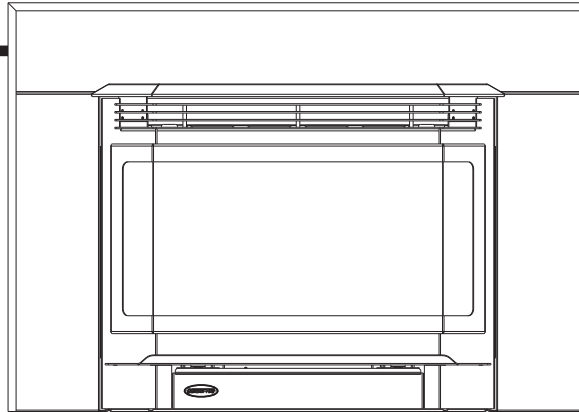


Model:
HUBBAY-INS



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

NOTICE



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*, in Canada.

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.

Read this manual before installing or operating this appliance.
Please retain this owner's manual for future reference.

A. Congratulations

Congratulations on selecting a Quadra-Fire gas fireplace, an elegant and clean alternative to wood burning fireplaces. The Quadra-Fire gas fireplace you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new fireplace, you'll want to read and carefully follow all of the instructions contained in this *Owner's Manual*. Pay special attention to all cautions and warnings.

This *Owner's Manual* should be retained for future reference. We suggest that you keep it with your other important documents and product manuals.

The information contained in this *Owner's Manual*, unless noted otherwise, applies to all models and gas control systems.

Your new Quadra-Fire gas fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Quadra-Fire family of fireplace products!

Homeowner Reference Information	<i>We recommend that you record the following pertinent information about your fireplace.</i>
Model Name: _____	Date purchased/installed: _____
Serial Number: _____	Location on fireplace: _____
Dealership purchased from: _____	Dealer Phone: _____
Notes: _____	

SAMPLE OF SERIAL NUMBER / SAFETY LABEL LOCATION: HANGING ON A CHAIN ON BACK OF APPLIANCE

Test Lab & Report No.

Tested and Listed by
C-T-L
Canadian Test Laboratories, Inc.
Report No. / Rapport Numero
061-S-63-3

SERIAL NO. XXX

QUADRA-FIRE

MODEL: XXXXXXXX
VENTED GAS APPLIANCE
NOT FOR USE WITH SOLID FUEL
FAN TYPE VENTED CIRCULATOR Blower Electrical Rating 115 V., 1.5 Amps, 60 Hz, 150 Watts
P.4.1-02 Canada Minimum Pipe 69% NG / 71% LP

Serial Number

Model Name

APPROVED FOR CANADA AND USA TO:
ANSI Z21.88b-2003 / CSA 2.33b-2003 Vented Gas Fireplace Heater, and applicable sections of UL307b Gas Burning Heating Appliances for Manufactured Homes and Recreational Vehicles, CAN/CGA 2.17-M91 "Gas Fired Appliances for use at High Altitudes."
This appliance is manufactured for operation with Natural Gas. For conversion to propane the Manufacturer's kit provided with the stove must be used in conjunction with the instructions in the owner's manual.
This vented gas fireplace heater is not for use with air filters.
This appliance may be installed in a bedroom or bedsitting room; in Canada remote thermostat installation is required.

	For use with Natural Gas	For use with Propane
	0'-2000'	0'-2000'
Input Rate on "HI" (BTU/Hr)	30,000	28,000
Input Rate on "LO" (BTU/Hr)	22,500	22,650
Main Burner Orifice (DMS)	36	52
Minimum Inlet Pressure (Inches W.C.)	4.5"	11"
Maximum Inlet Pressure (Inches W.C.)	7.0"	14"
Manifold Pressure on "HI" (Inches W.C.)	3.5"	10"
Efficiency up to	82.5%	81%
AFUE	71%	72.5%

This appliance equipped for altitudes 0-2000' (0-610m) in USA; and in Canada for altitudes of 0-4500' (0-1370m). In USA for Altitudes above 2000', the vent configuration, orifice, or combination of both may need to be changed. See Owner's Manual for information on making these changes.
This appliance must be installed in accordance with local codes, if any (and Commonwealth of Massachusetts approved); if none, follow The National Fuel Gas Code, ANSI Z223.1 and NFPA 54; or Canadian Installation Codes CAN/CGA-B149.
NOTE: Have the gas supply line installed in accordance with local building codes 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.)

MINIMUM CLEARANCES TO COMBUSTIBLES

Manufactured by: **HEARTH & HOME technologies**

DO NOT REMOVE THIS LABEL
MADE IN U.S.A.

Date of Manufacture / Date du Manufacturier

2005 2006 2007 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 7031-221

Manufactured Date

▲ Safety Alert Key:

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Used to address practices not related to personal injury.

Table of Contents

A. Congratulations	2
B. Limited Lifetime Warranty	4

1 Listing and Code Approvals

A. Appliance Certification	6
B. Glass Specifications	6
C. BTU Specifications	6
D. High Altitude Installations	6
E. Non-Combustible Materials Specification	6
F. Combustible Materials Specification	6
G. Electrical Codes	6

User Guide

2 Operating Instructions

A. Gas Fireplace Safety	7
B. Your Fireplace	7
C. Clear Space	8
D. Decorative Doors, Fronts and Surrounds	8
E. Fixed Glass Assembly	8
F. Remote Controls, Thermostats and Wall Switches	8
G. Before Lighting Fireplace	8
H. Standing Pilot Ignition	9
I. After Appliance is Lit	10
J. Frequently Asked Questions	10

3 Maintenance and Service

A. Maintenance Tasks-Homeowner	11
→ B. Maintenance Tasks-Service Technician	12

Installer Guide

4 Getting Started

A. Typical Appliance System	13
B. Design and Installation Considerations	14
C. Tools and Supplies Needed	14
D. Inspect Appliance and Components	14

5 Fireplace Size Requirements

A. Minimum Fireplace Opening	15
B. Mantel and Wall Projections	16

6 Termination Locations

A. Vent Termination Minimum Clearances	17
--	----

7 Installation Preparation

A. Inspection and Cleaning	18
B. Flue Damper	18
C. Gas Line	18
D. Hearth or Hearth Extension	18
E. Fireplace Conversion Notice	18

F. Electrical Outlet Box	18
------------------------------------	----

8 Installing Vent Pipe and Appliance

A. Vent Limits	19
B. Venting Components	19
C. Connecting Vent Pipe	19
D. Placing, Securing and Leveling the Appliance	20
E. Remote Control	20
F. Installing Adaptor and Termination Cap	21

9 Gas Information

A. Fuel Conversion	22
B. Converting to LP Gas	22
C. Valve Regulator Replacement	23
D. Gas Pressure	24
E. Gas Connection	24
F. High Altitude Installations	24

10 Electrical Information

A. Wiring Requirements	25
B. Standing Pilot Ignition System Wiring	25
C. Blower Installation	26

11 Finishing

A. Mantel and Wall Projections	28
--	----

12 Appliance Setup

A. Remove Glass Assembly	29
B. Remove the Shipping Materials	29
C. Clean the Appliance	29
D. Accessories	29
E. Door Crown Installation	29
F. Grille Installation	30
G. Panel Set Installation	30
H. Ember Placement	31
I. Brick Installation	32
J. Positioning the Logs	33
K. Air Shutter Adjustment	34
L. Fixed Glass Assembly	35

13 Troubleshooting

A. Standing Pilot Ignition System	36
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14 Reference Materials

A. Appliance Dimension Diagram	38
B. Vent Kits Components	39 ←
C. Service Parts	40
D. Contact Information	43

→ = Contains updated information.

B. Limited Lifetime Warranty **Hearth & Home Technologies Inc.**
LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of original purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

B. Limited Lifetime Warranty (*continued*)

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, light bulbs, batteries and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- 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.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these 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 EXPRESSED WARRANTY SPECIFIED ABOVE.

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”.

Quadra-Fire gas inserts are designed for installations into solid fuel masonry or factory built fireplaces that have been installed in accordance with the National, Provincial, State and local building codes. Fireplaces are to be constructed of non-combustible materials and, in the absence of local or regional codes, meet criteria of NFPA 211. No additional outside air source is required.

NOTICE: *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.*

NOT INTENDED FOR USE AS A PRIMARY HEAT SOURCE. This appliance is tested and approved as either supplemental room heat or as a decorative appliance. It should not be factored as primary heat in residential heating calculations.
--

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.

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

NOTICE: *If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.*

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce input rate 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

Check with your local gas utility to determine proper orifice size.

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** and **UL763** 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 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.

A. Gas Fireplace Safety

⚠ 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.

If you expect that small children or vulnerable adults may come into contact with this fireplace, the following precautions are recommended:

- Install a physical barrier such as:
 - A decorative firescreen.
 - Adjustable safety gate.
- Install a switch lock or a wall/remote control with child protection lockout feature.

- Keep remote controls out of reach of children.
- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to **NEVER** touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: www.hpba.org/safety-information.

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacation/trips, etc):

- Remove batteries from remote controls.
- Turn off wall controls.
- Turn off gas controls valve on standing pilot models.

When lighting the pilot light on fireplaces with a standing pilot, remove the fixed glass assembly so you can detect presence of residual gas build-up. See Standing Pilot Lighting instructions and Maintenance Tasks.

B. Your Fireplace

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

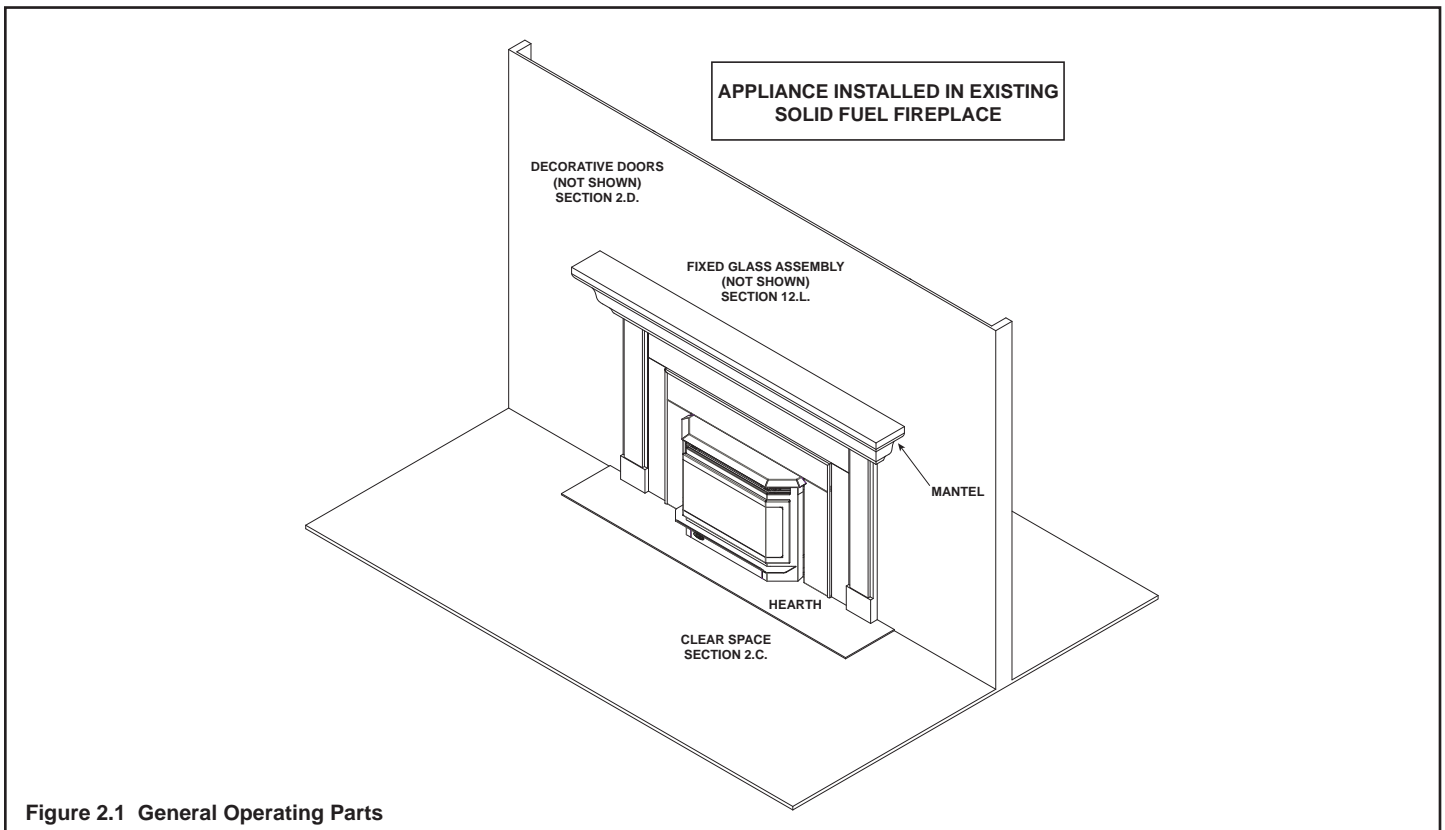
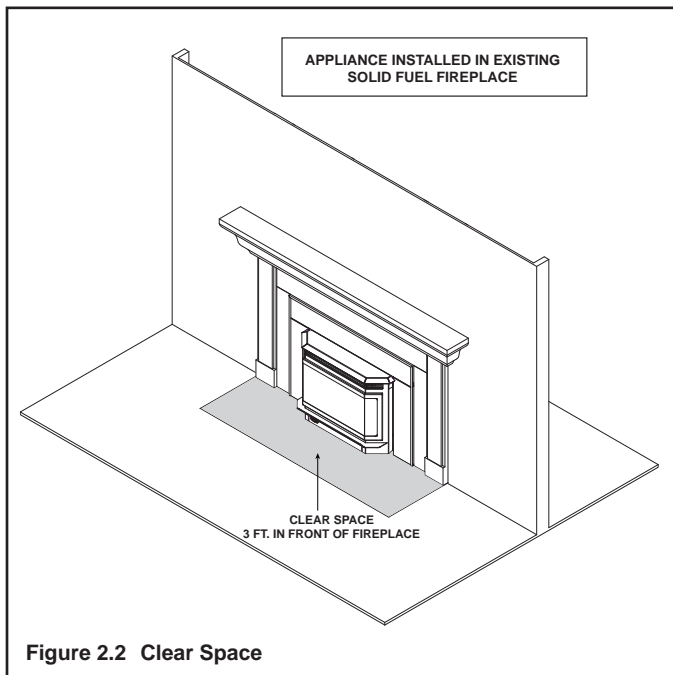


Figure 2.1 General Operating Parts

C. Clear Space

WARNING! DO NOT place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.2.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.



D. Decorative Doors, Fronts and Surrounds

WARNING! Risk of Fire! Install **ONLY** doors, fronts or surrounds approved by Hearth & Home Technologies. Unapproved doors or fronts may cause appliance to over-heat.

For more information refer to the instructions supplied with your decorative door or front.

E. Fixed Glass Assembly

See Section 12.L.

F. Remote Controls, Thermostats and Wall Switches

Follow the instructions supplied with the control installed to operate your fireplace:

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.

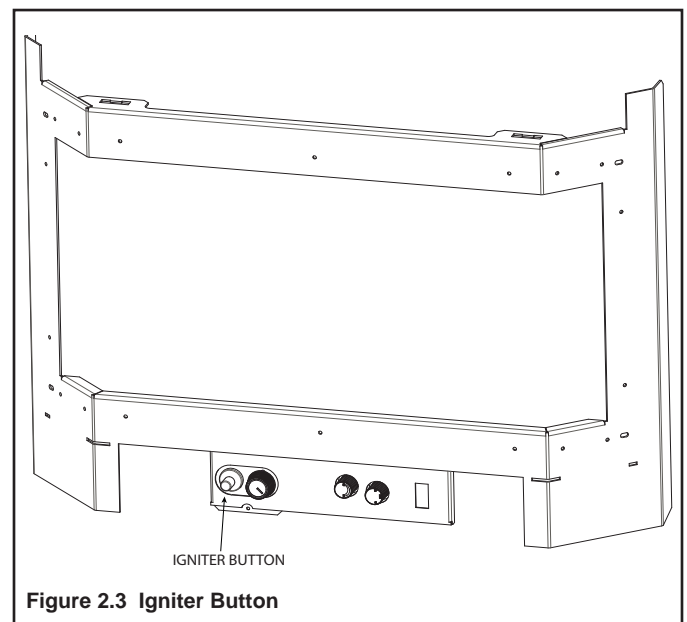
See your dealer if you have questions.

G. Before Lighting Fireplace

Before operating this fireplace for the first time, **have a qualified technician:**

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, ember material and/or other decorative materials.
- 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.

WARNING! Risk of Fire/Asphyxiation! DO NOT operate fireplace with fixed glass assembly removed.



H. Standing Pilot Ignition

FOR YOUR SAFETY READ BEFORE LIGHTING





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

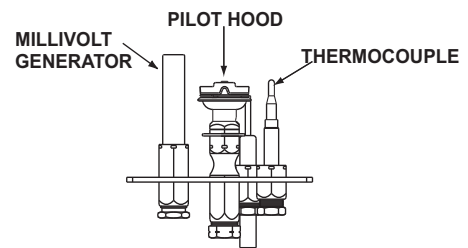
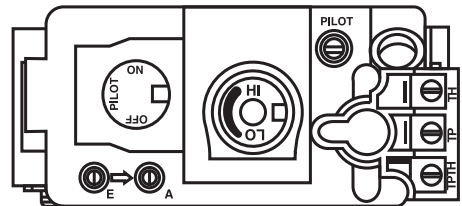
- A. This appliance has a pilot that must be lit manually. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING**, smell around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

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.

I. After Appliance is Lit

Initial Break-in Procedure

- The appliance should be run three to four hours continuously on high.
- Turn the appliance off and allow it to completely cool.
- Remove fixed glass assembly. See Section 12.L.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fire-place.

NOTICE! Open windows for air circulation during appliance break-in.

- *Some people may be sensitive to smoke and odors.*
- *Smoke detectors may activate.*

J. 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. Odor may also be released from finishing materials and adhesives used around the appliance.
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.
Is it normal to see the pilot flame burn continually?	In a standing pilot system the pilot will always stay on.

3 Maintenance and Service

Any safety screen or guard removed for servicing must be replaced prior to operating the appliance.

When properly maintained, your appliance will give you many years of trouble-free service. We recommend annual service by a qualified technician.

A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified technician only. The appliance should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the appliance must be kept clean.

CAUTION! Risk of Burns! The appliance should be turned off and cooled before servicing.

Glass Cleaning

Frequency: Seasonally

By: Homeowner

Tools Needed: Protective gloves, glass cleaner, drop cloth and a stable work surface.

CAUTION! Handle fixed glass assembly with care. Glass is breakable.

- Avoid striking, scratching or slamming glass
- Avoid abrasive cleaners
- **DO NOT** clean glass while it is hot
- Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.

Note: Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.

- Remove door or decorative front from appliance and set aside on work surface.
- See Section 12.L for instructions to remove fixed glass assembly.
- Clean glass with a non-abrasive commercially available cleaner.
 - Light deposits: Use a soft cloth with soap and water
 - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
- Carefully set fixed glass assembly in place on appliance. Hold glass in place with one hand and secure glass latches with the other hand.
- Reinstall door or decorative front.

Doors, Surrounds, Fronts

Frequency: Annually

By: Homeowner

Tools needed: Protective gloves, stable work surface

- Inspect for scratches, dents or other damage and repair as necessary.
- Check that louvers are not blocked.
- Vacuum or dust surfaces.

Remote Control

Frequency: Seasonally

By: Homeowner

Tools needed: Replacement batteries and remote control instructions.

- Locate remote control transmitter and receiver.
- Verify operation of remote. Refer to remote control operation instructions for proper calibration and setup procedure.
- Place batteries as needed in remote transmitters and battery-powered receivers.
- Place remote control out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

- Remove batteries from remote controls.

Venting

Frequency: Seasonally

By: Homeowner

Tools needed: Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.
- Inspect draft shield to verify it is not damaged or missing.

B. Maintenance Tasks-Service Technician

The following tasks must be performed by a qualified technician.

Gasket Seal and Glass Assembly Inspection

Frequency: Annually

By: Service Technician

Tools needed: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

Logs

Frequency: Annually

By: Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary. Refer to Section 12 for log placement instructions.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

Firebox

Frequency: Annually

By: Service Technician

Tools needed: Protective gloves, sandpaper, steel wool, cloths, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation. Sand and repaint as necessary.
- Replace appliance if firebox has been perforated.

Control Compartment and Firebox Top

Frequency: Annually

By: Service Technician

Tools needed: Protective gloves, vacuum cleaner, dust cloths

- 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.
- Remove all foreign objects.
- Verify unobstructed air circulation.

Burner Ignition and Operation

Frequency: Annually

By: Service Technician

Tools needed: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace Glowing embers with new dime-size pieces. **DO NOT** block ports or obstruct lighting paths. Refer to Section 12 for proper ember placement.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 12 for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect pilot flame pattern and strength. See Figure 3.1 for proper pilot flame pattern. Clean or replace orifice spud as necessary.
- Inspect thermocouple/thermopile for soot, corrosion and deterioration. Polish with fine steel wool or replace as ← required.
- Verify thermocouple/thermopile millivolt output. Replace pilot as necessary.



Figure 3.1 Standing Pilot Flame Patterns

4 Getting Started

Installer Guide

A. Typical Appliance System

NOTICE: Illustrations and photos reflect typical installations and are for design purposes only. Illustrations/diagrams are not drawn to scale. Actual product may vary from pictures in manual

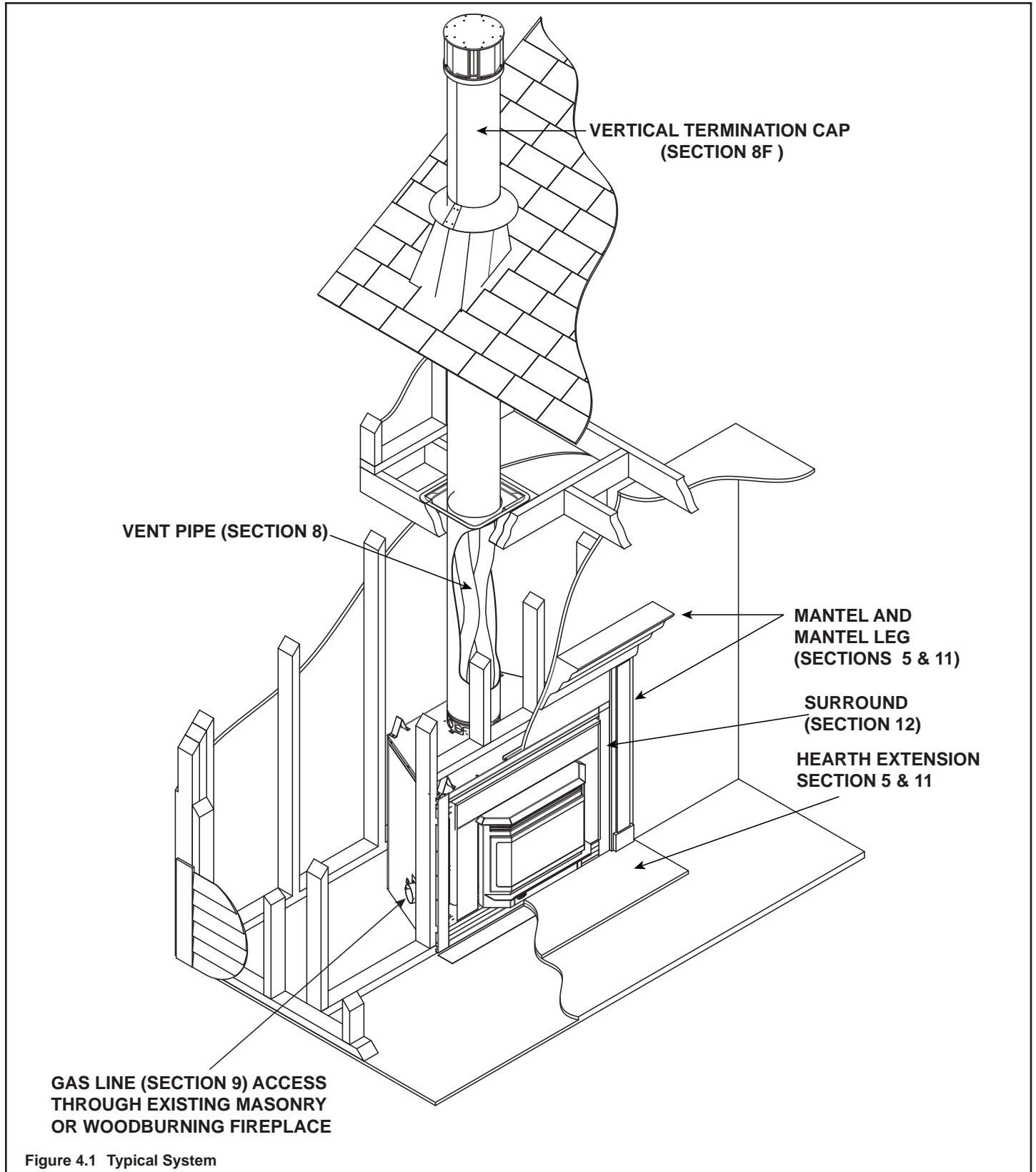


Figure 4.1 Typical System

B. Design and Installation Considerations

Quadra-Fire gas inserts are designed for installations into solid fuel masonry or factory built fireplaces that have been installed in accordance with the National, Provincial, State and local building codes. Fireplaces are to be constructed of non-combustible materials and, in the absence of local or regional codes, meet criteria of NFPA 211. No additional outside air source is required.

Installation MUST comply with local, regional, state and national codes and regulations. Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

Prior to installing the gas insert:

- Have the chimney and adjacent structure inspected and cleaned by qualified professionals. Hearth & Home Technologies recommends that NFI or CSIA certified professionals, or technicians under the direction of certified professionals, conduct a minimum of a NFPA 211 Level 2 inspection of the chimney.
- Replace component parts of the chimney and fireplace as specified by the professionals.
- Ensure combustible mantel and surround clearances comply with applicable codes and regulations for solid-fuel fireplaces. In the absence of local or regional codes, refer to NFPA 211.
- Ensure all joints are properly engaged and the chimney is properly secured.
- Minimum fireplace size. See Section 5.A.
- Gas supply piping requirements.
- Electrical wiring requirements.
- Finishing details.
- Whether optional accessories—devices such as a remote control—are desired.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified technician, service agency or your dealer.

C. Tools and Supplies Needed

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

Tape measure	Framing material
Pliers	7/16 inch wrench
Hammer	Phillips screwdriver
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	Reciprocating saw
Manometer	Flat blade screwdriver

Noncorrosive leak check solution

1/2 - 3/4 inch length, #6 or #8 Self-drilling screws

Caulking material (300°F minimum continuous exposure rating)

Stove cement (1200°F or higher continuous exposure rating)

D. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- The vent system components and surround may be shipped in separate packages.
- 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! Risk of Fire or Explosion! Damaged parts could impair safe operation. **DO NOT** install damaged, incomplete or substitute components. Keep appliance dry.

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.

WARNING! Risk of Fire, Explosion/Electric Shock! **DO NOT** use this appliance if any part has been under water. Call a qualified technician to inspect the appliance and to replace any part of the control system and/or gas control which has been under water.

5 Fireplace Size Requirements

A. Minimum Fireplace Opening

Minimum fireplace opening requirements are shown in Figure 5.1.

WARNING! Risk of Fire or Burns! Provide adequate clearance around air openings and for service access. **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**

- The firebrick (refractory), glass doors, screen rails, screen mesh and log grates can be removed from a factory built firebox in order to gain minimum gas insert opening requirements.
- Any smoke shelves, shields and baffles may be removed from the factory built firebox if attached with mechanical fasteners.

- The metal floor of the solid fuel firebox may be removed to facilitate the installation of the insert. The appliance may not be placed directly on the base of the outer wrap, a 3/8 inch airspace must be provided between the insert and the floor of the outer wrap. Use the levelling legs to raise the insert a minimum of 3/8 inch. The original fireplace may never be returned to solid fuel in this condition. The sidewalls and top structure of the firebox may not be altered with the exception of removable baffles and dampers.
- Cutting of any sheet metal parts of the fireplace in which the gas fireplace insert is to be installed is prohibited, except the floor as tested for and as noted above.

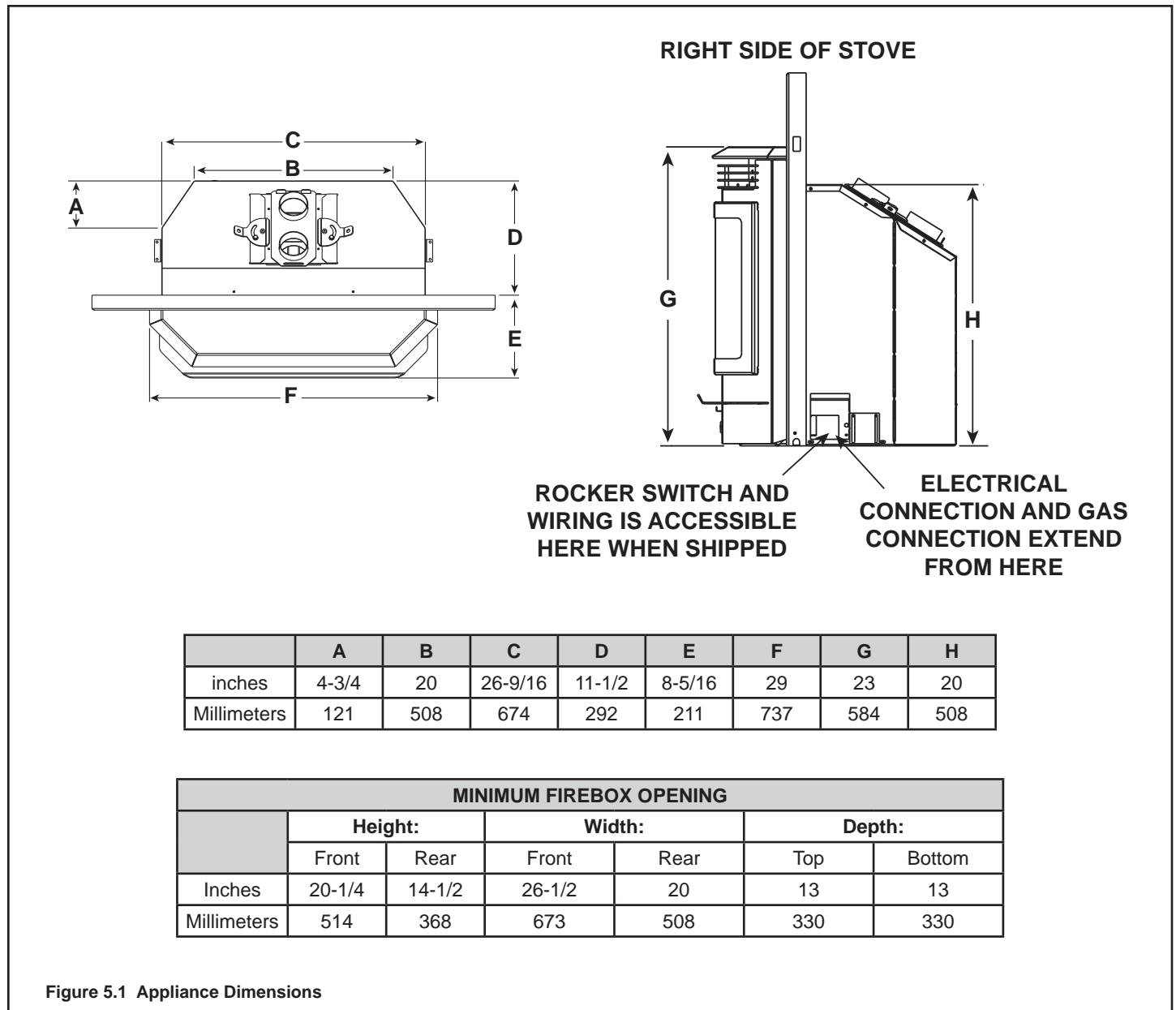


Figure 5.1 Appliance Dimensions

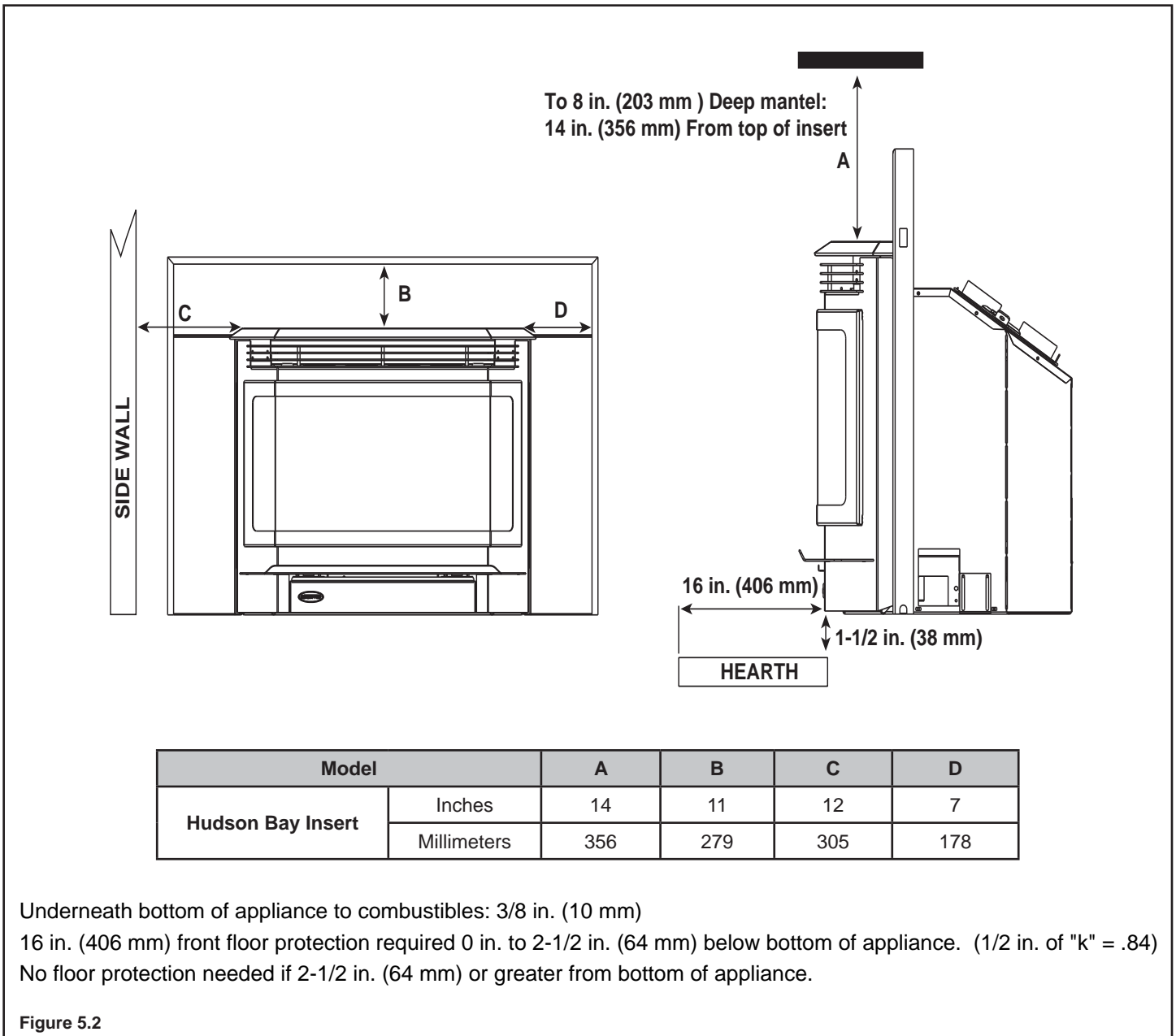
B. Mantel and Wall Projections

WARNING! Risk of Fire! Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc).

Clearance to combustible material under the insert is 3/8 inch (10 mm). Clearance from sides of fireplace opening to combustibles is 12 inches (305 mm). Clearance from top of fireplace opening for combustibles extending 1 inch to 8 inches max. is 14 inches.


- Use leveling legs to raise insert minimum 3/8 inch (10 mm) above combustible material or outer wrap of factory built firebox.

Combustible facings must not extend behind the insert surround.



6 Termination Locations

A. Vent Termination Minimum Clearances

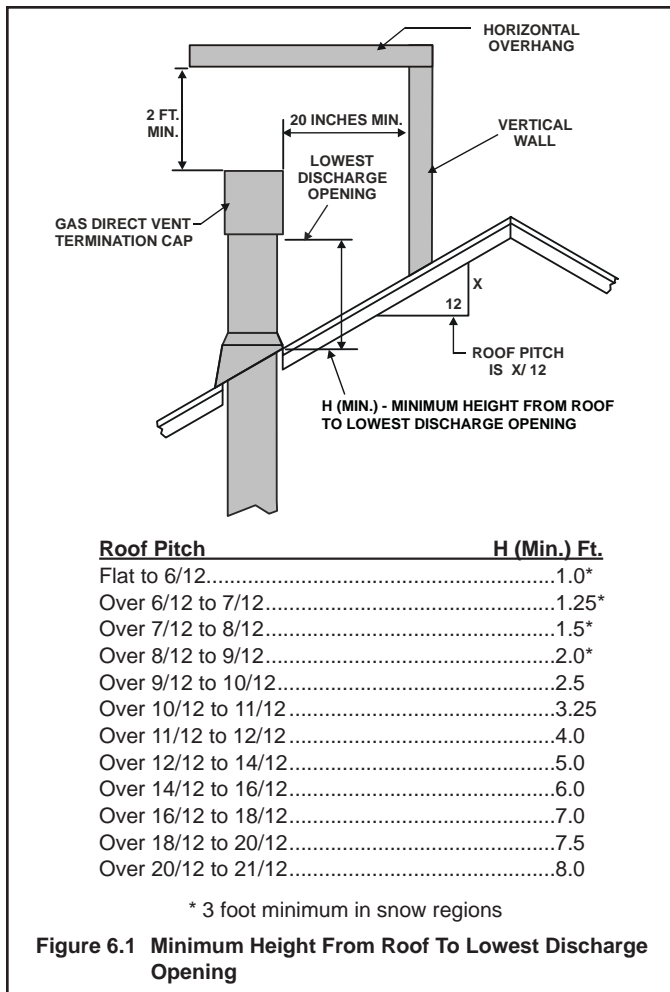


⚠ WARNING

Fire Risk.
Maintain vent clearance to combustibles as specified.

- **DO NOT** pack air space with insulation or other materials.

Failure to keep insulation or other materials away from vent pipe may cause fire.



7 Installation Preparation

Prepare the existing solid fuel masonry or factory built non-combustible firebox for installation.

A. Inspection and Cleaning

Prior to installing the gas insert:

- Have the chimney and adjacent structure inspected and cleaned by qualified professionals. Hearth & Home Technologies recommends that NFI or CSIA certified professionals, or technicians under the direction of certified professionals, conduct a minimum of a NFPA 211 Level 2 inspection of the chimney.
- Replace component parts of the chimney and fireplace as specified by the professionals.
- Ensure all joints are properly engaged and the chimney is properly secured.
- Ensure combustible mantel and surround clearances comply with applicable codes and regulations for solid-fuel fireplaces. In the absence of local or regional codes, refer to NFPA 211.
- Ensure chimney is constructed of non-combustible materials.
- Ensure chimney is clean and in good working order.
- Ensure that all chimney cleanouts fit properly to prevent air leakage into chimney.

B. Flue Damper

Fully lock the solid fuel fireplace's flue damper in the open position, OR completely remove it.

C. Gas Line

Note: If the factory built fireplace has no gas access hole provided, an access hole of 1 inch (25 mm) diameter or less may be drilled through the lower sides or bottom of the firebox in a proper workmanship - like manner. This access hole must be plugged with non-combustible insulation after the gas supply line has been installed.

- Install gas line into firebox cavity.
- Check local codes and gas line sizing requirements following NFPA51. See Section 8.

D. Hearth or Hearth Extension

WARNING! Risk of Fire! A hearth or hearth extension (if present) must comply with either of the following:

- *The solid fuel burning fireplace manufacturer's specification.*
- *Local building codes required by authority having jurisdiction.*
- *NFPA 211*

E. Fireplace Conversion Notice

Permanently attach the label with the following warning to the inside lower back of the fireplace firebox into which the insert is being installed. Silicone or mechanical fasteners may be required to properly secure the label.

WARNING! Risk of Fire! *This fireplace has been converted for use with a gas fireplace insert only and cannot be used for burning wood or solid fuels unless all original parts have been replaced, and the fireplace re-approved by the authority having jurisdiction.*

F. Electrical Outlet Box

An outlet box may be installed in a bottom back corner of the fireplace to permit blowers or other optional accessories to be used. Alternatively, the supplied power cord may be routed out onto the hearth to a nearby outlet.

8 Installing Vent Pipe and Appliance

A. Vent Limits

The abbreviations listed in this vent table key are used in the vent diagrams.

Description
Minimum Vertical Run Length 10 ft.
Maximum Vertical Run Length 40 ft.

Horizontal venting is NOT allowed.

Vertical terminations are measured to top of chimney.

This appliance is listed for use with LINK-DV systems and components only. It is permissible to extend venting above existing chimney (within specified maximum vertical limits) using SL-D series or Dura Vent GS series 4 in. x 6-5/8 in. gas direct-vent pipe. Connection is made using DV-46DVA-GK. The vent must be terminated with the cap supplied with the LINK-series vent kit.

WARNING! Risk of Fire/Explosion/Asphyxiation! Do NOT connect this gas appliance to a chimney flue serving a separate solid fuel or gas burning appliance.

- May impair safe operation of this appliance or other appliances connected to the flue.
- Vent this appliance directly outside.
- Use separate vent system for this appliance.

CAUTION! ALL vent specifications MUST be followed. This product is tested and listed to these specifications. Appliance performance will suffer if specifications are not followed.

B. Venting Components

CAUTION! Risk of Cuts/Abrasions/Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

The vertical vent termination system installed on this model includes:

- Flexible vent pipe for exhaust air (included with vent kit).
- One length of 3-inch flexible vent pipe for combustion air (included with vent kit).
- One pipe-to-cap adaptor (included with vent kit).
- One vertical termination cap (included with vent kit).

C. Connecting Vent Pipe

Reference instructions in the termination kit.

- Install the 3-inch flexible vent pipe(s) down through the chimney.
- Secure the exhaust flexible vent pipe to the exhaust collar on the transition assembly. See Figure 8.1.
- Use 3 screws to attach either a 4 foot or 30 foot section of inlet air vent to the inlet collar on the collar slide plate (see Figure 8.1). NOTE: The collar slide plate may be removed from appliance to aid installation.

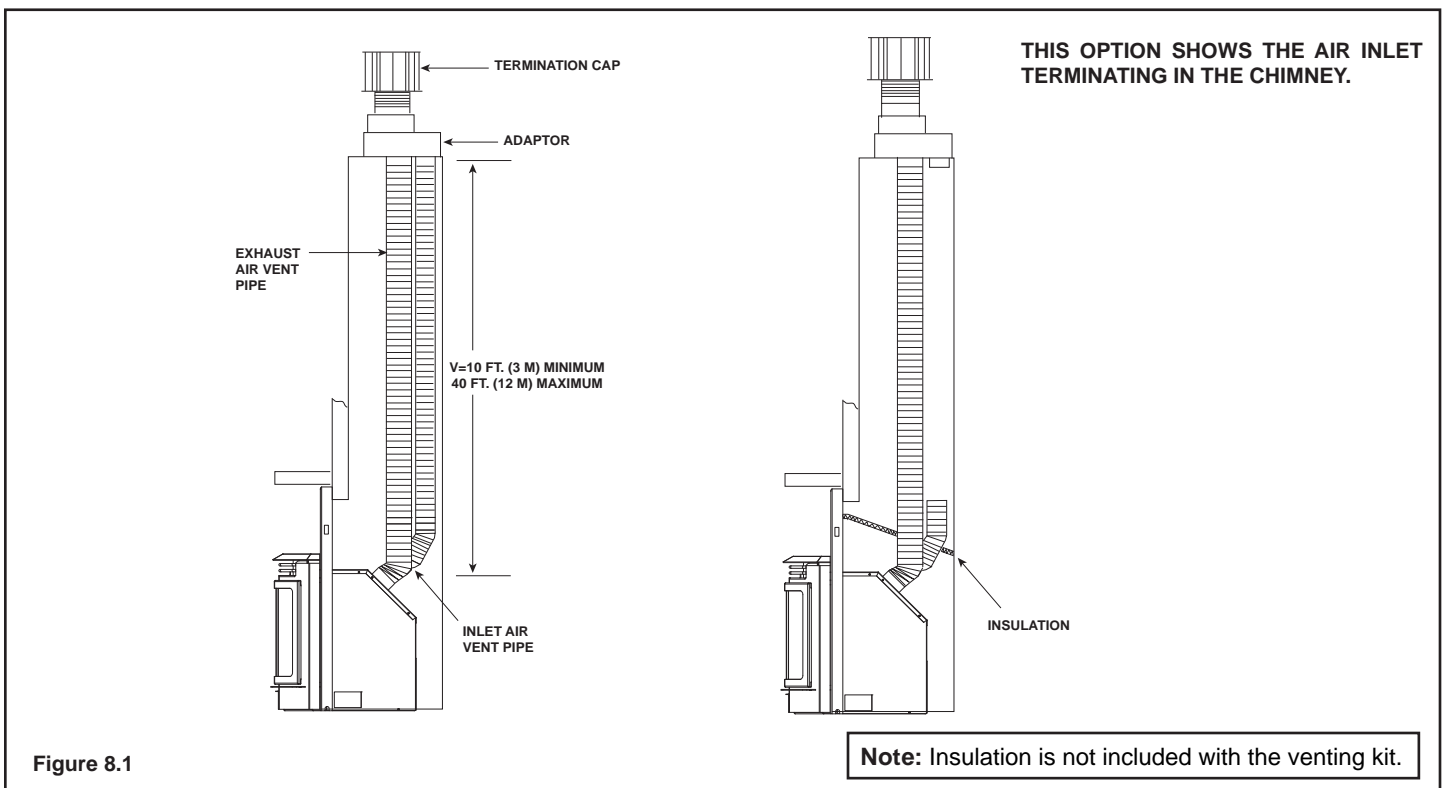


Figure 8.1

Note: Insulation is not included with the venting kit.

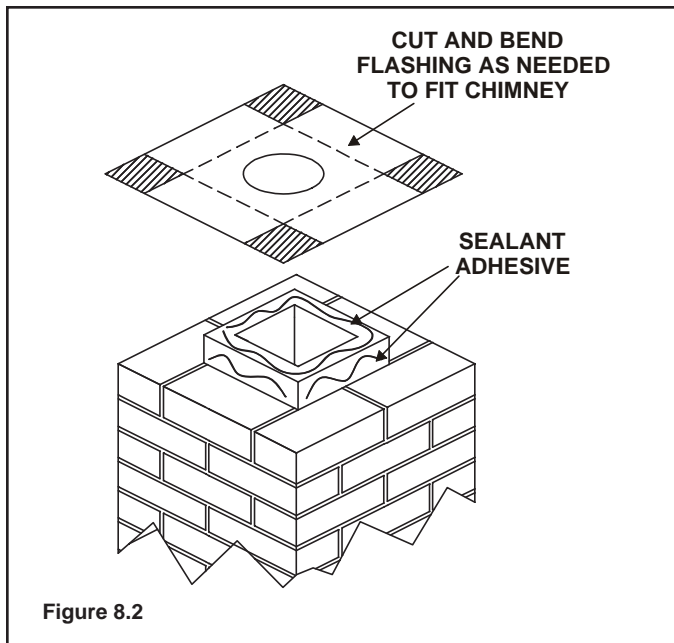


Figure 8.2

- Trim chimney top plate to minimize excess overhang or bend over flue tile (see Figure 8.2).
- Place 3/8 inch bead of silicone (minimum of 300°F continuous exposure rating) on flue tile top.

D. Placing, Securing and Leveling the Appliance

- Attach surround. Follow instructions accompanying surround.
- Install insert (with surround attached) into existing fireplace while pulling transition assembly forward.
- Attach Transition Assembly to the appliance. Rotate Transition Assembly latches and lock with 7/16 inch wrench.
- Install gas line into hole provided on insert side.
- If applicable install remote control wires into insert side (see Section 8.E.).
- Level the appliance from side to side and front to back. If necessary, attach the shipping brackets that were used to attach the unit to the pallet, to the rear of the appliance for use as levelling legs.
- Position any excess flexible vent pipe back up into chimney without sagging. Twist and push flex vent together to shorten.
- Install fiberglass insulation pieces to back face of surround.
- Push insert so that surround becomes tight against face of fireplace.

WARNING! Risk of Fire! Only an approved Hearth & Home Technologies surround may be used to cover integral grills on solid fuel burning fireplaces. No other components such as shrouds, sheetmetal plates, etc., may be used to seal off vents.

WARNING! Risk of Explosion! Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

WARNING! Risk of Explosion/Combustion Fumes! Connect vent sections per installation instructions.

- Connect exhaust vent pipe ONLY to exhaust starting collar and termination cap center collar.
- Connect inlet air vent ONLY to inlet air collar on appliance and either the termination cap inlet air collar OR terminate within chimney.
- **DO NOT** allow vent to sag below connection point to appliance.

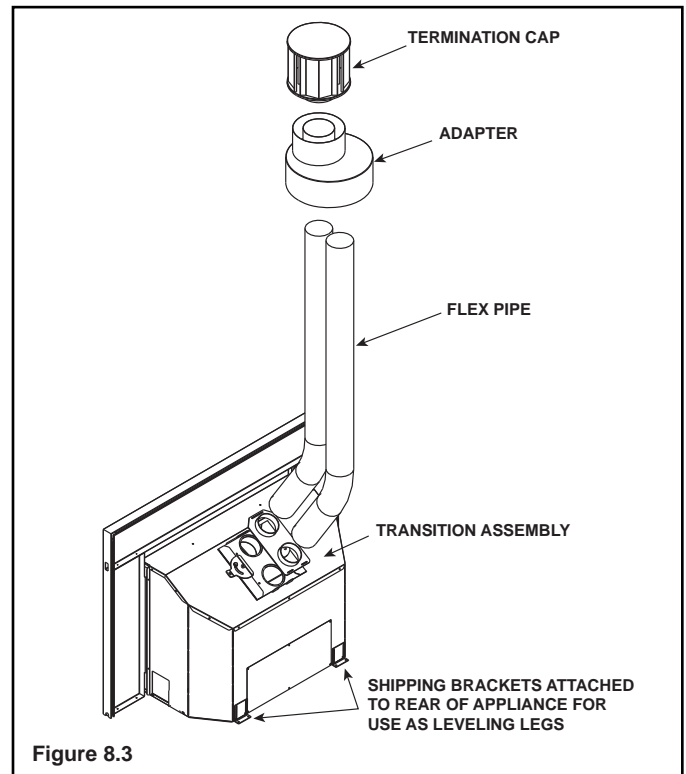


Figure 8.3

E. Remote Control

The receiver for the remotes must be installed BETWEEN the base pan of the insert and the firebox of the wood-burning fireplace (see photo below).

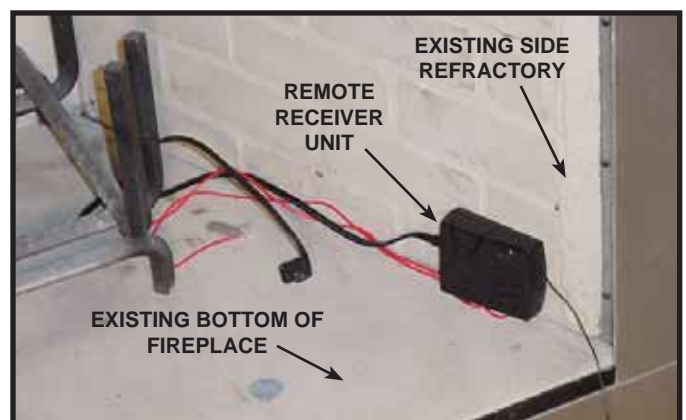


Figure 8.4

F. Installing Adaptor and Termination Cap

For installation of termination cap see minimum vent heights for various pitched roofs (see Figure 8.4) .

To install adaptor see Figure 8.5.

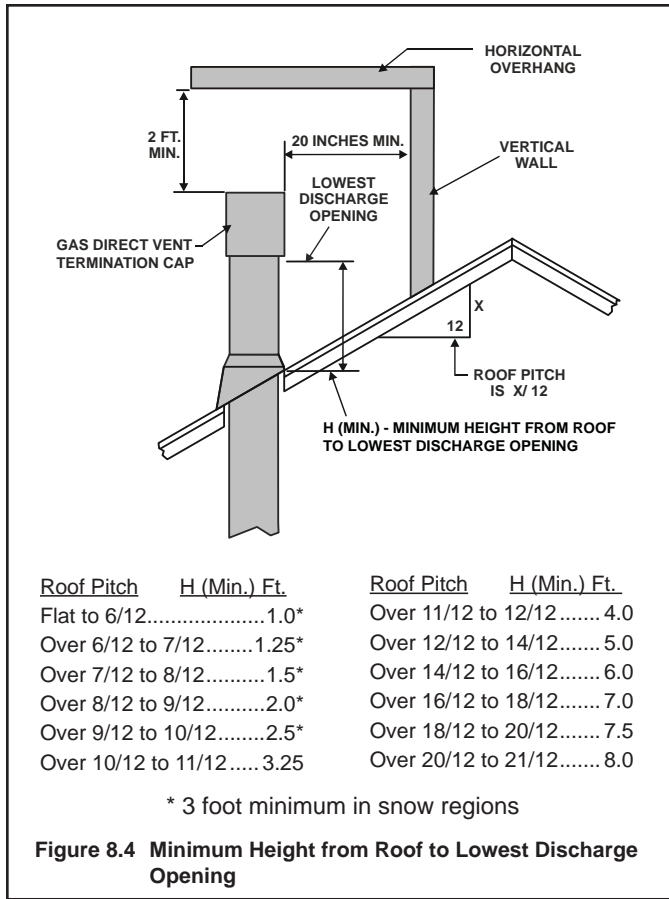


Figure 8.4 Minimum Height from Roof to Lowest Discharge Opening

CAUTION! Risk of Cuts/Abrasions/Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

Damper Flashing Kit (Optional)

For use with LINK-DV4-30B Liner Kit.

Note: Damper may have to be removed to use this kit.

- Run flex liners through 3 in. holes in damper flashing.
- Attach damper flashing to firebox roof with self tapping screws included in kit.

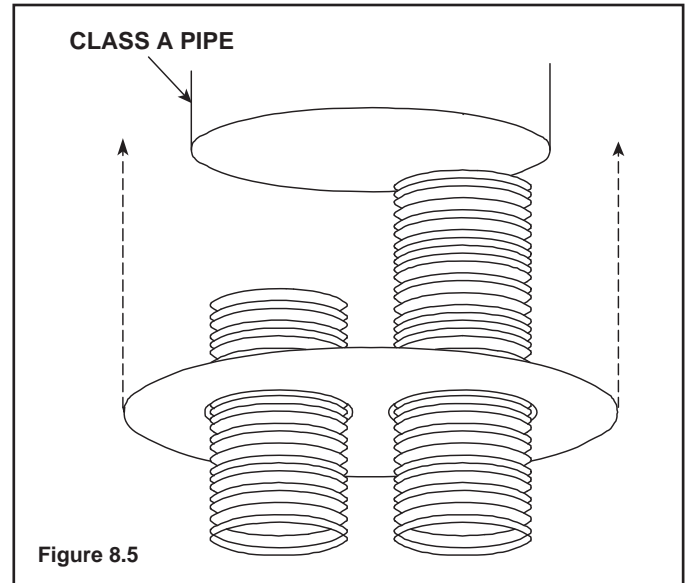


Figure 8.5

To prevent odors and cold drafts, the chimney must be sealed around the vent with non-combustible blanket insulation or field fabricated metal plates.

Note: The LINK-DV4-30B system **REQUIRES** this insulation.

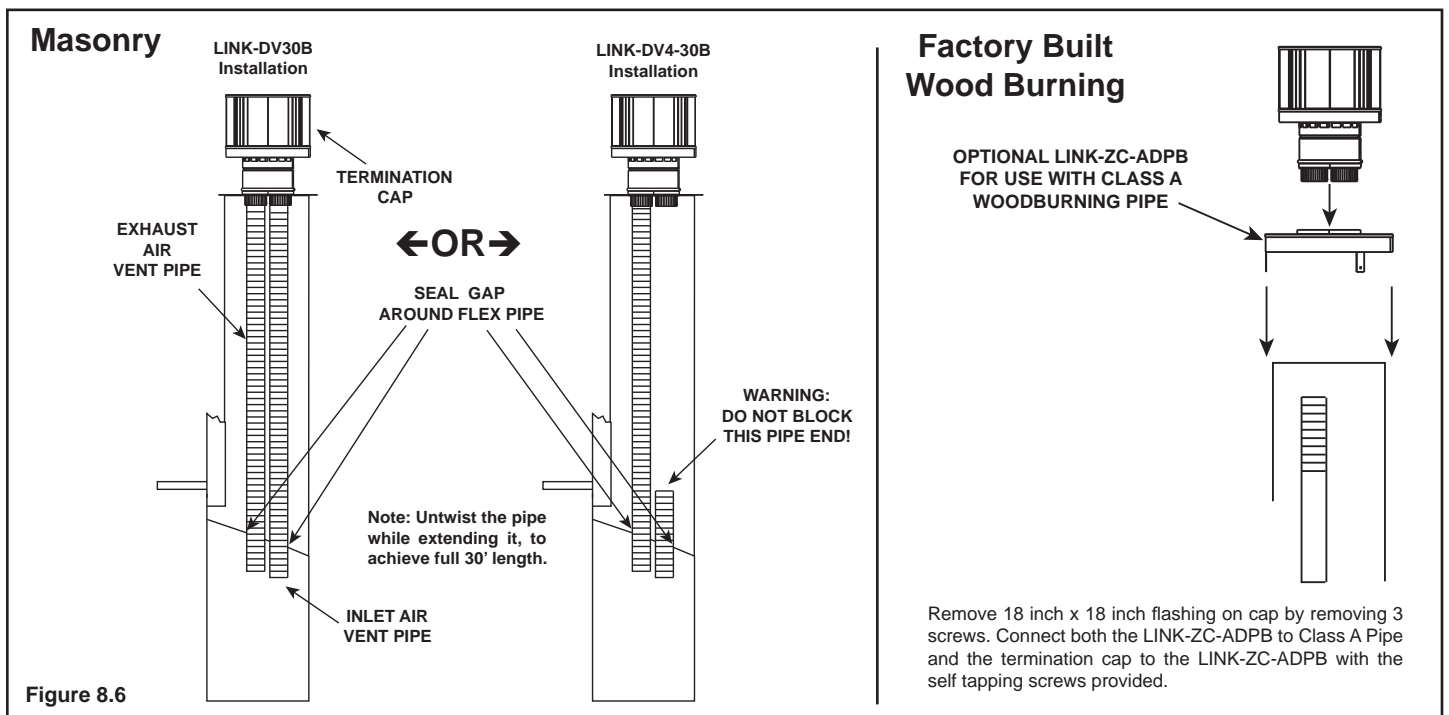


Figure 8.6

Factory Built Wood Burning

OPTIONAL LINK-ZC-ADPB FOR USE WITH CLASS A WOODBURNING PIPE

Remove 18 inch x 18 inch flashing on cap by removing 3 screws. Connect both the LINK-ZC-ADPB to Class A Pipe and the termination cap to the LINK-ZC-ADPB with the self tapping screws provided.

9 Gas Information

A. Fuel Conversion

- Make sure the appliance is compatible with available gas types.
- Conversions must be made by a qualified technician (NFI certified or factory-trained) 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 9.1

Lift the burner up and out of the firebox opening.



Figure 9.2

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

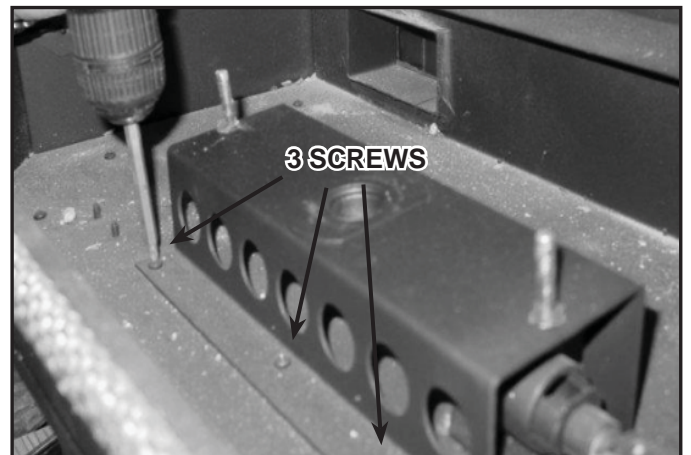


Figure 9.3

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

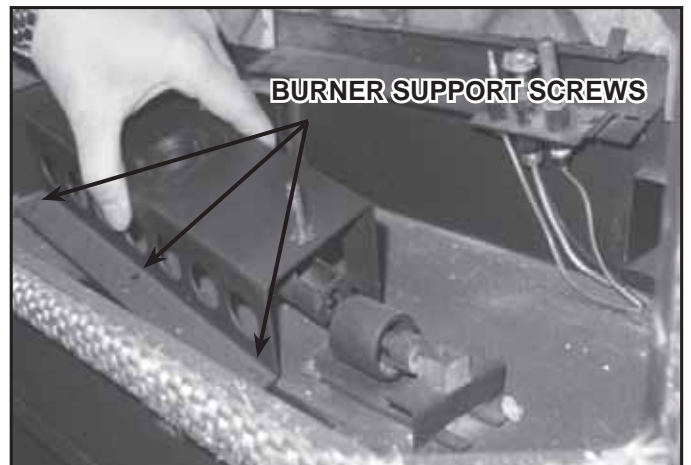


Figure 9.4

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

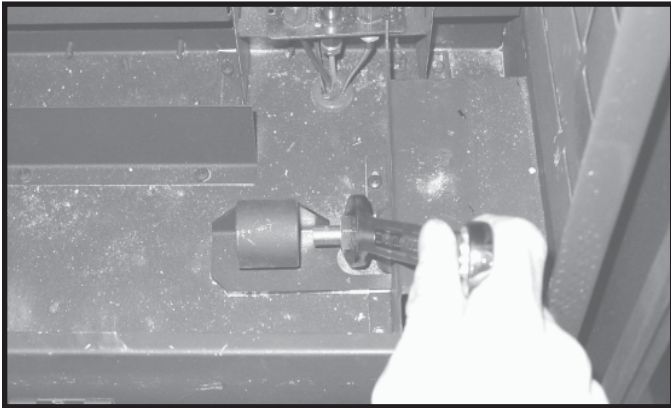


Figure 9.5

Remove the pilot hood and set aside.

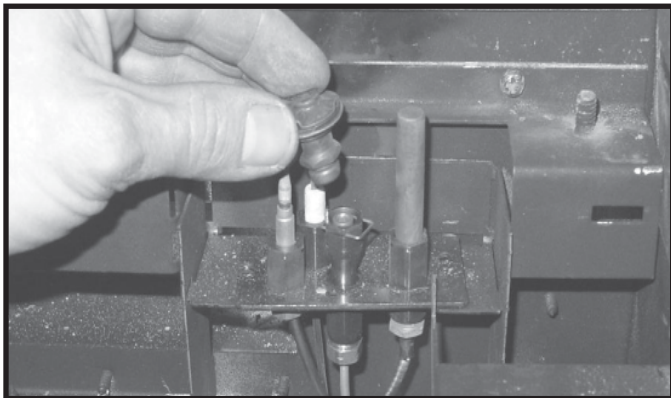


Figure 9.6

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).

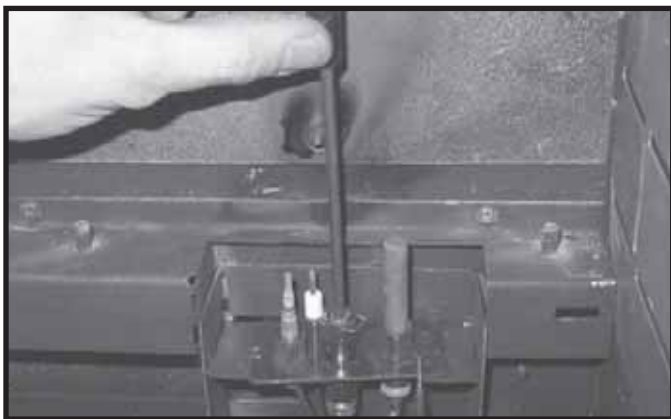


Figure 9.7

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).

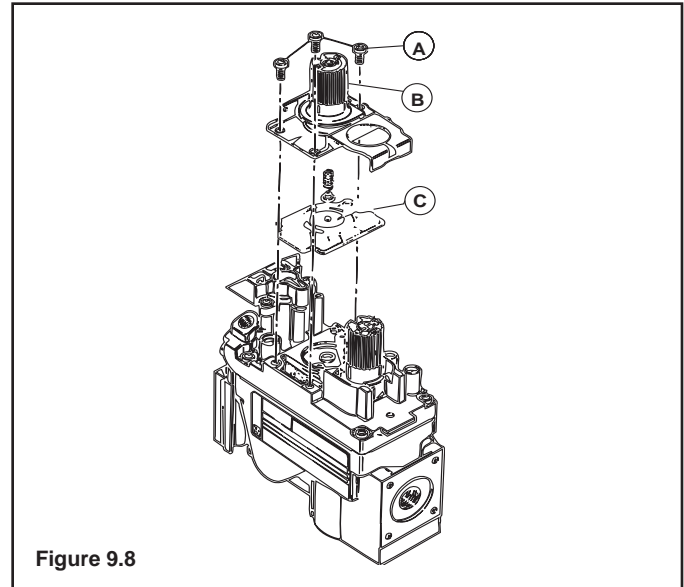




Figure 9.8



⚠ 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.




D. Gas Pressure

- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z221.3 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.
- Pressure requirements are:

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

WARNING! Risk of Fire/Explosion! High pressure will damage valve. Low pressure may cause explosion.

- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating.
- Install regulator upstream of valve if line pressure is greater than 1/2 psig.

 WARNING	
	<p>Fire Risk. Explosion Hazard. High pressure will damage valve.</p> <ul style="list-style-type: none"> • 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.
	

Note: Have the gas supply line installed in accordance with local 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.**

E. Gas Connection

- Refer to Reference Section 15 for location of gas line access in appliance.
- Gas line may be run through knockout(s) provided.
- The gap between supply piping and gas access hole may be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.
- Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.
- Pipe incoming gas line into valve compartment.
- Connect incoming gas line to the 1/2 in. (13 mm) connection on manual shutoff valve.

WARNING! Risk of Fire/Explosion! Support control when attaching pipe to prevent bending gas line.

- A small amount of air will be in the gas supply lines.

WARNING! Risk of Fire/Explosion! Gas build-up during line purge could ignite.

- Purge should be performed by technician certified by NFI or factory-trained.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.

Light the appliance. It will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.

WARNING! Risk of Fire, Explosion or Asphyxiation! Check all fittings and connections with a non-corrosive commercially available leak-check solution. **DO NOT** use open flame. Fittings and connections could have loosened during shipping and handling.

WARNING! Risk of Fire! DO NOT change valve settings. This valve has been preset at the factory.

F. High Altitude Installations

NOTICE: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce burner orifice 4% for each 1000 feet above 2000 feet.
- In the CANADA: Reduce burner orifice 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

10 Electrical Information

A. Wiring Requirements

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.
- Low voltage and 110 VAC voltage cannot be shared within the same wall box.

WARNING! Risk of Shock or Explosion! DO NOT wire 110V to the valve or to the appliance wall switch. Incorrect wiring will damage controls.

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.

B. Standing Pilot Ignition System Wiring

- The standing pilot ignition system wiring **DOES NOT** require a 110 VAC supply to operate.
- A 110 VAC junction box may be installed for use of a fan or remote control. Keep wire lengths short as possible. The supplied power cord may be routed out onto the hearth to a nearby outlet.

NOTICE: DO NOT wire 110 VAC to the millivolt valve! This will damage the valve.

ON/OFF Switch

- An ON/OFF switch is included with appliance and should be attached to surround/facing.
- If desired an additional wall switch, thermostat, or remote control may be added to system as shown in Figure 10.1).
- If using a thermostat use one compatible with a millivolt gas valve system:
 - Install the thermostat in the location as indicated in the thermostat instructions to ensure proper operation of appliance.
 - Use low resistance thermostat wire for wiring from ignition system to the wall switch and thermostat.
 - Keep wire lengths short as possible by removing any excess wire length.
 - 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

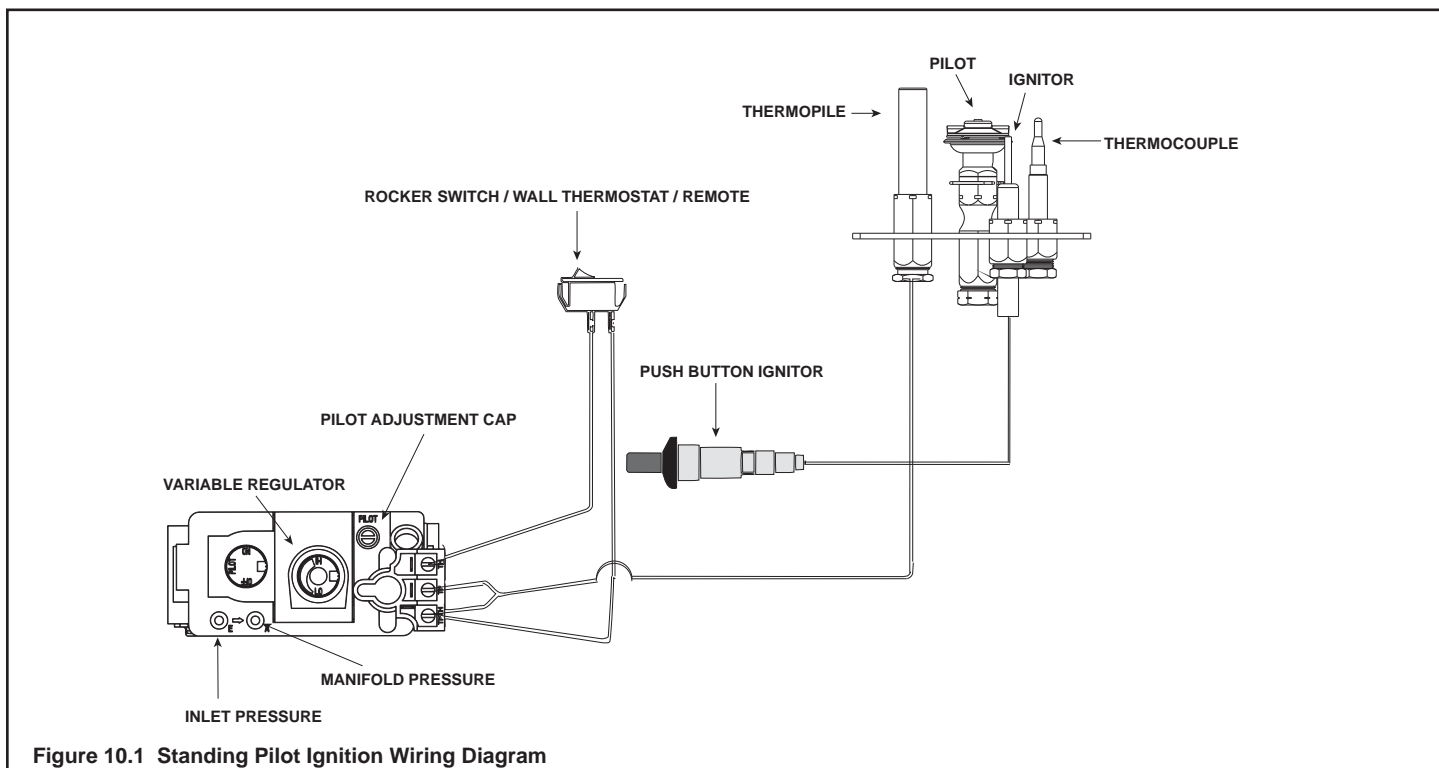


Figure 10.1 Standing Pilot Ignition Wiring Diagram

C. 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 10.2

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

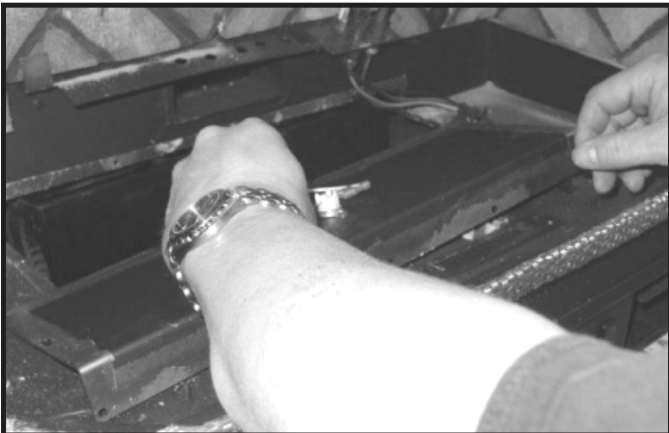


Figure 10.3

Lift blower off of studs and pull through opening.

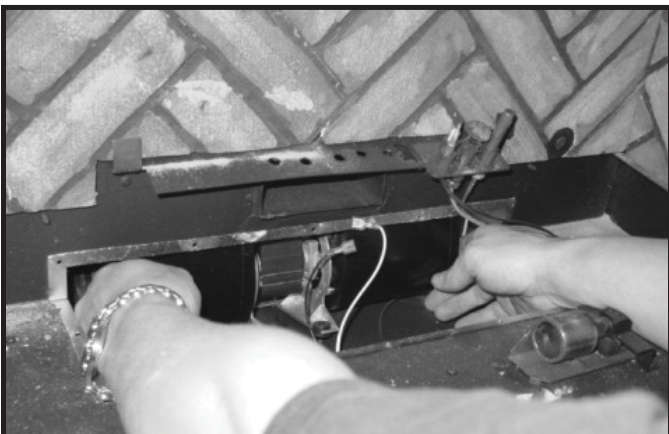


Figure 10.4

Disconnect wires from the blower.



Figure 10.5

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



Figure 10.6 Installation is the reverse of removal.

F = 1/4 in. (6 mm) female spade
M = 1/4 in. (6 mm) male spade

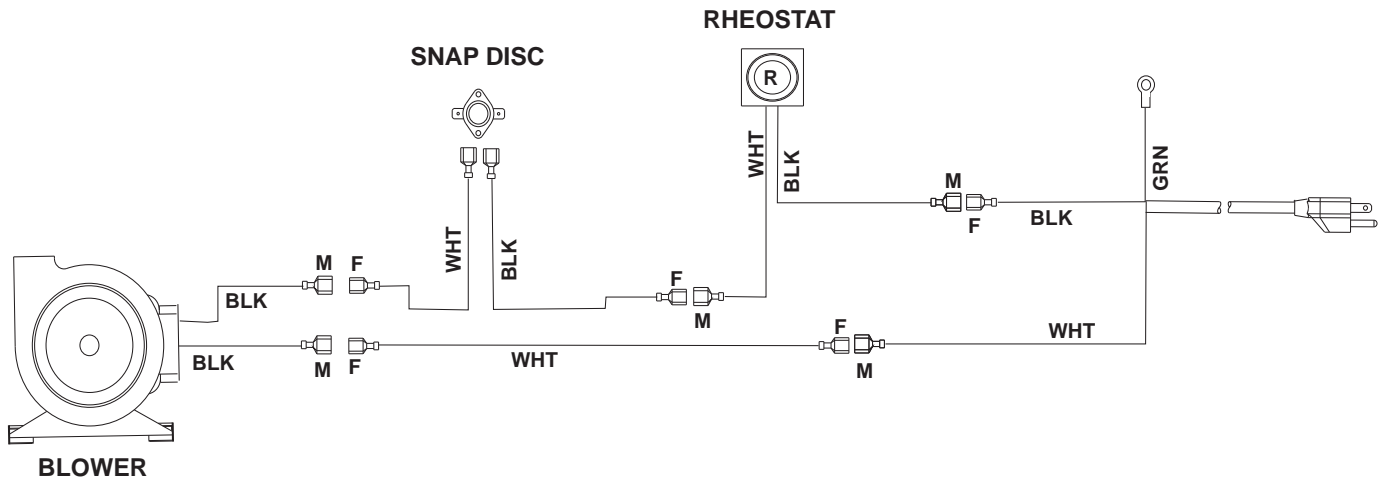


Figure 10.7 Blower Wiring Diagram

11 Finishing

A. Mantel and Wall Projections

WARNING! Risk of Fire! Comply with all minimum clearances to combustibles as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc).

Clearance to combustible material under the insert is 3/8 inch (10 mm). Clearance from sides of fireplace opening to combustibles is 12 inches (305 mm). Clearance from top of fireplace opening for combustibles extending 1 inch to 8 inches max. is 14 inches.

- Use leveling legs to raise insert minimum 3/8inch (10 mm) above combustible material or outer wrap of factory built firebox.

Combustible facings must not extend behind the insert surround.

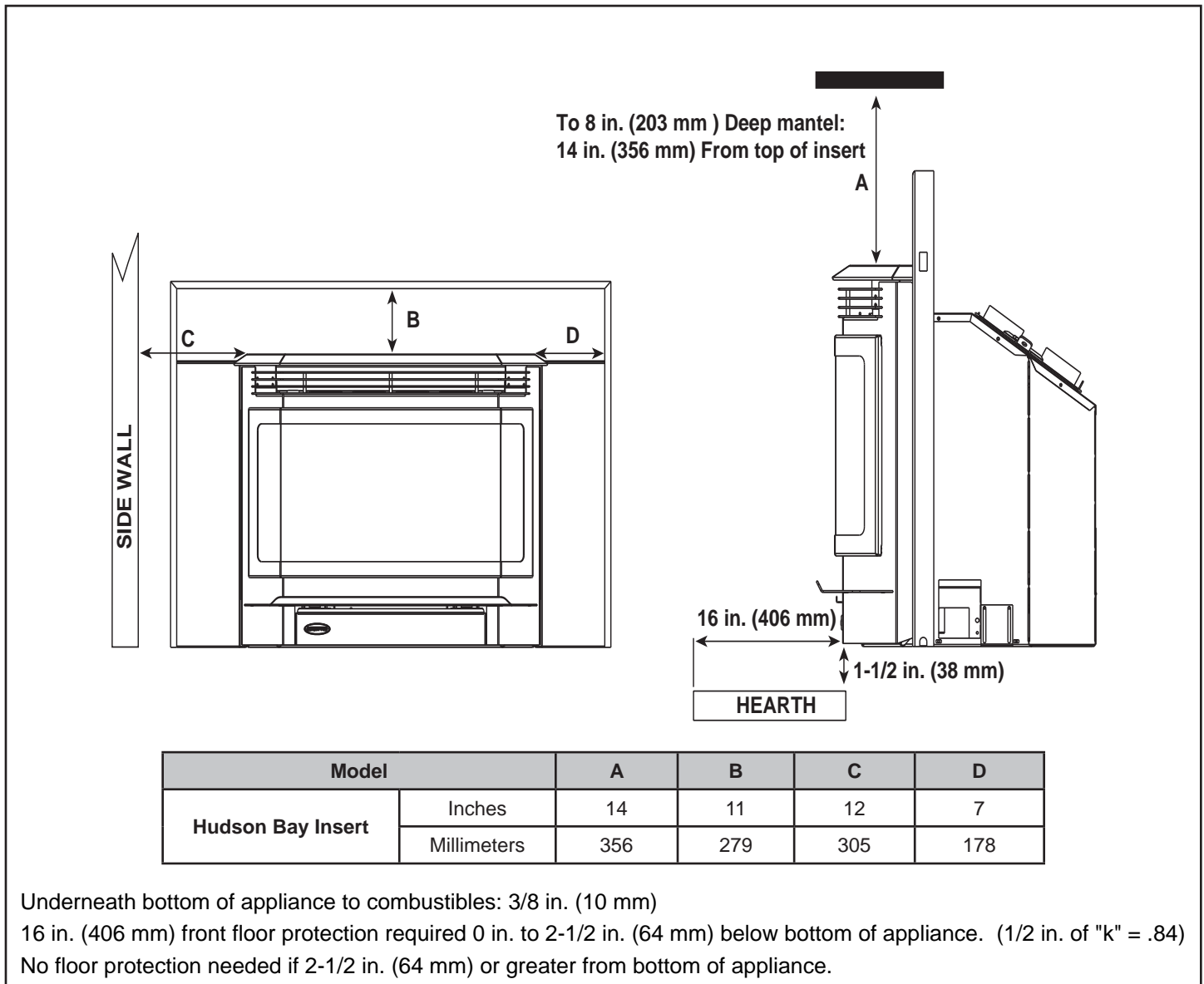


Figure 11.1 Clearance to Combustibles

12 Appliance Setup

A. Remove Glass Assembly

See Section 12.L.

B. Remove the Shipping Materials

Remove shipping materials from inside or underneath the firebox.

C. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside the firebox or underneath in the control cavity.

D. Accessories

Install approved accessories per instructions included with accessories. Contact your dealer for a list of approved accessories.

WARNING! Risk of Fire and Electric Shock! Use ONLY Hearth & Home Technologies-approved optional accessories with this appliance. Using non-listed accessories could result in a safety hazard and will void the warranty.

E. 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.

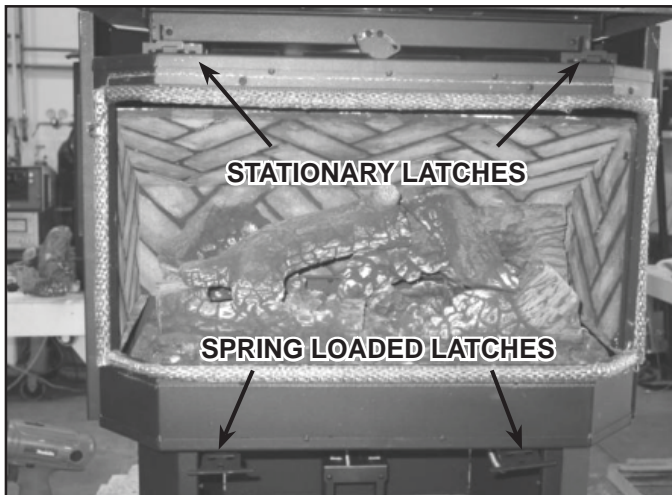


Figure 12.1

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



Figure 12.2

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



Figure 12.3

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 12.4

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.

F. Grille Installation

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

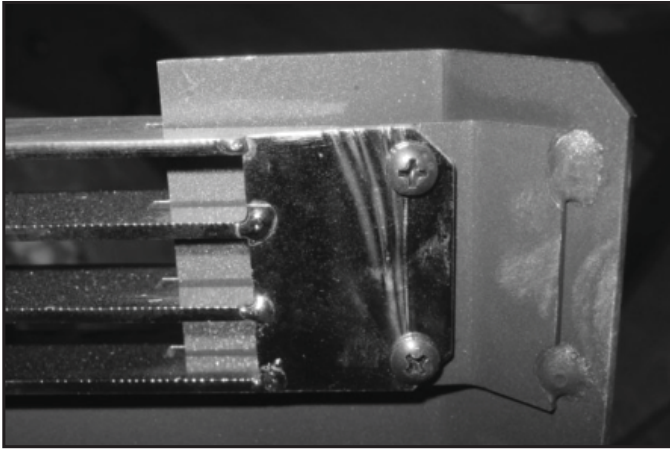


Figure 12.5

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.

G. 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.

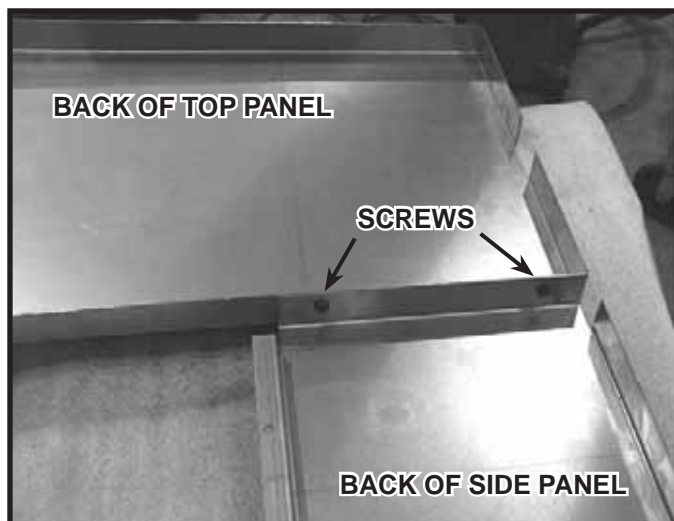


Figure 12.6

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

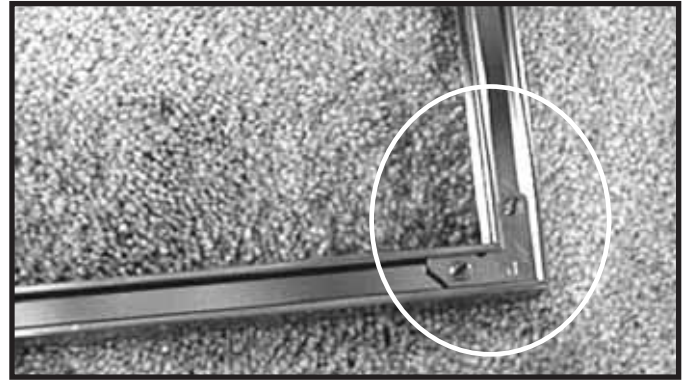


Figure 12.7

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.

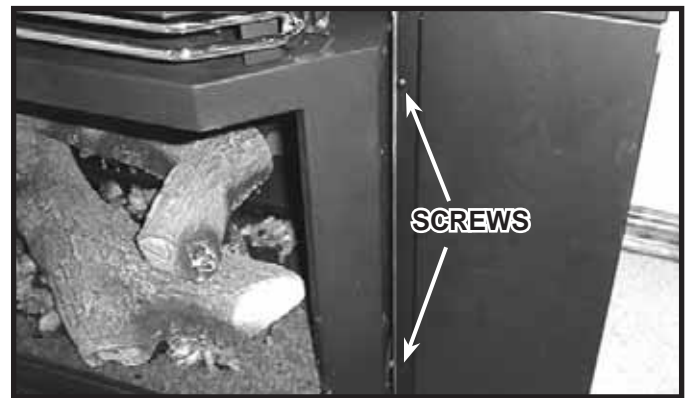


Figure 12.8

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.

H. Ember Placement

WARNING! Risk of Explosion! 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.

Ember material is shipped with this gas appliance. To place the ember material:

- Embers CANNOT be placed directly over ports. Care should be taken not to cover the lighting trail of ports (from back to front).
- Place dime-size pieces of Glowing Embers® (mineral wool) just in front of the port trail, but not on or in between the ports (see Figure 12.9). Care should be taken so that the ports are not covered. Failure to follow this procedure will likely cause lighting and sooting problems.
- Save the remaining ember materials for use during appliance servicing. The embers provided should be enough for 3 to 5 applications.



Figure 12.9 Placement of Embers

I. Brick Installation

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

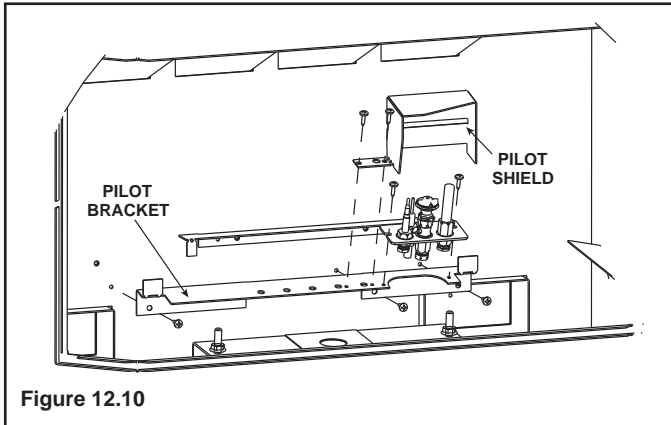


Figure 12.10

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 12.11

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



Figure 12.12

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



Figure 12.13

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



Figure 12.14

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 12.15

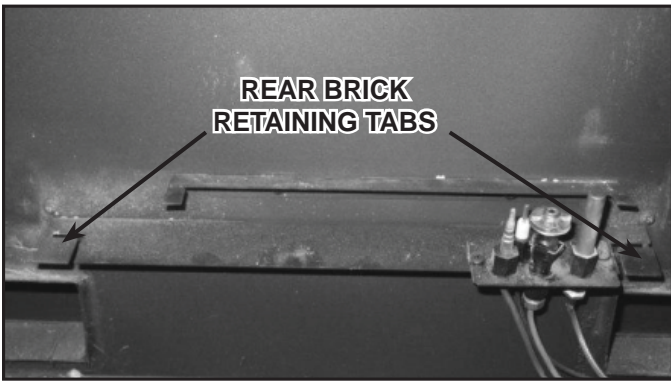


Figure 12.16

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

J. 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.

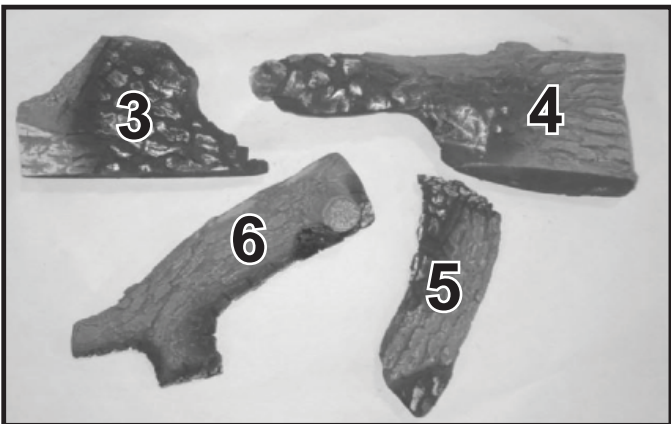


Figure 12.17

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

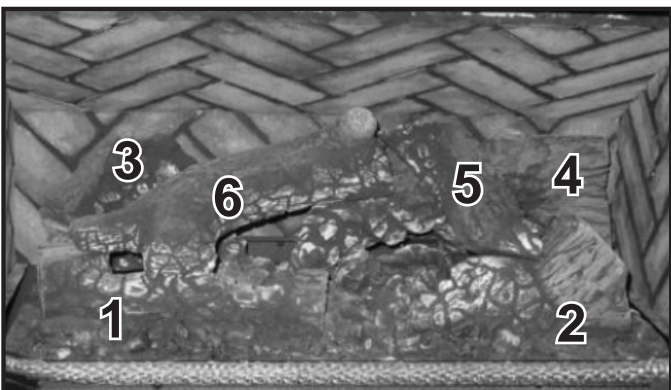


Figure 12.18

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

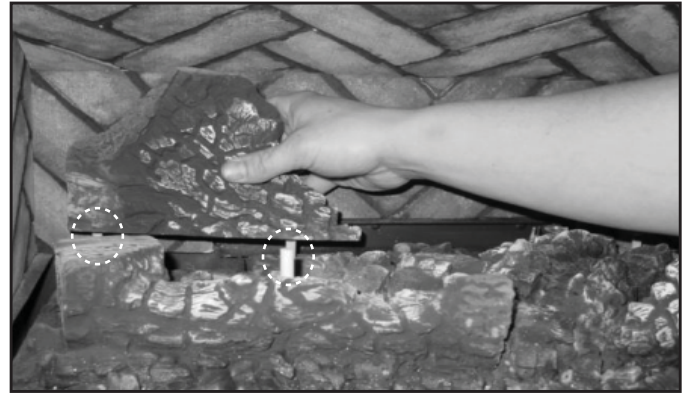


Figure 12.19

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

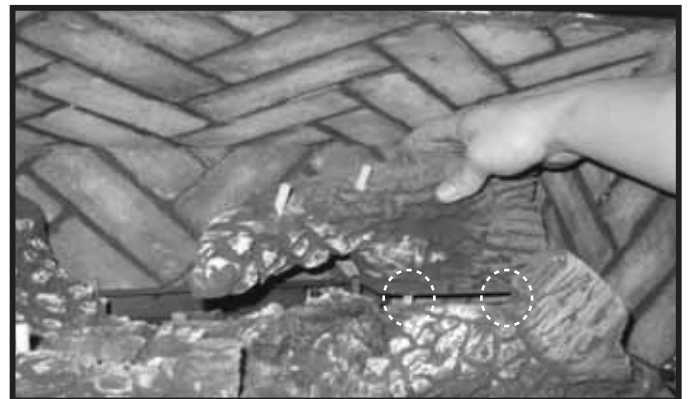


Figure 12.20

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

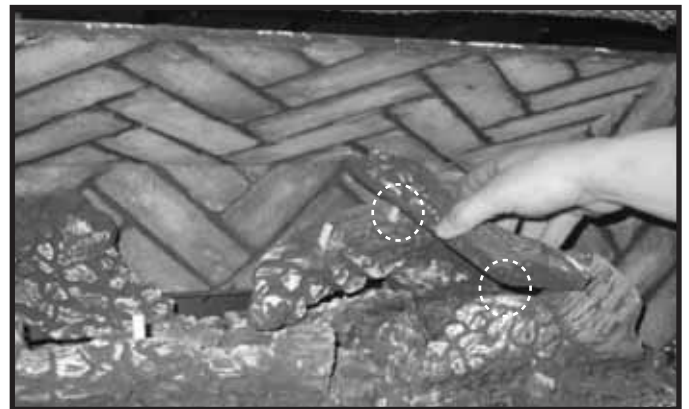


Figure 12.21

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.

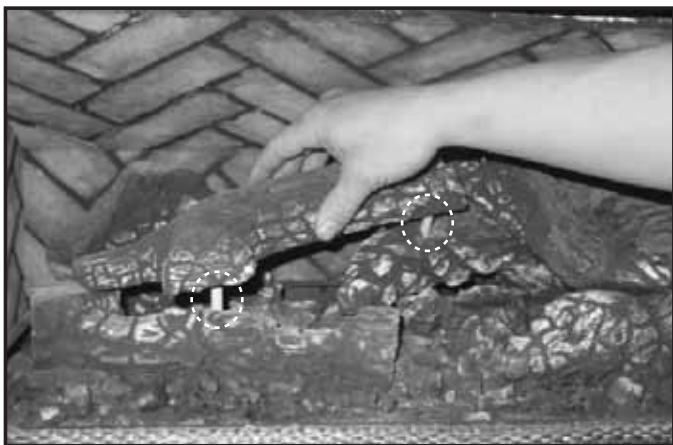


Figure 12.22

K. 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.

Rotate forward and lift off.

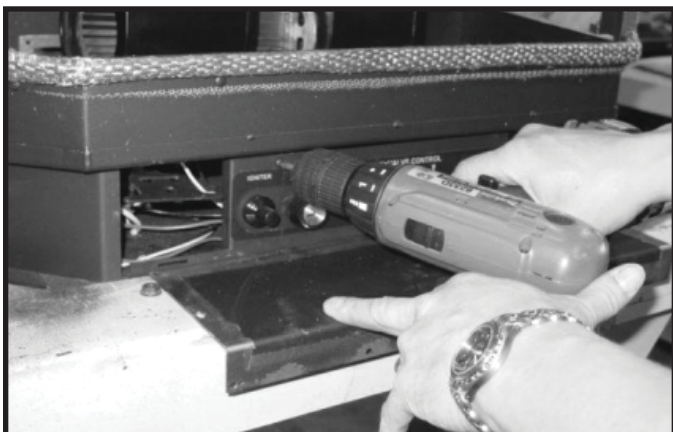


Figure 12.24



Figure 12.24

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.

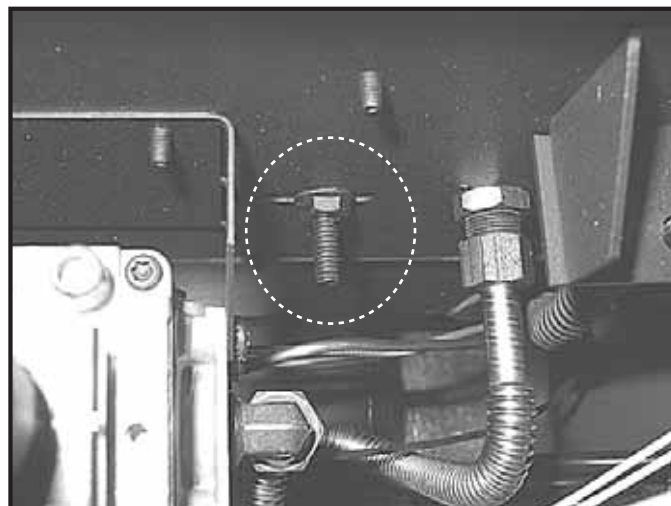


Figure 12.25

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.

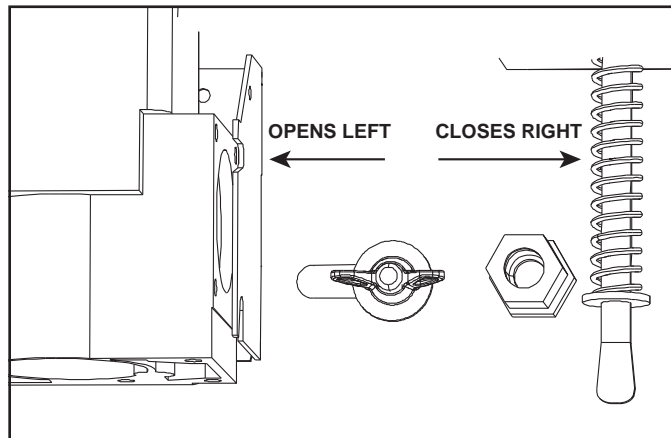


Figure 12.26

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.

L. Fixed Glass Assembly

Removing Fixed Glass Assembly

WARNING! Risk of Asphyxiation! Handle fixed glass assembly with care. Inspect the gasket to ensure it is undamaged and inspect the glass for cracks, chips or scratches.

- **DO NOT** strike, slam or scratch glass.
- **DO NOT** operate fireplace with glass removed, cracked, broken or scratched.
- Replace as a complete assembly.

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.

Replacing Fixed Glass Assembly

- Door Frame with Glass Assembly Replacement

Use only Door Assembly replacement, as specified in Section 14 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.

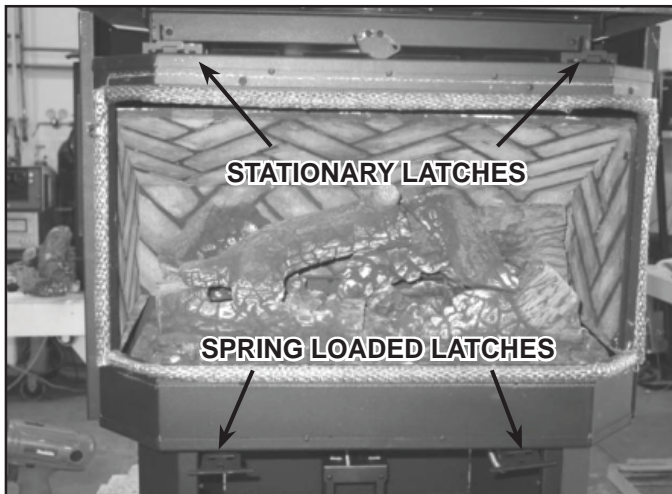


Figure 12.27

13 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 technician in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified technician. Contact your dealer to arrange a service call by a qualified 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. No gas or low gas pressure.	Check the remote shut-off valves from the appliance. Usually, there is a valve near the gas main. There can be more than one valve between the appliance and the main.
	B. No lp in tank.	Check the LP (propane) tank. You may be out of fuel.
	C. Ignitor.	Check the spark at the electrode and pilot. If no spark and electrode wire is properly connected, replace the ignitor. Verify that there is no short in electrode wire.
	D. Pilot or misaligned electrode (spark at electrode).	Using match, light the pilot. If the pilot lights, turn off the pilot and trigger the 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 in. to have a strong spark. If the gap is OK, replace the pilot.
2. The pilot will not stay lit after carefully following the lighting instructions.	A. Thermocouple.	Check that the pilot flame impinges on the thermocouple. Adjust the pilot for proper flame impingement. Ensure that the thermocouple connection at the gas valve is fully inserted and tight (hand tighten plus 1/4 turn). Verify proper voltage output from the thermocouple to the valve. Place one millivolt meter lead wire on the thermocouple copper lead. Place the second lead wire on the solder button on the back of the valve (blue wire). Start the pilot and hold the valve knob in. The millivolt reading should read 8-16 millivolts. If millivolt reading is less than 8 millivolts, replace thermocouple.
	B. Improper gas inlet pressure.	Natural gas should be 5-14 in. w.c. LP should be 10-14 in. w.c. Verify pressure with manometer.
	C. Valve.	If the thermocouple is producing 8-16 millivolts, replace control 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.	Check the ON/OFF switch and wires for proper connections. Place the jumper wires across the terminals at the ON/OFF switch. If the burner comes on, replace the ON/OFF switch. If the ON/OFF switch is OK, place the jumper wires across the ON/OFF 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.	Check that the pilot flame impinges thermopile properly. 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 350 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 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 350 millivolts minimum. Replace the thermopile if the reading is below the minimum.

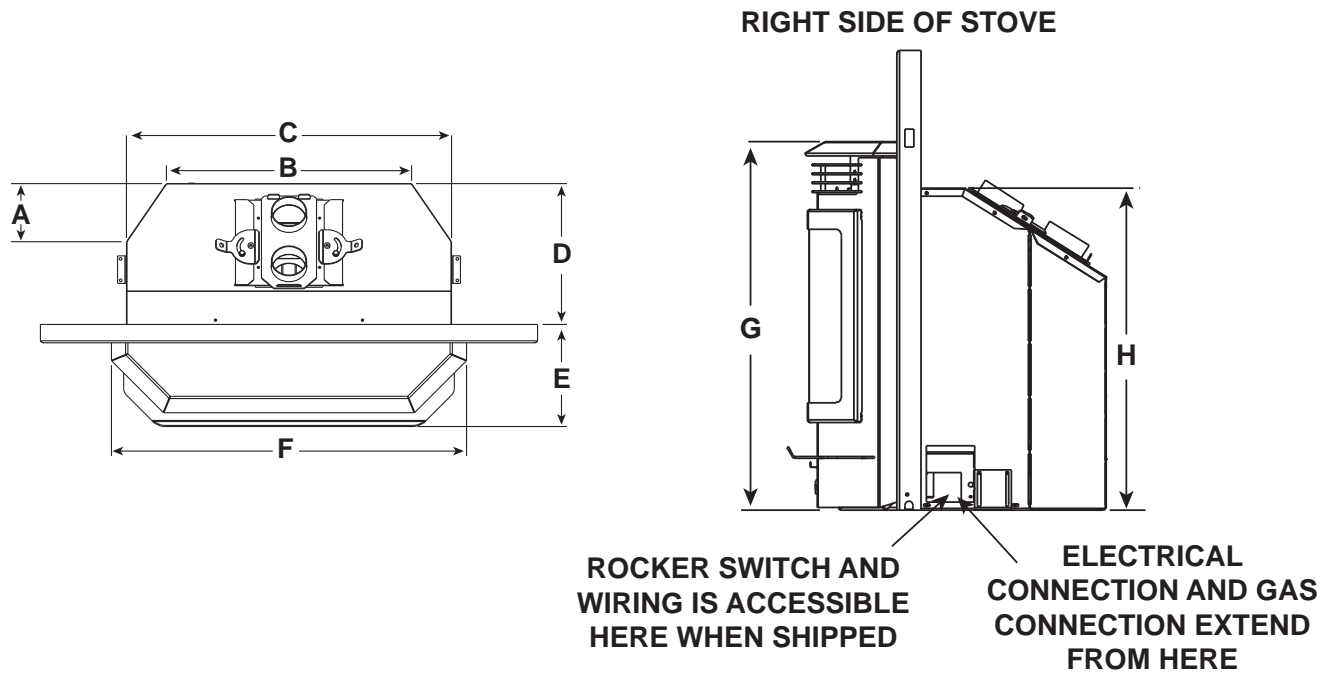
Troubleshooting (continued)

Symptom	Possible Cause	Corrective Action
3. (Continued)	C. Valve.	Turn the valve knob to the ON position. Place the ON/OFF switch in the ON position. Take a reading with a 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.	Check the wall switch and wires for proper connections. Place the jumper wires across the terminals at the wall switch. If the burner comes on, replace the wall switch. If the wall switch is OK, place the jumper wires across the wall switch wires at the gas valve. If the burner comes on, the wires are faulty or connections are bad.
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 proper 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. Improper gas inlet pressure.	Natural gas should be 5-14 in. w.c. LP should be 10-14 in. w.c. Verify pressure with manometer.
	C. Inner vent pipe leaking exhaust gases back into the system.	Check venting system for damage. Replace/repair improperly assembled pipe sections.
	D. Glass installed improperly.	Check to ensure glass is installed properly. Replace fixed glass panel assembly.
	E. Thermopile or thermocouple.	Replace pilot if necessary.
	F. 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. Refer to log instructions.
	B. Improper air shutter setting.	Refer to manual for shutter set points. Ensure that set point is correct for appliance/gas type. If unit has adjustable shutter, it may be necessary to increase shutter opening.
	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.	Ensure that the vent cap is installed properly and free of debris. Ensure that the vent system joints are tight and have no leaks. 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. Ensure that the glass is tightened properly on the unit, particularly on top corners.

14 Reference Materials

A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only.



	A	B	C	D	E	F	G	H
inches	4-3/4	20	26-9/16	11-1/2	8-5/16	29	23	20
Millimeters	121	508	674	292	211	737	584	508

MINIMUM FIREBOX OPENING						
	Height:		Width:		Depth:	
	Front	Rear	Front	Rear	Top	Bottom
Inches	20-1/4	14-1/2	26-1/2	20	13	13
Millimeters	514	368	673	508	330	330

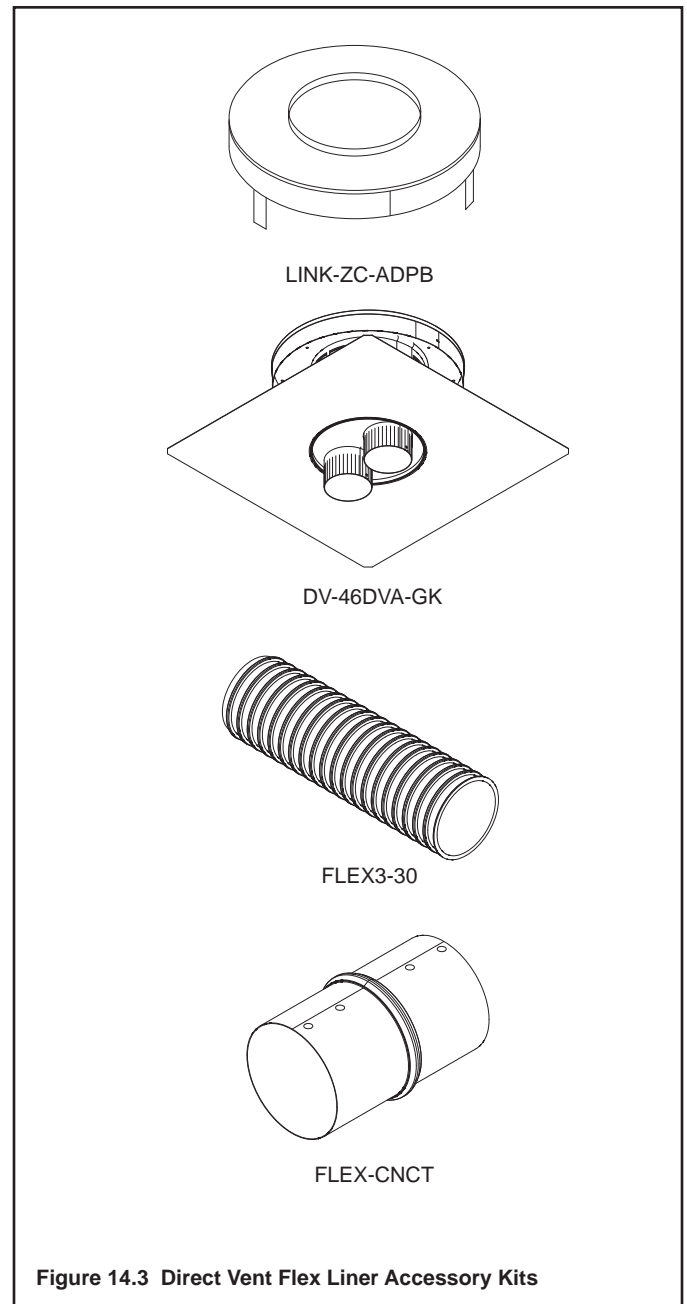
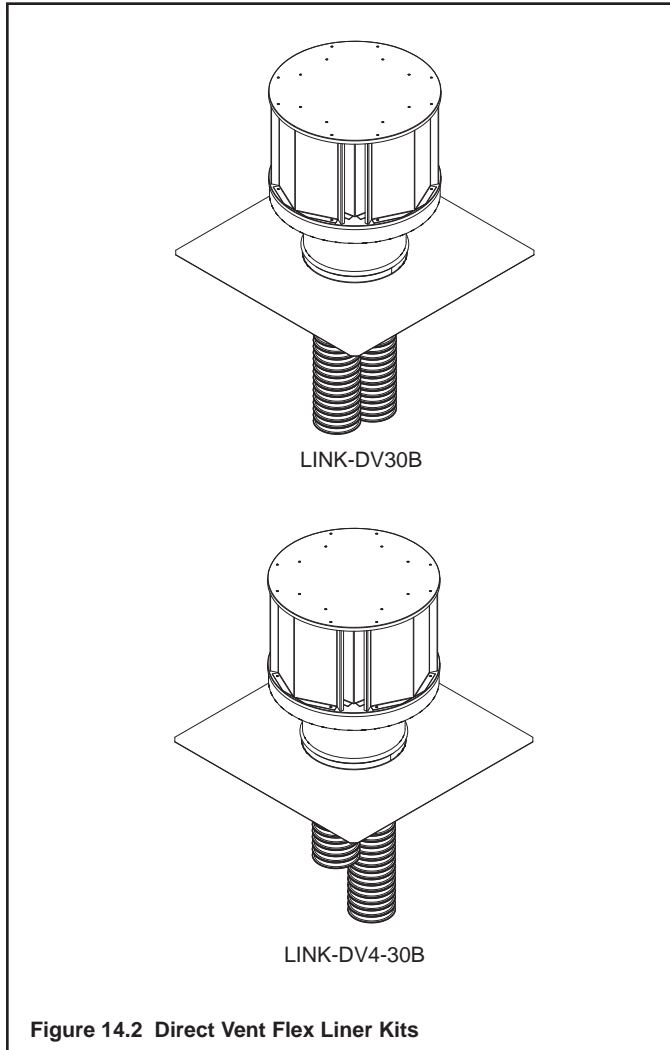
Figure 14.1 Appliance Dimensions

→ B. Vent Kits Components

Direct Vent Flex Liner Kits (see Figure 14.2)

LINK-DV30B: Masonry 3 inch flex liner kit. Expands to 30 feet. Includes: two liners, termination cap, flashing, and link adapter.

LINK-DV4-30B: Masonry 3 inch flex liner kit. Expands to 30 feet and 4 feet respectively. Includes: two liners, termination cap, flashing, and link adapter.



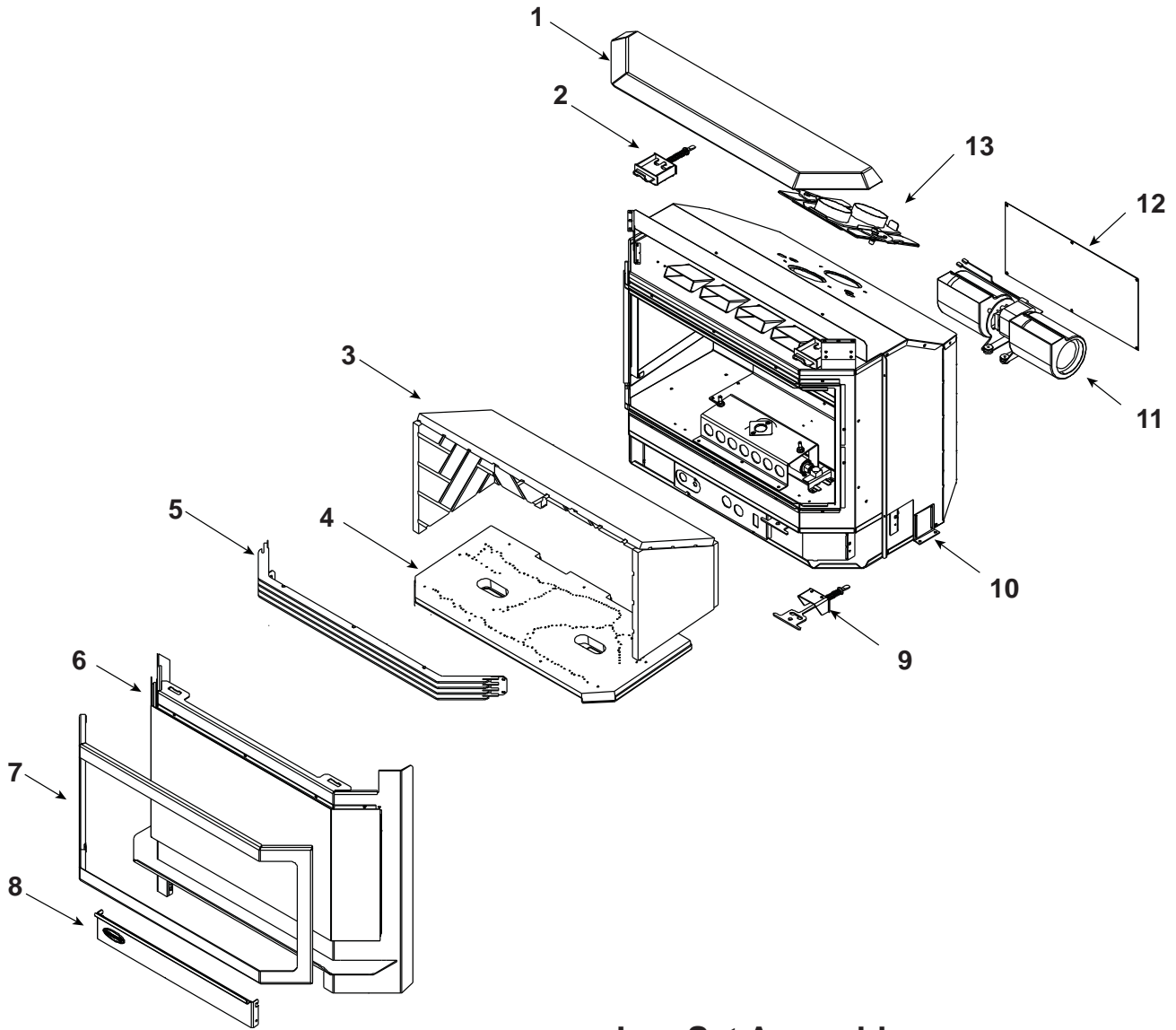
Direct Vent Flex Liner Accessory Kits (see Figure 14.3)

LINK-ZC-ADPB: Zero clearance chimney adapter

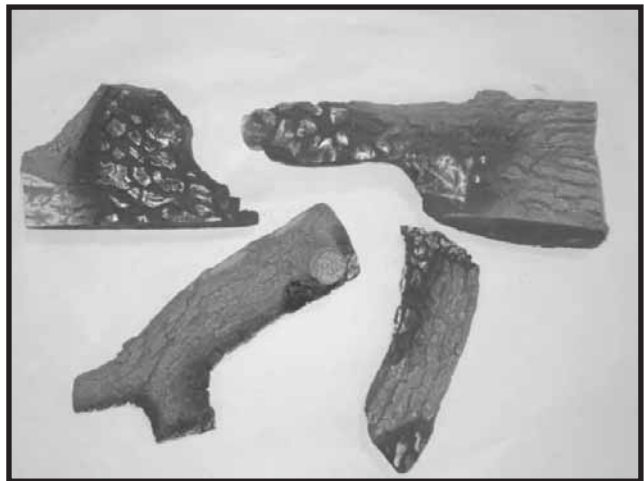
DV-46DVA-GK: Adapter kit (colinear to coaxial 3 inches included in above kits). It is permissible to use DV-46DVA-GK to connect collinear flex vent to SL-D vent pipe to extend the run.

FLEX3-30: One 3 inch flexible liner expands to 30 feet.

FLEX-CNCT: Connector kit - 3 inch liner to 3 inch liner, one connector per kit.



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.

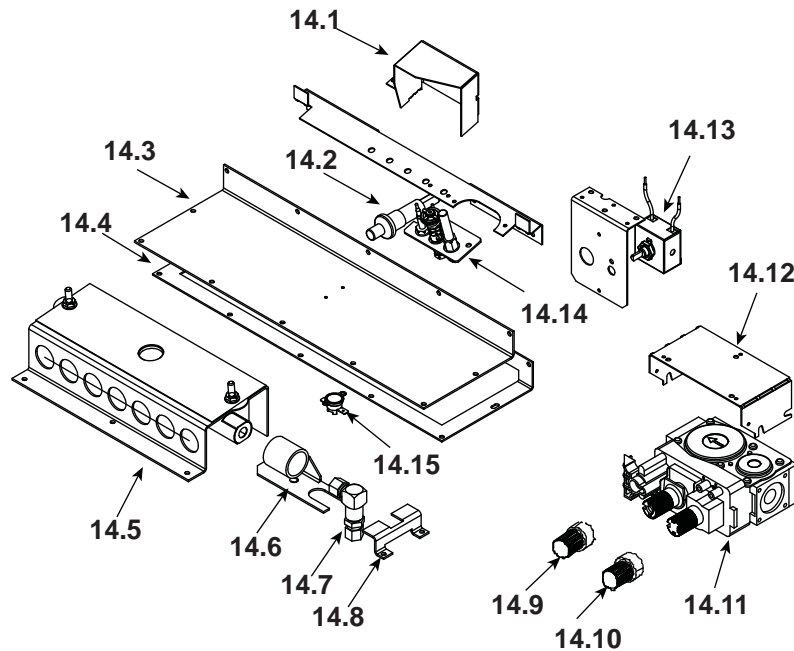


**Stocked
In Depot**

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
	Log Set Assembly		7008-012	Y
1	Top Assembly	Pre SN 0021678012	SRV7008-027	
		Post SN 0021678012	7008-027	
2	Latch Assembly (Stationary)	Qty 2 req	7003-006	Y
3	Refractory Assembly		7008-002	
4	Burner Assembly		SRV7008-004	Y
5	Grill Bar Assembly, BLACK	Pre SN 0021678012	SRV7008-010	
		Post SN 0021678012	7008-010	
	Grill Bar Assembly	Gold	LVGRL-GD	
		Nickel	LVGRL-NL	
6	Door Assembly	Pre SN 0021678012	DOOR-HUDBAY-INS	
		Post SN 0021678012	DOOR-HUDBAY-INB	
	Gasket, Glass (3/4" X 5')		832-0460	Y
7	Door Crown , BLACK	Pre SN 0021678012	SRV462-0150	
		Post SN 0021678012	462-0150	
	Door Crown	Gold	DC-BAY-GD	
		Nickel	DC-BAY-NL	
8	Door, Face Access	Pre SN 0021678012	SRV7008-117	
		Post SN 0021678012	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	Y
12	Blower Access Plate, Rear		7008-141	
13	Transition Assembly		7008-011	
Component Pack			7008-006	
Contains: Mineral Wool; Pilot Injector, EZ,35; Strain Relief Bushing; Hose Clamp; LP Conversion Regulator; S.I.T. LP; Conversion Labels; Orifice, .076 (Port); Owner's manual; Warranty Card and Consumer View Card				
	Fire Screen		7008-163	
	Mineral Wool		050-721	
	Touch Up Paint	Pre SN 0021678012	812-0910	
		Post SN 0021678012	TUP-GBK-12	
	Wire Harness		462-0510	Y
	Conversion Kit NG		844-8230	Y
	Conversion Kit LP		LPK-7008	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.

#14 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	COMMENTS	PART NUMBER	
14.1	Pilot Shield		7008-172	
14.2	Piezo Ignitor		291-513	Y
14.3	Blower Access Plate		7008-135	
14.4	Gasket, Blower Access		7008-136	
14.5	Burner Neck Support Assembly		7008-005	Y
14.6	Shutter Bracket Assembly		468-5060	Y
14.7	Bulkhead		26457	Y
14.8	Bulkhead Stop		474-0090	
14.9	Extension Knob, HI/Lo		571-533	Y
14.10	Extension Knob, ON/OFF		571-534	Y
14.11	Valve NG		842-0240	Y
	Valve LP		842-0230	Y
14.12	Valve Bracket		7008-112	
14.13	Speed Control		842-0370	Y
	Speed Control Knob		200-2041	Y
14.14	Pilot Assembly NG		7003-014	Y
	Pilot Assembly LP		Use LP Pilot Orifice	
	Thermocouple		200-2950	Y
	Thermopile		842-0250	Y
14.15	Snap Disc		SRV230-0960	Y
	Orifice NG (.125)		24691	Y
	Orifice LP (.076)		29388	Y

