# AC & Heating Connect™







## Why Refrigerants Matter?

### **Refrigerant Overview**

The chemical inside your heat pump or air conditioner that allows heat to be moved in or out of your house is called 'refrigerant.' It is a gas that is compressed and expanded to enable heat energy to be transferred. In recent years, the most common type of refrigerant has been a hydrochlorofluorocarbon (HCFC) known as R-22. In 1987, an environmental agreement between developed nations known as the Montreal Protocol was established. It called for the phase-out of HCFC's and chlorofluorocarbons (CFC's), which are known to damage the ozone layer. As a result, the manufacturing of new systems using R-22 was stopped on Dec. 31, 2009.

### **Homeowner Impact**

If you have a system that uses R-22, it can still be serviced and recharged with R-22 until 2020. The most popular alternative to R-22 is a refrigerant known as R-410A. It is currently sold under a variety of brand names such as GENETRON®, SUVA 410A®, Forane 410A®, and Puron®.

Because of the R-22 phase-out and the introduction of newer R-410A systems, the availability of R-22 is decreasing and the price is increasing. In fact, depending on the age and condition of your system, it could actually be more economical, over the life of the system, to replace it with a completely new R410-A unit. The reason for the R-22 to R-410A shift was largely an environmental one. However, R410-A systems are also more energy efficient than older models, resulting in monthly energy cost savings of 10%-40%.

#### **Important Dates**

January 1, 2010: The Montreal Protocol does not allow manufacturers to produce new HVAC systems containing R-22.

January 1, 2015: The U.S. must reduce its consumption of R-22 by 90%.

January 1, 2020: Chemical companies will no longer be allowed to manufacture R-22 to service existing systems.

If you have to purchase a new system you should try to get one that uses R-410A or some refrigerant other than R-22.

