

**Wheels:** *Lewis P. writes by e-mail: "I'm normally on the "reading end" of the questions, but I have a concern of my own this week. The A/C failed to cool on my wife's 2000 Chevrolet Prism. I took it to a shop where I was informed that the low pressure line had a hole in it. I paid \$614 to have the issue resolved. A week later, the A/C failed to work again. The technician said that an O ring had "failed". Sounded unlikely, but they recharged the refrigerant and fixed the culprit O ring. Three weeks later, the compressor failed. I was concerned that the compressor had been run without refrigerant and the associated lubricant which then caused it to seize. The mechanic assured me that this was not the case with some now forgotten details, and said that when one thing goes another often accompanies it. His explanation made sense, but I took it to a Chevy dealership to get the compressor fixed as I was suspicious of their workmanship. I was happy with the dealership's work, and they stated that they couldn't find anything of concern with the previous shops' repairs. So, \$734 later, the A/C was working like a champ.*

*This morning the A/C was again not blowing cool air. The same dealership took the car in and discovered via a dye test that the refrigerant is leaking out from at least two different areas. It appears that the part from the first shop received faulty parts. While this was not likely intentional, I'm out a lot of money with an A/C system that's still leaking like a sieve. I'm wondering if the "failure" of the O ring and slow leak of refrigerant caused the original compressor to fail. Please offer your perspective."*

**Halderman:** The short answer is that the system will shut off if the refrigerant is lost to help protect the compressor. The vehicle is 10 years old and age and mileage do combine to cause wear to the compressor. The leaks may be the result of moisture in the system. I did not see where the shop or dealer replaced the dryer, which is designed to remove any moisture from the system. I asked Tom Birch, an air conditioning expert and author of an air conditioning textbook for his advice.

Tom responded:

“Yes, the compressor damage could have been caused by operating with low or no refrigerant. Many vehicles have low pressure shut-off or warning systems to prevent this. And yes, the O-ring failure should not have occurred this soon after a repair, and I suspect that the suction line replacement used inferior parts. This line usually lasts many years unless some outside source has caused damage. It is also interesting that the repair of these two, relatively low-cost parts cost nearly as much as the compressor replacement, one of the more expensive A/C system parts”.

