

heatilator®

The first name in fireplaces

Heatilator Inc.
1915 W. Saunders Street
Mt. Pleasant, IA 52641
a HON INDUSTRIES company



GC1990 GC1990L INSTALLATION & OPERATING INSTRUCTIONS

I. LISTINGS AND CODE APPROVALS

These gas appliances with standing safety pilot have been tested in accordance with National Safety Standards, and have been CERTIFIED by the American Gas Association and Canadian Gas Association for installation and operation as described in these Installation & Operating Instructions in the United States and Canada. All components are UL or AGA safety certified.

Check with your local building code agency before you begin your installation to ensure compliance with local codes, including the need for "permits" and follow-up inspections. If any problems are encountered regarding code approvals, or if you wish clarification of any of the instructions contained here, contact your local distributor/dealer, or Customer Relations Department, Heatilator Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641. HEATILATOR® is a registered trademark of Heatilator Inc., a HON INDUSTRIES company.

FOR YOUR SAFETY

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.

FOR YOUR SAFETY

DO NOT STORE OR USE
GASOLINE OR OTHER
FLAMMABLE VAPORS
AND LIQUIDS IN THE
VICINITY OF THIS OR ANY
OTHER APPLIANCE.

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.

GC1990 & GC1990L GAS APPLIANCES

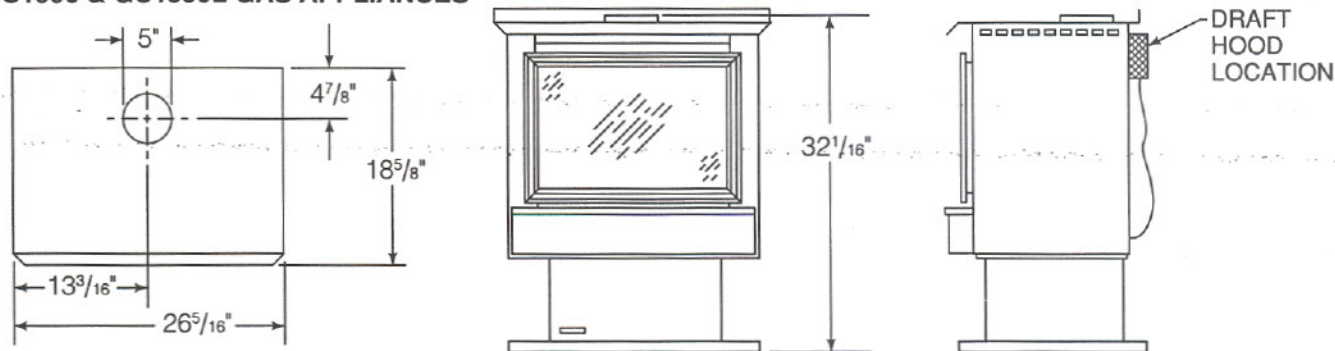


Figure 1

II. GENERAL INFORMATION

This installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-latest edition or, in Canada, current CAN/CGA-B149.1 and B149.2 installation codes.

INSTALLATION AND REPAIR SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A QUALIFIED SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATING AIR PASSAGeways OF THE APPLIANCE BE KEPT CLEAN.

In the United States, this appliance is not intended for use with a thermostat. In Canada, this appliance is certified for use in bedrooms or bed sitting room. If installed in a bed or bed sitting room, a thermostat is required.

Provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.

Minimum clearances to combustibles are: Top of appliance 30", Floor 0", Back and Sides 9".

This appliance must be installed on a flat, solid, continuous surface (i.e. wood, metal, concrete).

Provide for adequate combustion and ventilation air.

For Natural Gas, the minimum inlet gas supply pressure is 4.5 inches water column, and the maximum inlet gas pressure is 7.0 inches water column, for the purpose of input adjustment. Input rate is 25,000 BTU/Hr. For Propane Gas, the inlet gas supply pressure must be at least 11.0 inches water column minimum to 14.0 water column inches maximum.

A 1/8" NPT plugged tapping is provided on the gas control valve, near the outlet to the Main Burner immediately upstream of the gas supply connection to the appliance, accessible for a test gage connection.

For high elevation, refer to ANSI Z223.1-latest edition, Appendix F, for resizing orifice. DO NOT USE this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and gas control which has been under water.

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

WARNING

THIS APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVICING A SEPARATE SOLID FUEL BURNING APPLIANCE.

WARNING

FAILURE TO INSTALL THIS APPLIANCE PROPERLY MAY CAUSE A SERIOUS HOUSE FIRE.

We recommend that you plan your installation on paper using exact measurements for clearances and floor protection before actually installing this appliance. If an existing chimney is not utilized, position the appliance to allow free passage of factory-built listed chimney through the ceiling and roof. Have a qualified building inspector review your plans before installation.

III. FIREPLACE LOCATIONS, SPACE AND CONSTRUCTION REQUIREMENTS

The GC1990 or GC1990L gas appliances can be installed in a wide variety of ways and will fit nearly any room layout. It may be installed in a recessed position, framed out into the room, or across a corner. The appliance may be installed on the floor, or it can be raised up on a platform to enhance its visual impact. Figures 2 and 3 illustrate a variety of ways the appliance may be located in a room.

MINIMUM CLEARANCES TO COMBUSTIBLES

The clearances listed below in Figure 2 are MINIMUM distances. Measure the clearance to both the appliance and the chimney connector. The farthest distance is correct if the two clearances do not match. For example, if the appliance is set as indicated in one of the figures but the connector is too close, move the stove until the correct clearance to the connector is obtained. This appliance may be installed only with the clearances as shown below, in the situations pictured. Do not combine clearances from one type of installation with another in order to achieve closer clearances.

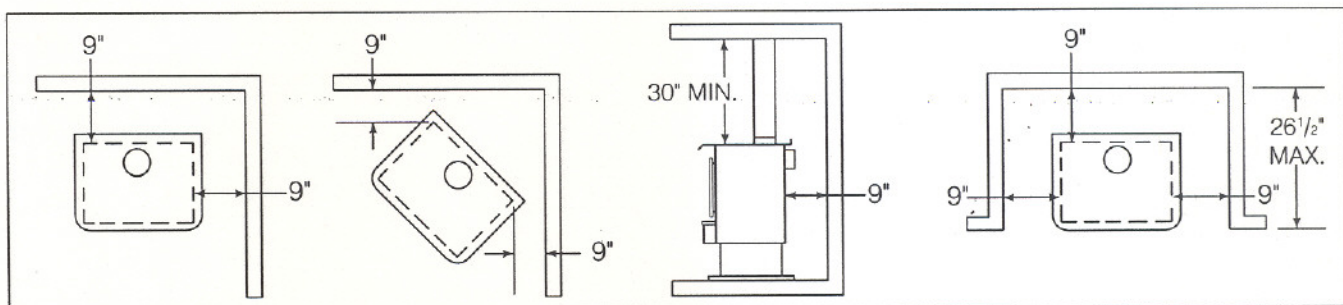


Figure 2

Use the minimum clearances shown in Figure 2 for all installations.

NOTE: The draft hood must be installed so as to be in the same atmospheric pressure zone as the combustion air inlet to the appliance.

III. STEP BY STEP INSTALLATION

☐ STEP 1

Connect the gas line to the appliance manual valve, using 1/2" pipe. To ease in installation, where acceptable by local codes, a listed flexible connector and manual shut-off valve are supplied and connected. Gas connections can be made from outside of the appliance. All connections must be checked for leaks with a soap and water solution.

NOTE: During any pressure testing of the gas supply piping system that exceeds test pressures of 1/2 psig, this appliance and its individual shut-off valve must be disconnected from the piping system. If test pressures equal to or less than 1/2 psig are used in pressure testing the gas supply piping system, this appliance must be isolated from the piping system by closing its individual manual shut-off valve during the testing.

☐ STEP 2

Accessories for this appliance require a 110V power supply. The appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or, in Canada, the current CSA C22.1 Canadian Electrical Code. If an optional FK12 Fan Kit or RC4 Remote Control Kit are to be installed, follow the wiring diagrams that are provided with these accessories and Figure 3.

STEP 3

Venting requirements - Masonry, 5" B-1 Vent or Class A. Follow all venting manufacturer's requirements and local building codes. A minimum vertical height of 12' above the base of the appliance must be maintained. The horizontal run must not exceed 50% of the vertical height, and must not be greater than 10'. The vent termination must be in accordance with their respective listing and the manufacturer's instructions. If a non-listed vent termination is used, it must extend 2' higher than any portion of a building within a horizontal distance of 10'. **DO NOT CONNECT WITH ANY SOLID FUEL BURNING APPLIANCE.** In Canada, this appliance shall not be vented into a B-Vent exterior to a building except that part above the roof line.

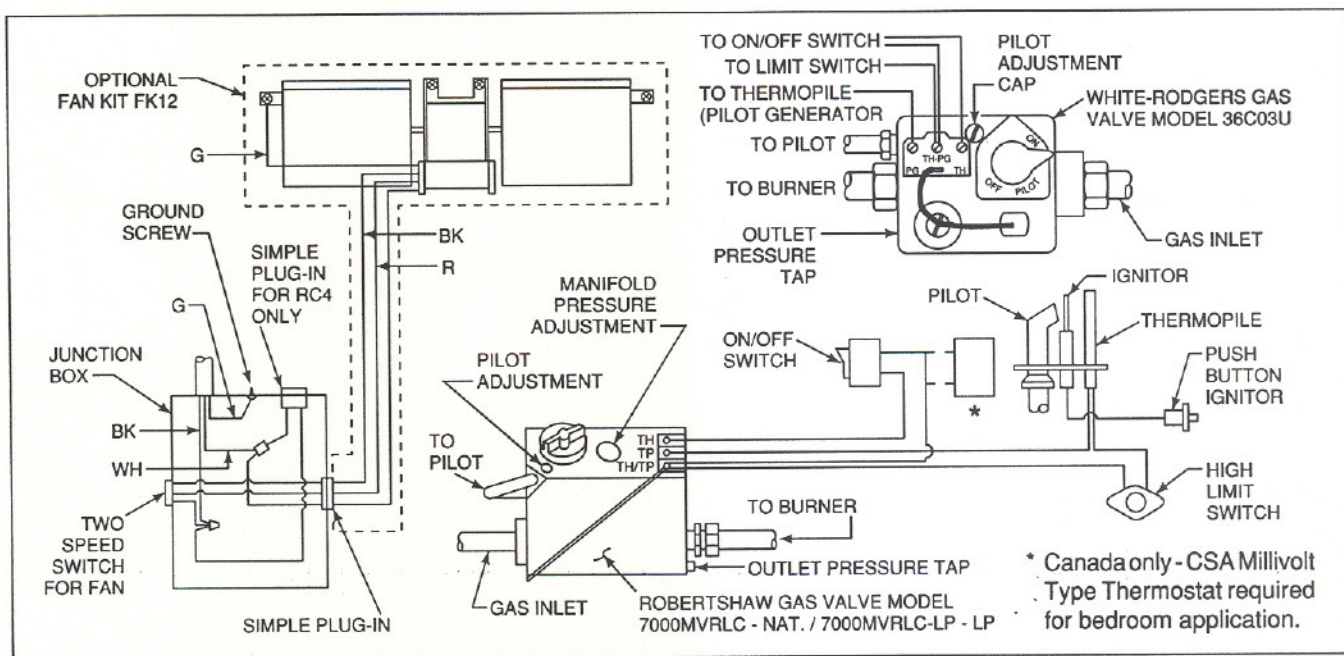


Figure 3

IV. OPERATING INSTRUCTIONS

This gas appliance uses a millivolt control system, consisting of a Pilot Burner, Thermopile, Gas Control Valve, Limit Switch and an On/Off Switch. This appliance does not require 110 Volt service to operate.

Before operating this appliance, proceed through the following check list:

1. Verify log placement. The logs are shipped in a separate box. Position as shown in the diagram under Replacement Parts.
2. Check to see that all wiring is correct and enclosed to prevent possible shock.
3. Check to ensure there are no gas leaks.
4. Make sure front glass is in its proper position. Never operate the appliance with the front glass removed or not in their proper position.
5. Verify all venting and cap is unobstructed.
6. Read and understand these Instructions before operating this appliance.

LIGHTING PROCEDURE (See Figure 3)

Steps 1 - 5 are to be followed for initial start-up and seasonal start-up. Step 6 is sufficient for later starts in season.

1. Turn the on/off switch to the "Off" position.
2. Push in and turn the gas control knob to the "Off" position. Wait (5) minutes to allow gas, that may have accumulated in the main burner compartment, to escape.
3. Turn the gas control knob to "Pilot".
4. Push and hold the gas control knob all the way in. Immediately light the pilot by pressing the red ignitor button. Continue to hold the gas knob in for about (1) minute after the pilot is lit. Release the knob and it will pop back up. The pilot should remain lit. If it goes out, repeat steps 1 through 4.
5. Turn the gas control knob to the "On" position.
6. Turn the on/off switch to the "On" position. This will turn on the main burner.

SHUTDOWN PROCEDURE

For temporary situations, the main burner may be kept from operating by turning the gas control knob to "Pilot". The pilot burner will then remain lit, ready for return to normal service. For longer periods of shut-off, push the gas control knob down and turn to "Off". This will shut off both the pilot and main burner.

Keep the burner and control compartment clean.

Due to high surface temperatures; keep children, clothing and furniture away.

PILOT BURNER ADJUSTMENT (Preset at factory)

Under certain circumstances the size of the pilot may have to be adjusted. It is accomplished as follows:

1. Remove the pilot adjustment cap. See Figure 3.
2. Adjust the pilot key to provide properly sized flame. See Figure 4.
3. Replace the pilot adjustment cap.

MAINTENANCE INSTRUCTIONS

Keep the burner and control compartment clean by brushing and vacuuming at least once a year. Always turn off the valve before cleaning.

Visually check the flame of the burner periodically, making sure the flames are steady; not lifting or floating. The flame color should be blue with yellow tips. The top 3/8" of the pilot sensor should be covered with flame. See Figures 4 and 5.

The appliance and venting system should be inspected before use, and at least annually, by a qualified field service person, to ensure that the flow of combustion and ventilation air is not obstructed. This appliance has a safety high limit switch located on the draft hood (see Figure 1) to interrupt power to the valve in the event of improper ventilation of the flue gases. If this safety switch shuts off power to the valve, it needs to be reset by hand. See Trouble Shooting guide, problem number 4.

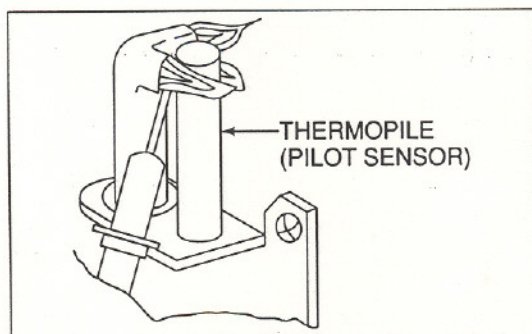


Figure 4

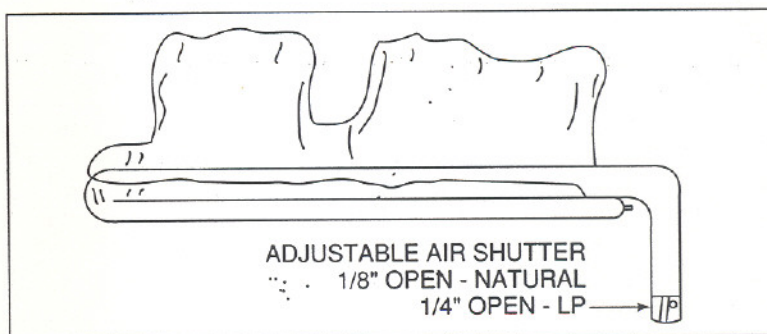


Figure 5

Keep the area near the appliance clear and free from combustible materials, gasoline and other flammable vapors and liquids.

NOTE: When first operated, the unit will release an odor for about an hour. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. The glass panel will require removal and cleaning after the unit has cooled down. DO NOT ATTEMPT TO REMOVE THE GLASS WHILE IT IS HOT.

WARNING

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CAUTION

ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING AN APPLIANCE MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.
CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

NOTE: Each time the appliance is lit, it may cause condensation and fog the glass. This condensation and fog will disappear in a few minutes.

To remove glass for cleaning of burner area - **(DO NOT REMOVE WHEN HOT):**

1. Hold the front glass door to ensure it doesn't fall.
2. Remove the screws on each side of the door (3 each side).
3. Pull the glass door straight off.

To replace glass, reverse the process.

Never operate the appliance without glass properly secured in place.

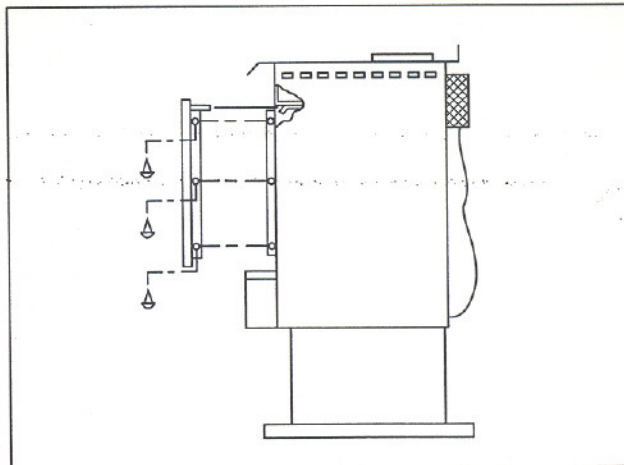


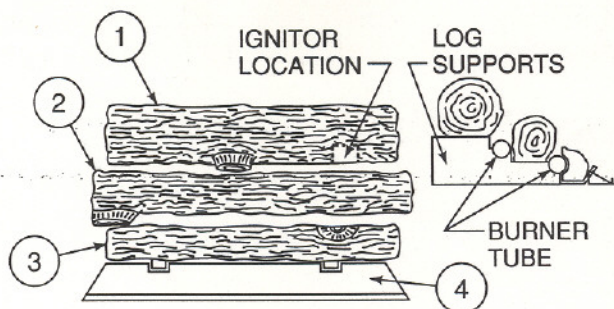
Figure 6

Log Replacement. After removing glass, logs can be lifted out of position. If for any reason one should need replacement, you must use the proper replacement log. The position of these logs must be as shown in the diagram under Replacement Parts. **NOTE: Improper positioning of logs may create carbon build-up and will alter the unit's performance.** Carbon can be removed with a vacuum cleaner.

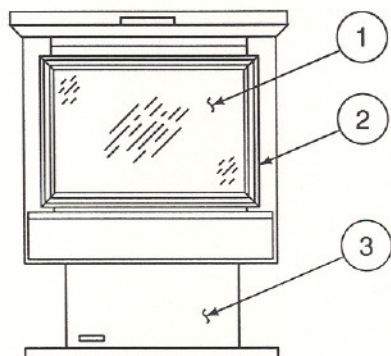
TROUBLE SHOOTING

<u>Problem</u>	<u>Cause</u>	<u>Corrective Action</u>
1. Spark ignitor will not light the pilot after repeat pressing of Red Button.	A. Defective ignitor. B. Misaligned electrode at pilot.	Check for loose connections on electrode and ignitor. Check for spark. If electrode connection is correct and no spark, replace ignitor. Spark should be extending approx. 1/8" to thermopile. Adjust gap to give proper spark. Remove hands from electrode before pressing Red Button.
2. Pilot light will not stay lit.	A. Defective pilot thermopile.	Check pilot flame. See Figure 5. Adjust flame if necessary. Be sure thermopile is secured tight into pilot bracket. Be sure wiring connections are tight throughout system, including high limit switch. Check thermopile voltage with millivolt meter. Depress valve knob and light pilot. Meter should read min. of 325 millivolt. If not, replace the thermopile.
3. With pilot lit, valve and on/off switch in "On" position, no gas to burner.	A. On/off switch defective. B. Plugged burner orifice.	Check on/off switch for proper connections. Connect wires across terminal at on/off switch. If burner comes on, replace on/off switch. If burner does not come on, connect to on/off switch junctions at valve. If burner comes on, replace wires. Check burner orifice; remove blockage.
4. Appliance turns itself off after a period of time.	A. High limit safety switch is activated.	Have a qualified service technician check venting system for blockage, e.g., bird nests, damage. Ensure proper venting condition and reset limit switch located on draft hood. To reset limit switch, insert a long narrow object such as a pencil through the hole provided, and press in the button on the back of the limit switch.

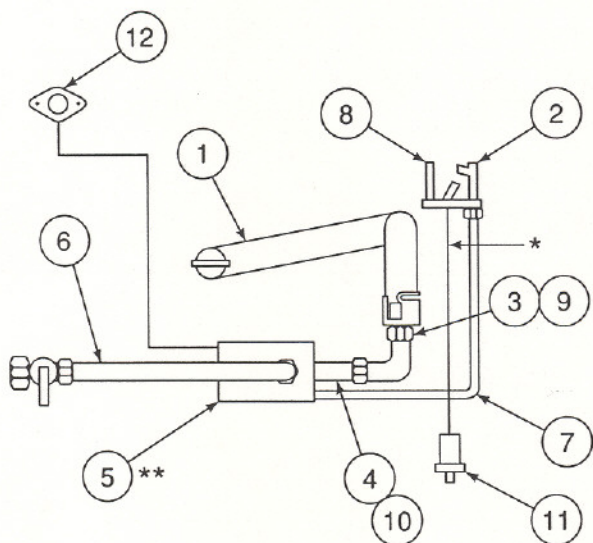
REPLACEMENT PARTS



ITEM	PART NO.	DESCRIPTION
1	15691	Rear Log
2	15693	Middle Log
3	15690	Front Log
4	18375	Vermiculite Shield



ITEM	PART NO.	DESCRIPTION
1	16274	Glass
2	16273	Glass w/Door Frame
3	16251	Ash Lip Assembly



ITEM	PART NO.	DESCRIPTION
1	18072	Burner
2	13406 13444	Pilot Assembly - Natural Pilot Assembly - Propane
3	13844 13845	Orifice - Natural Orifice - Propane
4	16242	Burner Tube
5**	71491 71492 71486 71485	Valve - Natural (Robertshaw) Valve - Natural (White-Rodgers) Valve - Propane (Robertshaw) Valve - Propane (White-Rodgers)
6	12303	Appliance Connector
7	17224 19241	1/4" Pilot Tubing (Robertshaw) 1/4" Pilot Tubing (White-Rodgers)
8	13411	Thermopile (Pilot Sensor)
9	13908	90° Elbow - Brass
10	13425	Male Connector - Brass
11	13416	Push Button Ignitor
12	16958	High Limit Switch

* If any of the original wiring as supplied with the appliance must be replaced, it must be replaced with Type 18 ga., 105C wire, or its equivalent.

**Valve identification must be made. They are marked White-Rodgers or Robertshaw.

Replacement parts are available from your distributor/dealer, or through Heatilator Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641.

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 lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING 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

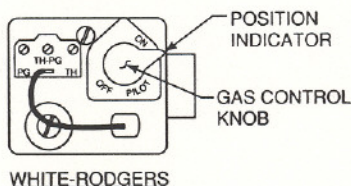
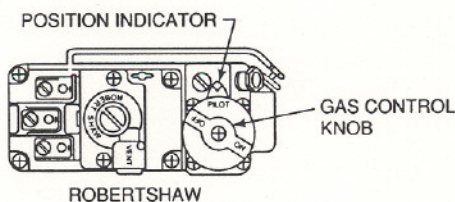
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the supplier's instructions.

- If you cannot reach your gas supplier, call the fire department.

- C. Use only your hand to push in or turn 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.

LIGHTING INSTRUCTIONS



1. STOP! Read the safety information above on this label.
2. Turn on/off switch to the "OFF" position.
3. Turn off all electric power to the appliance.
4. Remove control access panel.
5. Push in and turn gas control knob clockwise  to "OFF".




6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to next step.

7. Find pilot - follow metal tube from gas control. The pilot is behind the burner tube.



8. Turn knob on control counterclockwise  to "PILOT".
9. Push in the knob all the way and hold in. Immediately light the pilot by pressing the red ignitor button. Continue to hold the control knob in for about (1) minute after the pilot is lit. Release button and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
 - If button 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 to "OFF" and call your service technician or gas supplier.
10. Turn gas control knob counterclockwise  to "ON". Knob can be turned to "ON" only if the control knob is popped out.
11. Replace control access panel.
12. Turn on all electric power to the appliance.

TO TURN OFF GAS TO APPLIANCE

1. Turn off the on/off switch.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove control access panel.
4. Turn gas control clockwise  to "OFF". Do not force.
5. Replace control access panel.