



## Element Replacement AE-1848

### Installing elements into element plates:

**WARNING:** use safety glasses while doing the following procedure:

1. Stretch element to 23 ½ feet (coil to coil, not including leads).
2. Arrange the four large plates (12" X 9") to create a plate that is 9" tall by 48" long. You must fit them together so that ridges which are indented on the left end are not indented on the right end, and ridges which are flush on the left end will be indented at the right end.
3. Beginning from the edge which has six indented ridges, slide the two element leads into the middle grooves on each side of the second and fifth middle ridge. Pull element through until the middle point of the element bends snugly around the indented ridge. This is important so that the element coil sits on the refractory plate and does not protrude outside of the plate.
4. At the end of each groove, pull on the element to tighten it and put tension on the coil stretching it about an inch. As you are pulling, insert a screwdriver with a ¼ inch flat blade between coils and wedge the blade against the end of the indented ridge. This will hold the element in place as you feed the next groove. **WARNING: do not let go of the screwdriver because the tension on the coil might cause it to fly out.**
5. Repeat item 4 until all grooves of plates are filled.
6. In the last rows, insert screwdriver into loop on element lead end and pull, stretching element until all of the element lead extends outside of the plate.
7. Remove loop from element lead.

### Installing element into the furnace:

Element should already be installed in porcelain plates.

1. Turn off power.
2. Remove screws and rear cover (s).
3. Remove electrical wires from the elements (3/8" nut) and tag as to location
4. Untwist element wires from bolts.
5. Cut old element flush with porcelain bushings.
6. Unscrew and remove porcelain bushings (Bob bushings).
7. Open door of furnace and remove old element with porcelain plate pull straight out gently.
8. Insert new element plates into chamber (Lead end first), push plates back gently. Align element leads with holes at rear of chamber. (Leads need to go through hole on back of chamber). Push plates back as far as they will go
9. Install porcelain bushings over element leads and secure.
10. Twist element lead around bolt 2 turns. Cut off excess.
11. Replace the electrical wires on the bolts/element.
12. Install nuts on bolts and tighten securely.
13. Check all wiring before putting on cover (s).
14. Test furnace with an ohm meter for shorts.

### Element break in for models AE-1848

Furnace should be fired empty to 2000°F and held for 1 hour soak time. This process oxidizes the elements to help protect them and increase element life.

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