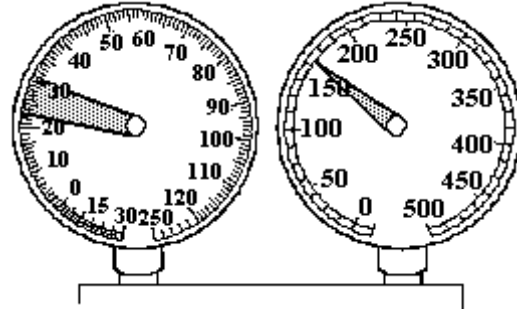


A/C System Gauge Pressures #7, Section 12.3.4

Student Name \_\_\_\_\_

**KEY**

As the gauge set was connected to this R-134a, CCOT system, the pressures were normal. When the system was started, the pressures changed, and after 5 minutes, they stabilized to those shown. The air entering the condenser is at 95° F. The line downstream from the orifice tube is cool with frost at the tube, but the accumulator and suction line are warm. The compressor "short cycles", and when the compressor cycles in, the low side pressure drops rapidly. The in-car air discharge is warm.

**Complete the following:**

1. Low side pressure should be 32-50.  
The system pressure is Low.
2. High side pressure should be 150-310.  
The system pressure is Normal.
3. Expansion tube outlet temperature should be Cold, not frosty
4. Accumulator temperature should be Cold.
5. Suction line temperature should be Cold.
6. Compressor cycle rate should be Cycle normally
7. In-car air discharge temperature should be Cool/cold.
8. This problem is probably caused by: plugged orifice tube
9. The procedure to correct this problem is: 1 Recover refrigerant, 2 Remove and replace orifice tube, 3. Recycle refrigerant, 4. Evacuate system, 5. Charge system, 6. Check for refrigerant leaks, 7. Confirm proper operation.

**Note to instructor using WS 19:** This work sheet describes a typical A/C problem that technicians might encounter. As you probably realize, the pressures and other diagnostic clues are quite variable in the real world, and this work sheet merely gives the student an idea of how problems might show up. The most probable cause of this problem is a plugged orifice tube.