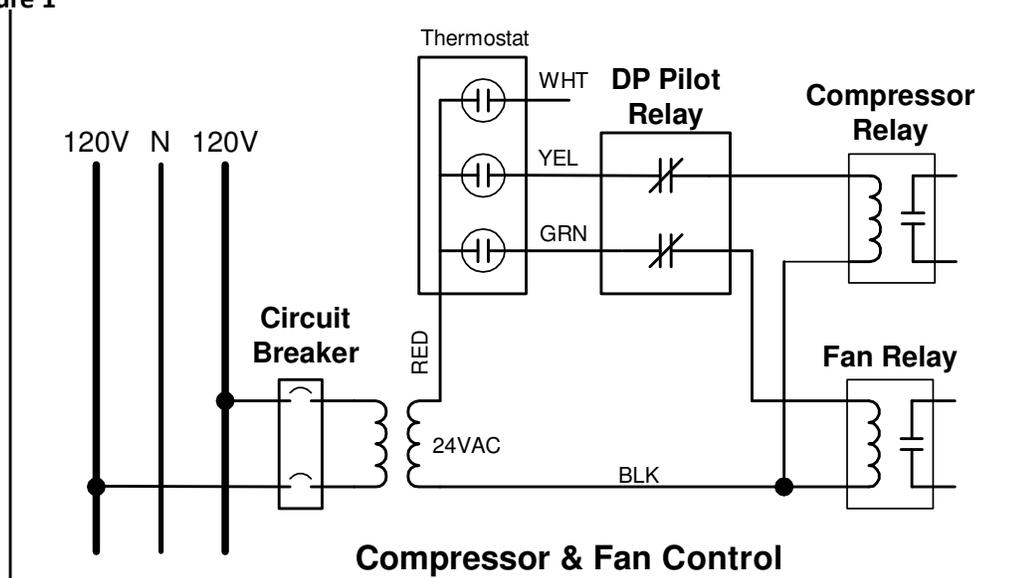


Control of Air Conditioners/Heat Pumps- Southeast/Southwest

Control the Compressor contactor by breaking the low-voltage signal from the thermostat, usually the YELLOW wire. Be sure to program a minimum OFF-TIME on the relay of at least 5 minutes to prevent short cycling of the compressor, and a minimum ON-TIME of 6 to 9 minutes for desired comfort level. With this method of control, the fan will not be controlled, and will continue to run when the compressor is being controlled. If you experience problems with comfort during periods of extreme weather or problems with humidity control, it may be advisable to control the fan, by controlling the fan relay, usually the GREEN wire of the thermostat circuit. By controlling the fan and not allowing it to run with the compressor is shed, heat from the attic will not be circulated into the home and you may better control your temperature and humidity. Consult the installing dealer for guidance in your area.

Figure 1



Hook-up

1. Refer to Figure 1, a generalized A/C schematic and locate the thermostat circuit wires.
2. Use a DPST-NC or DPDT relay (using the normally-closed contact), to control the compressor relay (YEL) and the fan relay (GRN) in tandem. This method is preferable for electronic thermostats so they can remain powered by the thermostat loop.
3. An alternate method would be to simply interrupt the 24VAC source wire (RED) to the thermostat. In this matter, the entire thermostat circuit is de-energized when the demand controller sheds this circuit. Batteries in electronic thermostats may be required to maintain the memory function. Run a 2-conductor, 18-gauge wire from the demand controller unit to interrupt the wire located in Step 1 above.
4. Another method of control would be to interrupt the 120VAC power supply for the thermostat loop in the air handler or in the breaker panel. This provides the exact same control function as #3 above. This may activate a 5-minute time delay each time the power is restored so this may not be the preferred method.
5. Program a minimum OFF-TIME on the relay of at least 5 minutes to prevent short cycling of the compressor. Program a minimum ON-TIME of 6 to 9 minutes for desired comfort level. For longer demand intervals, a longer minimum-on time may be programmed but caution should be used never to have the minimum-on time greater than 1/2 of the demand interval. For example, for a 30 minute demand interval, do not program the minimum-on time for more than 15 minutes.

