

This appliance may be constructed with a vertical or horizontal direct vent termination system.



heatilator®
The first name in fireplaces

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

GC300FL & GC300ST HEAT CIRCULATING SERIES GAS APPLIANCES **OWNERS MANUAL** AND INSTALLATION INSTRUCTIONS

MODELS:

GC300FL, GC300FLE, GC300FLE, GC300ST, GC300STE, GC300STLE
CERTIFIED FOR USE IN USA AND CANADA

This manual must be used for installation of the GC300FL and GC300ST Series Gas Appliances and retained by the homeowner for operating and maintenance instructions.

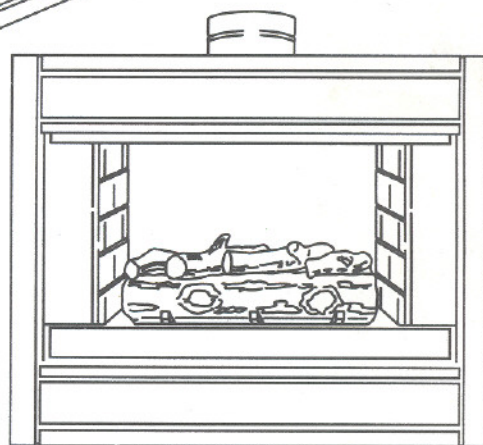
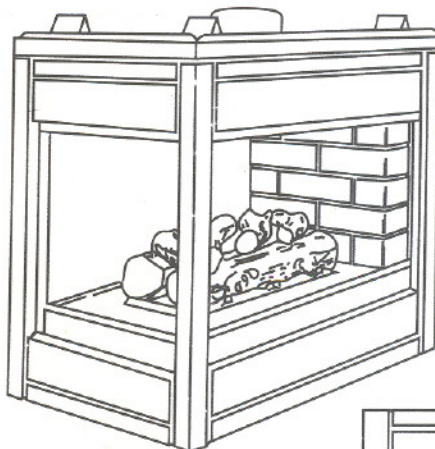
FOR YOUR SAFETY

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.

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.



FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.



Electrician: Please refer to page 15 for wiring instructions.

Plumber: Please refer to page 6 and 13 for gas connection information.

Framer: Please refer to page 7 for framing specifications.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.

Table of Contents

I.	Listings and Code Approvals.....	3
II.	Description of the Fireplace System.....	3
III.	Fireplace System Components and Dimensions.....	4
IV.	Pre-Installation Preparation	6
	A. Gas Pressure.....	6
	B. High Altitude Installation.....	6
	C. Fireplace Locations and Space Requirements.....	6
	D. Clearances	6
	E. Framing The Fireplace	7
	F. Finishing Materials	7
V.	Step-By-Step Installation of the System	8
	A. Horizontal Termination	8
	B. Vertical Termination	11
VI.	Operating Instructions	20
	A. Standing Pilot Operation	22
	B. Electronic Ignition Operation	23
VII.	Maintenance Instructions.....	24
VIII.	Trouble Shooting	25
IX.	Replacement Parts	27

Safety Precautions

1. Please read these installation instructions completely before beginning installation procedures. Failure to follow them could cause an appliance malfunction resulting in serious injury and/or property damage.
2. Always check your local building codes prior to installation. This installation must comply with all local, regional, state and national codes and regulations.
3. Installation and repair should be done by a qualified service person. This appliance should also be inspected annually by a qualified service person. More frequent inspections/cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.
4. The GC300FL/GC300ST fireplace is a vented decorative gas appliance. Do not burn wood or other material in this appliance.
5. NEVER leave children unattended when there is a fire burning in the appliance.
6. This fireplace may be vented horizontally through an outside wall or vertically above the roof line and must not be connected to a chimney flue servicing a solid fuel burning appliance.
7. NEVER use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this appliance. Keep any flammable liquids a safe distance from the appliance.
8. While servicing this appliance, always shut off all electricity and gas to the appliance. This will prevent possible electrical shock or burns. Also, make sure the unit is completely cooled before servicing.
9. 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 testing.
10. 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.
11. Be sure to provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.



I. LISTINGS AND CODE APPROVALS

U.S. Certification

The GC300FL/GC300ST Series Gas Appliance has been tested in accordance with the ANSI standard Z21.50b-1990 and has been listed by Warnock Hersey for installation and operation as described in these Installation and Operating Instructions. All components are A.G.A. or UL safety certified.

Canada Certification

The GC300FL/GC300ST Series Gas Appliance has been tested in accordance with the CAN/CGA-2.22-M86 and LR41 and has been listed by Warnock Hersey for installation and operation as described in these Installation and Operating Instructions. All components are C.G.A. or C.S.A. safety certified.

Local codes

Check with your local building code agency prior to installing this appliance to ensure compliance with local codes, including the need for permits and follow-up inspections. 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, in the U.S.A. and the CANI-B149-latest edition, in Canada.

Optional components

This gas appliance has been tested and listed for use with the optional components listed on page 4. Many

optional components may be purchased separately and installed at a later date. However, installation of a remote control or fan kit will require electrical power. To avoid costly reconstruction, electrical power should be connected to the unit at the time of the initial fireplace installation for possible addition of these accessories at a later date.

Fuel

Any additions, changes or conversions required in order for the appliance to satisfactorily meet the application needs must be made by a Heatilator distributor using factory specified and approved parts.

The standing pilot models are manufactured to use natural gas. They can be converted to use propane, but only if done by a qualified Heatilator distributor and only if the CKP Natural Gas to Propane Gas Conversion kit is used. In the event your appliance must be converted back to natural gas from propane, you must use a CKN Propane Gas to Natural Gas Conversion Kit.

If any assistance is required during installation please contact your local dealer or contact Heatilator Customer Relations Department, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641.

HEATILATOR® is a registered trademark of Heatilator Inc., a HON INDUSTRIES company.

II. DESCRIPTION OF THE FIREPLACE SYSTEM

The GC300FL/GC300ST is a direct vent decorative gas appliance. Combustion air is supplied from outside, not from inside the house as with other types of fireplaces. While a significant amount of heat may be created by the GC300FL/GC300ST, it should not be used as a heater.

This HEATILATOR fireplace system consists of the following:

1. Fireplace
2. Chimney System
3. Termination

Optional components include:

1. Fan kit
2. Remote control
3. Trim

Note: Illustrations throughout these instructions reflect typical installations and are for design purposes only. Actual installation may vary slightly due to individual design preferences. However, minimum and maximum clearances must be maintained at all times.

The illustrations and diagrams used throughout these installation instructions are not drawn to scale.

Tools and building supplies normally required for installation.

Tools

Saw
Pliers
Hammer
Phillips screwdriver
Tape measure
Plumb line
Leveler
Electrical drills/bits
Square

Building Supplies

Wall-finishing materials
Framing material
Fireplace surround
Caulking material

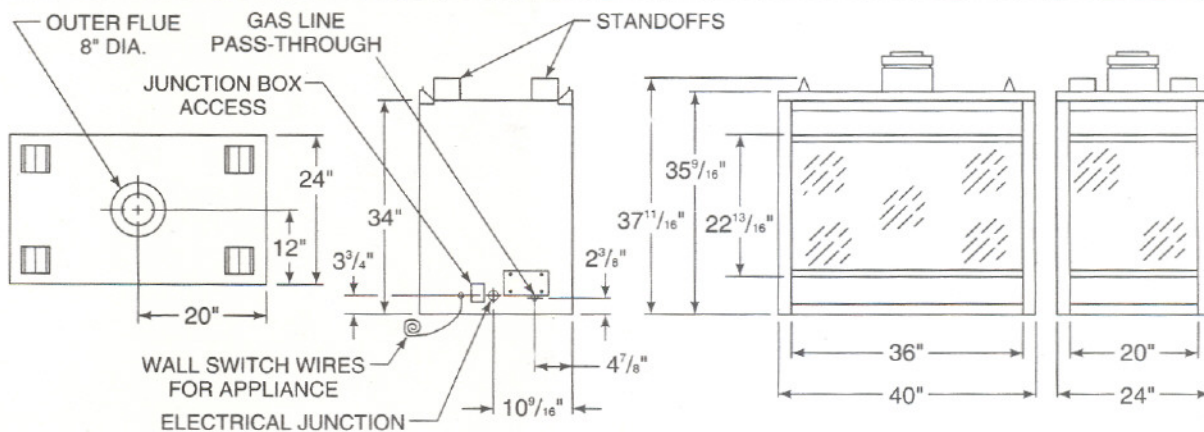
Note: Operation of a direct vent fireplace may be sporadic in high wind situations.



III. FIREPLACE SYSTEM COMPONENTS

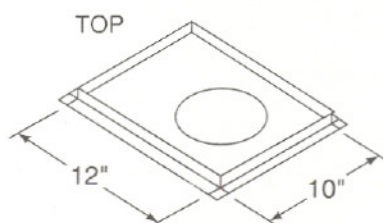
The table below is a list of only those components which may be safely used with this fireplace. An illustration of each component can be found on page five.

Catalog Number	Description
GC300FL	Peninsula natural gas, standing pilot, gas fireplace
GC300FLE	Peninsula natural gas, electronic ignition, gas fireplace
GC300FLE	Peninsula propane gas, electronic ignition, gas fireplace
GC300ST	See-Through natural gas, standing pilot, gas fireplace
GC300STE	See-Through natural gas, electronic ignition, gas fireplace
GC300STLE	See-Through propane gas, electronic ignition, gas fireplace
	(Natural gas, standing pilot models, may be converted to propane gas using the CKP conversion kit)
CKP	Natural gas to propane gas conversion kit (standing pilot models only)
BC10	Fan motor rheostat control (ST series only)
BC11	Automatic Variable Blower Control
CS200	Direct vent cap shield (for horizontal termination)
CV6	Vertical termination cap
DF301A	Fixed Door - Antique Brass
DF301B	Fixed Door - Bright Brass
DF315	Fixed Door - End Panel for GC300FL ONLY
EL45	45 degree elbow
FK4	Fan kit, 160 CFM (ST series only)
FS6	Firestop spacer (for vertical termination)
GK1	Black louver kit for heat circulation (required with FK4)
RC4	Remote control (standing pilot)
RC5	Remote control (electronic ignition)
RF6	Roof Flashing (for vertical termination)
TA1	Horizontal termination kit including one termination cap, one 15942B (starter elbow) and one VK24 (chimney section)
TKFLA	Trim kit, antique brass finish (FL series only)
TKFLB	Trim kit, bright brass finish (FL series only)
TKSA	Trim kit, antique brass finish (ST series only)
TKSB	Trim kit, bright brass finish (ST series only)
VK5	90 degree elbow
VK12	12" length vent pipe
VK24	24" length vent pipe
VK36	36" length vent pipe
VK48	48" length vent pipe
VS4	Vertical vent support
WS6	Wall shield to ensure horizontal clearances
15942B	Starter elbow

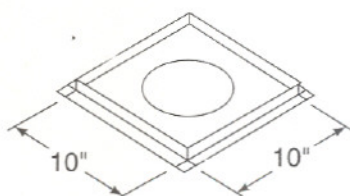


Fireplace Dimensions

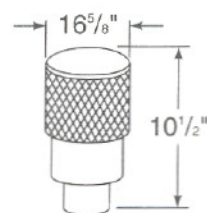
Please refer to page 7 for framing dimensions.



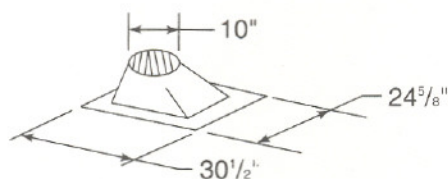
WS6
Wall Shield



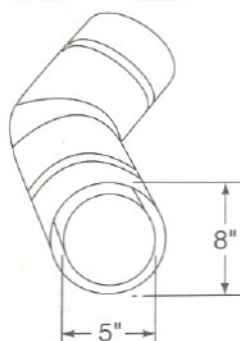
FS6
Firestop Spacer



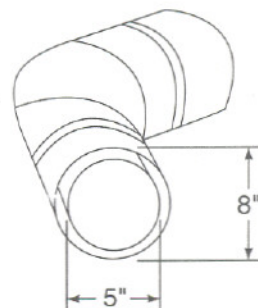
CV6
Vertical Termination Cap



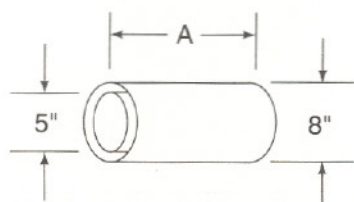
RF6
Roof Flashing



EL45
45° Elbow

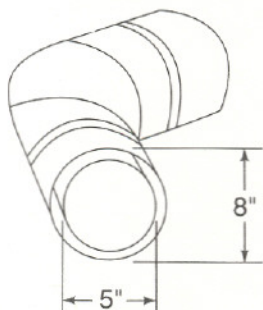


VK5
90° Elbow

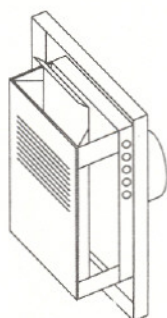


Chimney Section	A	
	Actual length	Useable length
VK12	12"	10 3/4"
VK24	24"	22 3/4"
VK36	36"	34 3/4"
VK48	48"	46 3/4"

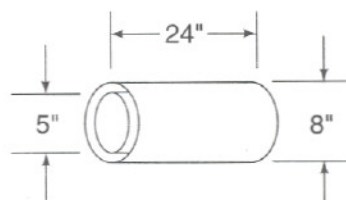
Chimney Sections



15942B, Starter Elbow
(Must be the elbow closest to unit when horizontal venting begins.)



Termination Cap



VK24
Chimney Section

TA1
Horizontal Termination Kit



IV. PRE-INSTALLATION PREPARATION

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.

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

WARNING: THIS APPLIANCE MAY ONLY USE THE DIRECT VENT CHIMNEY SYSTEM SUPPLIED WITH THE UNIT AND MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVICING A SEPARATE SOLID FUEL OR GAS FUEL BURNING APPLIANCE.



A. GAS PRESSURE

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 36,000 Btu/hr. For propane gas, the inlet gas supply pressure must be at least 11.0 inches water column and a maximum 14.0 inches water column. (For standing pilot models only, see CKP Natural Gas to Propane Gas Conversion Kit installation instructions.)

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.

Optimum manifold pressure is 3.5 inches water column for natural gas and is 10.5 inches water column for propane gas.

B. HIGH ALTITUDE INSTALLATION

For U.S. installation, units are tested and approved for elevations from 0-2000 feet.

When installing this unit at an elevation above 2000 feet, United States codes require a decrease of the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4 percent for each 1000 feet above sea level. Check with the local gas utility for proper orifice size identification. This unit uses a .110 in./2.79 mm. orifice size on natural gas versions and a .070 in./1.78 mm. orifice size on propane gas converted versions.

For Canadian installation, units are certified for elevations from 0-4500 feet. When installing this unit at an elevation between 0-4500 feet in Canada, the input rating does not need to be reduced.

When installing this unit at an elevation above 4500 feet in Canada, check with local authorities.

Consult your local gas company for assistance in determining the proper orifice for your location or refer to ANSI Z223.1-latest edition, Appendix F.



C. FIREPLACE LOCATIONS AND SPACE REQUIREMENTS

This appliance may be installed along a wall, across a corner or use an exterior chase. The GC300FL/ GC300ST Series 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 1 illustrates a variety of ways the appliance may be located in a room. These appliances are also certified for installation in a bedroom or bed/sitting room in the U.S. and Canada.

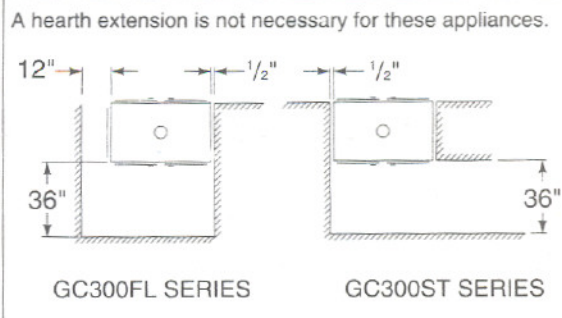


Figure 1
Fireplace Locations and Clearances

D. CLEARANCES

The following clearances to combustibles must be maintained: Minimum clearances to the top standoffs of the unit - 0", floor - 0", back - 1/2", sides - 1/2", face of the unit to ceiling - 30". Minimum clearances to venting are as follows: Horizontal runs require a 3" minimum air space on the top and a 1" minimum air space on the sides and bottom of the chimney section. Vertical rise sections require a 1" minimum air space completely around the chimney section.

E. FRAMING THE FIREPLACE

Note: If an optional fan (FK4) or hand held remote control (RC4 or RC5) are to be used, wiring must be done prior to finishing to avoid reconstruction. The remote wall switch must be wired prior to applying the finishing material in order to avoid reconstruction.

The GC300FL Series Gas Appliance will fit a framed opening of 22 $\frac{3}{4}$ " wide x 37 $\frac{13}{16}$ " tall. The cavity depth must be no less than 40 $\frac{1}{2}$ " as shown in Figure 2. (Note the $\frac{5}{8}$ " drywall lips on each side of the appliance.)

The GC300ST Series Gas Appliance will fit a framed opening of 22 $\frac{3}{4}$ " wide x 37 $\frac{13}{16}$ " tall. The cavity depth must be no less than 41" as shown in Figure 2. (Note the $\frac{5}{8}$ " drywall lips on each side of the appliance.)

A window may be constructed 55" from the base of the unit, a shelf 49" from the base, and a mantle 44" from the base.

For best results, do not construct framing until the unit is in place. If it is decided to construct the framing before the unit is in place, allow room to position the appliance. This space can then be filled later.

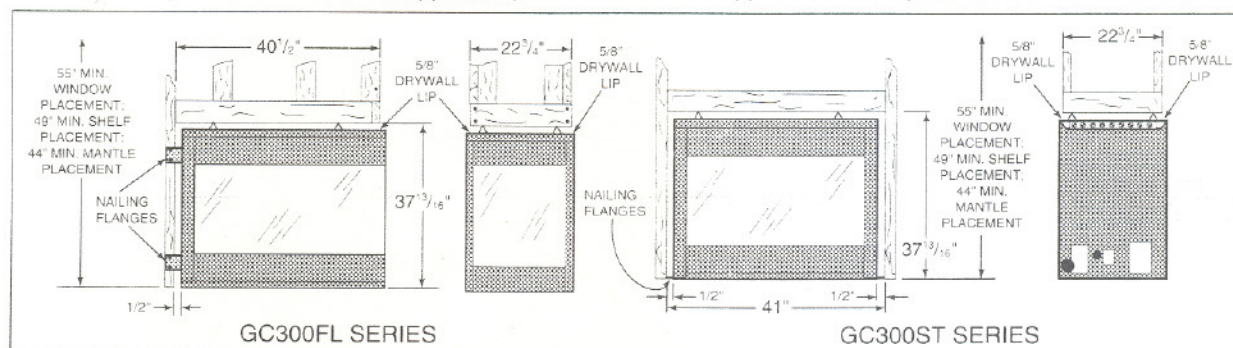


Figure 2
Framing the Fireplace

Figure 2 shows a typical framing of this fireplace assuming combustible materials are used. All required clearances to combustibles around the fireplace must be adhered to. A 1/2" air clearance must be maintained at the back and sides of the firebox assembly. Any framing on top of the fireplace must be above the top standoffs. Chimney sections for a horizontal run require a 3" minimum air space on top and a 1" minimum air space on the sides and bottom. Vertical rise sections require a 1" minimum air space completely around the chimney section.

Flue outside diameter: 8"

Minimum firestop framing: 10" x 10"

Face of header to center of firestop framing: 11 $\frac{1}{8}$ "

F. FINISHING MATERIALS

Only non-combustible materials may be used to cover the black fireplace front.

Combustible Finishing Material. Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or unplastered.

Non-combustible Finishing Material. Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or combination thereof.

High Temperature Sealant Material. Sealants that will withstand high temperatures; General Electric

RTV103 (Black), or equivalent. Rutland, Inc. Fireplace Mortar #63, or equivalent.

After completing the framing and applying the finishing material (dry wall) over the framing, a non-combustible sealant, one-half inch wide maximum, must be used to close off any gaps at the top and sides between the fireplace and facing to prevent cold air leaks. See Figure 3.

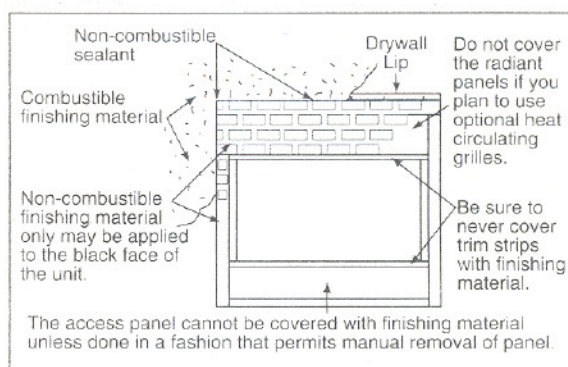


Figure 3
Finishing Materials

WARNING

OPTIONAL GRILLES ON THIS APPLIANCE CANNOT, IN ANY WAY, BE COVERED AS IT MAY CREATE A FIRE HAZARD.



V. STEP-BY-STEP INSTALLATION OF THE FIREPLACE SYSTEM

WARNING

BEFORE STARTING, DO THE FOLLOWING:

1. **WEAR GLOVES AND SAFETY GLASSES FOR PROTECTION.**
2. **KEEP HAND TOOLS IN GOOD CONDITION. SHARPEN CUTTING EDGES AND MAKE SURE TOOL HANDLES ARE SECURE.**
3. **ALWAYS MAINTAIN THE MINIMUM AIR SPACE REQUIRED TO THE ENCLOSURE TO PREVENT FIRE.**

STEP 1 - Positioning the firebox

This fireplace may be placed on a combustible or non-combustible continuous, flat surface. Slide the unit into position and level the fireplace from side-to-side and front-to-back. Shim with non-combustible material, such as sheet metal, as necessary.

Secure the fireplace by nailing the nailing flanges, located on each side of the fireplace, to the framing.

STEP 2 - Termination

Two types of termination are available for this appliance, horizontal and vertical. For vertical termination, skip section A and advance to section B on page 11.

A. Horizontal Termination

Minimum combustible clearances to the vent on a horizontal run is 3" on top and 1" on the bottom and sides. These clearances must be maintained at all times. The maximum horizontal run allowed for venting is 26 feet. The maximum vertical rise allowed for horizontal termination is 25 feet. See Figure 4.

1. Assembling chimney sections. Attach either a 15942B (starter elbow) or straight pipe section (depending upon your specific installation) to the top of the appliance. Secure with the three screws supplied. Use only pipe supplied and listed for use with this appliance and the appropriate number of direct vent sections. **MAINTAIN MINIMUM CLEARANCES OR GREATER AROUND THE CHIMNEY SYSTEM.** Do not pack air spaces with insulation or other material.

a. Using elbows. The maximum horizontal distance this chimney may reach is 26 feet. A single vertical-to-horizontal elbow is already calculated into the allowable 26 foot run. Each additional elbow reduces the maximum horizontal distance by 3 feet. Example, by using three total elbows, the maximum horizontal distance has been reduced to 20 feet (3 - 1 = 2 elbows x 3' = 6'; 26' max. - 6' of elbows = 20' of horizontal run).

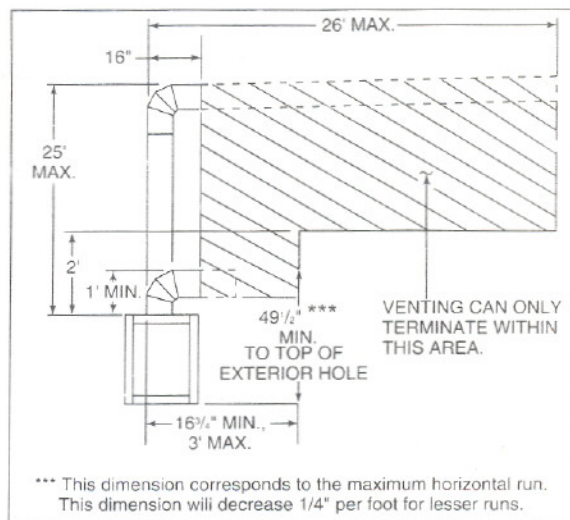


Figure 4
Horizontal Length

Note: The horizontal run of vent must have a 1/4" rise for every 1 ft. of run towards the termination. Never allow the vent to run downward. This could cause high temperatures and may present the possibility of a fire.



b. Amount of venting required. Due to the many different combinations that can be used when constructing venting, the number of chimney sections required can only be determined by the installer.

Note: Horizontal runs will require the use of one Vent Support (VS4) for every 3' of vent.

2. Preparing the wall for interior wall shield. A hole measuring 10" wide x 12" high must be cut and framed in the exterior wall where venting will be terminated. If the wall being penetrated is constructed of non-combustible material, i.e. masonry block or concrete, a 9" diameter port is acceptable.

The hole must be positioned so the chimney system will have a 1/4" rise AND be perpendicular to the wall. See Figure 5. The height of the hole must be located to meet all local and national codes and not be easily blocked or obstructed. The minimum height to the top of the exterior wall hole is 49 1/2" from the base of the unit. This figure will increase by the length of each vertically positioned chimney section added to the venting system.

3. Interior Wall Shield. An interior wall shield must be installed each time the venting system penetrates a wall. This shield has been designed to maintain the minimum clearances needed for the venting system and prevent cold air infiltration.

After the venting hole has been cut and framed, secure an interior wall shield into position with four 1" fasteners, one in each corner. Bend out the tabs located on the inner portion of the wall shield and use a 1/2" screw to secure each tab to the penetrating pipe. See Figure 6. (1/2" screws are used to avoid penetrating the inner pipe.)

Note: Exterior wall thickness must be a minimum of 4" to a maximum of 23 1/2".

4. Venting through the wall. Horizontal venting must terminate within the shaded area shown in Figure 4 on the previous page. For example, if your vertical rise is the minimum one foot, venting can terminate anywhere between 16 inches and 3 feet.

The last section of vent may require cutting, depending upon wall thickness and appliance location. The end of the vent must penetrate the exterior wall. Cut the pipe so the outer vent section extends past the exterior wall by 1" and the inner vent section extends past the exterior wall by 2". See Figure 7.

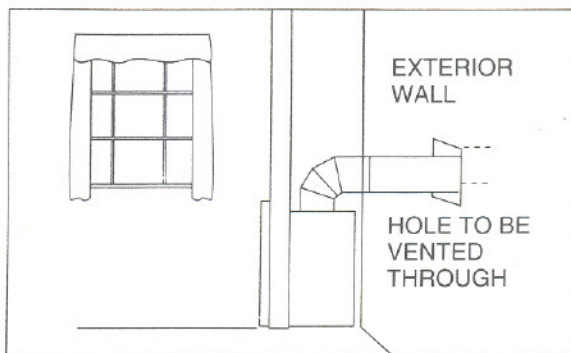


Figure 5
Exterior Wall Hole

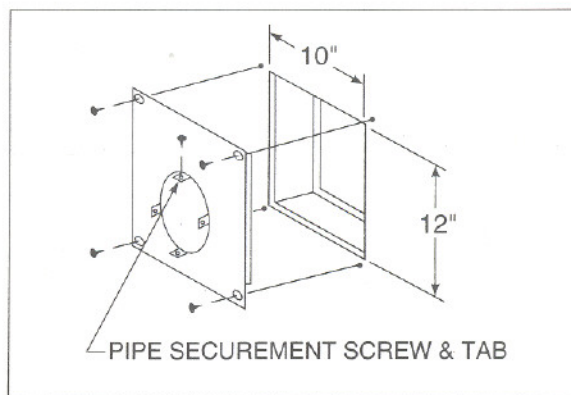


Figure 6
Interior Wall Shield

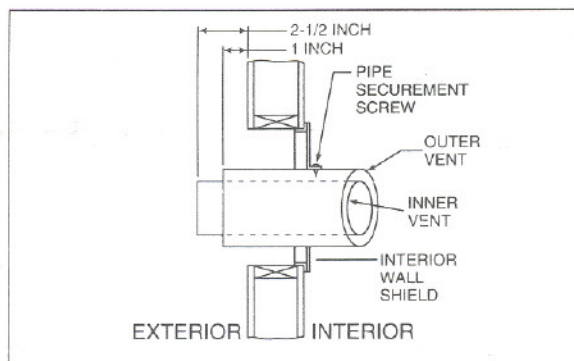


Figure 7
Venting Through the Wall

NOTE: IF THE TERMINATION CAP IS SURROUNDED BY VINYL SIDING OR IS LOCATED BELOW A VINYL SOFFIT, A VINYL SIDING SHIELD MUST BE USED TO PREVENT DAMAGE TO THE VINYL.



5. Termination Cap. Vent termination must not be recessed into the wall or siding. Figure-8 illustrates termination cap locations and minimum

dimensions for each termination application. Or, follow ANSI Z223.1, latest edition.

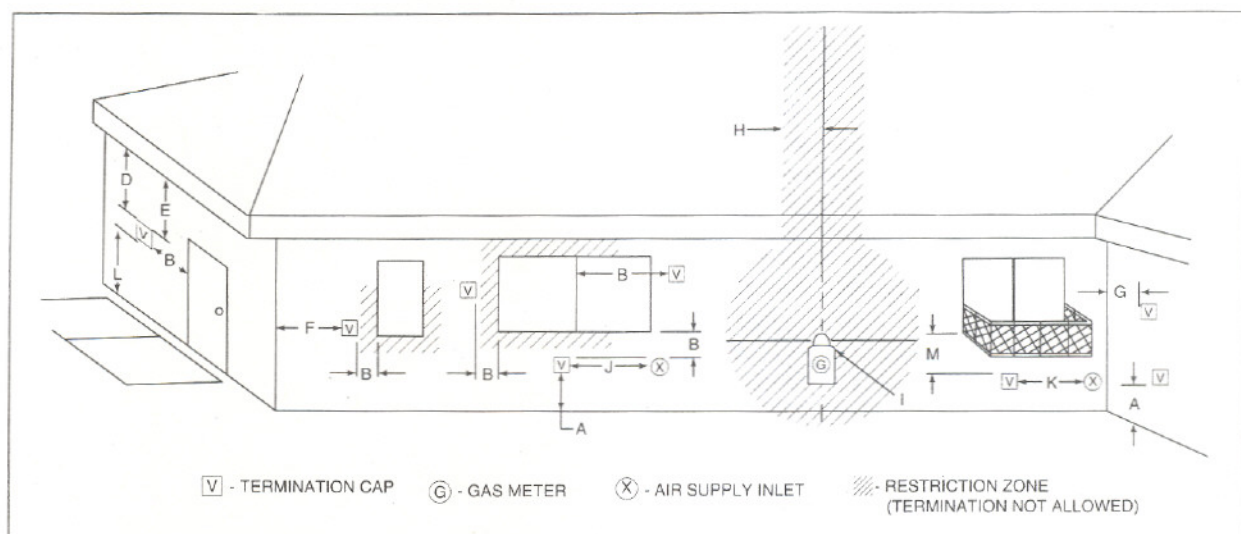


Figure 8
Termination Cap Locations

Dimension Descriptions

- A = Clearance above the ground, a veranda, porch, deck, or balcony - **12 inches (30 cm) minimum.**
- B = Clearance to window or door that may be opened - **9 inches (30 cm) minimum.**
- D* = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal - **18 inches (46 cm) minimum.**
- E* = Clearance to unventilated soffit - **12 inches (30 cm) minimum.**
- F = Clearance to outside corner - **9 inches as tested.**
- G = Clearance to inside corner - **9 inches as tested.**
- H* = Not to be installed above a meter/regulator assembly **within 3 feet (90 cm) horizontally** from the center-line of the regulator.
- I* = Clearance to service regulator vent outlet - **6 feet (1.8 m) minimum.**
- J = Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance - **12 inches (30 cm) minimum.**

- K* = Clearance to mechanical air supply inlet - **6 feet (1.8 m) minimum.**
- L+ = Clearance above a paved sidewalk or paved driveway located on public property - **7 feet (2.1 m) minimum. Use of a CS200 will reduce this dimension to as low as 12 inches (30 cm).**
- M# = Clearance under veranda, porch deck, or balcony - **12 inches (30 cm) minimum.**
- + = A vent must not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.
- # = Only permitted if veranda, porch deck, or balcony is fully open on a minimum of 2 sides beneath the floor.
- = As specified in Installation Codes. Note: Local codes or regulations may require different clearances.
- * = Increased distance required for vinyl soffit materials.
- = As specified in CGA B149 Installation Codes (1991). Note: Local Codes or Regulations may require different clearances.



To install the termination cap, slide the cap pipe sections into the vent pipe as shown in Figure 9. Secure the cap flush to the wall using the eight 1" fasteners provided. Seal the cap to the wall with a mastic such as silicone caulking. Fasten the inner vent with three 1/2" screws to secure the vent. (An optional CS200 cap shield is required if the cap is located in an area of easy accessibility. See Figure 10.) Vent termination **must not** be recessed into the wall or siding.

Be sure to follow all termination cap location minimum dimensions that have been discussed on the previous page.

Skip section B below and continue with Step 3 on page 13.

B. Vertical Termination

When planning your fireplace location, the chimney construction and necessary clearances must be considered. The following figures are the maximum distances from the base of the unit, as well as the minimum air space clearances that must be maintained: Maximum straight unsupported rise - 25 feet; maximum horizontal unsupported run - 3 feet; air space clearances around vertical venting - 1" on all sides; air space clearances around horizontal venting - 3" on top and 1" on sides and bottom; maximum height - 40' from the base of the unit. Every 1' of horizontal run requires at least 2' of vertical rise. (Example: a 12' overall installation height may be offset as much as 6' horizontally.) The maximum is 20 feet.

1. Assembling chimney sections. Attach either a 15942B (starter elbow) or straight pipe section (depending upon your specific installation) to the top of the appliance. Secure with the three screws supplied. Use only pipe supplied with this appliance and the appropriate number of direct vent sections. **MAINTAIN MINIMUM CLEARANCES OR GREATER AROUND THE CHIMNEY SYSTEM.** Do not pack air spaces with insulation or other material.

a. Using elbows. To bypass any overhead obstructions, the chimney may be offset using either a 45° elbow (EL45) or a 90° elbow (VK5). Vent stabilizers (VS4) have straps for securing these parts to joists or rafters. Plumbers tape may be purchased locally and used in conjunction with vent stabilizers. See Figure 11.

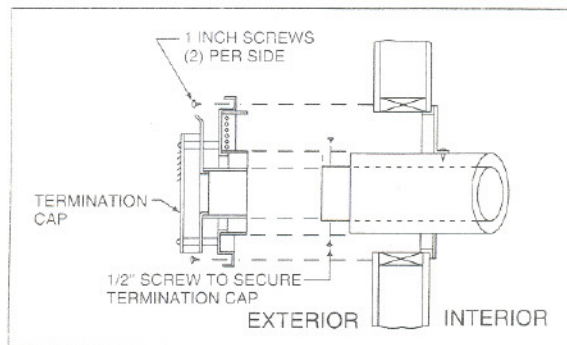


Figure 9
Termination Cap

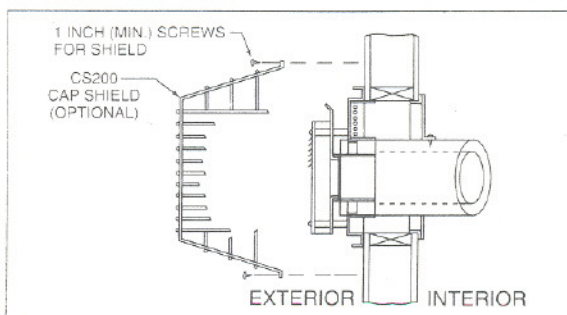


Figure 10
Cap Shield

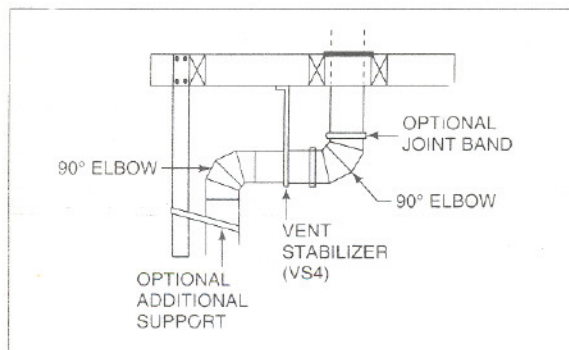


Figure 11
Elbows with stabilizer

WARNING

WHEN VENT SECTIONS EXCEEDING 3 FEET IN LENGTH ARE INSTALLED BETWEEN AN OFFSET/RETURN, STRUCTURAL SUPPORT (VS4) MUST BE PROVIDED TO REDUCE OFF-CENTER LOADING AND PREVENT VENT SECTIONS FROM SEPARATING AT THE VENT JOINTS.



2. Preparing the ceiling for firestop spacers.

Mark and cut out an opening in the ceiling for the firestop spacer. Frame the opening with the same size lumber used in the ceiling joists. Unless the flue is offset, frame the 10" x 10" opening directly over the firebox.

3. Installing the firestop spacers. Firestop spacers must be used whenever the chimney penetrates a ceiling/floor area.

In all situations, firestop spacers are to be nailed to the ceiling joists from the bottom or fireplace side, EXCEPT when the space above is an insulated ceiling or attic space. In this situation, the firestop spacer must be nailed from the top side to prevent loose insulation from falling into the required one inch air space around the chimney. See Figure 12. Install the firestop spacer (FS6) by positioning and nailing the four sides of the firestop spacer to the joists using a minimum of three nails per side.

4. Securing chimney system. Continue assembling the chimney sections up through the firestop spacers as needed. Pipe sections must be locked into position with the screws provided, using the predrilled holes.

Note: Be sure to provide intermediate support for the vent during construction and check to be sure inadvertent loading has not dislodged the vent from the appliance or any vent joint.

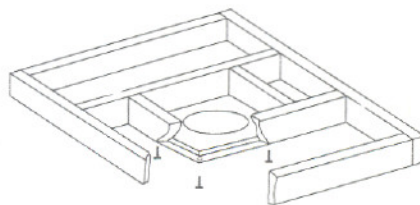
5. Marking the exit point in the roof. Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 13.

6. Cutting out the hole in the roof. Measure to either side of the nail and mark the 10" x 10" opening required. This is measured on the horizontal; actual length may be larger depending on the pitch of the roof. Cut out and frame the opening. See chapter 25 of the Uniform Building Code for Roof Framing details. A one inch minimum air space clearance must be maintained between the chimney section and the roof.

7. Install roof flashing or site-produced chase top. Position a roof flashing or a site-produced chase top and secure in place with nails.

8. Assembling chimney sections. Continue to add chimney sections through the roof opening, maintaining at least a one inch air space clearance. If a specific height is desired, the chimney sections may have to be cut (using shears) to a certain length.

IF ROOM ABOVE, FIRESTOP PLACED BELOW



IF ATTIC ABOVE, FIRESTOP PLACED ABOVE

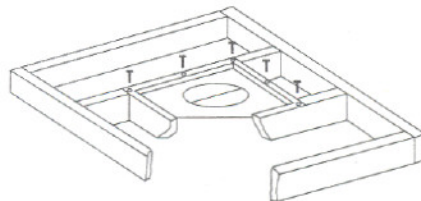
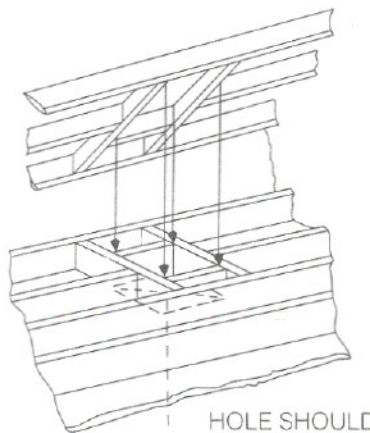


Figure 12
Installing the firestop spacer



HOLE SHOULD
MEASURE
10" x 10"

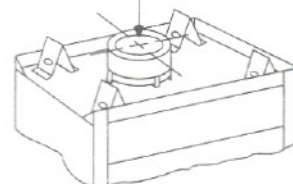


Figure 13
Ceiling and attic construction



10. Termination cap. Major building codes specify a minimum chimney height above the roof top depending on roof pitch. See Figures 14 and 15.

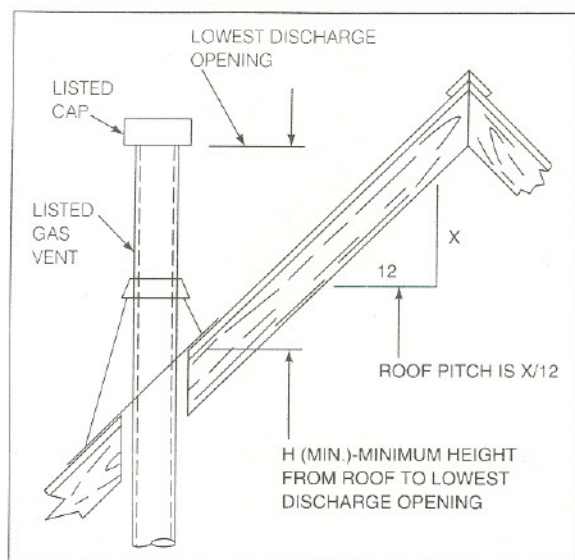


Figure 14

Chimney Height if Termination Location is at Least 8' From a Vertical Wall

Roof Pitch	H (Min.) Ft.
Flat to 6/12	1.0
6/12 to 7/12	1.25
Over 7/12 to 8/12	1.5
Over 8/12 to 9/12	2.0
Over 9/12 to 10/12	2.5
Over 10/12 to 11/12	3.25
Over 11/12 to 12/12	4.0
Over 12/12 to 14/12	5.0
Over 14/12 to 16/12	6.0
Over 16/12 to 18/12	7.0
Over 18/12 to 20/12	7.5
Over 20/12 to 21/12	8.0

Figure 15

Chimney Height

These chimney heights are necessary in the interest of safety and do not ensure draft-free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc., may create a need for a taller chimney should down drafting occur.

STEP 3 - Double Checking

When construction of the entire chimney system has been completed, double check to make sure all venting pipes and termination caps are unobstructed. Exhaust gases are extremely hot. When you have chosen a horizontal termination, be sure there are no possible future obstructions from trees, bushes, snow drifts, etc. A cap shield can be purchased to help prevent possible contact.

STEP 4 - Gas line installation

Install the gas line piping up to the right side of the appliance. A separate shut-off gas valve (supplied) should always be used. See Figure 16.

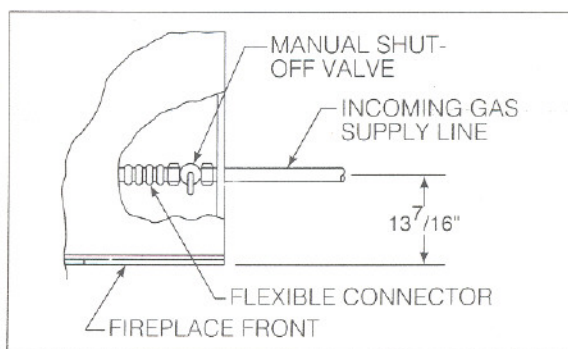


Figure 16
Gas Line

STEP 5 - Gas Line Connection

Connect the gas line to the appliance manual valve inlet, using 1/2" pipe. To ease installation, a listed flexible connector and manual shut-off valve are supplied. The manual shut-off valve should be connected directly to the hard pipe. Gas connections can be made from outside the appliance by removing the lower panel. All connections must be checked for leaks with a soap and water solution.

Bleed the gas line to extract any air that may have been trapped inside the pipe.

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 6 - Lower Panel Removal

To remove the lower panel, gently lift and pull on the outside edges of the panel as shown in Figure 17, step A. The top part of the panel will rotate downward.

Two spring hinges secure the lower portion of the panel into place. See Figure 17, step B. Simply pull the hinges toward the center of the panel and then pull out the entire panel (Figure 17, step C). To replace the panel, reverse this action.

NOTE

ALTHOUGH EACH UNIT IS LEAK TESTED IN THE FACTORY, IT IS MANDATORY DURING THE FIRST BURN FOR YOU TO CHECK FOR LEAKS. THESE MAY OCCUR DUE TO HANDLING, SHIPPING, INSTALLATION AND THE LIKE AND ARE BEYOND THE CONTROL OF HEATILATOR. EVERY JOINT, INCLUDING THE VALVE, PILOT, FITTINGS, ETC., MUST BE CHECKED.

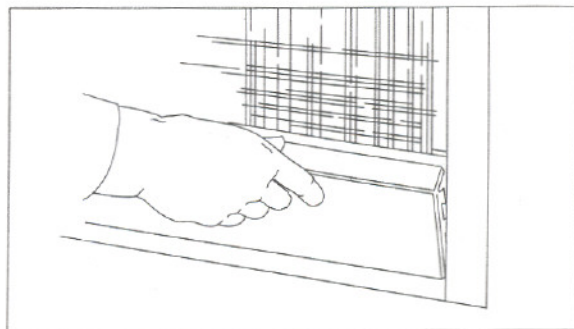


Figure 17, Step A
Lower Panel Removal

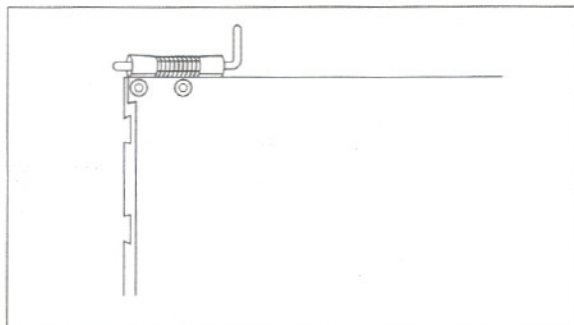


Figure 17, Step B
Lower Panel Removal

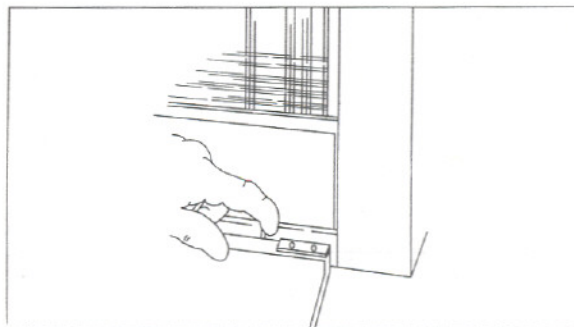


Figure 17, Step C
Lower Panel Removal



STEP 7 - Wiring

A. ELECTRONIC IGNITION

Note: This 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. This appliance is not intended for use with a thermostat. The addition of a thermostat will void the warranty and may create a fire hazard.

1. Appliance Requirements. This appliance requires a 110V power supply from a remote wall switch to the appliance junction box for operation. A wiring diagram is shown in Figure 18.

2. Remote Wall Switch. Position the junction box (not provided) in the desired place on the wall. Run the wire to the junction box, connect it to the provided wall switch and mount inside the junction box.

3. Optional Accessories Requirements.

Optional accessories may be added now or at a later date, however, wiring should be done now to avoid significant wall reconstruction. Two black wires are for the optional 110 volt switched fan. The optional fan kit (FK4) requires a separate 110V power supply to the appliance junction box and a separate wall switch for operation, as shown in Figure 18, #2. In line with this junction box, you must have an on/off switch or a BC10. No additional power supplies are required for the fan motor speed control (BC10) or the remote control (RC5). One black wire and the one white wire are for supplying 110 volt for ignition and for the optional 110 volt switched remote control. Wiring diagrams are provided with all accessories.

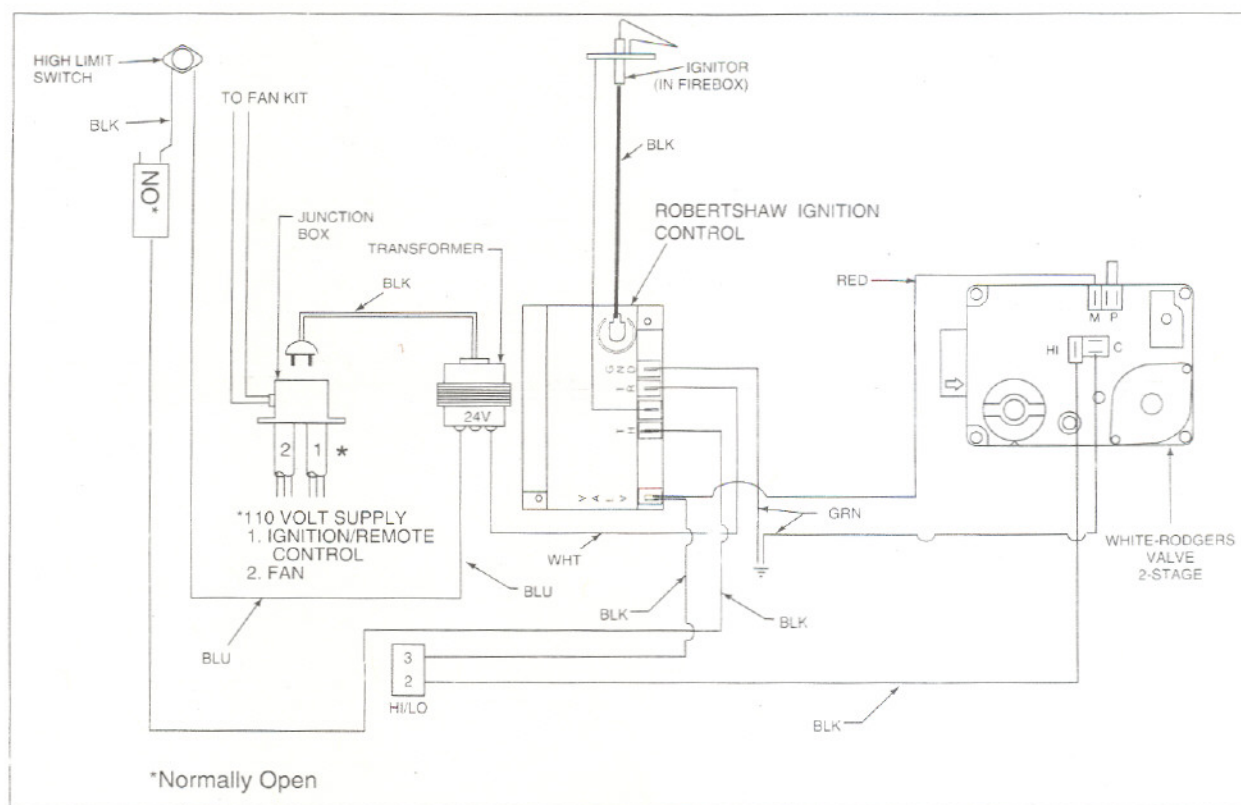


Figure 18
Electronic Ignition Wiring Diagram

*FIELD INSTALLED WIRES MUST BE GROUNDED. (2) SUPPLIES ARE REQUIRED IF AN OPTIONAL FK4 FAN KIT IS TO BE USED.



STEP 8 - Upper Panel Removal

The upper panel is constructed with notches as shown in Figure 21. To remove the upper panel, grasp each end, gently lift upward and pull away from the appliance. The panel should disengage easily.

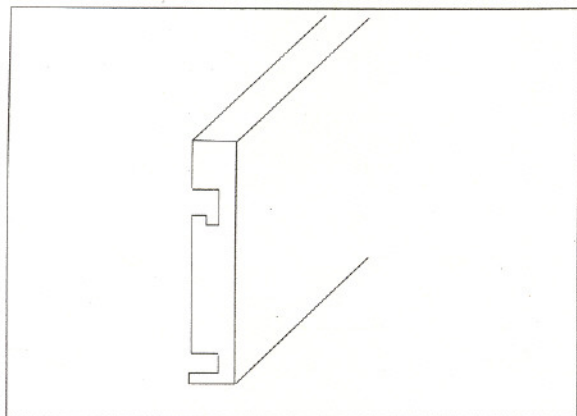


Figure 21
Upper Panel

STEP 9 - Finishing

When finishing the face of the appliance, combustible material may be brought up to the sides of the appliance, but must never overlap onto the black metal. The black metal may be covered with non-combustible material only.

After applying the finishing material, a non-combustible sealant, one-half inch wide maximum, must be used to close off any gaps at the top and sides between the fireplace and finishing to prevent cold air leaks. See Figure 22.

A combustible mantel may be installed at a minimum of 44 inches above the base of the appliance.

NOTE: You cannot cover any of the optional heat circulating grilles (if present) on this appliance, as this may create a fire hazard. See Figure 22.

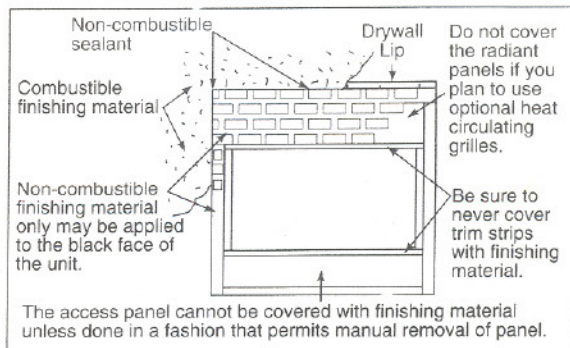


Figure 22
Location of Grilles

Step 10- Front Glass/Screen Removal

The glass and screen are held in a single assembly. To remove the assembly, use a 7/16" wrench as shown in Figure 23. **DO NOT ATTEMPT WHILE HOT.** Loosen the bottom screws with a phillips screwdriver. **DO NOT REMOVE THEM.** Remove the bolt and spring assembly as shown in Figure 24. After removal, tilt the glass/screen assembly back and lift it from position. Safety gloves must be worn at this time to prevent injury. See Figures 25 and 26.

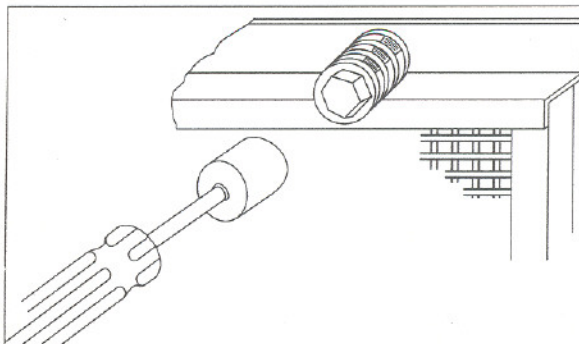


Figure 23
Glass Removal

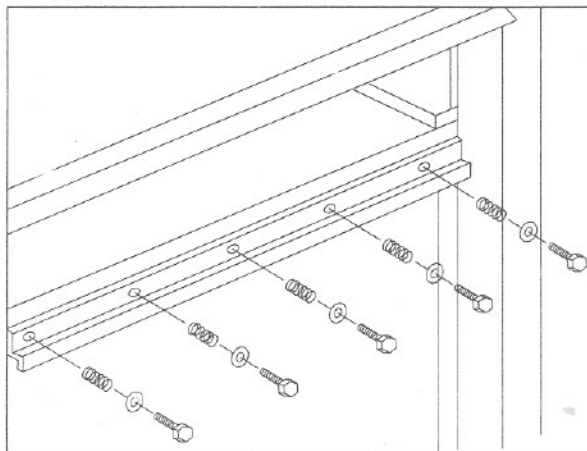


Figure 24
Glass Removal



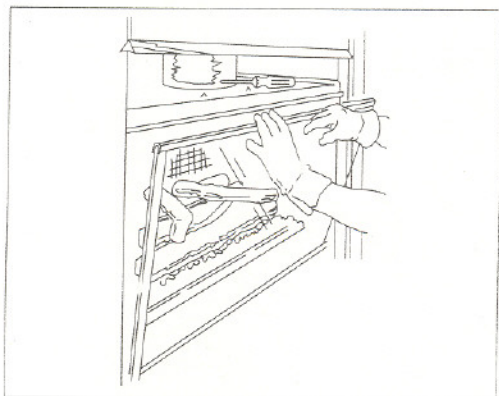


Figure 25
Glass Removal

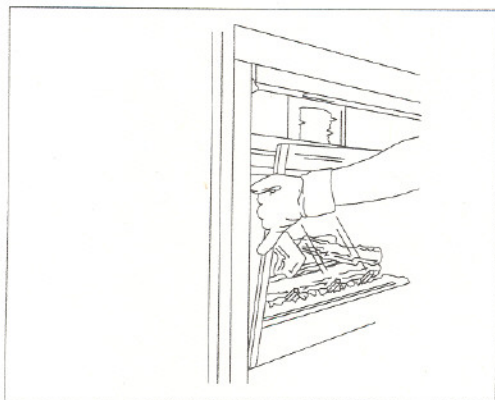


Figure 26
Glass Removal

STEP 11 - Rear Glass Removal

To remove the glass, unscrew the five screws located on the top portion of the glass as shown in Figure 24. (You may also need to loosen the screws in the bottom retainer.) Be sure to hold the glass to prevent it from falling out once the screws have been loosened. Remove the metal retaining strip which is positioned along the upper edge of the glass. See Figure 25. Gently tilt the glass towards yourself and lift it out of the bottom track. See Figure 26.

STEP 12 - Positioning the Logs

Place the large logs in the brackets on either side of the burner, with the pins positioned "up". Notches in the log fit onto the grate extensions. See Figure 27.

Lay the two medium logs across the larger logs, as shown in Figure 28A and B, making sure they are positioned on the pins over the large logs. The medium logs have holes which the pins fit into. This ensures the higher flames are unobstructed.

Position the small twigs at either end of the large logs. Position the "knot-hole" twig as shown, so flame will go through the hole. See Figure 28B. (The GC300FL has an additional "X" shaped log to place between the ends of the large logs to hide the burner at the open end.)

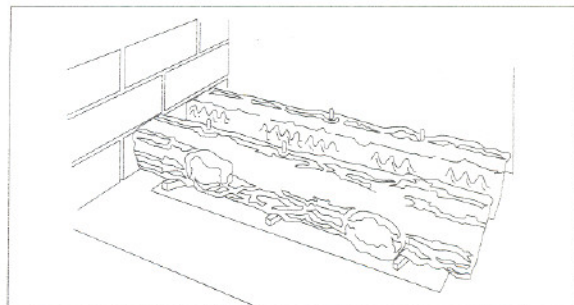


Figure 27
Positioning the Logs

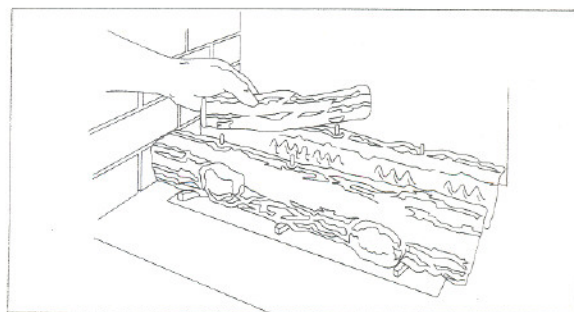


Figure 28A
Positioning the Logs

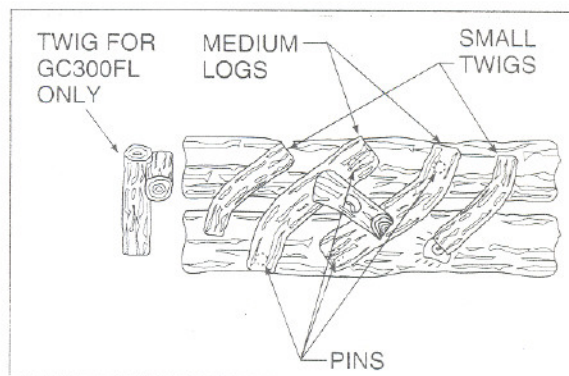


Figure 28B
Positioning the Logs



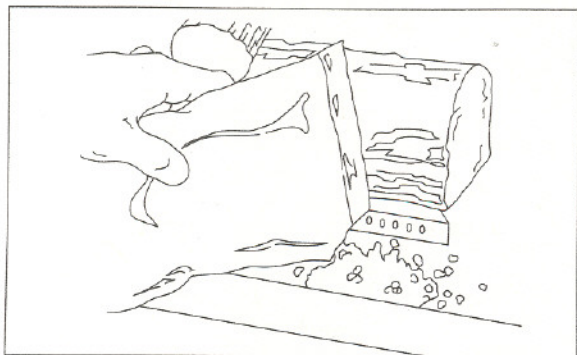


Figure 29
Placing the Lava Rock

STEP 14 - Placing the Lava Rock and Rock Wool

Spread the lava rock over the area in front of the burner. Do not cover the front gas ports with the lava rock. See Figure 29.

Break the rock wool into pieces, no bigger than 1/2" diameter, and place them close to the front gas ports so that the flame can touch the rock wool. This creates the glowing ember look. Be sure not to pack the rock wool against the gas ports. See Figure 30.

STEP 15 - Glass Replacement

After arranging the log set in the unit, replace the fixed pane of glass. Be sure the rubber gasket material is on the top and bottom edges of the glass. Carefully lower the glass into the lower track of the unit (black trim facing outward) and center it in the track. Next, place the metal retaining strip along the upper edge of the glass and align the screw holes with holes in the fireplace. Secure the glass into place with the provided screws. Be sure the bottom retainer screws have been tightened also. See Figure 31.

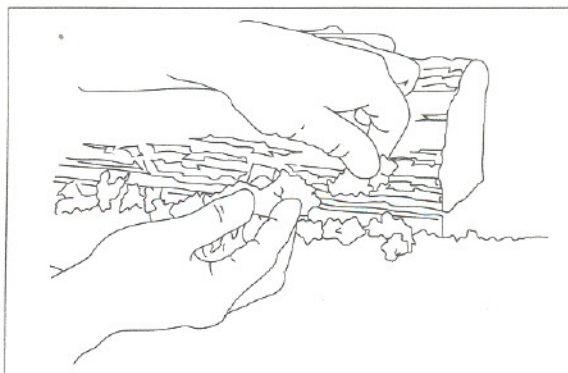


Figure 30
Placing the Rock Wool

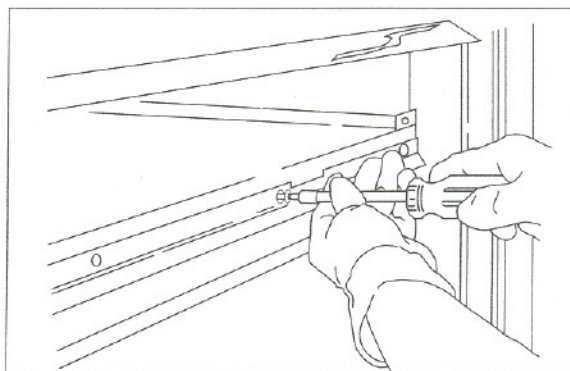


Figure 31
Glass Replacement

WARNING

**NEVER OPERATE THIS APPLIANCE
 WITH THE GLASS AND SCREEN
 REMOVED OR NOT SEALED.**

STEP 16 - Screen Replacement

Position the screen over the glass, snap the catch located in each corner of the screen in the holes in the fireplace. Replace the trim panels.

STEP 17 - Replacing the Lower Panel

Align the lower hinges on the panel with the holes provided in the fireplace. Place them in those holes and pivot the panel upward and snap into place. See Figure 32.

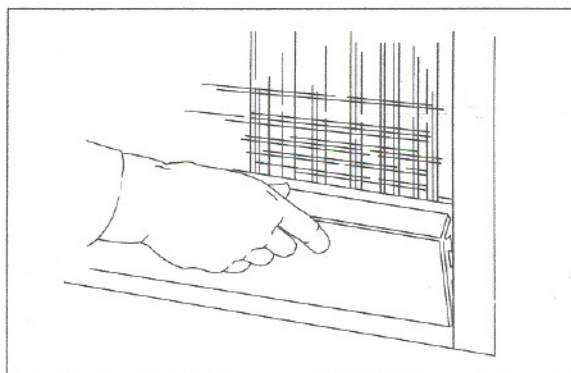


Figure 32
Lower Panel Replacement

STEP 18 - Replacing the Upper Panel

Simply replace the upper panel by positioning the notches, located on each end of the panel, in place over the pins on either side of the panel opening and press downward. The panel should snap into place easily.



VI. OPERATING INSTRUCTIONS

TO THE CONSUMER: To determine whether your appliance is an electronic ignition or a standing pilot ignition, remove the lower panel to examine the wiring system. If your system has a red push button (as shown in Figure 33 below), you own a standing pilot ignition fireplace. If no red button is present, you own an electronic ignition appliance.

You may also check the rating label located on the inside of the lower panel to determine ignition type.

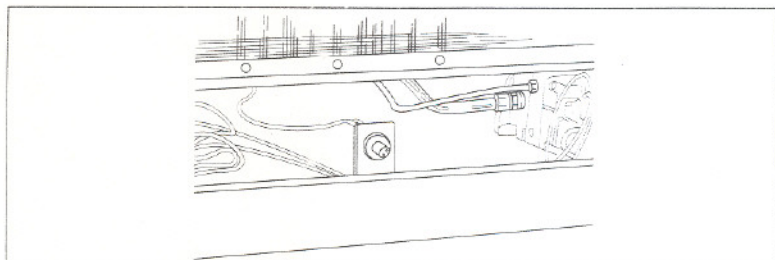


Figure 33
Standing Pilot Ignition

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.

STANDING PILOT (GC300FL, GC300ST)

- A. This appliance (standing pilot version) 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. Forced 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.

ELECTRONIC IGNITION (GC300FLE, GC300FLLE, GC300STE, GC300STLE)

- A. This appliance (electronic ignition version) does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. **BEFORE OPERATING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

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.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in and move the gas control lever. Never use tools. If the lever will not push in or move by hand, do not 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.



WARNING

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES 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 THIS APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

Before operating this appliance, please review the safety precautions given on page 2 as well as the items listed below:

1. Check to make sure the logs, rock wool and lava rock have all been placed correctly. (Refer to Steps 13 and 14 on page 18 and 19). The top of the burner and the holes in the sides of the burner should not be covered with lava rock. If these items are not visible, please adjust before continuing.
2. Check to see that all wiring is correct and enclosed to prevent possible shock. This is done by removing the lower panel (follow Step 1 below) to access the control area.
3. Check to ensure there are no gas leaks. This may be done with a soap and water solution.
4. Make sure the front glass is sealed and in its proper position. Never operate this appliance with the glass removed or not sealed.
5. Verify that all venting and caps are unobstructed. Exhaust gases are extremely hot. Be sure there are no possible future obstructions from trees, bushes, snow drifts, etc. A CS200 cap shield can be purchased to help prevent possible contact.
6. Read and understand these Instructions thoroughly before attempting to operate this appliance.

STEP 1- Lower Panel Removal

To remove the lower panel, gently lift and tug on the outside top edges of the panel as shown in Figure 34. The top of the panel will rotate downward.

Two spring hinges secure the lower portion of the panel into place. See Figure 35. Simply pull the hinges toward the center of the panel and then pull out the entire panel (Figure 36). To replace the panel, reverse this action.

If you own an electronic ignition, at this point skip section A on the following page and continue with section B on page 23.

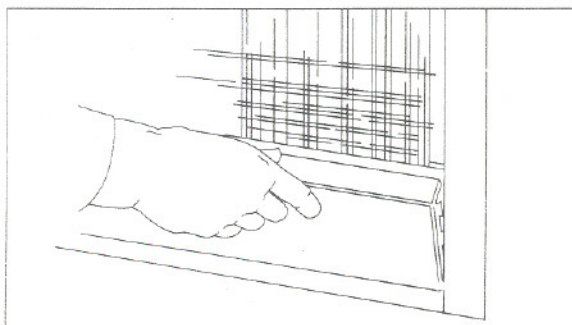


Figure 34
Lower Panel Removal

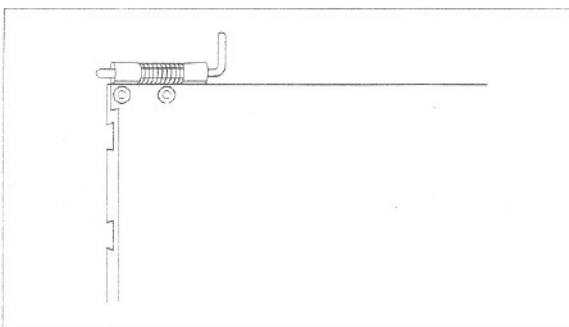


Figure 35
Lower Panel Removal

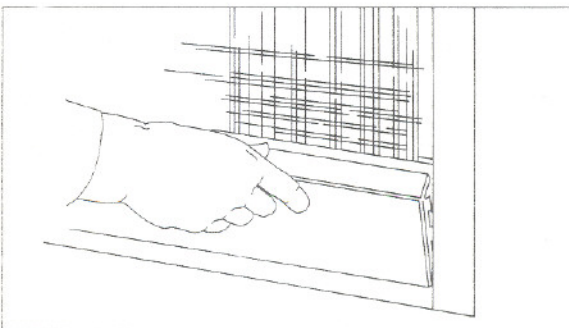


Figure 36
Lower Panel Removal



A. STANDING PILOT OPERATION

1. Initial and Seasonal Lighting Procedure. Initial lighting constitutes the first time the appliance has been lit after installation. Seasonal lighting refers to lighting the appliance after it has been unused and the gas valve has been turned to OFF.

Be sure the remote wall switch and the gas knob (located inside the lower panel) have been turned to the OFF position. See Figure 37. Also, your unit may have a rocker ON/OFF switch installed inside the lower panel; if it does, this also needs to be turned to the OFF position. If they are not, do so and allow the appliance to sit for five minutes so any gas that may have accumulated in the main burner compartment escapes.

Turn the gas knob to PILOT, as shown in Figure 38, and press in. While holding it in, light the pilot by pressing the red ignitor button several times until the gas ignites. Continue to hold in the gas knob for about one minute after the pilot is lit. Release the gas knob. The pilot should remain lit. If it goes out, turn everything to the OFF position, let it sit for five minutes and repeat this step again.

When the pilot remains lit, turn the gas knob to the ON position. See Figure 39. You may now turn the remote wall switch to the ON position which will turn on the main burner. Watch your appliance display beautiful, dancing flames. Initially, the flames may resemble more of a blue color but after the first 20 minutes of operation, they will become more yellow.

2. Seasonal Shutdown. When the burning season comes to an end, the entire system should be shut down. This way, no gas will be running to the appliance while it is not in use.

To shut down the appliance for a long period of time, you must first shut off the main burner by moving the remote wall switch (and the rocker ON/OFF switch, if applicable) to the OFF position.

The next step is to remove the lower panel to expose the wiring system. (Follow Step 1 on page 21.) Locate the gas knob and turn it to the PILOT position. Press in slightly and continue turning to the OFF position. Your entire system is now shut down.

3. Lighting Procedure During Regular Use. Simply turn the wall switch to the ON position. This will ignite the main burner.

4. Shutdown During Regular Use. Simply turn the remote wall switch to OFF. This will disengage the burner and the flames will extinguish.

When first operated, this unit may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Glass will also require cleaning after the initial burn. (Instructions for cleaning the glass are given on page 24.)

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

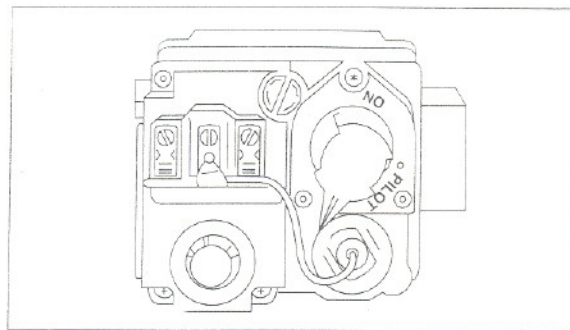


Figure 37
Standing Pilot Ignition valve "OFF"

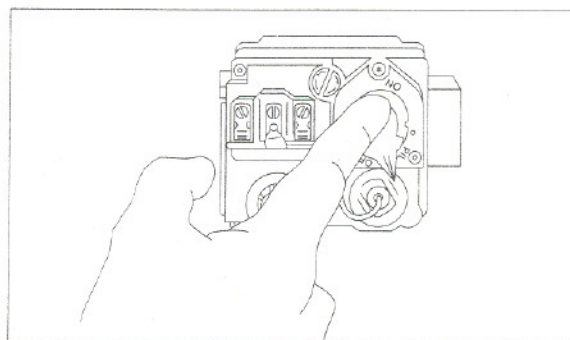


Figure 38
Standing Pilot Ignition valve to "PILOT"

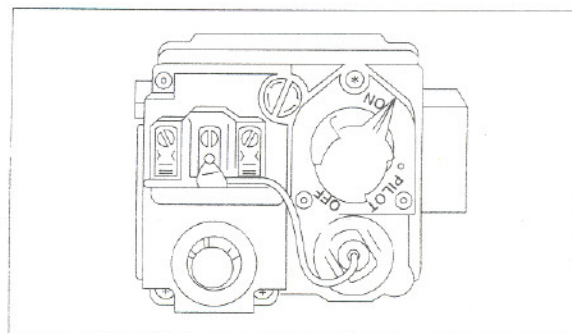


Figure 39
Standing Pilot Ignition to "ON"

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

Skip section B and continue with Step 2 below.



B. ELECTRONIC IGNITION OPERATION

1. Initial and Seasonal Lighting Procedure. Initial lighting constitutes the very first time the appliance has been lit after installation. Seasonal lighting refers to lighting the unit after it has been unused and the gas valve has been turned to OFF.

Be sure the remote wall switch and the gas knob (located inside the lower panel) have been turned to the OFF position. See Figure 40. Also, your unit may have a rocker ON/OFF switch installed inside the lower panel; if so, this also needs to be turned to the OFF position. If they are not, do so and allow the appliance to sit for five minutes so any gas that may have accumulated in the main burner compartment escapes.

Locate the gas valve knob inside the lower panel and turn it to the ON position. See Figure 41. Then, turn the remote wall switch to ON. This will activate an electronic spark. Watch your appliance display beautiful dancing flames. Initially, the flames may resemble more of a blue color but after the first 20 minutes of operation, they will become more yellow.

2. Seasonal Shutdown. When the burning season comes to an end, the entire system should be shut down. In this way, no gas will be running to the appliance while it is not in use.

To shut down the appliance for an extended period of time, you must first shut off the main burner by moving the remote wall switch (and the rocker ON/OFF switch, if applicable) to the OFF position.

The next step is to remove the lower panel (Step 1 on page 20) to expose the wiring system. Locate the gas valve knob and turn it to the OFF position. Your entire system is now shut down.

3. Lighting Procedure During Regular Use. Simply turn the wall switch to the ON position. This will activate the ignitor and the main burner will light.

4. Shutdown During Regular Use. Simply turn the remote wall switch to the OFF position. This will disengage the ignitor and the main burner will extinguish.

When first operated, this unit may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Glass will also require cleaning after the initial burn. (Instructions for cleaning the glass are given on page 24.)

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

STEP 2 - Replacing the Lower Panel

To replace the lower panel, align the lower hinges on the panel with the holes provided in the fireplace. Place them in those holes and pivot the panel upward as shown in Figure 42. The panel should connect smoothly back into place.

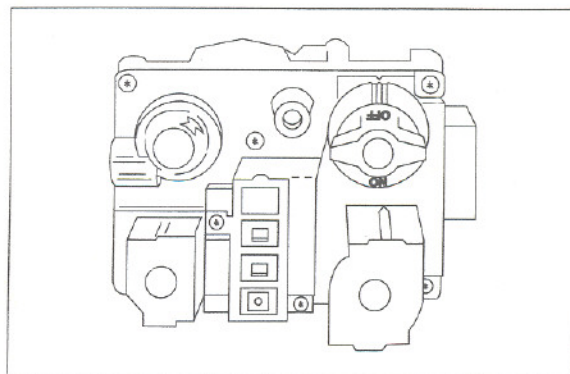


Figure 40
Electronic Ignition valve to "OFF"

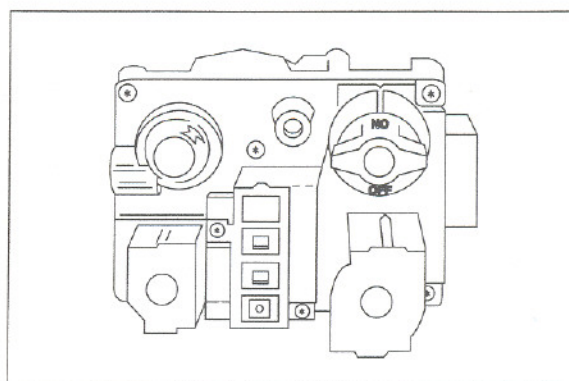


Figure 41
Electronic Ignition valve to "ON"

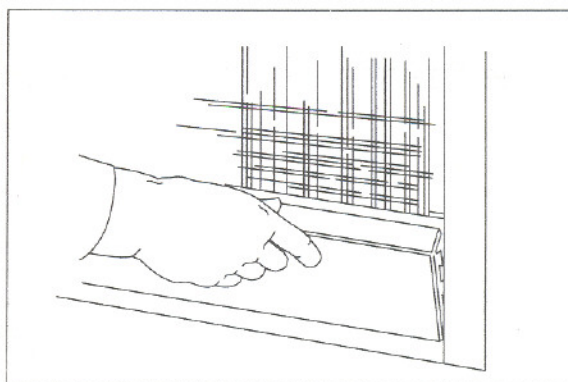


Figure 42
Lower Panel Replacement

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



VII. MAINTENANCE INSTRUCTIONS

Cleaning the burner and control compartment

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

Checking flame patterns

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 ignitor (electronic) or thermopile (standing pilot) tips should be covered with flame. See Figures 43 through 46.

Venting system inspection

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.

Cleaning the glass

Note: When cleaning the glass, NEVER use abrasive materials. NEVER clean glass when hot. Keep children and pets a safe distance away.

It is recommended to wear gloves while handling or removing glass. **DO NOT REMOVE GLASS WHEN HOT.**

To remove the glass for cleaning, following Step 12 on page 18. Handle glass panel with care to avoid striking or scratching it on hard objects.

To clean the glass, use a non-abrasive, mild cleaning solution. (For example, POLISH PLUS by KEL KEM.) Simply apply an adequate amount to the glass and wipe off with a damp cloth.

Never operate this appliance without the glass properly secured in place or if the glass is broken.

In the event of glass breakage, follow glass removal instructions to remove the top retaining strip. Remove lower retaining strip in the same manner. This will allow the removal of all glass fragments and sheet metal edge protection strips. Vacuum all remaining glass pieces with a shop vac. (DO NOT VACUUM IF PIECES ARE HOT.) Replace front glass only with Heatilator part number 17522 and end glass with part number 18811 ordered direct or through your local distributor. Never use substitute material. Only fully tempered soda lime safety glass may be used on this appliance.

Log cleaning

Logs can be easily lifted out of position. Carbon build-up can be removed with a vacuum cleaner.

To prevent the possibility of soot, we have provided your fireplace with an adjustable air shutter. Your air shutter is provided in an open position to ensure clean operation under normal situations. In the event that soot is accumulating in your appliance, the air shutter should be opened farther, as shown in Figure 46. This can be done with a screwdriver or a 1/4" wrench. Also, ensure logs are positioned correctly to minimize flame contact with the logs.

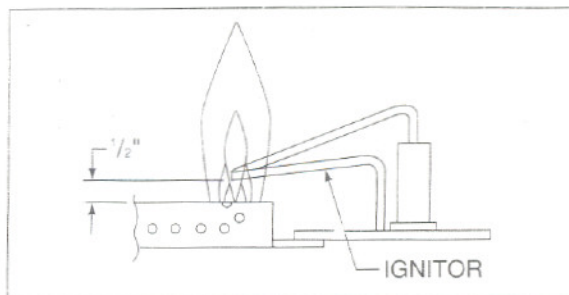


Figure 43
Electronic Ignition

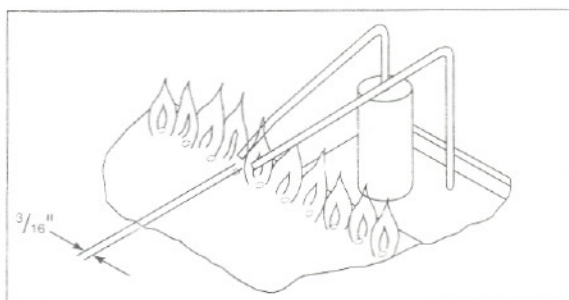


Figure 44
Electronic Ignition

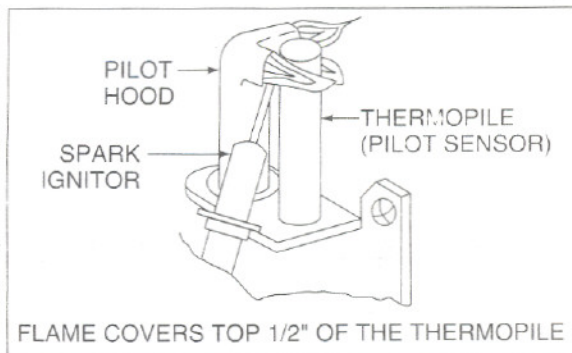


Figure 45
Standing Pilot

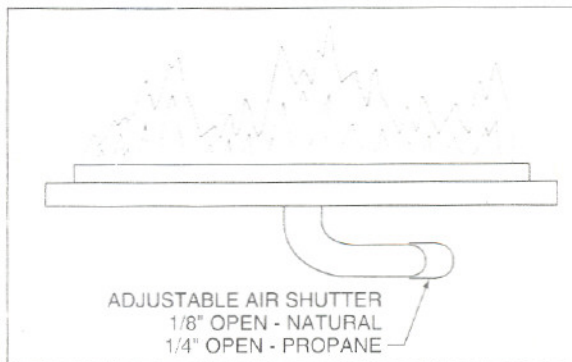


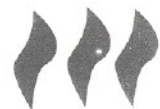
Figure 46
Both Ignitions



VIII. TROUBLE SHOOTING

ELECTRONIC IGNITION (GC300FLE, GC300FLLE, GC300STE, GC300STLE)

Problem	Cause	Corrective Action
1. Spark ignitor will not light burner after repeated attempts.	A. Defective ignitor. B. Misaligned electrode.	Check for loose connections on electrode and ignitor. Check for spark. If electrode connection is correct and there is no spark, replace ignitor. Spark should be extending approx. 3/16" to ground wire. See Figure 44. Adjust gap to give proper spark. Remove hands from electrode before attempting.
2. Burner will not stay lit.	A. Defective flame sensor. B. No ground.	Check burner flame. See Figures 43 and 44. Adjust sensor if necessary. Be sure sensor is secured tight into bracket. Be sure wiring connections are tight throughout system, including high limit switch. Check that wiring is grounded as shown in Figure 18.
3. With valve and wall switch in "ON" position, no gas to burner.	A. Gas valve(s) shut off. B. Plugged burner orifice. C. Wall switch defective.	Check all gas valves leading to appliance. Turn to the "ON" position. Check wall switch for proper connections. Check for 24 volt power off secondary on the transformer. Check burner orifice; remove blockage. Check power source (fuses).
4. Glass fogs up.	A. A normal result of gas combustion.	No action is necessary. After the fireplace has warmed up, the glass will clear.
5. Blue flames.	A. A normal result during the first 20 minutes of burning.	No action is necessary. Flames will begin to turn more yellowish after about 20 minutes of burning.
6. 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.



STANDING PILOT (GC300FL, GC300ST)

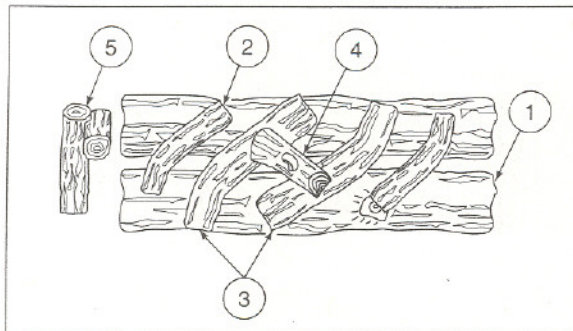
Problem	Cause	Corrective Action
1. Burner will not ignite.	A. 110 volts of electrical current has burned out the wall switch.	Remove voltage and replace valve and thermopile.
2. Spark ignitor will not light the pilot after repeat pressing of Red Button.	A. Defective ignitor. B. Misaligned spark ignitor.	Check for loose connections on ignitor. Check for spark. If electrode connection is correct and no spark, replace ignitor. Spark should be extending approx. 1/8" from ignitor to the bottom of the pilot hood. Adjust gap to give proper spark. Remove hands from ignitor before pressing Red Button.
3. Pilot light will not stay lit.	A. Defective pilot thermopile.	Check pilot flame. See Figure 45. 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.
4. 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.
5. Appliance turns itself off after a period of time.	A. High limit safety switch 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.
6. Glass Fogs up.	A. A normal result of gas combustion.	No action is necessary. After the appliance has warmed up, the glass will clear.
7. Blue flames	A. A normal result during first 20 minutes of burning.	No action is necessary. Flames will begin to turn more yellowish after about 20 minutes of burning.



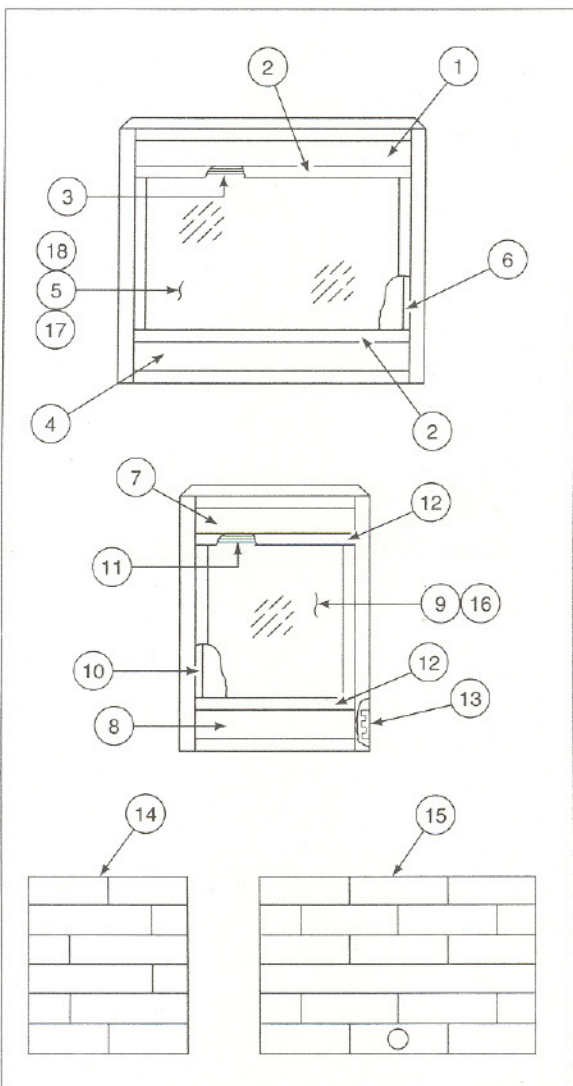
IX. REPLACEMENT PARTS

Replacement parts are available from your distributor/dealer, or through Heatilator Inc., 1915 W.

Saunders Street, Mt. Pleasant, Iowa 52641.



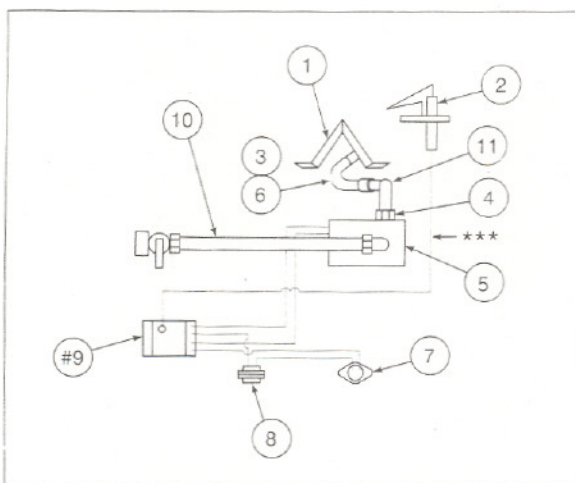
ITEM	PART NO.	DESCRIPTION
1	19331	Front Log
2	17229	Top Log
3	17133	Top Twigs
4	18780	Center Top Log
5	18782	End Log (FL Series only)



ITEM	PART NO.	DESCRIPTION
1	19571	Upper Front Face
2	19808	Front Trim (Black)
3	13376	Front Glass Frame
4	19629	Lower Front Face
5	13379	Front Glass Panel
6	17197	Front Glass Seal
7	19569	Upper End Face
8	19570	Lower End Face
9	18811	End Glass Panel
10	19593	End Glass Seal
11	19631	End Glass Frame
12	19807	End Trim (Black)
13	19572	Lower Back Face
14	13320	Side Refractory
15	13319	Back Refractory
16	19772	End Screen Panel
17	19833	Front/Rear Screen Panel
18	20097	Front Door/Screen Assembly



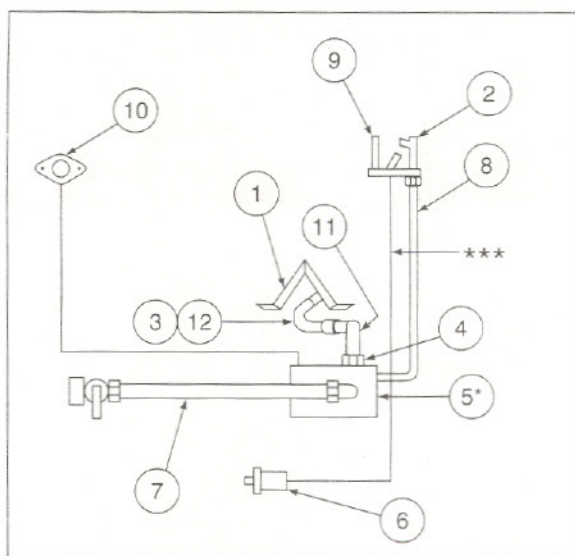
ELECTRONIC IGNITION - GC300FLE, GC300FLLE, GC00STE, GC300STLE



Ignition control identification must be made. They are marked Channel Products or Fenwal.

ITEM	PART NO.	DESCRIPTION
1	19328	Burner Assembly
2	17003	Ignitor
3	17811	Orifice - Natural
4	16564	Brass Fitting, Male
5	18654	Valve - Natural - 2 Stage
6	19768	Burner Gas Tubing
7	16957	High Limit Switch
8	17836	Transformer
9#	15695	Ignition Control
10	12303	Flexible Line Assembly
11	19769	Gas Tubing
12	13426	Microswitch (not shown)
FOR PROPANE MODELS		
3	17812	Orifice - Propane
5	18655	Valve - Propane - 2 Stage

STANDING PILOT - GC300FL, GC300ST



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

*** 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.

ITEM	PART NO.	DESCRIPTION
1	19328	Burner Assembly
2	25729	Pilot Assembly - Natural
3	17811	Orifice - Natural
4	16564	Brass Fitting, Male
5*	23363	Valve - Natural (Robertshaw)
6	13416	Push Button Ignitor
7	12303	Flexible Line Assembly
8	19574 19575	1/4" Pilot Tubing (Robertshaw) 1/4" Pilot Tubing (White-Rodgers)
9	13411	Thermopile (Pilot Sensor)
10	24968	High Limit Switch
11	19769	Gas Tubing
12	19768	3/8" Burner Gas Tubing
13	13426	Microswitch (not shown)
IF CONVERTED TO PROPANE		
2	25730	Pilot Assembly - Propane
3	17812	Orifice - Propane
5*	23364	Valve - Propane (Robertshaw)



Attention

APPLIANCE INSTALLER

***Please return these
Operating & Installation
Instructions to the
Appliance
for Consumer Use***

heatilator®
The first name in fireplaces

Heatilator Inc.
1915 W. Saunders Street
Mt. Pleasant, IA 52641
a HON INDUSTRIES company
319/385-9211 FAX 319/385-5862