Location

Note: Section 910 of the Uniform Mechanical Code offers specific clearance specifications for "Small Ceramic Kilns". Included in the section is an <u>Exception</u> which states "These clearances may be reduced, provided the kiln is installed in accordance with it's listing or to acceptable conclusions of testing reports submitted to the build-ing official." All Skutt U.L, cUL, and CSA listed kilns have been tested to be safe under the following installation guidelines.

- 1. Locate your kiln near your present electrical outlet or where a new circuit can be installed with the least cost. Position the kiln to the left of your electrical outlet so the cord will have an easy run and will not place a strain on the plug or outlet.
- 2. Install it in a well ventilated, sheltered area such as a carport, garage, utility or hobby room. It should be convenient to where you are working, and out of the way of traffic areas.
- 3. Allow at least 18" (46 cm) of space between your kiln and adjacent walls. Also try to allow at least 18" between kilns. To limit the amount of heat directed at the controller try to face controllers away from other kilns when possible.
- 4. Do not locate the kiln where flammable materials will be stored.
- 5. Never fire your kiln within a four sided cabinet or closet. The fourth side must always be open to room air to prevent the kiln from overheating surrounding surfaces. It is best to leave at least two sides open for easy access to controls and peep holes. Fully automatic kilns should not be located in a room that exceeds 105 °F (41.5 °C) or is less than 32 °F (0 °C) as damage to the electronic components may result.
- 6. The kiln must be placed on a non combustible surface such as cement, brick, metal or ceramic.
- 7. When installing a kiln in a room with a fire control sprinkler system, please check the sprinkler head rating to insure that heat emitted from the kiln will not activate the sprinkler system.
- 8. If you plan on installing an Envirovent system now or in the future, locate the kilns close to an outside wall so the kiln or kilns can be vented with limited ducting.

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KILN SETUP

Unpacking The Kiln

For Model Specific Setup instructions please consult the <u>Unique Model Features</u> section of the manual.

- 1. The kiln stand will ship in a separate box on some models. GM10F kilns are designed with a built in kiln stand.
- 2. Remove the black plastic stand feet from the accessory bag and place them on the stand legs. Set the stand in the location you have designated for the kiln. Be sure to remove peep plugs that may be taped to the stand.
- 3. For GM1227, GM1018, and GM818 models you may choose to disassemble the kiln into smaller components before moving it from the box. *See Disassembling Multi-section Kilns below.*
- 4. On models with buckles attaching the bottom slab, unhook the buckles.
- 5. With a partner, lift the kiln (leaving the slab), using the lower section handles (on models with handles), and rest on a clean, flat surface.



- 6. Position the kiln floor on top of the stand making certain that the weight is evenly distributed.
- 7. Level the kiln. Make sure the stand and kiln floor are level and do not teeter. Leveling problems may put unnecessary stress on the kiln during firing. To level the stand, place firm shims under the legs (never above them touching the kiln). Center the kiln's bottom slab on the stand and double-check teetering. On the GM10F the stand is built into the design of the kiln.
- 8. With a partner, pick the kiln up and rest it on top of the kiln floor.
- 9. On models with slabs that buckle to the kiln, reattach the buckles. On the GM22CS attach the buckle that secures the kiln to the stand.
- 10. For kilns with peep holes, place the plugs in the hole or holes. (*Peep holes are holes in the side of the kiln used for viewing inside the kiln chamber and for venting gases.*)
- 11. If the unit has a wall mounted controller consult the instructions on page 37.
- 12. Plug the kiln into the wall receptacle. When the kiln is plugged in, the display reads PF. Press Enter and the kiln should enter **IDLE Mode.** If there is no display consult the troubleshooting section of this manual. You are now ready to test fire the kiln

Disassembling Multi-section Kilns

(Always Unplug a Kiln Before Disassembly)

- 1. Remove Lid (It is not recommended to remove lids with elements in the lid since they are connected electrically)
 - a. Remove one of the cotter pins from the lid rod and slide the lid rod out of the lid hinge assembly.
 - b. Remove the thumbscrew and lid brace.
 - c. Lift the lid straight up and place lid on a clean, flat surface.
- 2. Remove Control Box
 - a. Remove the screws on the left side of the box that secure the box to the kiln, and swing the panel to the side.
 - b. Slide the numbered feeder wires and thermocouple wires off of the terminal strip.
 - c. Lift the control box up to remove it from the hinges.
- 3 Separate Sections
 - a. Unbuckle the draw-pull catches between each section.
 - b. Lift each section using the section handles and place on a flat clean surface.

Preparation Before Firing

Remove any brick chips or other foreign matter from around the elements. Contaminants will eat through the elements. We recommend that you vacuum the inside of the kiln to remove any dust that accumulates during shipment.

You will want to apply a shelf primer, also referred to as kiln wash, on your shelves to protect them from melted glass adhering to them. There are a number of different formulations with different instructions for application so be sure to follow the directions of the brand you choose. Be sure newly coated shelves are dry before firing them in the kiln.

You may also wish to coat the floor of the kiln. Never kiln wash the walls or lid of your kiln!

Seating The Elements

The elements of your kiln need to be properly seated into the grooves of the brick. Elements have stress in them much like glass before it is annealed. This stress is caused by winding and stretching the elements. By bringing the elements up to a minimum temperature we can allow the elements to settle into the grooves and relieve this stress. After the elements have been seated, the element is more stable and less likely to pop or crawl out of the grooves.

The controller should be pre-programmed to run the seating program in Ramp and Hold Mode, program #6. Press review to verify that the program listed below is entered in the controllers memory. If the program matches the one below simply press START and let the program run. If for some reason the program is not loaded, please follow the instructions for programming a Ramp and Hold program in the manual. It is not necessary to use shelves for this firing.

Program - 6 Segments - 1 Heating Rate 1 - 9999

Temperature - 1650 F

Alarm - 9999

Test Firing

The test fire ensures you that the kiln is functioning properly and has not been damaged in shipping.

Test Fire Procedure

- Post up a shelf in the kiln chamber at a level where the top of the shelf is between 1" and 2 " below the thermocouple. Fuse with the shelf in this position relative to the thermocouple whenever possible for accurate and consistent results.
- Place a sample glass project using scrap fusible glass in the kiln and choose a GlassFire mode program using the instructions on page 9. As a precaution you may want to provide a dam or barrier around the glass when fusing more than 2 layers. With more than 2 layers, the glass will spread until it finds a level of 1/4".
- Let the kiln fire and then cool to room temperature before opening the lid. If the project is fused or slumped to your satisfaction the kiln is operating correctly.

The first time the elements are fired they will give off some smoke. This is normal and expected. It is also common for hairline cracks to appear in the floor of a kiln. This is caused by the expansion and contraction of the mortared brick and is considered normal. It will not affect the firing of your kiln nor the life of the kiln floor.

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