

USER'S INFORMATION MANUAL

CAST IRON GAS-FIRED HOT WATER AND STEAM BOILERS

WARNING

THERE ARE NO USER SERVICEABLE PARTS ON THIS BOILER. ATTEMPTS TO SERVICE THIS BOILER BY SOMEONE OTHER THAN A QUALIFIED HEATING INSTALLER, SERVICE AGENCY OR GAS SUPPLIER COULD VOID WARRANTY, CAUSE SEVERE PERSONAL INJURY, DEATH OR SUBSTANTIAL PROPERTY DAMAGE.

WARNING

- If the information in these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or death.
- 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.

WARNING

This boiler has parts containing refractory ceramic fibers (RCF). After the boiler has been fired, RCF may change into crystalline silica, a known carcinogen. See the safety information in the Installation, Operating, and Service Instructions before attempting service or repair.

The following terms are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important information concerning product life.

WARNING

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

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury or property damage.

Basic Operation

1. Instructions to safely light and shut down this boiler is shown on page 5, as well as on a label affixed to the boiler. When the boiler is working properly, this boiler will light and shut down automatically in response to the building thermostats(s). If it does not, the boiler must be inspected by a qualified installer, service agency or gas supplier.
2. All boilers are equipped with a means of preventing the boiler from firing if there is an excessive blockage in the vent system. Boilers designed for chimney venting are equipped with a blocked vent switch located as shown in Figure 1 or 2, depending on the specific boiler design. If this switch opens, the boiler will not fire. Call a qualified installer, service agency or gas supplier to diagnose and the problem and reset this switch if necessary.
3. All boilers are equipped with a flame rollout switch located as shown in Figure 3 or 4, depending on specific boiler design. This switch will shut the burners down in the event that flames exit the burner compartment through the front opening. If this happens, the flame rollout switch must be replaced. If the boiler fails to fire, call a qualified installer, service agency or gas supplier to diagnose and correct the problem.

WARNING

- **A shutdown of the burners due to the blocked vent switch is an indication that there is a problem with the vent system, such as a blockage, or the combustion air supply. The blocked vent switch should only be reset after a qualified installer, service agency or gas supplier has diagnosed and corrected the venting/combustion air problem that caused the blocked vent switch to open.**
- **In the event that the flame rollout switch opens, the cause of the flame rollout must be diagnosed and corrected by a qualified gas service technician before the boiler is restarted.**
- **A “tripped” flame rollout switch must be replaced by an identical switch having the same temperature setting.**
- **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.**
- **Do not use this boiler if any part has been under water. Immediately call a qualified installer, service agency or gas supplier to inspect the boiler and to replace any part of the control system and any gas control which has been under water.**
- **This boiler is equipped with safety devices, which could cause it to shutdown, requiring service to restore normal operation. Where such a shutdown could result in damage from low temperatures (such as frozen pipes), do not leave the heating system unattended during cold weather unless alarms or other safeguards are in place to prevent damage.**

Maintenance

WARNING

The following should be done on a continuous basis:

- Safe reliable operation of this boiler depends on proper periodic service by a qualified installer, service agency or gas supplier.
- Proper air is essential for safe boiler operation. Do not block any fresh air opening.
- Keep area around boiler free of objects which are flammable or which could obstruct flow of air into and around the boiler.
- Do not store or use sources of halogens such as bleaches, fabric softeners, paints, cleaners, refrigerants and cat boxes near the boiler. Traces of these chemicals can be drawn into the boiler causing severe corrosion damage to boiler and/or objectionable odors.
- Any damage caused by improper fuels, fuel additives or contaminated combustion air that may cause fireside corrosion and/or clogging of burners or heat exchanger is not covered by the product warranty.
- Do not expose boiler to large amounts of dust such as generated by dry wall construction, fiberglass insulation or woodworking.

1. A qualified installer, service agency or gas supplier must perform maintenance procedures shown in the Installation, Operating, and Service Instructions on an **annual basis**.
2. Owner should visually inspect venting system on a **monthly basis**. If any of the following conditions are found, the boiler should be shut down and a qualified installer, service agency or gas supplier called to correct the problem before boiler is placed back in service:
 - Loose joints, corrosion or other deterioration
 - Condensate leakage
 - Sags in horizontal runs of vent pipe
 - (Chimney vent boilers only) Blocked vent switch not surely attached as shown in Figure 1 or 2, as applicable
3. Owner should also perform a **monthly** visual inspection of boiler and surrounding system piping. To do this, remove boiler jacket door. If any of the following are found, a qualified installer, service agency or gas supplier should be consulted immediately:
 - Deterioration of the visible controls, wiring, and sheet metal components
 - Heating system water leaks
 - Black carbon ("soot") in or near the burner compartment area. See Figure 3 or 4
4. Steam Boilers – Steam boilers require **occasional** additions of makeup water to replace the small amount of water lost through radiator and system vents. If an automatic water feeder is installed, this device should add enough water on its own for boiler to operate. If there is no feeder and boiler needs more water, the red or yellow "Low Water" light will be illuminated on the low water cut-off located on side of boiler. Wait at least 15 minutes for all water in system to return to boiler and then open manual feed valve to add water. Stop adding water when water level in gage glass reaches Boiler's Nominal Water Level (NWL). Consult Installation, Operating and Service Instructions for NWL. Consult a qualified installer, service agency or gas supplier if you are not sure of the location of the manual feed valve or cannot see the water level in the glass.
5. Auxiliary Controls – Many boilers are installed with equipment not supplied with the boiler, but which is critical for safe, reliable operation of the boiler. Some examples of this type of equipment include zone controls and boiler feed pumps. Make sure that this equipment is maintained in accordance with its manufacturer's instructions.

WARNING

Black carbon ("soot") in or near the burner compartment area is an indication of a potential carbon monoxide hazard. If carbon is found, the boiler should be shut down immediately and inspected by a qualified installer, service agency or gas supplier. The cause of the sooting should be found and corrected before the boiler is restarted.

CAUTION

If it is necessary to either manually or automatically add water to a boiler more than once a month, a qualified installer, service agency or gas supplier should inspect the system for leaks or defective vents. Frequent additions of fresh water can result in severe damage to boiler.

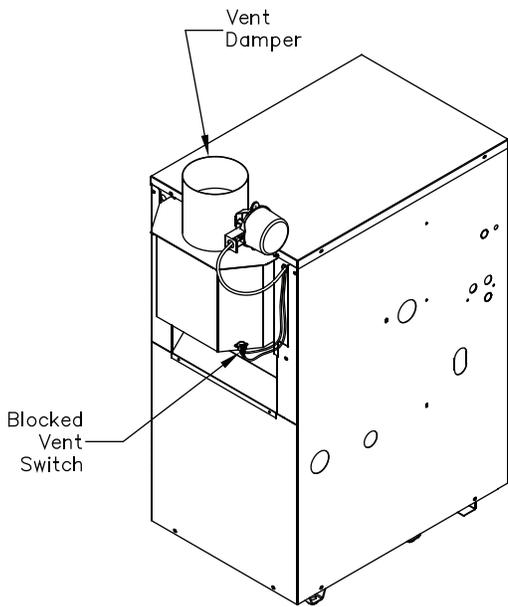


Figure 1: Boilers with Rear Relief Opening

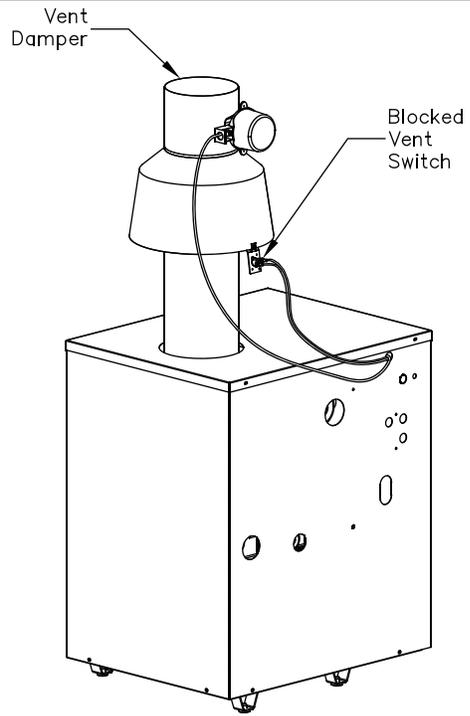


Figure 2: Boilers with Vertical Relief Opening

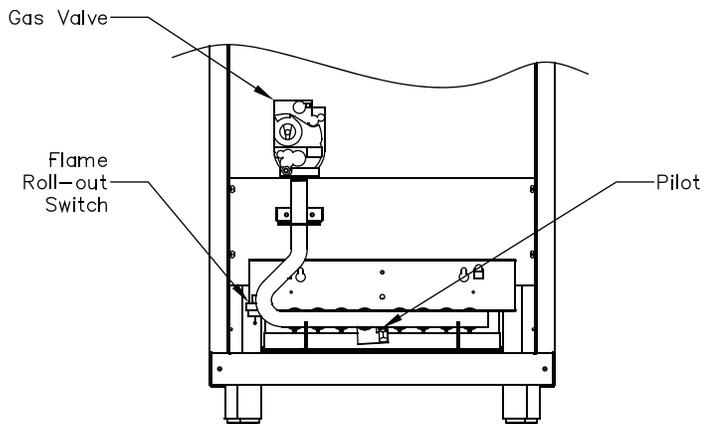


Figure 3: Burner Compartment Area

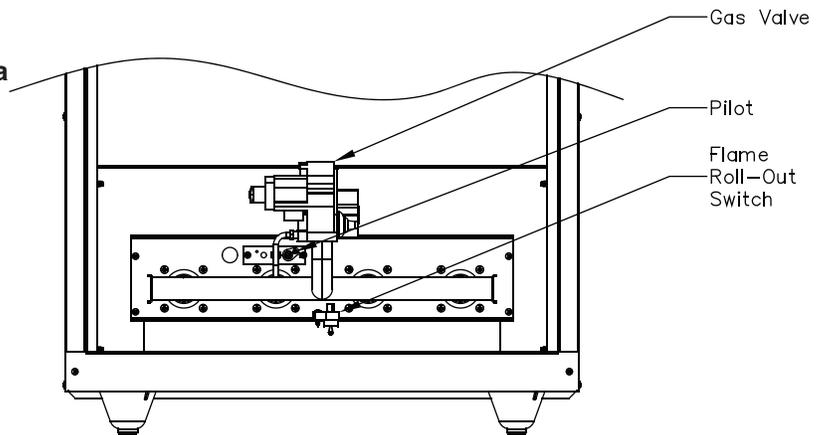


Figure 4: Burner Compartment Area with Radiation Shield Omitted

LIGHTING AND SHUTDOWN INSTRUCTIONS

(Boilers Equipped with Honeywell VR8204 and VR8304 Gas Valves)

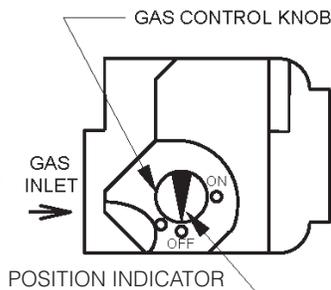
FOR YOUR SAFETY READ BEFORE OPERATING

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

- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS
- ▶ Do not try to light any appliance.
 - ▶ Do not touch any electric 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.
- C. 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 attempted repair may result in a fire or explosion.
- D. 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.

OPERATING INSTRUCTIONS

- STOP! Read the safety information above on this label.
- Set the thermostat to lowest setting.
- Turn off all electric power to the appliance.
- This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- Remove front door.
- Locate the gas control valve at the end of the gas supply pipe going into the boiler. The gas control knob is the brown or blue plastic knob located on top of the gas control valve.
- Rotate gas control knob clockwise from "ON" position to "OFF". Make sure knob rests against stop.
- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you do not smell gas, go to the next step.
- Rotate gas control knob counterclockwise from "OFF" to "ON". Make sure knob rest against stop. Do not force.
- Replace front door.
- Turn on all electric power to the appliance.
- Set thermostat to desired setting.
- If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.



TO TURN OFF GAS TO APPLIANCE

- Set the thermostat to lowest setting.
- Turn off all electric power to the appliance if service is to be performed.
- Remove front door.
- Rotate gas control knob clockwise from "ON" position to "OFF". Make sure knob rests against stop.
- Replace front door.

