

## **Thermostat wiring;**

*Thermostats get blamed for most problems when homeowners are having issues with their heating or cooling system, and often their first impulse is to run to a local hardware store and buy a new thermostat. Thermostats are usually pretty easy to change but there are some variations and things to know to make your thermostat replacement work without causing additional problems. First, before you disconnect any wires from your thermostat, take a picture or write down what color wire goes to what terminal. Although the wiring should be pretty standard what really matters is what the last person did to match the terminal from the thermostat to the terminals on the furnace and what color wires he chose for what. With modern furnaces the terminal board on the furnace will have terminals mark very similar to those on the thermostat, so the color of wire going to one terminal on the furnace should match the same marked terminal on the thermostat. Below I will explain what each terminal should do and what color wire should be on it, again, write down what wires are being used on what marked terminal before you disconnect any wires, and turn the power off to your furnace while changing thermostat.*

### **Terminals;**

**R, RH, 4, and RC-** *This is the hardest one, some thermostats may only have an R terminal on it. This is for the 24 volt hot connection from your furnace transformer. RC is for your cooling transformer, R, 4, or RH is your heating transformer again, let me explain. Usually, but not always, there is only one transformer that will work both your heating and your cooling and that transformer will be located on your furnace. Occasionally, there is a separate transformer in your air conditioner that will work you compressor and your furnace fan from the thermostat; these are known as a two transformer system. If you have two separate wires going to RC and R/RH/4 then you need to remove any jumper on the new thermostat and install the wires the same way they were installed on the old thermostat. If there is only one wire on R on the old thermostat and the new stat has these additional terminals then a jumper must be between RC and R/RH/or 4, you can put the wire under either terminal at either end of the jumper.*

**W-** *Normally the white wire goes under the W terminal, this terminal operates the call for heat, furnace.*

**G-** *Normally the green wire goes under the G terminal, this terminal operates the fan on your furnace for a call for air conditioning, or if you set the fan selector switch on your thermostat to "Fan On" it will bring the fan on your set air conditioning speed.*

**Y-** *Normally the Yellow or Blue wire goes on this terminal, refer to what was used on the old stat, this terminal is energized for a call for cooling and brings on your outside condensing unit.*

