

## **AUTOMOTIVE AIR CONDITIONING REPAIR**

### **Question:**

Can an AC system be serviced by observing pressures and air delivery temperature to determine the correct charge?

### **Answer:**

It's a known fact that a system that is full, operates within a certain range of pressure. Air delivery temperatures will be in or around a given temperature.

Therein lies the problem. This method of charging has a fifty-fifty chance of working.

First, what about environments? The vehicle being serviced is inside a building and the temperature is most likely ten degrees or more cooler than outside in the sun. No radiation.

The vehicle in operation is in a different environment. Higher temperatures, radiation, varying weather conditions, and driving conditions will change pressures and can damage the system.

If the system is serviced when the temperature is around seventy degrees and it won't get any hotter, this type of service might work. If the temperature goes up to eighty-five degrees or more, it likely will destroy the compressor. The compressor will run to hot as a result of higher pressures. The compressor, running at higher temperature, will damage the seals and can cause the compressor to grind up.

Some time latter, the AC stops working and it is diagnosed as a leaking or locked up compressor. The question won't be asked if the unit had been serviced or in case of a lock up, measure the amount of refrigerant recovered from the unit. No one will be accused of doing damage to the system. The owner will never know.

This method of servicing is not recommended.

See section on servicing by the sub cooling method.