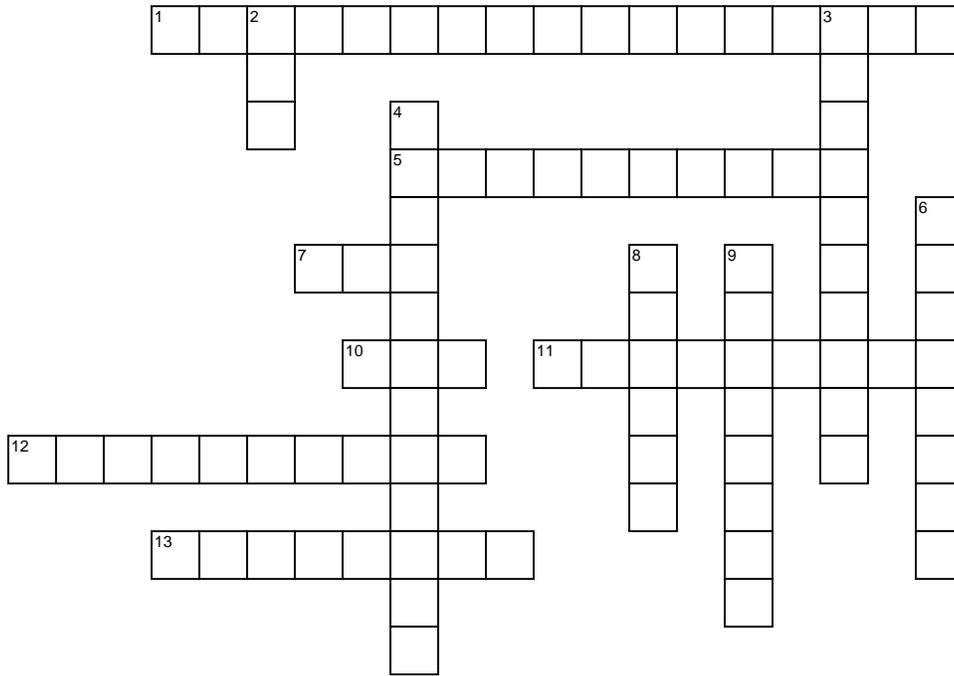


Chapter 14

Refrigerant Recovery, Recycling, and Recharging



ACROSS

- 1 The R-12 service fittings must either be converted to R-134a service fittings or permanently capped to make them unusable. Normally, they are converted using a _____.
- 5 _____ means that a vacuum will be applied to the system to remove the air and to vaporize any moisture that may be in the system.
- 7 _____, equipment must be certified to meet SAE J2788, which has more stringent requirements starting in 2006 over the previous SAE J2210 standard (1991–2005).
- 10 Vacuum pumps are rated by both _____ and micron ratings.
- 11 _____ is the process of removing moisture (water), oil, and noncondensable gases (air) from the recovered R-12 or R-134a so it meets the standards of new refrigerant.
- 12 Debris from a failed compressor is often a fine, black material called goo or _____ by many technicians.
- 13 _____ is using a liquid or a gas to clean the inside passages of an air-conditioning system.

DOWN

- 2 Any refrigerant that contains _____, usually air, or with 2% or greater of another material (foreign refrigerant), is considered contaminated.
- 3 Identifying the refrigerant in a system using an _____.
- 4 _____ is the changing of a system from one refrigerant to another and is normally a repair-driven operation and not done unless absolutely necessary.
- 6 With the system running, caution should be exercised if charging liquid is put into it to avoid _____ the compressor, which is allowing liquid refrigerant to enter a running compressor which can cause severe damage.
- 8 Vacuum pumps are rated by both cubic feet per minute (cfm) and _____ ratings.
- 9 _____ means that all refrigerant is removed from a system so it can be stored in a container in liquid form.