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



G520CL G520CLL G520CR G520CRL INSTALLATION & OPERATING INSTRUCTIONS

I. LISTINGS AND CODE APPROVALS

These vented decorative gas appliances with standing safety pilot have been tested in accordance with National Safety Standards, and have been LISTED by Underwriters Laboratories Inc. and CERTIFIED by Warnock Hersey for installation and operation as described in these Installation & Operating Instructions in the United States and Canada.

Check with your local building code agency before you begin 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: Customer Relations Department, Heatilator Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641. HEATILATOR[®] is a registered trademark of Heatilator Inc., Division, HON INDUSTRIES.

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.

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.

G520CL, G520CLL, G520CR, G520CRL GAS APPLIANCES

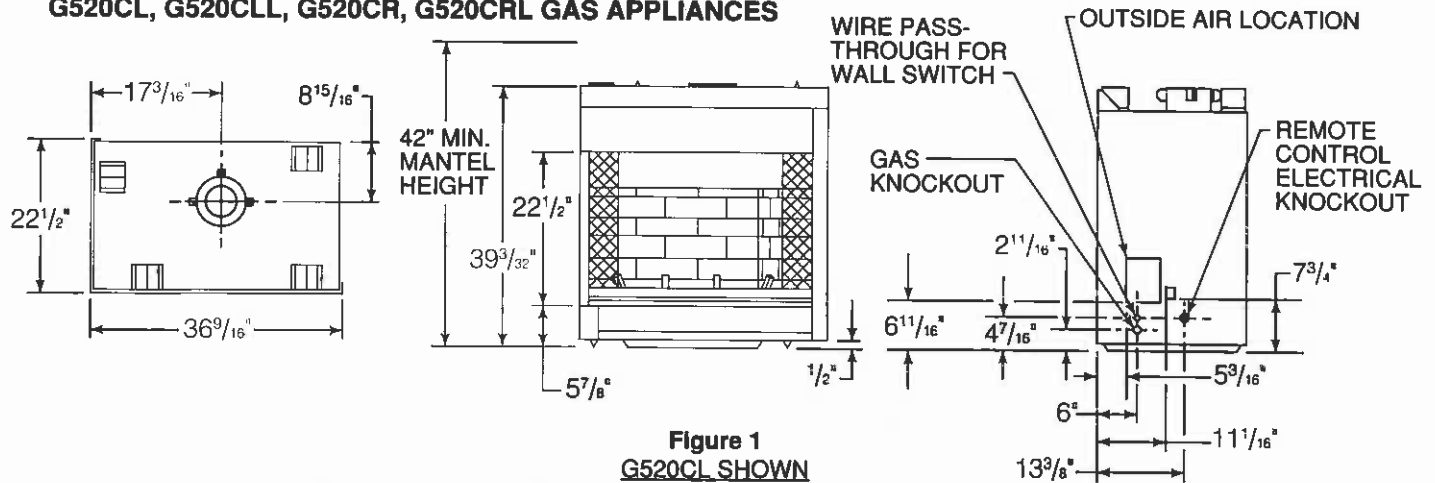


Figure 1
G520CL SHOWN

The table below shows only those components which may be safely used with these decorative gas appliances.

Catalog Number	Description
G520CL G520CR	6" Up Vent Natural Gas Decorative Appliance (Non-Circulator)
G520CLL G520CRL	6" Up Vent LP Gas Decorative Appliance (Non-Circulator)
GC36A	Glass Doors - Antique Brass
GC36B	Glass Doors - Polished Brass
JK4	Junction Box Kit (Required with RC4 Remote Control Kit only)
AK14	Air Kit - Outside Air
ID4	Insulated Duct/Outside Air
UD4	Uninsulated Duct/Outside Air
RC4	Remote Control Kit

II. GENERAL INFORMATION

This installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-1988 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.

This appliance is not intended for use with a thermostat.

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 unit 0", Floor 0", Back 1/2", Sides 1/2", Ceiling 30".

The 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 4.0 inches water column, and the maximum inlet gas pressure is 11.0 inches water column, for the purpose of input adjustment. Input rate is 28,000 BTU/HR. For LP Gas, the water column pressure must be at 11.0 inches minimum to 14.0 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 Z223.1-1988, Appendix F, for resizing orifice.

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 FLUE SERVICING A SEPARATE SOLID FUEL BURNING APPLIANCE.

WARNING

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

III. GAS APPLIANCE LOCATIONS, SPACE AND CONSTRUCTION REQUIREMENTS

The G520CL(CLL) or G520CR(CRL) gas appliances can be installed in a wide variety of ways and will fit nearly any room layout. The unit may be installed at a height level with the floor, or it can be raised up from the floor to enhance its visual impact. Figure 2 illustrates a variety of ways the appliance may be located in a room.

Proper clearances to combustible sidewalls, as illustrated in Figure 2, must be maintained.

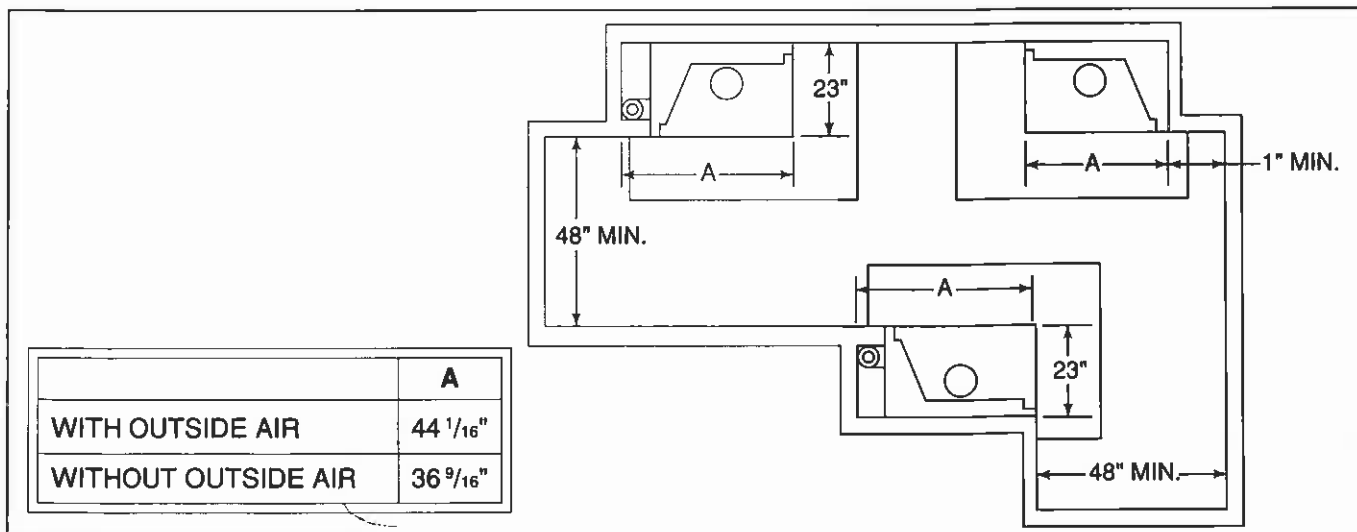


Figure 2

IV. STEP-BY-STEP INSTALLATION

STEP 1

Install the gas line piping up to the right side of the appliance. For a gas line connection of 25' long, it is recommended to use 1/2" pipe, then reduce to 3/8" pipe at the unit. A 3/8" NPT gas connection should be positioned 2 5/8" above the floor and 5 3/16" from the front of the unit. A separate shut-off gas valve (not supplied) should always be installed. Plan ahead for easy access.

STEP 2

If an optional RC4 Remote Control Kit is to be used, wiring should be done at this time. 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. A wiring diagram is provided with this accessory.

STEP 3

Slide the unit into position.

STEP 4

Secure the unit to the wall using a minimum of (2) fasteners per side.

□ STEP 5

Connect 6" listed type B-1 Vent to the vent collar of the appliance. Follow all B-1 Vent listings and requirements.

NOTE: Hints for venting installation:

1. Use 45° elbows versus 90° wherever possible.
2. In Northern climates, all chases must be insulated.
3. Run as much vertical rise as possible before elbowing.
4. Use only listed vent terminations.
5. All horizontal runs should have a 1/4 rise/ft. toward the termination.
6. All terminations must be in a vertical position.

□ STEP 6

Connect the wall switch wires to the valve as shown in Figure 4. To ease in making connections, remove the logs, grate, valve access and valve cover assembly. The wall switch should be installed in a convenient location. A wall switch and 18 ga. wire are provided with the unit. Pass the wire through the plastic wire pass-throughs located on the right hand side of the unit. **NOTE: The maximum length is 40 ft.** Connect the gas line to the appliance valve inlet, using 3/8" pipe. Check for gas leaks with a soap and water solution. See Figure 3 for the location of gas valve. It is recommended to use a flexible gas connector to ease in installation. Run the 3/8" pipe approximately 3" into the unit. Connect a 12" to 18" flexible connector to the pipe and valve. Return all components to their correct position.

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 7

If optional outside air is used, install before finishing. Minimum length of air duct ID4 is 12 inches, with a maximum 8' vertical height.

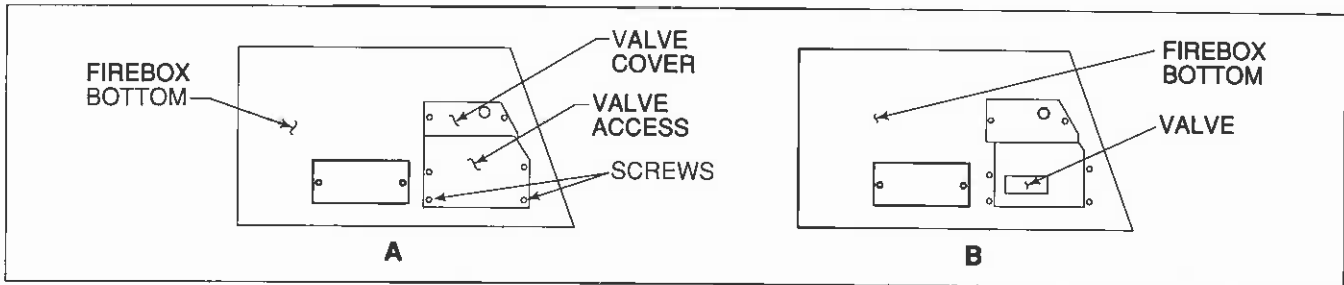


Figure 3

□ STEP 8

Finishing the Unit. When finishing the face of the unit, combustible material may be brought up to the sides of the unit, but must never overlap onto the black metal. The black metal may be covered with non-combustible material only. **NOTE: You cannot cover any of the air slots in the unit, as this may create a fire hazard.** If a mantel is to be used, a minimum of 42" from the base of the unit must be maintained.

□ STEP 9

Place Lava Rock in position after putting the valve access in position. Pour Lava Rock on the floor of the unit and spread evenly to cover base. Don't get any rock in burner. If you do, clean the burner with a vacuum.

□ STEP 10

Position logs as shown in the Replacement Parts section. The front and rear logs must be positioned against the inside of the burner supports to provide a 2 1/2" spacing between them.

V. 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.

LIGHTING PROCEDURE

1. Sweep back Lava Rock from valve access.
2. Turn the wall switch to the "Off" position.
3. Turn the gas knob to the "Off" position.
4. Wait five minutes to allow gas, that may have accumulated in the main burner compartment, to escape.
5. Turn the gas knob to the "Pilot" position.
6. Depress and hold the gas knob while pressing the ignitor button. Allow pilot to burn for 1 1/2 minutes before releasing gas knob.
7. Turn gas knob to the "On" position.
8. Turn wall switch to the "On" position. This will turn on the main burner.

SHUTDOWN PROCEDURE

1. To shut off the main burner, move the wall switch to the "Off" position.
2. Turn the valve gas knob to the "Off" position.

PILOT BURNER ADJUSTMENT (Preset at factory)

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

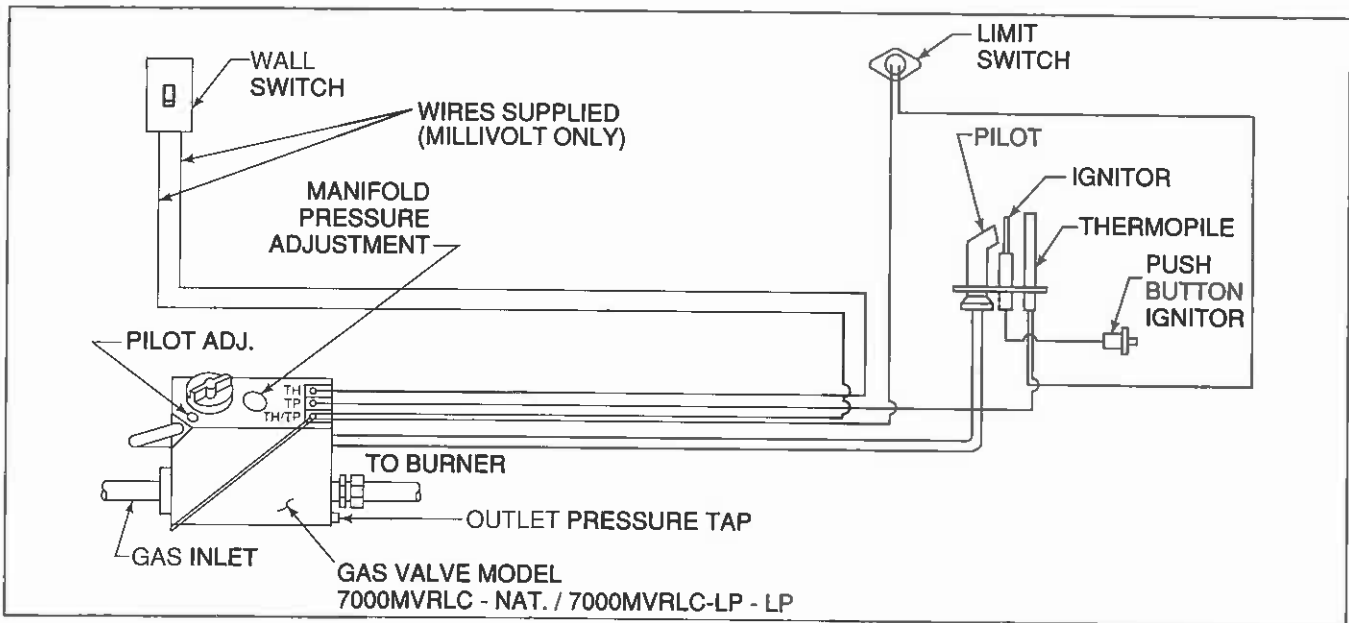


Figure 4

MAINTENANCE INSTRUCTIONS

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

Periodically visually check the flame of the pilot and burner, 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 5 and 6.

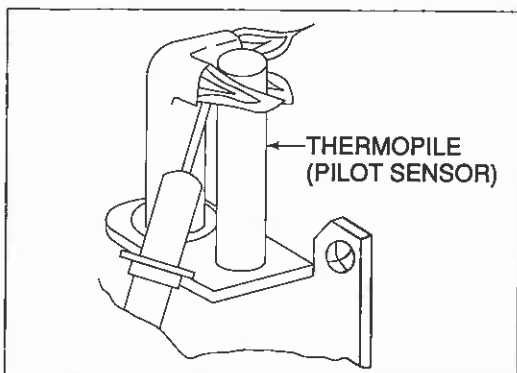


Figure 5

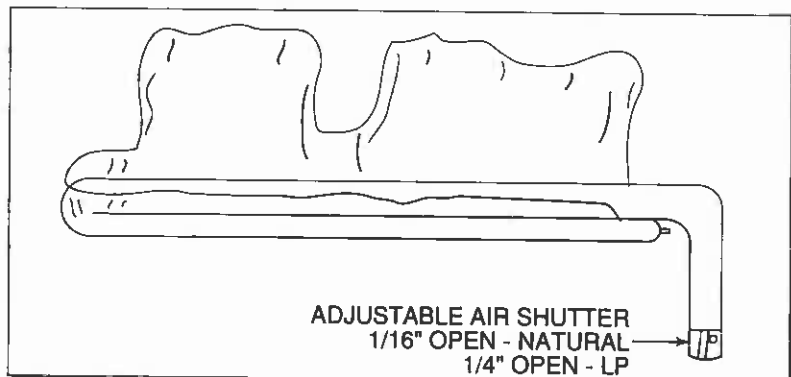


Figure 6

The appliance and venting system should be inspected before use, or at least annually, by a qualified field service person, to ensure that the flow of combustion and ventilation air is not obstructed.

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.

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.

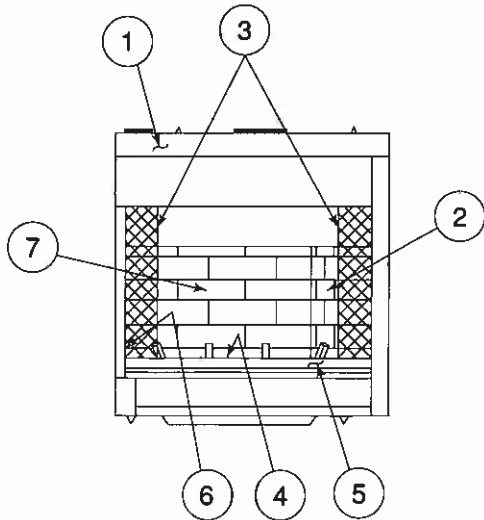
NOTE: Each time the appliance is lit it may cause condensation and fog the glass. This condition will disappear in a few minutes.

LOG REPLACEMENT: 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. The front and rear logs must be positioned against the inside of the burner supports to provide a 2 1/2" spacing between them. The top logs must be in the position as shown. **NOTE: Improper positioning of logs may create carbon build-up and will alter the unit's performance.**

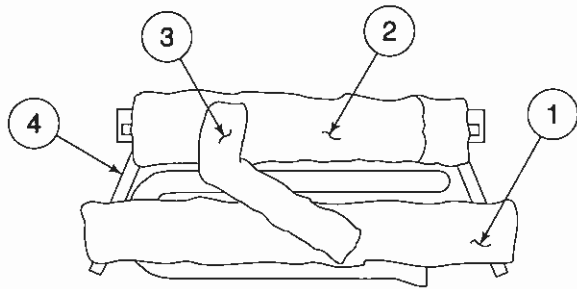
TROUBLE SHOOTING

<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.	Check for loose connections on electrode and ignitor. Check for spark. If electrode connection is correct and no spark, replace ignitor.
	B. Misaligned electrode at pilot.	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 Fig. 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 thermopile.
3. With pilot lit, valve and wall switch in "ON" position, no gas to burner.	A. Wall switch defective.	Check wall switch for proper connections. Connect wires across terminal at wall switch. If burner comes on, replace wall switch. If burner does not come on, connect to wall switch junctions at valve. If burner comes on, replace wires.
	B. Plugged burner orifice.	Check burner orifice; remove blockage.

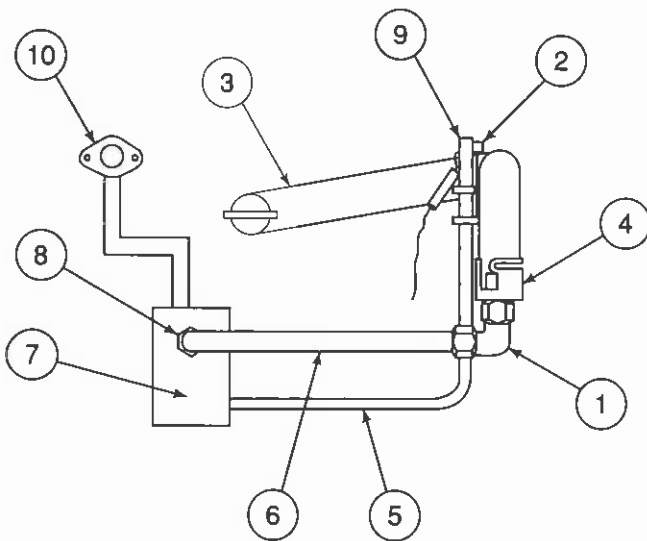
REPLACEMENT PARTS



ITEM	PART NO.	DESCRIPTION
1	12619	Top Front G520CL/L
	12620	Top Front G520CR/L
2	11821	Side Refractory
3	12332	Screen
4	14336	Lava Rock
5	14252	Front Ash Lip
6	12593	Side Ash Lip
7	12589	Back Refractory



ITEM	PART NO.	DESCRIPTION
1	14069	Front Log
2	13422	Back Log
3	14070	Top Log
4	15321	Grate G520CR/L
	15322	Grate G520CL/L



ITEM	PART NO.	DESCRIPTION
1	13908	Elbow
2	15217	Pilot W/Bracket - Natural
	15228	Pilot W/Bracket - LP
3	13858	Burner Ass'y. G520CL/L
	15269	Burner Ass'y. G520CR/L
4	13410	Orifice - Natural
	13445	Orifice - LP
5	15276	Pilot Tube G520CL/L
	15280	Pilot Tube G520CR/L
6	15277	Burner Tube
7	12191	Valve - Natural
	14160	Valve - LP
8	13425	Male Connector
9	13411	Thermopile
10	13595	Limit Switch


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

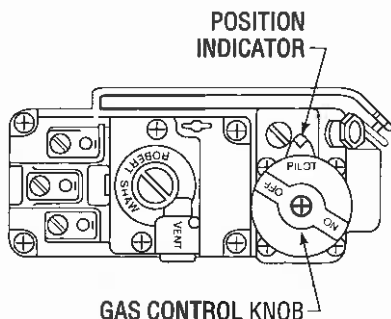
FOR YOUR SAFETY READ BEFORE LIGHTING



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


LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn wall switch to the "OFF" position.
3. Turn off all electric power to the appliance.
4. Remove control access panel.
5. Turn gas control knob clockwise  to "OFF".
7. Find pilot-follow metal tube from gas control. The pilot is behind the burner tube.



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.
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 wall 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.