

*DOC'S BLOCKS*  
**AUTOMOTIVE AIR CONDITIONING REPAIR**

**Question:**

How can the pressures read what they should and have no cold air delivery?

**Answer:**

The first thing that comes to mind is where are the high side pressures being read. Many automobiles have the high side hook up in the liquid line, which is after the condenser. The pressure can read correctly in the liquid line and be very high in the discharge line. The suction line would be warm. The evaporator would be starving for refrigerant, which would cause a lack of cooling. Read the temperature on the discharge pipe at the compressor if possible and then at the inlet to the condenser. There may be a few degree drop between the two but that is natural. Excessive drop would be a restriction in the discharge hose assembly. (more than ten degrees) Read the drop across the condenser. A fifty (50) degree drop or more would indicate a restriction.

The reason a restriction in the condenser can cause correct high pressures and no cooling is because the restriction acts as a metering device in the condenser and the refrigerant starts absorbing heat. The refrigerant leaves the condenser as a vapor and the TXV or orifice can't meter vapor. The refrigerant is latent with heat, therefore the evaporator is being filled with vapor.

Another reason could be a door in the plenum that is not in the correct position or excessive heat load inside the car. (heater control valve) This can be assumed if the suction line is about 40 degrees. It would feel cold to the touch.