

Wheels: We have an e-mail from a reader. “ On my 1996 Chevrolet Cavalier, the regular headlights don’t work but the brights do, and the driving lights only work when they want to. I’ve replaced the combination switch that controls the lights and also the driving light relay thinking maybe the driving lights were causing the headlights not to work. There doesn’t appear to be any wires broken or grounding out. There is a microprocessor behind the instrument panel. Do you think this could be causing my problem? I’m lost and any help would be great. Thanks for your time.”

Halderman: I always start diagnosing faults by checking everything that does and does not work. By “driving lights”, I assume you mean daytime running lights usually abbreviated DRLs. On your Chevrolet, these DRLs use the high-beam filament of both headlights wired in series (instead of parallel) to provide one-half voltage to each bulb. If one of these filaments was to burn out, then both DRLs would stop working because the electrical current has to flow through both filaments and then to ground in order to function. Because the brights work and the DRLs work, we know that the bright filaments of both bulbs are okay. The headlight bulbs also contain a low beam filament. If this filament was to burn out, then the standard headlights on low beams would not work. Because both low beams are not working, the problem could be the dimmer switch, which is called the combination switch that you replaced. It is called a combination switch because it controls the turn signals, headlights, and wipers all in one assembly. Because of the symptoms and the fact that you have already replaced the combination switch, I think the problem may be simply two bad headlight bulbs.

Wheels: How could the headlight bulb be bad? The DRLs and the high beams work okay.

Halderman: Each headlight bulb contains both a high-beam and a low-beam filament. What I think could have happened is that one of the low-beam filaments burned out but you did not notice it because the DRLs, brights, and the other headlights functioned correctly. Then the other low-beam filament burned out and now you noticed that you have no low-beam headlights. A service technician can check the resistance of the filament of the bulbs to be sure.

Story Time: This same problem happened to me one dark night as I was driving home from work. All of a sudden, the headlights went out and I couldn’t see. When I switched to high-beam, they worked great but other drivers did not like me that evening. After checking for voltage to both headlight bulbs and verifying that the low-beam filaments were indeed open (broken), I replaced both headlight bulbs and everything worked normally.

Wheels: The reader mentioned that the microprocessor in the dash may have a fault. What does this processor do?

Halderman: The instrument panel (IP) controller (computer) is used to operate the fog light relay. Whenever the high beams are on, the fog lights are turned off by the computer through a fog-lamp relay.

