DIAGNOSIS AND TESTING (Continued)

1. Connect a manifold gauge set, part of Rotunda Air Conditioning Service Kit 063-00010 or equivalent, to the system. Purge air from red and blue hoses by loosening fittings at gauge set. Open only long enough for air to escape and then tighten fittings.

   NOTE: The test conditions, specified at the top of each chart, must be met to obtain accurate test results.
2. Start the engine and turn ON A/C system.
3. As soon as the system is stabilized, record the high- and low-pressures as shown by the manifold gauges. Normally the suction pressure should decrease to a range between 22 and 28 psi and the pressure switch should open. When the pressure switch opens, the suction pressure should start to rise to a range between 40 and 47 psi. Somewhere between 40 and 47 psi, the pressure switch should close and the suction pressure should start to drop.

   The discharge (high) pressure should operate the reverse of the suction pressure. When the suction pressure is dropping the discharge pressure should increase. When the suction pressure is increasing, the discharge pressure should decrease.
4. Determine the clutch cycle rate per minute (clutch on time plus off time is a cycle).
5. Record clutch OFF time in seconds.
6. Record clutch ON time in seconds.
7. Record center register discharge temperature.
8. Determine and record ambient temperatures.
9. Compare test readings with applicable previous charts.
   - Plot a vertical line for recorded ambient temperature from scale at bottom of each chart to top of each chart.
   - Plot a horizontal line for each of the other test readings from scale at LH side of appropriate chart.
10. Disconnect the electrical connector at the clutch cycling pressure switch and remove the switch from the switch fitting.
11. Install a new clutch cycling pressure switch and O-ring on the Tee-Adapter Tool. Leave it on the adapter as a permanent part of the tool. Be sure to lubricate the O-ring before installation.
12. Install the Tee Adapter Tool on the clutch cycling pressure switch fitting and tighten it securely.
13. Connect the low-pressure hose of the manifold gauge set to the side fitting of the Tee Adapter Tool.
14. Connect the electrical connector to the clutch cycling pressure switch on the Tee Adapter Tool.

With the Tee Adapter Tool installed in this manner, the refrigerant system can be operated under normal conditions with clutch cycling pressure switch control and evaporator (suction) pressure can be observed. This will give a more accurate low-pressure reading than can be obtained from a low-pressure gauge port located in the suction line or near the the compressor.

After completing service, disconnect the manifold gauge set from the Tee Adapter Tool. Disconnect the electrical connector from the clutch cycling pressure switch on the tool and remove the tool from the pressure switch fitting. Install the removed clutch cycling pressure switch and connect the electrical connector.

Always replace the protector caps on the gauge port valves after servicing the refrigerant system.

At the bottom of the chart, additional cause components are listed for poor compressor operation or a damaged compressor condition.