

**Wheels:** Gary of West Carrollton writes by e-mail: “My dash volt gauge on my 2004 Chevrolet is all screwed up. It now points way off scale.

*I can go into the cluster, and push the pointer back to zero but the problem just reappears. What is going on with this? How do I fix that problem?”*

*Sol writes by e-mail: “We have a 2004 Chevy Impala. When it rains the speedometer goes crazy. Some time it says you’re going faster than actual speed and sometimes it says you’re going slower than you are. Can you tell me what might be causing this problem and what I can do to fix this?”*

**Halderman:** While there are several possible reasons why these issues can occur, what I found out is that faults in the dash instruments seems to be a common concern and usually requires replacement of the entire instrument panel cluster (IPC) assembly. However, before having the entire assembly replaced, there are some tests that a service technician can perform that may help either to confirm that the assembly needs to be replaced or is caused by another problem. First have a technician check the charging system for excessive AC ripple voltage. The diodes inside the alternator change alternating current (AC) voltage into direct current (DC) voltage. If one of the diodes is defective, an excessive amount of AC voltage can be sent to the battery and all of the electrical components in the vehicle. This AC can cause weird problems and even some engine operating problems. The maximum amount of AC should be 0.5 volt measured at the battery or at the output terminal of the alternator. If the AC voltage is above 0.5 volts a replacement alternator may solve the problem. Another possible reason for wierd dash instrument operation is a poor electrical connector either at the connector or inside the IPC. An experienced service technician can check to see if this is a possible solution and in some cases the solder joints can be “reflowed” solving many of these issues.

