Automotive Technical Institute LLC

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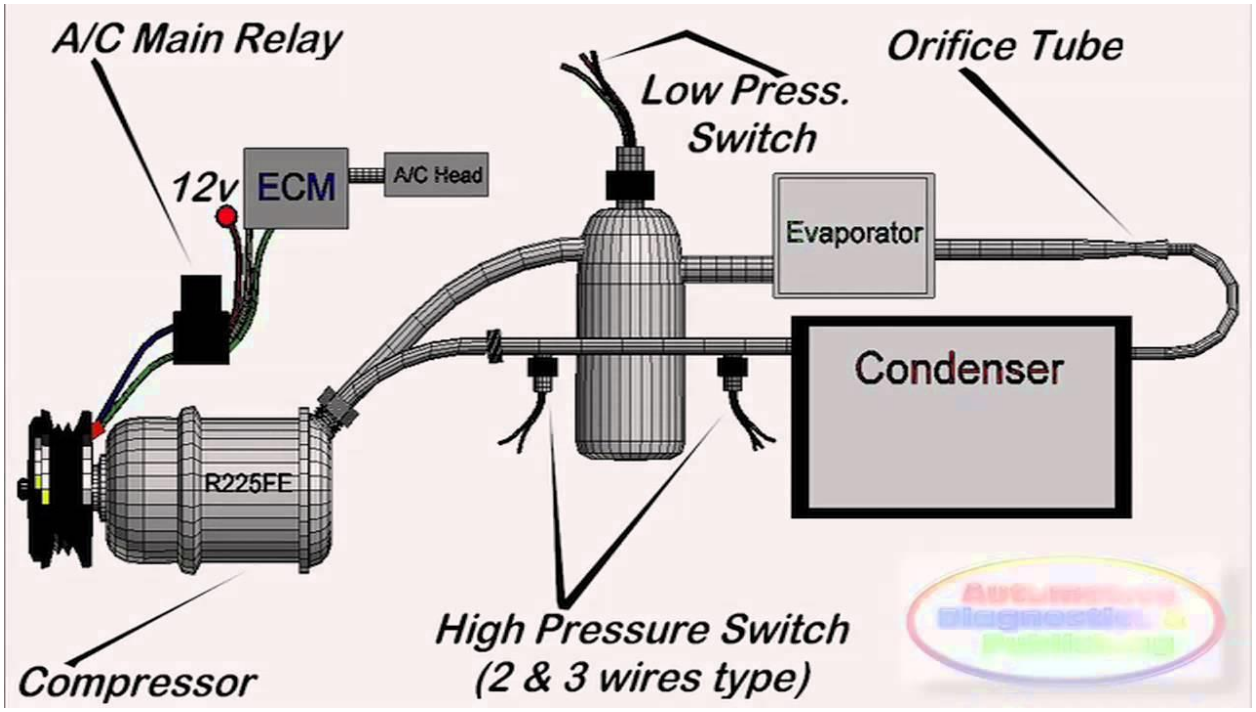
Test Don't Guess!

My Air Conditioning Doesn't Work



Start by testing the amount of Freon charge in your AC system

1) Purchase an AC hose with a gauge on it. DO NOT BUY A HOSE THAT DOES NOT HAVE A GAUGE ON IT!
2) Turn your engine and AC system off.
3) Locate your AC compressor and note the pulley on the AC compressor.
4) Locate the hoses for your AC system. One tube will be smaller and the other will be larger. Look for the 2 service ports on your AC system.
5) Connect your gauge to the port on the larger tube. This is the "low pressure/suction" hose. The smaller tube is the "high pressure/discharge" port. Leave the port on the smaller tube alone.
6) Once your gauge is connected read the pressure in your system. The engine and AC must be off.

No pressure reading

A) If there is no pressure reading on your gauge the system is empty of Freon. This means you have a very large leak. If you put Freon in it will leak out fast.
B) If you wish to charge your system the next thing you need to do is connect a can of Freon to your hose.
C) Put Freon in your system {by squeezing the trigger on your hose if it has one}
D) As you put Freon in your system look for and listen for a hissing noise. This will be your Freon leaking out. If you find an area where the Freon is leaking out stop. Any Freon you install will be lost. You need to repair the leak before you can charge your system.

E) If you do not hear a hissing noise then your leak is not large enough to be obvious. If you wish you can put Freon in the system and continue to see if the system will work. Since there is a large leak the charge will not last long.

Pressure reading on your gauge

F) If there is pressure note the amount of pressure. Note the outside air temperature where you are. You do not need a thermometer. Just go by what it feels like to you. If the air temperature is 80 degrees there should be at least 80 psi on your pressure gauge. If there is more than 80 psi good. This means there is enough Freon in your system to turn on the compressor. ***Your AC system will not turn on unless there is at least 60-70 psi of pressure in the system with the engine off.***

7) Start your engine and turn your AC on high.
8) 2 things should happen now.
    a. Your compressor clutch will be turning
    b. You cooling fans for your radiator will turn on. Some cars do not run the cooling fans constant when the AC is on, most do. If the cooling fans do not turn on the AC will not cool and the pressure will get so high the compressor will shut off.
9) The pressure on your gauge should drop from your original reading to around 40 psi.
    a. If this happens, your AC is working. Go to step 10.
    b. If the pressure on your gauge did not drop your AC will not work. To correct the problem you need to have a knowledgeable mechanic/technician test your system to find out why it is not working.
10) Since your AC system is working you can now test how well it is cooling. Go to the tube that your gauge is connected to. Touch the tube your gauge is connected to on the side nearest the firewall of the engine compartment. The tube should be cold. This should be the same temperature that you feel coming out of the ducts inside your vehicle.
11) If the temperature of the air coming out of the ducts inside your vehicle is the same as the temperature of the tube, you are done. Your AC system is working fine. If the temperature of the air coming out of the ducts inside your vehicle is not the same is the temperature of the tube there is a problem with the AC ducts in the vehicle. Take it to a knowledgeable mechanic/technician test your system to find out why it is not working.