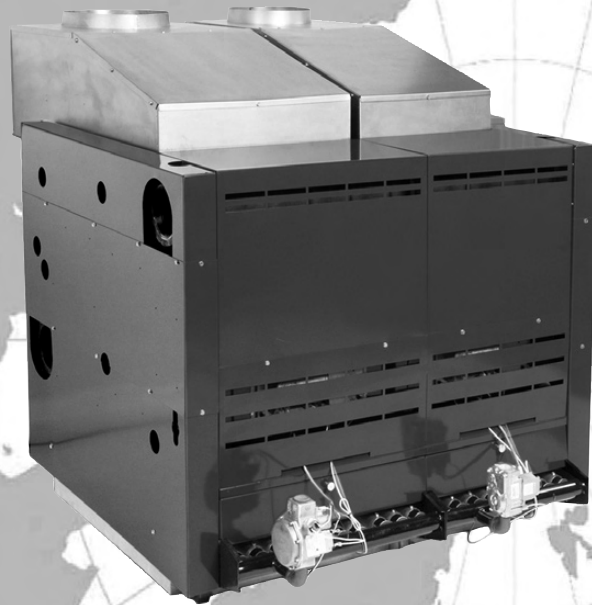


CAST IRON COMMERCIAL HOT WATER OR STEAM BOILER

Dunkirk
America's Hottest Boiler Value!



USERS INFORMATION MANUAL

Dunkirk Boilers
85 Middle Rd.
Dunkirk, NY 14048
<http://www.dunkirk.com>

 An **ECR International Brand**
An ISO 9001-2000 Certified Company



P/N# 240006925D, Rev. 1.0 [09/07]

USERS INFORMATION MANUAL

CAST IRON HOT WATER OR STEAM BOILER

SAFETY SYMBOLS & WARNINGS

The following defined symbols are used throughout this manual to notify the reader of potential hazards of varying risk levels.

DANGER

Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING

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

CAUTION

Indicates a potential hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT: Read the following instructions **COMPLETELY** before installing!!

WARNING

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

The manufacturer recommends that all boiler maintenance be performed by a trained heating technician.

WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE.

Before any procedures are attempted on this appliance, it is necessary to determine if the ignition system is a electric or standing pilot system. If you are uncertain, contact the manufacturer before proceeding.

WARNING

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 switches; do not use any phones 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.

**KEEP THIS MANUAL NEAR BOILER.
RETAIN FOR FUTURE REFERENCE.**



LIGHTING INSTRUCTIONS

⚠ WARNING ⚠

WATER SYSTEMS: Before lighting any type of pilot burner (standing or intermittent), make certain the hot water boiler and system are full of water to minimum pressure of 12 lbs. per square inch in the system, and also make certain that the system is vented of air. Refer to the following appropriate lighting instruction.

⚠ WARNING ⚠

STEAM SYSTEMS: Before turning on a steam boiler make certain the boiler is filled to the water line as indicated in Figure# 3. The gauge cocks should be open. To flush out the glass, to remove dirt, the petcock may be opened.

LIGHTING PROCEDURE FOR BOILER WITH INTERMITTENT PILOT SYSTEM

For Your Safety, Read Before Operating!!

- A. Read warnings at the beginning of this manual.
- B. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the appliance by hand.
- C. 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. Read "What To Do If You Smell Gas" on page 2 of this manual.
- D. 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.
- E. 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 FOR INTERMITTENT PILOT SYSTEM



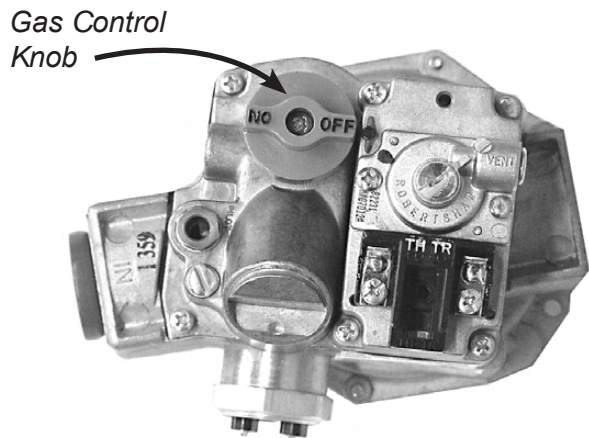
1. **STOP!** Before continuing, read "**For Your Safety, Read Before Operating!!**" safety information.
2. Set the thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
5. Turn gas control knob clockwise  to "OFF."
6. Wait (5) minutes to clear out any gas. If you then smell gas, **STOP!** Follow "What To Do If You Smell Gas" in the safety information on page 3. If you don't smell gas, go on to the next step.
7. Turn gas control knob counterclockwise  to "ON." (Figure #1 & #2)

Figure #1

Robert Shaw 7000 DERHC Series Gas Valve (500 Base)

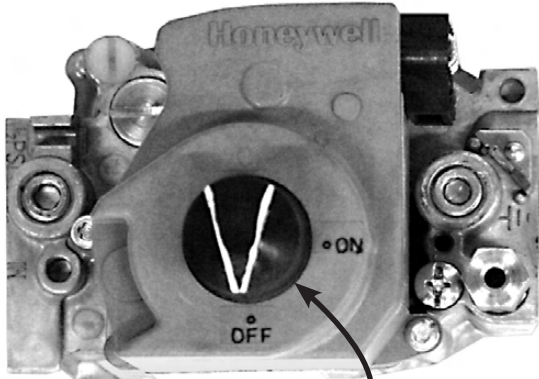


8. Turn on all electric power to the appliance.
9. Set thermostat to desired setting.

LIGHTING INSTRUCTIONS

Figure #2

Honeywell VR8300 Series
Gas Valve (300 & 400 Bases)



Gas Control Knob

TO TURN GAS OFF TO APPLIANCE

1. At the end of the heating season, or if the boiler fails to operate, set the thermostat to the lowest setting.
2. Turn off all electric power to the appliance before servicing.

⚠ DANGER ⚠

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.

3. Push in gas control knob slightly and turn clockwise to "OFF". **DO NOT FORCE.**
4. Call a qualified service technician if experiencing a problem.

10. If the appliance will not operate, follow instructions 1 - 5 above and call a qualified service technician or your gas supplier.

GENERAL MAINTENANCE INSTRUCTIONS

Before the beginning of each heating season have a professional service agency check and clean the boiler if necessary. Check for the following:

1. Flue ways for dirt and scale.
2. Venting flue connectors for plugging, sagging, rust through and solid joints.
3. Burners and pilot for proper flame and operation.
4. Gas piping and flex hoses for leaks.
5. Operation of electronics and wiring condition.
6. Functionality of low water cutoff (*steam*).
7. Functionality of Pressure Control.
8. Water pump oiling (*See vendors manual*).
9. Pop or pressure safety valve.
10. Blow down.
11. Air vents on steam heaters.
12. Operations of other custom system components.
13. Purge air from water systems.
14. Clean and Flush steam systems, if required, and fill to proper level. (*See Figure #3 next page*)

⚠ WARNING ⚠

DISCHARGE OF WATER, VAPOR AND STEAM
MAY SCALD.

GENERAL INSTRUCTIONS



WARNING

WATER AND STEAM ARE UNDER PRESSURE,
OPEN ALL VALVES SLOWLY.

The owner should be aware of weekly and monthly maintenance. Since some equipment is non-factory installed, please refer to manufactures literature.

Weekly, do the following. All steam and water boilers are equipped with pop or pressure safety relief valves. The lever of the safety relief valve should be operated periodically to ensure proper operation. If the safety relief valve leaks steam when the boiler is operating at the normal pressure it must be replaced. On steam boilers with manual low water cut-off valves, open the purge valve until the water flows clear.

(Figure# 3)



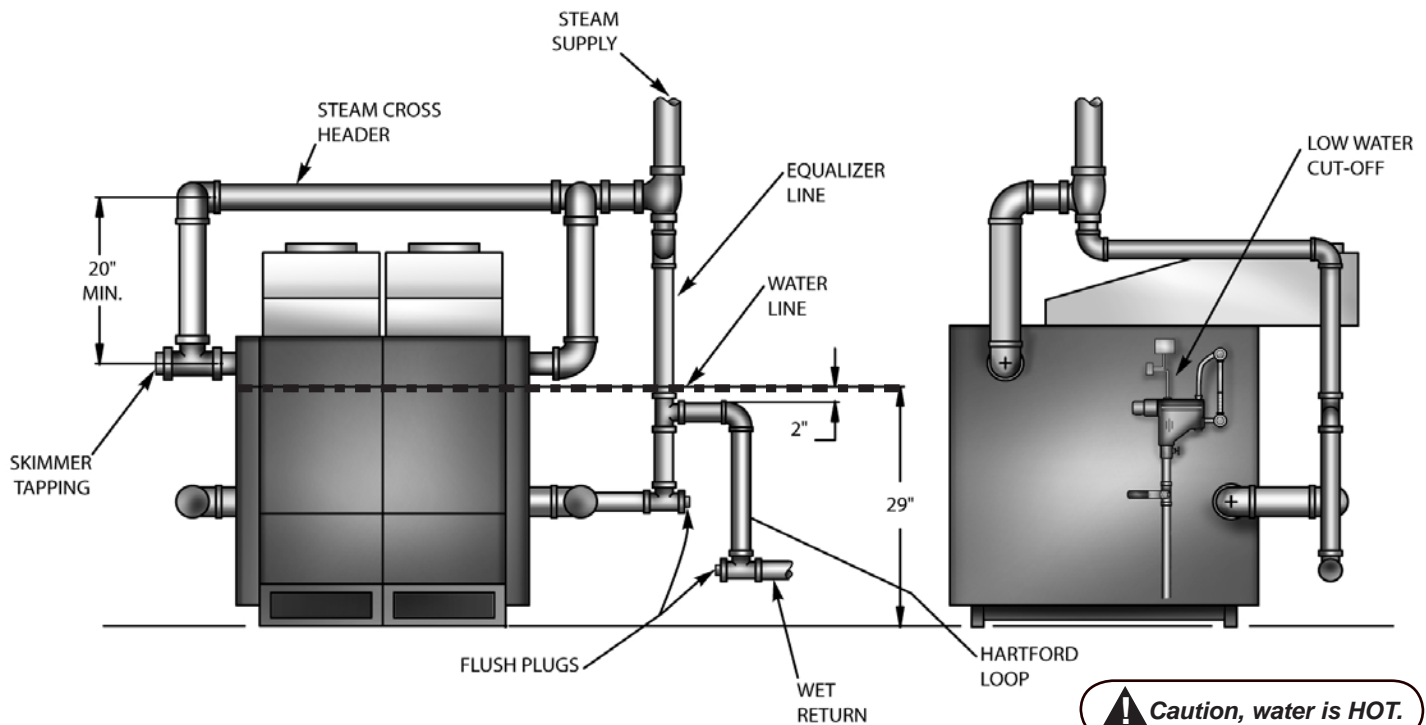
WARNING

DISCHARGE OF WATER, VAPOR AND STEAM
MAY SCALD.

STEAM BOILERS: During the heating season the owner should blow down the boiler at least once each month. Before blowing down the boiler, fill it to the water line. Light the burners and allow steam pressure to build up. Run a temporary connection from one of the drain valves. If possible, connect a hose to the drain valve on the opposite side of the boiler from the make up water. Shut off the gas burners, open the drain valve and blow down the entire contents of the boiler. Allow the boiler to thoroughly cool and slowly refill to the water line. Repeat the process as many times as required until the blow-off water is clear.

Figure #3

STEAM BOILER – OPTIMUM WATER LEVEL



Maintain proper water level – Flush manual Low Water Cutoff once a week.



Dunkirk Boilers
85 Middle Rd.
Dunkirk, NY 14048
<http://www.dunkirk.com>