

**Wheels:** An e-mail from Vaughn says, “Please give me your opinion on this matter. Recently I was told that I needed a new alternator because I was having problems with my battery going down. A new alternator was installed and now I am getting a "hum" from the alternator area. I took the car back to the mechanic and was told that the alternator was okay, and the humming sound might be coming from the AC compressor. He also had installed a new drive belt. I did not have the "hum" problem before the alternator and belt were installed. If not the alternator, could it be that the belt has the incorrect tension?”

**Halderman:** The hum could be the brushes wearing in and the noise may stop. However, it sounds like the alternator has a bad diode and this will cause a hum and not affect the output. It can be checked by measuring the AC voltage ripple at the output terminal of the alternator. Use a digital multimeter and select AC volts. Attach one meter lead to the output terminal of the alternator and the other lead to the case of the alternator. Start the engine and turn the headlights on bright to give an electrical load. The reading should be less than 0.4 volt. If 0.5 or higher is read, the alternator is bad. I hope this helps.

**Update:** Vaughn wrote saying he tested the AC voltage and read just 0.06 volts AC indicating that the diodes are okay. He mentioned that the hum has decreased and assumes that the brushes are wearing in.

