

USER'S INFORMATION MANUAL

CAST IRON GAS FIRED WATER HEATING BOILERS

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

- WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any 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.

- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Do not use this boiler if any part has been under water. Immediately call a qualified service technician to inspect the boiler and to replace any part of the control system and any gas control which has been under water.

Should overheating occur or the gas supply fail to shut off, do not turn off or disconnect the electrical supply to the pump. Instead, shut off the gas supply at a location external to the appliance.

General

This boiler has few user serviceable parts. Maintenance and Service must be completed by qualified agency.

WARNING

Fire, explosion, asphyxiation and electrical shock hazard. Improper maintenance and service could result in death or serious injury. Read this manual and understand all requirements, including use of qualified agency where directed.

What To Do Should Overheating Occur

Do not turn off or disconnect electrical supply to pumps. Shut off gas supply at location external to appliance.

What To Do If Boiler Or Any Part Has Been Under Water

Do not use boiler if any part has been under water. Immediately call a qualified service technician to inspect boiler and to replace any part of control system and any gas control which has been under water.

Become familiar with symbols identifying potential hazards.



This is the safety alert symbol. Symbol alerts you to potential personal injury hazards. Obey all safety messages following this symbol to avoid possible injury or death.

! DANGER

Indicates a hazardous situation which, if not avoided, WILL result in death or serious injury

! WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

! CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Used to address practices not related to personal injury.

FOR YOUR SAFETY READ BEFORE OPERATING

⚠ WARNING

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


- This appliance is equipped with an ignition device which automatically lights burner. **Do NOT try to light this burner by hand.**
- Before operating smell all around appliance area for gas. Be sure to smell next to floor because some gas is heavier than air and will settle to the floor.
- **Use only your hand to turn the gas shutoff valve.** Never use tools. If valve will not turn by hand, do not try to repair it, call a qualified service technician. Force or attempted repair may result in fire or explosion.
- **Do not use this appliance if any part has been under water.** Immediately call a qualified service technician to inspect appliance and to replace any part of control system and any gas control which has been under water.
- **Do not operate boiler** if hot water boiler and system are not full of water to minimum pressure of 12 psi. Verify system is vented of air.

⚠ CAUTION

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any 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.

TO TURN OFF GAS TO APPLIANCE

- Set thermostat to lowest setting.
- Turn "**OFF**" all electric power to appliance if service is to be performed.
- Remove access panel(s).
- Turn gas shutoff control knob clockwise  to closed position.
- Replace access panel(s).

OPERATING INSTRUCTIONS

Stop! Read Safety information above.



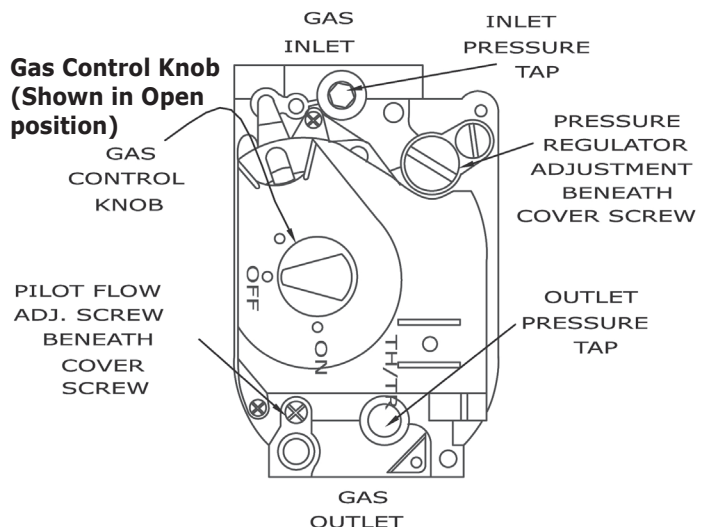
- Set thermostat to lowest setting.
- Turn "**OFF**" all electrical power to appliance.
- This appliance is equipped with an ignition device which automatically lights the burner. **Do not try to light burner by hand!**
- Turn gas control knob clockwise  to closed position. See Figure 2-1
- Wait 5 minutes for any gas to clear. Smell for gas, including near floor. If you smell gas, **STOP!** Follow instructions on this page: "**What To Do If You Smell Gas.**" If you do **not** smell gas, go to next step.
- Turn gas control knob counter clockwise  to open position.
- Turn "**ON**" electrical power to appliance.
- Set thermostat to desired setting.
- If the appliance will not operate, follow instructions TO TURN OFF GAS TO APPLIANCE and call your service technician or gas supplier.

Figure 1 - Gas Valve



Beginning of Each Heating Season

- Contact qualified agency to perform maintenance and cleaning per Installation, Operation and Maintenance manual. Inspection will include examining all flue product carrying areas, vent system, burner and gas input rate. Will also include filling boiler with water if drained as part of End of Heating Season procedure.
- Inspect vent pipe from boiler to chimney for signs of deterioration by rust or sagging joints. Repair if necessary. Remove vent pipe at base of chimney or flue and using mirror, check vent for obstruction.
- Inspect boiler flue gas passageways using a light and mirror. Remove burner door. Place trouble lamp in flue collector through draft relief opening. With mirror positioned above burners, flue gas passageways can be checked for soot or scale. See Figure 2.

In event flow of combustion products through boiler venting system becomes blocked, blocked vent safety switch will shut main burner gas off. If this condition occurs, **do not attempt to place boiler in operation. Contact a qualified service agency.**

If boiler flue-ways become blocked, flame rollout safety switch will shut main burner gas off. If this condition occurs, **do not attempt to place the boiler in operation. Contact a qualified service agency.**

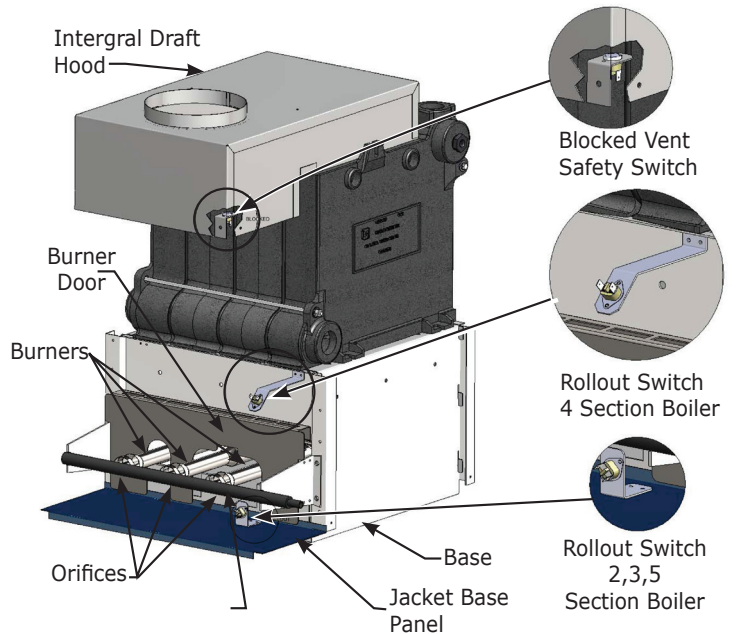
To Clean Flue Gas Passageways

1. Remove burners from combustion chamber by raising burners up from manifold orifices and pulling toward front of boiler. See Figure 2.
2. Disconnect vent pipe from draft hood.
3. Remove top jacket panel.
4. Remove combination flue collector and draft hood from boiler castings by loosening nuts on hold down bolts located on each side of collector.
5. Place sheet of heavy paper or similar material over bottom of base and brush down flue passageways. Soot and scale will collect on paper and is easily removed with the paper.

With paper still in place in base, clean top of boiler castings of boiler putty or silicone used to seal between castings and flue collector. Verify chips are not lodged in flue passageways.

When the cleaning process is complete, restore boiler components to their original position. Use boiler putty or IS-808 GE silicone (available from the distributor) to seal around flue collector and boiler castings.

Figure 2 - Boiler Flue Gas Passageways



Note: Rollout switch and gas valve will be on left side of some models.

Figure 3 - Burner Flame

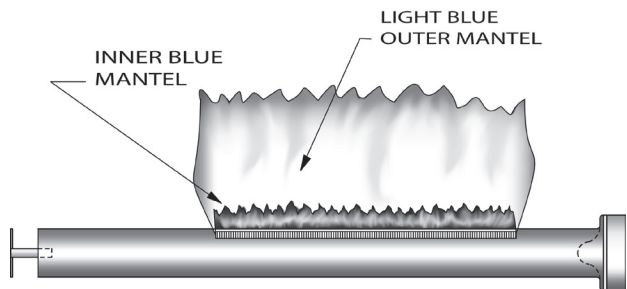
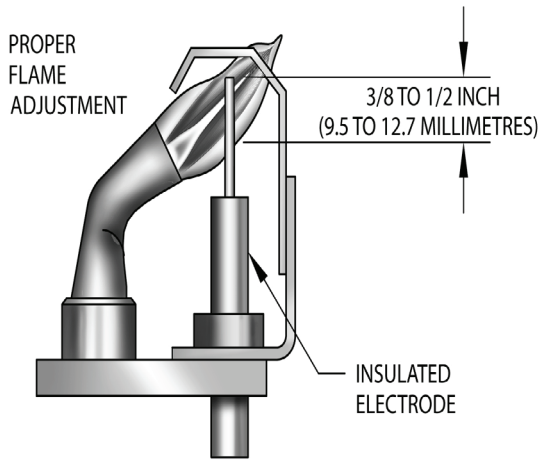


Figure 4 - Burner Pilot Flame





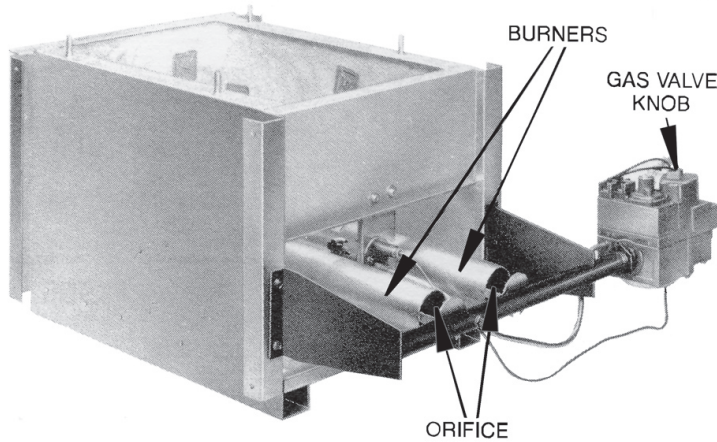
- Visually check main burner and pilot flames at start of heating season and again mid-season. Main burner flame should have well defined inner blue mantel with lighter blue outer mantel. Check burner throats and burner orifices for lint or dust obstruction. See Figure 3.
- Pilot flame should envelop 3/8 to 1/2 inch of tip of pilot thermocouple, ignition/sensing electrode or mercury sensor. See Figure 4.
- To adjust pilot flame, remove pilot adjustment cover screw and turn inner adjustment screw counterclockwise  to increase or clockwise  to decrease pilot flame. Replace cover screw after adjustment to prevent possible gas leakage.
- Check burners and pilot for signs of corrosion, rust or scale build-up. Keep area around boiler clear and free of combustible materials, gasoline and other flammable vapors and liquids.
- Do not restrict or block free flow of combustion and ventilating air to the boiler and boiler room.

Figure 8 - Burners, Burner Orifices



Following information is needed for all service calls.

(*Information is found on boiler's rating plate)

Date of Installation: _____

*Boiler Serial # : _____

*Boiler Model #: _____

Installed By: _____