HOW TO WIRE A THERMOSTAT

STEP BY STEP

HEAT PUMP-GAS FURNACE-ELECTRIC HEAT-AIR CONDITIONING

- 1. Shut the power off to the heating and cooling unit. The thermostat wires are only 24 volts which will not harm you if touched but they can short out the transformer if shorted to each other. (you will no if the power is off by turning the stat to fan on and if the fan comes on the stat still has power.
- 2. Before removing the wires note which wire goes to each terminal, take a picture or make a sketch.
- 3. Remove the wires and replace the stat.
- 4. The red and green wire and terminals are universally standard, so reconnect those two.
- 5. For gas and electric furnaces (not heat pumps) connect the white wire to the W terminal. And the yellow to the Y terminal.
- 6. For heat pumps you will need to make a small jumper wire between the Y and W terminal, connect the yellow wire to the Y terminal along with the small jumper from Y and W.
- 7. Heat pumps have a reversing valve that is controlled by the stat, your unit either energizes the reversing valve in heating (B terminal) or in cool (the O terminal). The installer may have used a white, orange or blue wire for this. Look at the picture or sketch you made and determine which color wire was used,, most units are energized in cool, therefore you would have had a wire on the O terminal or a wire on the B terminal if energized in heat. This is the most common mistake made in wiring a heat pump, don't assume that just because there is a B terminal and an O terminal that you need to connect a blue wire to B and an orange wire to O.
- 8. Most thermostats do not need a common wire, thus the batteries, but if the stat you are installing needs a common wire it is usually blue and is connected to the C terminal.
- 9. Install the front cover of the stat, put the stat setting to cool and 60 degrees or heat and 80, wait about 5 min. for the unit to turn on before you assume that the stat is not working, the stat has a built in time delay to protect the system from short cycling.
- 10. If you are replacing a thermostat for a unit that has 2 stage heat, you will need to purchase a 2 stage thermostat, (not very common) 2 stage thermostats have a wire going to the W2 terminal, this will need to be hooked up, refer back to your sketch or picture.

O terminal is for heat pumps energized in cool. Wire does not need to be

Red wire is connected to either R or RC, there is a factory installed jumper between them.

Small jumper between y and w for heat pumps.

B terminal is used for heat pumps that are energized in heat,
DO NOT CONNECT A BLUE
WIRE TO THIS UNLESS IT WAS
CONNECTED THAT WAY IN
THE OLD T'STAT. THIS WILL
BURN THE TRANSFORMER.

This is the common terminal Only used in thermostats that Do not have batteries.

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

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