

# HOW TO WIRE A 24 VOLT FAN RELAY

## RELAY IS ALSO USED FOR REVERSING VALVE SOLINOID CONTROL

### STEP BY STEP

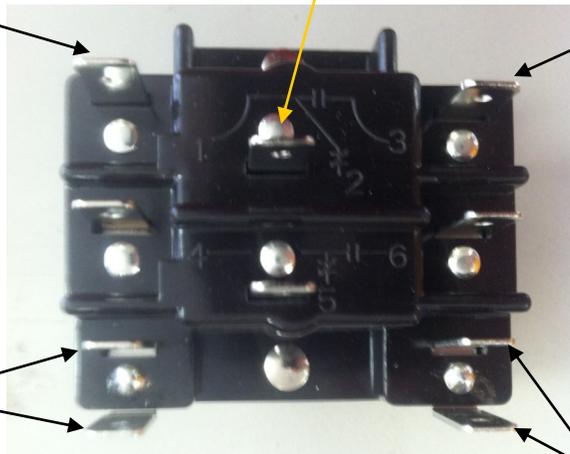
1. Disconnect the power supply to the unit that you are working on by pulling out the disconnect pull-out, unplugging the furnace or shutting off the breaker, if shutting off the breaker make sure to test for voltage from each leg of power to ground.
2. Locate the fan relay, some are small and black in color and some are tan.
3. Locate the low voltage wires going to the coil of the relay. The low voltage coil should be marked on the relay or trace each wire and find the wires that go to the thermostat wire connections, fan relays are usually controlled by the green wire. The second low voltage coil wire will come from the common of the transformer. Take these 2 wires off the old relay and connect them to the new relay pins labeled coil.
4. Now locate the line voltage wire coming from the unit to the relay and put that on the relay pin #1
5. Locate the line voltage wires that go to the fan motor, trace the wires back as far as you can until they end at the fan motor. Connect the high speed wire to pin #3 and if the fan has a low speed or med. Low it should be connected to the #2 pin on the relay.
6. Mount the new relay in place of the old, reinstate the power and set the thermostat to fan on or calling for heat or cool and check operation of the relay by turning the unit on and off in heat and cool letting the unit cycle off each time to be sure the relay functions properly.

Pin #2 is used for low speed and has to go to another switch before going to the fan motor. **Pin #2 is normally closed**, meaning pin #1 and #2 will stay connected until 24 volts is applied to the relay coil.

Pin #3 is for high speed and **pin #3 is normally open**, meaning that the pins #1 and #3 are connected when the relay has 24 volts applied to the coil.

Line voltage goes on pin #1

These are the coil pins, the relay is controlled by 24 volts from the transformer. The voltage comes from the thermostat connections and is usually the green wire. These look like 2 pins but if you look close the two pins are connected making them one in the same.



These 2 pins are connected to the units transformer common.

**ALL POWER MUST BE SHUT OFF BEFORE REPAIRS ARE MADE. FIX MY OWN AC ACCEPTS NO RESPONSIBILITY FOR DAMAGES TO YOU OR YOUR PROPERTY. ALL REPAIRS ARE AT YOUR OWN RISK.**

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