Understanding R-12 and 134A systems for your El Camino

Air conditioning your El Camino today requires more knowledge and informed thought than a few years ago. As you may already know, the old industry standard refrigerant known as Freon or R-12 is no longer being produced. In fact, it hasn't been produced in the U.S. for several years now. The reason for its demise is based on the fact that the chlorine component (in chloro-fluro carbon 12) has been identified as the primary offender in ozone depletion theory affecting legislation in this country and virtually every other industrialized nation in the world. Production has, as a result, been banned in this country and the end goal is to control its use until it is all but eliminated from common usage. The refrigerant selected by all automakers world wide to replace CFC-12 is HFC-134a. The primary difference is the use of hydrogen in place of the chlorine atoms. Hydrogen is relatively benign to the atmosphere and HFC-134a is less harmful. No known atmosphere destruction, no problem! Still, we would like to go on record as saying that all refrigerants, including HFC-134a should be dealt with responsibly, using proper control procedures and recycling machines for each type of refrigerant you handle.

What does all of this mean to you? It means that, as was predicted early on, CFC-12 has become very scarce. If you are currently building a vehicle and hope to have it running soon, you'll need to decide which refrigerant makes the most sense to use. Among the considerations are:

1. Although CFC-12 can be found, it is getting scarce as shops stop purchasing and replace the equipment used for CFC-12.
2. The cost of CFC-12 in relation to HFC-134a is substantial. If you can find CFC-12 it will cost many times as much as HFC-134a. This situation will only get worse as supplies dry up.
3. The use of, or even possession of, CFC-12 is strictly regulated. Your buddy's stash could result in some legal problems!
4. If you install a system designed specifically for CFC-12, or you are restoring one originally designed for CFC-12, you can anticipate a continuing costly and time consuming effort to maintain them.

HFC-134a systems are now the industry standard and are about as trouble-free as they can get. It has been almost twenty years since we began our quest to fully develop high quality, high performance air conditioning systems for use with HFC-134a. We can say with absolute confidence that these systems, when configured correctly, work as well, or better than the old CFC-12 systems. As stated above, HFC-134a costs have dropped as production has increased. The price per pound of HFC-134 is a fraction of the cost of CFC-12, if you can even find a supply.
All auto makers currently use HFC-134a in their new vehicles. This has resulted in the widespread availability of, and familiarity with the new refrigerant. This means that your local shop will have the right equipment and the knowledge to service these systems. In addition, most aftermarket air conditioning suppliers not only have available systems designed for use with HFC-134a, but many parts suppliers have retro-fit kits to update many of the older systems. In short, if you are buying air conditioning components today, you save yourself some money and some grief down the road by purchasing HFC-134a compatible components. Not only is the cost of the new systems comparable to the old CFC-12 units, but you will save the high cost of retrofitting that system later with additional components and labor. If it ain't broke, don't fix it!

Okay, you say, I'm convinced, but I have a CFC-12 system in my car now, it works fine. How does all this affect me? Basically, until you have a problem with your CFC-12 system, don't worry about it. As long as it is working properly and is not leaking CC into the atmosphere you don't need to do a thing. However, by Federal law, if that CFC-12 system has a leak, you must repair it before it can be recharged. If a professional air conditioning technician is caught charging a leaky system he can be levied a fine that would probably put him out of business! On the other hand, if you have a CFC-12 air conditioning system that has problems you may want to consider other options. Should you repair it with CFC-12 replacement parts and wait for a future date to "retrofit" the system to HFC 134a? Or should you upgrade and reconfigure the system now for the new refrigerant while you are working on it? Do you plan to keep the car? If so then you will want to consider updating. At the least, upgrading will allow you to get reasonably priced and timely service while you are on the road. More and more existing service shops are dropping CFC-12 service because of the extra cost, limited number of customers for that service, the cost of additional equipment, and compliance with regulations.