrical systems and electronics. Good job of diagnosing your electrical charging system concern. However, the dropping of the voltage may be normal if it is equipped with an electrical power management (EPM) system used on many General Motors Co. trucks and passenger cars. This system uses a current sensor that is attached to the negative battery cable on trucks and to the positive battery cable on passenger cars and measures the current entering and leaving the battery. To help improve fuel economy, the alternator charging is reduced unless it is needed and it is normal to see the dash voltmeter go below 12 volts at times.

Check the owner’s manual to see if it states that the voltmeter reading is normal. In most cases if the headlights are turned on, the voltmeter should show about 14 volts and the alternator will be providing the electrical power for the headlights.

