

Models: **GDCH60** Series GDST60 Series **GDFL60 Series** GDCR60 Series **GDCL60** Series **Direct Vent Gas Appliance** 



This appliance has been retired. Service parts pages within have been removed. For replacement parts, please refer to the individual service parts list located on the brand websites.

# **Owner's Manual**

Installation and Operation



## CAUTION

#### DO NOT DISCARD THIS MANUAL

maintenance instructions included.

Important operating and • Read, understand and follow • Leave this manual with these instructions for safe installation and operation.

party responsible for use and operation.



## A WARNING

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

- · Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- What to do if you smell gas:
  - Do not try to light any appliance.
  - Do not touch any electrical switch. Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

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

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

## 

#### **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 appliance.
- · Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

· Keep clothing, furniture, draperies and other combustibles away.

This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. Do NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter;

See Table of Contents for location of additional Commonwealth of Massachusetts requirements.



Installation and service of this appliance should be performed by gualified 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.

#### Congratulations

Congratulations on selecting a Heatilator gas appliance—an elegant and clean alternative to wood burning appliances. The Heatilator gas appliance you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new appliance, 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.

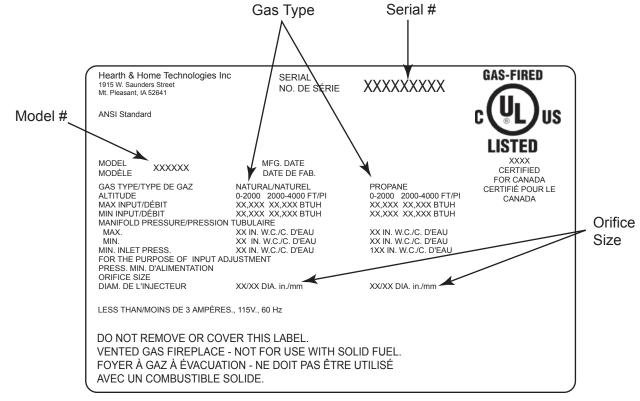
This owner's manual should be retained for future reference. We suggest you keep it with your other important documents and product manuals. The information contained in this owner's manual, unless noted otherwise, applies to all models and gas control systems.

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

Homeowner Reference Information	We recommend that you record the following pertinent information about your appliance:	
Model Name:	Date purchased/installed:	
Serial Number:	Location on appliance:	
Dealership purchased from:	Dealer phone:	
Notes:		

#### Listing Label Information/Location

The model information regarding your specific appliance can be found on the rating plate located in the control area of the appliance.



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**Note:** An arrow  $(\clubsuit)$  found in the text signifies change in content.

### A. Appliance Certification

MODELS: GDCH60, GDST60, GDFL60, GDCR60, GDCL60 LABORATORY: Underwriters Laboratories, Inc. (UL) TYPE: Direct Vent Gas Appliance STANDARD: ANSI Z21.50b-2005/•CSA2.22b-2005 /UL307B

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

**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**

Hearth & Home Technologies appliances manufactured with tempered glass may be installed in hazardous locations such as bathtub enclosures as defined by the Consumer Product Safety Commission (CPSC). The tempered glass has been tested and certified to the requirements of **ANSI Z97.1** and **CPSC 16 CFR 1202** (Safety Glazing Certification Council **SGCC# 1595** and **1597**. Architectural Testing, Inc. Reports **02-31919.01** and **02-31917.01**).

This statement is in compliance with **CPSC 16 CFR Section 1201.5** "Certification and labeling requirements" which refers to **15** U.S. Code **(USC) 2063** stating "...Such certificate shall accompany the product or shall otherwise be furnished to any distributor or retailer to whom the product is delivered."

Some local building codes require the use of tempered glass with permanent marking in such locations. Glass meeting this requirement is available from the factory. Please contact your dealer or distributor to order.

**Note:** This installation must conform with local codes. In the absence of local codes you must comply with the **National Fuel Gas Code, ANSI Z223.1-latest edition** in the U.S.A. and the **CAN/CGA B149 Installation Codes** in Canada.



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.

## C. BTU Specifications

Caliber	Multi-sided DV			
Standing F	Pilot			
Max/Min Input Rate (NG)	34,000/21,000			
Orifice Size (NG)	.115 in./2.92 mm			
Max/Min Input Rate (LP)	30,000/21,000			
Orifice Size (LP)	.063 in./1.60 mm			
IPI				
Max/Min Input Rate (NG)	34,000/25,000			
Orifice Size (NG)	.115 in./2.92 mm			
Max/Min Input Rate (LP)	30,000/22,000			
Orifice Size (LP)	.065 in./1.65 mm			

#### D. High Altitude Installations

U.L. Listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and Canada.

When installing this appliance at an elevation above 2000 ft, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 ft above a 2000 ft elevation in the U.S.A., or 10% for elevations between 2000 and 4500 ft in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

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

#### E. Non-Combustible Materials

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

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

#### F. Combustible Materials

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or whether plastered or unplastered shall be considered combustible materials. **NOTE:** The following requirements reference various Massachusetts and national codes not contained in this document.

# G. Requirements for the Commonwealth of Massachusetts

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

#### Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

#### **Approved Carbon Monoxide Detectors**

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

#### Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUC-TIONS".

#### Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

#### Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

#### MANUFACTURER REQUIREMENTS

#### **Gas Equipment Venting System Provided**

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

#### Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

See Gas Connection section for additional Commonwealth of Massachusetts requirements.

#### A. Design and Installation Considerations

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

## CAUTION

Check building codes prior to installation.

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

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

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



## **WARNING**



- Keep appliance dry.Mold or rust may cause
- odors.
- Water may damage controls.

## B. Tools and Supplies Needed

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

Reciprocating saw	Framing material
Pliers	Hi temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Flat blade screwdriver	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	Manometer
Voltmeter	Tape measure
Non-corrosive leak chec	k solution

1/2 - 3/4 in. length, #6 or #8 Self-drilling screws One 1/4 in. female connection (for optional fan).

## C. Inspect the Appliance and Components



## 

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

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

- Carefully remove the appliance and components from the packaging.
- The vent system components and trim doors are shipped in separate packages.
- The gas logs may be packaged separately and must be field installed.
- 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.



## 

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.



#### Note:

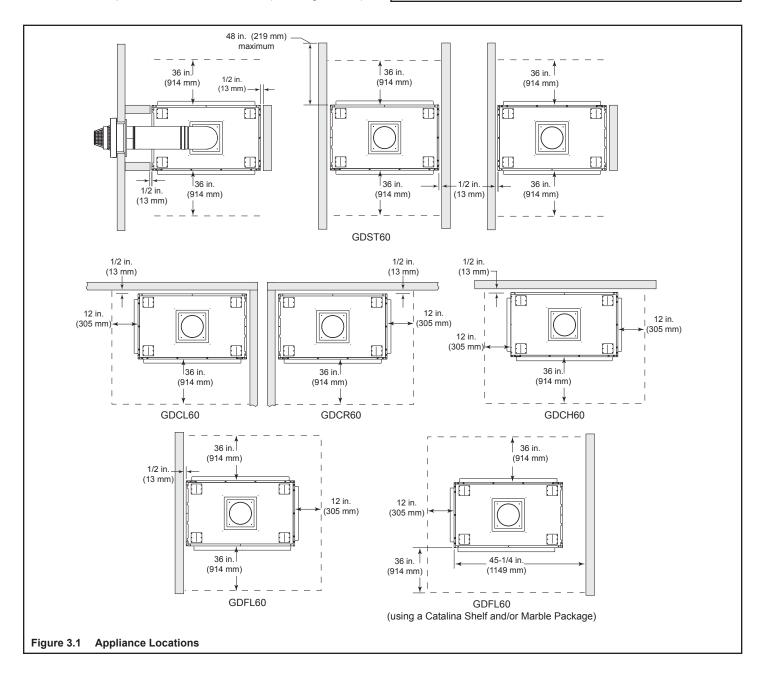
- Illustrations reflect typical installations and are <u>FOR</u> <u>DESIGN PURPOSES ONLY.</u>
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

### A. Select Appliance Location

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

# Image: Warning Fire Risk Provide adequate clearance: • Around air openings. • For service access. Locate appliance away from traffic areas.

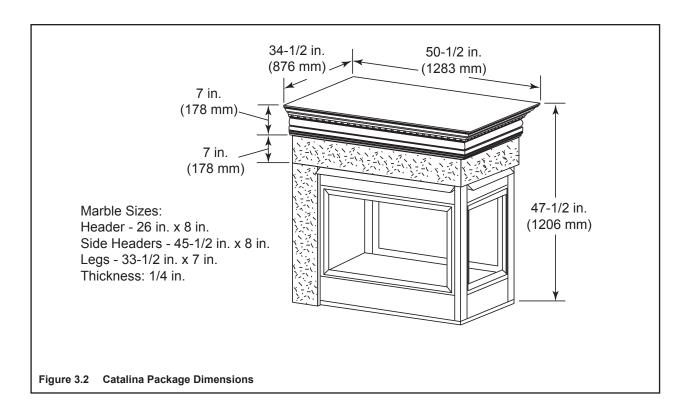
**Note:** For actual appliance dimensions refer to Section 16.



#### Appliance Locations for Catalina Marble & Shelf Package

If you plan to use a Catalina Marble and Shelf package, refer to Figure 3.2 dimensions to determine appliance location.

Refer to the Catalina Installation Instructions included with the kit for assembly and installation.



#### **B.** Construct the Appliance Chase

A chase is a vertical boxlike structure built to enclose the gas appliance and/or its vent system. Vertical vents that run on the outside of a building may be, but are not required to be, installed inside a chase.

Construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Local building codes MUST be checked.

Chases should be constructed in the manner of all outside walls of the home to prevent cold air drafting problems. The chase should not break the outside building envelope in any manner.

Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home. Additionally, in regions where cold air infiltartion may be an issue, the inside surfaces be sheetrocked and taped (or use of an equivalent method) for maximum air tightness.

To further prevent drafts, the ceiling firestops should be caulked with high temperature caulk to seal gaps. Gas line holes and other openings should be caulked with high temperature caulk or stuffed with unfaced insulation. If the appliance is being installed on a cement slab, a layer of plywood be placed underneath to prevent conducting cold up into the room.



## 

#### Fire Risk Odor Risk

- Install appliance on hard metal or wood surfaces extending full width and depth of appliance.
- Do NOT install appliance directly on carpeting, vinyl, tile or any combustible material other than wood.

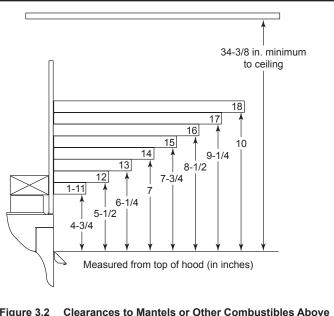


## A WARNING

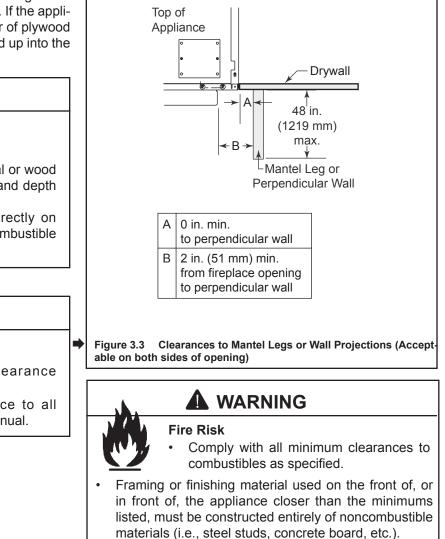
## Fire Risk

- Construct chase to all clearance specifications in manual.
- Locate and install appliance to all clearance specifications in manual.

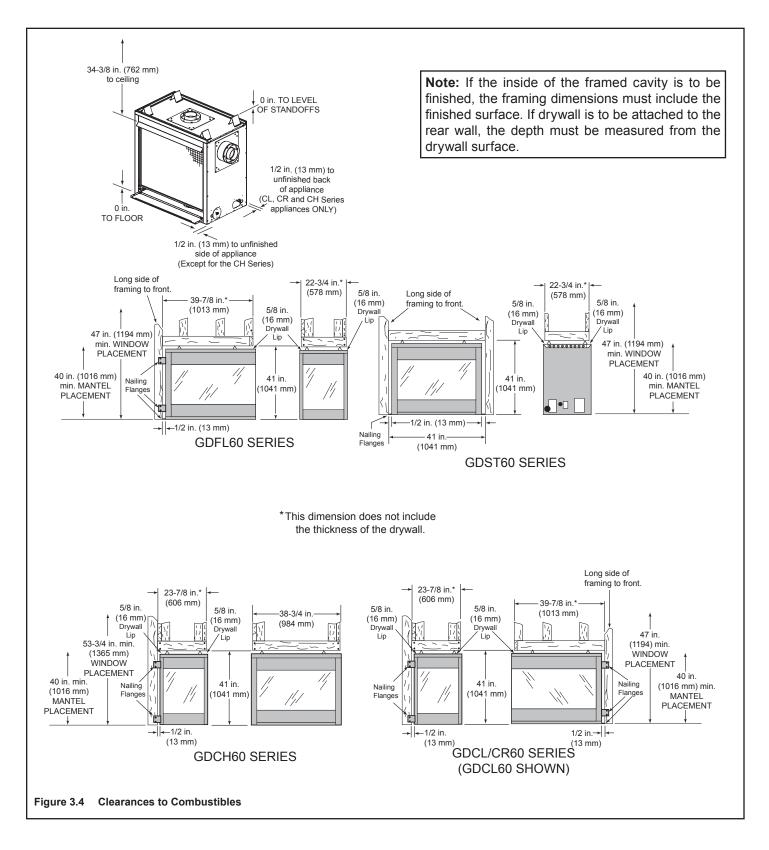
#### **C. Mantel Projections**







Failure to comply may cause fire.



**Note:** When installing these appliances, do not cover or frame in the lower panels of the appliance. This will interfere with proper operation of glass assemblies and access to the control panel.



#### A. Vent Termination Minimum Clearances

Figure 4.2 specifies minimum vent heights for various pitched roofs.



## WARNING

#### Fire Risk Explosion 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.



## 

#### Fire Risk Explosion Risk

Inspect external vent cap regularly.

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

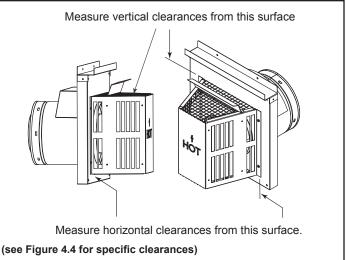


Figure 4.1 Clearances from Cap Surfaces

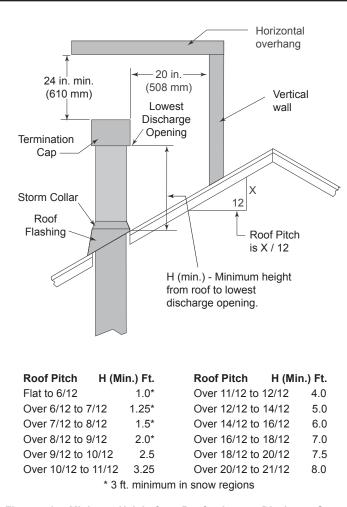
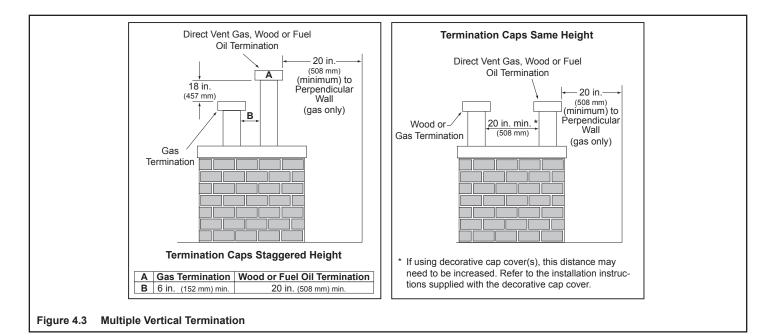
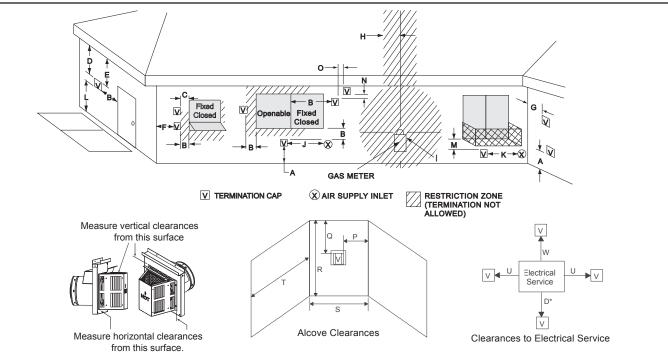


Figure 4.2 Minimum Height from Roof to Lowest Discharge Opening





Dimension Descriptions

- A Clearance above the ground, a veranda, porch, deck or balcony 12 in. (30 cm) minimum. \*
- B Clearance to window or door that may be opened 10,000 BTUs or less, 6 in. (15 cm) minimum; 10,000-50,000 BTUs, 9 in. (23 cm) minimum; over 50,000 BTUs, 12 in. (30 cm) minimum. \*
- C Clearance to permanently closed window 12 in. (30 cm) minimum recommended to prevent condensation on window.
- D Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 2 ft (60 cm) from the centerline of the termination – 18 in. (46 cm) minimum. \*\*
- E Vertical clearance to unventilated soffit 12 in. (30 cm) minimum. \*\*
- F Clearance to outside corner 6 in. (15 cm) minimum.
- G Clearance to inside corner 6 in. (15 cm) minimum.
- H Not to be installed above a meter/regulator assembly within 3 ft (90 cm) horizontally\* from the center line of the regulator (Canada only)
- I Clearance to service regulator vent outlet 3 ft (.91 m) U.S. minimum and 3 ft (.91 m) Canada minimum. \*
- J Clearance to non-mechanical air supply inlet into building or the combustion air inlet to any other appliance 9" (23 cm) U.S. minimum and 12 in. (30 cm) Canada minimum. \*
- K Clearance to mechanical air supply inlet 3 ft (.91 m) U.S. minimum and 6 ft (1.8 m) Canada minimum. \*
- L Clearance above a paved sidewalk or paved driveway located on public property 7 ft (2.1 m) minimum.

A vent may not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.

M Clearance under veranda, porch, deck or balcony - 12 in. (30 cm) minimum. \* Recommended 30 in. (76 cm) for vinyl or plastic.

Only permitted if veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor. \*

- N Vertical clearance between two horizontal termination caps 12 in. (30 cm) minimum.
- O Horizontal clearance between two horizontal termination caps 12 in. (30 cm) minimum.

- P 6" Non-vinyl sidewalls
  - 12" Vinyl sidewalls
- Q 18" Non-vinyl soffit and overhang
  - 42" Vinyl soffit and overhang
- R 8 ft.

		S <sub>min</sub>	T <sub>max</sub>	
1 cap	3 ft		2 x S actual	
2 caps	6 ft		1 x S actual	
3 caps	9 ft		2/3 x S actual	
4 caps	12 ft		1/2 x S actual	
S <sub>min</sub> = # term caps	x 3	T <sub>max</sub> = (2/# term caps) x S (actual)		

- U 6" min. Clearance from sides of electrical service.
- W 12" min. Clearance above electrical service.
- \* As specified in CGA B149 Installation Codes

Note: Local codes or regulations may require different clearances.

\*\* Clearance required to vinyl soffit material – 30 in. (76 cm) minimum. Note: Location of the vent termination must not interfere with access

to the electrical service.

#### WARNING!

In the U.S.: Vent system termination is NOT permitted in screened porches. You must follow side wall, overhang and ground clearances as stated in the instructions.

In Canada: Vent system termination is NOT permitted in screened porches. Vent system termination is permitted in porch areas with two or more sides open. You must follow all side wall, overhang and ground clearances as stated in the instructions.

Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

Figure 4.4 Minimum Clearances for Terminations



## A. Vent Table Key

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

Symbol	Description
V <sub>1</sub>	First section (closest to appliance) of vertical length
V <sub>2</sub>	Second section of vertical length
H <sub>1</sub>	First section (closest to appliance) of horizontal length
H <sub>2</sub>	Second section of horizontal length



## 

#### Fire Risk Explosion Risk Asphyxiation Risk

Do NOT connect this gas appliance to a chimney flue serving a separate solid-fuel or gas burning appliance.

- Vent this appliance directly outside.
- Use separate vent system for this appliance.

May impair safe operation of this appliance or other appliances connected to the flue.

## B. Use of Elbows

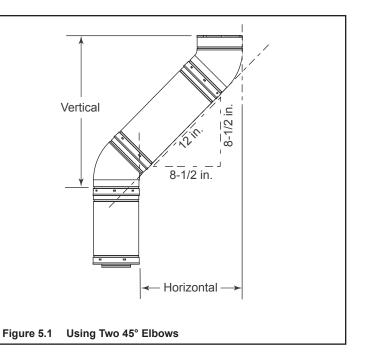
## CAUTION

ALL vent configuration specifications MUST be followed.

- This product is tested and listed to these specifications.
- Appliance performance will suffer if specifications are not followed.

Diagonal runs have both vertical and horizontal vent aspects when calculating the effects. Use the rise for the vertical aspect and the run for the horizontal aspect (see Figure 5.1).

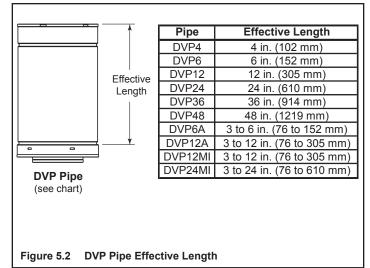
Two  $45^{\circ}$  elbows may be used in place of one  $90^{\circ}$  elbow. On  $45^{\circ}$  runs, 1 ft of diagonal is equal to 8-1/2 in. horizontal run and 8-1/2 in. vertical run. A length of straight pipe is allowed between two  $45^{\circ}$  elbows (see Figure 5.1).



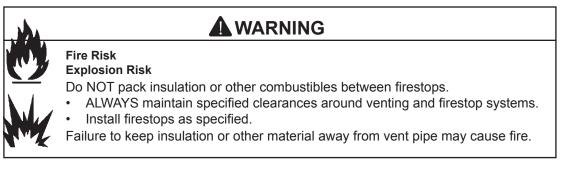
## C. Measuring Standards

Vertical and horizontal measurements listed in the vent diagrams were made using the following standards.

- Pipe measurements are shown using the effective length of pipe (see Figure 5.2).
- Measurements are made from the appliance outer wrap, not from the standoffs.
- Horizontal terminations are measured to the outside mounting surface (flange of exterior termination) (see Figure 4.1).
- Vertical terminations are measured to top of last pipe before termination cap.
- Horizontal pipe installed level with no rise



#### **D. Vent Diagrams**

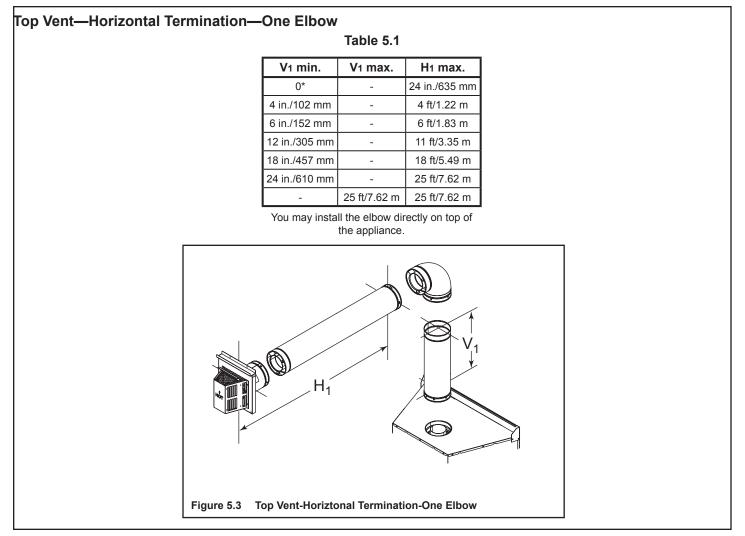


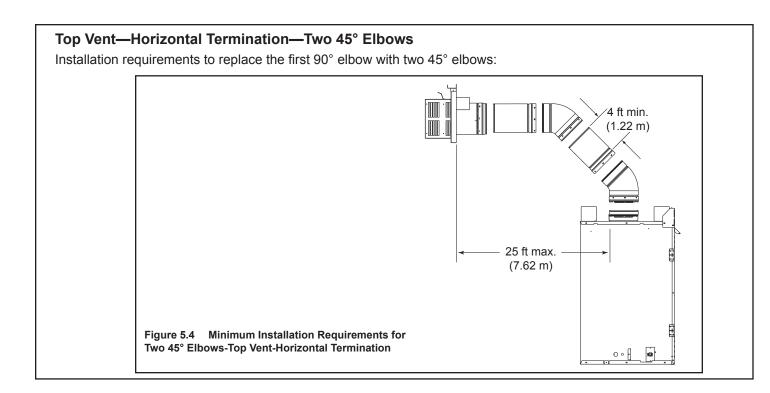
The first 90° elbow MUST be a starter elbow.

To replace the first starter elbow with two 45° elbows, refer to Figure 5.4. All other 90° elbows can be replaced with two 45° elbows.

General Rules:

- SUBTRACT 3 ft (914 mm) from the total H measurement for each 90° elbow installed horizontally.
   SUBTRACT 1-1/2 ft (456 mm) from the total H measurement for each 45° elbow installed horizontally.
- A maximum of three 90° elbows (or six 45° elbows) may be used in any vent configuration. Some elbows may be installed horizontally. See Figure 5.6.
- Elbows may be placed back to back anywhere in the system as long as the first 90° elbow is a starter elbow except as shown in Figure 5.4.
- When penetrating a combustible wall, a wall shield firestop must be installed.
- When penetrating a combustible ceiling, a ceiling firestop must be installed.
- Horizontal runs of vent do not require vertical rise; horizontal runs may be level.



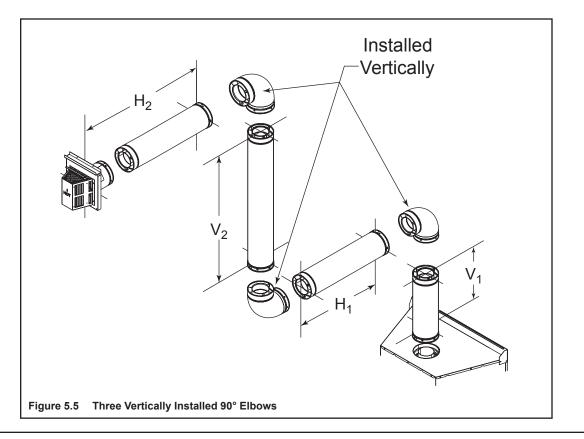


#### Top Vent—Horizontal Termination—Three Vertical Elbows

See Figure 5.6 for information about installing elbows horizontally.

Table	5.2
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V1 min.	V1 + V2 max.	H1 + H2 max.	
12 in./305 mm	mm 24 ft/7.32 m 19 ft/5.79 r		



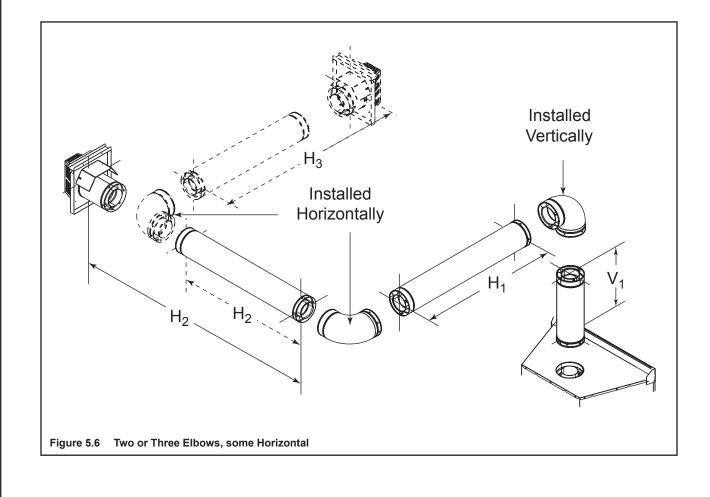
#### Top Vent—Horizontal Termination—Two or Three Elbows

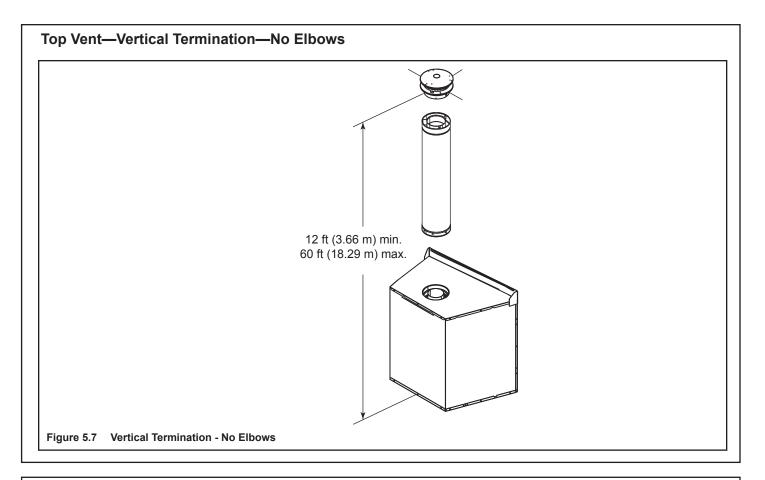
You may use a maximum of three 90° elbows (or six 45° elbows) in any vent configuration, Some may be installed horizontally.

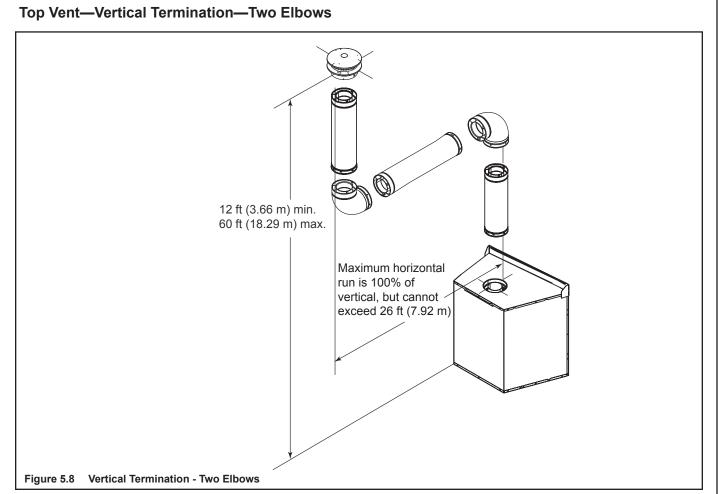
Note: Subtract 3 ft (914 mm) from the total horizontal measurement for each 90° elbow installed horizontally. Subtract 1-1/2 ft (456 mm) from the total horizontal measurement for each 45° elbow installed horizontally.

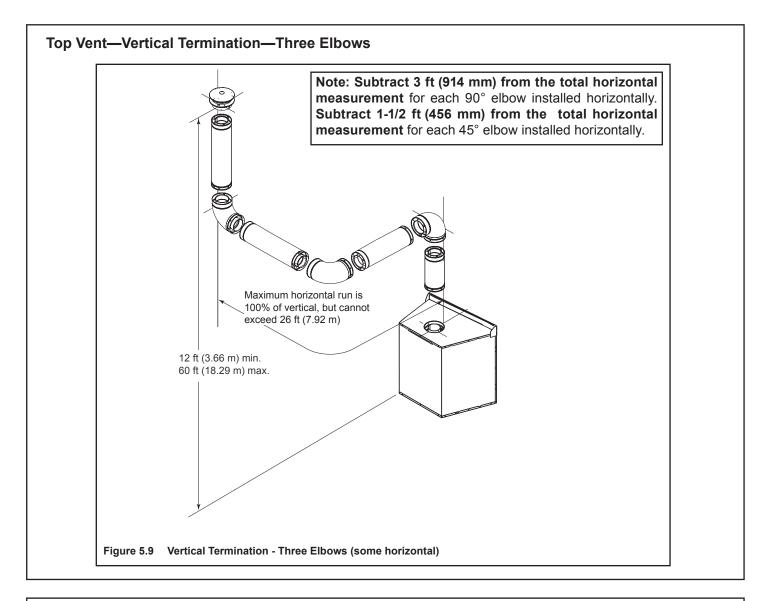
Table \$	5.3
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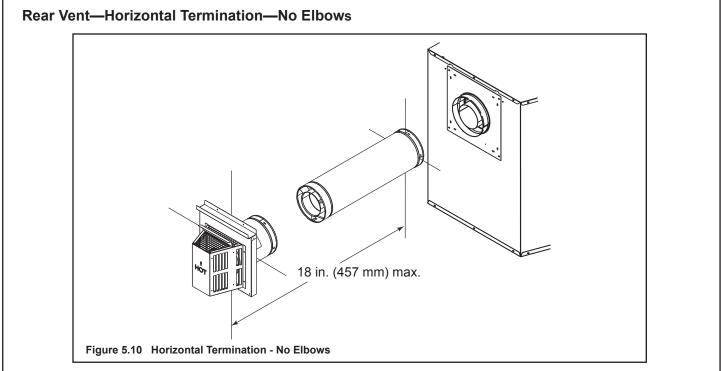
V1 min.	V1 max.	H1 + H2 max.	H1 + H2 + H3 max.
6 in./152 mm	-	6 ft/1.83 m	-
12 in./305 mm	-	11 ft/3.35 m	11 ft/3.35 m
18 in./457 mm	-	18 ft/5.49 m	18 ft/5.49 m
24 in./810 mm	-	25 ft/7.62 m	25 ft/7.62 m
-	25 ft/7.62 m	25 ft/7.62 m	25 ft/7.62 m

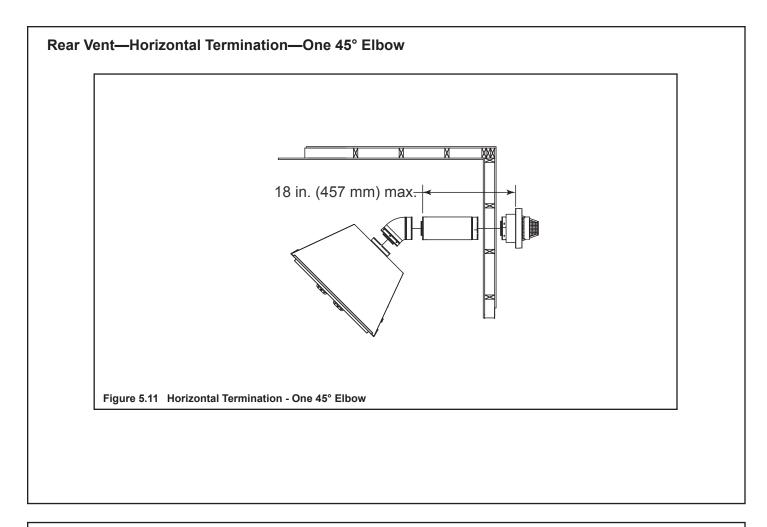


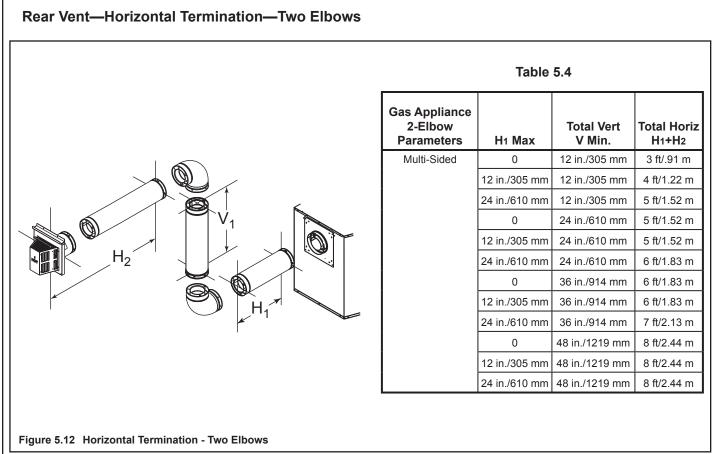




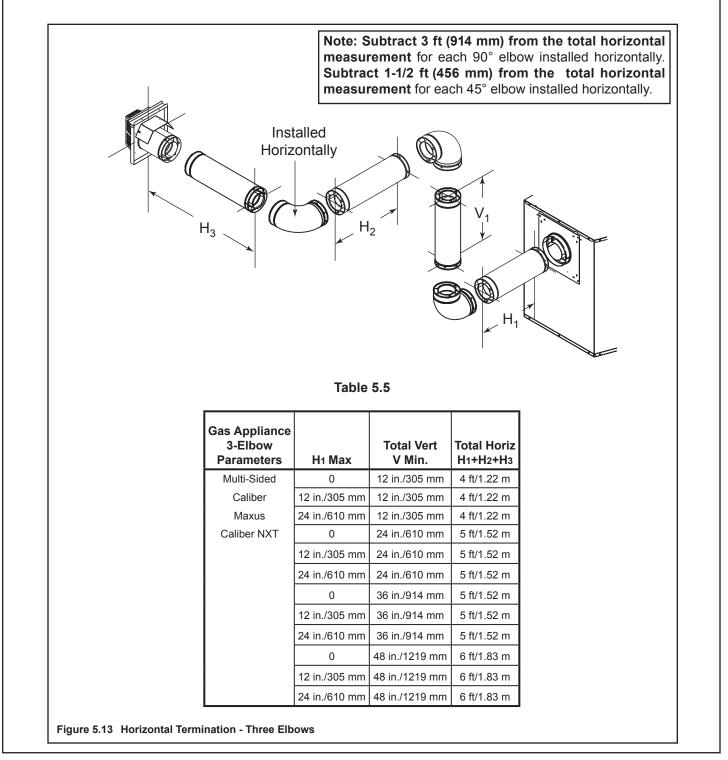


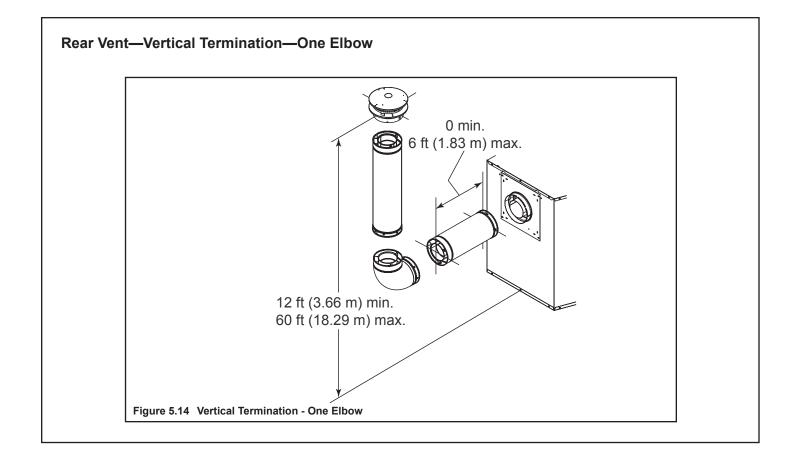




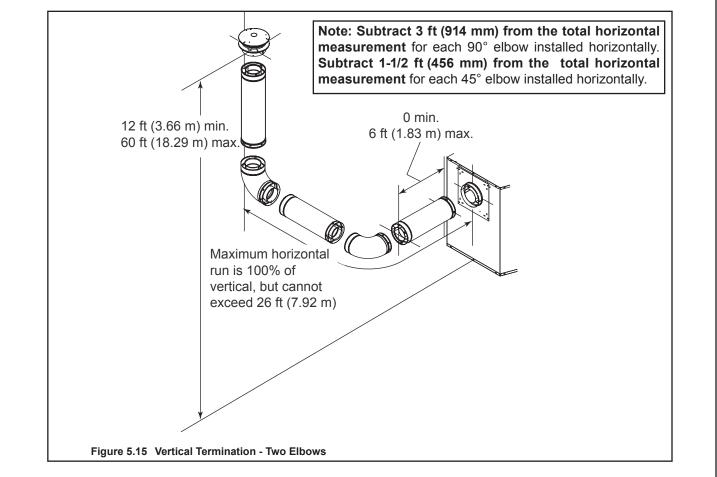


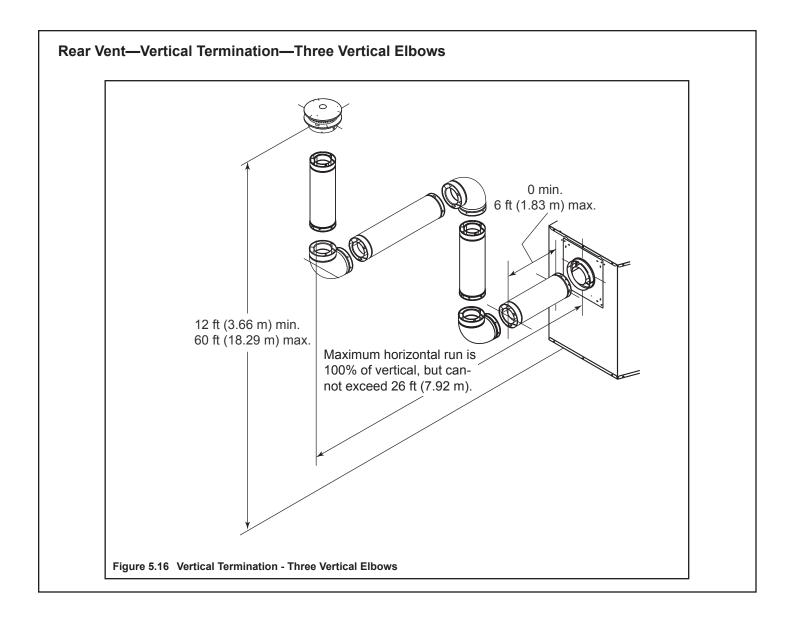
#### **Rear Vent—Horizontal Termination—Three Elbows**



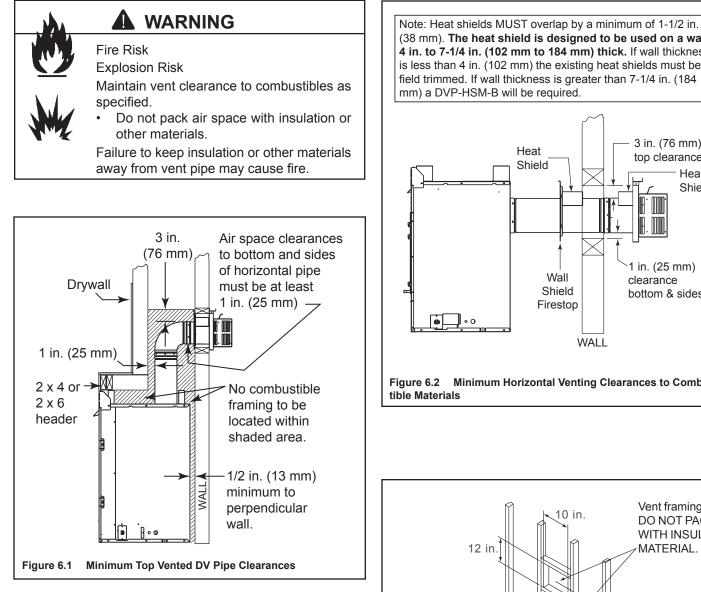


#### Rear Vent—Vertical Termination—Two Elbows



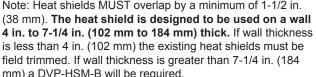


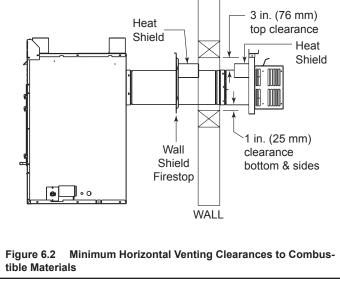
#### A. Pipe Clearances to Combustibles

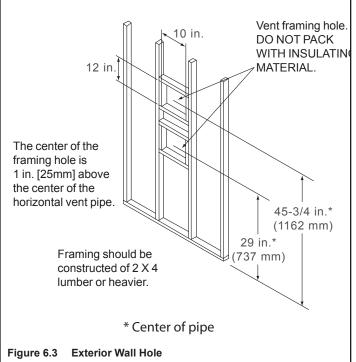


#### **B. Wall Penetration Framing**

- Wherever a combustible wall is penetrated, the hole must be framed with a wall shield firestop. This shield maintains minimum clearances and restricts cold air infiltration.
- If the wall being penetrated is of noncombustible materials (material which will not ignite or burn, or has a UL fire rating of zero), a 9 in. (229 mm) diameter hole is acceptable.
- Whenever a wall is penetrated the wall shield firestop is only required on one side and no heat shield is necessary.
- If your local inspector requires the wall shield firestop on both sides of the wall, then both wall shield firestops must have a heat shield attached to them.

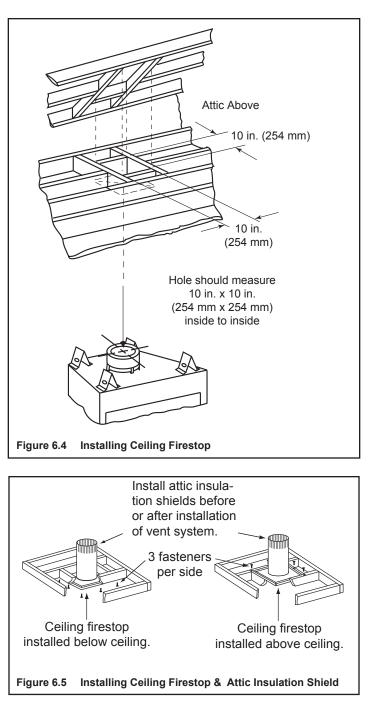






#### C. Install the Ceiling Firestop

- Frame an opening 10 in. by 10 in. whenever the vent system penetrates a ceiling/floor (see Figure 6.4).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- When installing a top vent vertical termination appliance the hole should be directly above the appliance, unless the flue is offset.
- The ceiling firestop may be installed above or below the ceiling. Refer to Figure 6.5.
- Secure with three fasteners on each side.
- Do not pack insulation around the vent. Insulation must be kept away from the pipe.





## 

#### Fire Risk

Keep loose materials or blown insulation from touching the vent pipe.

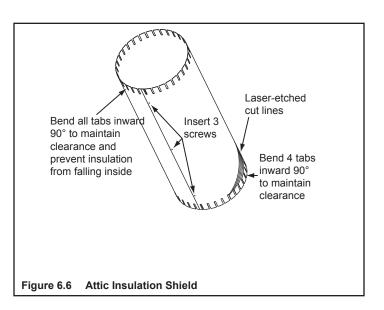
- National building codes recommend using attic shield to keep loose materials/blown insulation from contacting vent.
- Hearth & Home Technologies requires the use of an attic shield.

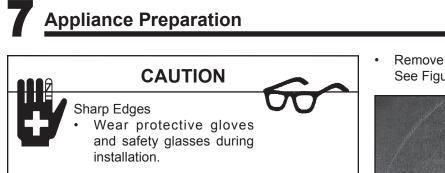
#### **Flat Ceiling Installation**

- Remove one shield from box.
   Note: Cut previously installed batt insulation to make room for the attic insulation shield.
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend four tabs inward on bottom of shield where it rests on the ceiling firestop to maintain the air space between the pipe and shield. Set the shield on the ceiling firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blow-in insulation from getting between the shield and vent pipe, and to maintain clearance.

#### Vaulted Ceiling Installation

- The attic insulation shield has been laser-etched with cut lines and ceiling pitches to make field trimming easier.
- Remove one shield from box.
   Note: Cut previously installed batt insulation to make room for the attic insulation shield.
- Cut the attic insulation shield (if application is for vaulted ceiling) using a laser-etched cut line, to fit your ceiling pitch. Snip cut edge to create three bend tabs.
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend four of the remaining tabs inward 90° on bottom of shield to maintain the air space between the pipe and shield. Cover the resulting holes with aluminum tape. Set the shield on the ceiling firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blow-in insulation from getting between the shield and vent pipe, and to maintain clearance.





#### A. Appliance Placement

This appliance may be placed on a smooth combustible or noncombustible, continuous, flat surface. When the appliance is installed directly on carpeting, tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel (hearth sheet) extending the full width and depth of the appliance. Slide the assembly into position and level from side-to-side and front-to-back. Shim the appliance as necessary. It is acceptable to use wood shims.

#### **B. Secure the Appliance**

Secure the appliance by bending out the nailing flanges on each side of the appliance and nail to the framing. The nailing flanges have been positioned 5/8 in. back from the front of the appliance to allow for the addition of drywall.

## C. Convert from Top Vent to Rear Vent

• Remove four screws holding the plate surrounding the flue. See Figure 7.1 Remove plate and set aside.

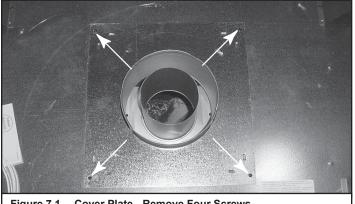
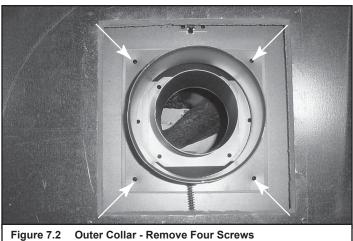


Figure 7.1 Cover Plate - Remove Four Screws

 Remove four screws holding outer collar to appliance top. See Figure 7.2. Remove outer collar.



• Remove four screws holding inner collar to appliance top. See Figure 7.3. Remove inner collar.

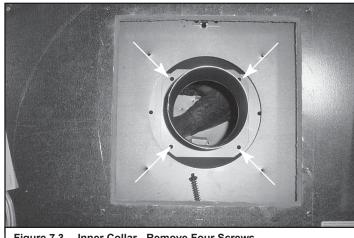


Figure 7.3 Inner Collar - Remove Four Screws

 Remove four screws holding outer shell cover. See Figure 7.4. Remove outer shell cover and set aside. (Cover has insulation attached.)

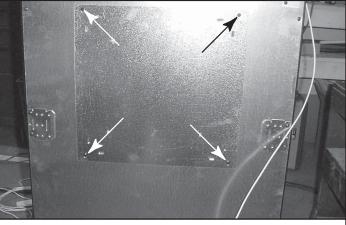
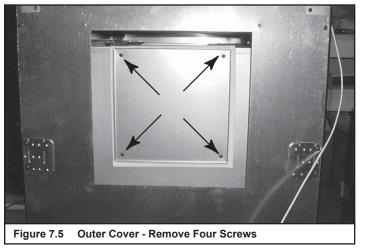
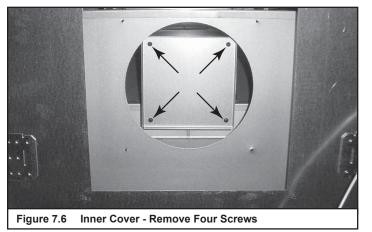


Figure 7.4 Outer Shell Cover - Remove Four Screws

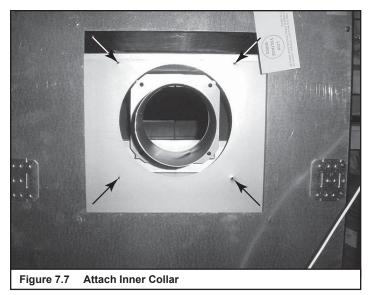
• Remove four screws holding outer cover to appliance back. See Figure 7.5. Remove outer cover (be sure to remove the insulation as well).



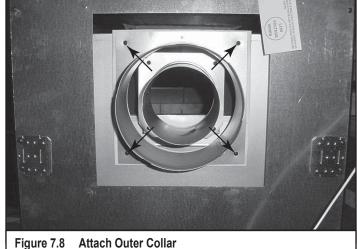
• Remove four screws holding inner cover plate to appliance back. See Figure 7.6. Remove inner cover.



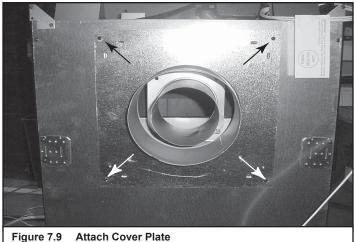
• Place inner collar on appliance back and replace four screws to hold this collar in place. See Figure 7.7.



• Place outer collar on rear of appliance and replace four screws to hold collar in place. See Figure 7.8. Make sure insulation is attached to the collar base!



• Locate the cover plate removed in the first step. Place plate around rear vented collars and replace four screws to hold plate in place. See Figure 7.9.



 Place inner cover plate on appliance top and replace four screws to hold inner cover plate in place. See Figure 7.10.

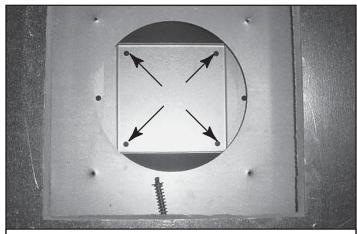
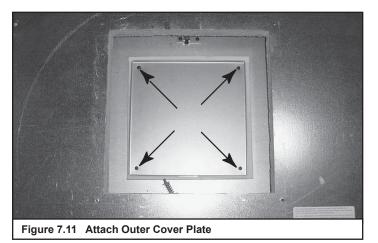


Figure 7.10 Attach Inner Cover Plate

- Figure 7.10 Attach
  - Heatilator Caliber Multi-Sided Direct Vent 4002-079 Rev K 11/07

 Place outer cover plate on appliance top and replace four screws to hold outer cover plate in place. See Figure 7.11. Make sure insulation is replaced along with cover plate.



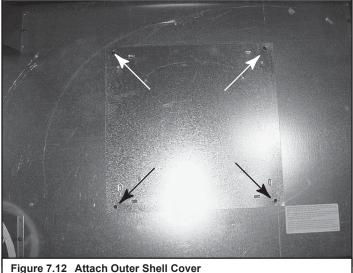


## 

Fire RiskWhen rear venting, the unused top opening must be sealed.

If not sealed, the appliance may not operate properly.

Locate outer shell cover removed in the fourth step (Figure 7.4). Place the cover on top of appliance. Replace four screws to hold plate in place. See figure 7.12. (Cover has insulation attached.)



#### D. Securing and Leveling the Appliance



## 

- Fire Risk!
- Prevent contact with sagging, loose insulation.
- Do NOT install against combustible materials such as exposed insulation, plastic and insulation backer.

The diagram shows how to properly position, level, and secure the appliance (see Figure 7.13). Nailing tabs are provided to secure the appliance to the framing members.

- Rear venting refer to Vent Clearances and Framing (Section 6) for hole location.
- Place the appliance into position.
- Level the appliance from side to side and front to back.
- Shim the appliance with non-combustible material, such as sheet metal, as necessary.
- Bend out nailing tabs on each side.
- Keep nailing tabs flush with the framing.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.

## CAUTION

Do NOT notch into the framing around the appliance spacers.

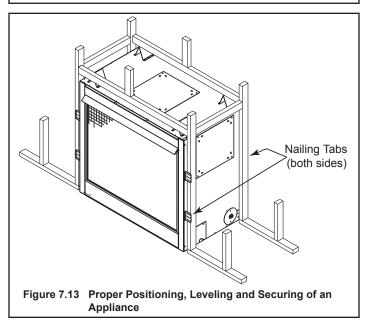


## 

#### Fire Risk

- ALWAYS maintain specified clearances around the appliance.
- Do NOT notch into the framing around the appliance spacers.

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



## A. Assemble Vent Sections



## **WARNING**

Fire Risk Explosion Risk.



Do not mix pipe, fittings or joining methods from different manufacturers



## A WARNING

#### Fire Risk Exhaust Fumes Risk

- Overlap pipe slip sections at least 1-1/2 in.
- Use pilot holes for screws.
- Screws must not exceed 1 in. long.
- Pipe may separate if not properly joined.

#### Attaching Vent to the Firebox Assembly

To attach the first pipe section to the collars, slide the male end of the inner vent of the pipe section over the inner collar on the firebox assembly. At the same time, slide the outer flue over the outer collar on the appliance. Push the pipe section into the appliance collar until all the lances (see Figure 8.1) have snapped in place. Tug slightly on the section to confirm it has completely locked into place.

# Commercial, Multi-family (multi-level exceeding two stories), or High-rise Applications

For installation into a commercial, multi-family (multi-level exceeding two stories), or high-rise application: All outer pipe joints must be sealed with high temperature silicone, including the slip section that connects directly to the horizontal termination cap.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections. See Figure 8.1.
- Only outer pipes are to be sealed. Do not seal the inner flue. All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed in this manner, unless otherwise stated.

**Note:** The end of the pipe sections with the lances/tabs on it will face towards the appliance.



## **WARNING**

#### Fire Risk Explosion Risk

If slip section seals are broken during the removal of the termination cap, gas will leak and a fire or explosion may occur.

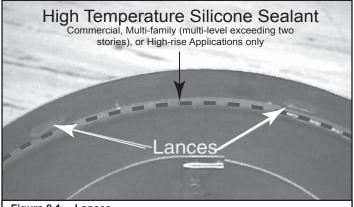
do not break silicone seals on slip sections.

#### **Assemble Pipe Sections**

Insert the inner flue of section A into the flared inner flue of section B.

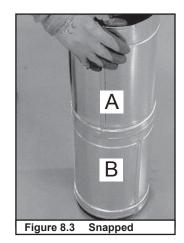
Start the outer flue of section A over the outer flue of section B (see Figure 8.2).

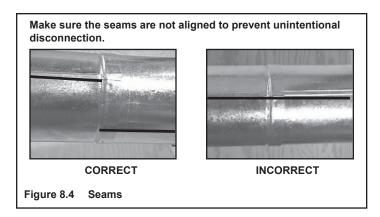
Once both inner and outer flues are started, press section A onto section B firmly until all lances have snapped into place. Check to make sure they have snapped together (see Figure 8.3) and the seams are not aligned (see Figure 8.4). Tug slightly on section A to confirm it has completely locked into place. It is acceptable to use screws no longer than 1 in. (25 mm) to hold outer pipe sections together. If predrilling holes, do NOT penetrate inner pipe.











For 90° and 45° elbows that are changing the vent direction from horizontal to vertical, one screw minimum should be put in the outer flue at the horizontal elbow joint to prevent the elbow from rotating. Use screws no longer than 1 in. (25 mm). If predrilling holes, do NOT penetrate inner pipe.

#### Assemble Minimum Installation (MI) Sections

MI sections are non-unitized so that they can be cut to a specific length. Cut these sections to length from the non-expanded end (see Figure 8.5).

They can then be attached by first connecting the expanded end of the MI inner flue with the inner pipe from the adjacent pipe section and securing with three screws. The expanded portion of the MI inner flue must overlap completely with the unexpanded end of the adjacent pipe section.

The outer flue can then be inserted into the adjacent outer flue expanded end and attached to the next pipe section with three screws. The other end of the MI pipe section can then be attached by fitting another pipe section to it and snapping it together, as normal.

#### **Assemble Slip Sections**

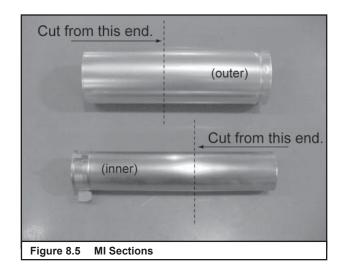
The outer flue of the slip section should slide over the outer flue of the pipe section and into (inner flue) the last pipe section (see Figure 8.6).

Slide together to the desired length, making sure that a 1-1/2 in. outer flue overlap is maintained between the pipe section and slip section.

The pipe and slip section need to be secured by driving two screws through the overlapping portions of the outer flues using the pilot holes (see Figure 8.7).

This will secure the slip section to the desired length and prevent it from separating. The slip section can then be attached to the next pipe section.

If the slip section is too long, the inner and outer flues of the slip section can be cut to the desired length.



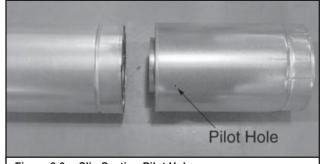


Figure 8.6 Slip Section Pilot Holes

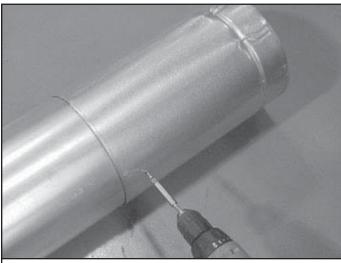


Figure 8.7 Screws into Slip Section

**Note:** When installing a vent system with an HRC termination cap, all pipe system joints shall be sealed using a high-temperature silicone sealant.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections.
- Only outer pipes are sealed, sealing the inner flue is not required. All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed in this manner.

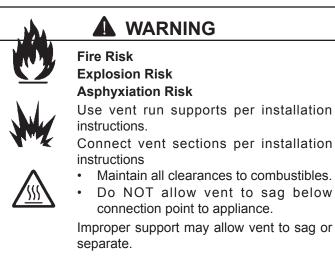
#### **Secure the Vent Sections**

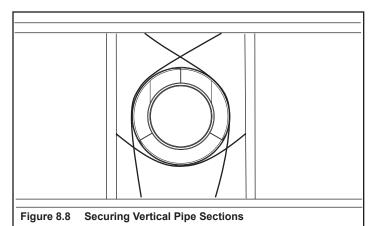
Vertical sections of pipe must be supported every 8 ft after the 25 ft maximum unsupported rise. The vent support or plumber's strap (spaced 120° apart) may be used to do this (see Figures 8.8 and 8.9).

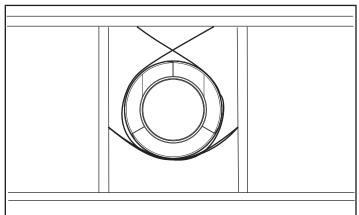
Horizontal sections of vent must be supported every 5 ft with a vent support or plumber's strap.

#### **B. Disassemble Vent Sections**

To disassemble any two pieces of pipe, rotate either section (see Figure 8.10), so that the seams on both pipe sections are aligned (see Figure 8.11). They can then be carefully pulled apart.







#### Figure 8.9 Securing Horizontal Pipe Sections

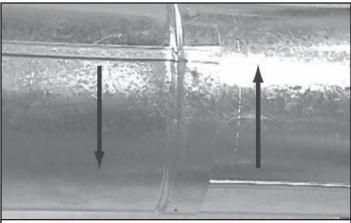


Figure 8.10 Rotate Seams for Disassembly

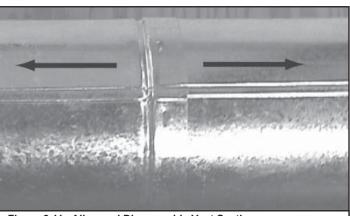


Figure 8.11 Align and Disassemble Vent Sections



## 

#### Fire Risk

Impaired performance of appliance.

- Telescoping flue section of termination cap MUST be used when connecting pipe section to termination cap.
- Maintain a 1-1/2 in. minimum overlap on telescoping flue section of termination cap.



## 

#### Fire Risk

#### Exhaust Fumes Risk

Impaired performance of appliance.

- Overlap pipe slip sections at least 1-1/2 in.
- Use pilot holes for screws.
- Screws must not exceed 1 in. long.
- Pipe may separate if not properly joined.

## 

Do NOT connect a pipe section to a termination cap without using the telescoping flue section found on the termination cap.

#### Heat Shield Requirements for Horizontal Termination

For all horizontally vented appliances, a heat shield MUST be placed 1 in. (25 mm) above the top of the vent between the wall shield firestop and the base of the termination cap.

There are two sections of the standard heat shield. One section is factory-attached to the wall shield firestop. The other section is factory-attached to the cap. See Figure 3.1.

If the wall thickness does not allow the required 1-1/2 in. (38 mm) heat shield overlap when installed, an extended heat shield must be used.

Imporant Notice: Heat shields may  $\underline{\text{NOT}}$  be field constructed.

The extended heat shield may need to be cut to length. You will attach the cut heat shield to the existing cap heat shield or wall shield firestop heat shield (refer to Figure 3.1) using the supplied screws. You MUST maintain a 1-1/2 in. (38 mm) overlap of the extended heat shield and the existing shields (both ends of the heat shield). The small leg on the extended heat shield should rest on the top of the vent (pipe section) to properly space it from the pipe section.

#### Install the Horizontal Termination Cap

Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.

Flash and seal as appropriate for siding material at outside edges of cap

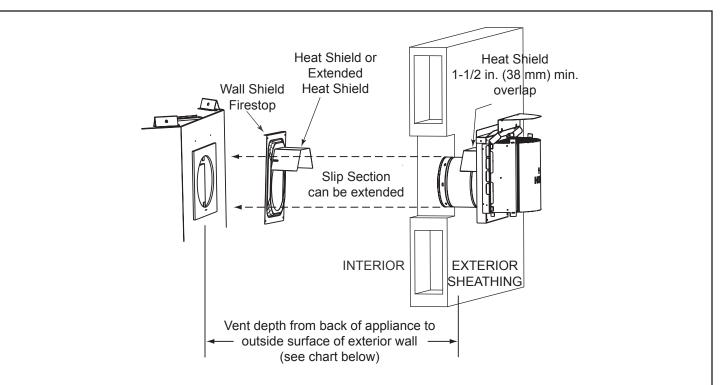
When installing a horizontal termination cap, follow the cap location guidelines as prescribed by current **ANSI Z223.1** and **CAN/CGA-B149** installation codes.



## 

#### Burn Risk

Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.



#### Cap Specification Chart (depth without using additional pipe sections)

	DVP-TRAPK1 Top Vent <u>Depth</u>	DVP-TRAP1 Rear Vent <u>Depth</u>	DVP-TRAPK2 Top Vent <u>Depth</u>	DVP-TRAP2 Rear Vent <u>Depth</u>
	4 to 5-7/8 in.	5-3/4 to 7-5/8 in.	6-3/8 to 10-3/8 in.	8-1/8 to 12-1/8 in.
Designer Series				
	DVP-HPC1 Top Vent <u>Depth</u>	DVP-HPC1 Rear Vent <u>Depth</u>	DVP-HPC2 Top Vent <u>Depth</u>	DVP-HPC2 Rear Vent <u>Depth</u>
	4-1/8 to 6-1/4 in.	3-5/8 to 5-3/4 in.	6-1/4 to 10-3/8 in.	5-3/4 to 9-7/8 in.

Top vented Designer units require a DVP12 be added after the elbow.

DVP-TRAP1 can adjust 1-7/8 in. (4-3/16 to 6-1/16)

DVP-TRAP2 can adjust 4 in. (6-9/16 to 10-9/16)

DVP-HPC1 can adjust 2-1/8 in. (4-1/4 to 6-3/8)

DVP-HPC2 can adjust 4-1/8 in. (6-3/8 to 10-1/2)

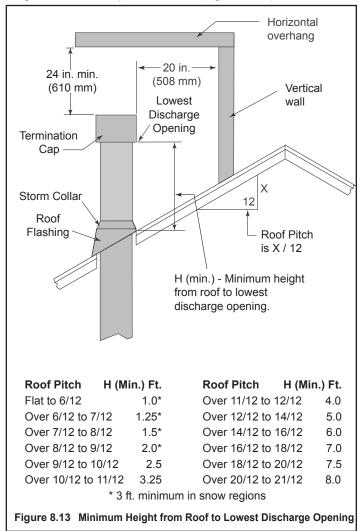
#### Figure 8.12 Venting through the Wall

**Note:** Where required, an exterior wall flashing is available. When penetrating a brick wall, a brick extension kit is available for framing the brick.

### D. Install Roof Flashing and Vertical Termination Cap

To install roof flashing see Figures 8.13 and 8.14.

For installation of vertical termination cap see minimum vent heights for various pitched roofs (Figure 8.13).





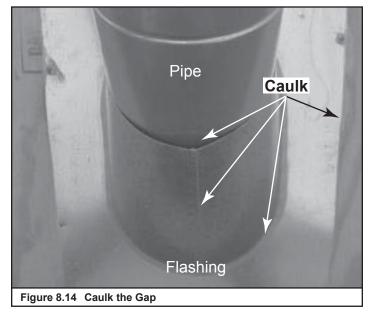
## 

#### Fire Risk Explosion Risk

Inspect external vent cap regularly.

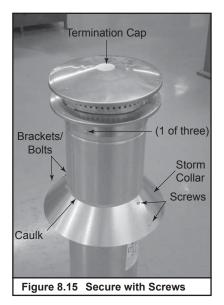
- Ensure no debris blocks cap.
- Combustible materials blocking cap may ignite.
- Restricted air flow affects burner operation.

Caulk the gap between the roof flashing and the outside diameter of the pipe. Caulk the perimeter of the flashing where it contacts the roof surface. See Figure 4.4.



To attach the vertical termination cap, slide the inner collar of the cap into the inner flue of the pipe section and place the outer collar of the cap over the outer flue of the pipe section.

Secure with three screws into the outer flue. Secure the cap by driving the three self-tapping screws (supplied) through the pilot holes in the outer collar of the cap into the outer flue of the pipe (see Figure 8.14).





Connect both halves of the storm collar with two screws (see Figure 8.16).

Wrap the storm collar around the exposed pipe section and align brackets. Insert a bolt (provided) through the brackets and tighten the nut to complete the storm collar assembly. Make sure the collar is tight against the pipe section. See Figure 8.17.

Slide the assembled storm collar down the pipe section until it rests on the roof flashing.

Caulk around the top of the storm collar (see Figure 8.15).

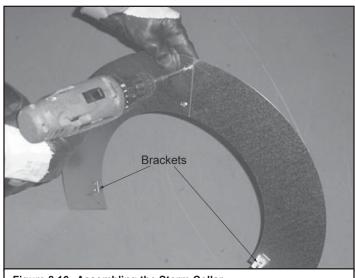


Figure 8.16 Assembling the Storm Collar



Figure 8.17 Assembling the Storm Collar Around the Pipe



#### A. Fuel Conversion

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

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

#### **B. Gas Pressure**

Proper input pressures are required for optimum appliance performance. Gas line sizing requirements need to be made following **NFPA51**.



#### A WARNING

Explosion Risk High pressure will damage valve.

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



#### 

#### Fire Risk

Explosion Risk

**Fire Risk** 

Verify inlet pressures.

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

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

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

Pressure	Natural Gas	Propane
Minimum Inlet Pressure	5.0 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.

#### C. Gas Connection

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

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

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

Refer to Reference Section 16 for location of gas line access in appliance.

**Note:** Gas line may be run from either side of appliance using one of the knockouts provided. Hole in outer shell NOT to exceed 2-1/2 in. and should never penetrate the firebox.



#### **WARNING**

#### Gas Leak Risk

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

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

- Ensure that gas line does not come in contact with outer wrap of appliance. Follow local codes.
- Incoming gas line should be piped into the valve compartment and connected to the 1/2 in. connection on the manual shutoff valve.

#### **WARNING**

#### Fire Risk Explosion Risk

- Gas build-up during line purge may ignite.
- Purge should be performed by qualified technician.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.
- A small amount of air will be in the gas supply lines. When first lighting appliance it will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.



#### 

CHECK FOR GAS LEAKS Fire Risk Explosion Risk

#### Asphyxiation Risk

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

Fittings and connections may have loosened during shipping and handling.



#### 

#### Fire Risk

Do NOT change the valve settings.

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

#### D. High Altitude Installations

U.L. listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 ft in the USA and Canada.

When installing this appliance at an elevation above 2000 ft, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 ft above a 2000 ft elevation in the U.S.A., or 10% for elevations between 2000 and 4500 ft in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

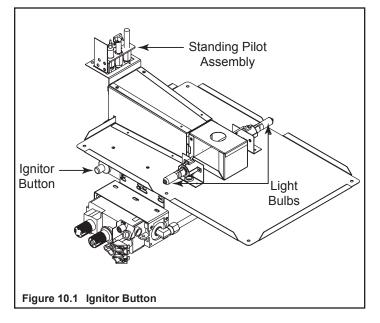
If installing this appliance at an elevation above 4500 ft (in Canada), check with local authorities.

# **10** Electrical Information

#### A. Recommendation for Wire

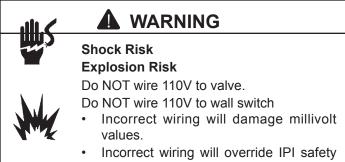
This appliance requires 110-120 VAC to be wired to the junction box either for use of optional accessories (standing pilot ignition) or for proper operation of the appliance (Intellifire ignition). Refer to Figure 10.1 to determine if the appliance uses an Intellifire ignition system or standing pilot ignition system.

Open the control access panel to view wiring system and gas valve. If this appliance has a red or black ignitor button (as noted in Figure 10.1) this appliance has a standing pilot ignition system. If there is no red or black ignitor button, this appliance has an Intellifire ignition system.



**Note:** This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/NFPA 70-latest edition** or the **Canadian Electric Code CSA C22.1**.

#### B. Connecting to the Appliance



- lockout and may cause explosion.
- This appliance may be used with a wall switch, wall mounted thermostat and/or a remote control.
- If using thermostat use one compatible with a millivolt gas valve system.
- Follow parameters for locating thermostat (see individual 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.
- Low voltage and 110 VAC voltage cannot be shared within the same wall box.

#### C. Intellifire Ignition System Wiring

This appliance requires a 110 VAC supply to the appliance junction box for operation. A wiring diagram is shown in Figure 10.2.

This appliance is equipped with an Intellifire control valve which operates on a 3 volt system.

This appliance is supplied with a battery pack and a 3 volt AC transformer, which requires the installation of the supplied junction box. It is highly recommended that the junction box be installed at this time to avoid reconstruction.

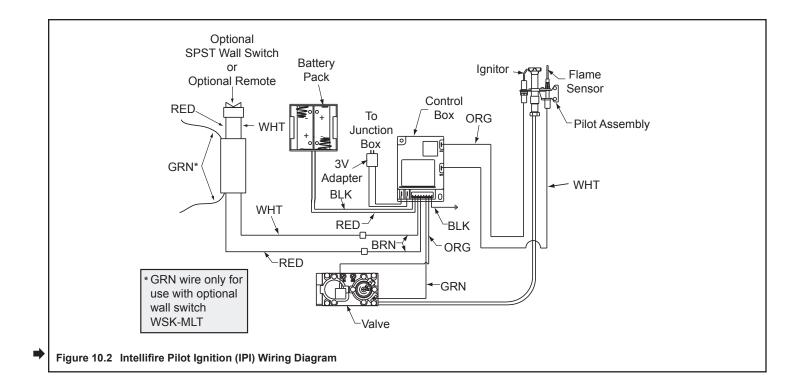
The battery pack requires two D cell batteries (not included). Batteries cannot be placed in the battery pack while using the 3 volt AC transformer. Conversely, the transformer must be unplugged if the battery pack is used.

#### CAUTION

**Battery** polarity must be correct or module damage will occur.

#### **Optional Accessories Requirements**

Wiring for optional accessories should be done now to avoid reconstruction.



#### **D. Standing Pilot Ignition System Wiring**

- This standing pilot ignition system wiring does not require a 110 VAC supply to operate.
- It is recommended that a 110 VAC junction box be installed with a switched outlet for the optional electric ember light kit and an always-powered outlet for the optional remote control. See Figure 10.3.

**Note:** Do not wire 110V to the millivolt valve (standing pilot)! This will damage the valve.

#### **Optional Accessories Requirements**

Wiring for optional accessories should be done now to avoid reconstruction.

#### CAUTION

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

#### **WARNING**

#### Shock Risk

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

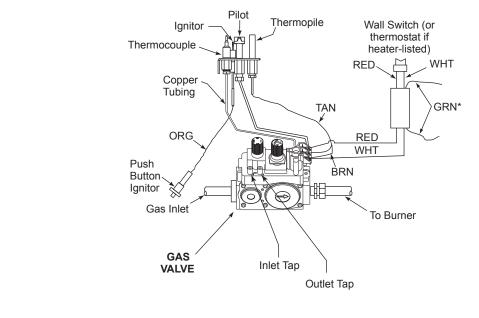


Figure 10.3 Standing Pilot Ignition Wiring Diagram

#### **E. Junction Box Installation**

If the box will not be wired at the time of appliance installation, assemble the receptacle and cover to the box and install on the inside of the appliance.

Remove the junction box assembly from the valve compartment.

If the box is being wired from the  $\ensuremath{\textbf{OUTSIDE}}$  of the appliance:

- Loosen two screws on Romex connector, feed necessary length of wire through connector and tighten screws.
- Make all necessary wire connections to receptacle and assemble the receptacle and cover to junction box.
- Attach junction box assembly to outside of appliance with the two screws provided.

If the box is being wired from the **INSIDE** of the appliance:

- Pull electrical wires from outside appliance through this opening into valve compartment.
- Loosen two screws on Romex connector, feed necessary length of wire through connector and tighten screws.
- Make all necessary wire connections to receptacle and assemble receptacle and cover to junction box.
- Attach junction box assembly to inside of appliance with the two screws provided.

#### F. Wall Switch Wiring

The installer shall supply a UL-listed or in Canada, a CSAlisted wall switch. This appliance was tested with eighteen feet of UL listed 18 ga. Type CL2 105° C, two conductor "thermostat wire". If other wiring materials are used they shall comply with local codes. In the absence of local codes, they shall comply with the **National Electrical Code ANSI/ NFPA 70-latest edition** or **Canadian Electrical Code CSA C22.1.** 

#### G. Install the Light Kit (optional)

If not installing the light kit, proceed to Section 11.

• Remove the log/grate assembly by unscrewing the four screws located on the left and right sides of the assembly. See Figure 10.4.

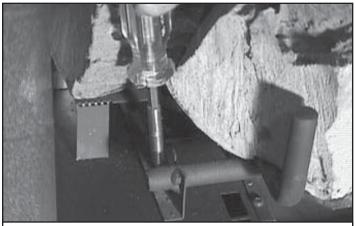


Figure 10.4 Remove Log/Grate Assembly

• Remove the burner assembly by unscrewing the four screws holding it in place. See Figure 10.5.



Figure 10.5 Remove Burner Assembly

 Remove the sheet metal cover plate by unscrewing the two screws located in the corners. See Figure 10.6.

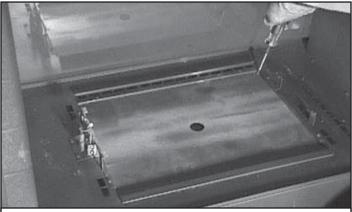


Figure 10.6 Remove Sheet Metal Cover Plate

 If you have a "V" series appliance, skip to step 12, just above Figure 10.10. Open the control access panel to view the valve compartment. Locate the two cover plates. See Figure 10.7. Using a short phillips screwdriver, remove the two screws on the cover plate. Repeat for other side.

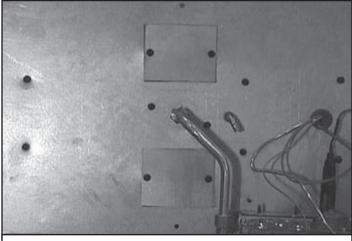


Figure 10.7 Cover Plates

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• Take the light base assembly and position it into the rectangular hole. Using the screws removed in the previous step, attach the light base to the valve plate. See Figure 10.8. Repeat for the other side.

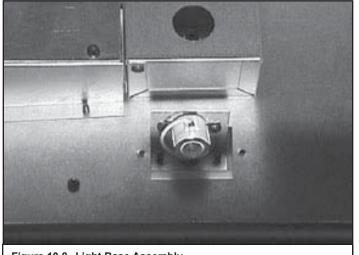
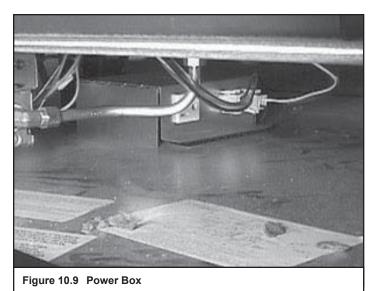
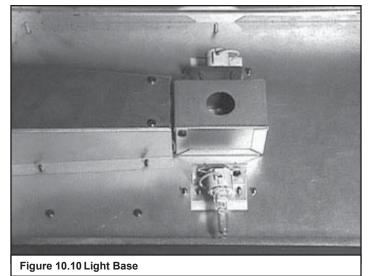


Figure 10.8 Light Base Assembly

- Remove one green wire and screw from the power box and attach that wire and screw to the firebox support hole located in the bottom right-hand corner of the firebox support.
- Place the flange on the power box into the formed tab in the bottom pan.
- Peel the plastic off the Velcro and press it onto the bottom pan.
- Plug the light base assembly connector into the power box. See Figure 10.9.
- With the wall switch in the "OFF" position, plug the power box cord into the junction box on the switched outlet side. For intermittent pilot ignition appliances, plug the transformer into the outlet of the power box.
- With the wall switch in the "OFF" position, plug the power box cord into the junction box on the switched outlet side.



 Remove the halogen bulbs from the packaging and screw them into the light base. See Figure 10.10. Once the bulbs are in place, clean the surface of the bulbs with a soft cloth and Isopropyl rubbing alcohol to remove any fingerprints.



 Remove the glass panel from its packaging and place it on the glass supports. Place the colored side down. See Figure 10.11.



Figure 10.11 Glass Panel

• Replace the burner assembly using the four screws removed. Place the burner on the brackets so that there are ports in front of the pilot hood. See Figure 10.12.

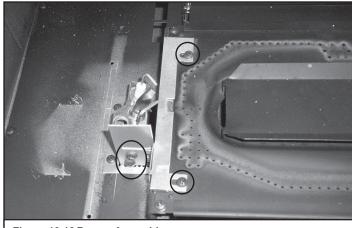


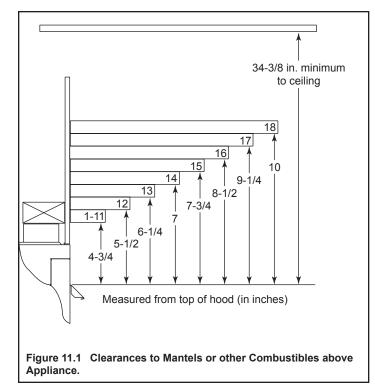
Figure 10.12 Burner Assembly

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#### **A. Mantel Projections**

Figure 11.1 shows the minimum vertical and corresponding maximum horizontal dimensions of appliance mantels or other combustible projections above the top front edge of the appliance.



#### Top of Appliance Drywall A 48<sup>'</sup>in. (1219 mm) max. B LMantel Leg or Perpendicular Wall А 0 in. min. to perpendicular wall В 2 in. (51 mm) min. from fireplace opening to perpendicular wall Figure 11.2 Mantel Leg or Wall Projections (Acceptable on both sides of opening)

#### **B. Facing Material**

When installing these appliances, do not cover or frame in the lower panels of the appliance. This will interfere with proper operation of glass assemblies and access to the control panel.



## WARNING Fire Risk

Finishing materials must not interfere with:Access for service.

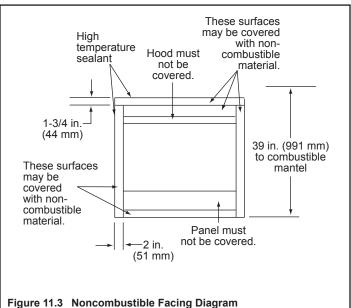
Proper operation of glass assembly.

#### 

#### Fire Risk

Finish all edges and fronts to clearances and specifications listed in manual.

- Metal appliance fronts may be covered with noncombustible material only.
- Do NOT overlap combustible materials onto appliance front.
- Install combustible materials only up to specified clearances on top, front and sides.
- Seal joints between the finished wall and appliance top and sides using only a 300° F minimum sealant.





#### A. Remove Glass Assembly

See Section 12.G.

#### **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. Refer to Section 16.



#### A WARNING

Shock Risk

Fire Risk

Use ONLY optional accessories approved for this appliance.

- Using non-listed accessories voids warranty.
- Using non-listed accessories may result in a safety hazard.
- Only Hearth & Home Technologies approved accessories may be used safely.

#### E. White Rock, Lava Rock, Vermiculite & Rockwool Placement



#### 

#### **Explosion Risk**

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

Improperly placed rockwool interferes with proper burner operation.

- White Rock: White rock can be painted with high temperature black paint (before installing) for a more realistic ember bed look.
- Spread white rock on glass to cover area under burner. See Figure 12.1.
- Lava Rock: Can be added to the white rock if desired.
- Lava rock locations also include the lava rock tray on top of burner and on hearth pan. See Figures 12.2 and 12.3.
- Vermiculite: Place vermiculite on top of the lava rock.

- Rock Wool: Place a small amount of 1/2 in. diameter pieces (dime size) on burner pan. Do not cover holes in burner pan. See Figure 12.3
- Fire Glow: Sprinkle a small amount of Fire Glow on top of vermiculite and burner for a "glowing embers" look.



Figure 12.1 White Rock



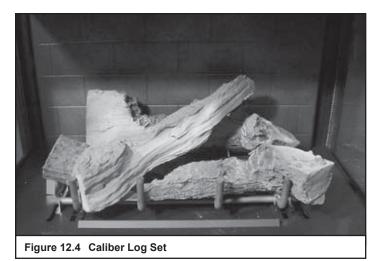
Figure 12.2 White Rock and Lava Rock



Figure 12.3 Lava Rock and Rock Wool

#### F. Log Assembly

The log set should look similar to that in Figure 12.4.



#### G. Glass Panel Assembly

#### **Removing Glass Panel Assembly**

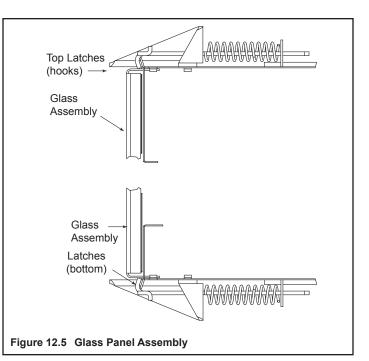
# WARNING Handle glass doors with care. Inspect the gasket to ensure it is undamaged. Inspect the glass for cracks, chips or scratches. Do NOT strike, slam or scratch glass. Do NOT strike, some or scratch glass.

- Do NOT operate appliance with glass door removed, cracked, broken or scratched.
- Replace glass door assembly as a complete assembly.
- Pull hood towards you to expose the access latches. Open control access panel to expose two Quick Access latches.
- Rotate the bottom of the screen assembly away from appliance and lower out of top retainers.
- Release the top glass latches (using the glass latch handled provided in the installation pack) and bottom access latches and rotate top of glass door panel away from the top of the appliance.
- Place glass panel on a nonabrasive surface.

**Note:** To remove end panels in CH & FL series appliances, remove screen and two screws holding top bracket. Lift panel up and out of lower bracket.

#### **Replacing Glass Panel Assembly**

- Place glass panel on the lower access latches and rotate the upper portion into place. Engage the top then the lower latches.
- Place the top corners of screen assembly in their retainer clips and rotate screen assembly to rest on the lower latches.
- Close the access panel and reinstall end panel, screen and hood.



#### H. Firescreen

- Insert top of firescreen assembly into the top retainers.
- Rotate the bottom of the firescreen assembly towards the appliance until it rests on the bottom glass latch assemblies.

#### I. Grilles and Trim

- Install optional trim kits and surrounds.
- Non-combustible materials can be used to cover gap between sheet rock and appliance.
- Do not obstruct or modify the air inlet/outlet grilles.
- Allow enough space on each side to open the control access panel.

#### J. Hood

The hood is located above the glass panel. The front hood must be attached or a fire hazard may result.

- Locate the four tabs just inside the upper section of appliance. Position hood and slide into position. See Figure 12.6
- Small side hoods (if applicable) must be attached with screws located just inside the upper firebox section of appliance.

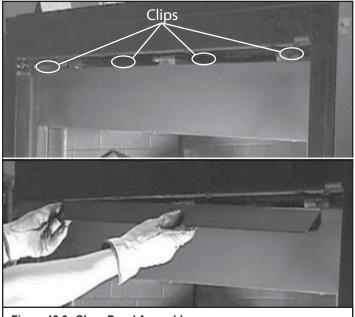


Figure 12.6 Glass Panel Assembly

#### K. Air Shutter Setting

This appliance has an adjustable air shutter (which controls the primary air mixture) that can be accessed from under the valve compartment located under the firebox assembly (see Figure 12.7). If your installation has more than the minimum vertical vent length, adjustments to the air shutter may be required to obtain the optimal flame appearance. A qualified installer should adjust this at the time of installation.

It takes sixteen full turns of the shutter adjustment handle to move the air shutter from fully open to fully closed. In the event of soot accumulation inside your appliance, the air shutter should be opened further. When the shutter adjustment handle is all the way **down**, the air shutter is in the **closed** position. When the shutter adjustment handle is all the way **up**, the air shutter is in the fully **open** position.



Figure 12.7 Air Shutter



#### A. Before Lighting Appliance

Before lighting this appliance, determine if it has a standing pilot or Intellifire ignition system by opening the control access panel to view wiring system and gas valve. If this appliance has a red or black ignitor button (See Figure 10.1) this appliance has a standing pilot ignition system. If there is no red or black ignitor button, this appliance has an Intellifire ignition system.

#### CAUTION

If installing Intellifire Ignition battery backup:

- Do not install batteries if the backup mode may not be used for extended time.
- Batteries may leak.
- Install batteries only when needed for power outage.

## Before operating this appliance, have a qualified technician:

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, rockwool, lava rock and vermiculite.
- · Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position.
- Ensure that the flow of combustion and ventilation air is not obstructed (front grilles and vent caps).



#### 

#### Fire Risk Asphyxiation Risk

Glass door **MUST** be in place when appliance is operating. Do NOT operate appliance with glass door removed.

- Open viewing glass for servicing only.
- Glass door MUST be in place and sealed before operating appliance.
- Only use glass doors certified for use with the appliance.
- Glass replacement should be done by qualified technician.

### 

#### 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 appliance.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

• Keep clothing, furniture, draperies and other combustibles away.

This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. Do NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

#### 

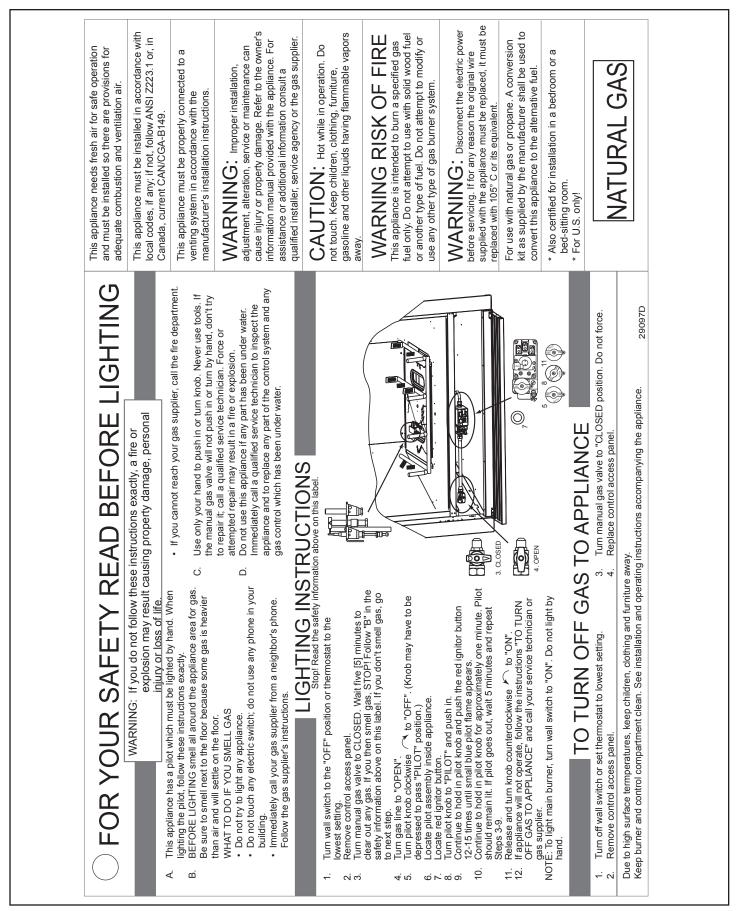
Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

#### **WARNING**

Do NOT use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## B. Lighting the Appliance Intellifire Ignition

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air. This appliance must be installed in accordance with local codes, if any, if not, follow ANSI 2223.1 or, in	Variados, current CANVOGA-0 149. This appliance must be properly connected to a venting system in accordance with the manufacturer's installation instructions.	WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with the appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.	odd right. Hot while in operation. Do not touch. Keep children, clothing, furniture, gasoline and other liquids having flammable vapors	away. WARNING RISK OF FIRE This appliance is intended to burn a specified gas fuel only. Do not attempt to use with solid wood fuel or another type of fuel. Do not attempt to modify or use any other type of gas burner system.	WARNING: Disconnect the electric power before servicing. If for any reason the original wire supplied with the appliance must be replaced, it must be replaced with 105° C or its equivalent.	For use with natural gas or propane. A conversion kit as supplied by the manufacturer shall be used to convert this appliance to the alternative fuel.	<ul> <li>Also certified for installation in a bedroom or a bed-sitting room.</li> <li>For U.S. only!</li> </ul>	NATURAL GAS
POR YOUR SAFETY READ BEFORE LIGHTING WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage,	5	<ul> <li>B. FORE LIGHTING smell all around the appliance area for gas. Be sure to smell mext to the floor.</li> <li>B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell mext to the floor.</li> <li>B. BEFORE LIGHTING smell all around the appliance area for valve or turm the gas control knob. Never use tools. If the lever or knob will not thry to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.</li> <li>D on ot touch any electric switch; do not use any phone in your building.</li> <li>Immediately call your gas supplier from a neighbor's phone. Follow the gas control knob. Never use tools. If the lever or knob will not throw by hand, don't try to repair th, call a qualified service technician. Force or attempted repair may result in a fire or explosion.</li> <li>Do not touch any electric switch; do not use any phone in your building.</li> <li>Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier instructions.</li> </ul>	LIGHTING INSTRUCTIONS	<ol> <li>STOP! Read the safety information above on this label.</li> <li>Turn wall switch to the "OFF" position or thermostat to the low "P" in the safety information above on this label. If you don't lowest setting.</li> <li>Turn off all electric power to the appliance.</li> <li>Turn off all electric power to the appliance and turn on the wall switch or set the pilot. Do NOT try to light the pilot by 7. If the appliance will not operate, follow "FOTUR OFF" and call your service technician or gas supplier.</li> </ol>	TO TURN OFF GAS T	<ol> <li>run on war switch or set memors at to lowest setting.</li> <li>Turn off all electric power to the appliance if service is to be force.</li> <li>performed.</li> <li>Replace the control access panel.</li> </ol>		Due to high surface temperatures, keep children, clothing and furniture away. Keep burner and control compartment clean. See installation and operating instructions accompanying the appliance. 33631D



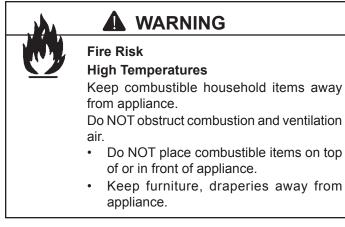
#### C. After the Appliance is Lit

#### **Initial Break-in Procedure**

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

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

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



#### CAUTION

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

#### CAUTION

Smoke and odors are released during initial operation.

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

Smoke and odors may be irritating to sensitive individuals.



#### **WARNING**

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

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

#### **D. Frequently Asked Questions**

	Issue		Solutions
1.	Condensation on the glass.	1.	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation should disappear.
2.	Blue flames.	2.	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20-40 minutes.
3.	Odor from appliance.	3.	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 any oils remaining from manufacturing.
4.	Film on the glass.	4.	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3-4 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner such as a gas fireplace glass cleaner may be necessary. See your dealer.
5.	Metallic noise.	5.	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.
6.	Is it normal to see the pilot flame burn continually?	6.	In an Intellifire ignition system it is normal to see the pilot flame, but it should turn off when ON/OFF switch is turned off. In a standing pilot system the pilot will always stay on.



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

#### A. Standing Pilot Ignition System

	Symptom		Possible Causes	Corrective Actions
1.	After repeated triggering of the red or black piezo	Α.	Defective ignitor.	Check the spark at the electrode and pilot. If there is no spark and the electrode wire is properly connected, replace the ignitor.
	ignitor button, the spark ignitor will not light the pilot.	В.	Defective pilot or misaligned electrode (spark at electrode).	Using a match, light the pilot. If the pilot lights, turn off the pilot and trigger the red or black 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 1/8 in. to have a strong spark. If the gap is OK, replace the pilot.
		C.	No gas or low gas pressure.	Check the remote shut-off valves from the appliance. There is usually a valve near the gas main. There can be more than one valve between the appliance and the main.
		D.	No LP in tank.	Check the LP (propane) tank. You may be out of fuel.
2.	The pilot will not stay lit after carefully following	Α.	Defective thermocouple.	Check that the pilot flame impinges on the thermocouple. Clean and/or adjust the pilot for maximum flame impingement.
	the lighting instructions			Ensure that the thermocouple connection at the gas valve is fully inserted and tight (hand tighten plus 1/4 turn).
				Disconnect the thermocouple from the valve, place one millivolt meter lead wire on the tip of the thermocouple and the other meter lead wire on the thermocouple copper lead. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15mV, replace the thermocouple.
		В.	Defective valve.	If the thermocouple is producing more than 15 millivolts, replace faulty valve.
3.	3. The pilot is burning, there is no gas burning, the valve knob is in the ON position, and the ON/ OFF switch is in the ON	A.	ON/OFF switch or wires are defective.	Check the ON/OFF switch and wires for proper connections. Place the jumper wires across the terminals at the switch. If the burner comes on, replace the defective switch. If the switch is OK, place the jumper wires across the switch wires at the gas valve. If the burner comes on, the wires are faulty or connections are bad.
	position.	В.	Thermopile may not be generating sufficient	If the pilot flame is not close enough physically to the thermopile, adjust the pilot flame.
			millivoltage.	Be sure the wire connections from the thermopile at the gas valve terminals are tight and that the thermopile is fully inserted into the pilot bracket.
				Check the thermopile with a millivolt meter. Take the reading at TH-TP&TP terminals of the gas valve. The meter should read 325 millivolts minimum while holding the valve knob depressed in the pilot position, with the pilot lit, and the ON/OFF switch in the OFF position. Replace the faulty thermopile of the reading is below the specified minimum.
				With the pilot in the ON position, disconnect the thermopile leads from the valve. Take a reading at the thermopile leads. The reading should be 325 millivolts minimum. Replace the thermopile if the reading is below the minimum.
		C.	Defective valve.	Turn the valve knob to the ON position. Place the ON/OFF switch in the ON position. Check the millivolt meter at the thermopile terminals. The millivolt meter should read greater than 125mV. If the reading is acceptable, and if the burner does not come on, replace the gas valve.
		D.	Plugged burner orifice.	Check the burner orifice for stoppage. Remove stoppage.
		E.	Wall switch or wires are defective.	Follow the corrective action in Symptom and Possible Cause 1.A. above. Check the switch and wiring. Replace where defective.

	Symptom		Possible Causes	Corrective Actions
4.	Frequent pilot outage problem.	Α.	Pilot flame may be too high, too low, or blowing (high), causing pilot safety to drop out.	Clean and adjust the pilot flame for maximum flame impingement on thermocouple. Follow lighting instructions carefully.
5.	The pilot and main	Α.	No LP in the tank.	Check the LP (propane) tank. Refill the fuel tank.
	burner extinguish while in operation.	В.	Inner vent pipe is leaking exhaust gases back into the system.	Check venting system for damage. Replace/repair improperly assembled pipe sections.
		C.	Glass is too loose and air tight packet leaks in corners after usage.	Replace glass panel assembly.
		D.	Bad thermopile or thermocouple.	Replace if necessary.
		E.	Improper vent cap installation.	Check for proper installation and freedom from debris or blockage.
6.	Glass soots.	Α.	Flame impingement.	Adjust the log set so that the flame does not excessively impinge on it.
		В.	Improper air shutter setting.	Adjust the air shutter located on the control panel.
		C.	Debris around air shutter.	Inspect the opening at the base of the burner. NO MATERIAL SHOULD BE PLACED IN THIS OPENING.
7.	Flame burns blue and lifts	Α.	Insufficient oxygen being	Ensure that the vent cap is installed properly and free of debris.
	off burner.		supplied.	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 appliance, particularly on top corners.

#### **B. Intellifire Ignition System**

	Symptom		Possible Causes	Corrective Actions
1.	The ignitor/module makes noise, but no spark.	A.	Incorrect wiring.	Verify "S" wire (white) for sensor and "I" wire (orange) for ignitor are connected to the correct terminals on the module and the pilot assembly. Reversed wires at the module may cause the system to make a sparking noise, but the spark may not be present at pilot hood.
		В.	Loose connections or electrical shorts in the wiring.	Verify there are no loose connections or electrical shorts in wiring from module to pilot assembly. The rod closest to the pilot hood should be ignitor. Verify connections underneath pilot assembly are tight; also verify the connections are not grounding out to the metal chassis, pilot burner, pilot enclosure, mesh screen if present, or any other metal object.
		C.	Ignitor gap is too large.	Verify gap of ignitor to pilot hood. The gap should be approximately .17 in. or 1/8 in.
		D.	Faulty module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. Hold ground wire about 3/16 in. away from "I" terminal on module. If there is no spark at "I" terminal, module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode.
2.	Pilots won't light, there is no noise or spark.	A.	Transformer installed incorrectly.	Verify that transformer is installed and plugged into module. Check voltage of transformer under load at space connection on module with ON/OFF switch in ON position. Acceptable readings of a good transformer are between 3.2 and 2.8 volts AC.
		В.	A shorted or loose connection in wiring configuration or wiring harness.	Remove and reinstall the wiring harness that plugs into module. Verify there is a tight fit. Verify pilot assembly wiring to module. Remove and verify continuity of each wire in wiring harness.
		C.	Improper wall switch wiring.	Verify wall switch is wired correctly.
		D.	Module not grounded.	Verify black ground wire from module wire harness is grounded to metal chassis of appliance.
		E.	Faulty module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. Hold ground wire about 3/16 in. away from "I" terminal on module. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode.
3.	Pilot lights but continues to spark, and main burner will not ignite. (If the pilot continues to spark after	Α.	A shorted or loose connection in sensor rod.	Verify all connections to wiring diagram in manual. Verify connections underneath pilot assembly are tight. Verify connections are not grounding out to metal chassis, pilot burner, pilot bracket/enclosure or screen if present, or any other metal object.
	the pilot flame has been lit, flame rectification has not occurred.)	В.	Poor flame rectification or contaminated sensor rod.	Verify flame is engulfing sensor rod. If the pilot assembly does not have a ground strap, consider installing one to increase flame rectification. Verify correct pilot orifice is installed and inlet gas specifications are met. Flame carries rectification current, not the gas. If flame lifts from pilot hood, the circuit is broken. A wrong orifice or too high an inlet pressure can cause pilot flame to lift. The sensor rod may be contaminated. Clean sensor rod with emery cloth.
		C.	Module is not grounded.	Verify that module is securely grounded to metal chassis of appliance. Verify that the wire harness is firmly connected to module.
		D.	Damaged pilot assembly or dirty sensor rod.	Verify that ceramic insulator around the sensor rod is not cracked, damaged, or loose. Verify connection from sensor rod to white sensor wire. Clean sensor rod with emery cloth to remove any contaminants that may have accumulated on sensor rod. Verify continuity with a multimeter with ohms set at lowest range.
		E.	Faulty module.	Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF rocker switch or wall switch in ON position. Hold ground wire about 3/16 in. away from "I" terminal on module. If there is no spark at "I" terminal, module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode.

	Symptom Possible Cause		Possible Causes	Corrective Actions
4.	Pilot sparks, but pilot will not light.	Α.	Correct gas supply.	Verify that incoming gas line ball valve is "open". Verify that inlet pressure reading is within acceptable limits, inlet pressure must not exceed 14 in. w.c.
		В.	Ignitor gap is too large.	Verify that spark gap from ignitor to pilot hood is .17 in. or 1/8 in.
		C.	Module is not grounded.	Verify module is securely grounded to metal chassis of appliance.
		D.	Module voltage output/ valve/pilot solenoid ohms readings.	Replace module.

#### Maintaining and Servicing the Appliance

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

#### A WARNING

#### Risk of injury or property damage

#### Before servicing:

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

#### After Servicing:

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



#### 

Annual inspection by qualified technician recommended.

#### Check:

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

#### Clean:

- Glass.
- Air passageways, grilles, control compartment.
- Burner, burner ports.
- Risk of:
- Fire
- Delayed ignition or explosion
- Exposure to combustion fumes
- Odors

#### CAUTION

Handle glass assembly with care.

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

#### When cleaning glass door:

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

Refer to maintenance instructions.



#### 

Fire Risk Explosion Risk

Inspect external vent cap regularly.

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

#### Maintenance and Service Tasks:

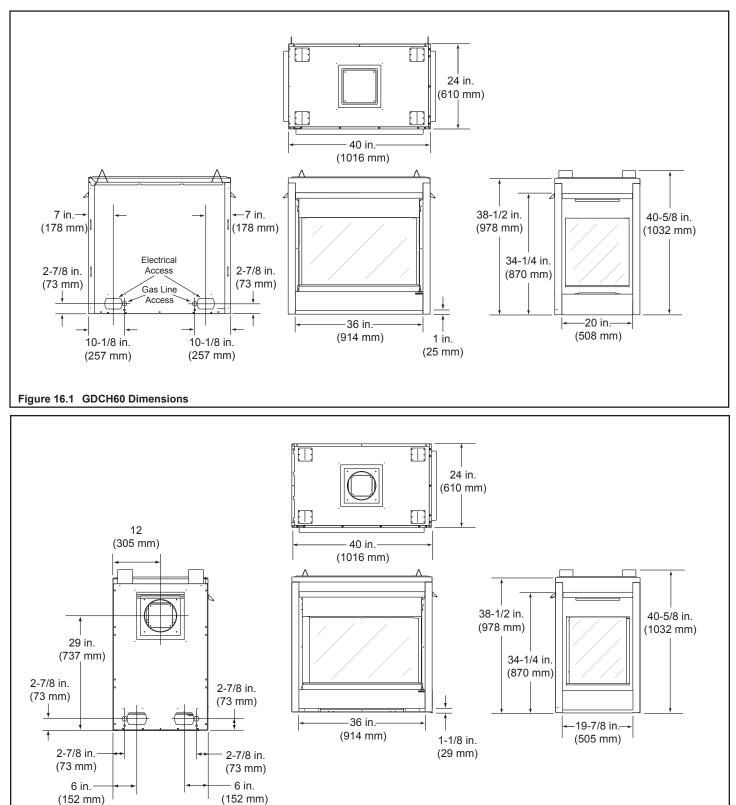
Inspect	Maintenance Tasks
Doors, surrounds and fronts	1. Access condition of screen and replace as necessary. Recommend addition of screen if one is not present.
	2. Inspect for scratches, dents or other damage and repair as necessary.
	3. Verify no obstructions to airflow through the louvers.
	4. Verify proper clearance to combustible household objects is maintained.
Gasket seal, glass assembly and glass	1. Inspect gasket seal and its condition.
	2. Inspect glass panels for scratches and nicks that can lead to breakage when exposed to he
	3. Confirm there is no damage to glass or glass frame. Replace as necessary.
	<ol> <li>Verify that latches engage properly, clip studs are not stripped, and glass attachment components are intact and operating properly. Replace as necessary.</li> </ol>
	<ol> <li>Clean glass using a nonabrasive cleaner such as Brasso®. Replace glass assembly if severely coated with silicate deposits that cannot be removed.</li> </ol>
Valve compartment and firebox top	<ol> <li>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.</li> </ol>
	2. Remove any foreign objects.
	3. Verify unobstructed air circulation.
Logs	1. Inspect for broken, damaged, or missing logs. Replace as necessary.
	<ol> <li>Verify correct log placement and no flame impingement causing sooting. Correct as necessary.</li> </ol>
Firebox	1. Inspect for paint condition, warpage, corrosion or perforation. Sand and repaint as necessar
	2. Replace appliance if firebox has been perforated.
Burner ignition and operation	1. Verify burner is properly secured and aligned with pilot or ignitor.
	<ol> <li>Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.</li> </ol>
	<ol> <li>Replace rockwool with new dime-sized and shaped pieces. Do not block ports or obstruct lighting paths.</li> </ol>
	4. Check for smooth lighting and ignition carryover to all ports. Verify there is no ignition delay.
	5. Inspect for lifting or other flame problems.
	6. Verify air shutter is clear of dust and debris.
	7. Inspect orifice for soot, dirt or corrosion.
	8. Verify manifold and inlet pressures. Adjust regulator as required.
	9. Inspect pilot flame strength. Clean or replace orifice as necessary.
	10. Inspect thermocouple/thermopile or IPI sensor rod for soot, corrosion and deterioration. Clear with emery cloth or replace as required.
	11. Verify millivolt output. Replace as necessary.
Venting	1. Inspect venting for blockage or obstruction such as birds' nests, leaves, etc.
	2. Confirm that termination cap remains clear and unobstructed by plants, etc.
	3. Verify that termination cap clearance to subsequent construction (building additions, decks, fences or sheds) has been maintained.
	4. Inspect for corrosion or separation.
	5. Verify weather stripping sealing and flashing remain intact.
	6. Inspect draft shield to verify it is not bent, damaged or missing.
Remote controls	1. Verify operation of remote.
	2. Replace batteries in remote transmitters and battery-powered receivers.
	<ol> <li>Verify batteries have been removed from battery back-up in IPI systems to prevent prematu battery failure or leaking.</li> </ol>

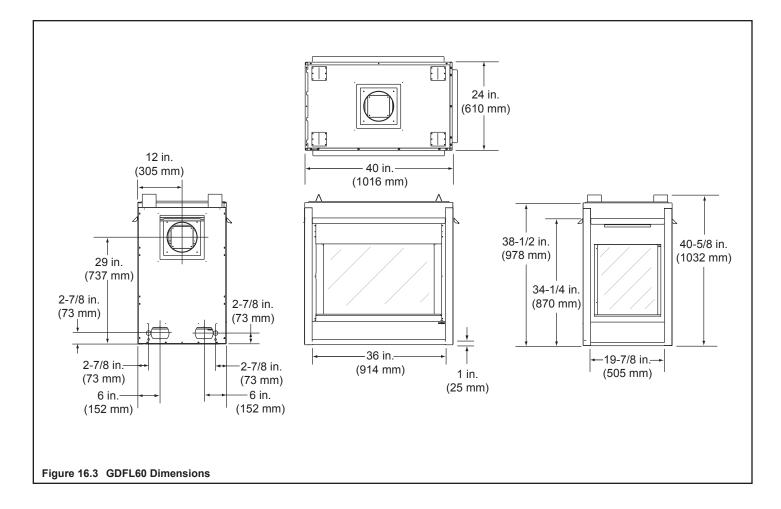
## **16** Reference Materials

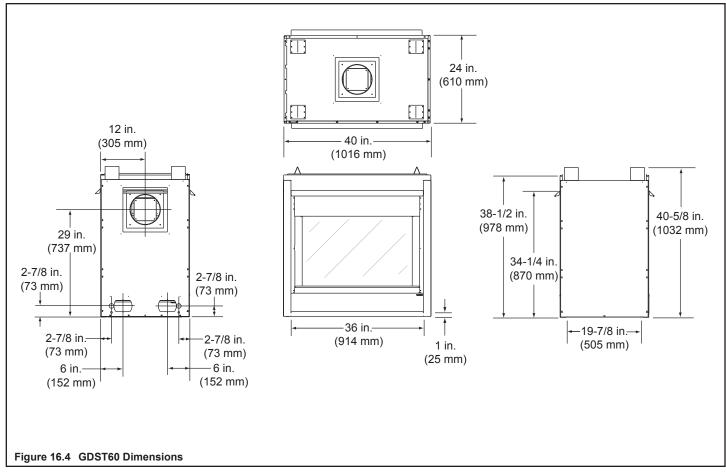
#### A. Appliance Dimension Diagram

Figure 16.2 GDCL/CR60 Dimensions

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

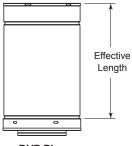






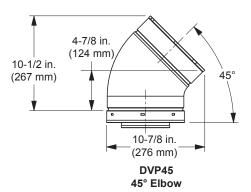
#### **B. Vent Components Diagrams**

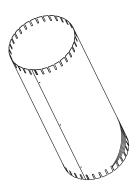
Components	Description
DVP4	4 in. length Vent Pipe
DVP6	6 in. length Vent Pipe
DVP12	12 in. length Vent Pipe
DVP24	24 in. length Vent Pipe
DVP6A	3 in 6 in. Slip Section Vent Pipe (to be used with another piece of pipe)
DVP36	36 in. length Vent Pipe
DVP48	48 in. length Vent Pipe
DVP12A	3 in 12 in. Slip Section Vent Pipe (to be used with another piece of pipe)
DVP12MI	12 in. Vent Pipe - non-unitized (can be cut to length)
DVP24MI	24 in. Vent Pipe - non-unitized (can be cut to length)
DVP45	45° Elbow
DVP90ST	90° Elbow
DVP-AS2	Attic Insulation Shield
DVP-FS	Ceiling Firestop
DVP-HVS	Vent Support - Horizontal
DVP-WS	Wall shield firestop (used to ensure horizontal clearances)
RF6M	Roof Flashing (vertical termination for 0/12 to 6/12 pitch) - pack of four
RF12M	Steep Pitch Roof Flashing (for 7/12 to 12/12 pitch) - pack of six
BEK	Brick Extension Kit - 10 pcs.
DVP-BEK2	Brick Extension Kit for High Performance Cap
DVP-TRAPFL	Trap Cap Rain Flashing - qty. 4
COOL-ADDM	Cap Shield (for DVP-TRP) - pack of six
DRC-RADIUS	Cap Shield (for DVP-TRAP and DVP-HPC)
DVP-TVHW	Vertical Termination Cap (High Wind). Includes storm collar and fastener pack.
PVK-80	Power Vent Kit
DVP-TV	Vertical Termination Cap - Includes storm collar & fastener pack.
DVP-TB1	Basement/window well termination cap. Includes fastener pack.
DVP-FBHT	Fire Brick Termination Cap
DVP-TRAP	Rear Vent Horizontal Termination Cap
DVP-TRAP1	Horizontal Termination Cap with 1-7/8 in. telescoping flue, wall shield firestop with heat shield & fastener. pack.
DVP-TRAPK1	Top Vent Horizontal Kit with DVP-TRAP1 Termination Cap, wall shield firestop with heat shield, 90° elbow & fastener pack.
DVP-TRAP2	Horizontal Termination Cap with 4 in. telescoping flue, wall shield firestop with heat shield & fastener pack.
DVP-TRAPK2	Top Vent Horizontal Kit with DVP-TRAP2 Termination Cap, wall shield firestop with heat shield, 90° elbow & fastener pack.
DVP-HPC1	Horizontal Termination Cap with 2-1/8 in. telescoping flue, wall shield firestop with heat shield & fastener pack.
DVP-HPC2	Horizontal Termination Cap with 4-1/8 in. telescoping flue, wall shield firestop with heat shield & fastener pack.
DVP-HSM-B	Extended Heat Shield
DVP-HRC-SS	High Rise Termination Cap - Unpainted Stainless Steel (not approved for all units)
DVP-HRC-ZC-SS	High Rise Termination Cap - Zero Clearance - Unpainted Stainless Steel (not approved for all units)
4033-016	DVP-TRAP to DVP-HPC Side Filler Kit



**DVP Pipe** (see chart)

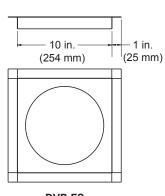
Pipe	Effective Length
DVP4	4 in. (102 mm)
DVP6	6 in. (152 mm)
DVP12	12 in. (305 mm)
DVP24	24 in. (610 mm)
DVP36	36 in. (914 mm)
DVP48	48 in. (1219 mm)
DVP6A	3 to 6 in. (76 to 152 mm)
DVP12A	3 to 12 in. (76 to 305 mm)
DVP12MI	3 to 12 in. (76 to 305 mm)
DVP24MI	3 to 24 in. (76 to 610 mm)



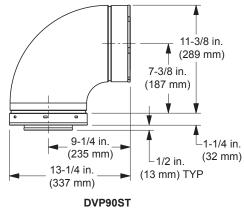


Assembled Height: 24 in./610 mm Diameter: 10 in./254 mm



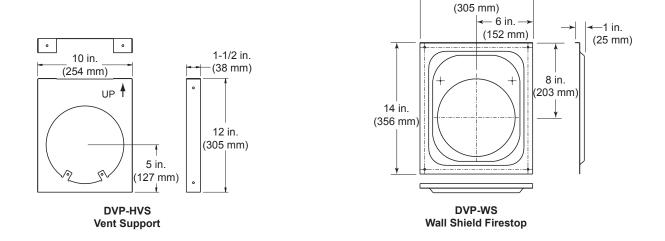


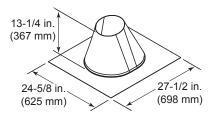
DVP-FS Ceiling Firestop



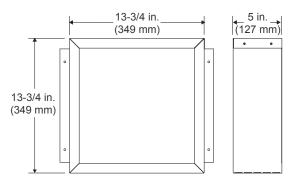
90° Elbow

- 12 in. -

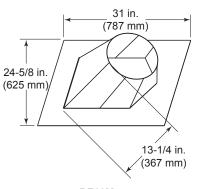




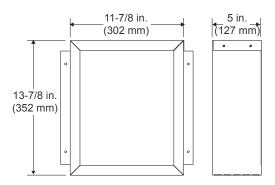
RF6M Roof Flashing Multi-pak



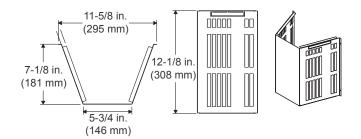
BEK Trap Cap Brick Extension



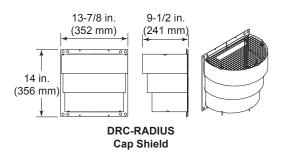
RF12M Roof Flashing Multi-pak

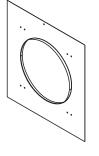


DVP-BEK2 DVP-HPC Cap Brick Extension

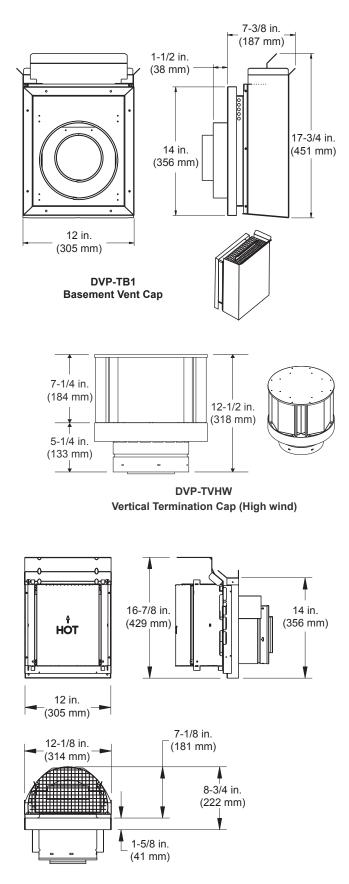


COOL-ADD Cap Shield

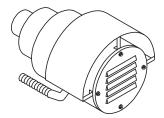




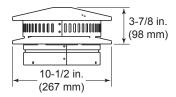
DVP-TRAPFL Flashing



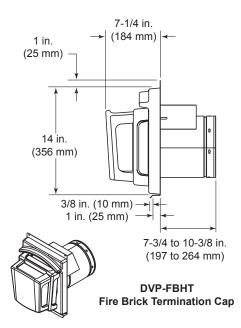
DVP-HPC High Performance Cap



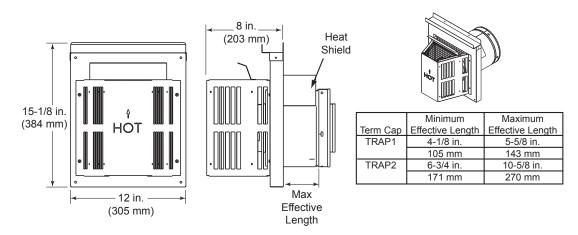
PVK-80 (For use with IPI and DSI appliances only.)



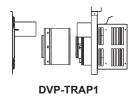
DVP-TV Vertical Termination Cap

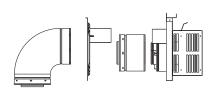


Note: Heat shields MUST overlap by a minimum of 1-1/2 in. (38 mm). **The heat shield is designed to be used on a wall 4 in. to 7-1/4 in. (102 mm to 184 mm) thick.** If wall thickness is less than 4 in. (102 mm) the existing heat shields must be field trimmed. If wall thickness is greater than 7-1/4 in. (184 mm) a DVP-HSM-B will be required.

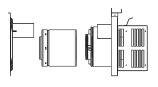


DVP-TRAP Horizontal Termination Cap

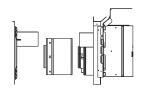




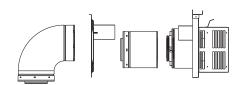
**DVP-TRAPK1** 



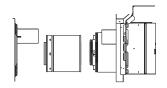
DVP-TRAP2



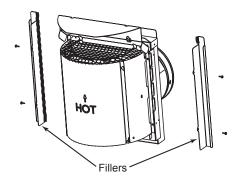
**DVP-HPC1** 



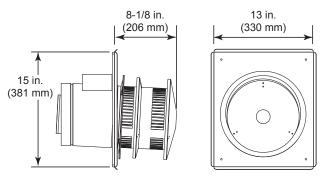
DVP-TRAPK2



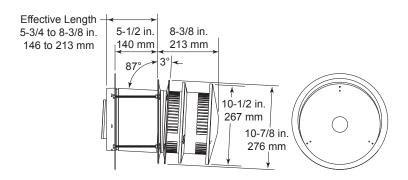
DVP-HPC2



**DVP-TRAP to DVP-HPC Side Filler Kit** 



**DVP-HRC-SS** 



DVP-HRC-ZC-SS

#### **D. Optional Components**

GDCH60	Optional Accessories (shipped separately)
RCTS-MLT-HTL	Remote Control Kit (SIT Valve only)
RCT-MLT-HTL	Remote Control Kit (Robertshaw Valve only)
RC-BATT-HTL	Battery operated remote control
RC-SMART-HTL	Remote control (requires 110v or prewiring)
SMART-STAT-HTL	Multi-functional remote: On/Off, room temp., thermostat temp., timer
SMART-BATT-HTL	Multi-functional remote: On/Off, thermostat temp., timer
WSK-MLT-HTL	Multi-Function Wall Switch (Robertshaw only)
SCKVP-B	L.P. gas conversion kit for standing pilot ignition system (SIT Valve only)
SCKVN-B	Natural gas conversion kit for standing pilot ignition system (SIT Valve only)
DCKVP	L.P. gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
DCKVN	Natural gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
LK75	Electric ember bed
TKD5B	Polished brass fireplace accent trim kit for both sides (8 pieces)
TKD5S	Stainless steel fireplace accent trim kit for both sides (8 pieces)
GK3	Lower grille panel
DF370B	Fixed bi-fold polished brass glass doors
DF370S	Fixed bi-fold stainless steel glass doors
DF318B	Original style polished brass fixed end panel
DF318S	Original style stainless steel fixed end panel

GDFL60	Optional Accessories (shipped separately)
RCTS-MLT-HTL	Remote Control Kit (SIT Valve only)
RCT-MLT-HTL	Remote Control Kit (Robertshaw Valve only)
RC-SMART-HTL	Remote control (requires 110v or prewiring)
RC-BATT-HTL	Battery operated remote control
SMART-STAT-HTL	Multi-functional remote: On/Off, room temp., thermostat temp., timer
SMART-BATT-HTL	Multi-functional remote: On/Off, thermostat temp., timer
WSK-MLT-HTL	Multi-Function Wall Switch (Robertshaw only)
SCKVP-B	L.P. gas conversion kit for standing pilot ignition system (SIT Valve only)
SCKVN-B	Natural gas conversion kit for standing pilot ignition system (SIT Valve only)
DCKVP	L.P. gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
DCKVN	Natural gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
LK75	Electric ember bed
TKD5B	Polished brass fireplace accent trim kit for both sides (8 pieces)
TKD5S	Stainless steel fireplace accent trim kit for both sides (8 pieces)
GK3	Lower grille panel
DF370B	Fixed bi-fold polished brass glass doors
DF370S	Fixed bi-fold stainless steel glass doors
DF318B	Original style polished brass fixed end panel
DF318S	Original style stainless steel fixed end panel

GDCL/CR60	Optional Accessories (shipped separately)
RCTS-MLT-HTL	Remote Control Kit (SIT Valve only)
RCT-MLT-HTL	Remote Control Kit (Robertshaw Valve only)
RC-BATT-HTL	Battery operated remote control
RC-SMART-HTL	Remote control (requires 110v or prewiring)
SMART-STAT-HTL	Multi-functional remote: On/Off, room temp., thermostat temp., timer
SMART-BATT-HTL	Multi-functional remote: On/Off, thermostat temp., timer
WSK-MLT-HTL	Multi-Function Wall Switch (Robertshaw only)
SCKVP-B	L.P. gas conversion kit for standing pilot ignition system (SIT Valve only)
SCKVN-B	Natural gas conversion kit for standing pilot ignition system (SIT Valve only)
DCKVP	L.P. gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
DCKVN	Natural gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
LK75	Electric ember bed
TKD5B	Polished brass fireplace accent trim kit for both sides (8 pieces)
TKD5S	Stainless steel fireplace accent trim kit for both sides (8 pieces)
GK3	Lower grille panel
DF370B	Fixed bi-fold polished brass glass doors
DF370S	Fixed bi-fold stainless steel glass doors

GDST60	Optional Accessories (shipped separately)
RCTS-MLT-HTL	Remote Control Kit (SIT Valve only)
RCT-MLT-HTL	Remote Control Kit (Robertshaw Valve only)
RC-BATT-HTL	Battery operated remote control
RC-SMART-HTL	Remote control (requires 110v or prewiring)
SMART-STAT-HTL	Multi-functional remote: On/Off, room temp., thermostat temp., timer
SMART-BATT-HTL	Multi-functional remote: On/Off, thermostat temp., timer
WSK-MLT-HTL	Multi-Function Wall Switch (Robertshaw only)
SCKVP-B	L.P. gas conversion kit for standing pilot ignition system (SIT Valve only)
SCKVN-B	Natural gas conversion kit for standing pilot ignition system (SIT Valve only)
DCKVP	L.P. gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
DCKVN	Natural gas conversion kit for Intellifire ignition system (Robertshaw Valve only)
LK75	Electric ember bed
TKD5B	Polished brass fireplace accent trim kit for both sides (8 pieces)
TKD5S	Stainless steel fireplace accent trim kit for both sides (8 pieces)
GK3	Lower grille panel
DF370B	Fixed bi-fold polished brass glass doors
DF370S	Fixed bi-fold stainless steel glass doors



## Gas Appliance (Fireplace) Limited Lifetime Warranty

**HEARTH & HOME TECHNOLOGIES INC. ("HHT")** extends the following warranty for HEATILATOR® gas appliances installed in the United States of America or Canada (the "Appliance"). Dealers and employees of HHT have no authority to make any warranty or authorize any remedies in addition to or inconsistent with the terms of this warranty.

#### **Limited Lifetime Warranty**

HHT warrants the Appliance for component failure due to a manufacturing defect of any of the following components: combustion chamber, burner pan, and logs. The Limited Lifetime Warranty specified above is subject to the conditions, exclusions and limitations listed below, is for the period the Appliance is owned by the original homeowner only, and is nontransferable.

#### **1 Year Limited Warranty**

HHT warrants the Appliance to be free from failure of any of the following components for a period of one year after installation: valve, flexible gas line connector, glass panel, fan, direct vent chimney components, factory paint, gasket, piezo ignitor, thermopile, thermocouple, junction box, pilot assembly, shutoff valve, high limit switch, refractory liners, transformer, and control box. If the Heatilator Appliance is found to be defective in either material or workmanship within one year of the date of original installation, HHT will provide replacement parts at no charge and pay reasonable labor and freight costs, and is for the period of one year following the date of original installation of the Appliance.

#### Conditions, Exclusions, & Limitations of Liability

- A. Both the Limited Lifetime and 1 Year Limited Warranties supplied by HHT apply only while the Appliance is in its location of original installation. HHT's obligation under this warranty does not extend to damages resulting from (1) installation, operation or maintenance of the Appliance not in accordance with the Installation Instructions, Operating Instructions, and the Listing Agent Identification Label furnished with the Appliance; (2) installation which does not comply with local building codes; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure, air handling devices such as exhaust fans or forced air furnaces, or other causes; (5) use of fuels other than those specified in the Operating Instructions; (6) installation or use of components not supplied with the Appliance or any other components not expressly authorized and approved by HHT; and/or (7) modification of the Appliance not expressly authorized and approved by HHT.
- B. HHT's liability under both the Limited Lifetime Warranty and the 1 Year Limited Warranty is limited to the replacement and repair of defective components or workmanship during the applicable period. HHT may fully discharge all of its obligations under such warranties by repairing the defective component(s) or at HHT's discretion, providing replacement parts at no charge and paying reasonable labor and freight costs.
- C. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE WARRANTY SPECIFIED ABOVE.
- D. Some states do not allow exclusions or limitations of incidental or consequential damages, so those limitations may not apply to you. This warranty gives you specific rights; you may also have other rights which vary from state to state.

#### How to Obtain Service

To obtain service under this warranty you must:

- 1. Send written notice of the claimed condition to Heatilator Technical Service Department, Hearth & Home Technologies, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641-1563. You may also register your claim online at www.heatilator.com.
- 2. Provide proof of purchase, model number, serial number, and manufacturing date code to HHT.
- 3. Provide HHT reasonable opportunity to investigate the claim, including reasonable opportunity to inspect the Appliance prior to any repair or replacement work and before the Appliance or any component of the Appliance has been removed from the place of original installation.
- 4. Obtain HHT's consent to any warranty work before the work is done.

#### ADDITIONAL INFORMATION:

If you would like information on current HEATILATOR products or want to locate a dealer in your area, call 1-800-927-6841. ©2003 Heatilator® is a Registered Trademark of Hearth & Home Technologies Inc.

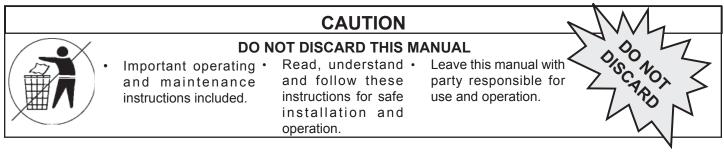


Hearth & Home Technologies Inc. 1915 W. Saunders Street Mt. Pleasant, Iowa 52641 www.heatilator.com

Please contact your Heatilator dealer with any questions or concerns.

For the number of your nearest Heatilator dealer, please visit www.heatilator.com.

- NOTES -



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