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.

FOR YOUR SAFETY READ BEFORE OPERATING

A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

B. Use only your hand to turn the gas control knob. Never use tools. If the knob will not 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.

C. 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.

D. 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.

OPERATING INSTRUCTIONS

1. STOP! Read the safety information above in this manual.

2. Set the thermostat to the lowest setting.

3. Turn off all electric power to the appliance.

4. This appliance is equipped with an ignition device which automatically lights the burner. DO NOT try to light the burner by hand.

5. Remove the front jacket panel.

6. Turn the gas control knob clockwise to “OFF”.

7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow the safety information above in this manual. If you don’t smell gas, go to the next step.

8. Turn the gas control knob counterclockwise to “ON”.

9. Replace the front jacket panel.

10. Turn on all electric power to the appliance.

11. Set the thermostat to the desired setting.

12. 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

1. Set the thermostat to the lowest setting.

2. Turn off all electric power to the appliance if service is to be performed.

3. Remove the front jacket panel.

4. Turn gas control knob clockwise to “OFF”. To not force.

5. Replace the front jacket panel.
MAINTENANCE AND CLEANING

Annual service and maintenance (preferably at the beginning of each heating season) by a qualified service agency must be performed to assure continued safe trouble-free operation and maximum efficiency. The boiler owner **SHOULD NOT** attempt these procedures. This annual service should include at a minimum: examining the flue passages between boiler sections, burner, and condensate lines, and cleaning if necessary; inspecting venting and air intake system and cleaning if necessary; placing the boiler in operation and performing the checkout procedure; inspecting the condensate drain pipe and cleaning if necessary; checking the silicone rubber seals between boiler sections and repairing or replacing if necessary; and checking all gasketed and threaded joints for leakage and repairing if necessary. Particular attention should be given to potential deterioration from corrosion or other sources. Detailed procedures can be found in the “Maintenance and Cleaning” chapter in the installation instructions.

The boiler owner **SHOULD** perform the following periodic maintenance procedures.

A. Daily during heating season:
   1. Check that the boiler area is free from combustible materials, gasoline and other flammable vapors and liquids.
   2. Check for and remove any obstruction to the flow of combustion air or venting of flue gases.

B. Monthly during heating season:
   1. Remove front and top jacket panels and check for piping leaks around relief valve and other fittings. If found, contact a qualified service agency to repair. **DO NOT** use stop leak compounds.
   2. Test relief valve. Refer to relief valve manufacturer’s instructions packaged with relief valve.
   3. Visually inspect venting and air intake system for proper function, deterioration, or leakage. If the vent or air intake show any signs of deterioration or leakage, contact a qualified service agency to repair or replace them immediately and to insure proper reassembly and resealing of the vent and air intake system.
   4. Visually inspect the clear vinyl condensate lines and the PVC drain pipe for proper operation, leakage, and deterioration. If the condensate lines or drain pipe show any signs of blockage, leakage, or deterioration, contact a qualified service agency to clean, repair, or replace them immediately.
   5. Check air vent(s) for leakage.
   6. Check the air baffle located inside 1 ½” X 2” flexible coupling, clean it if necessary and make sure to put it back. Refer to repair parts diagram, mixer and pressure switch assembly.

C. Periodically during heating season:
   1. Where low water cut-offs are used, a periodic inspection of the low water cut-off is necessary, including flushing of float type devices. Refer to the low water cut-off manufacturer’s specific instructions.

D. End of each heating season – annual shut down procedure:
   1. Follow instructions in this manual “To Turn Off Gas To Appliance”.
   2. If heating system is to remain out of service during freezing weather, and does not contain antifreeze, drain system completely. If boiler will be exposed to freezing temperatures, drain condensate lines. Otherwise, do not drain system or boiler.

**BLOCKED FLUE/VENT SAFETY SHUTOFF**

The Blocked Flue/Vent Safety Shutoff shuts off main burner gas in the event that the flow of combustion products through the flue ways is reduced. In the event of blocked flue ways, enough air will not be available to support combustion, and the Integrated Boiler Control (IBC) will lockout due to loss of proper airflow. The “PURGE” diagnostic indicator lamp will blink indicating the failure mode as a lack of proper airflow. The IBC is reset from lockout by either removing and reestablishing the thermostat’s call for heat, or by turning the service switch off then back on. If the boiler cannot be restored to normal operating condition by resetting the control contact a qualified service agency to check the flue ways for blockage.