

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



heatilator®

The first name in fireplaces

Heatilator
1915 W. Saunders Street
Mt. Pleasant, IA 52641
A Division of Hearth Technologies Inc.

GC150 HEAT CIRCULATING SERIES GAS APPLIANCE OWNER'S MANUAL

AND INSTALLATION INSTRUCTIONS

MODELS: GC150, GC150L, GC150E, GC150LE

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

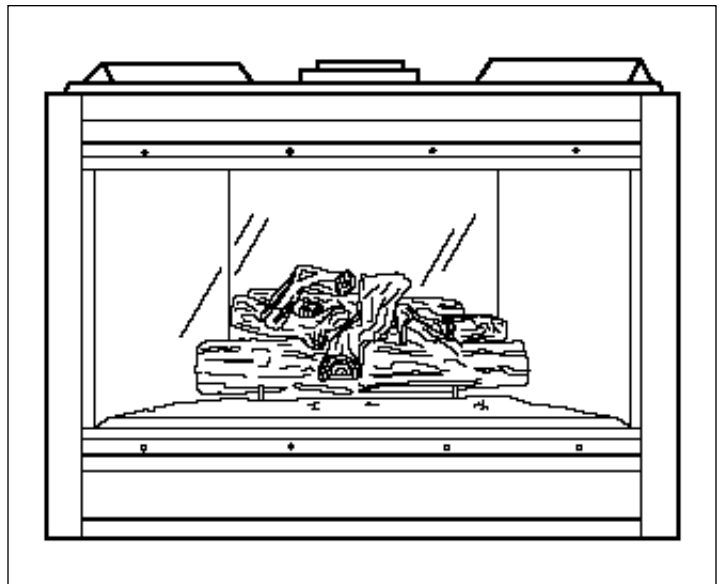
-Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

-WHAT TO DO IF YOU SMELL GAS

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

-Installation and service must be performed by a qualified installer, service agency or the gas supplier.

This manual must be used for installation of the GC150 Series Gas Appliance and retained by the homeowner for operating and maintenance instructions.



Electrician: Please refer to page 14 for wiring instructions.



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



Framer: Please refer to page 7 for framing specifications.

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Safety Precautions

- Please read these installation instructions completely before beginning installation procedures. Failure to follow them could cause a fireplace malfunction resulting in serious injury and/or property damage.
- Always check your local building codes prior to installation. This installation must comply with all local, regional, state and national codes and regulations.
- 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 passage ways of the appliance be kept clean.
- The GC150 fireplace is a vented gas fireplace. Do not burn wood or other material in this appliance.
- NEVER leave children unattended when there is a fire burning in the fireplace.
- 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.
- NEVER use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this fireplace. Keep any flammable liquids a safe distance from the fireplace.
- While servicing this fireplace, always shut off all electricity and gas to the fireplace. This will prevent possible electrical shock or burns. Also, make sure the unit is completely cooled before servicing.
- 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.
- 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.
- Be sure to provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.
- The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.5 kPa).
- Provisions shall be made to provide adequate combustion and ventilation air.
- The appliance area shall be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- The flow of combustion and ventilation air should not be obstructed.



I. LISTINGS AND CODE APPROVALS

Certification

The GC150 Series Vented Gas Fireplace has been tested in accordance with the ANSI standard ANSI Z21.50-1998•CGA 2.22-M98 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.

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 CAN/CGA B149, Installation Codes, in Canada.

A manufactured home installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or, when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI Z225.1/NFPA 501A.

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.

This product is manufactured to use natural gas and is available in propane gas. In the event your appliance must be converted to either natural gas from propane or to propane gas from natural you must use a proper conversion kit.

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

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II. DESCRIPTION OF THE FIREPLACE SYSTEM

The GC150 is a vented gas fireplace. Combustion air is supplied from outside, not from inside the house as with other types of fireplaces. While a significant amount of heat is created by the GC150, it is not intended to be and, therefore, should not be used as a heater.

This HEATILATOR fireplace system consists of the following:

1. Fireplace
2. Venting System
3. Termination

Optional components include:

1. Trim kits
2. Fan kit
3. Remote control

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:	Building Supplies:
Saw	Wall-finishing materials
Pliers	Framing material
Hammer	Fireplace surround
Phillips screwdriver	High Temp. Caulking
Tape measure	Material (300° F+)
Plumb line	
Level	
Drill and Bits	
Square	

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



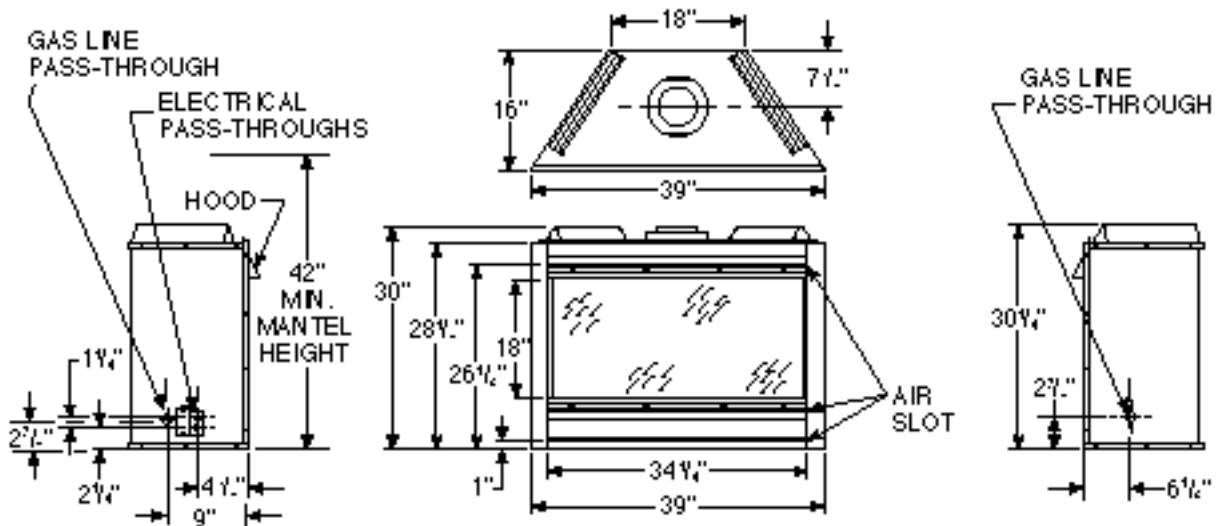
III. FIREPLACE SYSTEM COMPONENTS

The table below is a list of only those components which may be safely used with this fireplace. An

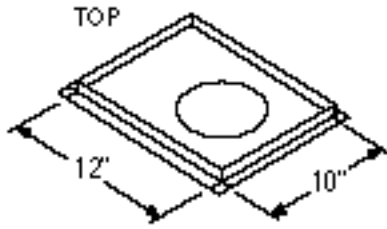
illustration of each component can be found on page 5.

Catalog Number	Description
GC150	34" natural gas, standing pilot, heat circulating fireplace
GC150E	34" natural gas, electronic ignition, heat circulating fireplace (Natural gas models may be converted to propane gas using the CKP conversion kit)
CKP	Natural gas to propane gas conversion kit
BC10	Fan motor rheostat control
BC11	Automatic Variable Blower Control
CS	Direct vent cap shield (for horizontal termination)
CV7	Vertical termination cap
EL45	45 degree elbow
FK4	Fan kit
FS6	Firestop spacer (for vertical termination)
RC4	Remote control (standing pilot)
RC5	Remote control (electronic ignition)
RF6	Roof Flashing (for vertical termination)
1243S	Steep Pitch Roof Flashing
TA2	Horizontal termination kit including one termination cap, one starter elbow (15942), one VK24 (chimney section) and one wall shield
TK100A	Trim kit, antique brass finish (hood and 1 louver bar)
TK100B	Trim kit, polished brass finish (hood and 1 louver bar)
TKFFB	Trim kit, full face brass finish
VK5	90 degree elbow
VK12	12" length vent section
VK24	24" length vent section
VK36	36" length vent section
VK48	48" length vent section
VS4	Vertical vent support
WS6	Wall shield to ensure horizontal clearances
100CG	Ceramic glass kit
VE12	Starter elbow
VE16	16" extended elbow
VE20	20" extended elbow

} if elbow used, 1st elbow must be one of these



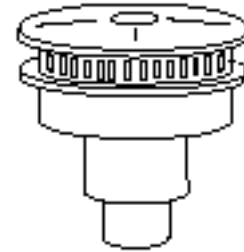
Fireplace Dimensions - Please refer to page 7 for framing dimensions.



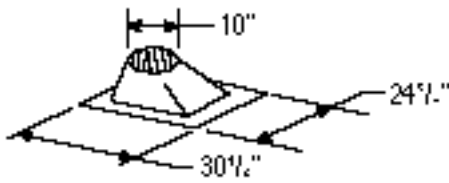
WS6
Wall Shield



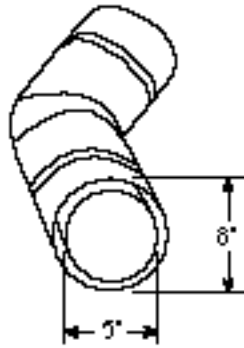
FS6
Firestop Spacer



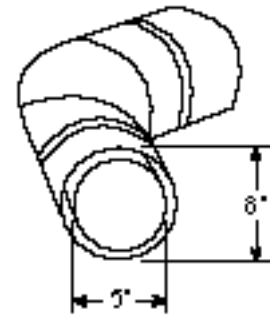
CV7
Vertical Termination Cap



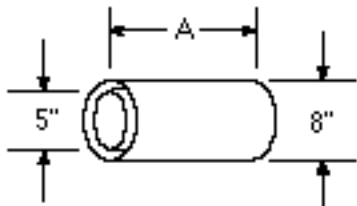
RF6
Roof Flashing



EL45



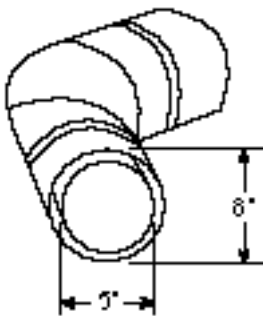
VK5



Vent 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"

Vent Sections

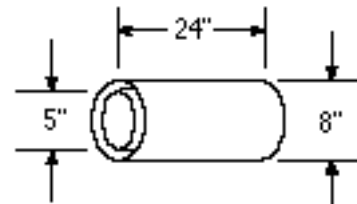
TA2
Horizontal Termination Kit



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



Termination Cap



VK24
Vent Section



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 DESIGNED FOR USE 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 22,500 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. (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 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 .093in. /2.36 mm. orifice size on natural gas versions and a .056 in./1.42 mm. orifice size on propane gas converted versions.

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 GC150 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.

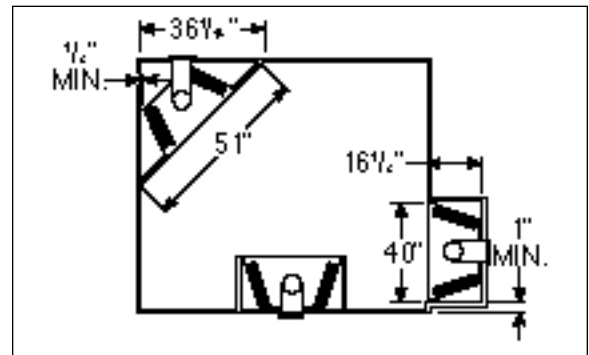


Figure 1

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", top of the hood 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 vent section. Vertical rise sections require a 1" minimum air space completely around the vent sections.

CAUTION:

DO NOT EXPOSE THE UNIT TO THE ELEMENTS (SUCH AS RAIN, ETC.).



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.

Note: The remote wall switch must be wired prior to applying the finishing material in order to avoid reconstruction.

The GC150 Series Gas Appliance will fit a framed opening of 40" w X 16½" d X 30½" h.

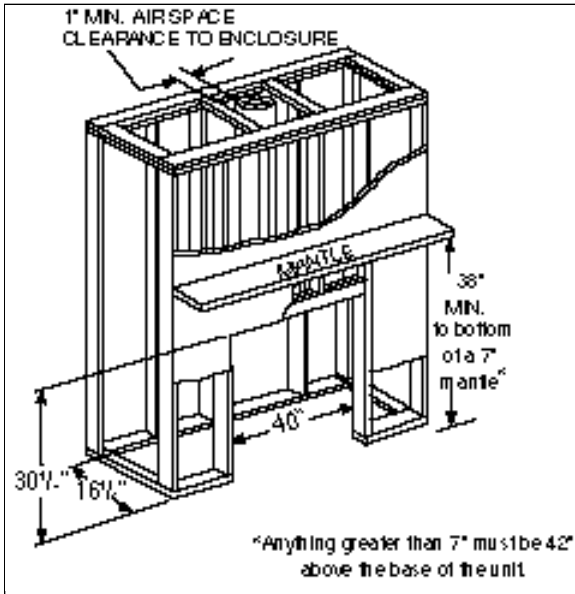


Figure 2 - Framing the Fireplace

Figures 2 and 2a show 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. A minimum of 38" is required to the bottom of a 7" mantel. Anything greater than 7" must be 42" above the base of the unit. Any framing on top of the fireplace must be above the top standoffs. Vent 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 vent sections.

- Flue outside diameter: 8"
- Minimum firestop framing: 10" X10"
- Face of header to the center of the firestop spacer (FS6) framing: 8 7/8"

Note: The outside walls of the home around the fireplace should be insulated and finished as one would any other outside wall, while maintaining the 1/2" air clearance around the firebox.

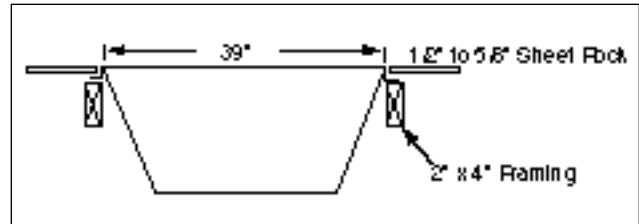


Figure 2a
Framing the Fireplace

F. FINISHING MATERIALS

Only non-combustible materials may be used to cover the black surfaces of the 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 (300° F+); 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.

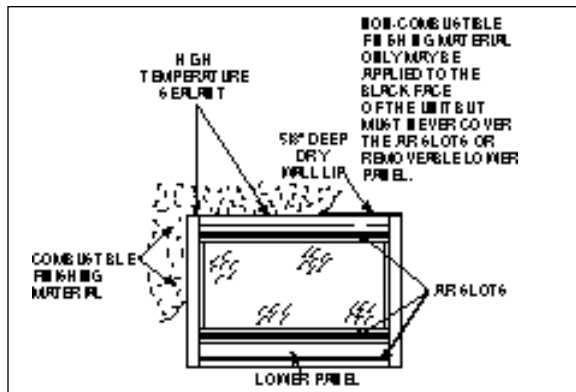


Figure 3
Finishing Materials

WARNING!
AIR SLOTS 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 smooth combustible or non-combustible continuous, flat surface. When the appliance is installed directly on carpeting, tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance. 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 bending out the nailing flanges located on each side of the fireplace and nailing the unit to the framing. See Figure 4.

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 5.

1. Assembling vent sections. Attach either a VE12 (starter elbow), VE16, VE20 or straight vent section (depending upon your specific installation) to the top of the appliance. Secure with the three screws supplied. Use only vent supplied and listed for use with this appliance and the appropriate number of direct vent sections. **MAINTAIN MINIMUM CLEARANCES OR GREATER AROUND THE VENT SYSTEM.** Do not pack air spaces with insulation or other material.

a. Using elbows. The first elbow used with horizontal termination must be starter elbow 15942. The maximum horizontal distance this vent system may reach is 26'. **No more than 3 elbows may be used.** A single vertical-to-horizontal elbow is already calculated into the allowable 26' run. Each additional elbow reduces the maximum horizontal distance by three feet. Example, by using three total elbows, the maximum horizontal distance has been reduced to twenty feet (3 - 1 = 2 elbows X 3' = 6'; 26' max. - 6' of elbows = 20' of horizontal run).

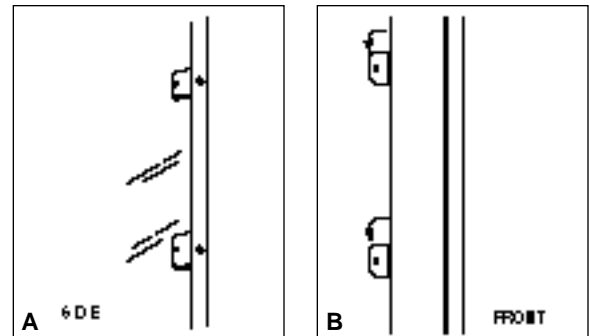


Figure 4
Nailing Flanges

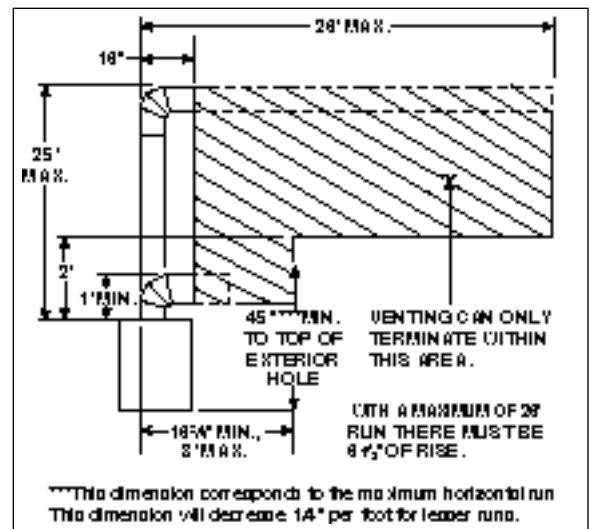


Figure 5 - Horizontal Length

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 vent 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 vent system will have a 1/4" rise for every 12" of run AND be perpendicular to the wall. See Figure 6. 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 45" from the base of the unit. This figure will increase by the length of each vertically positioned vent 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 7. (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 5 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 1/2". See Figure 8.

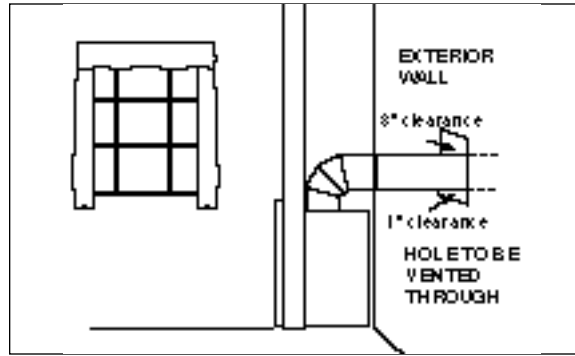


Figure 6
Exterior Wall Hole

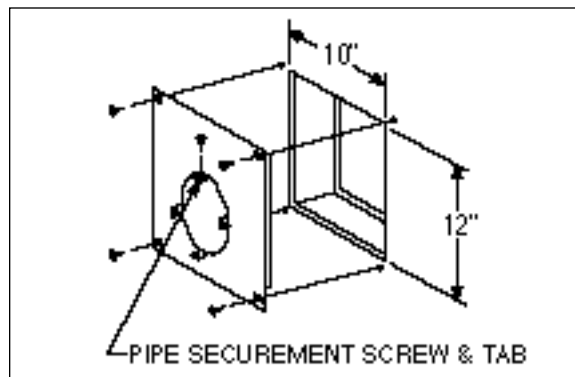


Figure 7
Interior Wall Shield

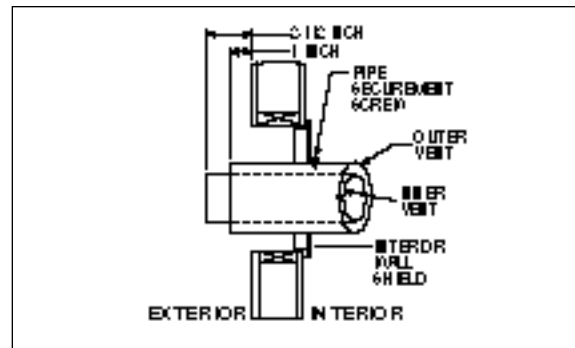


Figure 8
Venting Through the Wall

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



5. Termination Cap. Vent termination must not be recessed into the wall or exterior sheeting. Figure 9 illustrates termination cap locations and

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

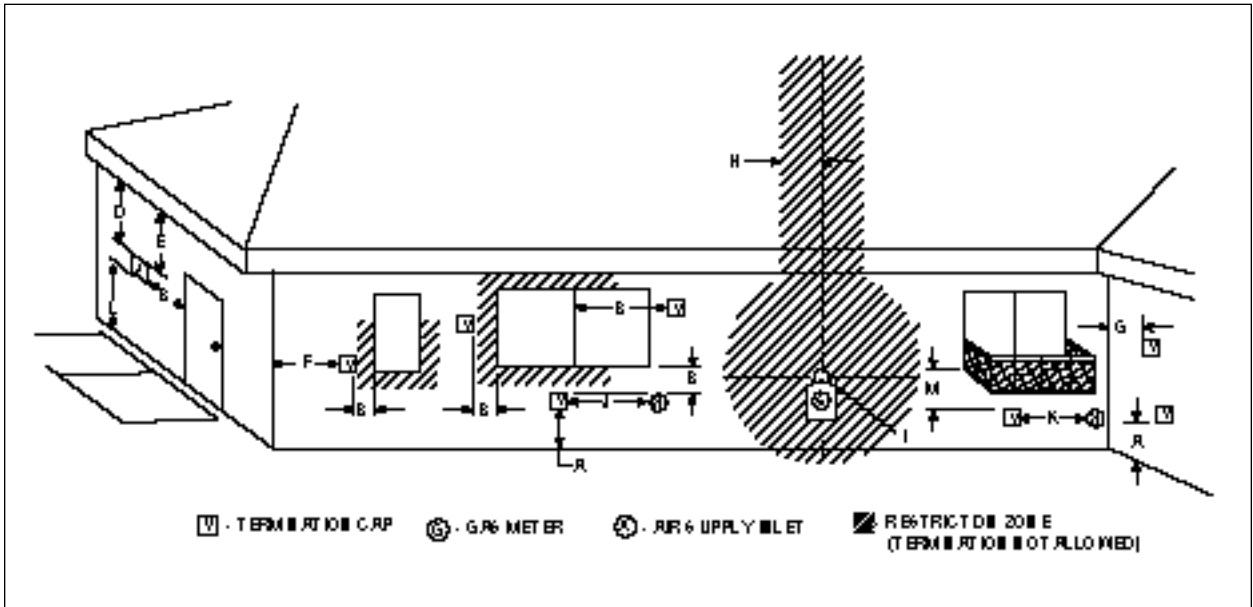


Figure 9
Horizontal Termination Cap Locations

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 CS 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.
- * = 30 inches/76 cm minimum 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 vent sections into the vent sections as shown in Figures 10A and 10B. 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 CS cap shield is required if the cap is located in an area of easy accessibility. See Figure 11.) 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 4 on page 13.

B. Vertical Termination

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

a. Using elbows. To bypass any overhead obstructions, the vent system may be offset using a 90° elbow (VK5) or a 45° elbow (EL45). 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 12.

WARNING!

WHEN HORIZONTAL RUNS EXCEEDING 3' IN LENGTH ARE USED BETWEEN AN OFFSET/RETURN, STRUCTURAL SUPPORT (VS4) MUST BE USED TO REDUCE OFF-CENTER LOADING AND PREVENT VENT SECTIONS FROM SEPARATING.

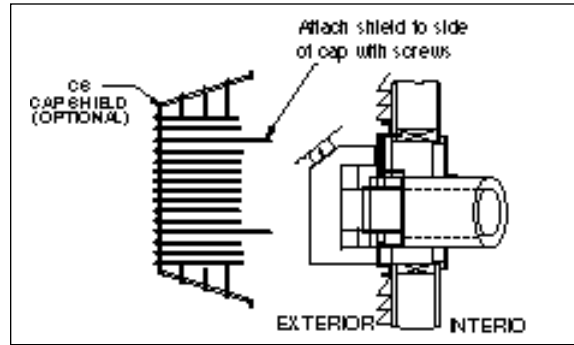


Figure 10A
Termination Cap

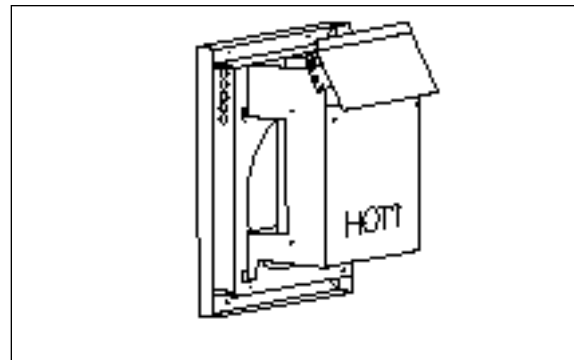


Figure 10B
Proper Positioning of Termination Cap & Shield

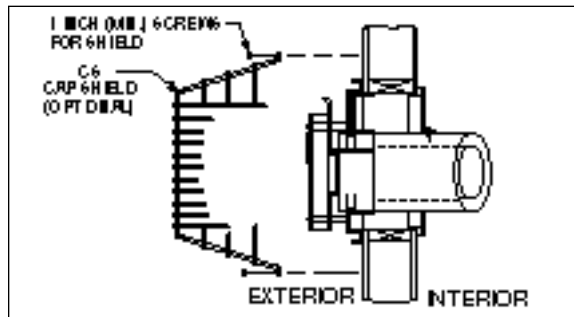


Figure 11
Cap Shield

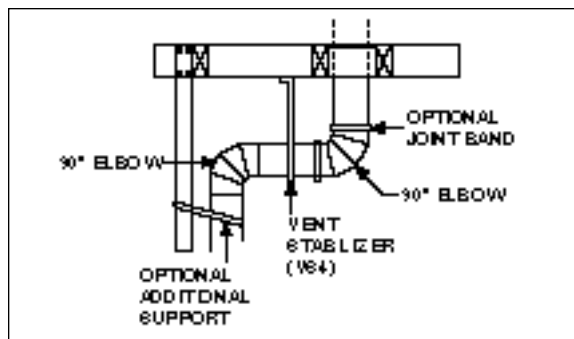


Figure 12
Elbows with stabilizer



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 venting 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 vent system. See Figure 13.

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 vent system. Continue assembling the vent sections up through the firestop spacers as needed. Vent sections must be locked into position with the screws provided, using the predrilled holes. The 15942B starter elbow and the vent stabilizers have straps for securing these parts to joists or rafters.

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.

6. Marking the exit point in the roof.

Locate the point where the venting will exit the roof by plumbing down to the center of the vent. Drive a nail up through the roof to mark the center. See Figure 15.

7. 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.

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

9. Assembling vent sections. Continue to add vent 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.

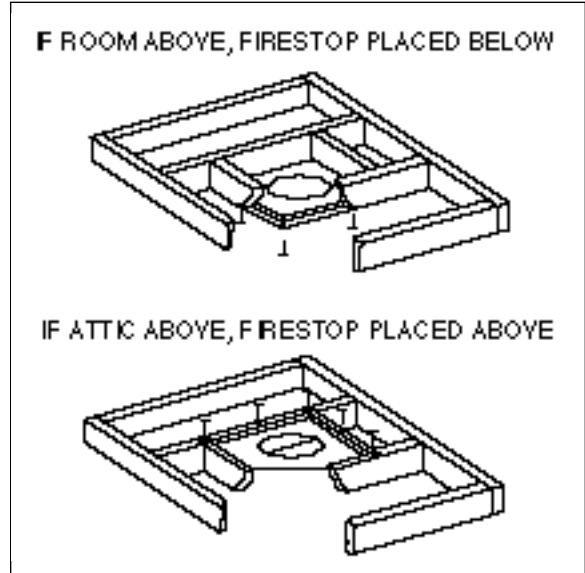


Figure 13
Installing the firestop spacer

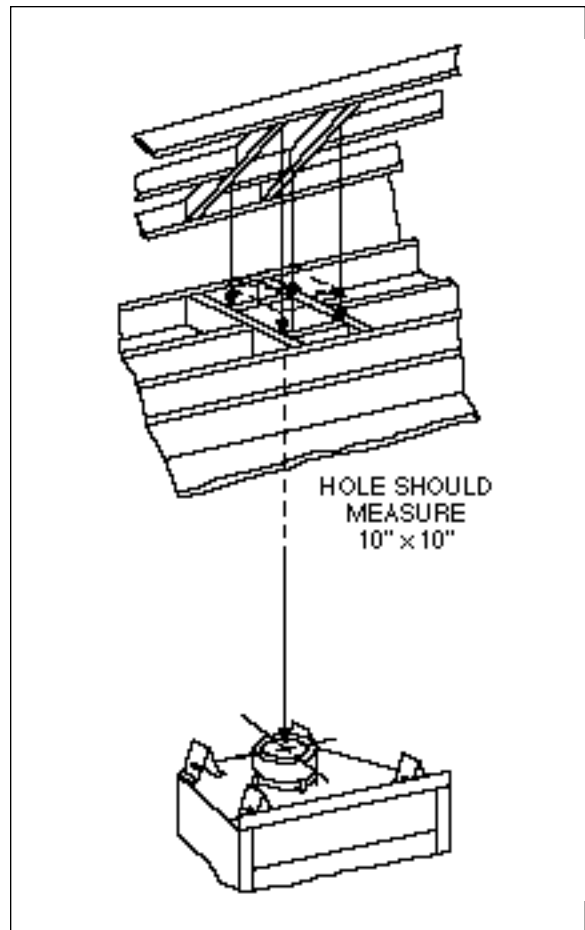


Figure 14
Ceiling and attic construction



10. Termination cap. Major building codes specify a minimum venting system height above the roof top depending on roof pitch. See Figures 15 and 16.

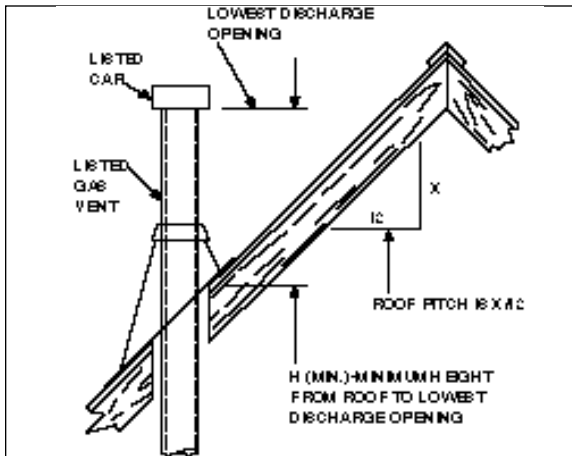


Figure 15 Venting System Height if Termination Location is at Least 8' From a Vertical Wall

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 16

Venting System Termination Height

These termination 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 venting system termination should down drafting occur.

Note: The appliance and its individual shutoff valve must be disconnected from the supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.5 kPa). The appliance must be isolated from the gas supply piping system by closing the individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).

STEP 3 - Double Checking

When construction of the entire vent system has been completed, double check to make sure all venting sections 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 17.

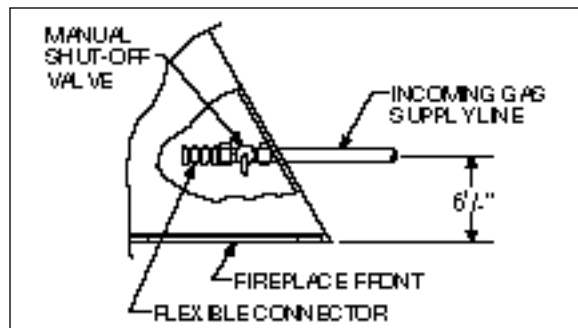


Figure 17
Gas Line

WARNING!

ALTHOUGH EACH UNIT IS LEAK TESTED IN THE FACTORY, IT IS MANDATORY FOR YOU TO CHECK FOR LEAKS DURING THE FIRST BURN, DUE TO HANDLING THAT IS BEYOND THE CONTROL OF HEATILATOR DUE TO SHIPPING, INSTALLATION, AND THE LIKE. EVERY JOINT INCLUDING THE VALVE, PILOT, FITTINGS, ETC., MUST BE CHECKED TO ENSURE NO LEAKS HAVE OCCURRED.

STEP 5 - Gas Line Connection

Gas connections can be made from within the appliance by removing the lower panel. 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 pipe, within the fireplace control area. All connections must be checked for leaks with a soap and water solution or a leak detector.

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



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 18.

To replace the panel, reverse this action.

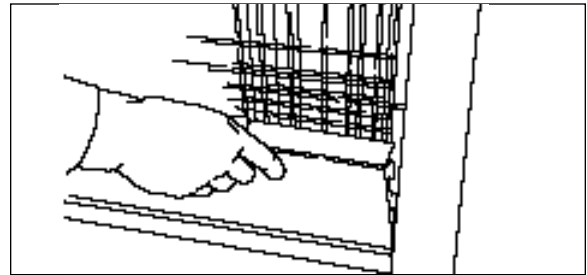
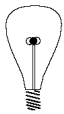


Figure 18
Lower Panel Removal



STEP 7 - Wiring

A. ELECTRONIC IGNITION

1. Appliance Requirements. This appliance requires a 110VAC supply from a wall switch to the appliance junction box for operation. A wiring diagram is shown in Figure 19.

2. Optional Accessories Requirements. Wiring for optional accessories should be done now to avoid reconstruction.

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 or the Canadian Electric Code, CSA C22.1.

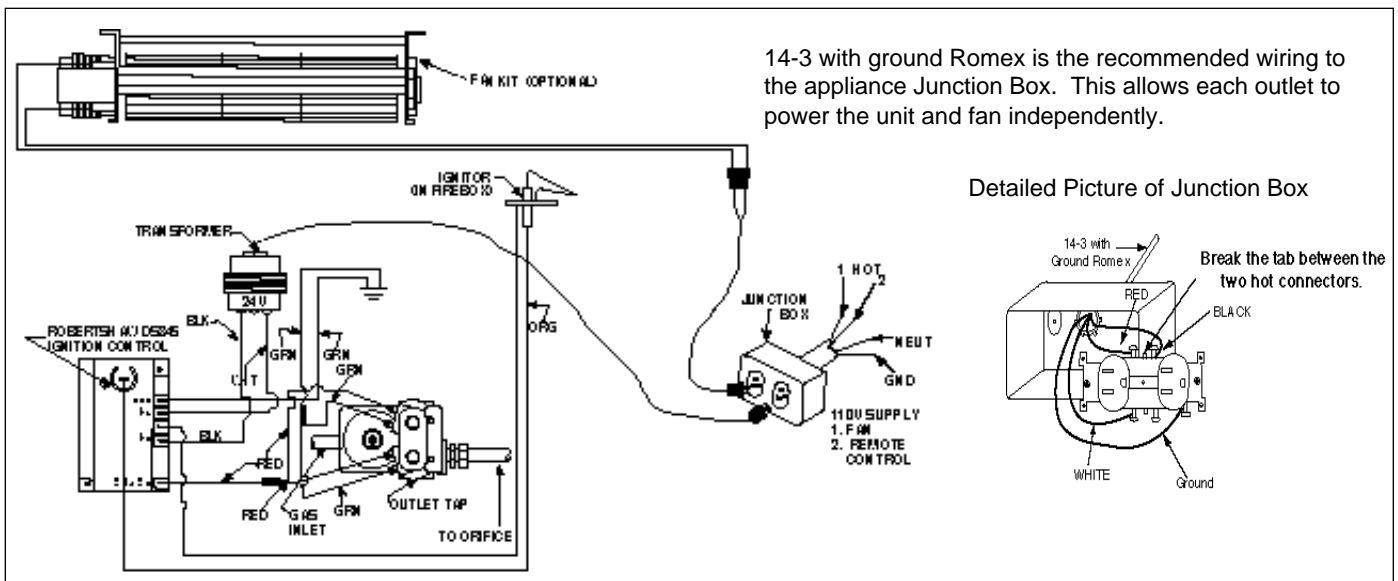


Figure 19
Electronic Ignition Wiring Diagram



B. STANDING PILOT IGNITION

1. Appliance requirements. A wiring diagram is shown in Figure 20.

2. Optional Accessories Requirements. Wiring for optional accessories should be done now to avoid reconstruction.

WARNING!
This appliance **DOES NOT** require a 110VAC supply for operation. Connecting the appliance/wall switch to a 110V AC supply will cause the unit to malfunction and destroy the valve and thermopile.

14-3 with ground Romex is the recommended wiring to the appliance Junction Box. This allows each outlet to power the unit and fan independently.

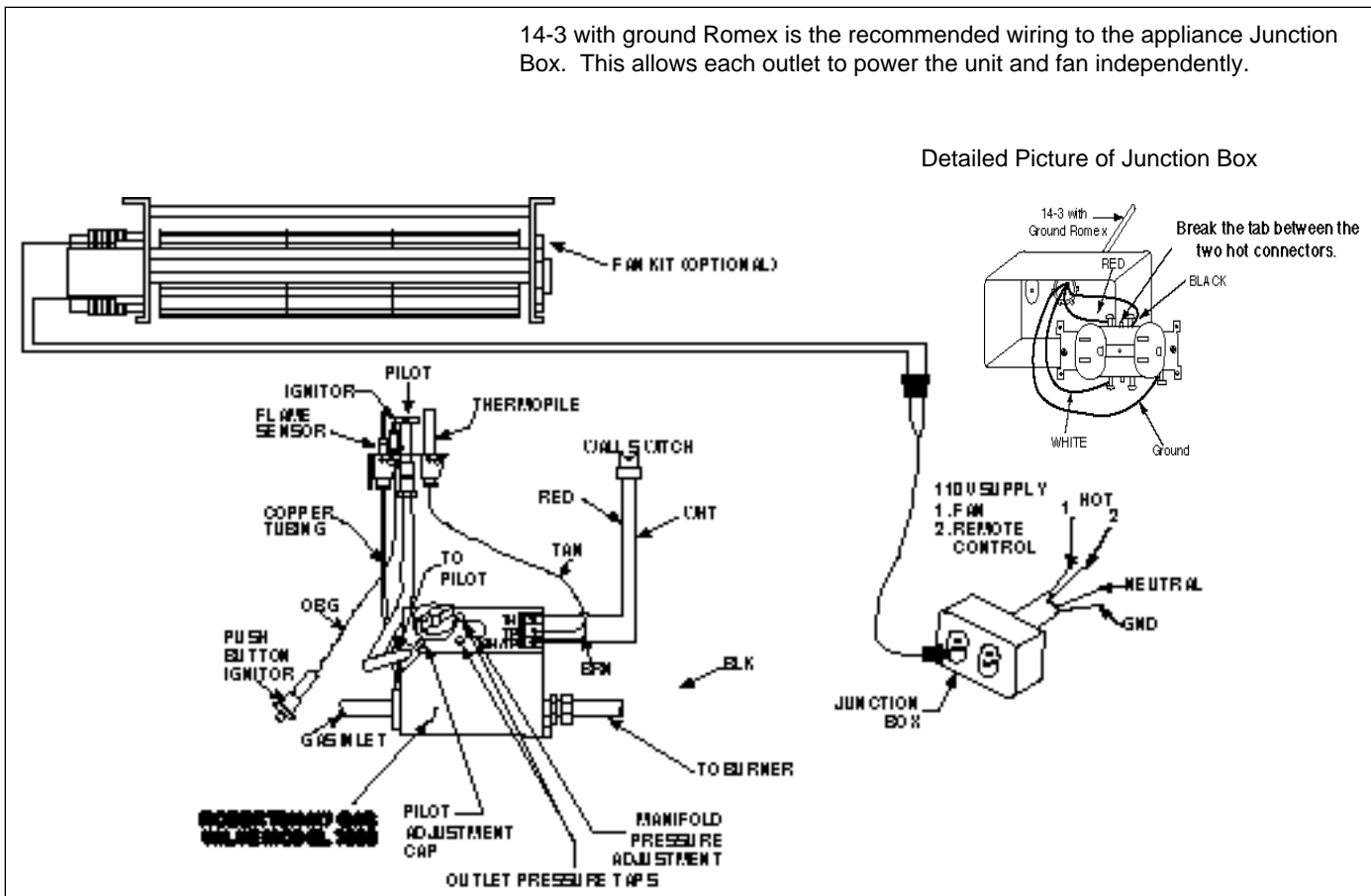


Figure 20
Standing Pilot Ignition Wiring Diagram



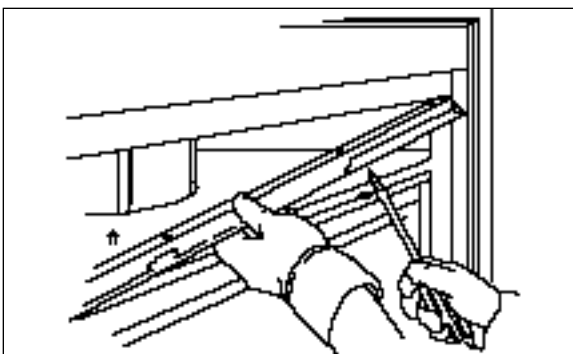
STEP 8 - Attaching Hood

The hood is to be located just above the glass panel. Four screws are visible just inside the upper section of the fireplace. Remove these screws, position the hood and screw into place. See Figure 21

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.

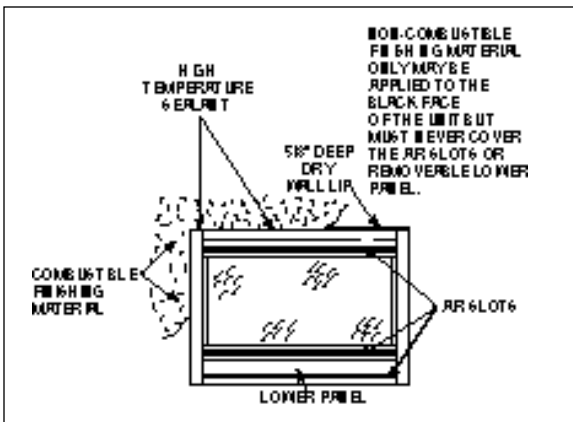
Note: You cannot cover any of the panels on this appliance, as this may create a fire hazard. See Figure 22.



**Figure 21
Hood Placement**

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 material to prevent cold air leaks. See Figure 22.

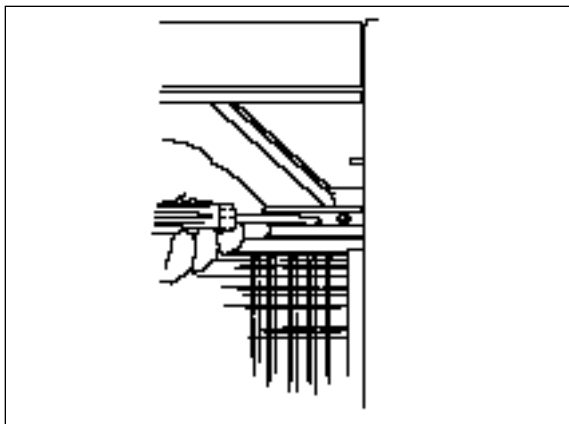
A combustible mantel may be installed at a minimum of 42 inches above the base of the appliance (See page 4 "Fireplace Dimensions").



**Figure 22
Location of Panels**

STEP 10 - Screen Removal

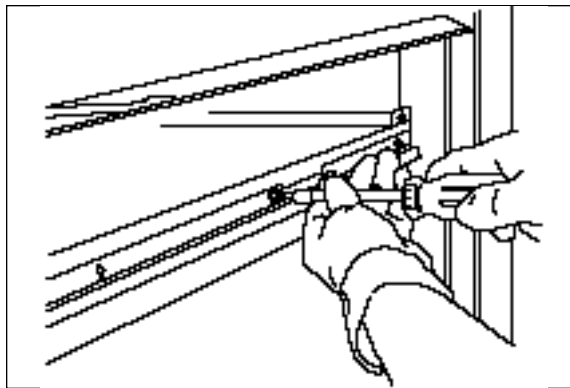
After removing the hood and lower panel, you are able to remove the protective fire screen. Simply remove the screws(4) located in each corner of the screen, lift it out and set aside. See Figure 23. (The screen must be replaced prior to operating this appliance.)



**Figure 23
Screen Removal**

STEP 11 - Glass Removal

To begin removal of the glass, loosen, but do not remove the four sheet metal screws located at the lower portion of the glass. Next, unscrew the four screws located on the top portion of the glass as shown in Figure 24. 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.



**Figure 24
Glass Removal**



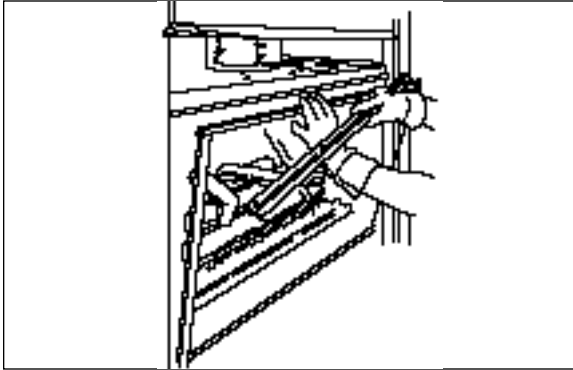


Figure 25
Glass Removal

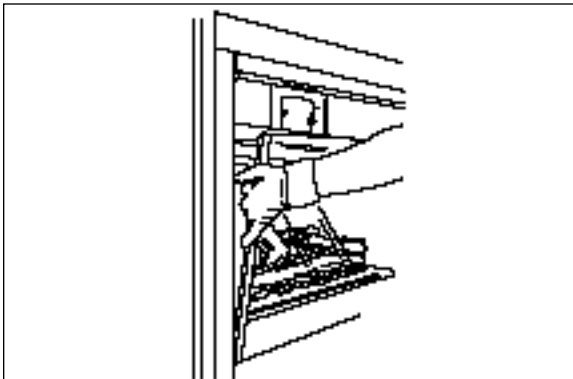


Figure 26
Glass Removal

WARNING!

DO NOT OPERATE THIS APPLIANCE IF THE GLASS IS BROKEN OR CRACKED.

STEP 12 - Positioning the Logs

Open carton labeled #21442 and remove the logs carefully, laying them out as shown in Figure 27. Please note that Figure 27 is the orientation for the logs within the firebox. At this point inspect the logs for any damage.

Begin positioning the logs into the firebox by first placing the Rear Log on the rear log support (at the back of the firebox) with the pins to the top and the indent to the lower right hand side (as you look at it). Next, place the Front Log behind (on top of supports) the burner tube (the portion closest to the front of the firebox).

The right Side Log should be positioned between the Rear and Front Logs with the short portion of the "Y" up and leaning towards the pilot/ignitor and the indent on the Rear Log. The Middle Log is positioned next and is placed across the Rear and Front Logs. On the upper back of the Middle Log is a pin cavity which is placed on the right hand pin of the Rear Log.

The left Side Log is placed with the short portion of the "Y" into the indent on the Front Log. The long portion of the "Y" leans against the Rear Log and the leg portion of the Side Log is placed on the side log support (located on the left hand side of the firebox). The last log to be placed is the Log(Twig). It has a pin cavity in the upper back portion and is placed on the left pin on the Rear Log. The long portion of the Log(Twig) rests on the left Side Log.

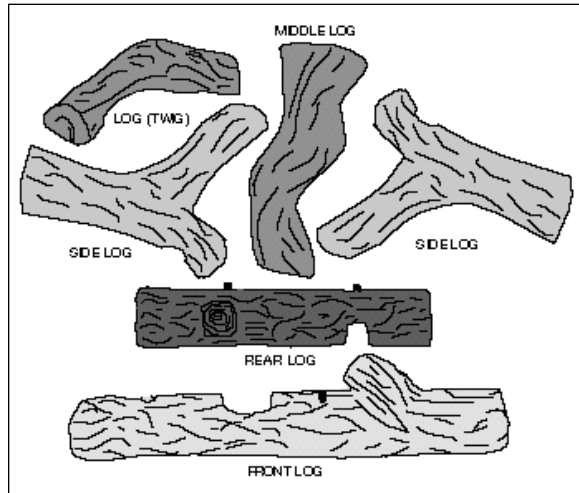


Figure 27
Arranging the Logs

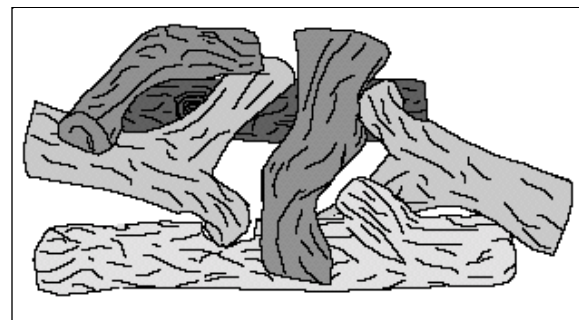


Figure 28
Positioning the Logs

Note: The shading of the logs in this installation manual is for definition only. It does not represent the actual color of the logs



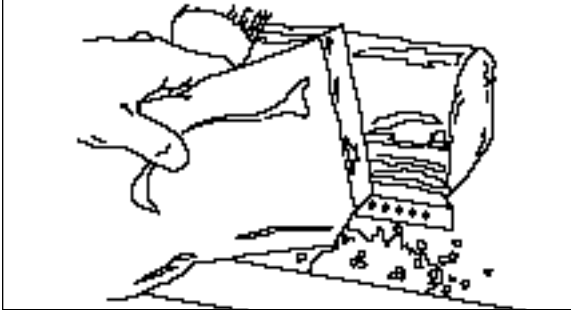


Figure 29 - Placing the Lava Rock and Vermiculite

STEP 13 - Placing the Lava Rock, Vermiculite and Rock Wool

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

Take a small amount of vermiculite and sprinkle it on top of the lava rock. Do not cover the front gas ports with the vermiculite. 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.

When the unit is lit and the front gas ports will not light, make sure that the ports are not blocked by lava rock or vermiculite.

Note: The placement of the logs, lava rock, vermiculite and rock wool is very critical to the appearance of the fireplace looks during its operation. Please take time during this portion of the setup to achieve the best appearance.

STEP 14 - 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. See Figure 31.

WARNING!
NEVER OPERATE THIS APPLIANCE WITH THE GLASS REMOVED OR NOT SEALED.

WARNING!
DO NOT HIT, STRIKE OR SLAM SHUT THE GLASS.

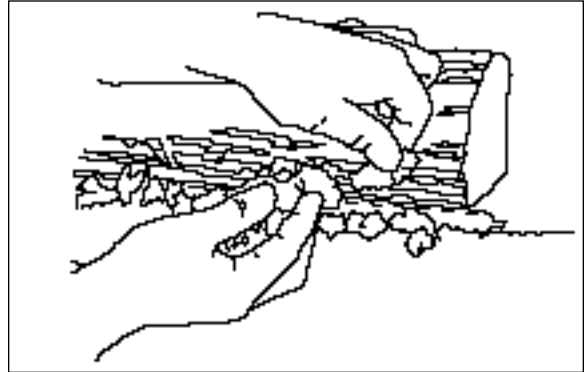


Figure 30
Placing the Rock Wool

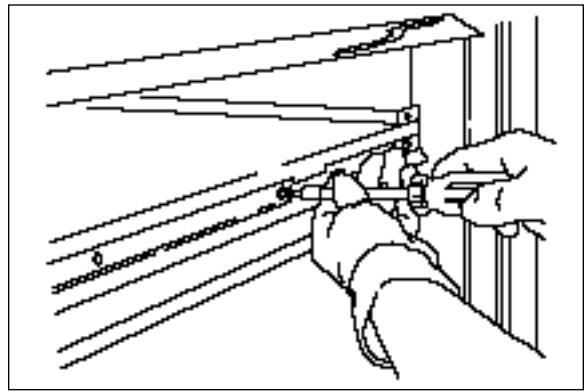


Figure 31
Glass Replacement

STEP 16 - Screen Replacement

Position the screen over the glass, align the screw holes located in each upper corner of the panel with the holes in the fireplace and screw into place.

STEP 17 - Replacing the Panels

Simply replace each 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. See Figure 32.

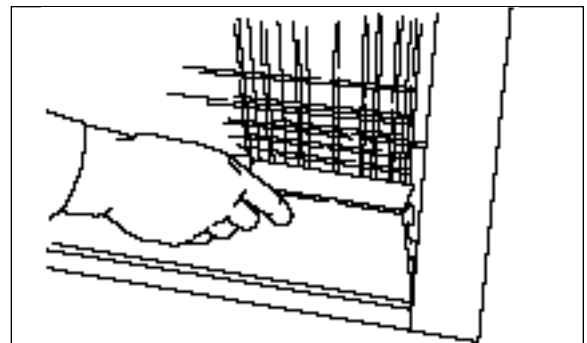


Figure 32
Lower Panel Replacement



VI. OPERATING INSTRUCTIONS

STANDING PILOT FOR YOUR SAFETY READ BEFORE LIGHTING

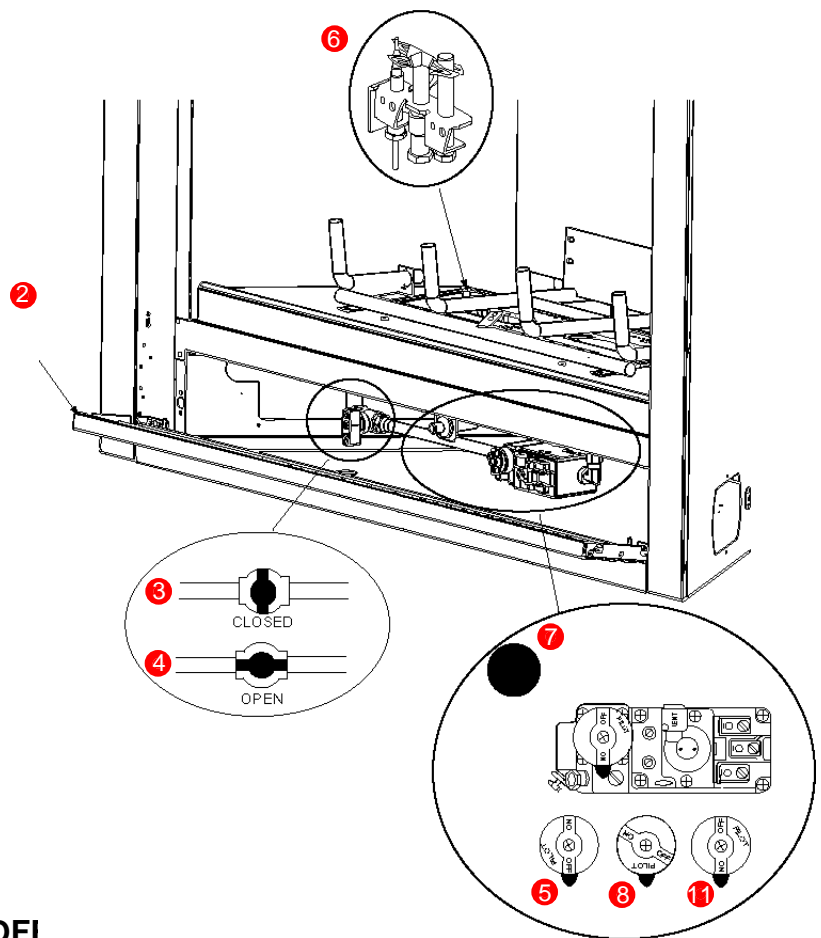
WARNING! If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be 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.

LIGHTING INSTRUCTIONS

STOP! Read the safety information above on this label!

1. Turn off all wall switches to the appliance.
2. Lower bottom access panel. Turn wall switch to the "OFF" position or set thermostat to lowest setting.
3. Turn gas line to CLOSED. Wait 5 minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
4. Turn gas line to OPEN.
5. Turn pilot knob clockwise to "OFF". (Knob may have to be depressed to pass "PILOT" position.)
6. Locate pilot assembly inside unit.
7. Locate red ignitor button.
8. Turn pilot knob to "PILOT" and push in.
9. Continue to hold in pilot knob and push the red ignitor button 12-15 times until small blue pilot flame appears.
10. Continue to hold in pilot knob for approximately one minute. Pilot should remain lit. If pilot goes out, wait 5 minutes and repeat Steps 4-9.
11. To light the main burner, release and turn knob counterclockwise to "ON". If the fireplace is connected to a wall switch, turn it to "ON". Do not light by hand.
12. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.



TO TURN OFF

1. Turn off the wall switch or set the thermostat to the lowest setting.
2. Remove control access panel.
3. Turn gas line to CLOSED position. Do not force.
4. Replace control access panel.

Determining the Ignition Type

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 ignitor button (as shown in Figure 1), you own a standing pilot ignition fireplace. If no red ignitor button is present, you have an electronic ignition appliance.

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

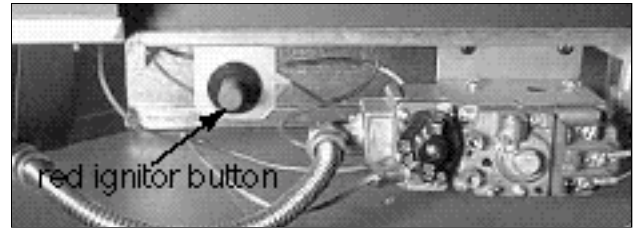


Figure 1
Standing Pilot Ignition

ELECTRONIC UNITS

**FOR YOUR SAFETY
READ BEFORE OPERATING**

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 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. Follow the supplier's instructions.
- If you can not reach your gas supplier, call the fire department.

C. Use only your hand to push in and move the gas control lever or turn the gas control knob. Never use tools. If the lever or knob will not move 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

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn wall switch to the "OFF" position.
3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light burner by hand.
4. 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 on to the next step.
5. To turn on burner, turn on the wall switch.
6. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Turn off the wall switch.
2. Turn gas line to the "OFF" position.
3. Replace control access panel.



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 12 and 13 on page 17 and 18). The top of the burner and the holes in the sides of the burner should not be covered with rock wool. 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 (see Step 1 following) 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 CS 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 pull on the outside top edges of the panel as shown in Figure 34.

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 22.

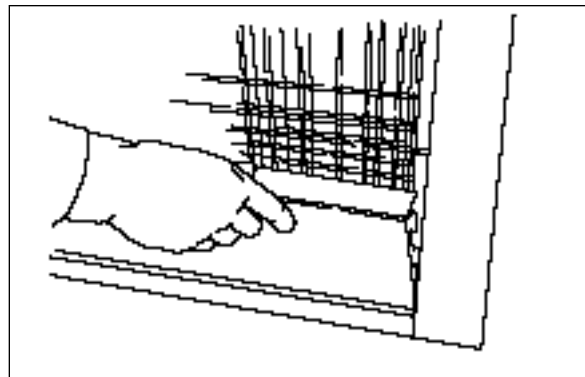


Figure 34
Lower Panel Removal



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 behind the lower access panel) have been turned to the OFF position. See Figure 35. 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 manual on/off valve to ON. Turn the gas knob to PILOT, as shown in Figure 36, and press in. While holding it in, light the pilot by pressing the red ignitor button, shown in Figure 37, several times until the pilot 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 38. You may now turn the remote wall switch to the ON position which will turn on the main burner. Initially, the flames may resemble more of a blue color but after the first 20 minutes of operation, they will become more yellow.

Note: 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.

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 ON/OFF rocker switch, if applicable) to the OFF position.

Next step, remove the lower access panel to expose the valve area. (Follow Step 1 on page 18.) Locate the gas knob and turn it to the PILOT position. Press in and continue turning to the OFF position. Turn the manual ON/OFF valve to OFF. 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. The pilot light will continue to burn.

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

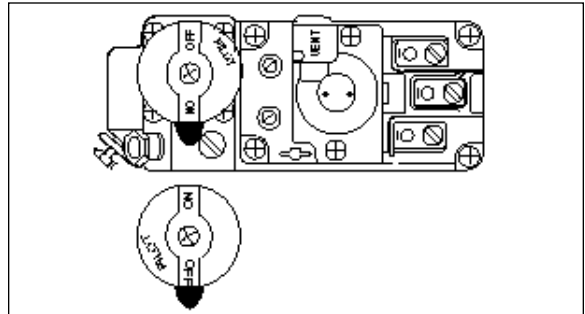


Figure 35
Standing Pilot Ignition Valve “OFF”

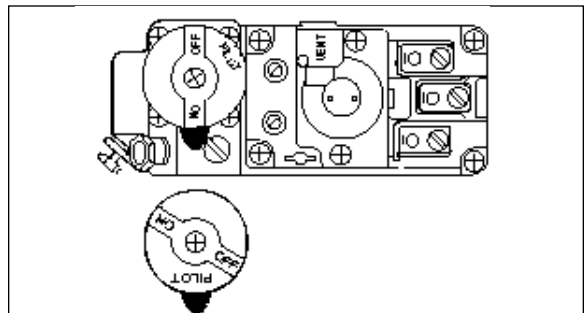


Figure 36
Standing Pilot Ignition Valve to “PILOT”

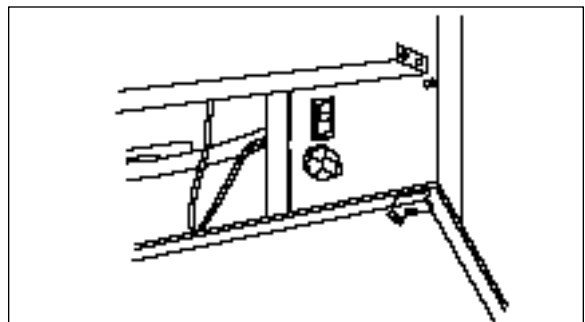


Figure 37
Red Ignitor Button

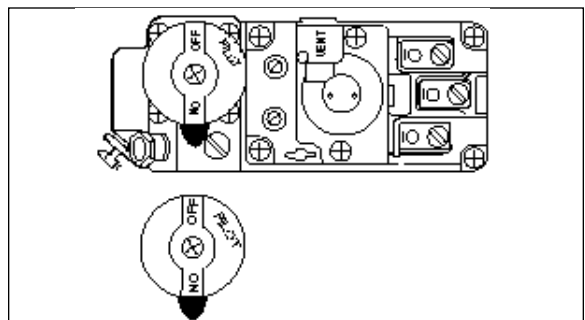


Figure 38
Standing Pilot Ignition to “ON”



If you own a standing pilot ignition, skip section B and continue with Step 2.

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 manual on/off knob have been turned to the OFF position. 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.

Turn the manual on/off knob inside the lower access area to the ON position. Then, turn the remote wall switch to ON. This will activate an electronic spark. Initially, the flames may have 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. **Note: There may be a rocker switch on a column in the control area, as well as a wall switch. Both have to be off for the unit to be off.** 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 to the OFF position. The next step is to remove the lower access panel to expose the valve area. Locate the gas valve knob and turn it to the OFF position. Turn the manual on/off knob to OFF. 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.

STEP 2 - Replacing the Lower Access Panel.

To replace the lower grille panel, align the lower panel with the [4] Pins ([2] per column). See Figure 39. Press the panel in and down to secure it in place. See Figure 40.

Note: 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.

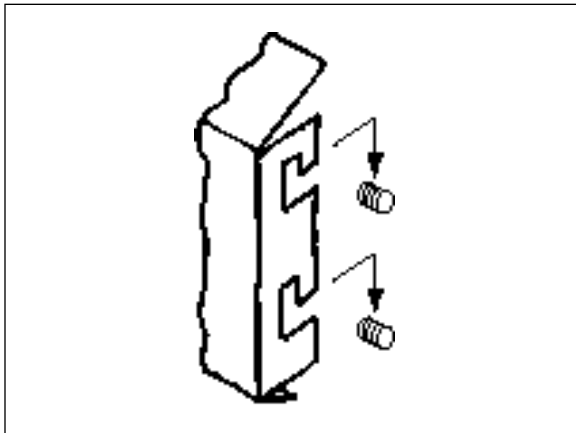


Figure 39
Side View of Panel

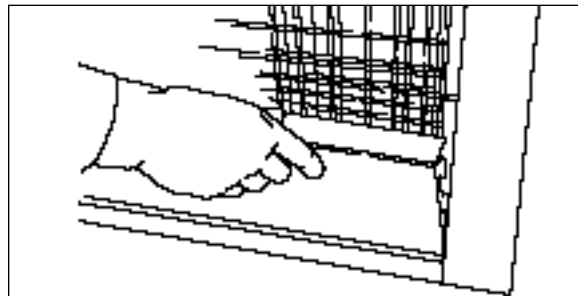


Figure 40
Lower Front Face Replacement

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 ON/OFF 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 41 through 44.

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 pets and children a safe distance away.

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

Clean glass after initial one hour burn. This is to remove any film that develops from oils and log burn in time. After initial cleaning, clean as needed.

To remove the glass for cleaning, follow Step 11 on page 16. Handle glass panel with care to avoid striking or scratching it on hard objects.

To clean the glass, use a non-abrasive automotive rubbing compound and glass cleaner. Simply apply an adequate amount to the glass and wipe off per manufacturers instructions. Contact your local stove shop or fireplace accessories store for further recommendations.

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 glass only with Heatilator part number 15573 ordered direct or through your local distributor. Never use substitute material. Only fully tempered soda lime safety glass or optional ceramic 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 44. 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.

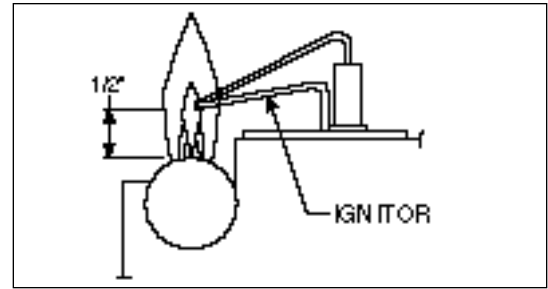


Figure 41
Electronic Ignition

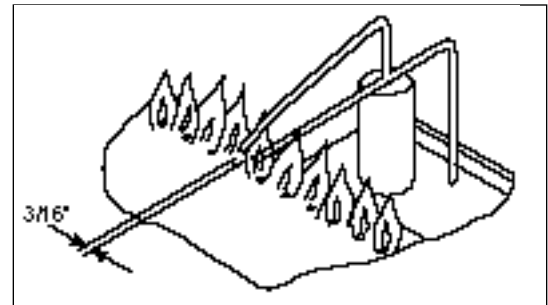


Figure 42
Electronic Ignition

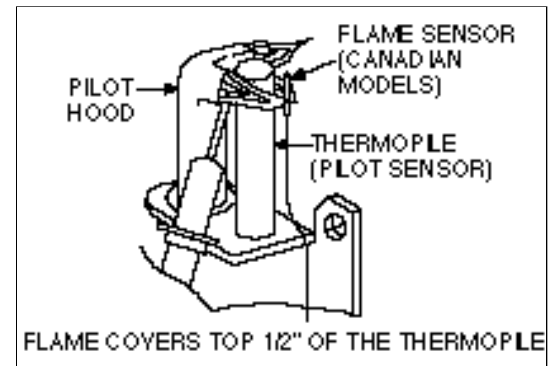


Figure 43
Standing Pilot

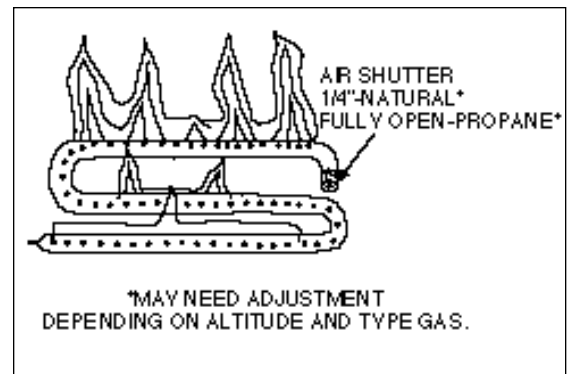


Figure 44
Both Ignitions



VIII. TROUBLE SHOOTING

ELECTRONIC IGNITION (GC150E)

Problem	Cause	Corrective Action
1. Spark ignitor will not light burner after repeated attempts.	<p>A. Defective ignitor; loose wire.</p> <p>B. Misaligned electrode at ignitor.</p>	<p>Check for loose connections on electrode and ignitor. Refer to the wiring diagram on page 13 for assistance.</p> <p>Check for spark. If electrode connection is correct and there is no spark, replace ignitor.</p> <p>Spark should be extending approx. 3/16" to ground wire. See Figure 42. Adjust gap to give proper spark. Remove hands from electrode before attempting.</p>
2. Burner will not stay lit.	<p>A. Defective ignitor.</p> <p>B. No ground.</p>	<p>Check burner flame. See Figure 41. Adjust ignitor if necessary.</p> <p>Be sure ignitor is secured tight into bracket and bracket is secured tightly to the unit.</p> <p>Be sure wiring connections are tight throughout system, including high limit switch.</p> <p>Check that wiring is grounded as shown in Figure 19.</p>
3. With valve and wall switch in "ON" position, no gas to burner.	<p>A. Manual on/off valve(s) shut off.</p> <p>B. Plugged burner orifice.</p> <p>C. Wall switch defective.</p> <p>D. No Power</p>	<p>Check all gas valves leading to appliance. Turn to the "ON" position. Check for 24 volt power off secondary on the transformer.</p> <p>Check burner orifice; remove blockage.</p> <p>Check continuity.</p> <p>Check 110VAC supply (Fuses/Breaker)</p>
4. Glass doors fog up.	<p>A. A normal result of gas combustion.</p>	<p>No action is necessary. After the fireplace has warmed up, the glass will clear.</p>
5. Blue flames.	<p>A. A normal result during the first 20 minutes of burning.</p> <p>B. Improper air mixture.</p>	<p>No action is necessary. Flames will begin to turn more yellowish after about 20 minutes of burning. If blue flames persist, check air shutter setting and check log and embers are positioned correctly.</p> <p>Check air shutter setting.</p>



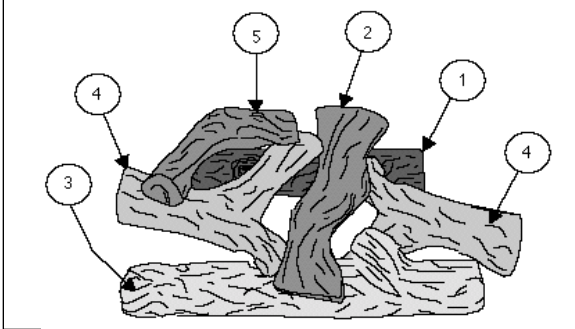
STANDING PILOT

Problem	Cause	Corrective Action
1. Spark ignitor will not light pilot after repeated pressing of red button.	A. Defective ignitor. B. Misaligned electrode. C. No gas to pilot/plugged orifice. D. Ignitor wire grounding out. E. Loose ignitor wiring.	Replace ignitor. Spark should be approximately 1/8" to bottom of pilot hood. Adjust gap to give proper spark. Remove hands from electrode before pressing red button. Check valve knob position & any shut-off valves. If propane, check for empty tank. Check pilot orifice; remove any blockage. Replace pilot assembly. Check for spark. If electrode connection is correct & no spark, replace ignitor.
2. Pilot will not stay lit.	A. Pilot flame not in constant contact with pilot sensor. B. Pilot sensor not tightened/seated in valve properly. C. Defective pilot sensor thermocouple. D. Faulty valve.	Check log placement. Check pilot flame; adjust flame if necessary. Check that pilot sensor connector is tight in valve. Replace pilot sensor thermocouple. Replace valve.
3. With pilot lit, valve and ON/OFF switch in "ON" position, burner will not light.	A. 110 volts of electricity has burned out valve. B. ON/OFF wall switch defective. C. Plugged burner orifice. D. Defective thermopile. E. Burner not on orifice. F. Loose or faulty wiring. G. Faulty valve. H. Faulty high limit switch/micro switch.	Remove voltage and replace valve. 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 doesn't come on, connect to ON/OFF switch junctions at valve. If burner comes on, replace wires. Check burner orifice, remove blockage. Replace thermopile. Check burner; place on orifice. Check for loose connections; verify wiring (See Figure 20). Replace valve. Replace high limit switch or micro switch.
4. Appliance turns itself off after a period of time, but pilot stays lit.	A. Intermittent short in ON/OFF wiring system. B. Defective thermopile.	Check/ replace ON/OFF wiring system. Replace thermopile.
5. Appliance turns itself off after a period of time, pilot no longer lit.	A. Pilot flame not in constant contact with pilot sensor. B. Defective pilot sensor thermocouple.	Check log placement; check pilot flame, adjust flame if necessary. Replace pilot sensor thermocouple.
6. Glass doors fog up.	A. Normal result of gas combustion.	No action necessary - glass will clear as appliance warms.
7. Blue flames.	A. Normal result during first 20 minutes of burning.	No action necessary - flames will turn more yellow after about 20 minutes.
8. Glass has film on it.	A. Normal result during initial few hours of operation. B. Improper log placement causing soot. C. Dark yellow tipped flame.	Clean glass with Brasso or silver polish. Check log placement; reposition if necessary. Open air shutter to increase air to gas ratio.

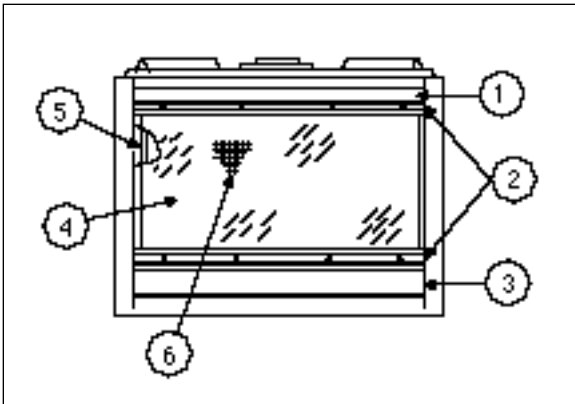


IX. REPLACEMENT PARTS

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

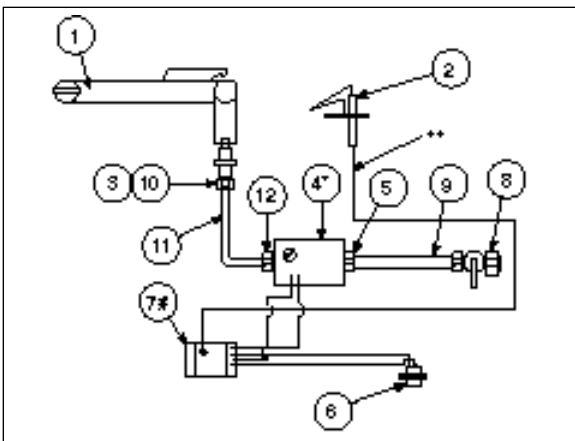


ITEM	PART #	DESCRIPTION
1	21443	Rear Log
2	21444	Middle Log
3	21459	Front Log
4	21445	Side Logs
5	17229	Log



ITEM	PART #	DESCRIPTION
1	15675	Hood
2	15687	Glass Frame
3	20128	Lower Face
4	15573	Glass
5	15574	Gasket
6	19196	Screen Assembly

ELECTRONIC IGNITION - GC150E

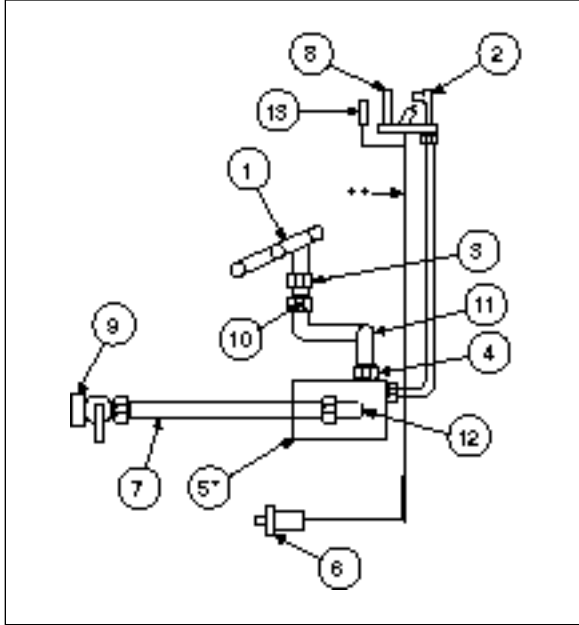


ITEM	PART #	DESCRIPTION
1	21427	Burner
2	26540	Ignitor
3	16752	Orifice - Natural
4*	21464	Valve - Natural (Robertshaw)
5	14326	90° Elbow - Brass
6	17836	Transformer Assembly
7#	15695	Ignition Control
8	15697	On/Off Valve
9	17245	Flexible Line
10	13405	Bulkhead Union
11	31040	3/8" Burner Tubing
12	13425	Male Connector - Brass
IF CONVERTED TO PROPANE		
3	14047	Orifice - Propane

- # Ignition control identification must be made. They are marked Channel Products or Robertshaw.
- * 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.



STANDING PILOT - GC150



** 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 #	DESCRIPTION
1	21427	Burner
2	25660	Pilot Assembly - Natural
3	16752	Orifice - Natural
4	13425	Male Connector - Brass
5*	23363	Valve - Natural (Robertshaw)
6	13416	Push Button Ignitor
7	17245	Flexible Line
8	13411	Thermopile (Pilot Sensor)
9	15697	"On/Off" Valve
10	13405	Bulkhead
11	21446	3/8" Burner Tubing
12	14326	90° Elbow - Brass
13	18555	Flame Sensor (Canadian models only)
IF CONVERTED TO PROPANE		
2	25661	Pilot Assembly - Propane
3	14047	Orifice - Propane
5*	25812	Valve - Propane (Robertshaw)

Attention

**APPLIANCE
INSTALLER**

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



Heatilator
1915 W. Saunders Street
Mt. Pleasant, IA 52641
A Division of Hearth Technologies Inc.