

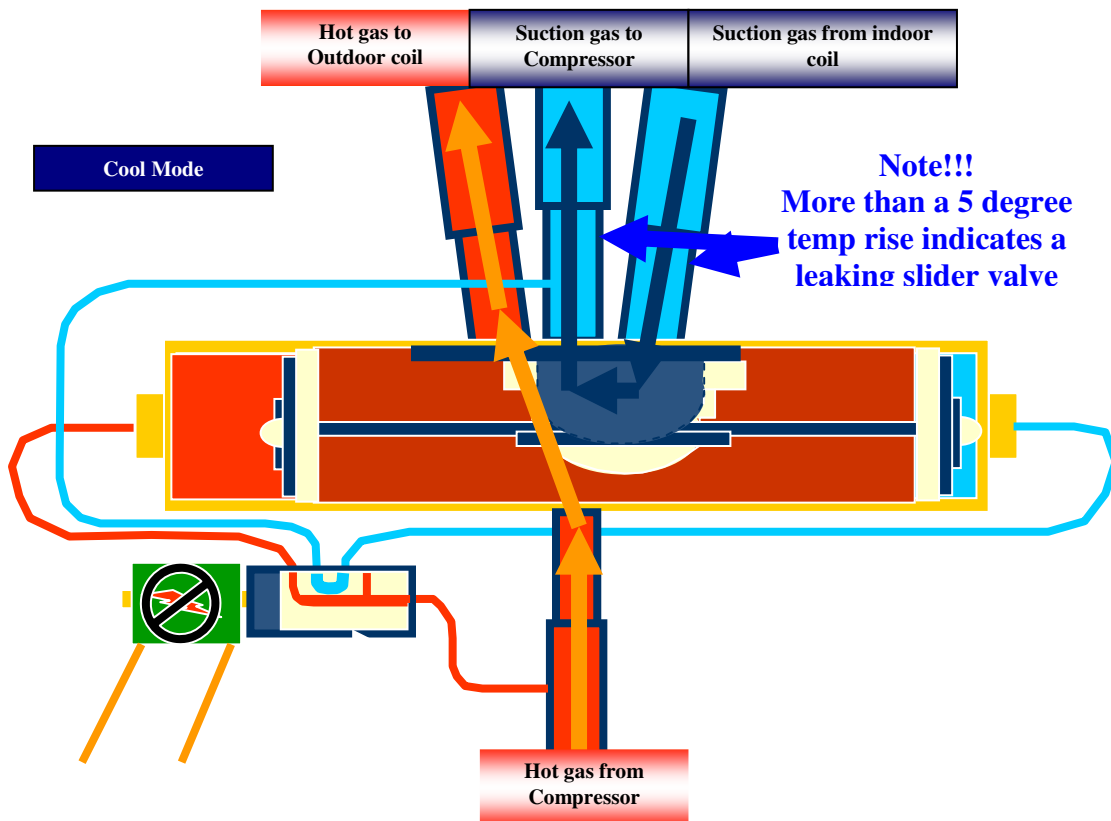
Tech Tip How does a reversing valve work?

A reversing valve on a heat pump is an electrically initiated, and pressure operated valve.

In essence it is two valves in one; the main valve with the slider body, and a smaller pilot valve that directs pressure to the main valve.

Depending on the system, the valve can be energized by either the O or B terminal from the thermostat. This will determine if the hot gas goes to the indoor coil or outdoor coil when the valve is energized.

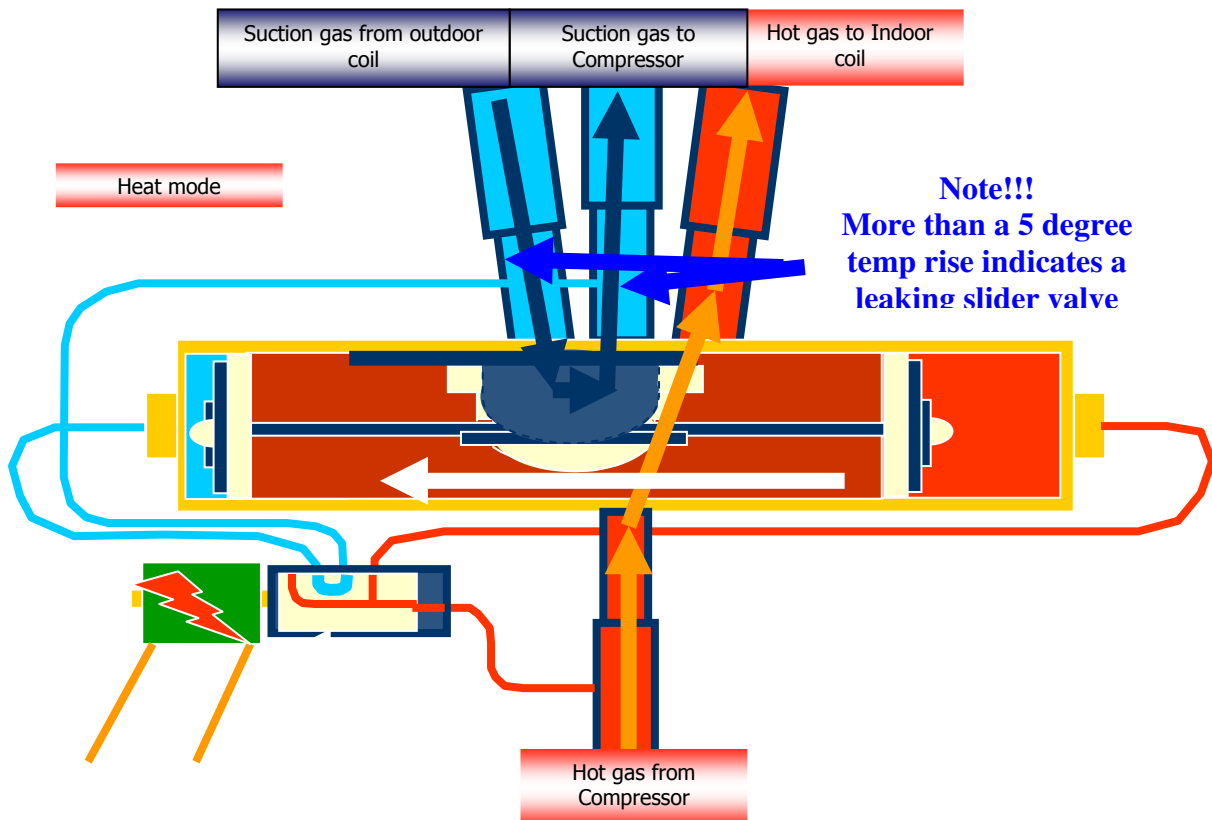
With no voltage applied to the coil, the pilot valve sit stationary and directs high pressure to the left side of the main valve and low pressure from the “true suction” to the right side of the main valve. This difference in pressure pushes the slider body over to direct the refrigerant to the proper coil.



Tech Tip

How does a reversing valve work?

With voltage applied to the coil the pilot valve shifts to the left redirecting the high pressure gas to the right side of the side of the main valve. This in turn directs the “true suction” low pressure gas to the left side of the valve causing the valve to shift and send the high pressure gas to the other coil where it is needed.



If a system is low on charge the pressure from the hot gas line is lowered, this could cause the reversing valve to not fully shift.

NEVER strike the slider body of the valve to “help” it shift. This will damage the valve and it will then need to be replaced.

Instead; disconnect the fan motor to whichever coil is acting as the condenser...this will increase the pressure of the hot gas and assist in the shifting of the valve. Then the charge can be checked for accuracy.

It is important to note that if there is ever more than a 5 degree difference in the 2 suction tubes of the reversing valve there is a distinct possibility of a leaking slider valve.