



**MODELS:**

**NATURAL GAS ONLY**

2001622; 2031622; 2051622  
 3501522; 3531522; 3551522  
 3501922; 3531922; 3551922  
 3502522; 3532522; 3552522  
 3502922; 3532922; 3552922  
 5001522; 5031522; 5051522  
 5001922; 5031922; 5051922  
 5002522; 5032522; 5052522  
 5002922; 5032922; 5052922  
 6501522; 6531522; 6551522  
 6501922; 6531922; 6551922  
 6502522; 6532522; 6552522  
 6502922; 6532922; 6552922  
 3501522.3; 3531522.3; 3551522.3  
 2001622.3; 2031622.3; 2051622.3



**MODELS:**

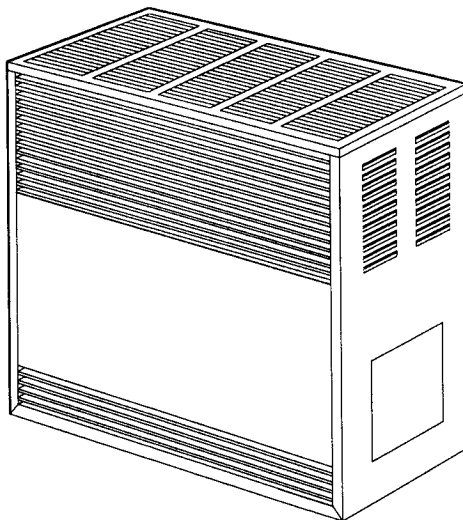
**PROPANE GAS ONLY**

2001621; 2031621; 2051621  
 3501521; 3531521; 3551521  
 3501921; 3531921; 3551921  
 3502521; 3532521; 3552521  
 3502921; 3532921; 3552921  
 5001521; 5031521; 5051521  
 5001921; 5031921; 5051921  
 5002521; 5032521; 5052521  
 5002921; 5032921; 5052921  
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 6501921; 6531921; 6551921  
 6502521; 6532521; 6552521  
 6502921; 6532921; 6552921

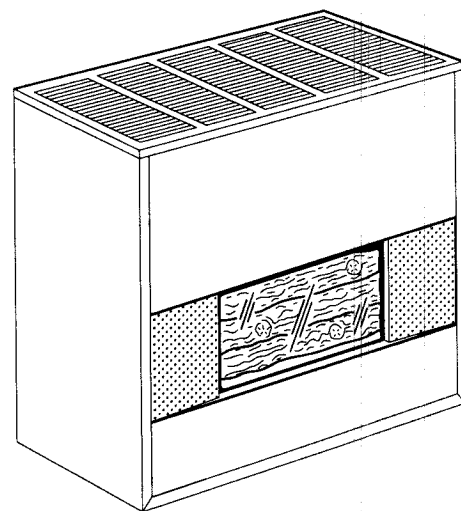
**WARNING:** Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

**WARNING:** Installation and repair must be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person.

**WARNING:** Do not install this heater (Natural or L.P. Gas) in mobile homes, trailers or recreational vehicles.



ENCLOSED MODEL



FIREPLACE MODEL

## INSTALLATION & OPERATING INSTRUCTION MANUAL

### Vented Room Heaters

**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**
  - Open all windows.
  - Do not try to light any appliance.
  - Do not touch any electrical switch.
  - Do not use any phone in your building.
  - Extinguish any open flame.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instruction.
  - 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.

## Introduction

Please read our instructions before you install and use your heater. This will help you obtain the full value from this heater. If the answer to the problem is found within this instruction manual, it could help you avoid needless service costs.

## Basic Description

Always consult your local heating or plumbing inspector, building department or gas company regarding regulations, codes or ordinances which apply to the installation of a vented room heater.

No electrical power is required unless furnace is equipped with an optional blower accessory.

The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independent of any installation system.

Warmed air is discharged into the room in which the heater is located.

The heater contains a single multi-slot gas burner.

Combustion air is drawn in from the room where the heater is located and is vented out of the heater vertically through vent piping to a roof vent top. (Vent equipment is not supplied with heater).

The combustion chamber is built of heavy-gauge steel. The heater cabinet is also constructed of heavy-gauge steel and has a powder paint finish.

The heater controls are located behind an access door on the side of the heater. All models are equipped with CSA/AGA listed gas valves and pilots.

The appliance is equipped with a vent safety shutoff system, designed to protect against improper venting. Operation of this room heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

This heater is design certified in accordance with American National Standard & CSA Standard Z21.86 and CSA 2.32 as a vented room heater and must be installed according to these instructions.

## Helpful Installation Information

The following booklets will help you in making the installation:

ANSI/NFPA 70, or current edition "National Electrical Code". In Canada: CSA C22.1 Canadian Electrical Code.

American National Standard Z223.1 or current edition "National Fuel Gas Code".

Obtained from: American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018. In Canada: CAN/CGA B149.

## Unpacking Your Furnace

Examine all packing material carefully. Look for loose parts before discarding. Store all parts where they cannot be lost or damaged before you need them.

**NOTE:** Check the burner rating plate, located in the burner

compartment, to make sure your heater is equipped to operate on the type of gas available (either natural or L.P. gas). DO NOT convert unit from natural gas to L.P. gas or from L.P. gas to natural gas without the proper manufacturer's gas conversion kit.

## Basic Tools Needed

Hand drill or properly grounded electric drill  
1/8 inch and 3/16 inch drill bit (metal)  
6 foot folding ruler or tape measure  
Screwdriver (Phillips Head)  
Pliers (Wire Cutting)  
Hammer

Stud locator or small finishing nails  
8 inch adjustable wrench  
Keyhole saw or saber saw  
2-10 inch or 12 inch pipe wrenches  
Gloves and safety glasses

## Basic Materials

Pipe joint compound resistant to L.P. gases.

Pipe and fittings to make connections to heater.

Electrical wiring supplied as needed for optional blower.

## Installing Your Furnace

The following steps are needed for proper installation and safe operation of your furnace. If you have any doubts as to any requirements, check with local authorities for local and state codes affecting the installation.

Obtain professional help where needed.

DO NOT install this heater in a travel trailer, recreational vehicle, or mobile home.

For satisfactory and trouble-free operation be sure to:

1. Properly locate the furnace within the space to be heated.
2. Provide for adequate combustion air, adequate air circulation around cabinet inside the open room and a proper vent system.
3. Maintain all minimum clearances which apply to your heater.

## Optional Accessories

### Blower

To increase circulation of warmed air within the heated space, you may use Blower Accessory Kit 2102, on all models except 2001622; 2001621; and 2001622.3.

### Floor Board

Available in black or white to match the heater.

### Vent Collar

Available in black or white to match the heater.

## Safety Rules

### WARNING

READ THESE RULES AND THE INSTRUCTIONS CAREFULLY. FAILURE TO FOLLOW THESE RULES AND INSTRUCTIONS COULD CAUSE A MALFUNCTION OF THE FURNACE. THIS COULD RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR PROPERTY DAMAGE.

INSTALLATION MUST CONFORM TO LOCAL CODES. IN THE ABSENCE OF LOCAL CODES, INSTALLATION MUST CONFORM WITH THE NATIONAL FUEL GAS CODE, ANSI Z223.1. THE APPLIANCE, WHEN INSTALLED, MUST BE ELECTRICALLY CONNECTED AND GROUNDED IN ACCORDANCE WITH LOCAL CODES OR, IN THE ABSENCE OF LOCAL CODES, WITH THE CURRENT NATIONAL ELECTRICAL CODE ANSI/NFPA NO.70.

### IN CANADA

1. INSTALLATION MUST CONFORM TO LOCAL CODES OR, IN THE ABSENCE OF LOCAL CODES, THE CURRENT CAN/CGA B149 INSTALLATION CODE.
2. THE APPLIANCE, WHEN INSTALLED, MUST BE ELECTRICALLY CONNECTED AND GROUNDED IN ACCORDANCE WITH LOCAL CODES OR, IN THE ABSENCE OF LOCAL CODES, WITH THE CURRENT CSA C22.1 CANADIAN ELECTRICAL CODE.
3. REFERENCE IS MADE IN THIS MANUAL REGARDING GAS TYPE AS L.P.G. BE ADVISED THAT L.P.G. IS NOT AVAILABLE IN CANADA, REFER TO PROPANE/L.P. GAS.

1. USE ONLY MANUFACTURER'S REPLACEMENT PARTS. USE OF ANY OTHER PARTS COULD CAUSE INJURY OR DEATH.

2. DO NOT install this heater in an alcove.

3. DO NOT install this heater in a travel trailer, recreational vehicle or mobile home.

4. MAINTAIN all clearances specified in section "Locating Room Heater" and "Vent Installation".

5. BE SURE heater is for type of gas to be used. Check the rating plate by the gas valve in the lower cabinet. Do not change it to use other gases. Unsafe operation could result and could cause bodily injury and death.

6. For Natural Gas, the minimum inlet gas supply pressure for the purpose of input adjustment is 5" water column. The maximum inlet gas supply pressure is 7" water column. For L.P. gas, the minimum inlet gas supply pressure for the purpose of input adjustment is 11" water column. The maximum inlet gas supply pressure is 13" water column.

7. ANY SAFETY SCREEN, GUARD OR PARTS REMOVED FOR SERVICING FROM THIS APPLIANCE MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE TO AVOID PROPERTY DAMAGE, BODILY INJURY OR DEATH.

8. INSTALL the heater vent directly to the outdoors, so that harmful gases will not collect inside the building. Follow the venting instructions for your type of installation exactly. Use only the type and size of vent pipe and fittings specified.

9. BE SURE to provide for adequate combustion and ventilation air. The flow of this air to the heater must not be blocked.

10. NEVER test for gas leaks with an open flame. Use soap suds to check all gas connections. This will avoid the possibility of fire or explosion.

11. ALLOW heater to cool before servicing. Always shut off electricity and gas to heater when working on it. This will prevent any electrical shocks or burns.

12. DUE TO HIGH TEMPERATURES, locate the heater out of traffic and away from furniture and draperies.

13. ALERT children and adults to the hazards of high surface temperatures and to keep away to avoid burns or clothing ignition.

14. CAREFULLY supervise young children when they are in the same room with the heater.

15. DO NOT place clothing or other flammable material on or near heater.

16. INSTALLATION and REPAIR must be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is important that control compartments, burners and circulating air passages be kept clean. Failure to keep burner-control compartment and other parts of heater clean can cause dangerous conditions to develop which can cause injury and even death.

17. BEFORE INSTALLING optional blower: To avoid electrical shock, turn off electrical circuits that pass through the wall where you are going to install the heater.

18. BE AWARE of good safety practices by wearing personal protective equipment such as gloves and safety glasses to avoid being injured by sharp metal edges in or around heater and while cutting or drilling holes in wood and/or sheet metal.

19. CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

### WARNING

DO NOT USE THIS HEATER IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A CERTIFIED SERVICE TECHNICIAN TO INSPECT THE HEATER AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.

## Locating the Heater

**WARNING:** Gas burning appliances require air for combustion and proper venting. Minimum fresh air opening of 1 square inch per 1,000 BTU per hour input rating must be provided for ventilation. EXAMPLE: A 30,000 BTU per hour input unit requires the equivalent of a 30 inch wide window be open 1 inch for safe operation.

- A. In choosing the location for the heater, the following factors should be considered:
  1. Convenience to gas supply.
  2. Arrangement of rooms or area to be heated.
  3. Probable location of furniture.
  4. General appearance.
  5. Safe clearance from anything that could catch fire.
  6. Ability to properly vent the heater.
- B. Locate the heater centrally in the area which it is to heat. The ideal location is at the source of cold air, which is an outside wall. If the heater is on an outside wall, the cold air will be warmed before it moves through the room.
- C. Place the heater where the air will circulate freely throughout the area to be heated. If one heater is intended to heat the entire house, it is advisable to consider the installation of grilles immediately below the ceilings to permit circulation of hot air from room to room. Return air grilles are also desirable.
- D. Be certain the heater is placed where the air is free to circulate around it. Never install the heater in a wall recess. The minimum clearance required to any wall or object can be found on the rating plate located inside the furnace control door on the base plate. We recommend a 24-inch min. clearance from the burner access door for the ease of lighting and for observation of pilot and burner flames.
- E. Heater must be installed so that the drafthood is in the same pressure zone as the combustion air.
- F. The heater may be placed directly on wood floors. Heavy pile or shag rugs may restrict normal air flow. Some floor coverings discolor easily from even low heat. To assure safe operation, a metal or wood panel, extending the full depth and width of the appliance **must** be placed under the heater. Optional floor boards are available from Williams.
- G. Do not place heater where curtains, draperies, or any other material may come into contact with any part of the heater.

## Gas Controls

- A. All models are regulated on natural and L.P. gases. The regulator is built into the gas control valve.
- B. All models are equipped with a 100% pilot safety shutoff and vent safety shutoff system.
- C. **CAUTION:** Do not connect 115V electrical service line to gas control valve or wall thermostat.

## Gas Supply

For natural gas, the minimum inlet gas supply pressure for the purpose of input adjustment is 5" water column. The maximum inlet gas supply pressure is 7" water column.

For L.P. gas, the minimum inlet gas supply pressure for the purpose of input adjustment is 11" water column. The maximum inlet gas supply pressure is 13" water column.

Gas pressures and input to the burners must not exceed the rated input and pressure shown on the rating plate. On natural gas the manifold pressure shown should be 4" water column. The manifold pressure should be 10.5" water column for L.P. gas.

Orifice changes may be required to suit gas supplied.

For heaters located at elevations between sea level and 4,500 feet, the measured input must not be greater than the input shown on the rating plate of the heater. For elevations above 4,500 feet, the measured input must not exceed the input of the rating plate reduced by 4 percent for each 1,000 feet that the heater is above sea level.

## WARNING

Danger of property damage, bodily injury or death. Even when a house meets requirements for unconfined space with adequate air infiltration, it is recommended that a fresh air intake be installed to lessen the possible dangers from any future changes on the home.

MINIMUM REQUIRED CLEARANCES			
MODEL	"A" SIDE	"B" CEILING	"C" REAR
200 SERIES	2"	22"	3"
350 SERIES	6"	57"	6"
500 SERIES	6"	57"	6"
650 SERIES	6"	57"	6"

24" min. Clearance is recommended on side with burner access door for ease of lighting and for observation of pilot and burner flames.

**FRONT VIEW**

**SIDE VIEW**

Figure 1

**Minimum Fresh Air Opening is 1 Square Inch Per 1,000 Btu/Hr**

## Gas Piping

State and local authorities have established codes regulating the installation of gas burning equipment. Consult your gas supplier or gas company for complete information. In the absence of local codes, all aspects of the installation must comply with the National Fuel Gas Code ANSI Z223.1. In Canada: Follow CAN/CGA-B149.1(2) Canadian Standard.

- A. Use 1/2-inch pipe or semi-rigid tubing for natural and liquefied petroleum gases. DO NOT USE FLEXIBLE HOSE. Appliance connectors of corrugated metal tubing and fittings that are listed by a nationally recognized testing agency may be used if accepted by the local code authorities. FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. This type of connection may only be installed in the room where the heater is located.
- B. A manual shutoff valve and union must be installed in the gas supply line just ahead of the connection to the heater. The manual valve must include a 1/8-inch NPT plugged tapping accessible for connection of a test gauge.
- C. Unions in the gas supply lines should be of the ground joint type. Compounds used on threaded pipe joints must be resistant to the action of liquefied petroleum gases.

### WARNING:

WHEN CONNECTING FIELD PIPING, USE A SECOND WRENCH TO KEEP THE HEATER VALVE FROM TURNING. SUPPORT FIELD PIPING PROPERLY, STRESS AND OVER TIGHTENING COULD DAMAGE THE GAS VALVE AND RESULT IN DANGEROUS GAS LEAKS WHICH CAN CAUSE DANGEROUS CONDITIONS INCLUDING PROPERTY DAMAGE, BODILY INJURY, AND EVEN DEATH.

- D. A drip leg (Figure 2) should be installed to constitute a trap to catch any condensate that may be in the gas. The drip leg should be readily accessible for cleaning.
- E. The heater must be disconnected from the gas supply system and from the heaters individual shutoff valve when the system is tested at a pressure in excess of 1/2 PSIG.
- F. Check all factory and field pipe joints for gas leaks before and after lighting the heater. Use a soap solution. Never use a match or open flame. Correct any leak (s), no matter how small.
- G. Piping supply shall be supported to prevent sagging damage to controls and hazardous gas leaks. To prevent freezing where the supply pipe is exposed to cold air, wrap the pipe or run it underground.

### IMPORTANT:

All piping must comply with local codes and ordinances or with the National Fuel Gas Code (ANSI Z223.1 NFPA No. 54), whichever applies. (In Canada: CAN/CGA B149).

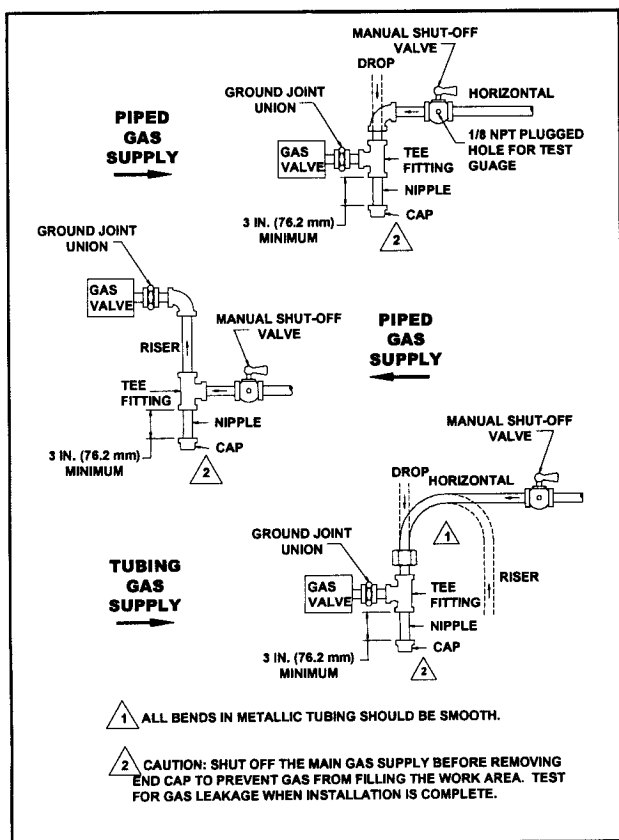


Figure 2

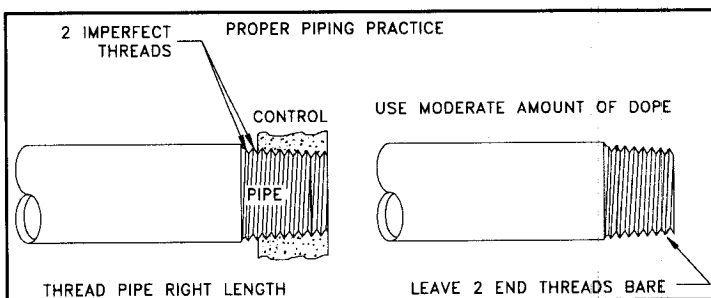


Figure 3

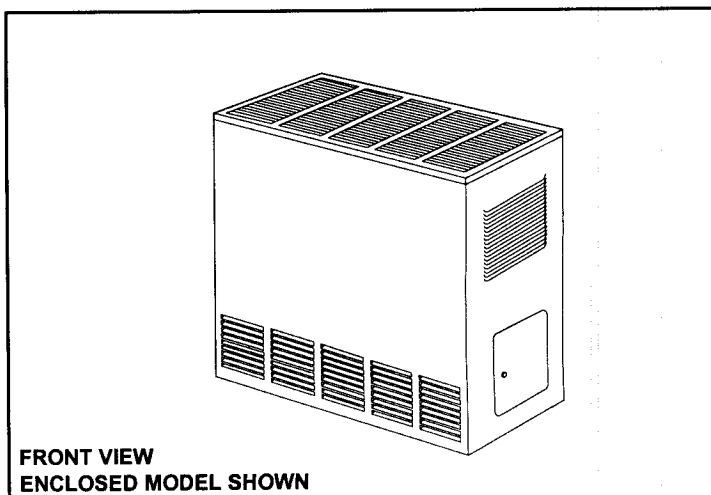


Figure 4

## Thermostat Installation

Williams' heaters are operated by a millivolt type thermostat. Current to the thermostat is supplied by the pilot generator. Do not connect to electricity. Anticipator settings are not required.

1. Use of existing wire is acceptable if it is in a satisfactory location and the wire is in good condition. When in doubt, use new wiring.
2. If a new location is chosen or if this is a new installation, thermostat cable must first be run to the location selected. All wiring must agree with local codes and ordinances. These instructions cover bringing the wire down from the attic but it can be run from a basement or crawl space using similar methods.
3. Before drilling a hole in wall at selected location, drive a small finishing nail through the ceiling in the corner of the wall and ceiling above the thermostat location. Pull the nail out and push a small stiff wire through the hole so it can be found in the attic. Drill a 1/2-inch hole through the ceiling wall plate.
4. Probe for obstructions in the partition. Then, drill a 1/2-inch hole through wall at selected location for thermostat.
5. From the attic, feed the thermostat cable or a stiff wire through wall until even with thermostat location.
6. Snag thermostat cable through hole and pull cable through hole in wall so that 6-inches of the cable protrudes.
7. Route wire to heater.

### CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Refer to installation instructions packed in the thermostat carton if you have any doubt about the above procedures.

## Wall-Mounted Thermostat Installation

1. To remove thermostat cover, squeeze both sides and lift.
2. Connect thermostat wires to the thermal screws on the back of thermostat base.
3. Push any excess wire back through hole in wall and plug hole with insulation to prevent drafts from affecting thermostat operation.
4. Be sure to level thermostat for best appearance. Fasten thermostat base to wall through mounting holes with screws provided.
5. Replace the thermostat cover.
6. Do not run wire in any location where it might be damaged. Avoid splicing thermostat wires unless the spliced wires are properly cleaned, soldered and taped.
7. Use #18 gauge wire as supplied for maximum length of 20 feet. If longer length is needed, use #16 gauge wire for maximum length of 25 feet.
8. Connect thermostat wires to the control valve as shown in Figure 5.

## Cabinet-Mounted Thermostat Installation

1. Locate the knockout on the right side of heater to mount the thermostat. Remove knockout by taping lightly with a screwdriver. It will also be necessary to cut the inside panel insulation about a 1/2-inch for clearance to the knockout.
2. Cut the thermostat wire to the desired length.
3. Connect thermostat wires to thermal screws on the back of the thermostat base.
4. Feed the thermostat wires through the knockout and route through the metal clip to the gas valve. Models, 2001621 and 2001622 do not have a metal clip.
5. Mount the thermostat to the side of the cabinet with screws provided.
6. Replace thermostat cover.
7. Connect thermostat wires to the control valve as shown in Figure 5.

**IMPORTANT:** KEEP THERMOSTAT WIRE AWAY FROM COMBUSTION CHAMBER.

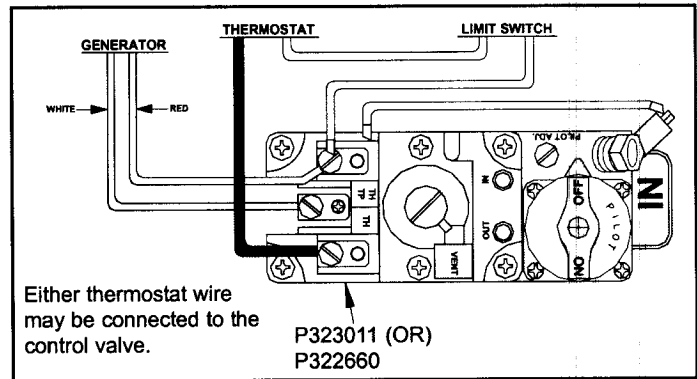


Figure 5

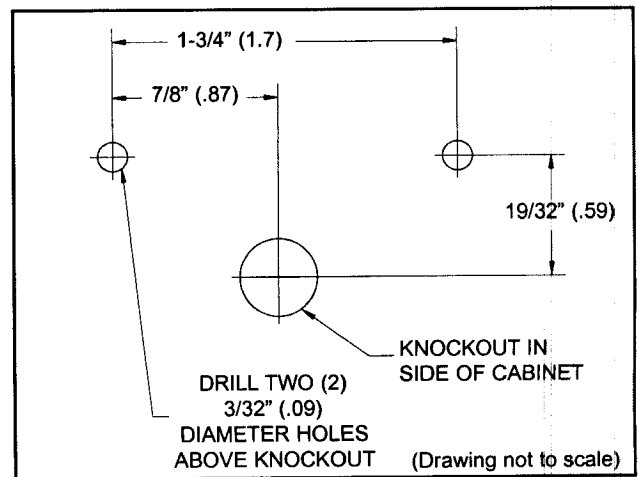


Figure 6

## Lighting the Pilot FOR YOUR SAFETY, READ BEFORE LIGHTING

**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 has a pilot which must be lit by hand.  
When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING smell 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.

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 attempts to 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.

### WHAT TO DO IF YOU SMELL GAS

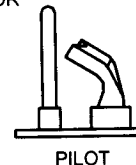
- \*Do not try to light any appliance.
- \*Do not touch any electric switch; do not use any telephone in your building.
- \*Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- \*If you cannot reach your gas supplier, call the fire department.

### IMPORTANT: KEEP BURNER AND CONTROL COMPARTMENT CLEAN.


## OPERATING INSTRUCTIONS

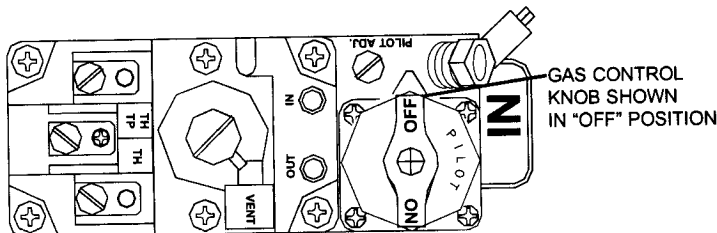
9. Turn knob on gas control counterclockwise,  to "PILOT".

GENERATOR




PILOT

1. STOP! Read the safety information above.
2. Set the thermostat to lowest setting.
3. If applicable, turn off all electric power to the appliance.
4. Open control access panel.
5. Push in gas control knob slightly and turn clockwise  to "OFF".




**NOTE:** Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not use force.

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

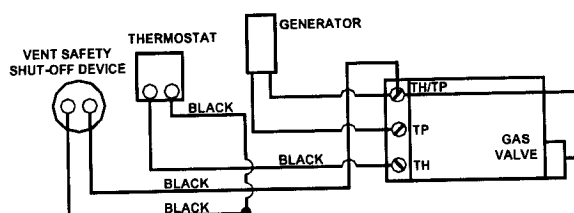
10. Push in control knob all the way and hold in. Immediately light the pilot. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat Steps 5 through 10. \*If knob does not pop up when 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.
11. Close pilot observation door, tighten wing nut (if equipped).
12. Turn gas control knob counterclockwise  to "ON".
13. Close control access panel.
14. Turn on all electric power to the appliance (if applicable).
15. Set thermostat to desired setting.

## TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if servicing is to be performed.
3. Open control access panel.
4. Push in gas control knob slightly and turn clockwise  to "OFF" position. Do not use force.
5. Close control access panel.

**WARNING: DUE TO HIGH SURFACE TEMPERATURES, KEEP CHILDREN, CLOTHING, FURNITURE OR ANY COMBUSTIBLE MATERIAL AWAY FROM HEATER.**

CONNECTION WIRING DIAGRAM FOR THERMOSTATS



#### LEGEND

- FACTORY WIRED LOW VOLTAGE
- ⊗ SCREW TERMINAL LOW VOLTAGE

NOTES: IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE APPLIANCE MUST BE REPLACED, USE ONLY 18GA. 4/64 INSULATION. 105° C. AWM COPPER WIRE OR EQUIVALENT. FOR FIELD WIRED CONNECTIONS USE NO. 18 AWG WIRES RATED FOR AT LEAST 105° C (221° F).

**WILLIAMS GAS CONTROL VALVE P323011 OR P322660**

## Installation & Operating Instructions

**Note:** All electrical work must conform to your local codes and ordinances or in their absence, with National Electrical Code, ANSI/NFPA 70. If you are not familiar with wiring codes in general, have a competent electrician do this job.  
In CANADA: CANADIAN ELECTRICAL CODE C22.1.

## WARNING

**Danger of property damage, bodily injury or death. Turn off electrical power supply at disconnect switch, fuse box or service panel before removing or working on fan.**

This accessory is operated using the factory equipped three-prong (grounding) plug and cord. When using the plug and cord, for your protection against shock hazard, it must be plugged directly into a properly grounded three-prong receptacle. **DO NOT CUT OR REMOVE THE PRONG.**

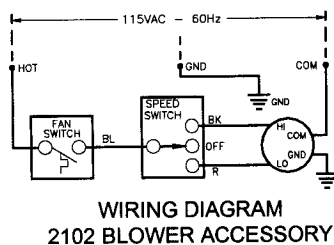
## Mounting the Blower Accessory to the Furnace

**Step 1:** Place the motor and blower on the heater floor, securing with four (4) screws. Attach three (3) screws to the inlet duct and one (1) screw to the heater floor, using the existing screw holes. Align the opening in the base of the motor and blower with the opening in the furnace floor. The opening on the side of the motor and blower should align with the opening on the heater inlet duct.

**Step 2:** Attach the “HI” and “LO” speed switch to the upper left corner on the back of the heater and replace the corner bracket with the speed switch plate using the existing mounting holes (item 7). The correct position for the fan switch is shown below. The top of the fan switch should be level with the notch directly across the switch on the blower mounting plate. **Make sure speed switch wires (item 6) are secured with clamp (provided in the kit) away from the combustion chamber before operating the heater.**

## Use the Fan Switch for Blower Settings

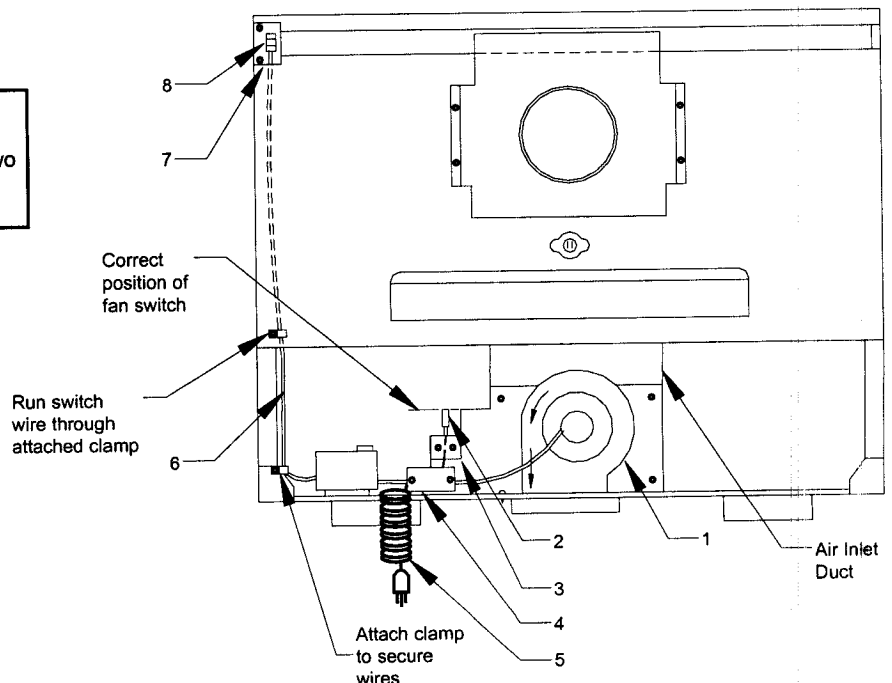
You must select "HI" or "LO" on the speed switch (item 8) for automatic blower operation. When the heater heats up, the fan switch is activated and the blower will operate. When the heater cools down, the blower will turn off. The blower will not operate if the speed switch is set in the "OFF" (center) position.



Reference Number	Part Number	Description
1	P501779	Motor
2	P323096	Fan Switch
3	K000862	Fan Switch Plate
4	90-01005-000-02	Junction Box
5	P323335	Cord and Plug
6	P202900	Wire (Red)
6	P202800	Wire (Black)
6	P202700	Wire (Blue)
7	K000861	Speed Switch Plate
8	P320911A	Speed Switch

## Cleaning and Oiling

Shut off electricity. Clean any lint or dirt from fan blades, fan motor and air passages. Annually put two drops of SAE 20 oil in each of the two cups or oil tubes on the motor.





## Venting

This heater must be properly connected to a venting system. This heater is equipped with a vent safety shutoff system to protect against improper venting of its' combustion products. Tampering with or removal of this control will void the limited warranty and can result in carbon monoxide (CO) poisoning and possible death.

**WARNING:** Operation of this heater, when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system, can result in carbon monoxide (CO) poisoning and possible death.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air. This room heater is equipped with a vent safety switch. The vent safety switch will cause gas flow to the main burner to shutoff due to improper venting or a blocked flue. If the vent safety switch continues to shutoff the gas flow, a qualified service person must be contacted to inspect for improper venting, blockage in the vent pipe or the vent safety switch for being defective.

**WARNING:** Do not bypass the vent safety shutoff switch. To do so could expose the consumer to property damage, personal injury or possible death.

A. An effective flue is necessary to carry off water vapor, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), and other products of combustion. For proper venting, follow the following basic rules for gravity venting, which are:

1. Keep the flue gasses hot.
2. Follow the vent manufacturer's installation instructions.
3. Select the proper vent size.
4. Provide constant fresh air replacement.

B. For new installation, it is recommended that a Type "B" vent in accordance with its' listing be used. A Type "B" vent is one made of non-combustible, corrosion resistant material of sufficient thickness, cross sectional area and heat insulating quality to avoid excess temperatures on adjacent combustible material and certified by a nationally recognized testing agency. Existing brick flues should be lined to provide an effective vent. Brick chimneys, even in good repair, may be too large and will not provide sufficient draft to effectively vent a heater.

C. Use vent pipe of the same size as the outlet on back of heater. In no case should a different size vent be used. Single wall vent pipe may be attached directly to the drafthood of the room heater when a clearance of 2-1/2 inches (64mm) is maintained between the single wall vent pipe and the combustible wall of the room in which the room heater is located. Use double wall vent pipe for clearances less than 2-1/2 inches (64mm) to combustibles.

D. Avoid a horizontal run to vent pipe whenever possible. When a horizontal run is necessary, the pipe must pitch upward at least 1/4 inch to the foot. It must be supported securely and joints fastened by sheet metal screws or rivets. Under no circumstances should the vent run downhill.

E. Never put a damper or barometric draft control in a gas vent pipe.

F. Never end a vent in an open attic or run vent through a wall to the outside without extending it upward above the roof.

G. Always terminate vent with an approved cowl.

H. ALWAYS SECURE VENT PIPE TO OUTLET ON BACK OF HEATER WITH A SHEET METAL SCREW.

I. Flue pipe should extend through the wall of a chimney to be flush with inner wall.

J. Flue pipe must be adequately supported by metal strips.

K. For flue pipe running through walls and roofs, use B-1 (1 inch (25mm) clearance to combustibles) vent pipe.

L. Chimneys should extend at least 2 feet (.6m) above the roof and above any object or nearby building within 10 feet (3m).

M. Open tees should not be used in the flue pipe.

N. Appliance must not be connected to a chimney flue that is servicing a separate solid-fuel burning appliance.

O. For proper venting, do not attach a 90 degree elbow directly to draft diverter. It is recommended to attach 2 feet (.6m) of straight vent pipe before an elbow is used. Use 45 degree elbows if possible. Run flue pipe as direct as possible with a minimum of elbows.

P. The use of more than one appliance per vent system may cause the vent safety shutoff device to shut off the heater due to the cooling of vent temperatures through the draft diverter of the second appliance.

Q. The vent safety shutoff may shut down the heater if a too large or an unlined, masonry chimney is used. The vent may not warm quickly enough to get adequate vent action in a chimney before the shutoff device will shut down the heater. If this is the case, it is recommended lining the chimney with proper size type "B" vent pipe or type "B" chimney liner.

R. Single-wall metal pipe should not be used outdoors in cold climates or venting gas equipment. If the vent is installed directly outside, the cold pipe may delay the venting and cause the heater to shut-off by the vent safety switch. To prevent this problem, as well as condensation of flue products, an insulated enclosure is recommended. Use type B, vent pipe and maintain at least a one inch clearance to combustibles. Use a metal thimble to protect vent pipe as it passes through combustibles.

### Warning

Danger of illness, bodily injury or death. This heater and any other fuel burning appliance must be provided with enough fresh air for proper combustion and ventilation of flue gasses. Most homes will require that outside air be supplied into the heater area.

### Warning

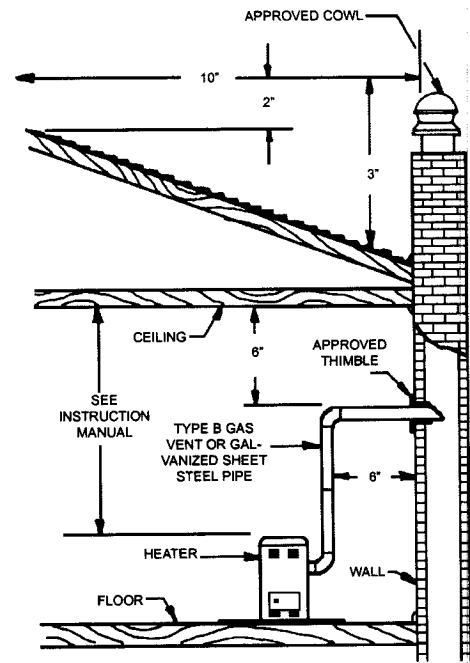
Danger of property damage, bodily injury or loss of life. Do not install heater in any area where oxygen is in use.

**IMPORTANT:** Inspect venting system prior to each heating season.

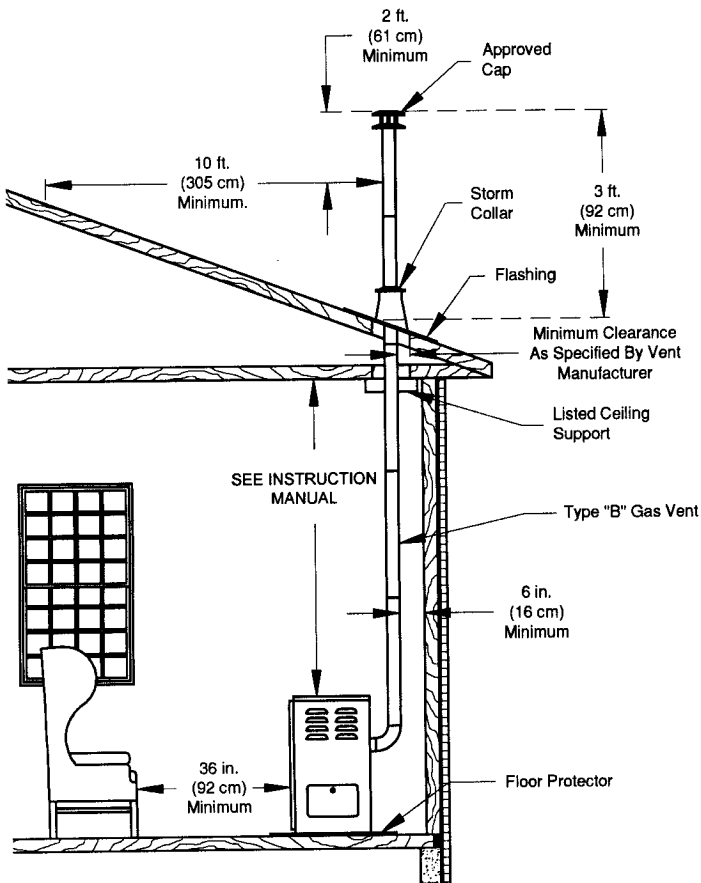
## Venting

### Typical Methods of Safely Venting Your Heater

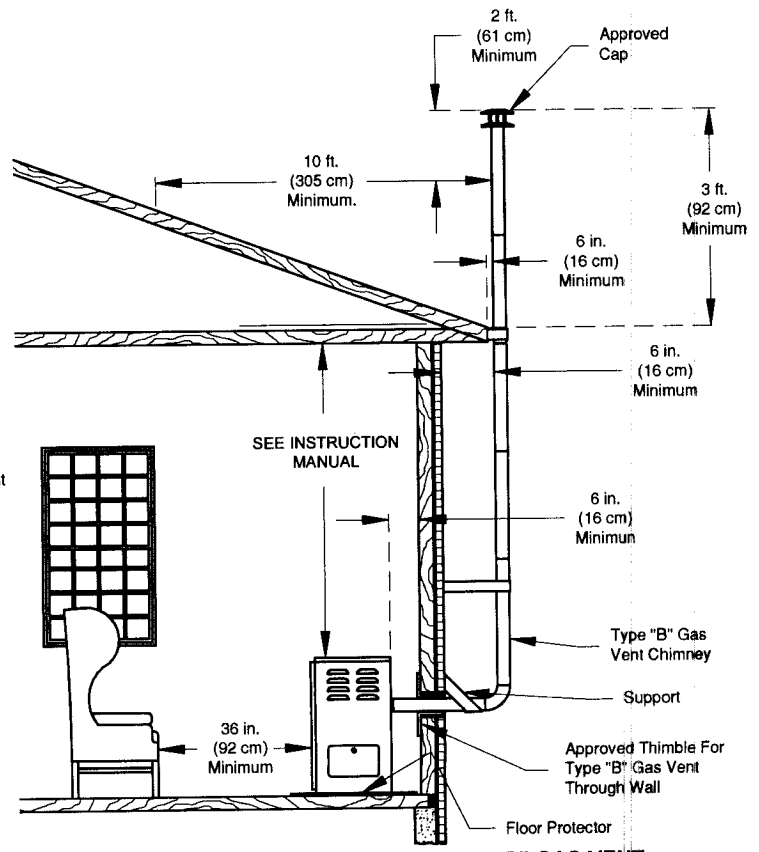
1. Any horizontal run of vent pipe must slope upward a minimum of 1/4" per foot. Secure all joints of the vent with sheet metal screws.
2. Where the vent passes through the ceiling or wall, a thimble is required to keep the ceiling from catching fire. Use only a thimble designed for use with Type "B" gas vent, certified by a nationally recognized testing agency.
3. The vertical (straight up and down) part of the vent must end 2 feet above any part of the roof within 10 feet of the vent. This is to make sure the "draw" of the vent is not obstructed in any way.
4. A cowl or cap, approved by a nationally recognized testing agency, must be installed on top of the vent to keep out rain and snow and to prevent obstructions of the vent. The cowl will also prevent excessive downdraft that can cause carbon monoxide to enter into the home. Do not use a homemade cowl. They are dangerous and can restrict the draft of the vent.
5. Safe clearances are shown below. To prevent a fire, make sure the heater is installed no closer than the distances shown in the figures that apply to your type of venting.
6. If you are venting into a masonry chimney, it must be lined, in good repair and must not serve a wood or coal burning appliance. The flue must be at least as large in diameter as the vent connector. The top of the chimney must be two (2) feet higher above any part of the roof within ten (10) feet horizontally of the chimney and must be three (3) feet higher than the point where it passes through the roof line. If installed in front of a fireplace, the pipe must pass through a sheet metal cover on the fireplace that fits tightly.



VENTING INTO A MASONRY CHIMNEY



STRAIGHT UP VENTING WITH TYPE "B" GAS VENT



VENTING INTO AN OUTSIDE TYPE "B" GAS VENT

**Warning:** Danger of illness, bodily injury or death. Drafthood spillage with unobstructed vents, indicates that additional air must be brought into the structure from the outside. Keep a window open a (minimum 2 inches) near the appliance until a permanent air duct is installed.

## Start-Up Procedure

### Warning

Danger of property damage bodily injury or death. Liquefied petroleum (L.P.) gas is heavier than air and it will settle in any low area, including open depressions and it will remain there unless area is ventilated. Never attempt start-up of unit before thoroughly ventilating area.

Check the heater operation as outlined in the following instructions. If any sparking, odors or unusual noises are encountered, shut off electric power immediately. Recheck for wiring error, or obstructions in or near fan motor (if equipped).

### Check Gas Input And Pressures

For heaters located at elevations between sea level and 4,500 feet, the measured input must not be greater than the input shown on the rating plate of the furnace. For elevations above 4,500 feet, the measured input must not exceed the input of the rating plate reduced by 4 percent for each 1,000 feet that the heater is above sea level.

Gas supply pressure and manifold pressure with the burner operating must also be as specified on the rating plate.

Type of Gas	Manifold Pressure, In. W.C.
Natural	4"
L.P.	10.5"

Rated input will be obtained on the heating valve of 2510 for propane at 10.5-inches manifold pressure and factory-sized orifices. If L.P. Gas having a different heating value is supplied, orifices must be changed by a qualified service technician before the heater is operated.

### Check The Manifold Gas Pressure

A tapped opening is provided in the gas valve to facilitate measuring the manifold gas pressure. A "U Tube" manometer having a scale range from 0 to 12 inches of water should be used for this measurement. The manifold pressure must be measured with the burner and pilot operating. Any major changes in the flow must be made by changing the size of the burner orifice.

### Check Thermostat

Check thermostat operation. When set above room temperature or temperature shown on the thermostat, the main burner should light. Make certain the thermostat turns off the heater when room temperature reaches the selected setting and starts the heater when room temperature falls a few degrees.

### Check The Gas Input (Natural Gas Only)

Under-firing could cause inadequate heat, excessive condensation or ignition problems. Over-firing could cause shooting flame impingement or overheating of the combustion chamber.

Before starting natural gas input check, obtain heating value of gas (BTU per cubic foot) at standard conditions from your local supplier.

To measure the input using the gas meter, proceed as follows:

Step 1: Turn off gas supply to all other appliances except the heater.

Step 2: With the heater operating, time the smallest dial on the meter for one complete revolution. If this is a 2 cubic foot dial, use the time in seconds as is. (3,600 ÷ Sec. Per Hr.) This gives the seconds per cubic foot of gas being delivered to the heater.

Step 3: Assuming natural gas with a heating value of 1,000 Btu per cubic foot and 34 seconds per cubic foot as determined by Step 2 then, input:  $1,000 \times 3,600 \div 34 = 106,000$  Btu Per hour. This measured input must not be greater than the input indicated on the rating plate of the heater.

Step 4: Relight all other appliances turned off in Step 1 above and verify all pilot burners are operating.

### Check Pilot Burner

The pilot flame must envelop 1/2- to 5/8-inches of the generator. Pilot flame is preset at the factory, so ordinarily does not require field adjustment. Refer to Figure 7.

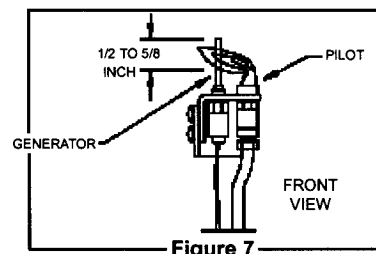


Figure 7

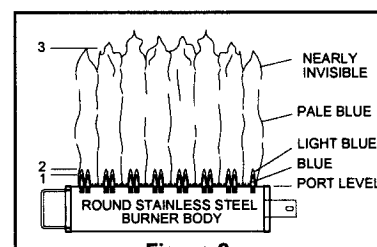


Figure 8

### Burner Flame Characteristics

Start the furnace and let it operate at least 10 minutes. Open the access door to view the burner flame. Limit your movements near the furnace a few more minutes before making your final observations. The flame may look yellow due to dust particles in the room air. The flame should change to a nice blue color with firm inner and secondary cones. An occasional flash of orange might be seen as dust particles burn in the flame. This is normal. No burner adjustment is provided, or is necessary. Figure 8.

### Normal Appearance

#### Natural Gas:

- 1=Inner cone - blue color - 3/8 to 5/8 inch above ports
- 2= Secondary inner cone - light blue - 1 to 2 inches above ports
- 3= Total flame - from blue to nearly invisible - approximately 6 inches above ports.

#### L.P. Gas:

- 1= Inner cone - blue color - 1/2 to 3/4 inch above ports.
- 2= Secondary inner cone - light blue - 1 to 2 inches above ports.
- 3= Total flame - from blue to nearly invisible - approximately 6 inches above ports.

### Abnormal Appearance

#### Lazy Flame

Long soft yellow cones moving around in the combustion chamber lifting from ports (insufficient air).

#### Extremely Fast Flame

Will not hold to ports - entire cone sections blow off from noisy ports (too much pressure).

### Warning

If flame appears abnormal, contact the gas company or a qualified service technician immediately.

### Warning

Natural gas heating value (Btu per cubic foot) can vary significantly; therefore, it is the installer's responsibility to see that the Btu input to the heater is adjusted properly. Failure to do so could cause combustion chamber failure, asphyxiation, fire or explosion, resulting in property damage, bodily injury or death. Refer to the National Fuel Code (NFPA-54) to be sure the heater is burning fuel at the proper rate.

## How to Care for Your Heater

### Cabinet Finish

Clean cabinet with damp cloth. Never use abrasive cleaners. Cabinets are finished with heat resistant powder paint. -DO NOT refinish with wall or spray paint.

### Removable Cabinet Top (350, 500, & 650 Model Series)

For ease of cleaning, access or replacement of internal parts, the top of this heater can be removed by following these steps:

1. Remove three (3) brackets on rear of heater securing cabinet top to back plate.
2. Pull cabinet top forward and lift up. Reinstall cabinet top by reversing the procedures noted above. Refer to Figure 9.

**Note:** Take special care to engage the six (6) clips located on the bottom of the cabinet top into the top flange of heater sides.

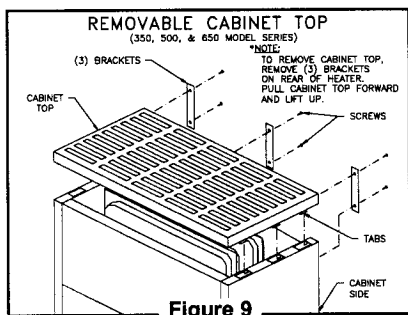


Figure 9

### Heater Area

Keep the area near the heater 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 heater cabinet. For better circulation and more effective heating, do not place obstructions, furniture or other items closer than four feet to the front of the cabinet or two feet from each side of the cabinet.

### Annual Upkeep Needed

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

### Cleaning Blower (if equipped)

Shut off electricity. Clean any lint or dirt from fan blades, fan motor and exposed air passages. Annually put two drops of SAE 20 oil in each of the two cups or oil tubes.

### Pilot Burner

Light pilot using instructions in "OPERATING INSTRUCTIONS". Leave thermostat at lowest setting. Pilot flame should surround 1/2 to 5/8 inches of the generator tip. If flame needs adjusting, do so as follows:

#### Adjust Pilot Burner

1. Remove screw cover over pilot adjusting screw.
2. Insert small screwdriver. Adjust flame as needed. Turn screw counterclockwise to increase flame, clockwise to decrease.
3. 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.
4. Replace screw cover with gasket over pilot adjusting screw. Refer to Figure 10.

### Vent System

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

**Note:** A properly adjusted burner with nearly all gasses will produce a flame which has clear blue cone having a bluish-red or bluish-violet outer mantle.

### Burner Cleaning

Check burner. If cleaning is required, contact a qualified service technician to clean and service burner.

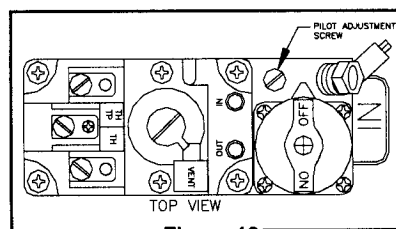


Figure 10

### Cleaning Burner Compartment

Because cold air is attracted to the flame during heater operation, a build up 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.

#### Danger

A 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.

### To Remove Logs from Combustion Chamber

Always remove the logs from the combustion chamber when cleaning the burner or combustion chamber.

1. As parts are removed, place them in a safe place until ready for reassembly.
2. Remove the chrome hearth assembly. Compression clips hold hearth assembly in place. Grasp assembly frame and pull forward.
3. Remove the screws in the glass window frame.

**IMPORTANT-** The logs are made of special light weight materials that can be easily damaged by rough handling.

4. Lift the front log up and out of the front log support brackets carefully. Take care when pulling it out through the window opening. Do not scrape it against the metal edges of the opening.
5. Remove the screws and plates holding the top right and top left sides of the rear log set against the top rear support brackets.
6. Lift the rear log set up and out of the bottom support brackets. Tilt the top towards the back and slowly allow the bottom to pass through the opening first. Take care not to scrape it against the metal edges of the opening.
7. Reverse the above procedure to reassemble after cleaning.

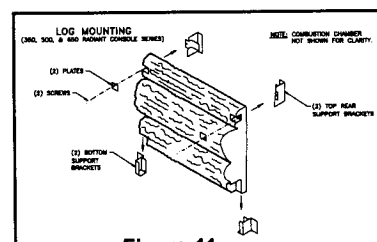


Figure 11

### Glass Cleaning

Use mild soap and water only. Never clean when glass is hot. If the glass is broken it must be replaced with the manufacturer's authorized part only. Failure to do so could cause property damage, bodily injury or death.

## Troubleshooting

<i>Symptom</i>	<i>Possible Causes</i>	<i>Corrective Action</i>
1. Pilot will not stay lit after carefully following lighting instructions.	<p>A. Generator producing insufficient millivolts.</p> <p>B. Loose or dirty generator connections at gas valve.</p> <p>C. Generator defective.</p> <p>D. Grounded thermostat wire.</p> <p>E. Defective valve.</p>	<p>Check pilot flame. It must impinge on the generator. Be sure generator is fully inserted in bracket.</p> <p>Clean and/or tighten connections at valve.</p> <p>Check generator with millivolt meter. Take reading at the generator terminals of the valve with the valve placed in "Pilot" position. Disconnect the thermostat wires. The millivolt reading should be 450 millivolts or more.</p> <p>Remove thermostat wires from valve terminals. If pilot now stays lit, trace thermostat wiring circuit for a ground. May be grounded to furnace, gas supply, nails or staples.</p> <p>Replace gas valve after above is verified.</p>
2. Pilot burning - no gas to the main burner.	<p>A. Thermostat not turned to a position calling for heat.</p> <p>B. Plugged burner orifice.</p> <p>C. Improperly wired or broken thermostat wires. Defective thermostat.</p> <p>D. Pilot generator may not be generating sufficient millivoltage to open valve.</p> <p>E. Defective valve.</p>	<p>Set thermostat to a position calling for heat.</p> <p>Clean or replace.</p> <p>Check connections at valve terminals. If valve operates, check thermostat wires.</p> <p>See 1A and 1C above.</p> <p>Replace.</p>
3. Furnace operates but turns "OFF" before room temperature is attained.	<p>A. Thermostat location.</p> <p>B. Defective thermostat.</p>	<p>Check thermostat location. It should not be in the path of warm air discharge from furnace, near a lamp, or above a T.V. or stereo.</p> <p>Check thermostat calibration or replace.</p>
4. Furnace not producing sufficient heat.	<p>A. Furnace may be too small for space being heated.</p> <p>B. Furnace not burning at full rate.</p>	<p>Check heat sizing calculations.</p> <p>Check for low gas pressure at gas valve. It should be 4 inches W.C. for Natural Gas; 10.5 inches W.C. for L.P.G. Check for blocked burner orifice.</p>
5. Furnace operates, but will not shut off after room temperature is attained.	<p>A. Thermostat wiring defective.</p> <p>B. Thermostat location.</p> <p>C. Defective thermostat.</p> <p>D. Valve stuck open.</p>	<p>Thermostat lead wires may be shorted together, caused by a nail or staple. Check by removing thermostat leads from valve terminals.</p> <p>Check thermostat location. If on an outside wall, or there is a hole in the wall behind thermostat, cold air may be coming in contact with the thermostat. Relocate the thermostat.</p> <p>Verify thermostat temperature reading or replace.</p> <p>Replace valve.</p>
6. Pilot outage.	<p>A. Pilot flame may be low or blowing (high), causing pilot to drop out.</p> <p>B. Drafts or drafty areas.</p>	<p>Adjust pilot flame. Pilot orifice may be plugged (check for spider webs or other material).</p> <p>Check for doorway and high movement areas.</p>

## Troubleshooting

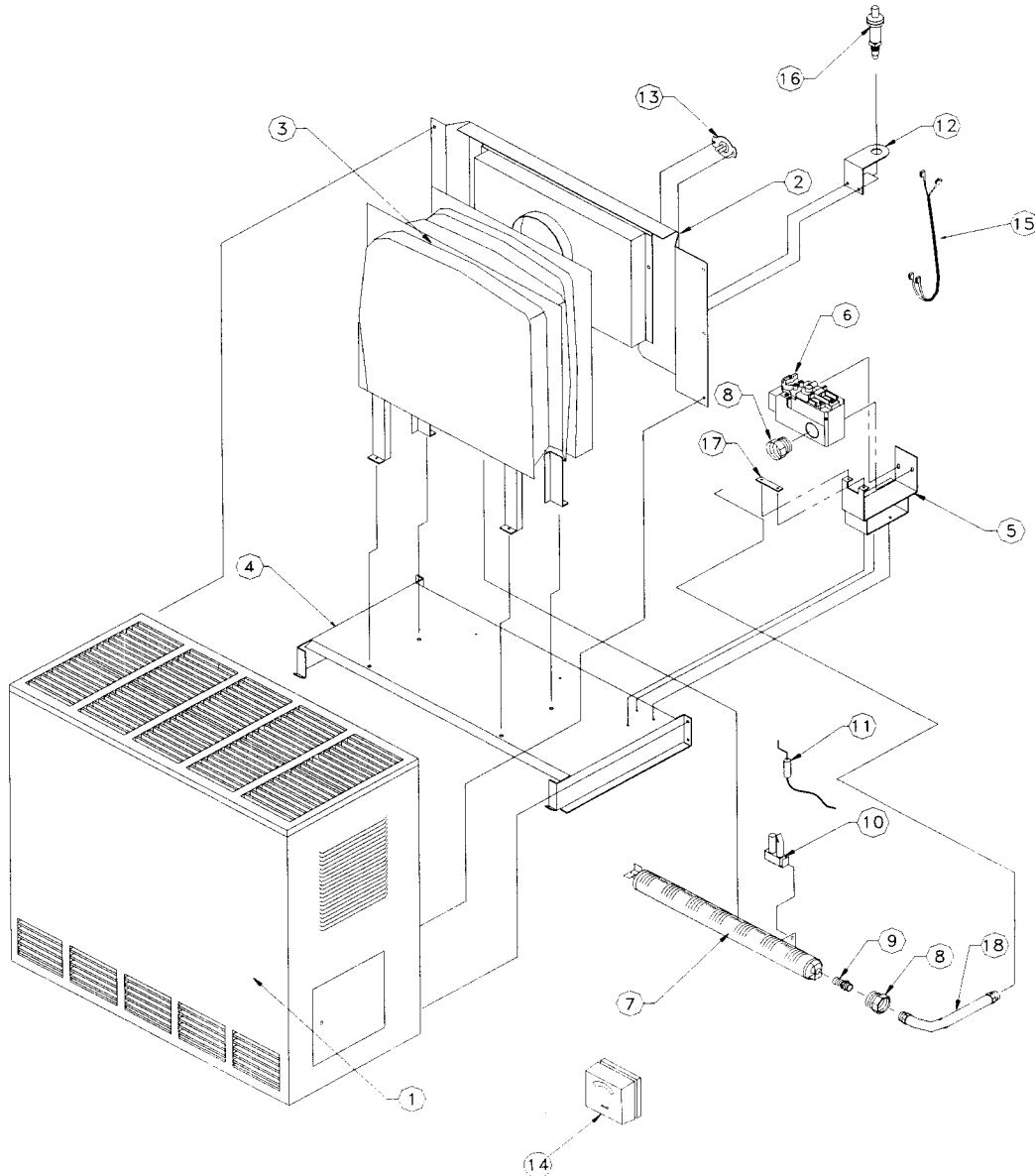
<i>Symptom</i>	<i>Possible Causes</i>	<i>Corrective Action</i>
7. Main burner will not stay on.	A. Blockage in vent pipe.	Checks vent pipe for blockage, such as bird nests, twigs, leaves, etc.  Check that the vent cap is properly installed, and not placed too far down on the vent pipe. Cap must be the same manufacturer as the vent.
	B. Vent too short.	The vent should terminate a minimum of 12 feet above floor plate. The top of the vent must be at least 2 feet above any obstacle within a 10 foot radius, including the roof.
	C. Restriction in vent system caused by offsets.	All type "B" vents shall extend in a vertical direction with offsets not exceeding 45 degrees. Any angle greater than 45 degrees from vertical is considered horizontal. Any offsets used should be as far above the draft hood as possible to allow venting to begin before any restriction is encountered. The use of too many offsets may also prevent proper venting.
	D. Incorrect vent pipe.	Use listed B/W type vent pipe. DO NOT use transite or any other type of ceramic pipe for venting. DO NOT use single wall pipe. When venting into a masonry chimney, the chimney must be properly lined and sized for this gas furnace. The use of type "B" or flexible chimney liner is recommended.
	E. Loose connections on the vent safety wiring harness.	Check the connection on both the switch and the gas valve. Tighten if necessary.
8. Abnormal operation.	A. Delayed ignition - pilot flame may be too low.	Adjust pilot flame. Refer to "How to Care for Your Heater" section in this manual.
	B. Expansion noise, ticking.	Heater may be distorted by being vented through an uneven opening. A restricted vent may create expansion noise. Refer to "Venting" section of this manual.
	C. Combustible gas spillage.	Check vent system for a blocked flue, excessive down draft (wind) or negative pressure in room caused by ventilating fan or a fire in a fireplace.
	D. Excessive flame roll-out.	Furnace is possibly overrated - check for high gas pressure at gas valve (see 4B).
	E. Burner is over-fired.	Check the manifold gas pressure. Check the rate, this appliance is manufactured for elevations up to 4,500 feet. It must be derated for operation above 4,500 feet.
	F. Yellow burner flame.	Check burner for obstructions. Install new burner and pilot orifices.
	G. Yellow pilot flame.	Remove pilot orifice, check and clean.
9. Noisy blower.	A. Housing rattling.	Tighten blower screws.
	B. Blower dirty.	Clean blower wheel.
	C. Blower wheel bent.	Straighten or replace.
10. Blower does not run.	A. Fan switch not set.	Select fan speed.
	B. Check bearings.	Add oil as outlined in "Blower Accessory Instructions".

## Replacement Parts List

**2001621; 2031621; 2051621; 2001622; 2031622; 2051622 Models**

Key No.	Description	2001621; 2031621; 2051621	2001622; 2031622; 2051622
1	Wrapper Assembly	K000275	K000275
2	Draft Diverter Assembly	K000274	K000274
3	Combustion Chamber	K000279	K000279
4	Base Plate	K000265	K000265
5	Valve Bracket	K000850	K000850
6	Control Valve	P322660	P323011
7	Burner	K000851	K000851
8	Orifice Fitting	P500086	P500086
9	Burner Orifice	P322915	P501771
10	Pilot & Generator Assembly	P501618	P501617
11	Electrode	P322276	P322276
12	Igniter Bracket	7A189	7A189
13	Vent Safety Switch	P500406	P500406
14	Thermostat	P322016	P322016
15	Wire Assembly	P500409	P500409
16	Manual Spark Igniter	P285500	P285500
17	Manifold Plate	K000852	K000852
18	Manifold Assembly	K000848	K000848

Note: Screws, bolts and washers are standard hardware items and may be purchased locally.



## Replacement Parts List

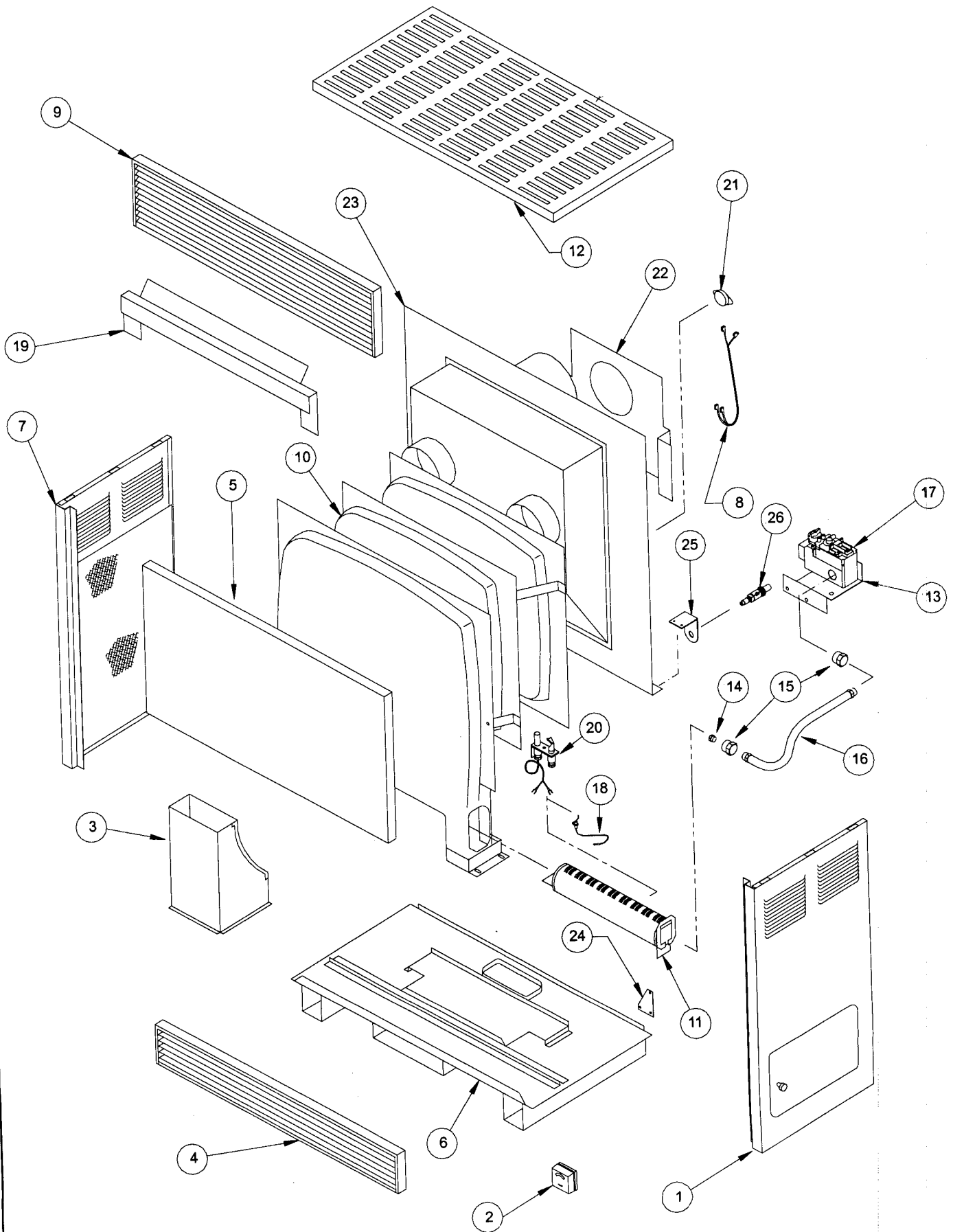
### Enclosed Front

Key No.	Description	3501522	3501521	5001522	5001521	6501522	6501521
		3531522	3531521	5031522	5031521	6531522	6531521
		3551522	3551521	5051522	5051521	6551522	6551521
		3501922	3501921	5001922	5001921	6501922	6501921
		3531922	3531921	5031922	5031921	6531922	6531921
		3551922	3551921	5051922	5051921	6551922	6551921
1	Panel Side Right	K000204	K000204	K000205	K000205	K000206	K000206
2	Thermostat	P322016	P322016	P322016	P322016	P322016	P322016
3	Inlet Duct	K7000-6022	K7000-6022	K7000-6022	K7000-6022	K7000-6022	K7000-6022
4	Bottom Louver Assembly	K000182-1	K000182-1	K000182-2	K000182-2	K000182-3	K000182-3
5	Center Panel	K000220	K000220	K000221	K000221	K000222	K000222
6	Cabinet Bottom	K5000-6003	K5000-6003	K5000-6004	K5000-6004	K5000-6019	K5000-6019
7	Panel Side Left	K000207	K000207	K000208	K000208	K000209	K000209
8	Wire Assembly	P500409	P500409	P500416	P500416	P500416	P500416
9	Top Louver Assembly	K000181	K000181	K000212-1	K000212-1	K000212-1	K000212-1
10	Combustion Chamber	K000079	K000079	K000041	K000041	K000045	K000045
11	Burner	P501620	P501620	P501621	P501621	P501622	P501622
12	Cabinet Top	K000223	K000223	K000224	K000224	K000225	K000225
13	Control Bracket	K000147	K000147	K000147	K000147	K000147	K000147
14	Orifice	P500080	P500081	P500082	P500083	P500084	P500085
15	Orifice Fitting	P500086	P500086	P500086	P500086	P500086	P500086
16	Manifold Pipe	P500087	P500087	P500088	P500088	P500089	P500089
17	Gas Control Valve	P323011	P322660	P323011	P322660	P323011	P322660
18	Electrode Igniter	P322276	P322276	P322276	P322276	P322276	P322276
19	Shield Cover	-	-	K7011-6030	K0711-6030	K0711-6031	K0711-6031
20	Pilot & Generator Assembly	P322274	P322275	P322274	P322275	P322274	P322275
21	Vent Safety Switch	P500472	P500472	P500406	P500406	P500118	P500118
22	Heat Shield (Rear)	K7003-6370	K7003-6370	K7003-6371	K7003-6371	K7003-6372	K7003-6372
23	Back Plate	K000226	K000226	K000227	K000227	K000228	K000228
24	Rear Corner Brace	K7003-6097	K7003-6097	K7003-6097	K7003-6097	K7003-6097	K7003-6097
25	Bracket	7A189	7A189	7A189	7A189	7A189	7A189
26	Manual Spark Igniter	P285500	P285500	P285500	P285500	P285500	P285500

Note: Screws, bolts and washers are standard hardware items and may be purchased locally.



# Enclosed Front



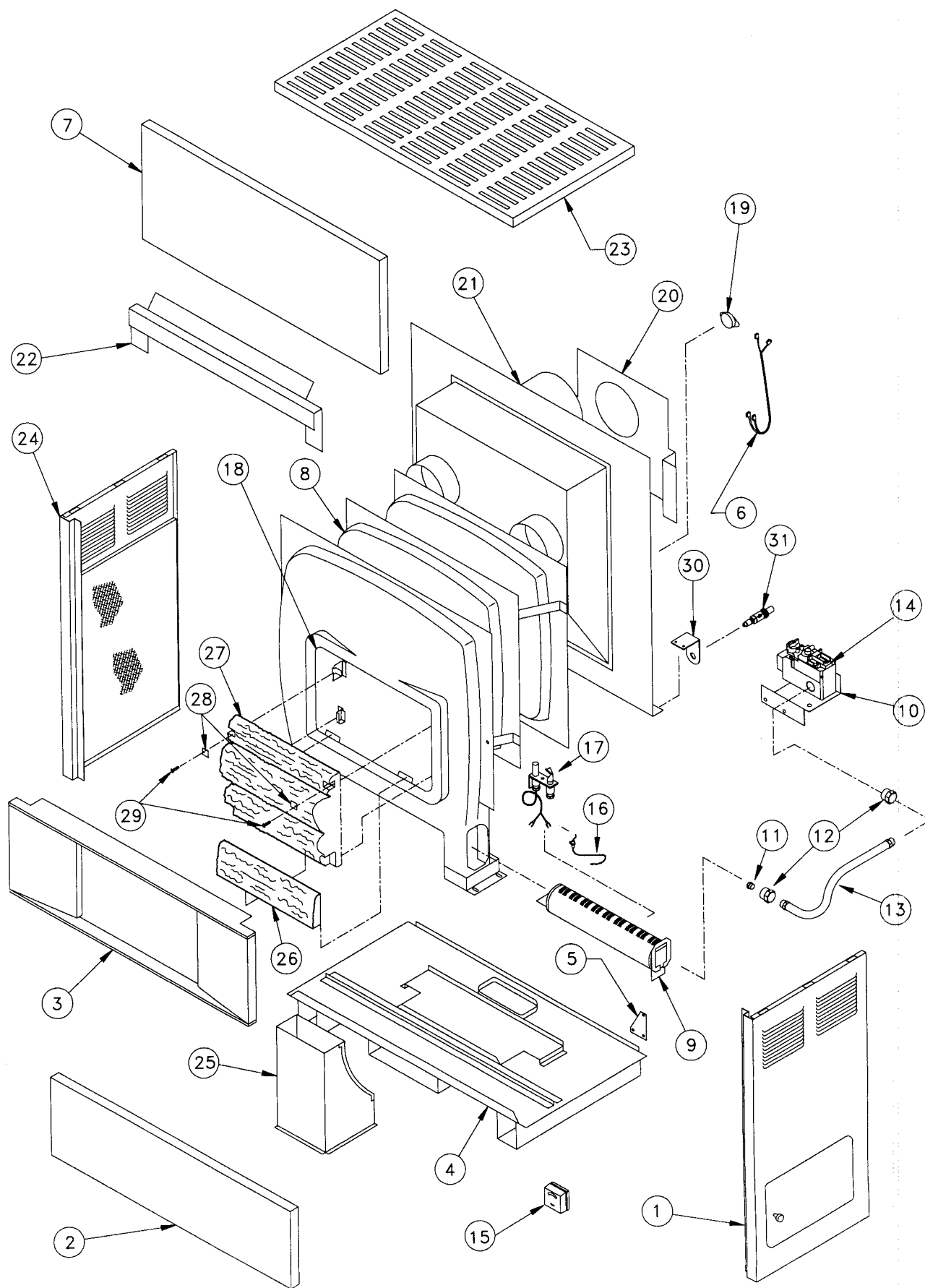
# Replacement Parts List

## Fireplace-Look with Logs

Key No.	Description	3502522 3532522 3552522 3502922 3532922 3552922	3502521 3532521 3552521 3502921 3532921 3552921	5002522 5032522 5052522 5002922 5032922 5052922	5002521 5032521 5052521 5002921 5032921 5052921	6502522 6532522 6552522 6502922 6532922 6552922	6502521 6532521 6552521 6502921 6532921 6552921
1	Panel Side Right	K000204	K000204	K000205	K000205	K000206	K000206
2	Bottom Panel	K000229	K000229	K000230	K000230	K000231	K000231
3	Hearth	K000462	K000462	K000463	K000463	K000464	K000464
4	Cabinet Bottom	K5000-6003	K5000-6003	K5000-6004	K5000-6004	K5000-6019	K5000-6019
5	Rear Corner Brace	K7003-6097	K7003-6097	K7003-6097	K7003-6097	K7003-6097	K7003-6097
6	Wire Assembly	P500409	P500409	P500416	P500416	P500416	P500416
7	Top Panel	K000232	K000232	K000233	K000233	K000234	K000234
8	Combustion Chamber	K000435	K000435	K000440	K000440	K000445	K000445
9	Burner	P501620	P501620	P501621	P501621	P501622	P501622
10	Control Bracket	K000147	K000147	K000147	K000147	K000147	K000147
11	Burner Orifice	P500336	P500351	P500347	P500330	P500327	P500343
12	Orifice Fitting	P500086	P500086	P500086	P500086	P500086	P500086
13	Manifold Pipe	P500087	P500087	P500088	P500088	P500089	P500089
14	Gas Control Valve	P323011	P322660	P322660	P323011	P323011	P322660
15	Thermostat	P322016	P322016	P322016	P322016	P322016	P322016
16	Electrode Igniter	P322276	P322276	P322276	P322276	P322276	P322276
17	Pilot & Generator Assembly	P501617	P501618	P501618	P501617	P501617	P501618
18	Window Assembly	K000450	K000450	K000451	K000451	K000452	K000452
19	Vent Safety Switch	P500472	P500472	P500406	P500406	P500118	P500118
20	Heat Shield	K7003-6370	K7003-6370	K7003-6371	K7003-6371	K7003-6372	K7003-6372
21	Back Plate	K000226	K000226	K000227	K000227	K000228	K000228
22	Shield Cover	-	-	K7011-6030	K7011-6030	K7011-6031	K7011-6031
23	Cabinet Top	K000223	K000223	K000224	K000224	K000225	K000225
24	Panel Side Left	K000207	K000207	K000208	K000208	K000209	K000209
25	Inlet Duct	K7000-6022	K7000-6022	K7000-6022	K7000-6022	K7000-6022	K7000-6022
26	Front Log	P500678	P500678	P500679	P500679	P500680	P500680
27	Rear Log Set	P500674	P500674	P500675	P500675	P500676	P500676
29	Stainless Steel Screw (2 Required)	P103200	P103200	P103200	P103200	P103200	P103200
30	Bracket	7A189	7A189	7A189	7A189	7A189	7A189
31	Manual Spark Igniter	P285500	P285500	P285500	P285500	P285500	P285500

Note: Screws, bolts and washers are standard hardware items and may be purchased locally.

# Fireplace-Look with Logs



## Your Warranty

The Manufacturer, Williams Furnace Co., warrants this wall furnace or heater to the original purchaser under the following conditions:

### Limited One-Year Warranty

1. Any part thereof which proves to be defective in material or workmanship within one year from date of original purchase for use will be repaired or replaced at the Manufacturer's option, FOB its factory.
2. No liability is assumed by the Manufacturer for removal or installation labor costs, nor for freight or delivery charges.

### Limited Extended Warranty

1. In addition to the above limited one-year warranty on the complete unit, any combustion chamber which burns out or rusts under normal installation, use or service conditions during a period of nine years following expiration of the one-year warranty period will be exchanged for a like of functionally similar part, FOB Manufacturer's factory.
2. No liability is assumed by the Manufacturer for removal or installation labor costs, nor for freight or delivery charges.

### Limitations

1. THIS LIMITED WARRANTY IS THE ONLY WARRANTY MADE BY THE MANUFACTURER. IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE LIMITED TO THE SAME ONE-YEAR TERM AS THIS EXPRESS WARRANTY. UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM ANY DEFECT IN THE PRODUCT OR ANY COMPONENT OR FROM THE USE THEREOF. THE REMEDIES SET FORTH HEREIN ARE THE EXCLUSIVE REMEDIES AVAILABLE TO THE USER AND ARE IN LIEU OF ALL OTHER REMEDIES.

Some states do not allow limitation on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

2. This warranty does not include any charge for labor or installation.
3. This warranty does not extend to painted surfaces nor to damage or defects resulting from accident, alteration, misuse or abuse, or improper installation.
4. This warranty does not cover claims which do not involve defective workmanship or materials.

### Duties Of The Consumer

1. The heating equipment must be installed by a qualified installer and operated in accordance with the installation and homeowners instructions furnished with the equipment.
2. Any travel, diagnostic costs, service labor, and labor to repair the defective unit will be the responsibility of the owner.
3. A bill of sale, cancelled check, payment record or permit should be kept to verify purchase date to establish the warranty period.
4. Have the installer enter the requested information in the space below.

### General

1. The Manufacturer neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with said equipment.
2. Service under this warranty should be obtained by contacting your dealer. Provide the dealer with the model number, serial number and purchase date verification.
3. If, within a reasonable time after contacting your dealer, satisfactory service has not been received, contact: Customer Service Department, 250 West Laurel St., Colton, CA 92324, for assistance.
4. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

### Installation Information

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_  
Original Purchaser \_\_\_\_\_  
Address \_\_\_\_\_  
City and State \_\_\_\_\_ Zip \_\_\_\_\_  
Dealer \_\_\_\_\_  
Address \_\_\_\_\_  
City and State \_\_\_\_\_ Zip \_\_\_\_\_  
Installation Date \_\_\_\_\_ Installer \_\_\_\_\_

Installer: Please leave these instructions with the consumer. Consumer: Please retain these instructions for future reference.

### How to Order Repair Parts

All parts listed may be ordered from your equipment supplier. The model and serial number will be found on the rating plate near the gas valve. When ordering parts, always provide:

1. Model number
2. Serial number
3. Part number and description