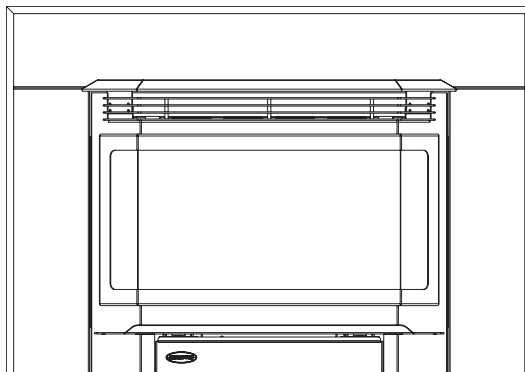


# QUADRA-FIRE®

## HUDSON BAY INSERT DIRECT VENT GAS APPLIANCE

### Owner's Manual Installation and Operation

**Model:**  
HUSBAY-INS



Tested and  
Listed by **OTL** Portland  
C US Oregon USA  
OMNI-Test Laboratories, Inc.

### CAUTION



#### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

DO NOT  
DISCARD

**⚠ 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.

### ⚠ WARNING



#### HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

#### Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.
- **High temperatures may ignite clothing or other flammable materials.**
- Keep clothing, furniture, draperies and other flammable materials away.

In the Commonwealth of Massachusetts:

- installation must be performed by a licensed plumber or gas fitter;
- a CO detector shall be installed in the room where the appliance is installed.

This appliance may be installed as an OEM installation in manufactured home (USA only) or mobile home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, *Title 24 CFR, Part 3280 or Standard for Installation in Mobile Homes, CAN/CSA Z240MH*.

This appliance is only for use with the type(s) of gas indicated on the rating plate.



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies suggests NFI certified or factory trained professionals, or technicians supervised by an NFI certified professional.

and Welcome to the Quadra-Fire Family!

This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. Each appliance

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. Thank you for choosing Quadra-Fire.

**Manufactured Date**

# Table of Contents

## 1 Listing and Code Approvals

A. Appliance Certification . . . . .	4
B. Glass Specifications . . . . .	4
C. BTU Specifications . . . . .	4
D. High Altitude Installations . . . . .	4
E. Non-Combustible Materials Specification . . . . .	4
F. Combustible Materials Specification . . . . .	4
G. Electrical Codes . . . . .	4

## 2 Getting Started

A. Design and Installation Considerations . . . . .	5
B. Tools and Supplies Needed . . . . .	5
C. Inspect Appliance and Components . . . . .	5

## 3 Framing and Clearances

A. Selecting Appliance Location . . . . .	6
B. Clearances to Combustibles . . . . .	6

## 4 Termination Locations

A. Vent Termination Minimum Clearances . . . . .	7
--	---

## 5 Vent Information

A. Venting and Installation . . . . .	8
---------------------------------------	---

## 6 Gas Information

A. Fuel Conversions . . . . .	10
B. Converting to LP Gas . . . . .	10
C. Valve Regulator Replacement . . . . .	11
D. Gas Pressures . . . . .	12
E. Gas Connection . . . . .	13

## 7 Electrical Information

A. Recommendation for Wire . . . . .	14
B. Connecting to the Appliance . . . . .	14
C. Standing Pilot Ignition System Wiring . . . . .	14

## 8 Appliance Setup

A. Remove Shipping Materials . . . . .	16
B. Accessories . . . . .	16
C. Door Crown Installation . . . . .	16
D. Grille Installation . . . . .	17
E. Panel Set Installation . . . . .	17
F. Brick Installation . . . . .	18
G. Positioning the Logs . . . . .	19
H. Mineral Wool . . . . .	20
I. Blower Installation . . . . .	20
J. Air Shutter Adjustment . . . . .	22

## 9 Operating Instructions

A. Before Lighting Appliance . . . . .	23
B. Lighting Appliance . . . . .	24
C. After Appliance is Lit . . . . .	25
D. Frequently Asked Questions . . . . .	25

## 10 Troubleshooting

A. Standing Pilot Ignition System . . . . .	26
---	----

## 11 Maintaining and Servicing Appliance

A. Glass Replacement . . . . .	28
B. Maintenance Tasks . . . . .	29

## 12 Reference Materials

A. Appliance Dimension Diagram . . . . .	30
B. Vent Components List . . . . .	31
C. Service Parts List . . . . .	33
D. Limited Lifetime Warranty . . . . .	35
E. Contact Information . . . . .	37

➔ = Contains updated information.

# 1 Listing and Code Approvals

## A. Appliance Certification

**MODELS:** Hudson Bay Insert

**LABORATORY:** Omni Test Laboratories, Inc. 061-S-51-5

**TYPE:** Direct Vent Gas Fireplace Heater

**STANDARD:** ANSI Z21.88-2002 • CSA 2.33-2002 • UL307B  
CAN/CBA 2.17-M91

This product is listed to ANSI standards for “Vented Gas Appliance Heaters” and applicable sections of “Gas Burning Heating Appliances for Manufactured Homes and Recreational Vehicles”, and “Gas Fired Appliances for Use at High Altitudes”.

Manufactured Home or Mobile Home installation may occur only after the home is site located and 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/NCSBCS A225.1, or Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4.

When installed, the appliance must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

## B. Glass Specifications

This appliance is equipped with 5 mm ceramic glass. Replace glass only with 5 mm ceramic glass. Please contact your dealer for replacement glass.

**Note:** This installation must conform with local codes. In the absence of local codes you must comply 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.

## C. BTU Specifications

Model (US or Canada)	Maximum Input BTU/h	Minimum Input BTU/h	Orifice Size (DMS)	*Steady State Efficiency %	**P.4 %
Hudson Bay Insert (NG)	42,000	28,000	.125	83.56	71.41
Hudson Bay Insert (LP)	40,500	31,000	.076	85.39	74.45

\*Maximum Vent Blower On

\*\*Canada Only

## D. High Altitude Installations

Omni-Test Laboratories, Inc. listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and 0 to 4500 feet in Canada.

When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.

### WARNING

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.

## E. Non-Combustible Materials Specification

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

Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C**, shall be considered non-combustible materials.

## F. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or whether plastered or unplastered shall be considered combustible materials.

## G. Electrical Codes

**NOTICE:** 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.**

- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.

## 2 Getting Started

### A. Design and Installation Considerations

Quadra-Fire direct vent gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the outside. No additional outside air source is required.

#### CAUTION

Check building codes prior to installation.

- Installation **MUST** comply with local, regional, state and national codes and regulations.
- Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

When planning an appliance installation, it's necessary to determine the following information before installing:

- Where the appliance is to be installed.
- The vent system configuration to be used.
- Gas supply piping.
- Electrical wiring.
- Framing and finishing details.
- Whether optional accessories—devices such as a fan, wall switch, or remote control—are desired.



#### WARNING

Keep appliance dry.

- Mold or rust may cause odors.
- Water may damage controls.



### B. Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

Reciprocating saw	Framing material
Pliers	Hi temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Flat blade screwdriver	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	Wrenches
Ratchets/Sockets	Allen Wrench Set
Manometer	Voltmeter
Tape measure	1/2 - 3/4 inch length, #6 or #8 Self-drilling screws
One 1/4 inch female connection (for optional fan)	
Noncorrosive leak check solution or combustible gas detector	

### C. Inspect Appliance and Components



#### WARNING

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
  - Do NOT install incomplete components.
  - Do NOT install substitute components.
- Report damaged parts to dealer.



- Carefully remove the appliance and components from the packaging.
- Remove cast door and glass, and set aside on protective surface.
- Remove log set and component pack from firebox.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**



#### WARNING

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance or vent system component.
- Modification of the appliance or vent system.
- Installation other than as instructed by Hearth & Home Technologies.
- Improper positioning of the gas logs or the glass door.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

**Any such action may cause a fire hazard.**

### 3 Framing and Clearances

**Note:**

- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

#### A. Selecting Appliance Location

When selecting a location for your appliance it is important to consider the required clearances to walls (see figure 3.1).

#### **⚠ WARNING**



**Fire Risk**

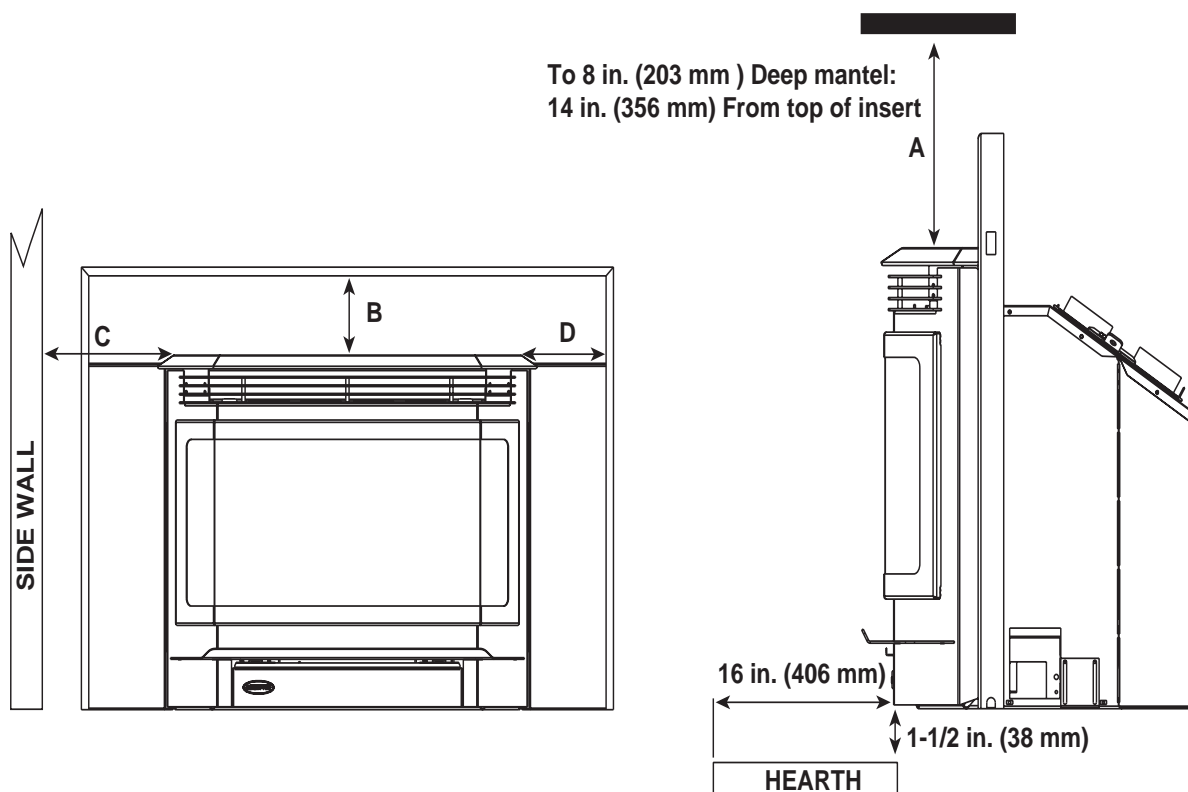
Provide adequate clearance:

- Around air openings
- To combustibles
- For service access

Locate appliance away from traffic areas.

**NOTE:** For actual appliance dimensions refer to Section 12.

#### B. Clearances to Combustibles



Model		A	B	C	D
Hudson Bay Insert	Inches	14	11	12	7
	Millimeters	356	279	305	178

Underneath bottom of appliance to combustibles: 3/8 in. (10 mm)

16 in. (406 mm) front floor protection required 0 in. to 2-1/2 in. (64 mm) below bottom of appliance. (1/2 in. of "k" = .84)

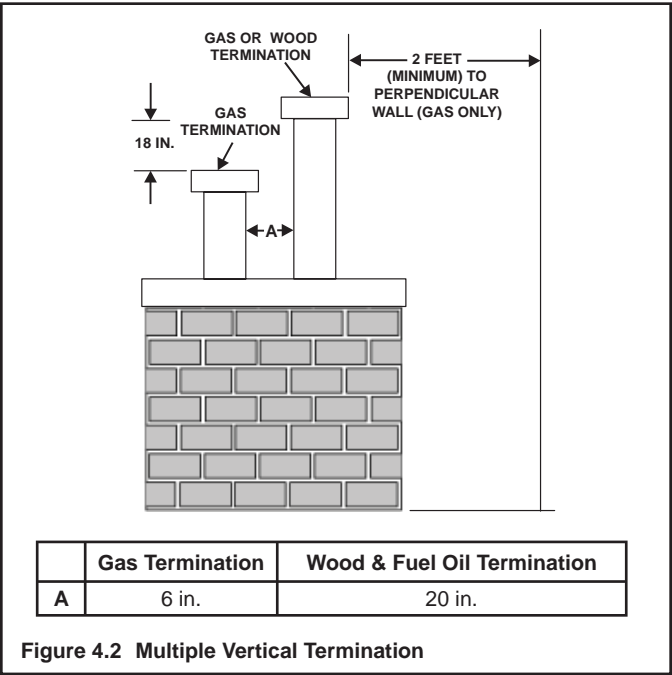
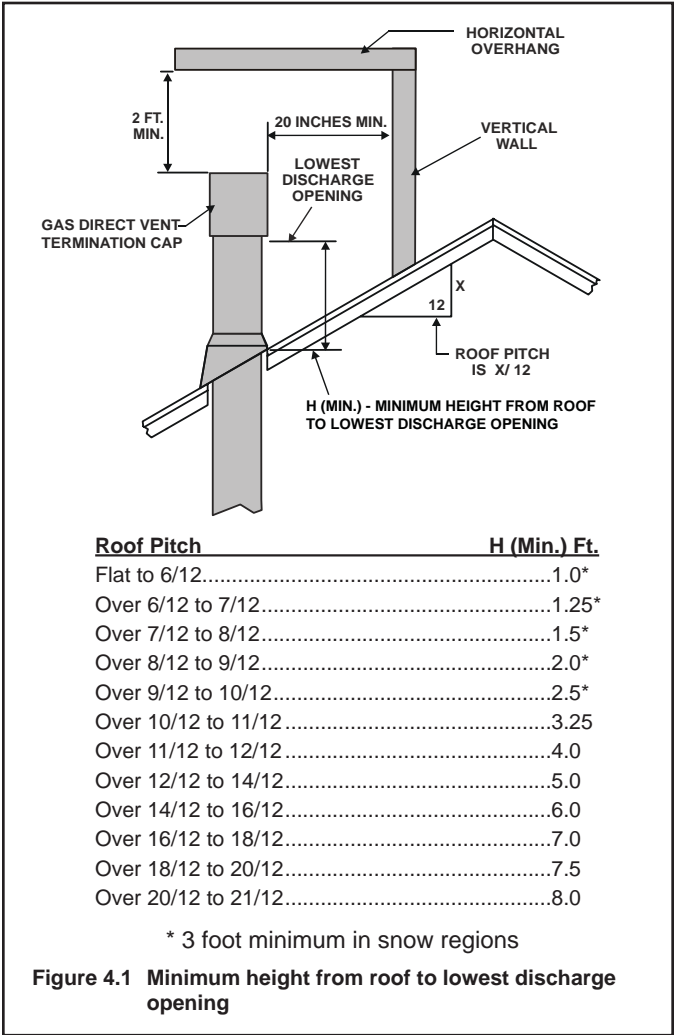
No floor protection needed if 2-1/2 in. (64 mm) or greater from bottom of appliance.


**Figure 3.1**

# 4 Termination Locations

## A. Vent Termination Minimum Clearances

Figure 4.1 specifies minimum vent heights for various pitched roofs.





**WARNING**

Fire Risk.  
Asphyxiation Risk.

- Terminations **MUST** meet minimum clearances.
- Exhaust gases are hot.
- Nearby vents may draw fumes into house.



# 5 Vent Information

## A. Venting and Installation

**Tools and supplies needed:** Pliers; Phillips screwdriver; Tape measure; Level; Electrical drill and bits; Square; and High Temperature Sealant Material.

**Note:** Quadra-Fire gas inserts are designed for recessed installations into solid fuel Masonry or Factory Built Non-combustible fireplaces that have been installed in accordance with the National, Provincial, State and Local building codes.

**Note:** Shipping brackets used to attach appliance to pallet can be used as leveling legs when attached to back of appliance.

The damper of the masonry or factory-built chimney must be removed or fixed open to install the appliance.

**Note:** In the Commonwealth of Massachusetts, the word damper shall be replaced with the words flue restrictor.

Minimum fireplace opening requirements are shown on section 12 of this manual. The firebrick (refractory) can be removed from a factory built fireplace in order to gain minimum gas insert opening requirements.

Before installing the 3 in. (76 mm) flex vent pipe, mark or label the exhaust pipe at both ends.

Attach the pipe-to-cap adapter to the termination cap and to the top of the flexible vent pipe and set the cap in place at the top of the chimney. Attach the labeled vent pipe to the labeled collar on the termination.

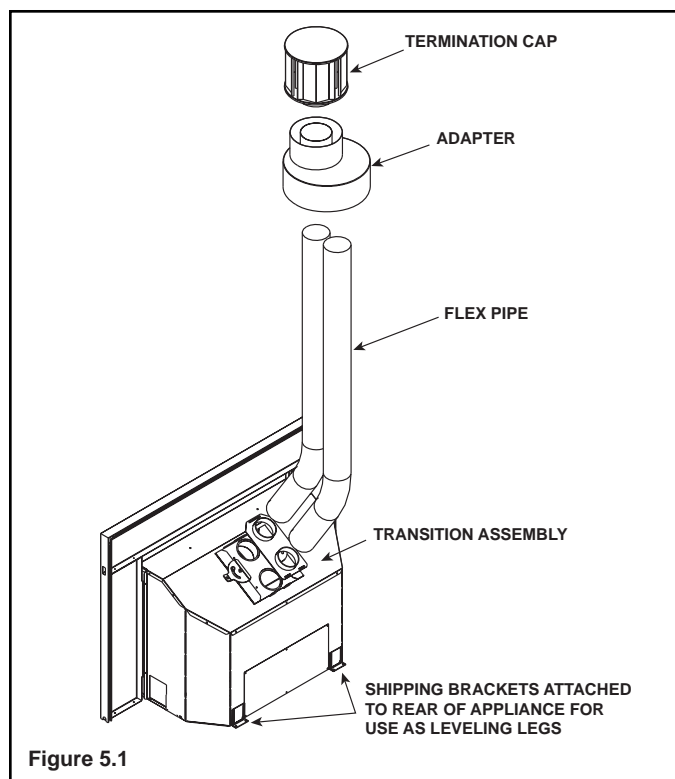


Figure 5.1

Install the 3 in. (76 mm) flexible vent pipes down through the chimney. Attach and secure the bottom ends of the flex pipes to the starting collar bracket with set screws on each collar. Attach the labeled pipe to the exhaust collar on the starter collar bracket.

Place the insert on the hearth and carefully slide it into the fireplace. Be sure the gas line enters the heater through the gas access opening and that the electrical cord is extending out the right. (Cord may be re-routed to the left if necessary. A notch will be needed in the trim piece for the cord restraint.)

Position any excess flex vent pipe back up into the chimney.

Install LP conversion, brick set and panel and trim at this point in accordance with your installation plans. See instructions in this manual to do so.

Slide the unit back into the fireplace.

Attach transition assembly to the appliance. Rotate transition assembly latches and lock with the 7/16 in. wrench.

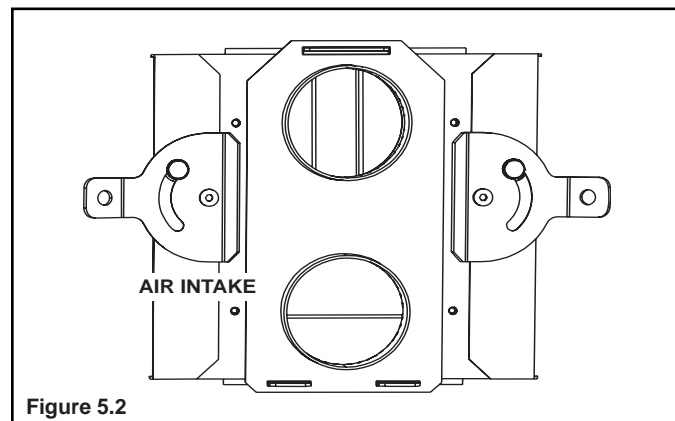


Figure 5.2

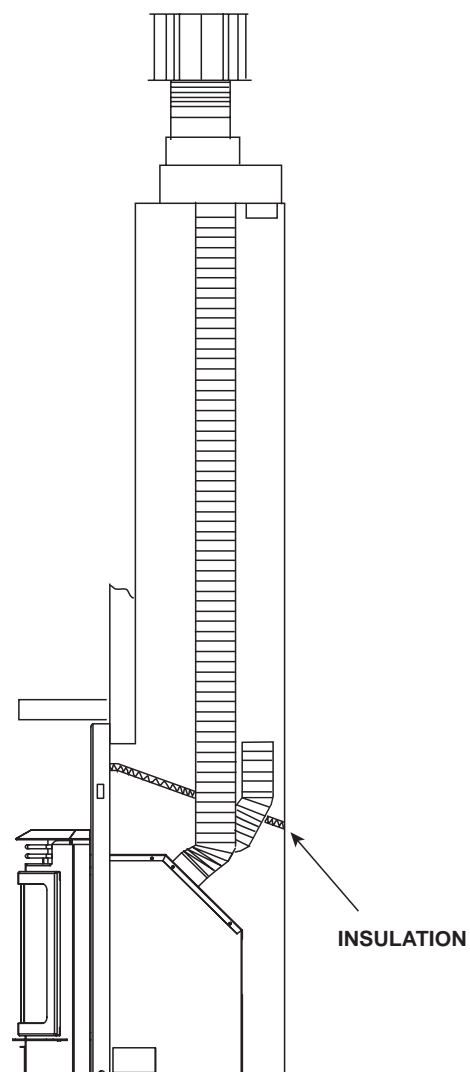
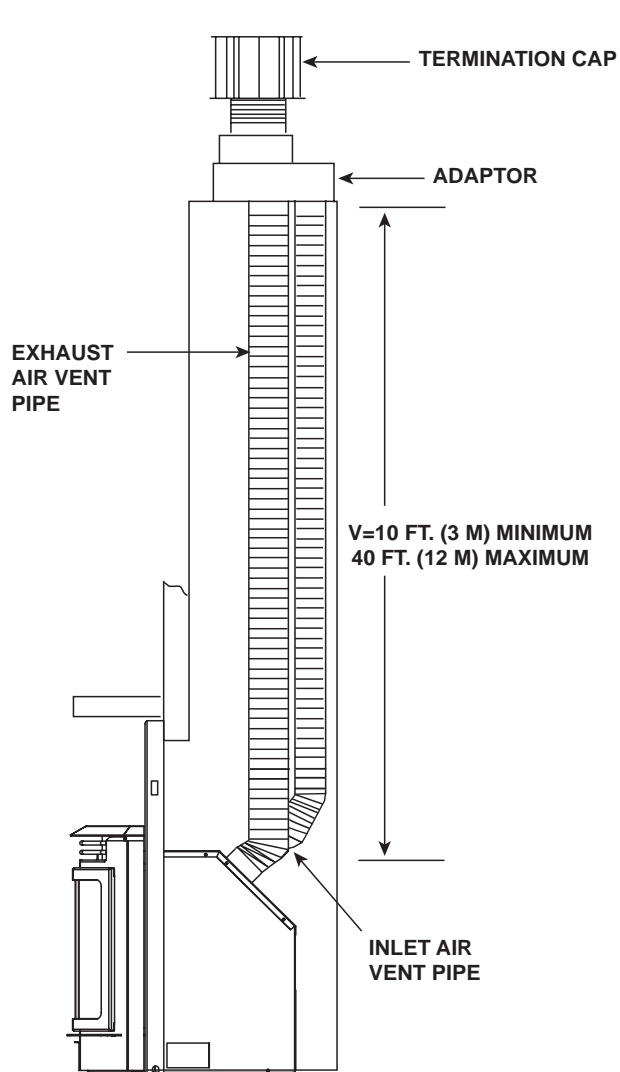
**High Temperature Sealant Material.** Sealants that will withstand high temperatures (at least 350 degrees Fahrenheit); General Electric RTV103 (Black), or equivalent. Rutland, Inc. Fireplace Mortar #63, or equivalent; Dow Corning 732 or equivalent.

**Note:** To avoid down drafts and/or cold air problems, it is recommended to seal off the area between the termination cap and the top of the solid-fuel chimney opening into which the vent cap has been installed.

**Note:** the metal floor of the solid fuel firebox may be removed to facilitate the installation of the insert. Clearance to combustible material under the insert is 3/8 in. (1 mm). You must use the leveling legs to raise the insert a minimum of 3/8 in. (10 mm) if the insert is to sit on combustible material. The side walls and top structure of the firebox may not be altered with the exception of removable baffles and dampers. The original fireplace may never be returned to solid fuel in this condition.



THIS OPTION SHOWS THE AIR INLET  
TERMINATING IN THE CHIMNEY.



**Note:** Insulation is not included with the venting kit.

Figure 5.3

## **WARNING**



Fire Hazard.

Asphyxiation Risk.

- The exhaust pipe must only be connected to the exhaust starting collar of the unit and the center collar of the termination cap.
- The inlet air pipe must only be connected to the inlet air collar of the unit and either attached to the inlet air collar of the termination cap or terminated in the chimney.

# 6 Gas Information

## A. Fuel Conversions

Before making gas connections ensure that appliance being installed is compatible with the available gas type.

Any natural or propane gas conversions necessary to meet the appliance and locality needs must be made by a qualified technician using Hearth & Home Technologies specified and approved parts.

## B. Converting to LP Gas

**Note:** Gas conversions should only be performed by a qualified service person, and/or where required by state and local codes, licensed installer/service technician. In the Commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter.

**Kit contents:** Replacement orifice; replacement pilot injector; valve regulator; conversion label.

**Tools required:** Ratchet with 7/16 in. (11 mm) socket and 2 in. - 4 in. (51-102 mm) extension; power drill (a 90° handle is helpful); #2 Phillips bit; 5/32 in. (4 mm) Allen wrench; 5/8 in. (16 mm) open end wrench.

Remove right and left twigs and right and left rear logs from the burner pan, if installed. Remove the two nuts that secure the burner pan to the burner support with the ratchet and socket.



Figure 6.1

Lift the burner up and out of the firebox opening.



Figure 6.2

Remove the three screws on the front of the burner support. Set screws aside.

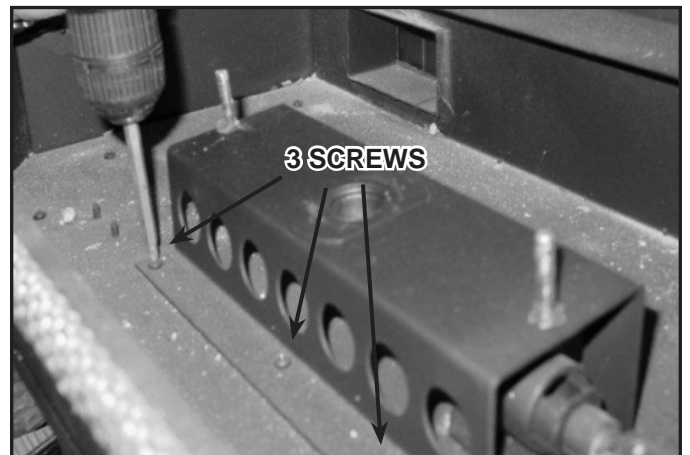


Figure 6.3

Slide the burner support to the left to access the orifice.

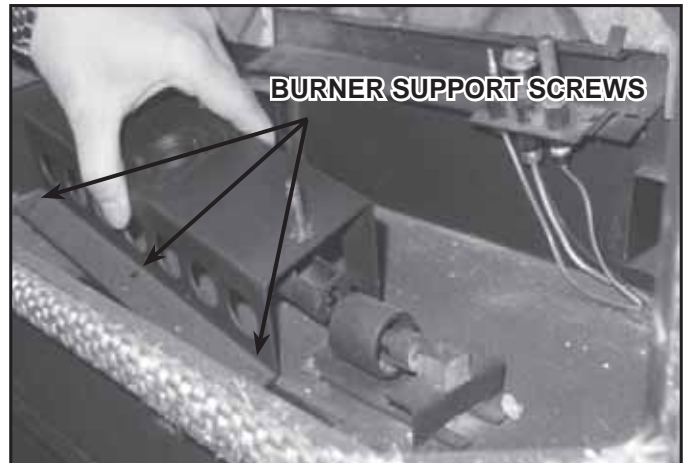


Figure 6.4

With a 5/8 in. wrench remove the orifice retaining nut. Replace with the appropriate orifice (.076 LP / .125 NG).

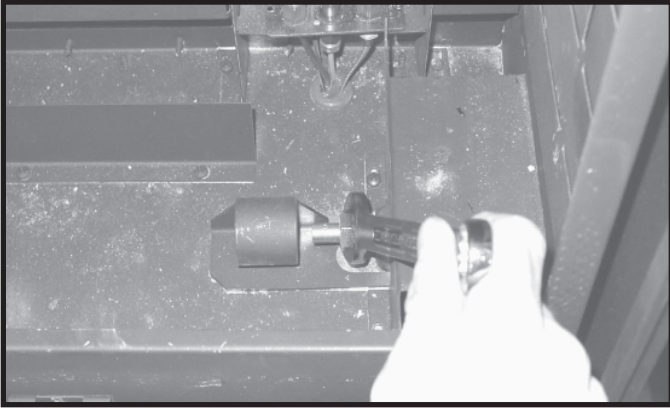


Figure 6.5

Remove the pilot hood and set aside.

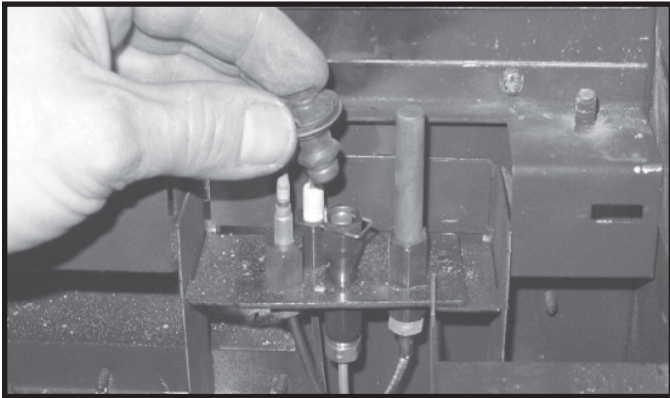


Figure 6.6

**Note:** Do not remove retaining clip from the pilot hood.

Using a 5/32 in. (4 mm) Allen wrench, remove the pilot injector and replace with an appropriate injector (#35 LP / #62 NG).

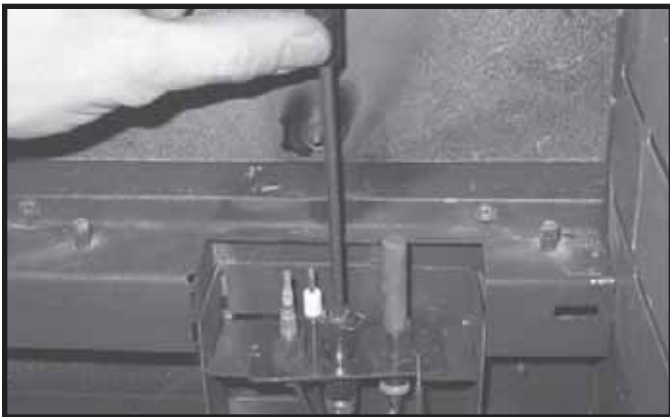


Figure 6.7

**Note:** If installing brick also, do so now before reassembling. If not installing brick, reassemble burner in reverse order of removal.

## C. Valve Regulator Replacement

Remove upper and lower back shield. Loosen the set collars on the extension rods with the 3/32 in. Allen wrench. Remove the rods and adapter cap.

Turn control knob to the OFF position, ensure that gas supply to the valve has been turned off. Using a Torx TH20, or slotted screwdriver, remove the three pressure regulator mounting screws (A), pressure regulator tower (B), and diaphragm (C).

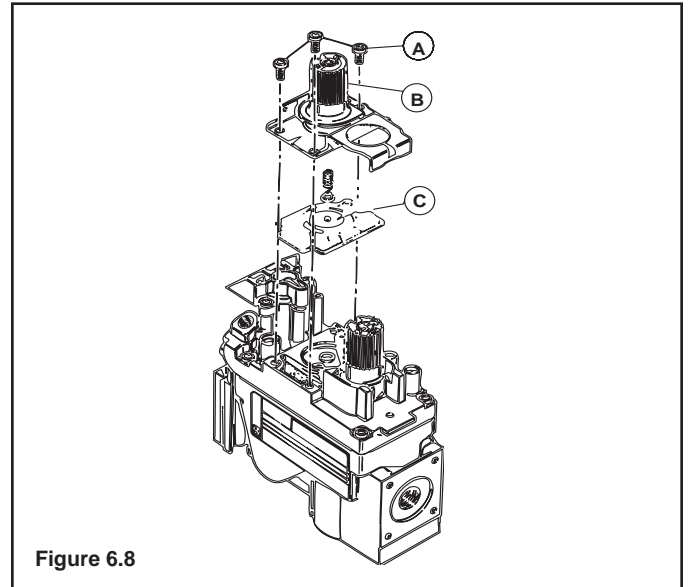


Figure 6.8



### ⚠ WARNING



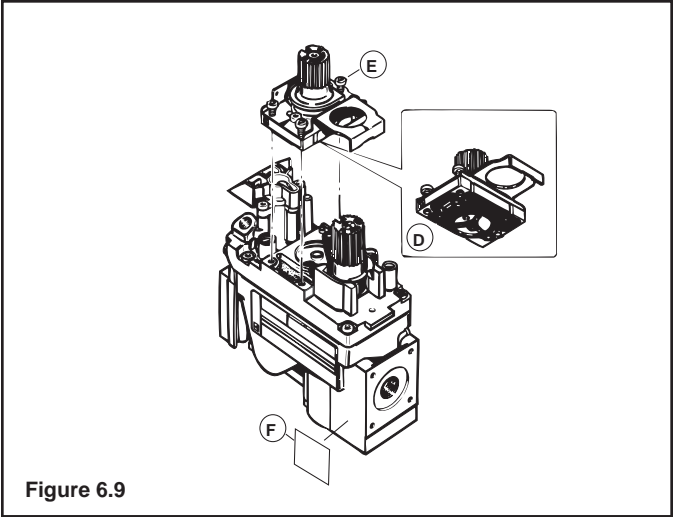
Fire Risk.



Explosion Risk.

- Disconnect any electrical cords and turn off gas supply to unit before proceeding if converting fuel on an appliance already fully installed.

Ensure that the rubber gasket (D) is properly positioned and install the new HI/LO pressure regulator assembly to the valve using the new screws (E) supplied with the kit. Tighten screws securely. (Reference torque = 25 in./lb.) Install the enclosed identification label (F) to the valve body where it can be seen.

Fill out the conversion label and attach it to the valve cover.







**⚠ WARNING**

Fire Risk.  
Explosion Risk.  
Gas Leak Risk.

- Rubber gasket must be seated properly on valve face.
- Do not install a valve or regulator that has been dropped.





**⚠ WARNING**

Fire Risk.  
Explosion Risk.

- If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life.
- The qualified service agency is responsible for the proper installation of this conversion kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

D. Gas Pressures



Proper input pressures are required for optimum appliance performance. Gas line sizing requirements need to be made following NFPA54.



**⚠ WARNING**

Fire Risk.  
Explosion Hazard.  
High pressure will damage valve.

- Disconnect gas supply piping BEFORE pressure testing gas line at test pressures above 1/2 psig.
- Close the manual shutoff valve BEFORE pressure testing gas line at test pressures equal to or less than 1/2 psig.



**⚠ WARNING**

Verify inlet pressures.

- High pressure may cause overfire condition.
- Low pressure may cause explosion.
- Verify minimum pressures when other household gas appliances are operating.

Install regulator upstream of valve if line pressure is greater than 1/2 psig.

Pressure requirements for appliance are shown in the table below. Minimum pressures must be met when other household gas appliances are operating.

Pressure	Natural Gas	Propane
Minimum inlet pressure	4.5 inches w.c.	11.0 inches w.c.
Maximum inlet gas pressure	7.0 inches w.c.	14.0 inches w.c.
Manifold pressure	3.5 inches w.c.	10.0 inches w.c.

If the pressure is not sufficient, ensure:

- The piping used is large enough.
- The supply regulator is adequately adjusted.
- That the total gas load for the residence does not exceed the amount supplied.

The supply regulator (the regulator that attaches directly to the residence inlet or to the propane tank) should supply gas at the suggested input pressure listed above. Contact the local gas supplier if the regulator is at an improper pressure.



## E. Gas Connection

**Note:** Have the gas supply line installed in accordance with local building codes, if any. If not, follow ANSI 223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

**Note:** A listed (and Commonwealth of Massachusetts approved) 1/2 inch (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 inch (13 mm) control valve inlet.

- **If substituting for these components, please consult local codes for compliance.**

### WARNING



Gas Leak Risk

- Support control when attaching pipe to prevent bending gas line.

**Note:** The gap between supply piping and gas access hole may be caulked with high temperature caulk or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.

Leak test all gas line joints and the gas control valve prior to and after starting the appliance.

Before making the gas connection, ensure that the appliance you are installing is designed for the type of gas being supplied. This information can be found on the ratings label under the appliance. If the appliance has been converted to propane (LP), the valve cover should have a label stating that the appliance has been converted to propane.

Connect the gas line at the 3/8 in. (10 mm) pipe connector on the valve at the back of appliance. We recommend connecting the appliance with an approved flex gas line. If flex gas lines are not approved in your area, you must connect a hard pipe to the gas hookup.

You must supply a manual shut-off valve in a visible location within 3 ft. (914 mm) of the appliance.

Ensure that gas line does not come in contact with outer wrap of appliance. Follow local codes.

Incoming gas line should be piped into the valve compartment and connected to the 1/2 inch connection on the manual shutoff valve.

### WARNING



Fire or Explosion Hazard



- Gas buildup during line purge may ignite.
- Purge should be performed by qualified technician.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.

- A small amount of air will be in the gas supply lines. When first lighting appliance it will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.

Air only needs to be purged again if gas valve has been turned to the OFF position.

### WARNING



CHECK FOR GAS LEAKS

Explosion Risk

Fire Risk

Asphyxiation Risk

- Check all fittings and connections.
- Do not use open flame.
- After the gas line installation is complete, all connections must be tightened and checked for leaks with a commercially-available, non-corrosive leak check solution. Be sure to rinse off all leak check solution following testing.



Fittings and connections may have loosened during shipping and handling.

### WARNING



Fire hazard.

Do NOT change the valve settings.

- This valve has been preset at the factory.
- Changing valve settings may result in fire hazard or bodily injury.

### HIGH ALTITUDE INSTALLATIONS

Omni-Test Laboratories, Inc. listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and 0 to 4500 feet in Canada.

When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.

# 7 Electrical Information

## A. Recommendation for Wire

See Figure 7.1 for recommended maximum lead length (two wire) when using wall thermostat/switch.

**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 C221.1**.

- • A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.

## B. Connecting to the Appliance

1. This appliance may be used with a wall switch, wall mounted thermostat and / or a remote control
2. If using thermostat, use one compatible with a millivolt gas valve system.
3. Follow parameters for locating thermostat (see individual thermostat instructions) to ensure proper operation of appliance.
4. Use low resistance thermostat wire for wiring from ignition system to the wall switch and thermostat.
5. Use the following chart for wire sizing.

Wire Size	Max. Length
16 gauge	65 feet
18 gauge	40 feet
20 gauge	25 feet
22 gauge	18 feet

Figure 7.1

6. Keep wire lengths as short as possible by removing any excess wire length.
7. Low voltage and 110 VAC voltage cannot be shared within the same wall box.
8. Ensure the thermostat is mounted level for accurate readings.
9. The thermostat should be mounted on an inside wall and not in direct line with the appliance convection air.
10. If the thermostat is located too close to the appliance, you may need to set the temperature setting slightly higher to maintain the desired temperature in your home.

Do not connect this appliance to a thermostat serving any other appliance.

Bedroom installation in Canada requires this appliance to be connected to a thermostat.



### ⚠ WARNING

Shock hazard.

- This appliance is equipped with a three pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three prong receptacle. Do not cut or remove the grounding prong from this plug.

## C. Standing Pilot Ignition System Wiring

This appliance DOES NOT require 110 VAC supply for operation. A wiring diagram is shown in Figure 7.2 on the next page.

This appliance is equipped with a millivolt control valve.



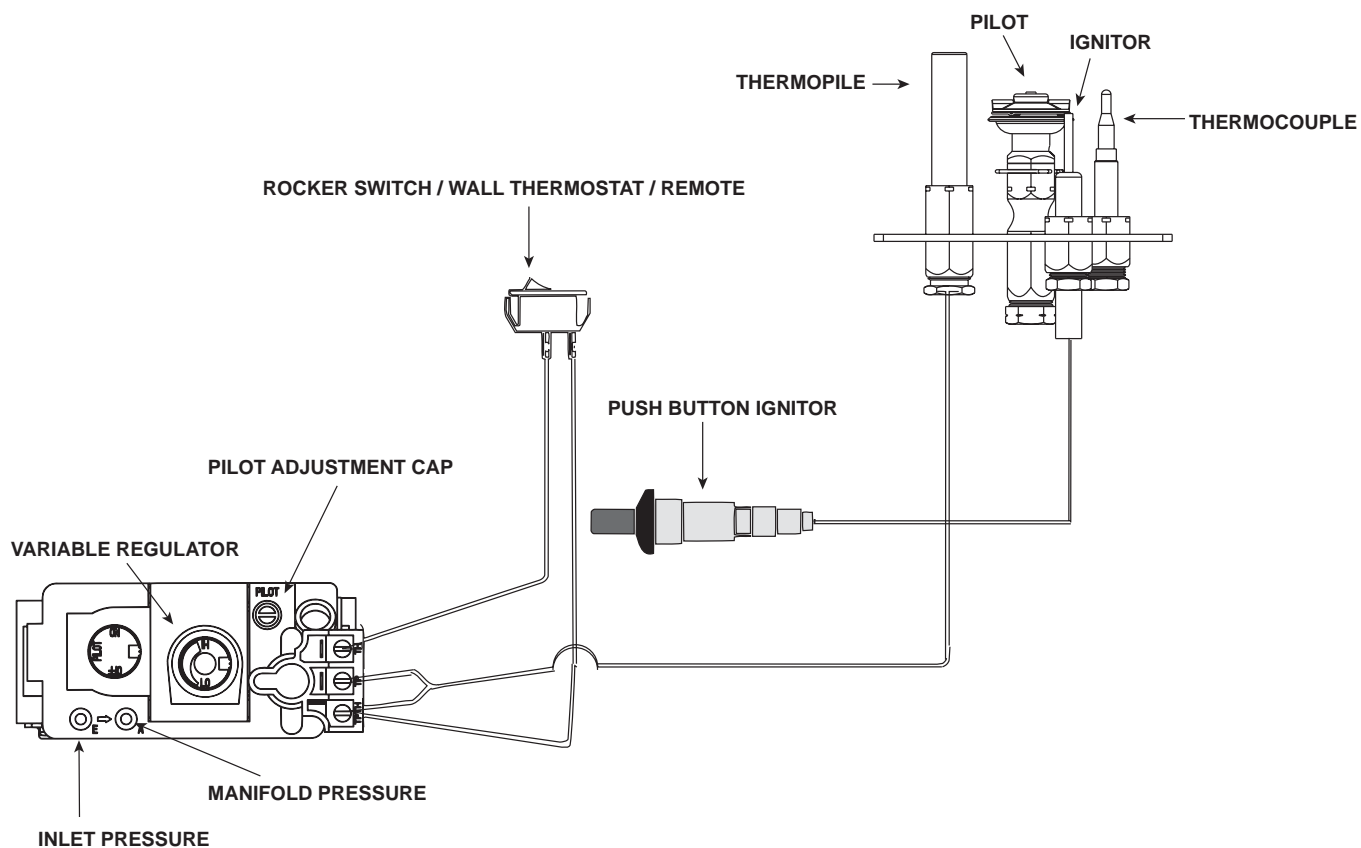


Figure 7.2

## CAUTION

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



## WARNING

Shock hazard.

- Replace damaged wire with type 105° C rated wire.
- Wire must have high temperature insulation.

## 8 Appliance Setup

### A. Remove Shipping Materials

Remove shipping materials from inside or underneath the firebox.

### B. Accessories

Install approved accessories per instructions included with accessories. See Service Parts List for appropriate accessories.

	<b>⚠ WARNING</b>
	<p>Shock or fire risk.</p> <p>Use <b>ONLY</b> optional accessories approved for this appliance.</p> <ul style="list-style-type: none"><li>• Using non-listed accessories voids warranty.</li><li>• Using non-listed accessories may result in a safety hazard.</li><li>• Only Hearth &amp; Home Technologies approved accessories may be used safely.</li></ul>

### C. Door Crown Installation

Open lower access panel. Pull out and unhook the two spring latches on the bottom of the appliance that secure the door.

Rotate the door forward approximately 1-1/2 in. (38 mm). Holding the ashlip, lift the door up off of the stationary latches and away from the appliance.

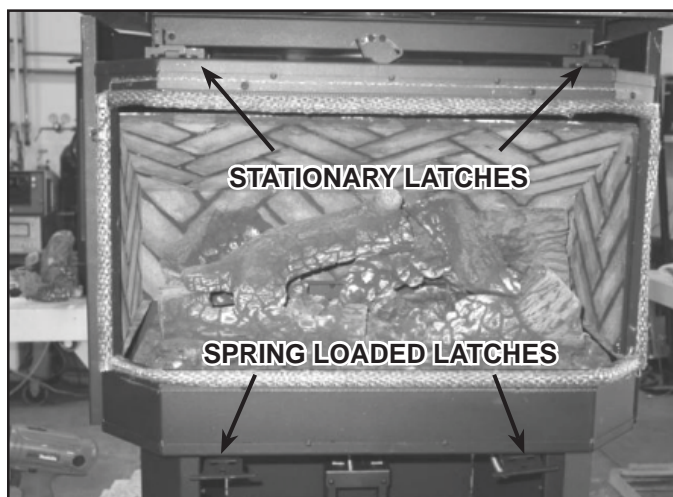


Figure 8.1

Uninstall the existing crown by removing the four screws on the back side of the door. Retain the screws.

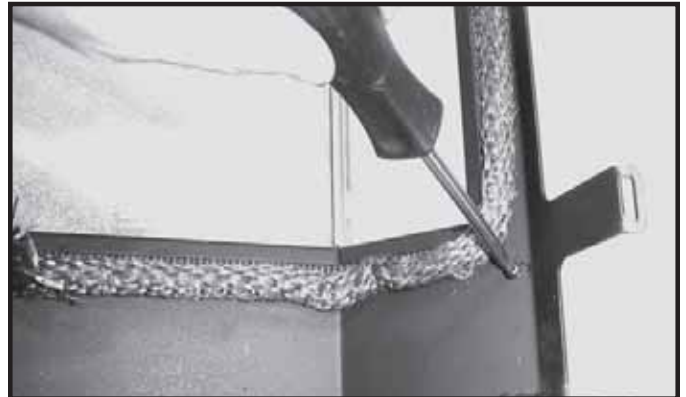


Figure 8.2

Use a flat-head screwdriver to pry the black crown free on the right side. Remove the crown and discard.

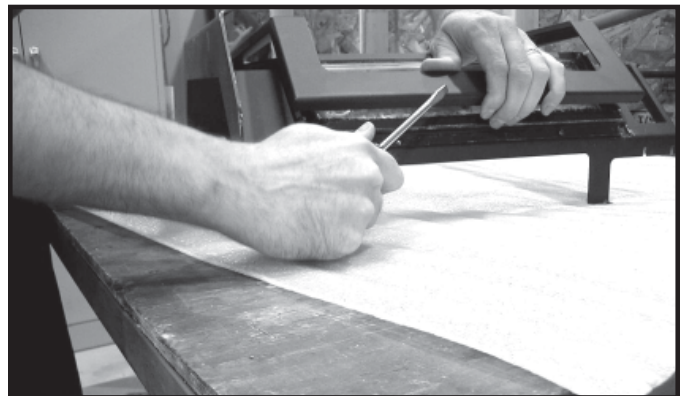


Figure 8.3

Carefully align the left side of the crown into place, and wrap it across the face of door, finally snapping it into place on the right hand side. Reinsert and tighten the screws previously removed.



Figure 8.4

**Note:** Use a soft cloth and a window cleaning solution to clean all fingerprint oils from the gold or nickel surface of crown PRIOR to lighting the appliance.

## D. Grille Installation

Remove the door of appliance. Remove the four screws (two at each end) holding grille in place. Lift up to remove.

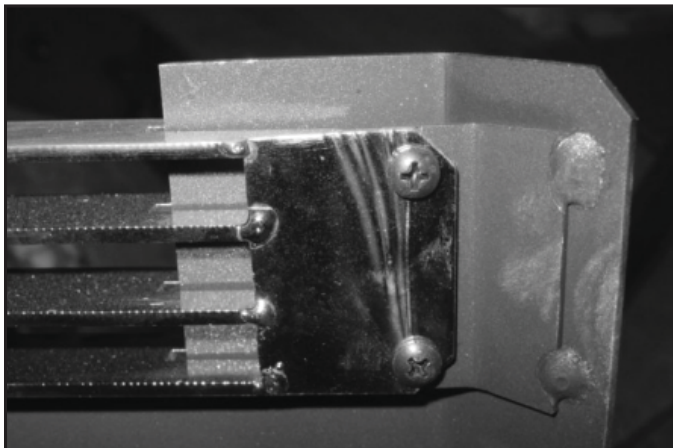


Figure 8.5

Install the new grille by reversing removal instructions.

**Note:** Clean glass and gold or nickel with glass cleaner and a soft cloth, wiping off all fingerprints prior to first fire to prevent permanent staining.

## E. Panel Set Installation

**Included in kit:** (2) Angle Brackets and set screws; (1) 3 piece Trim; (2) Side Panels; (1) Top Panel; (1) Switch plug; and (8) screws.

**Tools required:** Philips head screwdriver.

**Note:** Remove the door from the insert before beginning the panel installation.

Assemble the panel top to the panel sides with the screws provided.

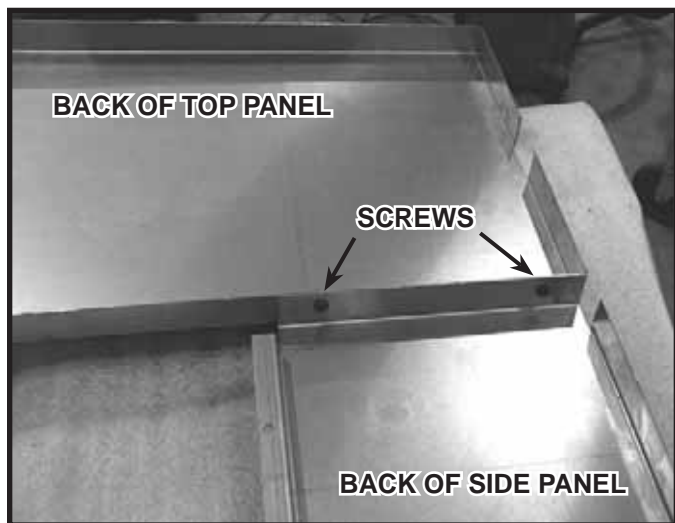


Figure 8.6

Assemble the trim with the two corner brackets provided. Slide the assembled trim over the assembled panel set.

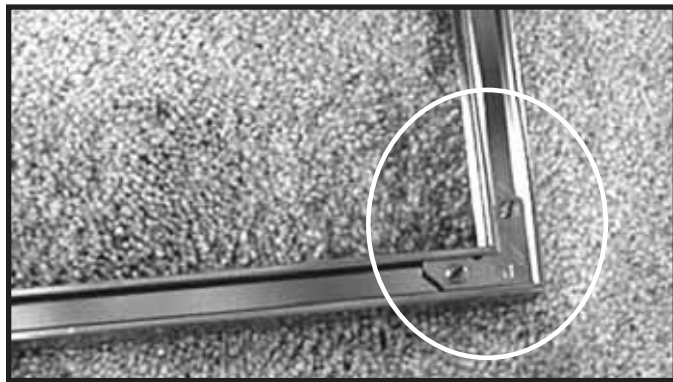


Figure 8.7

Slide the panel/trim down over the face of the unit, behind the top, aligning the holes in the upper and lower, right and left corners, and secure the panel and trim set to the appliance with the attachment screws using four screws, two per side.

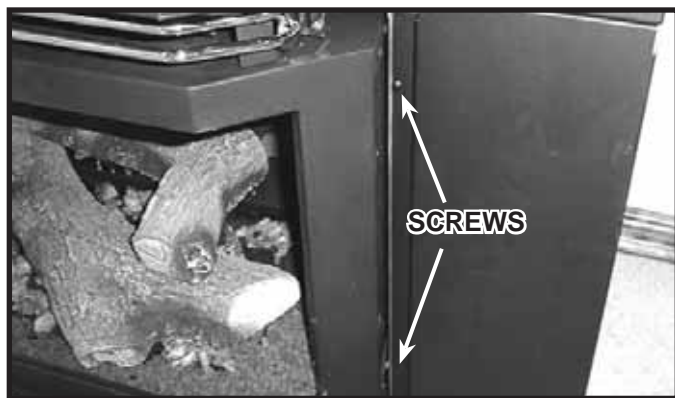


Figure 8.8

Determine your desired placement of the rocker switch.

1 If you wish to place it on the control panel in the "Main Burner" opening: Disconnect the "ON/OFF" switch from the low voltage wire leads. Pull the wires through the control panel, attach the wires to the "ON/OFF" rocker switch and push the rocker switch into the "Main Burner opening on control panel. Place the plug provided in empty opening on the panel and trim.

OR

2. If you wish to place it on the side of appliance in the knock out provided on the panel and trim: Carefully reposition the wiring beneath the firebox to the RIGHT side of appliance. Disconnect the "ON/OFF" switch from the low voltage wire leads. Pull the wires through the knockout plate on the panel and trim, attach the wires to the "ON/OFF" rocker switch and push the rocker switch into the opening on the panel and trim. Place plug provided with panel set in empty switch location.

Install the power cord restraint found in the appliance component bag. (Cord is shipped exiting the right side of the appliance, but can be routed in either direction.) A notch will be needed in the trim piece for the cord restraint.

Slide the appliance back until the panel is tight to the fireplace.



## F. Brick Installation

The pilot shield has to be removed to install or remove the brick refractory. Removal of the bracket requires removing two screws.

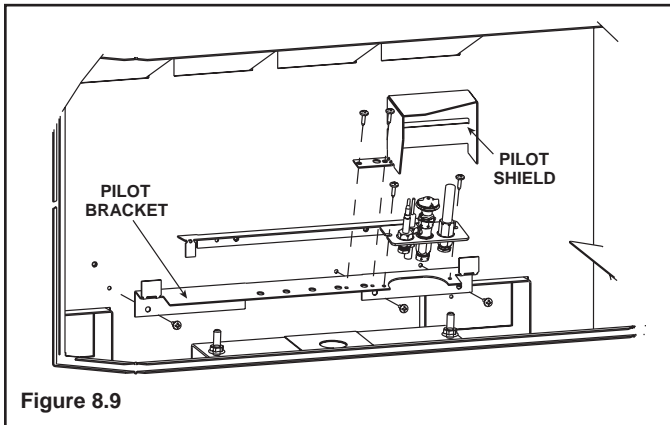


Figure 8.9

To install the baffle, slide it in at an angle and rotate upward, parallel with the firebox. Place baffle up against the heat exchangers in top of the firebox. Holding the baffle against the heat exchangers, slide the baffle towards the front of the appliance.

**Note:** To aid in brick installation, the burner may be removed.



Figure 8.10

Keeping the baffle elevated with your free hand, put the right side brick into position. Rest the baffle on the right side brick.



Figure 8.11

Still holding the baffle in place, install the left brick into position.



Figure 8.12

Bend retaining tabs on the left and right sides inward to hold brick in place.

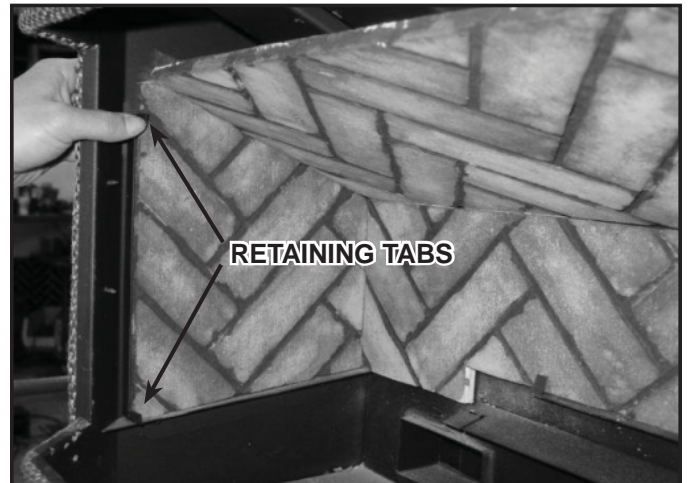


Figure 8.13

Install the rear brick. Slide it in at an angle and place it over the rear brick retainer. Hand bend retaining tabs up to hold brick in place. Slide baffle back until touching rear brick.



Figure 8.14

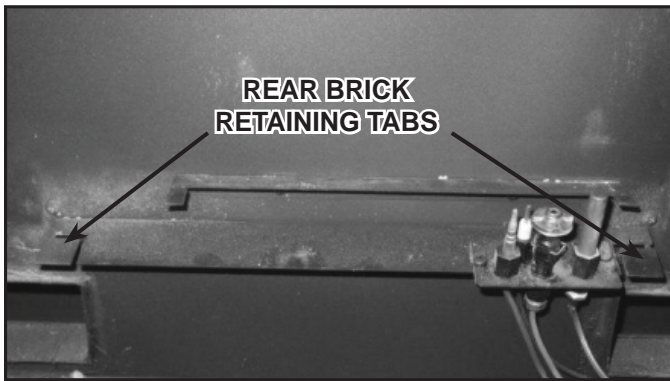


Figure 8.15

**Note:** For the Hudson Bay Insert the lower brick retainer is used.

## G. Positioning the Logs

While still breakable, the logs do not become fragile until after the appliance is burned and they have cured. After curing, any handling must be done with care as breakage can easily occur.

**Note:** Logs have been designed to work specifically with the burner of this appliance. Exact placement will ensure proper operation of your gas appliance and reduce sooting.

Complete log installation.

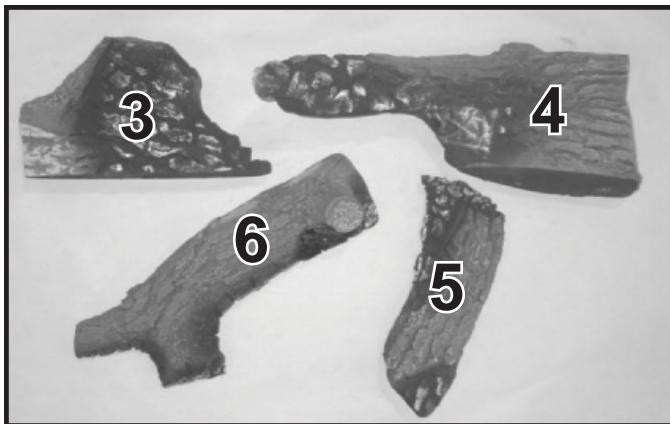


Figure 8.16

Logs installed in firebox. Logs #1 and #2 are part of the burner pan and are numbered for reference only.

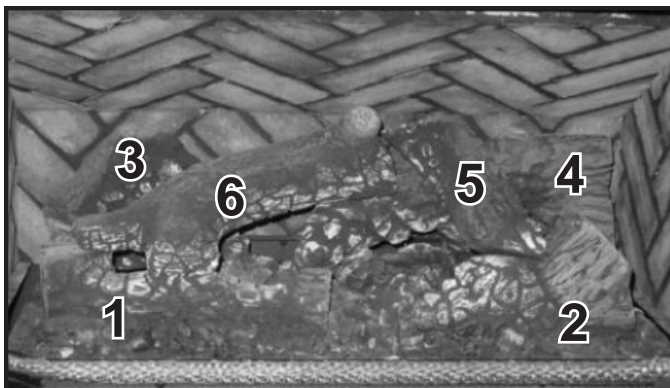


Figure 8.17

Install the left rear log (#3) over the locator pins in the burner pan.

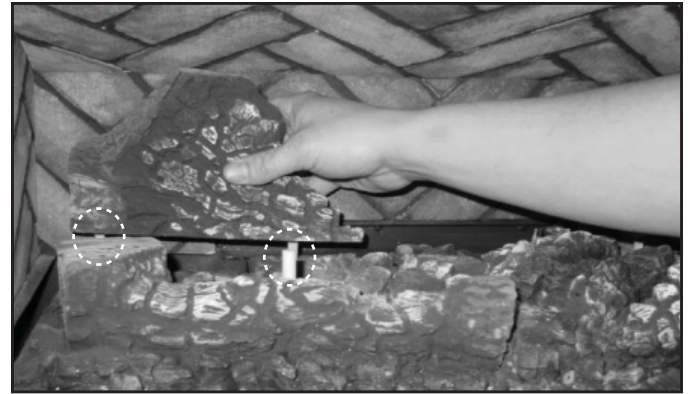


Figure 8.18

Install the right rear log (#4) over the locator pins in the burner pan.

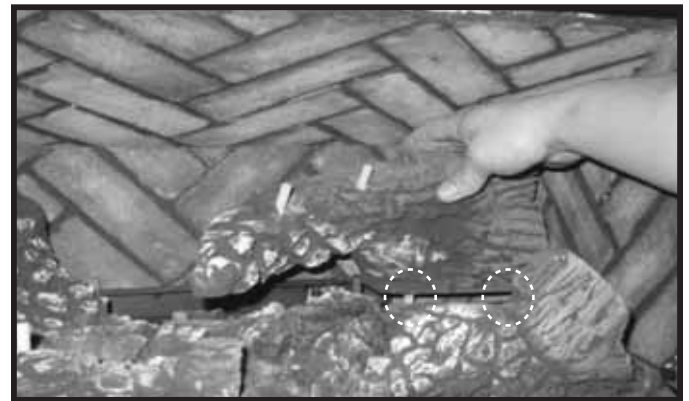


Figure 8.19

Install the right twig (#5) over the locator pins in the right rear log and right front log.

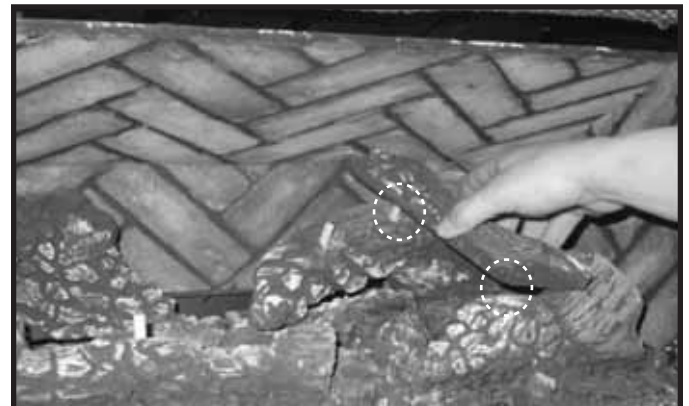


Figure 8.20

**Note:** Locator pins are included in the log component package.



Install the left twig (#6) over the locator pins in the right rear log and the left front log.

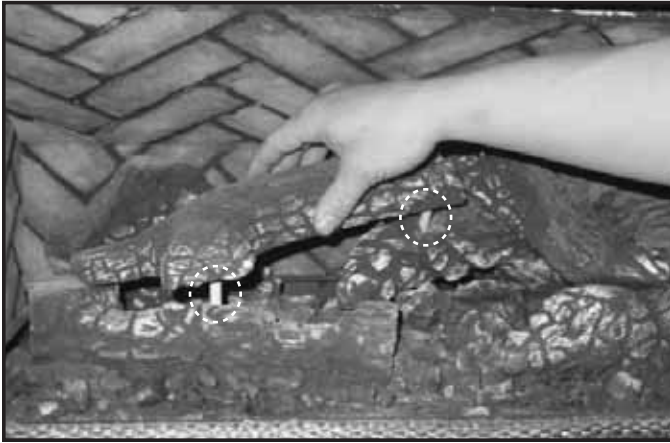


Figure 8.21

## H. Mineral Wool

### ⚠ WARNING



Explosion Risk.

- Follow ember placement instructions in manual.
- Do NOT place embers directly over burner ports.
- Replace ember material annually.

Improperly placed embers interfere with proper burner operation.

Place individual pieces of embers in front of and around the gas log where they can be seen. Space them so that gas can contact them on all sides. Avoid stacking the embers on top of each other.



Figure 8.22

**Note:** Do not block gas ports.

## I. Blower Installation

**Included in kit:** Blower.

**Tools required:** Powered Phillips head screwdriver.

Turn off gas and disconnect appliance from electricity. Remove logs and burner from appliance. Remove blower access cover in bottom of firebox by removing the screws. Retain screws for reassembly.



Figure 8.23

Disconnect wires from the snap disk on back of access cover.

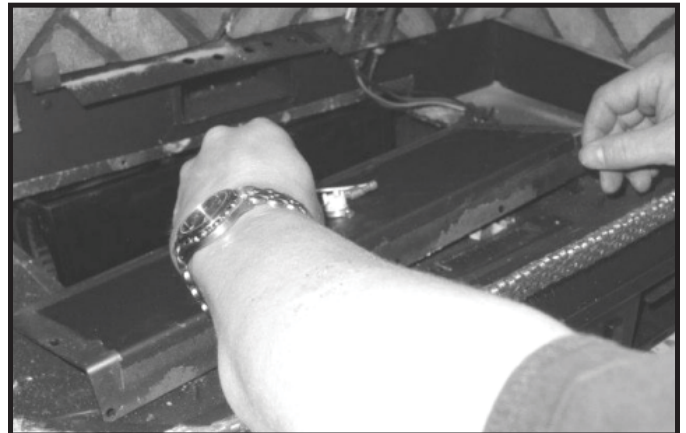


Figure 8.24

Lift blower off of studs and pull through opening.

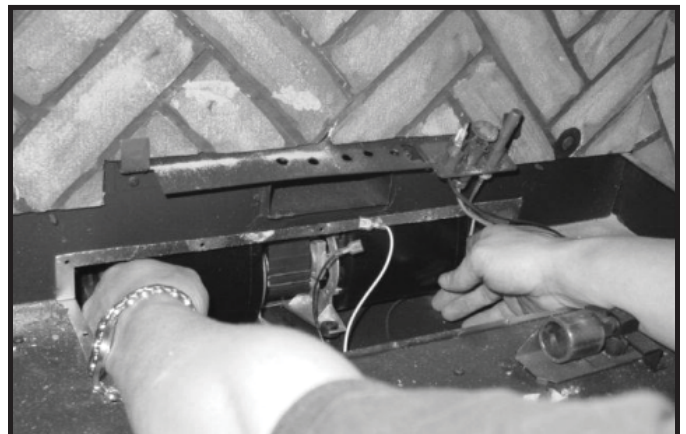


Figure 8.25



Disconnect wires from the blower.



Figure 8.26

Remove grommet retainer from old blower and install on new blower.



Figure 8.27

Installation is the reverse of removal.

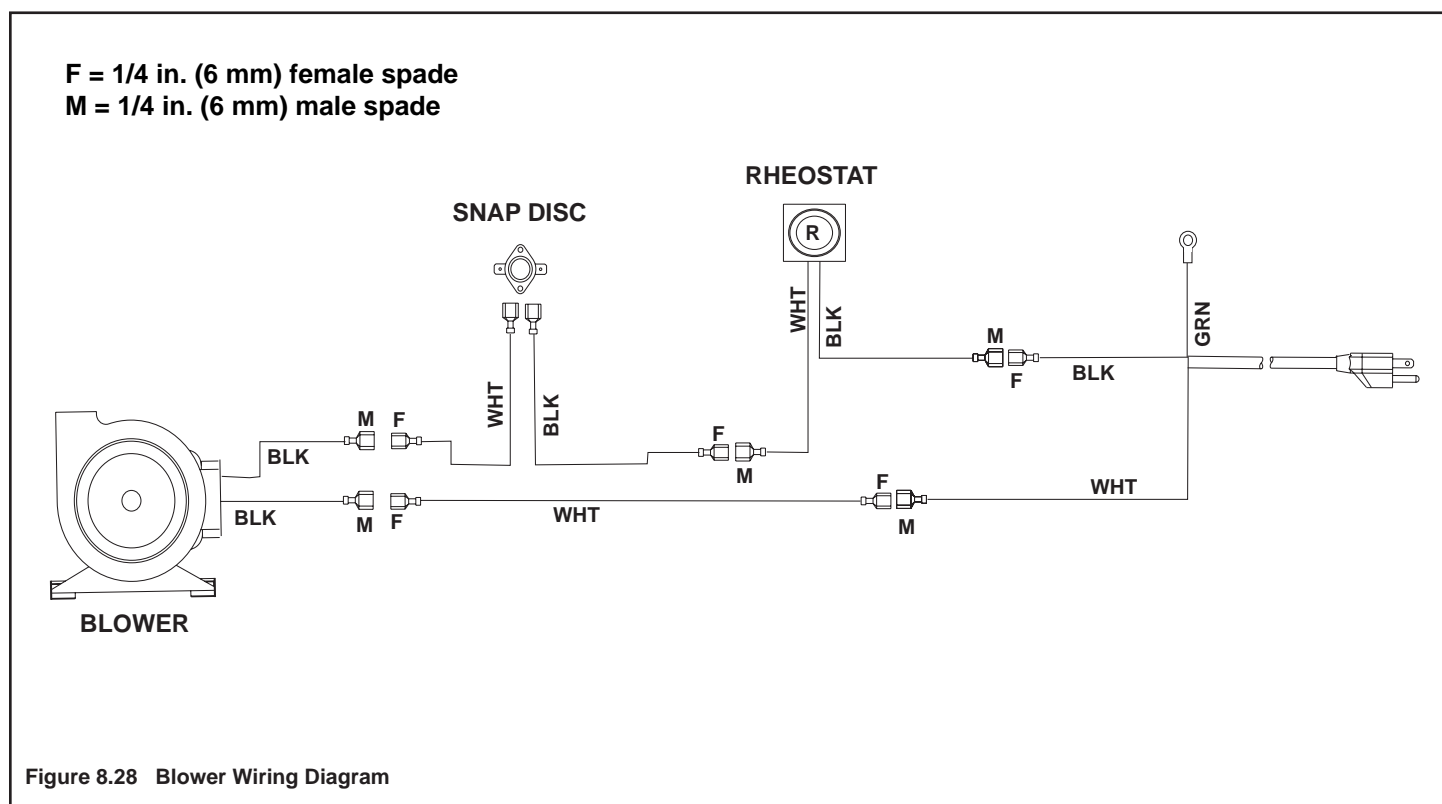


Figure 8.28 Blower Wiring Diagram

## J. Air Shutter Adjustment

The air shutter is used to fine-tune the flame as necessary. **The air shutter is shipped in the fully open position.** Allow the unit to operate 15-20 minutes before making any adjustments to the air shutter. This will give the flame time to reach its height and color before making adjustments.

The air shutter control bolt adjusts the amount of air that mixes with the gas as it enters the burner pan.

To adjust the air shutter, remove the screw from the control panel.



Figure 8.29

Rotate forward and lift off.



Figure 8.30

The air shutter is located on the underside of the appliance, on the right side. The air shutter is secured with a wing nut. Loosen the wing nut but do not remove.

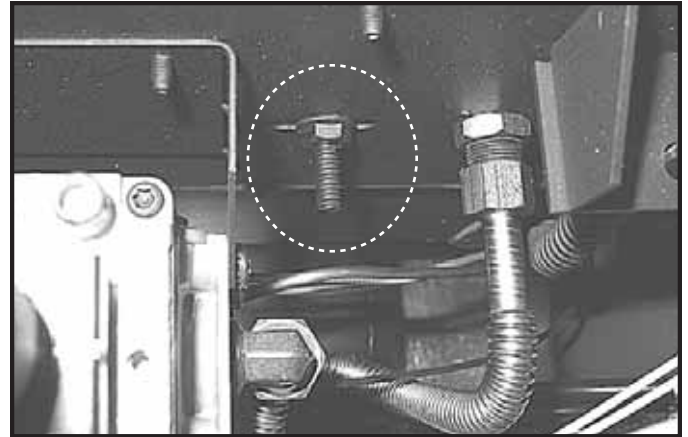


Figure 8.31

Moving the shutter bolt to the right closes the air shutter. Moving the shutter bolt to the left, will open the air shutter.

Opening the air shutter causes flames to become shorter and blue. Closing the air shutter creates taller orange/yellow flames.

After adjustment, tighten wing nut to lock in place.

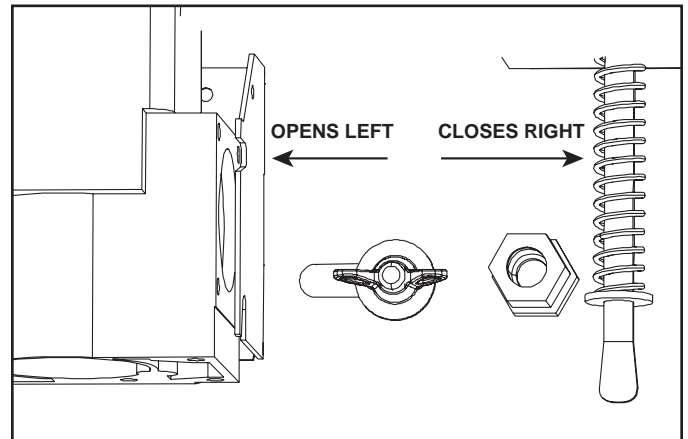


Figure 8.32

**Note:** Do not close so much as to cause a sooty flame. Improper adjustment can cause sooting in the firebox and/or on the outside of a house with a horizontal termination.


# 9 Operating Instructions

## A. Before Lighting Appliance

Read this entire manual prior to using the appliance. Failure to follow the instructions may result in property damage, bodily injury, or even death.

**Before operating this appliance have a qualified technician:**

- Remove all shipping materials from inside and/or underneath the firebox.
- Review proper placement of logs and mineral wool.
- Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position.
- Ensure that the flow of combustion and ventilation air is not obstructed (front grilles and vent caps).

**WARNING**

Glass door must be in place when appliance is operating.


Risk of:


- Combustion Fumes
- Fire

Do NOT operate appliance with glass door removed.

- Open viewing glass for servicing only.

- Glass door **MUST** be in place and sealed before operating appliance.
- Only use glass door certified for use with appliance.
- Glass replacement should be done by qualified technician.

**WARNING**



**HOT SURFACES!**  
Glass and other surfaces are hot during operation AND cool down.


**Hot glass will cause burns.**

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away


- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

**High temperatures may ignite clothing or other flammable materials.**

- Keep clothing, furniture, draperies and other flammable materials away.

**WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

**WARNING**

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.

## B. Lighting Appliance

### 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**

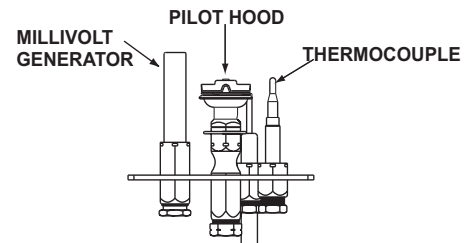
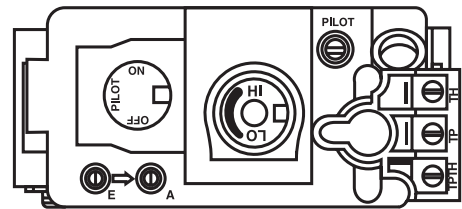
- A. This appliance has a pilot that must be lit manually. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING**, smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### 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 gas supplier's instructions.
  - \* If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

### LIGHTING INSTRUCTIONS

1. **STOP! Read the safety information above on this label.**
2. Set the thermostat to the lowest setting (if applicable) and turn off the switch at the control panel.
3. Disconnect the power from the appliance.
4. Open the door of the appliance. May need to remove face/front first.
5. Push in gas control knob slightly and turn clockwise  to the "OFF" position. Do not force.
6. Wait five (5) minutes to clear out any gas. Smell for gas, including near the floor. If you smell gas, STOP! Follow "B" of the safety information above. If you don't smell gas go to the next step.
7. Push gas control knob in and turn counterclockwise  to the pilot position. NOTE: Knob cannot be turned unless knob is pushed in slightly. Do not force.
8. **PIEZO IGNITER:** Press down on the gas control knob in pilot position and simultaneously press the piezo igniter. (This may take many repetitions for lighting.)  
**ELECTRONIC IGNITER:** If the unit is equipped with an electronic igniter it should begin sparking right away.
9. The pilot should be visible through the door opening.
10. After the pilot is lit, continue holding control knob down for approximately 30 seconds. Release the knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 7 through 9.
  - \* If the knob does not pop up when released, stop and immediately call your service technician or gas supplier.
  - \* If the pilot will not stay lit after several tries, turn the gas control knob clockwise  to "OFF" and call your service technician or gas supplier.
11. Reinstall door and face. Wait five minutes to allow pilot flame to stabilize and establish proper draft.
12. Push down and turn gas control knob counterclockwise  to "ON".
13. Push burner rocker switch on the control panel to "ON". If thermostat is to be used, leave switch in "OFF" position and set the thermostat to desired setting.
14. Reconnect electrical power to appliance.



### TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Push in gas control knob slightly and turn clockwise  to "OFF" position.

## C. After Appliance is Lit

### Initial Break-in Procedure

When you light the appliance, you may notice that it produces heat which does have an associated odor or smell. If you feel this odor is excessive it may require the initial three to four hour continuous burn on high followed by a second burn up to 12 hours to fully drive off any odor from paint and lubricants used in the manufacturing process. Condensation of the glass is normal.

**NOTE:** The appliance should be run three to four hours on the initial start-up. Turn it off and let it cool completely. Remove and clean the glass. Replace the glass and run the appliance for an additional 12 hours. This will help to cure the products used in the paint and logs.

During this break-in period it is recommended that some windows in the house be opened for air circulation. This will help avoid setting off smoke detectors, and help eliminate any odors associated with the appliance's initial burning.

### WARNING



Fire Risk.  
High Temperatures.  
Keep combustible household items away from appliance.  
Do NOT obstruct combustion and ventilation air.

- Do NOT place combustible items on top of or in front of appliance.
- Keep furniture, draperies away from appliance.

### CAUTION

- Prevent accidental appliance operation when not attended.
- Unplug or remove batteries from remote control if absent or if appliance will not be used for an extended period of time.
- Property damage possible from elevated temperatures.

### CAUTION

Smoke and odors released during initial operation.

- Open windows for air circulation.
- Leave room during initial operation.
- Smoke may set off smoke detectors.

Smoke and odors may be irritating to sensitive individuals.

### WARNING



Fire Hazard.

Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.

- Do NOT store flammable materials in the appliance's vicinity.
- Do NOT use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids in this appliance.
- Combustible materials may ignite.

## D. Frequently Asked Questions

ISSUE	SOLUTIONS
Condensation on the glass	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes.
Odor from appliance	When first operated, this appliance 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. If appliance has not been used for some time, dust can build up and cause an odor.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner such as gas fireplace glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.



# 10 Troubleshooting

With proper installation, operation, and maintenance your gas appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician.

## A. Standing Pilot Ignition System

Symptom	Possible Causes	Corrective Action
1. After repeated triggering of the red or black piezo ignitor button, the spark ignitor will not light the pilot.	a. Defective ignitor.	Check the spark at the electrode and pilot. If no spark and electrode wire is properly connected, replace the ignitor.
	b. Defective pilot or misaligned electrode (spark at electrode).	Using match, light the pilot. If the pilot lights, turn off the pilot and trigger the red piezo ignitor button again. If the pilot lights, an improper gas/air mixture caused the bad lighting and a longer purge period is recommended. If the pilot will not light, ensure the gap at the electrode and pilot is one-eighth (1/8) inch to have a strong spark. If the gap is OK, replace the pilot.
	c. No gas or low gas pressure.	Check the remote shut-off valves from the fireplace. Usually, there is a valve near the gas main. There can be more than one (1) valve between the fireplace and the main.
	d. No LP in tank.	Check the LP (propane) tank. You may be out of fuel.
2. The pilot will not stay lit after carefully following the lighting instructions.	a. Defective thermocouple.	Check that the pilot flame impinges on the thermocouple. Clean and/or adjust the pilot for maximum flame impingement.  Ensure that the thermocouple connection at the gas valve is fully inserted and tight (hand tighten plus 1/4 turn).  Disconnect the thermocouple from the valve, place one millivolt meter lead wire on the tip of the thermocouple and the other meter lead wire on the thermocouple copper lead. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15mV, replace the thermocouple.
	b. Defective valve.	If the thermocouple is producing more than 15 millivolts, replace faulty valve.
3. The pilot is burning, there is no burner flame, the valve knob is in the ON position, and the ON/OFF switch is in the ON position.	a. ON/OFF switch or wires defective.	Check the ON/OFF switch and wires for proper connections. Place the jumper wires across the terminals at the switch. If the burner comes on, replace the defective switch. If the switch is OK, place the jumper wires across the switch wires at the gas valve. If the burner comes on, the wires are faulty or connections are bad.
	b. Thermopile may not be generating sufficient millivoltage.	If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame.  Be sure the wire connections from the thermopile at the gas valve terminals are tight and that the thermopile is fully inserted into the pilot bracket.  Check the thermopile with a millivolt meter. Take the reading at TH-TP&TP terminals of the gas valve. The meter should read 325 millivolts minimum, while holding the valve knob depressed in the pilot position, with the pilot lit, and the ON/OFF switch in the OFF position. Replace the faulty thermopile if the reading is below the specified minimum.  With the pilot in the ON position, disconnect the thermopile leads from the valve. Take a reading at the thermopile leads. The reading should be 325 millivolts minimum. Replace the thermopile if the reading is below the minimum.



## Troubleshooting (continued)

Symptom	Possible Cause	Corrective Action
3. Continued	c. Defective valve.	Turn the valve knob to the ON position. Place the ON/OFF switch in the ON position. Check the millivolt meter at the thermopile terminals. The millivolt meter should read greater than 125mV. If the reading is acceptable, and if the burner does not come on, replace the gas valve.
	d. Plugged burner orifice.	Check the burner orifice for stoppage. Remove stoppage.
	e. Wall switch or wires are defective.	Follow the corrective action in Symptom and Possible Cause 1.a above. Check the switch and wiring. Replace where defective.
4. Frequent pilot outage problem.	a. Pilot flame may be too high or too low, or blowing out (high pressure), causing pilot safety to drop out.	Clean thermocouple and adjust the pilot flame for maximum flame impingement. Follow lighting instructions carefully.
5. The pilot and main burner extinguish while in operation.	a. No LP in tank.	Check the LP (propane) tank. Refill the fuel tank.
	b. Inner vent pipe leaking exhaust gases back into the system.	Check venting system for damage. Replace/repair improperly assembled pipe sections.
	c. Glass too loose and air tight packet leaks in corners after usage.	Replace glass panel assembly.
	d. Bad thermopile or thermocouple.	Replace if necessary.
	e. Improper vent cap installation.	Check for proper installation and freedom from debris or blockage.
6. Glass soots.	a. Flame impingement.	Adjust the log set so that the flame does not excessively impinge on it.
	b. Improper air shutter setting.	Adjust the air shutter located on the control panel.
	c. Debris around air shutter.	Inspect the opening at the base of the burner. NO MATERIAL SHOULD BE PLACED IN THIS OPENING.
7. Flame burns blue and lifts off burner.	a. Insufficient oxygen being supplied.	<p>Ensure that the vent cap is installed properly and free of debris. Ensure that the vent system joints are tight and have no leaks.</p> <p>Ensure that no debris has been placed at the base of, or in the area of the air holes in the center of the base pan beneath the burner.</p> <p>Ensure that the glass is tightened properly on the unit, particularly on top corners.</p>

# 11 Maintaining and Servicing Appliance

Although the frequency of appliance servicing and maintenance will depend on use and the type of installation, a qualified service technician should perform an appliance checkup at the beginning of each heating season.

## WARNING

Risk of injury or property damage.

### Before servicing:

- Turn off gas.
- Turn off electricity to appliance.
- Disable remote control, if one is present.
- Ensure appliance is completely cooled.

### After servicing:

- Replace any screen or barrier that was removed.
- Reseal and reinstall any venting removed for servicing.

## WARNING

Annual inspection by qualified technician recommended.

### Check:

- Condition of glass, glass assembly and glass seal.
- Obstructions of combustion and ventilation air.
- Obstructions of termination cap.
- Burner ignition and operation.
- Burner air shutter adjustment
- Gas connections and fittings.

### Clean:

- Glass
- Air passageways, grilles, control compartment
- Burner, burner ports

### Risk of:

- Fire
- Delayed ignition or explosion
- Exposure to combustion fumes
- Odors



## WARNING



Inspect external vent cap regularly.

- Ensure no debris blocks cap.
- Combustible materials blocking cap may ignite.
- Restricted air flow affects burner operation.

## A. Glass Replacement

Glass can be replaced either as three separate pieces, or as an assembly with the door. See Service Parts List.

### To Replace Separate Glass Pieces

- Turn off gas to the appliance.
- Remove the door and set on a protective surface.
- Remove the door crown.
- Remove the top and bottom retainer screws from the front of the door. Set the top and bottom glass retainers aside.
- Loosen the side glass retainer screws, but do not remove.
- Remove the glass pieces and discard. Keep the aluminum channels for reassembly.
- Slide replacement side glass into the side glass retainers.
- Place the aluminum channels over the side glass.
- Install the center glass into the aluminum channels.
- Reinstall the glass retainers and screws. Reinstall door crown.

### Door Frame with Glass Assembly Replacement

Use only Door Assembly replacement as specified in Section 8 of this manual, available from your dealer, if any glass becomes broken in the Hudson Bay Insert.

Follow the previous instructions to install the door crown and grille to the new Door Assembly.

**Note:** The glass and gasketing must be replaced as a complete unit as supplied by the manufacturer. Do not use substitute material.

## CAUTION



Handle glass assembly with care.

**NOTE:** Clean glass after initial 3-4 hours operation. Longer operation without cleaning glass may cause a permanent white film on glass.

### When cleaning glass door:

- Avoid striking, scratching or slamming glass.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Do NOT clean glass when hot.
- Turn off appliance after 3-4 hours of operation and ALLOW TO COOL.
- Remove and clean glass assembly.
- Replace glass assembly and operate appliance for additional 12 hours.

Refer to maintenance instructions.

## B. Maintenance Tasks

Inspect	Maintenance Tasks
Doors	1. Inspect for scratches, dents or other damage and repair as necessary.
	2. Verify no obstructions to air flow.
	3. Verify maintenance of proper clearance to combustible household objects.
Gasket Seal, Glass Assembly and Glass	1. Inspect gasket seal and its condition.
	2. Inspect glass for scratches and nicks that can lead to breakage when exposed to heat.
	3. Confirm there is no damage to glass or glass frame, Replace as necessary.
	4. Verify that latches engage properly and glass attachment components are intact and operating properly. Replace as necessary.
	5. Clean glass. Replace glass assembly if severely coated with silicate deposits that cannot be removed.
Valve Compartment and Firebox Top	1. Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
	2. Remove any foreign objects.
	3. Verify unobstructed air circulation.
Logs	1. Inspect for broken, damaged, or missing logs. Replace as necessary.
	2. Verify correct log placement and no flame impingement causing sooting. Correct as necessary.
Firebox	1. Inspect for paint condition, warpage, corrosion or perforation. Sand and repaint as necessary.
	2. Replace appliance if firebox has been perforated.
Burner Ignition and Operation	1. Verify burner is properly secured and aligned with pilot or igniter.
	2. Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary. <b>USE CAUTION WHEN CLEANING/HANDLING CERAMIC BURNER.</b>
	3. Replace ember material with new dime-size and shape pieces. Do not block ports or obstruct lighting paths.
	4. Check for smooth lighting and ignition carryover to all ports. Verify there is no ignition delay.
	5. Inspect for lifting and other flame problems.
	6. Inspect orifice for soot, dirt or corrosion.
	7. Verify manifold and inlet pressures. Adjust regulator as required.
	8. Inspect pilot flame strength. Clean or replace orifice as necessary.
	9. Inspect thermocouple/thermopile sensor rod for soot, corrosion and deterioration. Clean with emery cloth or replace as required.
	10. Verify millivolt output. Replace as necessary.
Venting	1. Inspect venting for blockage or obstruction such as bird nests, leaves, etc.
	2. Confirm that termination cap remains clear and unobstructed by plants, etc.
	3. Verify that termination cap clearance to subsequent construction (building additions, decks, fences or sheds) has been maintained.
	4. Inspect for corrosion or separation.
	5. Verify weather stripping, sealing and flashing remains intact.
Remote Controls	1. Verify operation of remote.
	2. Replace batteries in remote transmitters and battery-powered receivers.

# 12 Reference Materials

## A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 3.

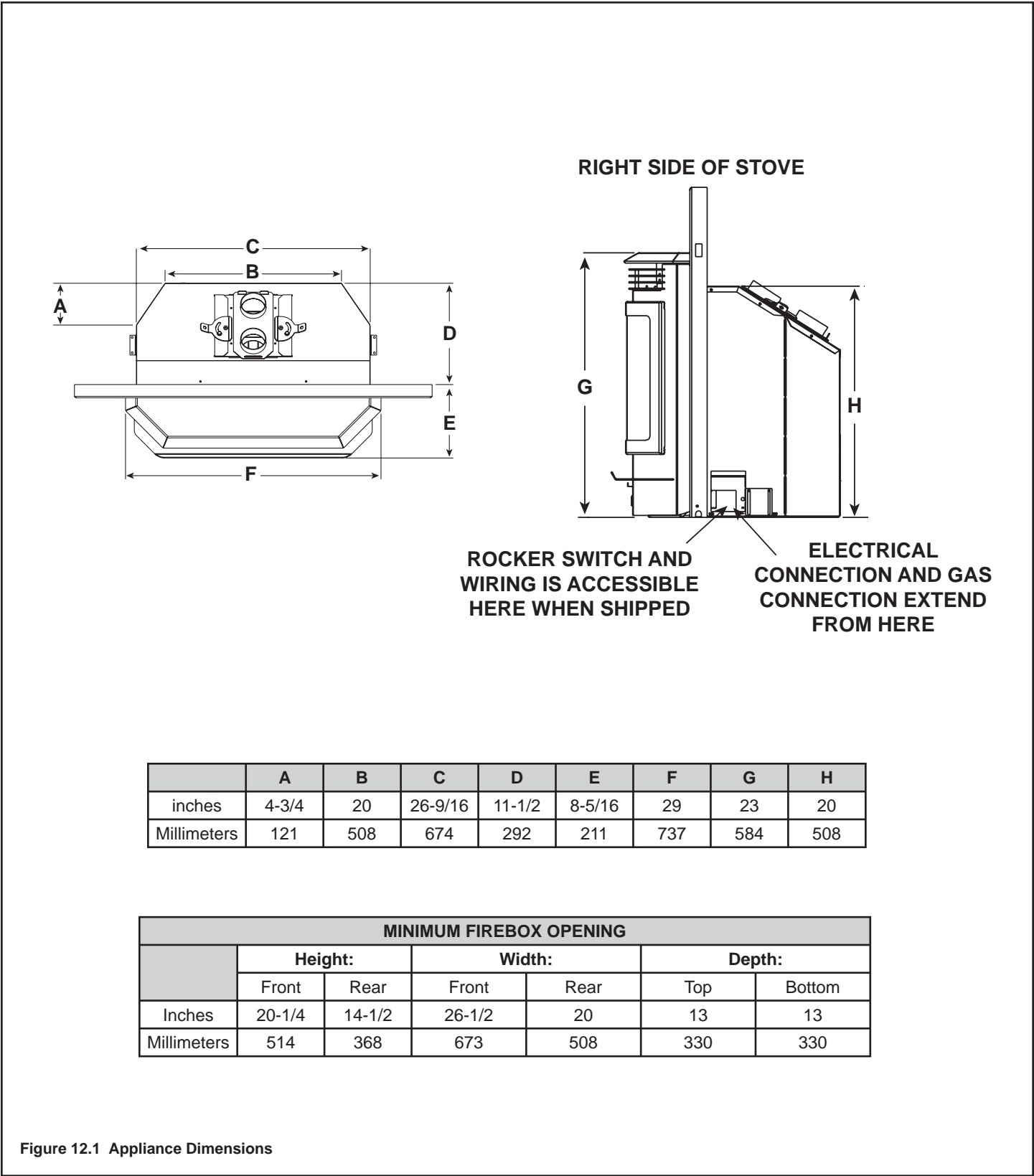
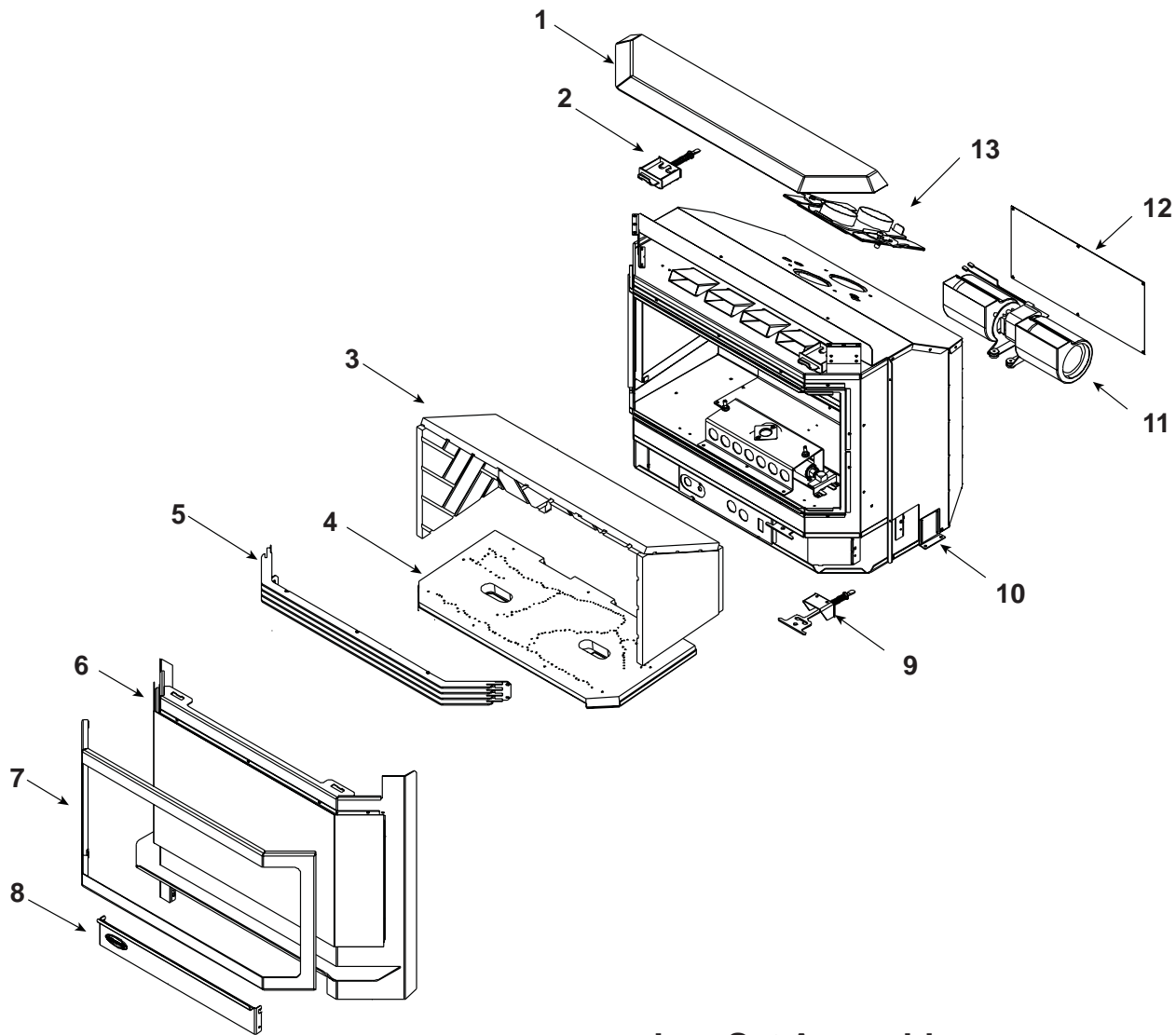


Figure 12.1 Appliance Dimensions

## B. Vent Components List

Venting System Components Description		
<b>HHT Component #</b>	LINK-DV4-30B	Includes one piece 3 in. x 30 ft. Flex; one piece 3 in. x 4 ft. Flex; Cap/Adapter Linear to Coaxial with Flashing.
<b>Dura-Vent GS Catalog #</b>	923GK	Colinear Flex Connector
	991	High Wind Vertical Termination Cap
	2280	3 in. x 35 ft. Flex Extension Length



### Log Set Assembly



Part number list on following page.



## → C. Service Parts List

**HUDBAY-INS**

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

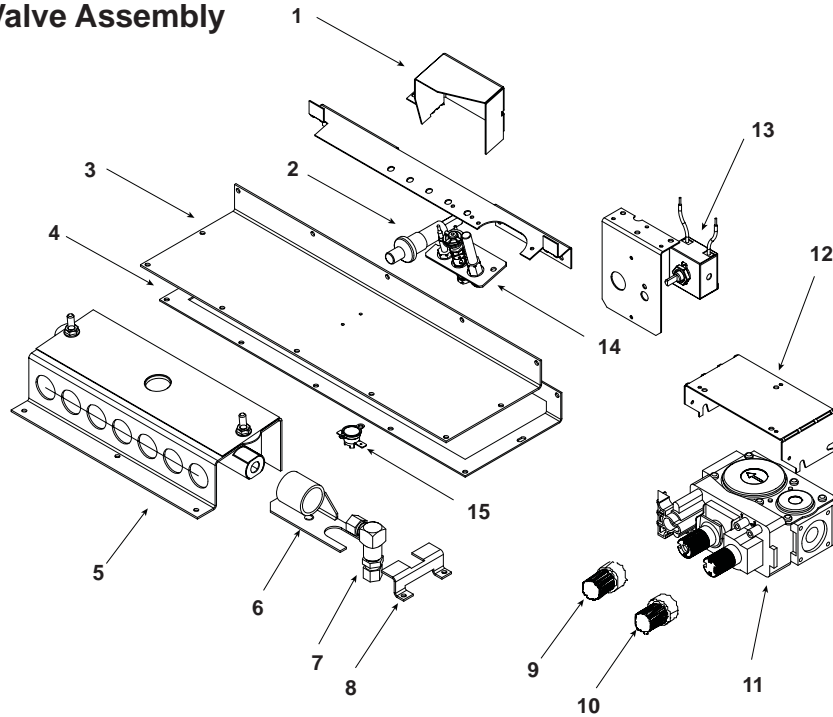


**Stocked  
In Depot**

ITEM	DESCRIPTION	SERIAL #	PART NUMBER	
	Log Set Assembly		7008-012	Y
1	Top Assembly		7008-027	
2	Latch Assembly (Stationary)	Qty 2 req	7003-006	Y
3	Refractory Assembly		7008-002	
4	Burner Assembly		7008-004	Y
5	Grill Bar Assembly	Black	7008-010	
		Gold	LVGRL-GD	
		Nickel	LVGRL-NL	
6	Door Assembly		DOOR-HUDBAY-INS	
	Gasket, Door, Tadpole		842-1530	Y
	Gasket, Glass (3/4" X 5')		832-0460	Y
7	Door Crown	Matte black	462-0150	
		Gold	DC-BAY-GD	
		Nickel	DC-BAY-NL	
8	Door, Face Access		7008-117	
9	Latch Assembly	Qty 2 req	7003-005	Y
10	Leveling Leg		462-0420	
11	Blower		812-4900	Y
	Wire Harness		455-7240	
12	Blower Access Plate, Rear		7008-141	Y
13	Transition Assembly		7008-011	
1	Component Pack  Contains: Mineral Wool; Pilot Injector, EZ,35; Strain Relief Bushing; Hose Clamp; LP Conversion Regulator; S.I.T. LP; Conversion Labels; Orifice, .076 (Port); Touch-up Paint,; Owner's manual; Warranty Card and Consumer View Card		7008-006	
2	Fire Screen		7008-163	
3	Mineral Wool		050-721	Y
4	Thermocouple		200-2950	Y
5	Thermopile		842-0250	Y
6	Touch Up Paint		7000-304	
7	Wire Harness		462-0510	Y
	Conversion Kit NG		844-8230	Y
	Conversion Kit LP		LPK-MB	Y
	Pilot Orifice NG		842-4440	Y
	Pilot Orifice LP		200-2630	Y
	Regulator NG		230-1570	Y
	Regulator LP		230-1520	Y

Additional service part numbers appear on following page.

### Standing Pilot Valve Assembly



**IMPORTANT: THIS IS DATED INFORMATION.** When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



**Stocked  
in Depot**

ITEM	DESCRIPTION	SERIAL #	PART NUMBER	
1	Pilot Shield		7008-172	
2	Piezo Ignitor		291-513	Y
3	Blower Access Plate		7008-135	
4	Gasket, Blower Access		7008-136	
5	Burner Neck Support Assembly		7008-005	Y
6	Shutter Bracket Assembly		468-5060	Y
7	Bulkhead		26457	Y
8	Bulkhead Stop		474-0090	
9	Extension Knob, HI/Lo		571-533	Y
10	Extension Knob, ON/OFF		571-534	Y
11	Valve NG		842-0240	Y
	Valve LP		842-0230	Y
12	Valve Bracket		7008-112	
13	Speed Control		842-0370	Y
	Speed Control Knob		200-2041	Y
14	Pilot Assembly NG		230-1781	Y
	Pilot Assembly LP		Use LP Pilot Orifice	
15	Snap Disc		230-0960	Y
	Orifice NG (.125)		24691	Y
	Orifice LP (.076)		29388	Y

## → D. Limited Lifetime Warranty

### Hearth & Home Technologies LIMITED WARRANTY

Hearth & Home Technologies ("HHT") and its respective brands extends the following warranty for HHT gas, wood, pellet and electric appliances purchased from an authorized HHT dealer and installed in the United States of America or Canada. Warranty starts with date of purchase by the original owner (End User) except as noted for replacement parts.

Warranty Period		HHT Manufactured Appliances and Venting						Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Electric	Venting	
1 Year		X	X	X	X	X	X	All Parts and Material Except as covered by Conditions, Exclusion, and Limitations listed
2 years				X	X			Igniters, Electronic Components, and Glass
		X	X	X	X			Blowers
			X					Molded Refractory Panels
3 years				X				Firepots
5 years	3 years			X	X			Castings & Baffles
7 years	3 years		X	X	X			Firebox, HHT Chimney, Termination & Heat Exchanger
10 years	1 year	X						Burners, Logs & Refractory
Limited Lifetime	1 year	X						Firebox & Heat Exchanger
90 Days		X	X	X	X	X	X	All Replacement Parts
See Conditions, Exclusions, and limitations.						9-01-08		

### CONDITIONS, EXCLUSIONS & LIMITATION OF LIABILITY

- This warranty applies to the original owner and is transferable up to two years from date of purchase to the new homeowner, provided the purchase was made through an authorized dealer or distributor of HHT, and the appliance remains in its original place of installation.
- The maximum amount recoverable under this warranty is limited to the purchase price of the product.
- In no event shall HHT be liable for any incidental or consequential damages caused by defects in the product.
- Adjustments, regular maintenance, cleaning and temporary repairs, or the failure to duplicate the problem in the home is not covered under this warranty.

## D. Limited Lifetime Warranty (*continued*)

- This limited warranty does not extend to or include surface finish on the appliance or terminations, door gasketing, glass gasketing, glass discoloration, firebrick, pellet logs, kaowool or other ceramic insulating materials. Rust and/or corrosion on any of the metal surfaces, cast iron components, baffles, firepots, doors, or firebox area are not covered by this warranty.
- Noise resulting from minor expansion, contraction, or movement of certain parts is normal and complaints related to this noise are not covered by this warranty.
- HHT's obligation under this warranty does not extend to damages resulting from: (1) installation, operation or maintenance of the appliance not in accordance with the installation instructions; operating instructions and the listing agent identification label furnished with the appliance; (2) installation which does not comply with local building codes; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure or handling devices such as exhaust fans or forced air furnaces or other such causes; (5) use of fuels other than those specified in the operating instructions; (6) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; and/or (7) modification of the appliance not expressly authorized and approved by HHT in writing.
- This warranty does not apply to non-HHT venting components, hearth components or other accessories used in conjunction with the installation of this product.
- This warranty is void if the appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals the appliance is subject to prolonged periods of dampness or condensation, or there is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.
- HHT's liability under this warranty is limited to the replacement and repair of defective components or workmanship during the applicable period. HHT may fully discharge all of its obligations under such warranties by repairing the defective component(s) at HHT's discretion. Shipping costs are not covered under this warranty.
- Some states do not allow exclusions or limitation of incidental or consequential damages, so those limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state.
- EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE WARRANTY SPECIFIED ABOVE.

*This Limited Warranty is effective on all HHT appliances sold after September 01, 2008 and supersedes any and all warranties currently in existence.*

If warranty service is needed, you should contact your installing dealer. If the installing dealer is unable to provide necessary parts or components, contact the nearest authorized HHT dealer or supplier.

## E. Contact Information



Quadra-Fire, a brand of Hearth & Home Technologies Inc.  
20802 Kensington Boulevard, Lakeville, MN 55044  
[www.quadrafire.com](http://www.quadrafire.com)

Please contact your Quadra-Fire dealer with any questions or concerns.  
For the location of your nearest Quadra-Fire dealer,  
please visit [www.quadrafire.com](http://www.quadrafire.com).

### - NOTES -

---

---

---

---

---

---

---

---

---

---

### CAUTION



#### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



This product may be covered by one or more of the following patents: (United States) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439226, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, 6769426, 6774802, 6796302, 6840261, 6848441, 6863064, 6866205, 6869278, 6875012, 6880275, 6908039, 6919884, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408, 2313972; (Australia) 780250, 780403, 1418504 or other U.S. and foreign patents pending.

Printed in U.S.A. - Copyright 2008