KILN-SITTER INSTALLATION INSTRUCTIONS

MODELS P AND LT-3

(For Models K and LT-3K, See Sections 4 and 5)

The KILN-SITTER is a control that shuts off your kiln using a pyrometric cone for its triggering element.

The Model LT-3 KILN-SITTER also has an electrically driven mechanism, set by the operator prior to firing, that will trip the lock and shut off the kiln in the event the normal cone operation does not perform properly. This back up device is only used as a safety feature and should not be employed to override the function of the cone.

Models P and LT-3 KILN-SITTER are delivered partially disassembled. Assembly and adjustment to your particular kiln is not difficult and can be accomplished in only a few minutes if the illustrated installation steps are followed with care. Please take the few minutes necessary to read and understand the following instructions. You will be assured of years of carefree firing.

Refer to Fig. 1 for identification of each part which will be used in assembly and installation.
NOTE: The tube is delivered assembled with the following parts: (1) nipple and swivel assembly, (2) nut and washer, (3) 2 cone supports (4) firing gauge and (5) sensing rod. Do not take these apart. They may be assembled to the baffle plate as a unit. However, they may require adjustment which is described later in that section.

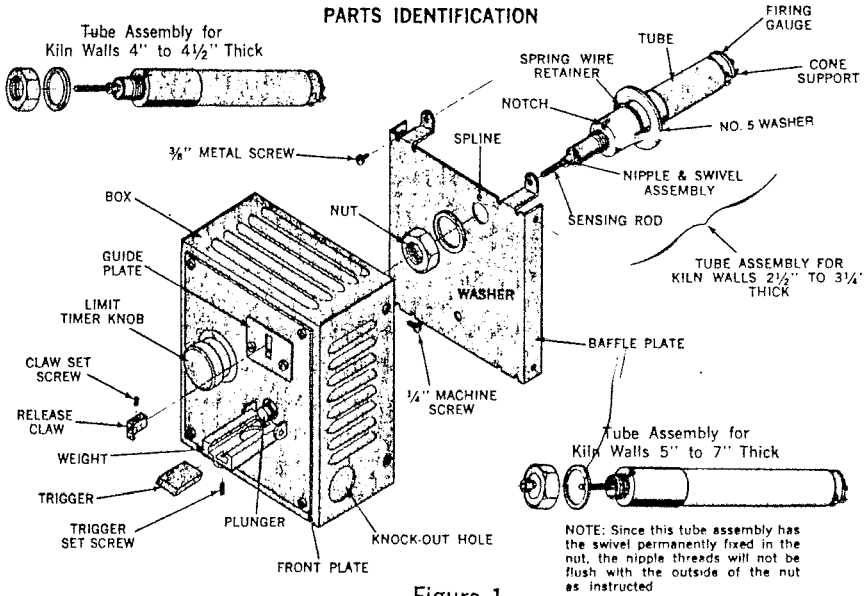


Figure 1

1. ASSEMBLING TUBE TO BAFFLE PLATE

Remove the nut and washer from the swivel and nipple assembly at the end of the tube. Insert nipple and tube through hole in baffle plate, as shown in Fig. 2, and replace washer and nut on nipple. Before tightening nut be sure that the spline protruding from the baffle plate engages in the notch at the top of the tube metal jacket. When the nut is tightened, the end of the nipple threads should be flush with the outer surface of the nut. If necessary, the nipple can be threaded in or out of the tube jacket to achieve this adjustment. When these things are done, tighten nut firmly.

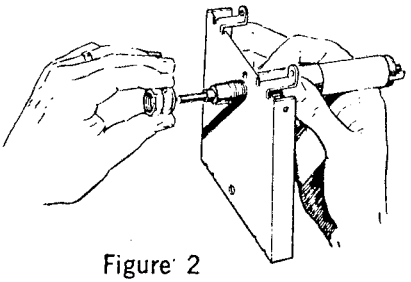


Figure 2

2. ADJUSTING SENSING ROD

The sensing rod is delivered already in positon within the tube cavity. One end protrudes from the hole in the firing gauge and the other end is secured in the rod swivel. For proper action, the end of the rod should be flush with the end of the cone supports (see Fig. 3). A visual check should be made and if the end of the rod is not even with the end of the cone supports it should be moved to position after loosening the set screw in the rod swivel. Be sure the rod swivel set screw is retightened firmly. NOTE: the rubber band holding the cone supports and firing gauge in place may be removed during this adjustment but should be replaced to hold these parts in position during the rest of the assembly.

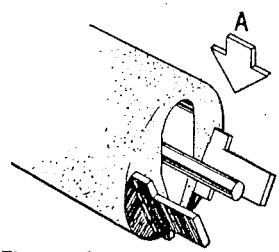
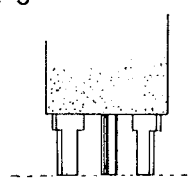


Figure 3



View A

3. ATTACHING BAFFLE PLATE TO KILN

All kilns are provided with peepholes for viewing the interior during firing. One of these holes may be used to receive the KILN-SITTER tube. A hole in the lower half of the kiln is recommended so as to avoid the greater heat at the top of the kiln. Ideally the kiln hole should be large enough to allow a space of 1/8" all around the tube. If the peephole is not large enough it can be reamed larger. The No. 5 washer is used to insulate the outside of the hole and to protect the KILN-SITTER from heat damage. First place the spring wire retainer over tube and onto the metal jacket, then the No. 5 washer.

Position baffle plate on outside of kiln wall so that the tube is centered in kiln hole and does not touch side of hole at any point. Being sure that the baffle plate is in a vertical position, mark the four screw holes. Any sharp object may be used to punch small starting holes in the metal of the kiln wall. Fasten baffle plate firmly to kiln wall, using the 3/8″ metal screws, which are provided. Push the No. 5 washer forward, flush against the kiln wall, holding it in place with the spring wire retainer. NOTE: If the kiln hole is too large to be completely covered by the No. 5 washer, it is advisable to fill the gap all around the tube with ceramic fiber before moving washer forward.

4. WIRING OF MODEL P

Caution: Be sure power is off before wiring!

Wiring of the box is done from the back. It is not necessary to remove the front plate.

The hot line or power source is passed through the knock-out hole in the side of the box and is connected to the two terminals at the **bottom** of the switch (terminals closest to the knock-out hole).

Connect the ground wire to the KILN-SITTER box or to the kiln jacket or wiring gutter.

Then connect the load lines, which serve the kiln heating elements, to the **top** terminals (see Fig. 4). Assure that all wires are away from the baffle plate and do not restrict the free action of the sensing rod.

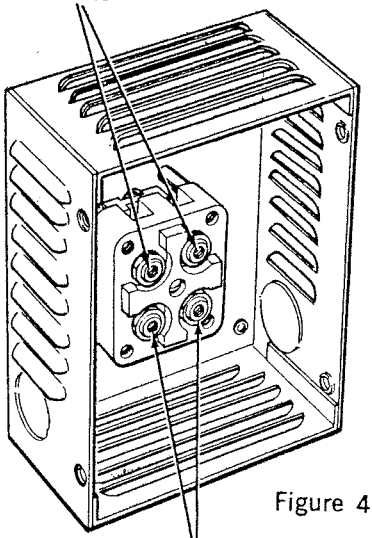


Figure 4

Note: The Model K electrical wiring is the same as for the Model P except for the mounting box.

5. WIRING OF MODEL LT-3

Caution: Be sure power is off before wiring!

Wiring of the box is done from the back. It is not necessary to remove the front plate.

The hot line or power source is passed through the knock-out hole in the side of the box and is connected to the two terminals at the **bottom** of the switch (terminals closest to the knock-out hole).

Connect the ground wire to the KILN-SITTER box or to the kiln jacket or wiring gutter.

Then connect the motor leads, and the load lines serving the heating elements, to the top terminals (See Fig. 5). Caution: If the motor leads are connected to the bottom power source terminals, the limit timer motor will not shut off when the kiln shuts off, which may result in damage to the motor. Also assure that all wires are away from the baffle plate and do not restrict the free action of the sensing rod.

Connect Motor Leads, and Load Lines Serving Kiln Heating Elements, to Top Terminals.

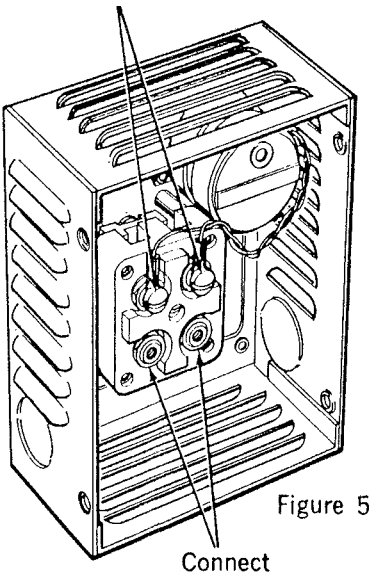


Figure 5

Connect Power Source to Bottom Terminals

Note: The Model LT-3K electrical wiring is the same as for the Model LT-3 except for the mounting box.

6. FASTENING BOX TO BAFFLE PLATE

When box is properly wired, the guide plate on the front is loosened by backing off its two screws. This will allow horizontal movement of the guide plate, if necessary, to allow the sensing rod to pass through guide plate slot when box is mounted onto baffle plate. Position box onto baffle plate and fasten it firmly on the sides with the four ¼" machine screws.

When installation is complete, refer to your Operating Manual for Adjustments, Test Firing and Normal Operation of the KILN-SITTER.