

Wheels: Jon has a question about the air conditioning system in his car. “First let me give you some details. I have a 1986 Buick Regal that came with an R12 A/C system, and it worked great. I have put a 1995 Buick Roadmaster engine and transmission (LT1 and 4160E) in to the Regal. The car runs and drives great. I have the Buick Roadmaster R134 compressor connected to the Buick Regal A/C system via custom lines made at a parts store. I have my local garage try to fill the system with R134 last night, but they got high pressure readings on both high and low pressure sides. They are not sure if the Roadmaster R134 compressor will work with the old R12 system on the Regal. What do you think? Should I look for a compressor from an R12 cooled Roadmaster? I have made everything else, including the cruise work, so I am pretty determined to get the A/C working. Any suggestions are greatly appreciated.”

Halderman: Where do I start? Retrofitting any air conditioning system from R12 to R134a requires that the desiccant (receiver-drier) be replaced. The major difference in the two refrigerants is that they use different types of oil to lubricate the compressor. You can use an R-12 compressor, although there have been compressor failures after the retrofit, which may have been lubrication related. To successfully convert to an R-134a system requires the following, which must be performed by a licensed technician:

1. Replacement of hoses if the R-12 hoses were not barrier design. (R-134a molecules are smaller than R-12 and can escape through old-style R-12 hoses).
2. Replacement of the accumulator (receiver-drier).
3. Flush the system of all old refrigerant oil.
4. Charge the system with the specified oil and refrigerant. It requires about 85% R-134a compared to the amount specified for R-12.

If proper cooling does not occur, the service technician should follow standard troubleshooting procedures to locate the problem.

