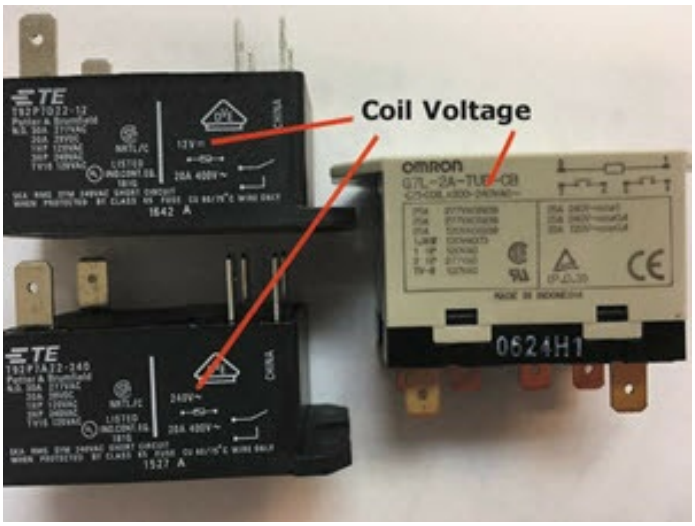
Learning to Read your Relay

No matter what kind of kiln or oven you use, unless you have mercury or solid state relays, it's a fact of life that relays need to be changed. But, before you replace the mechanical relay of a digital kiln, it is very important that you read the label printed on the side to be sure you are installing the correct one.
The label is confusing until you spend a little time studying it. On the label, find the voltage of the relay coil, which is the electromagnet inside the relay. When the electromagnet receives a signal from the controller, terminals inside the relay come together. The terminals make a clicking noise and turn on the heating elements.



The voltage of the coil is printed on the relay near a symbol of the coil. In the sample relays shown, the coil is symbolized by a rectangle with a diagonal line. The coil in the top left relay is 12 volts DC, which is the most commonly used kiln relay. The coil in the bottom left relay is 240 volts AC. The coil in the relay on the right is 200 - 240 volts AC (for 208 volt kilns).
The 12 volt DC coil is used in relays that are turned on by a digital controller. The 240 volt AC coil is used for relays that are activated by an infinite control switch instead of a digital controller. DC means direct current, which comes from the controller to the relays. The symbol for DC is a horizontal solid line over a broken line. AC is the current from the wall outlet and is symbolized by a wavy line.

The relay is rated for a level of current. The current rating of the relay does not mean it requires that much current to operate but, is the maximum safe level that the relay can handle.