

# Noisy CF Bulb Jams Garage Door Opener

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This tale about an unintended consequence of “going green” by switching to CF bulbs makes me feel better about sneaking my recyclable bottles into the bottom of the trash barrel.

Reader Steve Coan writes:

“My son-in-law called the other day to ask why his garage door opener would work only once every five minutes or so. I asked all the usual questions about replacing the batteries, etc., and said I would think about it. He called back the next day to say that he had solved the problem: Being energy conscious, he had replaced the unit’s incandescent bulbs with fluorescent lamp bulbs. That’s when the trouble started. But when he tried putting the standard bulbs back in, the problem was gone. Apparently the CF bulbs were generating enough EMI to desensitize the receiver in the overhead door opener.”

Daryl Gerke, an expert in EMC issues and owner of the consulting firm [Kimmel Gerke Associates](#), Ltd. isn’t fazed. “A CF bulb or any fluorescent bulb is a discharge device, which means you get arcing inside the light and that is going to create EMI. In fact, this characteristic of CF bulbs has been known for years, which is one reason that they are not used inside of EMI test chambers. When these bulbs first came out, there were concerns that they would wreak havoc on the world, but the manufacturers have taken steps to quiet the bulbs down quite a bit. But in the case of this particular garage door opener, the bulb itself was located just a couple of inches from the antenna. With the lamp practically on top of the receiver, even RF emissions well below the FCC limits could easily cause the problem.”

Gerke ran into another garage door opener problem a few years ago — only in this case the culprit was an expansion board with a 4-bit microprocessor. It was, he says, the worst possible layout. “The processor had a clock trace that was routed around the edge of this little one-inch-square board,” he recalls. “The emissions were enough to jam the remote.”

Posted by [Karen Field](#) on May 11, 2009