



## System Performance Test

### Climate Conditions

Ambient Temperature \_\_\_\_\_ Relative Humidity:  30%     60%     90%

Refer to the Temperature Pressure Relationship chart, and record the maximum results you should expect from this system if it's working properly at the above temperature.

Duct Temperature \_\_\_\_\_ High Side Pressure \_\_\_\_\_

Low-Side Pressure \_\_\_\_\_ Auxiliary Pressure \_\_\_\_\_

### System Tests

- Install pressure gauges to the service ports — if there's a second low-side port; install an auxiliary gauge to that port as well.
- Start the engine, set the parking brake, and raise the idle to 2,000 RPM.
- Place a thermometer in the air conditioner center vent.
- Set the air conditioner for maximum cooling and high blower speed.
- Place a large fan in front of the condenser to force additional air past the condenser, in order to simulate road test conditions.
- Close the doors and set the blower speed to low.
- Allow the system to operate for another five minutes before recording your readings.

Check the sight glass (if the system has one)     Clear     Bubbles     Foam

Check the A/C lines for frosting: Low-Side Lines:  OK     Frosted — indicates low refrigerant level correct this problem before continuing the test.

High-Side Lines:  OK     Frosted — indicates a restriction where the frost begins; correct this problem before continuing the test.

### System Test Results

Duct Temperature \_\_\_\_\_ High Side Pressure \_\_\_\_\_

Low-Side Pressure \_\_\_\_\_ Auxiliary Pressure \_\_\_\_\_

- If temperatures and pressures are within specs, and the sight glass is clear, the system's working normally.
- If pressures are okay and the sight glass is clear, but duct temperature is high, check for a blend door or heater control valve problem, or look for a possible system oil overcharge.
- If pressures vary from specs, perform the temperature test to locate the problem.