



**H280-series Valve Overheat / Relocation Kit Instructions: RC Ovens**

**Instructions for Applying Kit #4523368**

*This kit is for a convection **RC, 36" oven** only. For a Standard 36" oven, use Kit #4522559*

**Installation Prerequisites:**

- RC Oven, Piezoelectric Ignition
- U-Burner with no welded bracket

**Tools Needed:**

- Wrenches
- Small Hacksaw (for extension installation if required)
- Screwdrivers (Robertson, Flat), long and short
- Riveter
- Electrical Tape

**Parts:**

Part #	Description	Quantity
1415703	Baso Safety Valve	1
4522554	7/16" x 10" Flex Tube	2
4522558	Pre-bent 3/16" Tubing	1
076050-89	3/16" Union	1
M231	1/4IN X 3/16IN CC COMP Nut	2
M126	1/4IN TO 3/16IN SLEEVE - Ferrule	2
1095499	7/16cc – 3/8 NPT Straight Connector	2
4522557	Valve Bracket	1
F60	#10 x 5/8 Sheet Metal Screw	4
M123	7/16IN C.C. COMPRESSION - Nut (for Flex Tube end)	2
M122	7/16IN C.C. BALL SLEEVE - Ferrule (for Flex Tube end)	2
F312	LOCK NUT-10-24 K-LOCK - Nut (for Baso Valve)	1
F587	BOLT # 10-24 x 2-1/4 SL - Bolt (for Baso Valve)	1
4522556	Redesigned Kick Panel	1
4522201	Welded Bracket Oven Burner	1
F32	#10-24 x 1/2 Pan HD Type F Screw (For Pilot Bracket)	1
070239-10	RC Pilot Natural Gas	1
078239-11	RC Pilot Propane	1
M124	1/4" Tubing Ferrule	1
M125	1/4" Comp. Nut	1
1415000	Robertshaw Thermocouple	1
4521446	1/4" x 12" Flex Tube	1
4523367	MANUAL-HIGH HEAT KIT-RC	1
G7227-1	Lighting Instructions	1
M121	Rivet	2

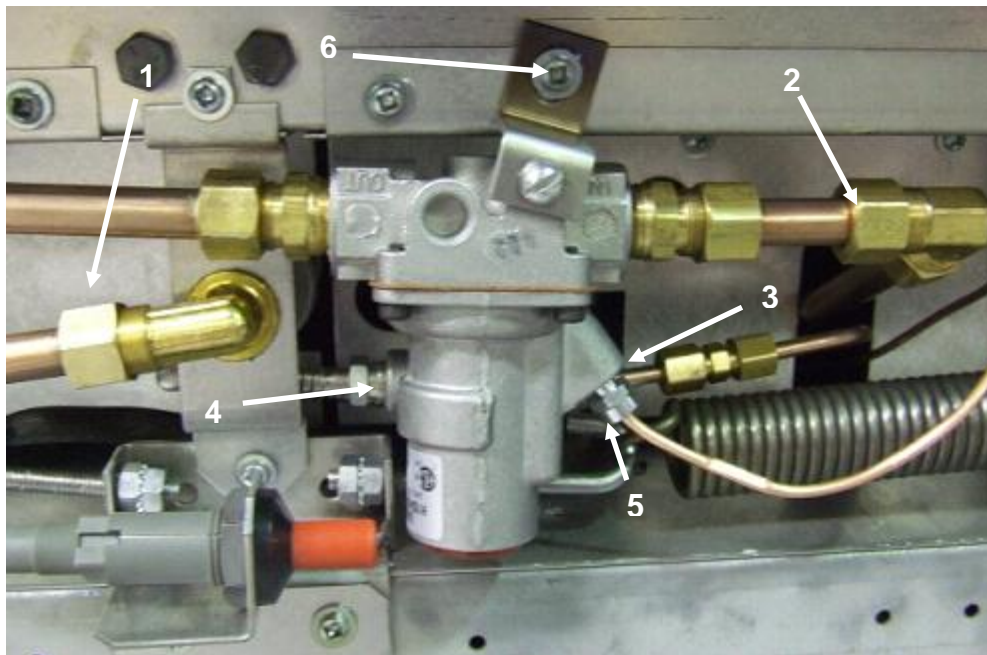
**Instructions:**

**1) Remove Kick Plate**

- Unscrew and set aside
- This kick plate will not be reinstalled. A replacement is provided in the kit.

**2) Remove Safety Valve**

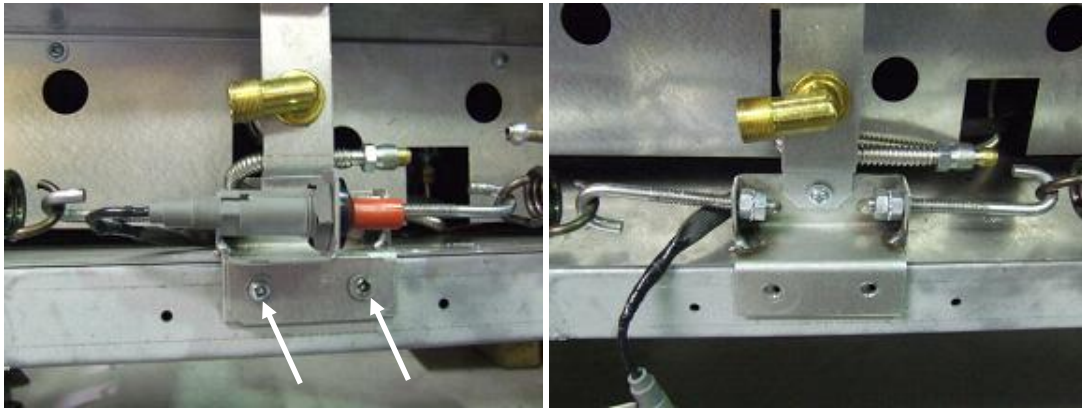
- The following steps will apply for a Baso Valve:
  - 1) Unscrew 11/16" compression nut on oven orifice fitting.
  - 2) Unscrew 11/16" compression nut on 11/16" elbow on Valve Main Burner Gas Inlet.
    - Elbow itself should still be connected to Main Gas Inlet but detached from valve.
  - 3) Unscrew 7/16" compression nut on Pilot Gas Inlet.
  - 4) Unscrew 7/16" compression nut on Pilot Gas Outlet.
  - 5) Unscrew 3/8" thermocouple nut.
  - 6) Unscrew #10 sheet metal screw holding valve bracket onto lower front frame.
  - 7) Remove valve.



Baso Safety Valve: Prior to removal

### 3) *Unscrew Igniter Bracket*

- Unscrew the two screws holding down the igniter bracket to the orifice bracket.



Left: Before removal, location of screws shown by arrows  
Right: After removal

### 4) *Remove Door Springs*

- **Once the springs are removed, the oven door will be free to fall.** Use a strong tape to keep the oven door closed for safety purposes.
- For the door hinge **with no microswitch**:
  - Insert a long screwdriver underneath the bell crank assembly such that the tip extends behind the air shield. See the following pictures for details.



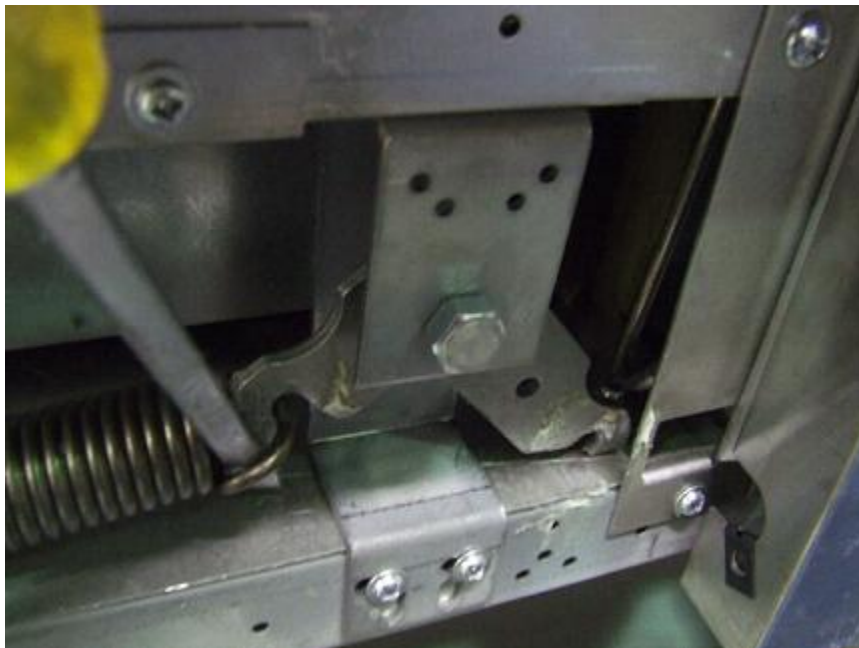
Insertion of screwdriver underneath bell crank assembly and air shield

- Pry upward with the screwdriver. While holding this position, unhook the oven door hinge link.



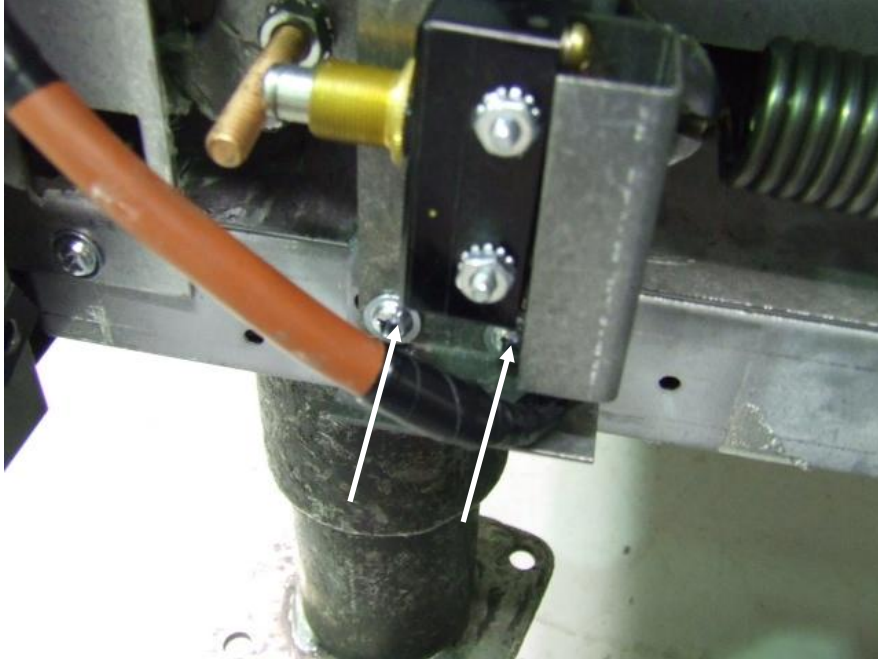
Unhooked oven door hinge link

- Use flat head screwdriver to pry spring from bell crank assembly. Remove spring.



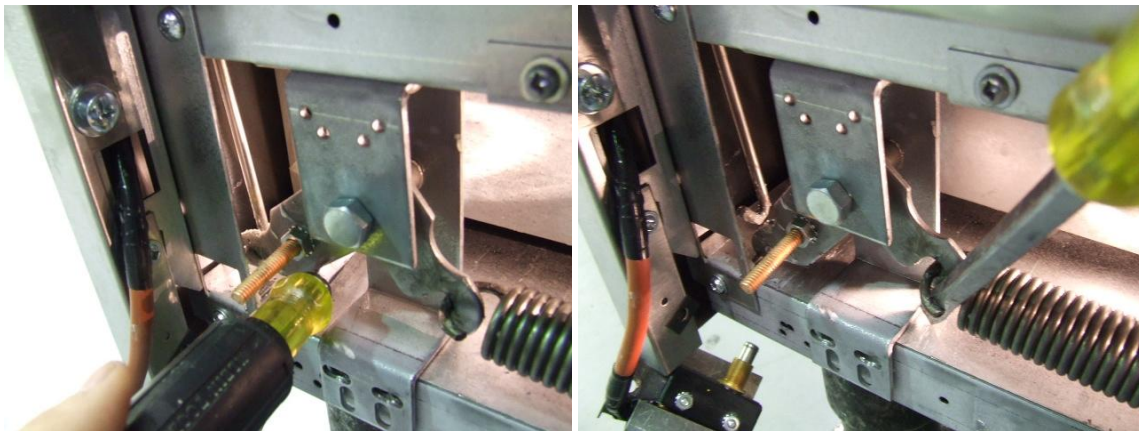
Prying spring from bell crank assembly

- For the door hinge **with a microswitch**:
  - Unscrew the microswitch bracket from the oven frame. **It is important that the microswitch be removed prior to removing the spring** to prevent damage to the microswitch when the springs are reinstalled later.



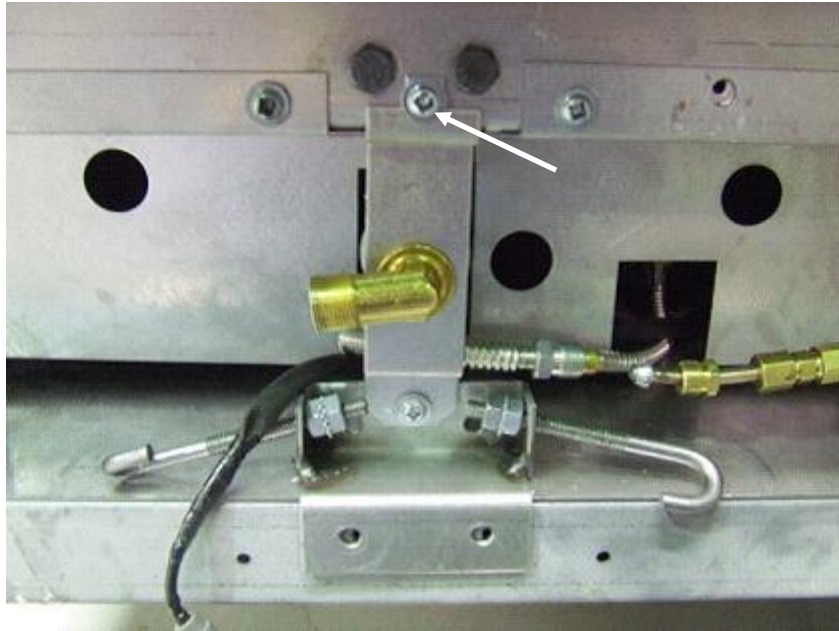
Microswitch bracket held to oven frame by two screws indicated by the arrows

- Follow the same steps as before, using the screwdriver to pry the bell crank assembly upwards to unhook the oven door hinge link, then pry the spring loose from the bell crank assembly.



5) **Remove Orifice Bracket**

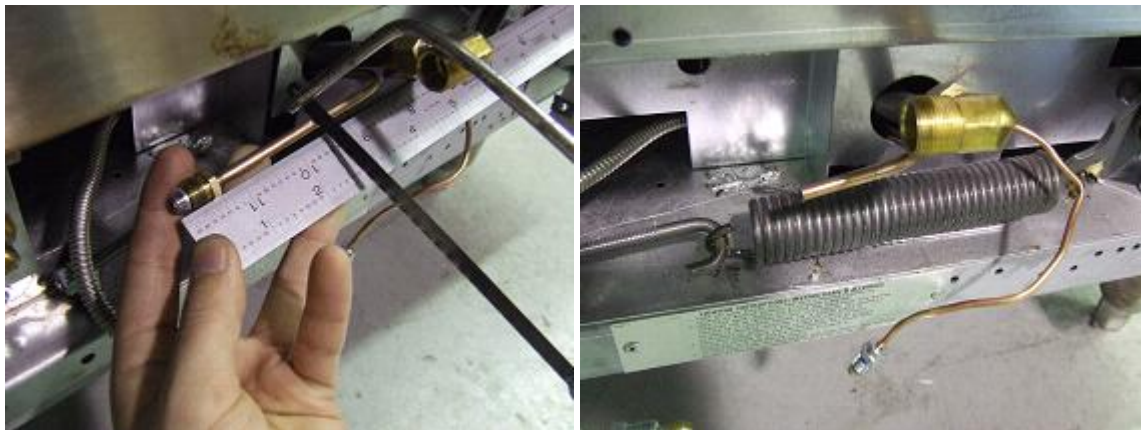
- After removing the igniter bracket, the orifice bracket will be held in place by a single screw directly above the orifice.



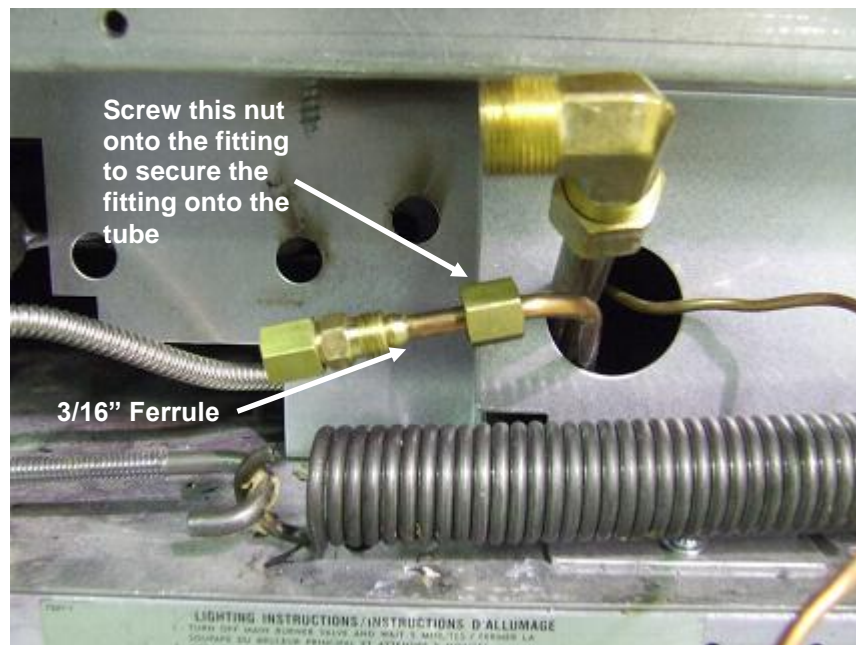
Note that with the removal of the igniter bracket, the orifice bracket is held down by a single screw as shown by the arrow

6) **Install Extension Fitting (if applicable)**

- If pilot gas tube going into the valve already has an extension piece (short piece of tubing plus 3/16" brass fitting), unscrew the shorter piece of tubing and proceed to Step 13. Otherwise, follow these steps to install the proper fitting.
- **This step must be performed if a TS-11 valve was just removed.**
- If a Baso valve was uninstalled, cut off 2.5" of the free end of the incoming pilot gas tube to remove the original ferrule and nut and a section of the tubing. If a TS-11 valve was uninstalled, cut off just enough tubing to remove the ferrule.
- Refer to the Assembly Drawing included in this manual:
  - i) Unscrew one end of the 3/16" fitting (Part 4, Assembly Drawing) to release the nut and ferrule. Slide the nut and the ferrule onto the free end of the incoming pilot gas tube.
  - ii) Insert the remaining portion of the fitting onto the end of the pilot gas tube. Screw on the nut to firmly attach the fitting to the tube. See pictures below for details.
  - iii) Ensure all connections are leak-proof. Do not over-tighten.



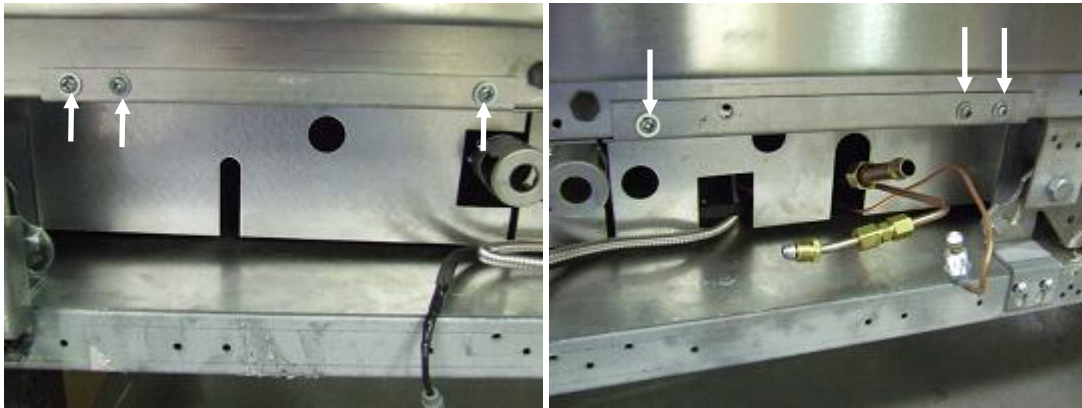
Left: Measure 2.5" from tip of pilot tube and cut  
Right: Pilot tube after cutting



Extension fitting installed, with nut released to show location of ferrule

**7) Remove Left and Right Front Shields**

- Both shields are attached to the upper support bar using 3 screws.



Left: Left side front shield, location of screws shown by arrows  
 Right: Right side front shield, location of screws shown by arrows

**8) Remove Burner**

- Burner is not screwed down to oven floor and can be removed by gently sliding it out.
- This burner **will not** be reinstalled.

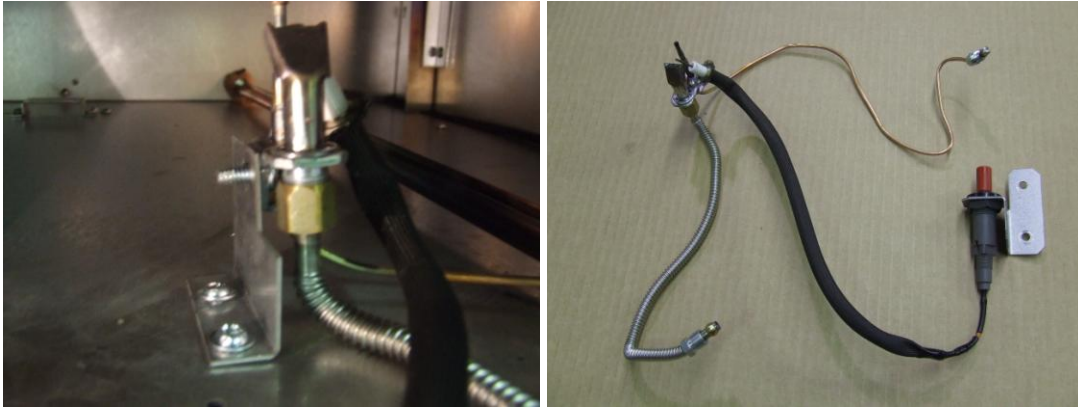


Left: Lower oven cavity after removal of front shields  
 Right: Original burner with single welded bracket at end, will not be reinstalled



**9) Unscrew Pilot Bracket from Oven Floor**

- The bracket is held down to the oven floor using two screws. This bracket will not be reinstalled.



Left: Pilot assembly with bracket mounted to oven floor  
Right: Pilot assembly with bracket removed

**10) Detach Igniter and Bracket from Pilot Assembly**

- Use a pair of pliers to gently detach the ignition wire from the igniter.
- Slide the sheath off the wire. This sheath will be reused in the next step.
- The old pilot assembly (including the original gas tube, ignition tip and thermocouple) will not be reinstalled.



Detach igniter from original pilot assembly. The igniter will be reused with a new pilot assembly

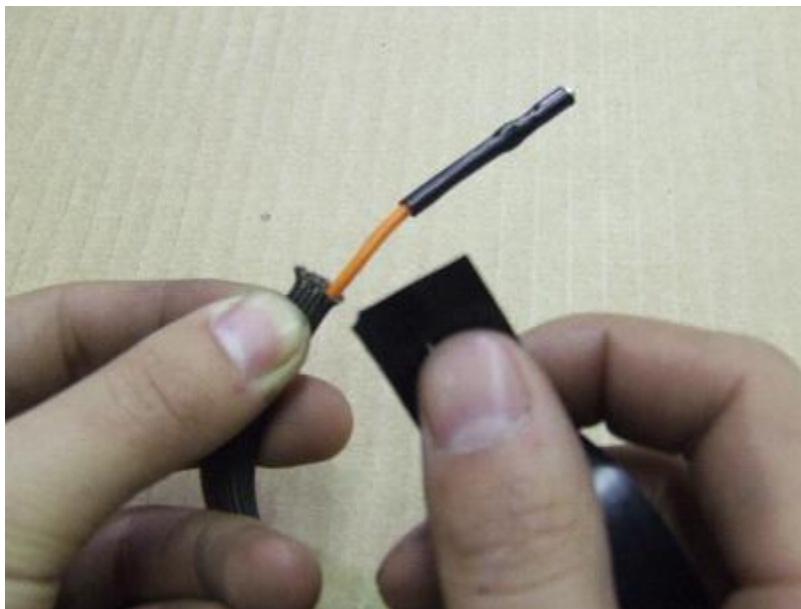
**11) Assemble New Pilot Assembly**

- A colored line on the top of the pilot indicates the type of fuel used. A **BLACK** line is used on a **natural gas** pilot, whereas a **RED** line is used on a **propane** pilot. Ensure the proper pilot is used.
- Insert sheath onto new pilot assembly ignition wire
- Push sheath onto wire until about 1 inch of orange ignition wire protrudes from the free end



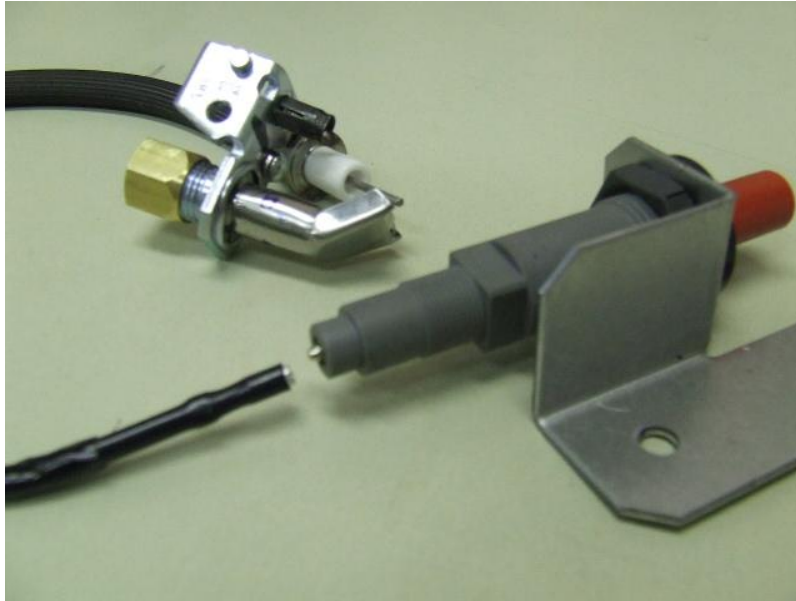
New pilot assembly with sheath inserted onto ignition wire

- Use electrical tape to secure the free end of the ignition wire and the end of the sheath. Use only enough tape to cover up exposed orange ignition wire. Do not tape over the hole at the tip of the wire.



Leave about 1" of ignition wire protruding before applying electrical tape

- Reattach original igniter



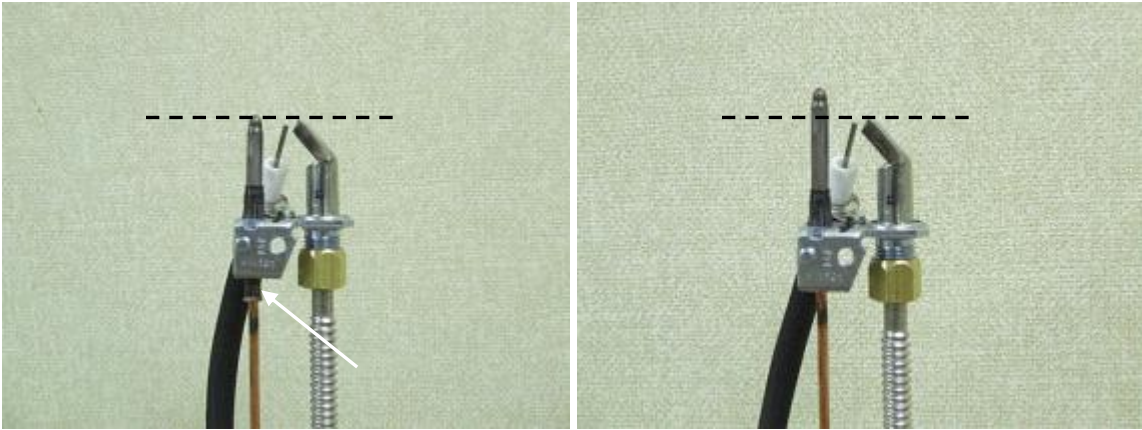
Connection of taped ignition wire end to original igniter

- Attach flex tube to pilot assembly
  - Unscrew the nut on the end of the selected pilot to release the nut, the ferrule and the orifice. Install the nut and the ferrule on one end of the flex tube.
  - Place the orifice back into the pilot and screw on the flex tube.



Nut on new pilot assembly unscrewed, revealing orifice and ferrule.

- Attach new Robertshaw thermocouple to pilot assembly
  - Push the thermocouple **all the way** into its slot on the pilot.



Left: **Wrong installation.** Thermocouple not pushed all the way through socket.  
Right: **Correct installation.** Thermocouple pushed all the way through socket.

**12) Attach New Pilot Assembly to Welded Bracket on New Burner**

- The pilot mounts onto the welded bracket using a single screw
- Bend the thermocouple and flex tube approximately as shown in the picture. This will help with installing them through the front shielding.



New pilot assembly attached to welded bracket on new burner.

**13) Install New Burner**

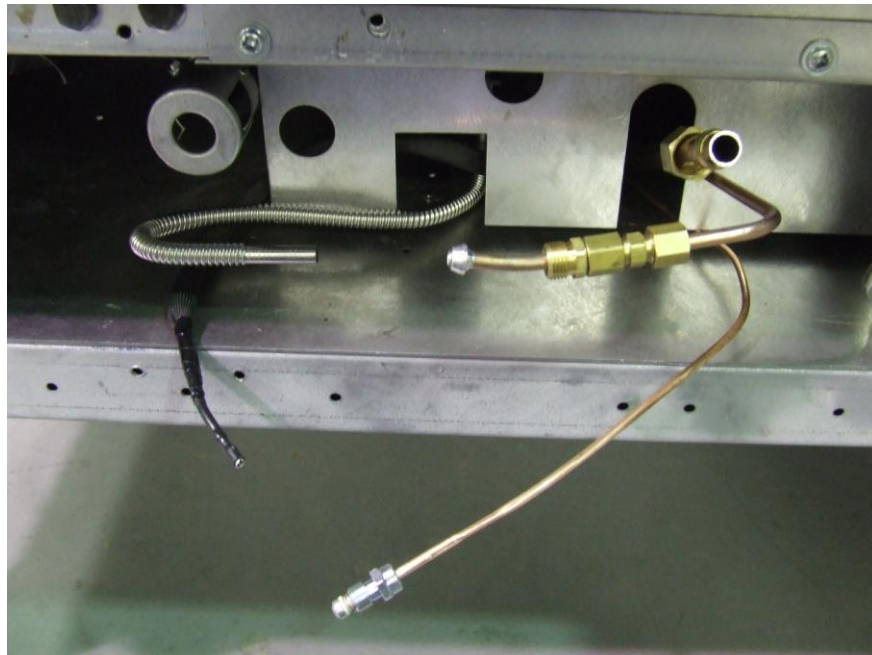
- Ensure that the bracket at the tip of the burner locks onto the bracket attached to the oven floor. **No screws are necessary for this procedure.**
- The burner may not stand up perfectly by itself. The installation of the oven orifice later will correct this problem.



New burner and pilot assembly installed

**14) Reinstall Both Front Shields**

- Install the right side shield first, guiding the various pieces of tubing and wire as shown in the below photograph. This setup will allow for an easier installation for the safety valve.



**15) Reinstall Orifice Bracket**

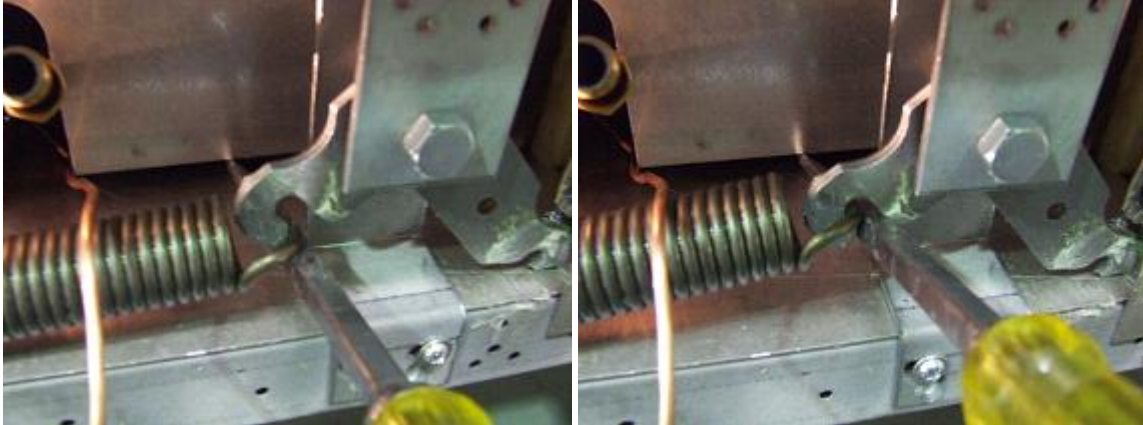
- Refer to Step 5 for orifice bracket connections
- Make sure that the orifice is inserted straight into the burner and not at an angle



Orifice inserted straight into burner opening

### 16) Reinstall Door Springs

- Refer to Step 4 for door spring connections
- For the door hinge with no microswitch:
  - Hook on one end of the spring to the hooks from the orifice bracket
  - Place a screwdriver underneath the opposite end of the spring and pry upward to hook that end onto the bell crank assembly.



Left: Setup screwdriver at end of spring underneath hook on bell crank assembly  
 Right: Screwdriver pried upward, locks spring into place

- Pry the bell crank assembly upward to hook on the oven door hinge link. This is the same as the uninstalling procedure in Step 4
- For the door hinge with a microswitch:
  - Install the spring and hook on the oven door hinge link using the same method as outlined above
  - Screw on the microswitch bracket. **Ensure that the button on the microswitch is pushed down once the bracket is screwed on. Any other position will break the switch when the door is opened**



Left: **INCORRECT.** Button is not depressed when bracket is screwed on  
 Right: Correct installation with depressed button.

**17) Reinstall Igniter Bracket**

Refer to Step 3 for igniter bracket connections

**18) Attach Main Burner Gas Line Flex Tubes onto Valve**

- Two brass fittings (Part 7, Assembly Drawing) should already be installed on the Main Burner gas inlet and outlet on the Baso valve. Otherwise, they are included in the kit separately for service personnel assembly.
- Unscrew the free end of each fitting to release the nut and ferrule. Install these on one end of each 7/16" flex tube (Part 2, Assembly Drawing) and attach the tubes to the Main Burner gas inlet and outlet on the Baso valve. See picture below for details.

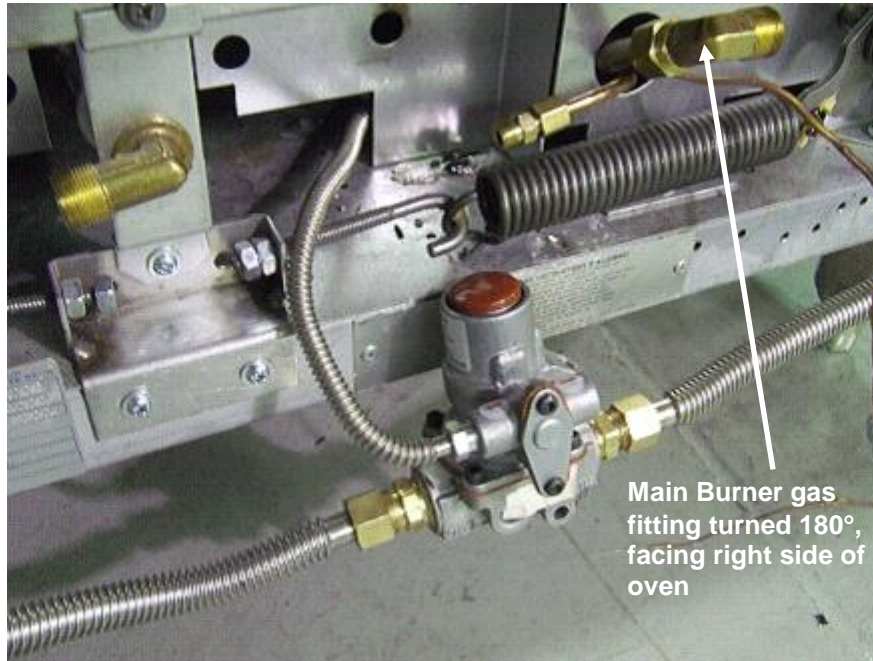


Nut and ferrule unscrewed from fitting on valve, installed on one free end of each 7/16" flex tube



**19) Screw on Pilot Gas Flex Tube, Adjust Main Burner Gas Fitting**

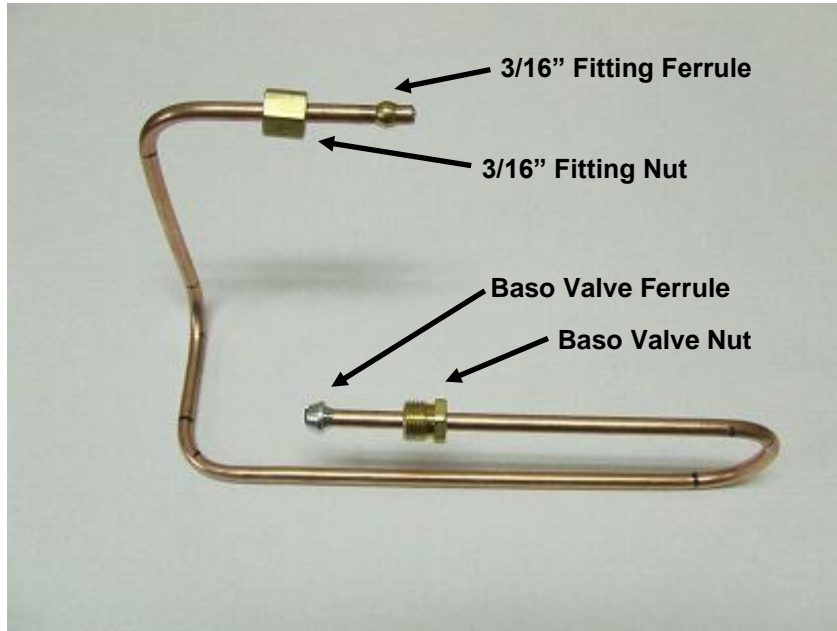
- Remove the brass nut and ferrule originally on the pilot gas **outlet** on the Baso valve (Part 5 and Part 6, Assembly Drawing). Install them onto the free end of the flex tube.
- Screw the pilot gas flex tube onto the Baso valve pilot gas outlet. This step should be done first to minimize stress on the flex tube during later steps.
- The fitting on the Main Burner Gas Inlet needs to be turned 180° from its original position, with the opening facing the right side of the oven. Loosen the nut, twist the fitting, and ensure that the nut is tightened properly once it is facing the right direction.



Pilot Gas Flex Tube attached; Gas fitting turned around

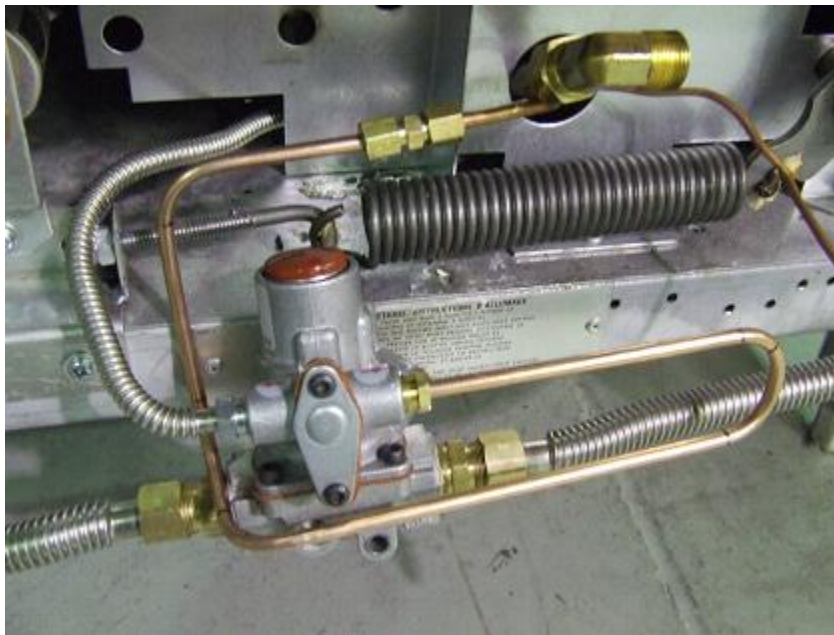
**20) Install New Pilot Gas Tube**

- If a new 3/16" fitting (Part 4, Assembly Drawing) was installed on the pilot gas tube (Part 3, Assembly Drawing), unscrew the nut on the free end of the fitting to release the nut and the ferrule. If a fitting was already installed on the pilot gas tube, unscrew one end of the unused 3/16" fitting to release the nut and ferrule
- Unscrew the nut on the Baso valve pilot gas inlet to release the brass nut and the ferrule.
- Install these nuts and ferrules onto the new pilot gas tube as shown in the picture below.



New Pilot Gas Tube Assembly: Nuts and Ferrules

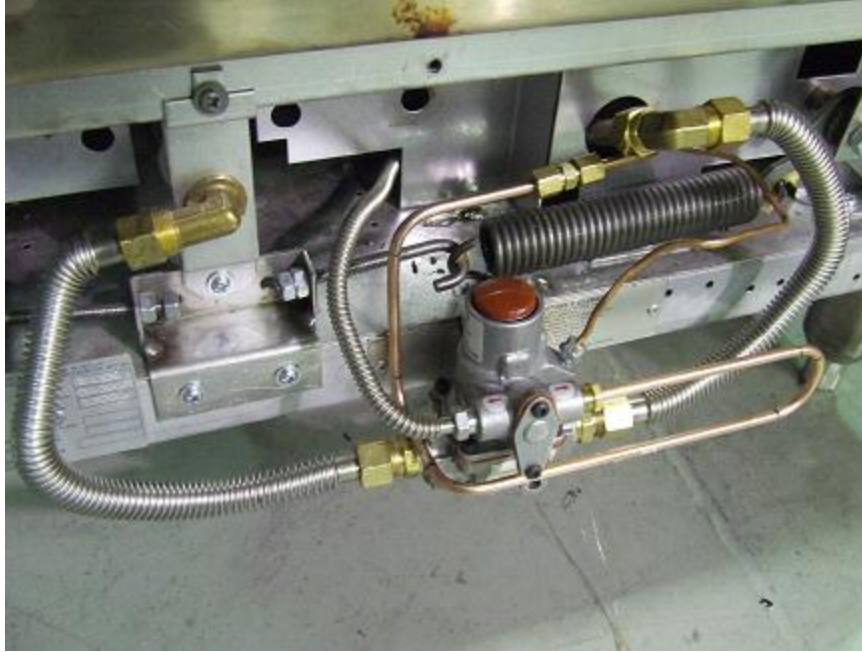
- Install the pilot gas tube as shown below. Connect to the valve first for easier installation.



New Pilot Gas Tube Installed

**21) Connect Remaining Tubes and Thermocouple**

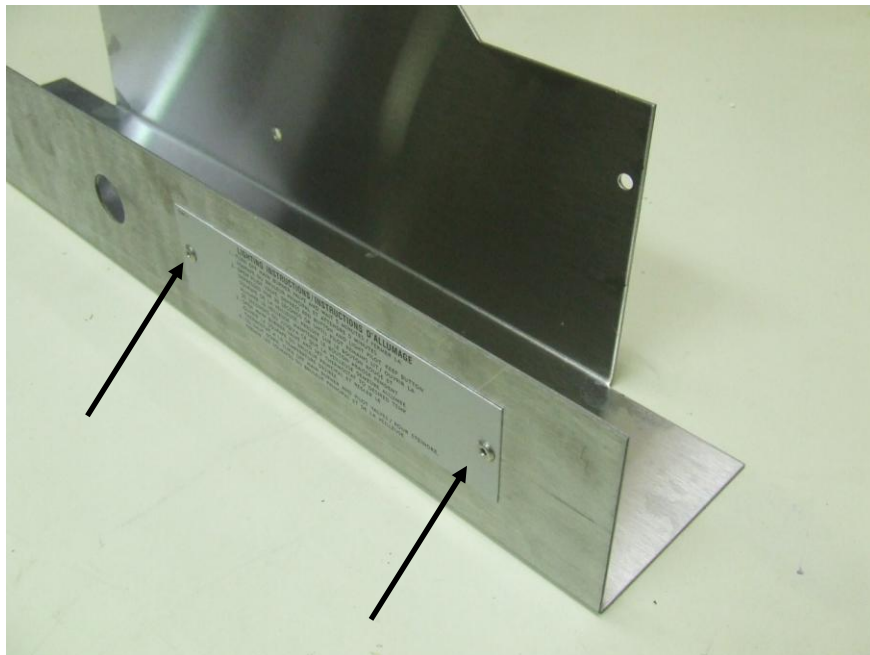
- The free end of each 7/16" flex tube from the valve should be fitted with a 7/16" nut (Part 10, Assembly Drawing) and 7/16" ferrule (Part 11, Assembly Drawing).
- Connect the 7/16" flex tube and the thermocouple. Tighten all connections.
- The final tube connections should be comparable to the picture below.



Final Tube Configuration

**22) Attach Lighting Instructions to Valve Bracket**

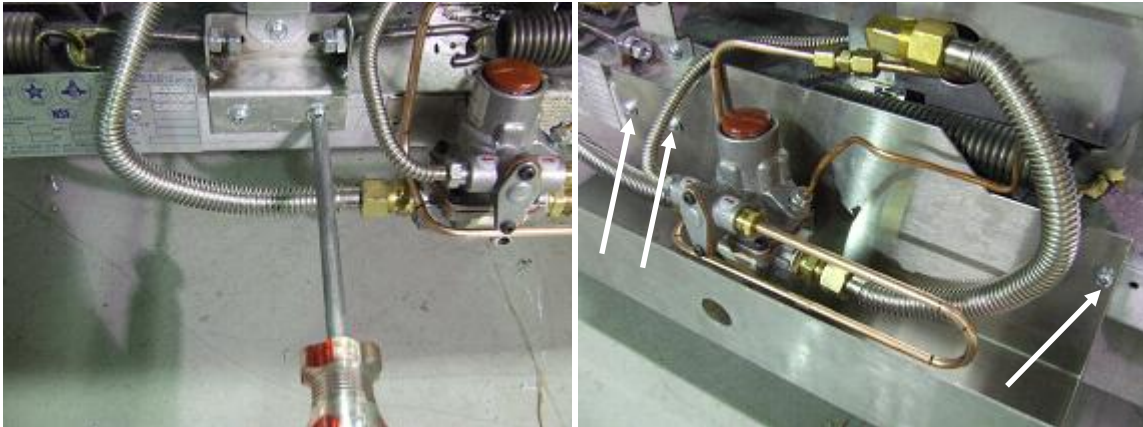
- The pilot lighting instructions are riveted on through the two holes in the bracket.
- Ensure that the instructions are mounted in the correct direction shown below.



### 23) Attach Bracket to Oven

#### For Standard Ovens:

- Unscrew the two screws holding the orifice bracket to the lower oven frame.
- Slip the bracket (Part 8, Assembly Drawing) underneath the valve assembly such that the taller face is flush up against the lower oven frame.
- Position the screw holes on the bracket such that two of them line up with the holes used for the orifice bracket. The third hole on the far right of the bracket will line up with a hole on the lower oven frame.
- Screw bracket onto oven frame with sheet metal screws (Part 9, Assembly Drawing).



Left: Unscrewing two lower screws of orifice bracket

Right: Attached valve bracket with arrows indicating location of screws

#### For RC Ovens:

- Unscrew the two screws holding the orifice bracket and the piezoelectric lighter to the lower oven frame. Unscrew the left screw on the right side bell crank assembly bracket.
- Slip the bracket (Part 8, Assembly Drawing) underneath the valve assembly such that the taller face is flush up against the lower oven frame.
- Position the screw holes on the bracket such that two of them line up with the holes used for the orifice bracket. The third hole on the far right of the bracket will line up the hole used on the right side bell crank assembly bracket.
- Screw bracket onto oven frame with sheet metal screws (Part 9, Assembly Drawing). The two screws on the left side of the bracket should go through the piezoelectric lighter bracket first, then the valve bracket, then the orifice bracket. The right side screw should go through the valve bracket first, then through the bell crank assembly bracket.

**24) Attach Valve Onto Bracket**

- The valve is attached to the bracket using the bolt and nut provided (Part 13 and Part 12, Assembly Drawing). Insert the bolt into the hole through the valve and align it with the small hole on the back of the bracket. The large hole on the front may be used to insert the bolt into position.
- Screw the nut onto the protruding end of the bolt behind the bracket.



Attaching bolt inserted through hole in valve indicated by arrow



Nut holding bolt in place on back of bracket

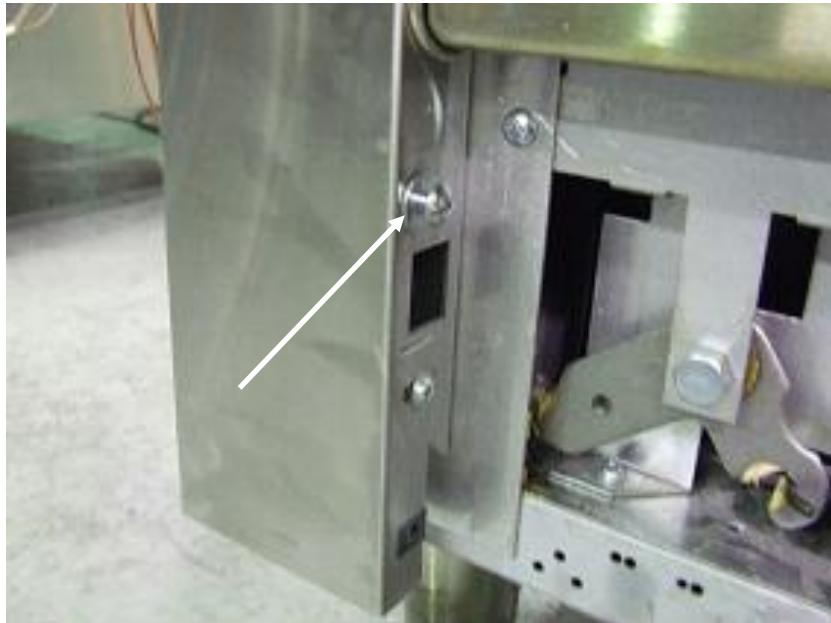
**25) Install New Kick Plate**

- The new kick plate (Part 14, Assembly Drawing) slants outwards to accommodate the valve. Ensure that the correct kick panel is installed.



Left: Old kick plate with flat profile. **Do not install this kick plate.**  
Right: New kick plate with slanted profile.

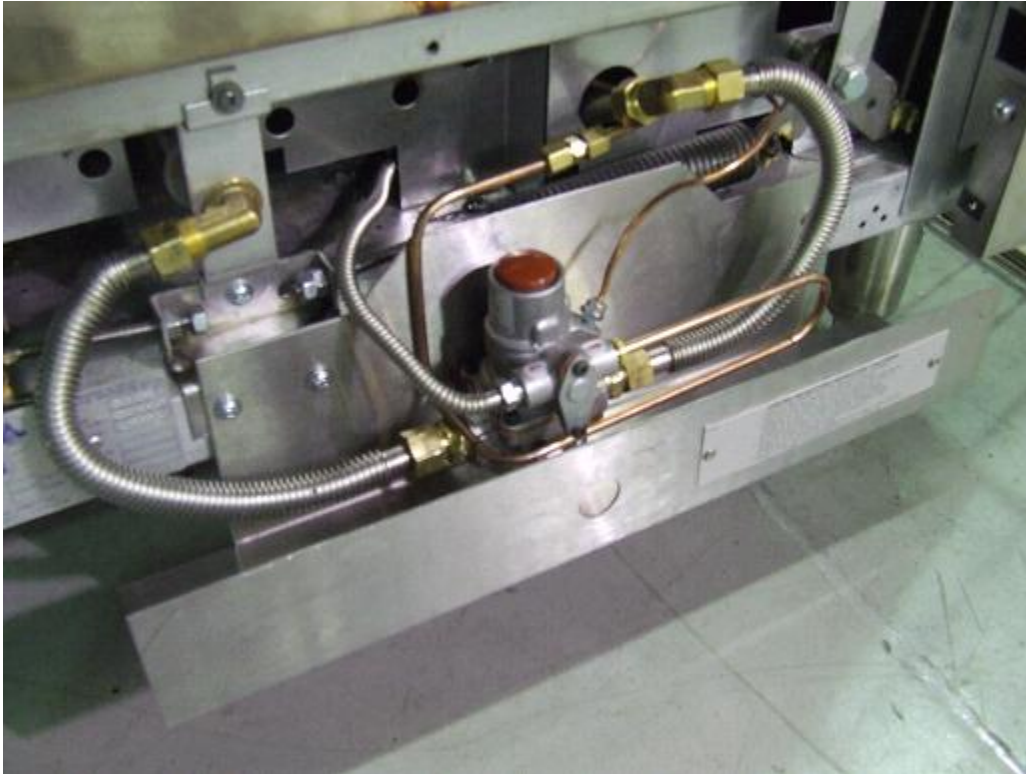
- The new kick plate is designed to hook onto existing screws on the oven frame. Look for the original hooking screws used for the original kick plate.



Original hooking screw on oven frame. Look for a similar screw on the other side of the oven

- Hook the kick plate onto the screws using the L-shaped indentations on the sides of the kick plates. Ensure that the plate does not rest against the bracket directly.

Installation Complete



Installation Complete – Kick Plate Off



Installation Complete – Kick Plate On