

Vcella Kilns[®], inc.

Congratulations! You have just purchased the very finest in electric kilns. Your Vcella Kiln will give you years of service if you will give it the proper care.

This instruction sheet is not intended to cover all aspects of ceramics but it will give you the needed information to operate and maintain your new kiln.

Your Vcella Kiln was designed to be a multi-media kiln in that you may use it for ceramics, glass, enameling, heat treating, wax burnout and/ or any other media where a kiln is required.

First you should select a proper location for your kiln, keeping in mind the following:

1. Avoid locating the kiln near any readily flammable materials such as curtains, newspapers, gasoline and other flammable liquids.
2. Be sure the area is well ventilated and that the kiln is not exposed directly to the weather. Keep it in a covered, protected area.
3. Provide at least 3 inches of airspace around the kiln.
4. Be sure the kiln is set on a stable platform that is level.
5. Be sure that you have room to open the door of the kiln so that it may be loaded easily.
6. Have the kiln located in an area that is out of the traffic flow so as to avoid bumping into it while it is firing.
7. Keep all unsupervised children away from the kiln.
8. Set the kiln at a height that is most comfortable for your use.

Now that you have located your kiln in the proper place, you are ready to hook up the electricity and check out the operation of the kiln.

1. Be sure that your outlet is the proper one for your kiln. The name tag tells you the voltage and amperage of your kiln. If you are not sure, call an electrician or your power company.
2. Check the kiln for any damage and report such to your dealer.
3. Remove all packing materials (if any) from the kiln.
4. Your Vcella Kiln was test fired at the factory so it is not necessary to test fire your new kiln, to "temper" or break it in.
5. It is a good idea to plug the kiln in and turn the switches to HIGH just to see that all is working. The pilot lights will come on and you should be able to see the temperature rise on the pyrometer in a few minutes.
6. When the kiln is off and cool, the pyrometer will read ambient temperature (room temperature), not zero.
7. Never kiln wash the sides of your kiln.
8. Vacuum or brush out your kiln before you fire it as this dust could get on your ware. Always keep your kiln clean.

You are now ready to fire your kiln. Since your Vcella Kiln may be used for many different medias, we will give you brief instructions on several firing procedures.

Enameling:

1. Turn the switches to HIGH and allow the kiln to reach temperature.
2. Once the kiln has reached temperature, turn the switches to a lower setting until you find a setting that will hold your desired temperature. As the kiln is on longer and has soaked with heat you will be able to turn to a lower setting.
3. When the kiln has reached temperature, you may place your ware in the kiln. DO NOT open the door until you are ready to put your ware in. The less time the door is open the less heat you will lose.
4. Because of its design, a Vcella Kiln loses very little heat when opening and closing the door and thus recovers fast. However, if too much heat has been lost then you might want to turn the switches to HIGH in order to recover the lost heat more quickly.
5. To check on the progress of the firing, open the door slightly and peek in.
6. Always be careful when putting your ware into the kiln not to touch the elements as they are very brittle and will break easily. It is also possible to get a slight shock.
7. There are very good books on enameling techniques available through your dealer. Follow the instructions for your particular materials.

Lost Wax Burnout:

1. Always use stainless steel flasks. Never attempt to use tin cans or other such objects as they can seriously damage your kiln.
2. Load the flasks in such a way that they do not touch the elements.
3. Be sure all vents are open.
4. Close the door and turn the kiln on. The rate of fire can be adjusted by the switch setting. You will want to check with your investment supplier for the proper firing cycle. However, most commercial jewelers find that a setting of 4 to 5 will give them a good overnight burnout.

Ceramics:

1. Load ware into kilns making sure that nothing touches the sides of the kiln or elements. Be sure to allow room for the door to close as it insets into the chamber.
2. Make sure the shelves are well supported and that you have placed your pyrometric cones where they can be seen through the peep holes.
3. Only fire ware that has been totally dried because moisture will form steam and blow your ware apart.
4. Do not stack glazed pieces on top of one another.
5. When the kiln is loaded, close the door until it is just slightly ajar. Remove the peep hole plugs.
6. Turn all the switches to low and allow the kiln to slowly reach 500°F. It is very important that green ware be brought to temperature slowly. Don't rush the early stages of the firing.
7. You will probably notice that the kiln is sweating above the door. This is from the moisture in the ware. As long as the kiln sweats DO NOT turn up the heat or close the door. You have to allow this moisture to escape from your ware slowly.

Ceramics (cont'd):

8. Once the kiln has stopped sweating, usually within two hours, you may close the door, put the plugs in and turn the switches to a middle range setting.
9. When the temperature has reached about 1200°F you may then turn all the switches to high until the desired temperature is reached.
10. When you have reached your desired temperature, turn all switches to off and let kiln cool. DO NOT open the door until the temperature has cooled to about 300°F. (It will take as long or longer to cool as it did to reach temperature.)
11. Never hurry ceramics, a slow firing and cooling will give the best results.
12. It is important to keep a record of your firing procedures so that you will be able to duplicate results later. Keep track of what clay was used, what glaze, how the kiln was loaded (placement of ware) and the firing cycle (what temperature at what time) as you fire.
13. There are many different types of controllers available for your Vcella Kiln. If your kiln is equipped with an automatic controller, follow the operating instructions provided with it. Always remember that all controllers are only aids and do not remove the need to be present when the kiln is being fired.
14. Never leave a hot kiln unattended. You don't have to be there 100% of the time, but you should check on its progress regularly. Remember your kiln can easily reach 2300°F inside and that is very hot.

FOR FIRING INSTRUCTIONS FOR OTHER MEDIAS, CHECK WITH YOUR
LOCAL SUPPLIER FOR RECOMMENDED PROCEDURES.

Trouble Checking

ACTION	CAUSE
1. Kiln fails to heat.	Kiln not plugged in. fuse or breaker failure, burned out elements, bad switch, loose connection somewhere.
2. Kiln heats too slowly.	Low voltage (less than the rated voltage).
3. Fuse or breaker trip off after kiln	Overloaded circuit, short circuit has been fired for some time.
4. Hot plug or outlet.	Defective plug or outlet.

If you are not sure what you are doing, call an electrician and do not operate the kiln until the problem has been corrected.

Element Replacement:

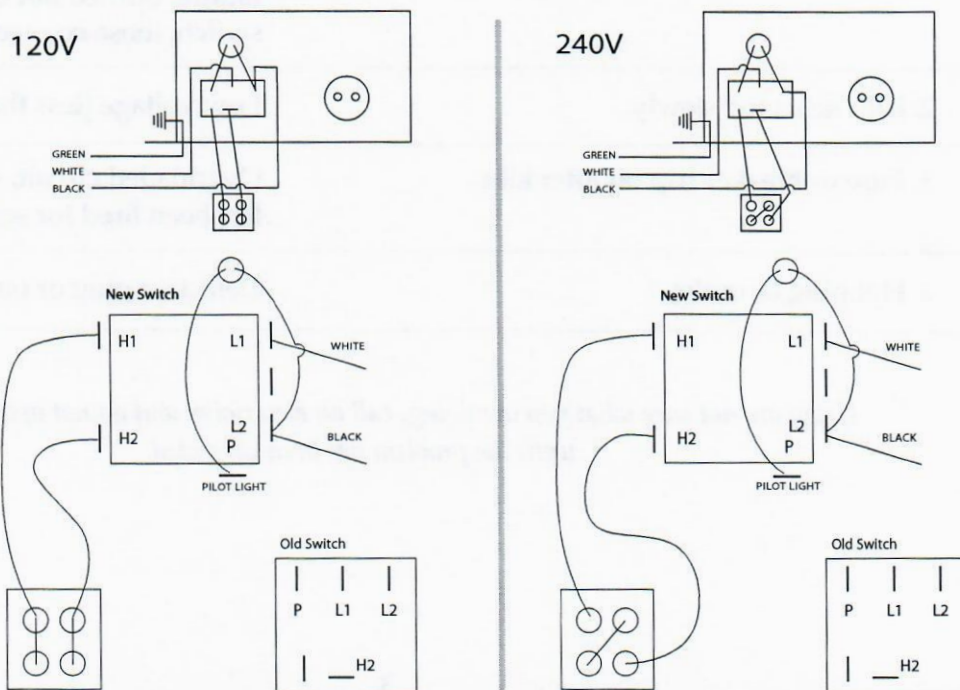
Vcella Kilns have been designed for easy replacement of elements. With proper care your elements should last a long time. However, you may need to replace them some time.

1. Unplug kiln. Remove the pins that hold the elements in the grooves.
2. Remove the screened back of the kiln.
3. Undo the nuts that fasten the elements to the terminal block.
4. Cut the element wire where it goes into the kiln.
5. Remove the element from the kiln chamber.
6. Stretch the new element to the proper length using one motion to do so.
(Fasten one end in a vice and pull the other end to desired length.)
7. Bend elements where they form the corners. Use old element as a guide.
8. Put new elements in kiln.
9. Fasten elements to terminal block as they were and reconnect the electrical leads as they were.
10. Put screened back on kiln.
11. Be sure all is back as it was, before plugging in kiln. If in doubt, call an electrician.

Thermocouple Replacement:

1. Unplug kiln.
2. Remove screened back from kiln.
3. Remove old thermocouple.
4. Insert new thermocouple into kiln.
5. Be sure to connect red to red. Red is negative.
7. Place lighted match near thermocouple in kiln and see if the needle goes up scale.
If the needle goes down scale when heat is applied then reverse the leads to the pyrometer.
8. Replace kiln back.
9. Plug in kiln.

Wiring Diagram:



Instructions Fuji 1410

1. Turn power ON.
2. Use UP or DOWN arrows to set temperature.
3. Press SEL to enter value.
4. Set switch(es) on kiln to high.