

# Replacing Elements

The correct element specifications are critical to the safe and efficient performance of your kiln. Elements can vary between models and within the same kiln, so be sure to order the factory recommended elements for your model and install them in the correct positions.

- 1. Unplug the kiln.
- 2. Remove attaching screws and swing open control box. On KilnSitter kilns it will be necessary to disconnect the Shutoff Tube Assembly prior to opening the box when replacing elements in a master section.
- 3. Label each feeder wire that leads to the elements you wish to replace to ensure they will be reconnected in the correct position. You may wish to separate the kiln sections to give you easier access to the element you are replacing.
- 4. Cut the feeder wire as close to the crimped barrel connector as possible then cut the barrel connector off the element pigtail. This will allow the element pigtail to pass freely through the brick.
- 5. Remove all the pins which hold the element in the groove and <u>carefully</u> remove the element from the groove. Needle nose pliers can be very helpful.
- 6. Vacuum all debris from the element groove.
- 7. Elements from Skutt Ceramic Products are preformed with bends in the elements to match the angled joints of the brick. The pigtails on the new elements have loops that must be cut off prior to installation.
- 8. Install the new element by placing one of the pigtail ends through the terminal hole of the brick. As you feed the element into the groove be sure that the bends in the elements match the angled brick joints. Slight adjustments can be made if necessary by slightly stretching or compressing the coils.
- 9. Once the element is in place, use the new pins which were included with your replacement element to secure the element into the groove. Using needle nose pliers, place the pins in a downward angle over the element in each corner. Only use element pins supplied by the factory to insure the elements will not be contaminated.



- 10. Place the porcelain insulators over the ends of the element pigtails on the outside of the kiln chamber. The pigtails can be at an angle so you may need to bend them so they are perpendicular to the kiln. Again be careful not to enlarge the existing hole.
- 11. Gently pull the element through the hole as far as it will go and cut the element 5/16" beyond the porcelain insulator using side cutters.
- 12. Strip 3/4" of insulation off the correct feeder wire bend the exposed wire over so it is doubled. This will allow for a tighter fit in the connector.
- 13. To attach connector:
  - A. Grip one of the connectors that was supplied with your new element with a dimple crimping tool. Make sure the crimp point of the tool is lined up over place where you wish to make the crimp.
  - B. Reach inside the kiln chamber and push the element through the hole as far as it will go and slide the connector over the pigtail so the end of the pigtail is in the center of the connector and crimp down hard. When you let go the connector and insulator should be pulled snug against the heat shield.
  - C. Place the feeder wire into the other end of the connector and make a secure crimp.

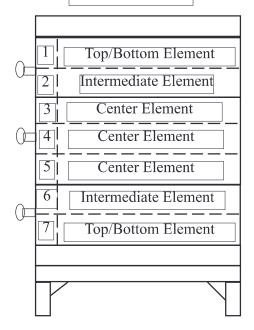


(continued)

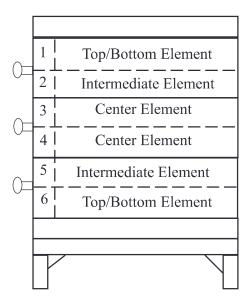
#### REPLACING ELEMENTS

The elements in many Skutt kilns are balanced therefore it is very important to place the correct element in the correct position. Below are diagrams that illustrate the correct placement.

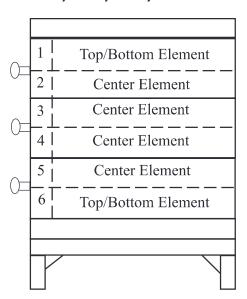
#### KM1231-PK



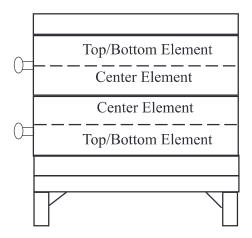
#### KM1227-PK



### KM1227,KS1227,KS1027, 280, 235, 230, and 231



## KM818, KM818-30A, 231-18 KM1018, and KS1018



<u>PLEASE NOTE</u>: The elements for all other kiln models are the same from top to bottom for each model. This includes models 609, 614, 714, KS818, KS818P, KS818WR, KS818PWR, 181, 180, 145, 183, 185, the Pinto, and Octagon Fuser. Element positioning is not effected by phase or brick size.

10.1 REV 7/15/04