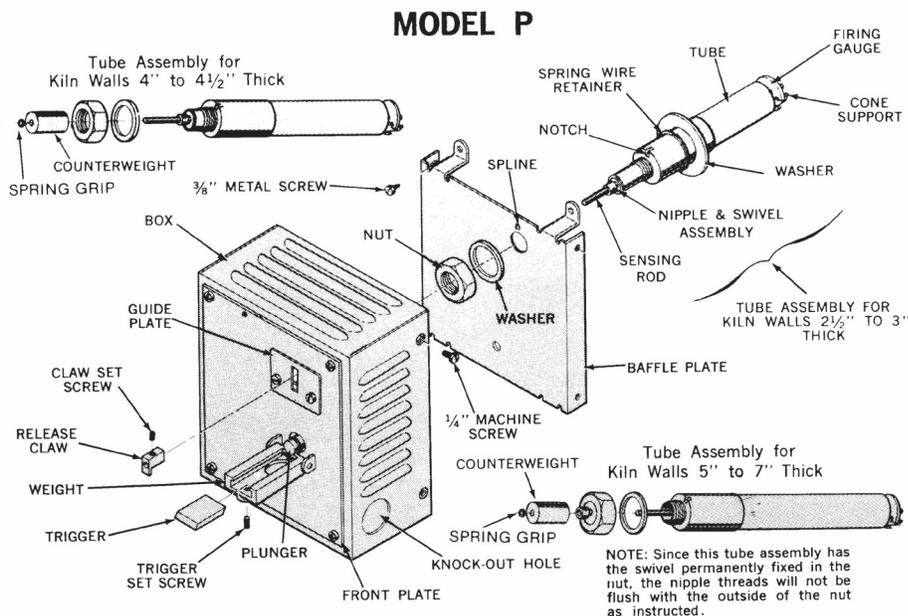
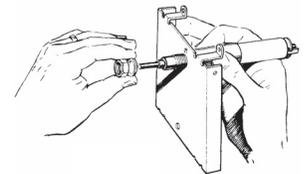




# Type P - Tube Assembly Replacement

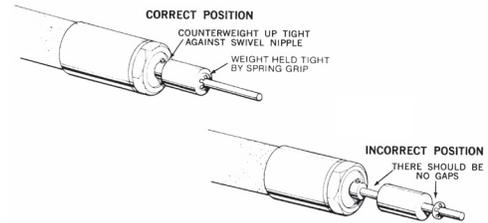
## REMOVAL AND REPLACEMENT

1. Unplug the kiln
2. Remove the Claw. Save it you will need to use it on the new Sensing Rod. Depending on the age of your kiln the Claw will be held in place by either a standard or Allen set screw. (See Claw Identification on page 4)
3. Remove box from baffle plate by unscrewing the 1/4" machine screws on the right and left side of the box (4 screws).
4. Remove baffle plate from kiln by unscrewing the four 3/8" metal screws. Baffle plate with tube assembly attached is now free to be withdrawn from opening in kiln wall.
5. Disassemble the old tube from the baffle plate by removing the large nut and washer.
6. Remove nut and washer from new tube assembly. Insert nipple and tube through hole in baffle plate. Replace washer and nut but before tightening 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 jacket to achieve this adjustment. When these things are done, tighten nut firmly.
7. Place the spring wire retainer over the tube and onto the metal jacket, then the washer. After replacing the baffle plate onto the kiln wall, push washer and spring wire retainer forward against the kiln wall.



(continued)

8. Counter weights are on all tube assemblies except the 2 1/2", 3" and K-long or short tube assemblies. These weights provide a counterbalance which controls the weight of the sensing rod as it bears down on the cone during firing. In this way firing performance is equalized between Sensing Rods of different lengths. The counterweight must be positioned up tight against the swivel nipple, held in place by the sliding spring grip.



## ADJUSTMENTS

Here are some simple adjustment checks for you to make before firing your kiln. We urge you to make them carefully and repeat this check every 30 firings during its lifetime.

### 1. TURN ALL SWITCHES OFF

### 2. INSTALL FIRING GAUGE

You should have received a Firing Gauge with your replacement tube assembly. Place it over the sensing rod and cone supports as shown in Figure 1.

CAUTION: Remove firing gauge before operating kiln.

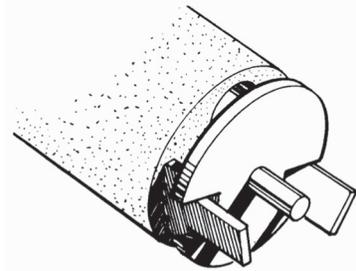


Figure 1

### 3. CHECK POSITION OF RELEASE CLAW AND WEIGHT TRIGGER

With the firing gauge in position, swing the weight up against the guide plate. Pull the claw forward (against the slight play in the swivel/pivot assembly) and check for a 1/16 inch clearance between the inside lip of the claw and face of the trigger as shown in Figure 2. Set screw on top claw, may be loosened if the

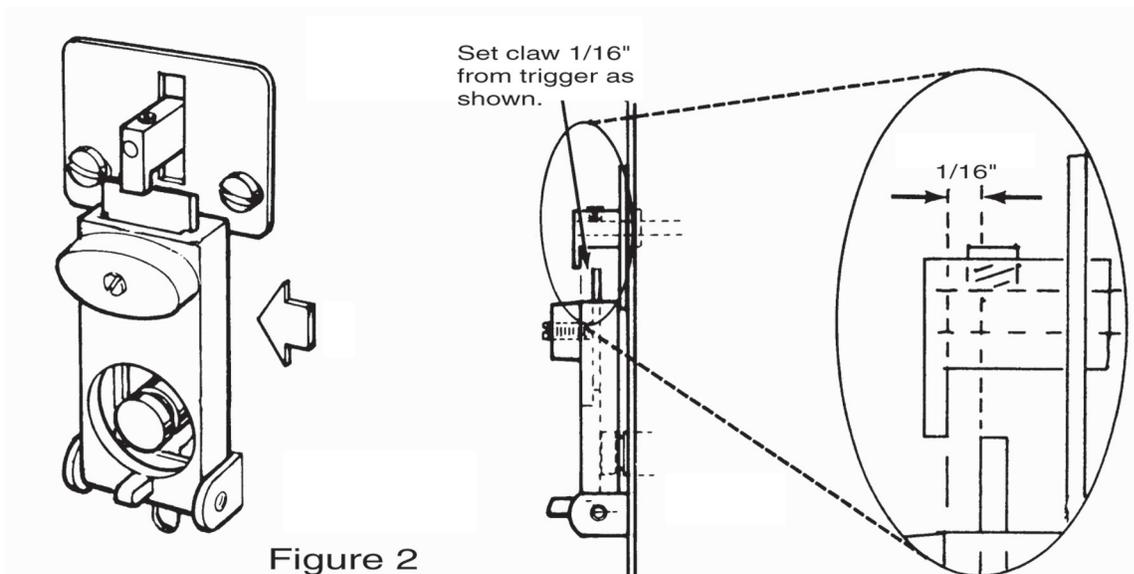


Figure 2

When weight swings forward, the trigger should just clear the lip of the claw, as shown in Figure 3. The set screw in front of weight may be loosened to raise or lower trigger, as shown in Figure 4. Set screw must be firmly retightened or the force of repeated falling of the weight may cause the trigger to creep out of adjustment.

Set trigger to just clear  
claw as shown

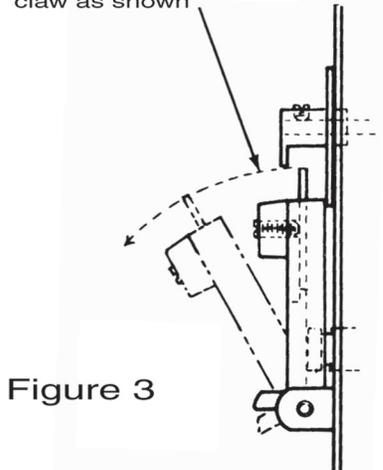


Figure 3

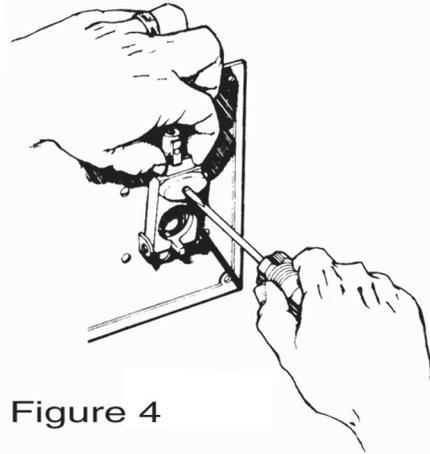


Figure 4

Check your kiln with a level to make sure it is not standing on an uneven floor. If this should occur your weight may not fall when released.

**WARNING:** Do not fire your kiln over or near **FLAMMABLE** material (i.e. wood floor, carpeting, etc.)

#### 4. CHECK TRAVEL OF SENSING ROD

The firing gauge should now be removed but **KEPT FOR FUTURE PERIODIC ADJUSTMENTS**. The sensing rod is now free to travel vertically within the tube cavity. It should travel freely in the center of the cavity without touching the sides at any point, as shown in Figure 5 and 6.

If necessary, the sensing rod may be centered by loosening the two guide plate screws in front of the **KILN-SITTER** and moving the guide plate to right or left as required, as shown in Figure 7. Be sure guide plate screws are firmly retightened.

When these adjustments have been made, you are ready to test fire.

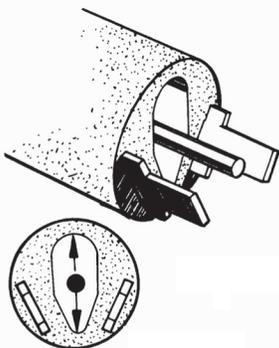


Figure 5

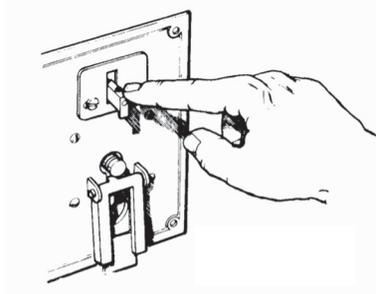


Figure 6

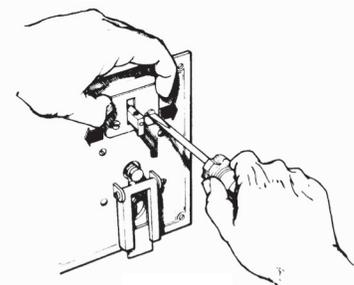


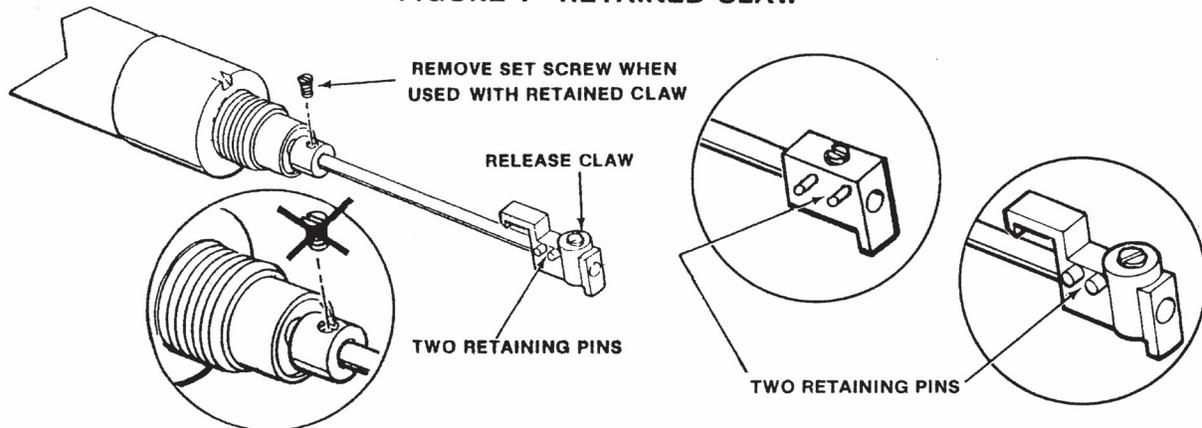
Figure 7

## CLAW IDENTIFICATION

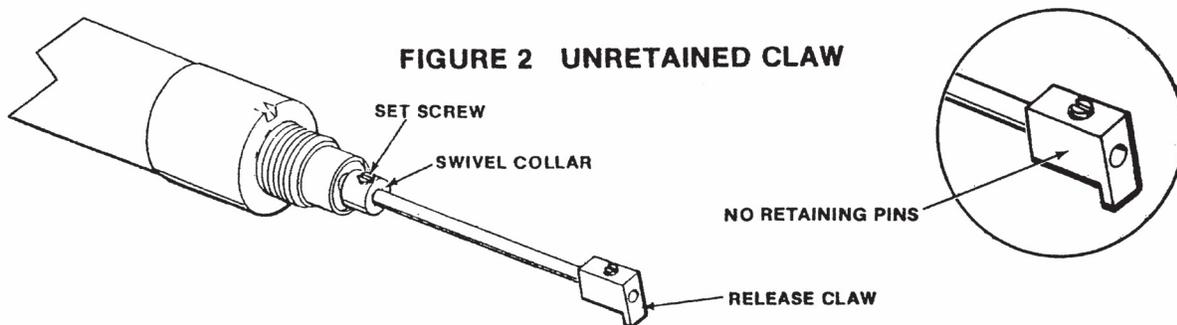
Every KILN SITTER model is designed with either a "RETAINED" or an "UNRETAINED" claw on the end of the sensing rod.

When replacing a tube assembly which has a "RETAINED" claw, as in Figure 1, REMOVE the set screw from the swivel collar. The "RETAINED" claw has two pins on the side and may be either aluminum or black nylon.

**FIGURE 1 RETAINED CLAW**



If the claw is an "UNRETAINED" style, as in Figure 2, then leave the set screw in the swivel collar. The "UNRETAINED" claw does not have any pins on the side and is available in aluminum only.



**NOTE:** The tube assemblies depicted in the above diagrams are "P" style; however, the directions apply to all KILN SITTER models. In addition, the release claw is not a part of the tube assembly replacement part.