Wheels: *Jerry P. from Troy writes: "Dear Mr. Halderman,*

Thank you for considering my letter. A very reputable independent garage has worked since May to get proper cooling. They have replaced the evaporator, condenser, compressor and lines. The dash has been out five times. It started with a new evaporator, then a new condenser, new lines and a compressor. As of last week, it still will not cool below 51 degrees. Also the local Chrysler dealer has had it apart and to the credit of both organizations they actually worked together. The independent garage has been great yet they are frustrated by their lack of success. Would you have any suggestions or knowledge that may help them?

They are quite agreeable to working with me and would not be offended if there is a more qualified source to correct this problem. I would be most grateful for your help."

Halderman: You asked a good question and the situation could be as simple as having either too much or not enough refrigerant in the system. Even an ounce of refrigerant (R-134a) over or under the specified amount can make a huge difference in the ability for the system to cool properly. They should be using the under hood decal for the specified amount of refrigerant to use. Because more than one shop is not able to fix the concern, I asked a couple of experts for their advice. I asked Tom Freels, the Chrysler College Program (CAP) coordinator at Sinclair Community College, for his advice and here is what he wrote back:

Sounds like a lot of variables that are unknown from the customer. Have they been changing all of these parts to try and fix a refrigerant leak or have the parts somehow failed. Also, has the condenser been replaced due to a compressor failure and was the system completely flushed out of all metal particles. If so, 51 degrees sounds like a good duct discharge temperature if the ambient air temperature is above 76. If the duct temperature was this reading the week that we have 100 degree heat index, the system is working remarkably well. It is an orifice tube system so hopefully it was replaced with the new lines and it is not plugged up from a compressor failure. Maybe you could get a little more info on what parts have failed or if they are just chasing leaks.

Thanks Tom.

I also asked Jeff Rehkopf, professor of automotive technology at Florida State College at Jacksonville, Florida, for his advice as he teaches air conditioning year around at his college.

Jeff wrote back and said:

The outlet temperature depends on the ambient temperature and humidity. If the shop temperature was in the mid-80s to 90s, I would say that might be as cold as it will get.

Thanks Jeff.

It looks like we all need more information before a good recommendation can be offered.