What kind of controller is best?

Once you have determined all the specifications and features you want in your kiln, the next very important decision is to choose how you want to control the heat in the firing chamber. There are various options available and you'll need to decide what suits you best for the long term. There are basically two categories that controllers fall into; manual or automatic. This works just like a car does. A manual controller will require the user to make the shifts and adjustments, and thus an automatic controller will do the work for you. Here's the rundown on how it all works.

Manual Controller Options

A manual controller often has a toggle on/off switch and a dial to adjust the firing time of a kiln's elements. This is either an infinite switch with graduated increments, or a dial switch that adjusts the elements to either; low, medium, or high. There is usually an indicator light to show that the unit is on and operating. A thermocouple sits inside the kiln. Sometimes it is attached to an analog pyrometer. The thermocouple measures the temperature inside the kiln and the pyrometer displays that information. Manual controllers are easy to use and when paired with a pyrometer will allow for informed firing. But keep in mind a manual kiln requires a lot of attention and monitoring. Manual controllers do not allow for ramp hold programming that is necessary for metal clay and glass.

Automatic or Digital Controller Options

A digital controller will allow your kiln to fire automatically through multiple segments, and then will turn off the elements after your firing is complete. The digital controller is programmable and you can set different programs for different types projects including, metal clay, glass and ceramics. A digital controller will allow you set multiple segments in a ramp hold schedule. It will allow you to delay the starting of a firing. It will allow you hold/soak at multiple temperatures, for variable periods of time, and will allow you to skip steps in a firing schedule when necessary. A digital controller may at first seem daunting to use, but after a few days of experience it will be simple and reliable. Digital controllers vary in their complexity, but for the most part, each controller comes stocked with a wide array of diagnostic tools and information delivery options. Many digital controllers have the option to be either user directed in the firing schedule, or can come pre-programmed with firing schedules preloaded at the factory. Some digital controllers even have options to add a connection for use with a computer program interface.If you are planning to fire for production, or your projects will require several ramp/soak settings including annealing, a digital controller will deliver consistent control plus the ability to fire the same sequence repeatedly. A digital controller will allow the kiln to be fired

without constant monitoring, but not unattended. *** All kilns need to be checked at the fusing temperature, to determine if more time or temperature is needed. Digital controllers are a must for long annealing cycles.***