

## REFRIGERANT SYSTEM SERVICE (Continued)

If the A/C system has any of the R-134a identifying characteristics previously explained, R-134a refrigerant is the only type of refrigerant that can be used in the A/C system. If the A/C system is not identified as an R-134a system as previously explained, it is an R-12 system requiring the use of R-12 refrigerant.

**R-134a Special Servicing Equipment**

**CAUTION: Do not use R-12 Special Tools and Equipment when servicing an R-134a system. Also, do not use R-134a Special Tools and Equipment when servicing an R-12 system. Doing so may cause damage to the A/C system. Refer to the Rotunda Equipment Catalog for more information on R-134a Special Servicing Equipment.**

R-134a systems require the use of special servicing equipment designed specially for R-134a systems. R-12 servicing equipment cannot be used when servicing R-134a A/C systems. R-134a special servicing equipment includes:

- R-134a Manifold gauge set
- R-134a Charging station
- R-134a Reclamation system
- R-134a Leak detector

For more information on R-134a special tools and equipment, refer to the Rotunda Equipment Catalog.

Test equipment must be connected to the refrigerant system in order to make system tests. If a charging station is used, follow the instructions of the station manufacturer.

**Refrigerant Recovery****Tools Required:**

- Rotunda A/C Refrigerant Reclaim System 078-00800

**CAUTION: Use extreme care and observe all safety and service procedures related to the use of refrigerants.**

Refrigerant recovery systems and recycling stations are in use in most automotive A/C service facilities. The use of such equipment makes possible the recovery and reuse of A/C system refrigerant after contaminants and moisture have been removed.

If a refrigerant recovery or recycling station is used, the following general procedures should be observed, in addition to the operating instructions provided by the equipment manufacturer.

1. Connect refrigerant recycling station hose(s) to vehicle A/C service ports and recovery station inlet fitting.  
NOTE: Hoses should have shut off devices or check valves within 25.4cm (12 inches) of the hose end to minimize the introduction of non-condensable gases (air) into the recycling station and to minimize the amount of refrigerant released when the hose(s) is disconnected.
2. Turn power to the recycling station on to start recovery process. Allow recycling station to pump refrigerant from the system until the system pressure goes into a vacuum. On some stations, the pump will be shut off automatically by a low pressure switch in the electrical system. On other units it may be necessary to manually turn off the pump.
3. Once recycling station has evacuated vehicle A/C system, close the station inlet valve (if so equipped). Then, switch off electrical power.
4. Allow vehicle A/C system to remain closed for about two minutes. Observe system pressure level as shown on the gauge. If pressure does not rise, disconnect recycling station hose(s).
5. If system pressure rises, repeat Steps 2, 3 and 4 until the vacuum level remains stable for two minutes.
6. Perform required service operations, evacuate and recharge the A/C system.

**Connecting the Manifold Gauge Set (R-12 System)****Tools Required:**

- High Side Adapter D81L-19703-A
- Fitting Adapter T7 1P-19703-S, T7 1P-19703-R

If a manifold gauge set is used, connect it as outlined.

1. Turn both manifold gauge set valves all the way to the right, to close the high and low-pressure hoses to the center manifold and hose. A Rotunda Adapter D81L-19703-A (Motorcraft® Tool YT-354 or 355) or equivalent must be used to connect the manifold gauge set or charging station to the high-pressure service gauge port valve.
2. Remove the caps from the high and low pressure service (Schrader) gauge port valves.
3. If the manifold gauge set or charging station hoses do not have valve depressing pins in them, install Fitting Adapters T7 1P-19703-S and-R (which have pins) on the low and high-pressure hoses.
4. Connect the high- and low-pressure hoses, or adapters, to the respective high and low-pressure service gauge port valves. The adapter shown in must be used on the high-pressure gauge port valve.

A service tee fitting which may be mounted on the clutch cycling pressure switch fitting is available for use in the low-pressure side of the system.