

Operating Your Furnace

FOR YOUR SAFETY, READ BEFORE LIGHTING THE PILOT

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.


LIGHTING THE PILOT

- This appliance has a pilot which may be lit by hand. When lighting the pilot, follow these instructions exactly.
- BEFORE LIGHTING** smell around the appliance area for gas. Be sure to smell next to the floor because some gases are heavier than air and will settle on the floor.
- Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempts to repair may result in a fire or explosion.

- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
- WHAT TO DO IF YOU SMELL GAS**
 - Do not try to light any appliance or strike a match.
 - Do not touch any electrical switch; do not use any phone or cell phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.

IMPORTANT:
KEEP BURNER AND CONTROL COMPARTMENT CLEAN.

OPERATING INSTRUCTIONS

- STOP!** Read the safety information above.
- Set the thermostat to lowest setting.
- If applicable, turn off all electric power to the appliance.
- Open control access panel.
- Push in gas control knob slightly and turn clockwise  to "OFF". (Figure 21).


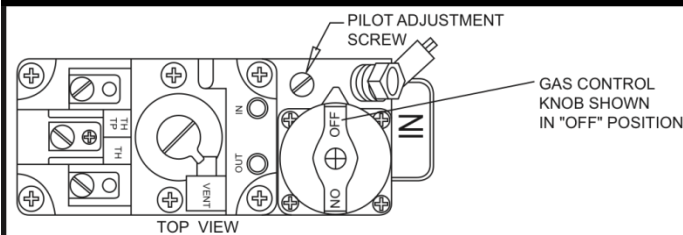
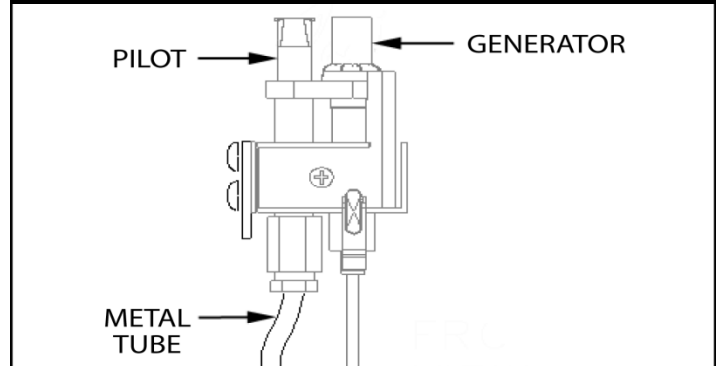
- Turn knob on the gas control counterclockwise  to "PILOT".


FIGURE 21 – Gas Control Knob



- Wait five (5) minutes to clear out any gas, then smell for gas, including near the floor. If you then smell gas, **STOP!** Follow "E" in the safety information above. If you don't smell gas, go to the next step.
- Loosen wing nut and open the pilot observation door (if equipped).
- To find the pilot, follow metal tube from the gas control. The pilot is mounted on the side of the burner. (Figure 22).

FIGURE 22 – Pilot and Generator




- Push in the control knob all the way and hold in. Immediately light the pilot. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release the knob and the pilot flame will pop back up. The pilot should remain lit. If it goes out, repeat Steps 5 through 10.
 - If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - If the pilot will not stay lit after several tries, turn the gas control knob "OFF" and call your service technician or gas supplier.
- Close pilot observation door, tighten wing nut (if equipped).
- Turn gas control knob counterclockwise  to "ON".
- Close control access panel.
- Turn on all electric power to the appliance (if applicable).
- Set thermostat to desired setting.

Operating Your Furnace

FOR YOUR SAFETY, READ BEFORE LIGHTING THE PILOT (continued)

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed (if applicable).
3. Remove control access panel.
4. Push in gas control knob slightly and turn clockwise  to "OFF". Do not Force.
5. Replace control access panel.

IMPORTANT:

KEEP BURNER AND CONTROL COMPARTMENT CLEAN.

WARNING: Due to high surface temperatures, keep children, clothing, furniture or any combustible material away from the furnace.

OPERATION OF YOUR FURNACE

THE FURNACE OPERATES IN THE FOLLOWING SEQUENCE:

1. Thermostat turns on the main burner.
2. Heat builds up in the furnace and starts the fan (if equipped). The heated air comes out the front panel louvers.
3. When the thermostat setting is reached, it shuts off the main burner.
4. The fan runs until the heat is removed from the furnace, then it turns off (if equipped).

Your furnace is equipped with a 100% safety pilot that will shut off the gas supply in case the pilot is not burning or functioning properly. Make sure the pilot is adjusted properly and that the pilot generator connection at the control valve is tight. If the furnace will not stay lit, call your local gas utility or a qualified service person.

If furnace is equipped with a manual spark igniter, follow these steps:

1. Review the pilot lighting instructions.
2. When instructed to "Light the Pilot," depress the red button located on the burner pan for pilot ignition. If necessary, depress the red button vigorously several times for pilot ignition.
3. If pilot fails to ignite or a spark is not present while actuating the red button or by using a match, repeat steps 5 through 10 listed in "Lighting the Pilot."

WARNING: The surface of the furnace is hot during operation. Keep children, clothing, furniture, and flammable material away from it. Keep all access doors and panels in place except for inspection and maintenance. On new installations, the gas lines will be filled with air and it may take several minutes to establish the pilot flame.

WARNING: Danger of property damage, bodily injury or death. If the furnace overheats or fails to shut off, close manual shutoff gas valve to the furnace before turning off electrical power to the accessory fan.

WARNING: Protect your eyes against the danger of ignition flash and eye injury or blindness. Never attempt to light the pilot with the gas control valve knob in the "ON" position. Flashback could occur.

Caring for Your Furnace

How to Care for Your Furnace

WARNING: Danger of bodily injury or death. Turn off electric power supply at disconnect switch, fuse box or service panel before removing any doors or access service panels from unit.

ANNUAL UPKEEP NEEDED

It is recommended that a qualified service technician perform these maintenance checks at the beginning of each heating season.

CABINET FINISH

Clean cabinet with damp cloth. Never use abrasive cleaners. Cabinets are finished with heat resistant powder paint. Never refinish or paint.

FURNACE AREA

Keep the area near the furnace clear and free from combustible materials, gasoline and other flammable liquids and vapors.

COMBUSTION AND VENTILATION AIR

The combustion and ventilation air supply must not be blocked. Do not put anything in or on the furnace cabinet. For better circulation and more effective heating, do not place obstructions, furniture or other items closer than four-feet in front of the furnace or two-feet from each side of the furnace.

CLEANING BLOWER (IF APPLICABLE)

Shut off electricity. Clean any lint or dirt from fan blades, fan motor and exposed air passages.

BURNER CLEANING

If cleaning is required, contact a qualified service technician to clean and service burner. To remove burner(s):

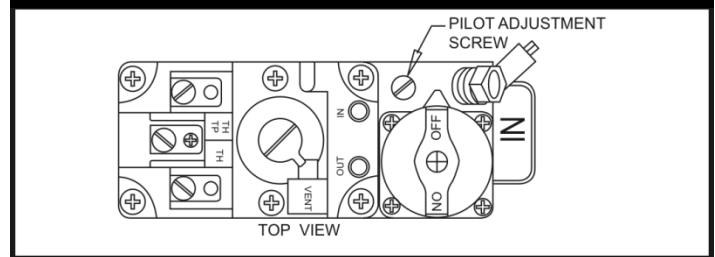
1. Open burner compartment door.
2. Shut off gas supply to furnace.
3. Disconnect gas line inside cabinet at ground joint union fitting. (Figure 24).
4. Remove (2) screws securing burner pan assembly to inner liner.
5. Pull burner pan assembly forward approximately 1/2-inch and drop down to expose the top of the burner.
6. Clean all foreign materials from the top of the burner.
7. After cleaning, replace burner pan assembly by reversing above procedure.

PILOT BURNER

Using the instructions in "Lighting the Pilot", leave thermostat at its lowest setting. Pilot flame should surround the generator tip 1/4 to 3/8-inches. If flame needs adjusting, do so as follows:

1. Insert small screwdriver into the pilot adjusting screw (Figure 23). Adjust flame as needed. Turn screw counterclockwise to increase flame, clockwise to decrease.
2. Turn thermostat to highest setting. Main burner should light quickly and smoothly. Turn thermostat to lowest setting. Main burner should go out. Pilot should remain lit.

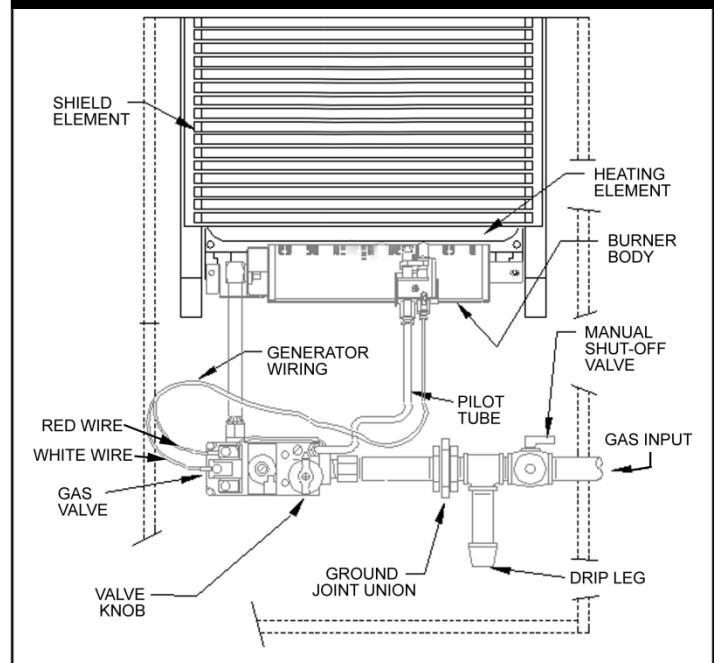
FIGURE 23 – Adjusting the Pilot



VENT SYSTEM

Make sure that no parts of the venting system are blocked or rusted. Clean or replace before using the furnace.

FIGURE 24 – Disconnecting Gas Line



Caring for Your Furnace

How to Care for Your Furnace (continued)

CLEANING THE BURNER COMPARTMENT

Because cold air is attracted to the flame during furnace operation, a buildup of lint from carpeting, bedding, dust, etc. in the burner area will occur. It is necessary to clean this area regularly. Use a vacuum cleaner with a narrow attachment to reach small areas. Be careful in and around the pilot. A change in its adjustment could be made if moved during cleaning. A properly adjusted burner with nearly all gases will produce a flame which has clear blue cone having a bluish-red or bluish-violet outer mantle.

DANGER: The build-up of any dust, lint or foreign material in the primary air opening of the burner can interfere with the proper air gas mixture and can result in a yellow flame which can produce carbon monoxide and soot. This condition, if allowed to develop, can lead to bodily injury including death. It is imperative that the burner be kept clean.

Installing Your Blower Accessory

Blower Accessory 2901 and 2907

This blower accessory is installed on the furnace top and increases circulation of warm air through the heated space. A 115V electrical outlet adjacent to the furnace is required. For automatic setting, you must select the "HI" or "LOW" fan switch position. When the furnace heats up, the automatic fan switch will be activated and the fan will operate. The blower accessory will not operate if the fan switch is set in the "OFF" (center) position. Be sure this accessory is of the type and design required for use with your furnace.

1. Turn off electric power supply at the disconnect switch, fuse box or service panel before installation or service to the blower accessory.
2. Label all wires prior to disconnection when servicing. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.
3. Install a 115V electrical outlet as shown in Figure A.
4. Remove the two (2) screws securing the blower grille and remove the blower grille as shown in Figure B.
5. Remove the two (2) screws securing the junction box cover. Remove the cover to gain access to the knockout located in the junction box.
6. Locate the knockout and remove it using a hammer and screwdriver. Use caution when handling sharp metal edges.
7. Place the blower body on furnace top as shown in Figure B.
8. Route 115V wiring into the junction box through the knockout.
9. Make wiring connections inside the junction box as shown in Figures C and D. Follow applicable local and national electrical codes. All electrical work must conform to your local codes and ordinances or in their absence, with National Electrical Code, NFPA 70/ANSI. If you are not

familiar with wiring codes in general, have a competent electrician do this job.

Drill a 1/8-inch diameter hole in each side of the furnace face panel through the holes located on the sides of the fan cabinet. Secure the blower to the furnace with the two screws provided.

10. Replace the junction box cover, securing it with the screws previously removed
11. Replace the blower grille, securing it with the screws previously removed.
12. Set the switch to the desired position. If left in "HI" or "LOW" position during the summer months, the blower could be activated by heat. If this is undesirable, set the switch to the "OFF" position.

CAUTION: Danger of property damage, bodily injury or death. Turn off electric power supply at the disconnect switch, fuse box or service panel before removing or working on the fan cabinet.