

Models:
 CNXT70IT CNXT70IH
 CNXT70ILT CNXT70ILH
 CNXT90IT CNXT90IH
 CNXT90ILT CNXT90ILH
 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.

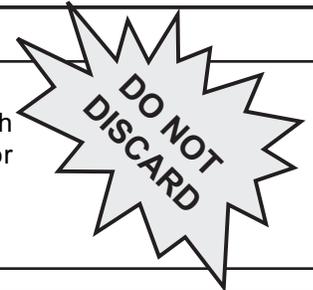


CAUTION



DO NOT DISCARD THIS MANUAL

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



⚠ 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.

⚠ WARNING



HOT! DO NOT TOUCH. SEVERE BURNS MAY RESULT. CLOTHING IGNITION MAY RESULT.

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

- Keep children away.
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures.
- Do NOT operate with protective barriers removed or door open.
- 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.

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 Manufactured Home Installations, ANSI A225.1.**

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



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



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

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	<i>We recommend that you record the following pertinent information about your appliance:</i>
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.

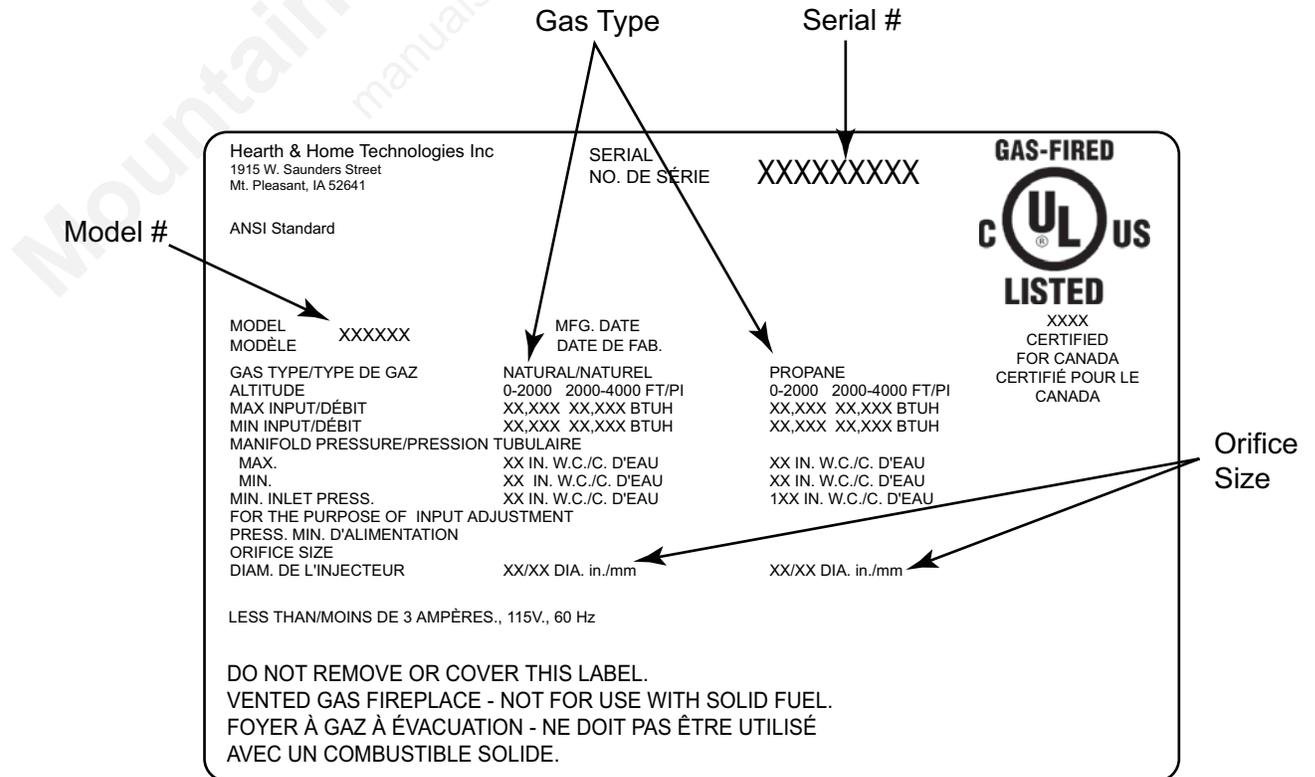


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Note: An arrow (➡) found in the text signifies change in content.

1 Listing and Code Approvals

A. Appliance Certification

MODELS: CNTX70IT/ILT/IH/ILH
CNXT90IT/ILT/IH/ILH
LABORATORY: Underwriters Laboratories, Inc. (UL)
TYPE: Direct Vent Gas Appliance
STANDARD: ANSI Z21.88-2000•CSA2.33-2000•IR41, P4
and IR56

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.

C. BTU Specifications

Caliber NXT	70	90
Input Rate (NG)	40,000 BTU/hr.	45,000 BTU/hr.
Input Rate (LP)	37,500 BTU/hr.	40,000 BTU/hr.
Orifice Size (NG) Front	.059 in./1.49 mm	.067 in./1.70 mm
Orifice Size (NG) Back	.110 in./2.79 mm	.110 in./2.79 mm
Orifice Size (LP) Front	.035 in./.89 mm	.035 in./.89 mm
Orifice Size (LP) Back	.063 in./1.60 mm	.067 in./1.70 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.

WARNING

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

E. Non-Combustible Materials

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.

2 Getting Started

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 check 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



WARNING

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



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

Report damaged parts to dealer.

- Carefully remove the appliance and components from the packaging.
- 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.**



WARNING

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

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

Any such action may cause a fire hazard.

3 Framing and Clearances

Note:

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

⚠ WARNING

Fire Risk

Provide adequate clearance:

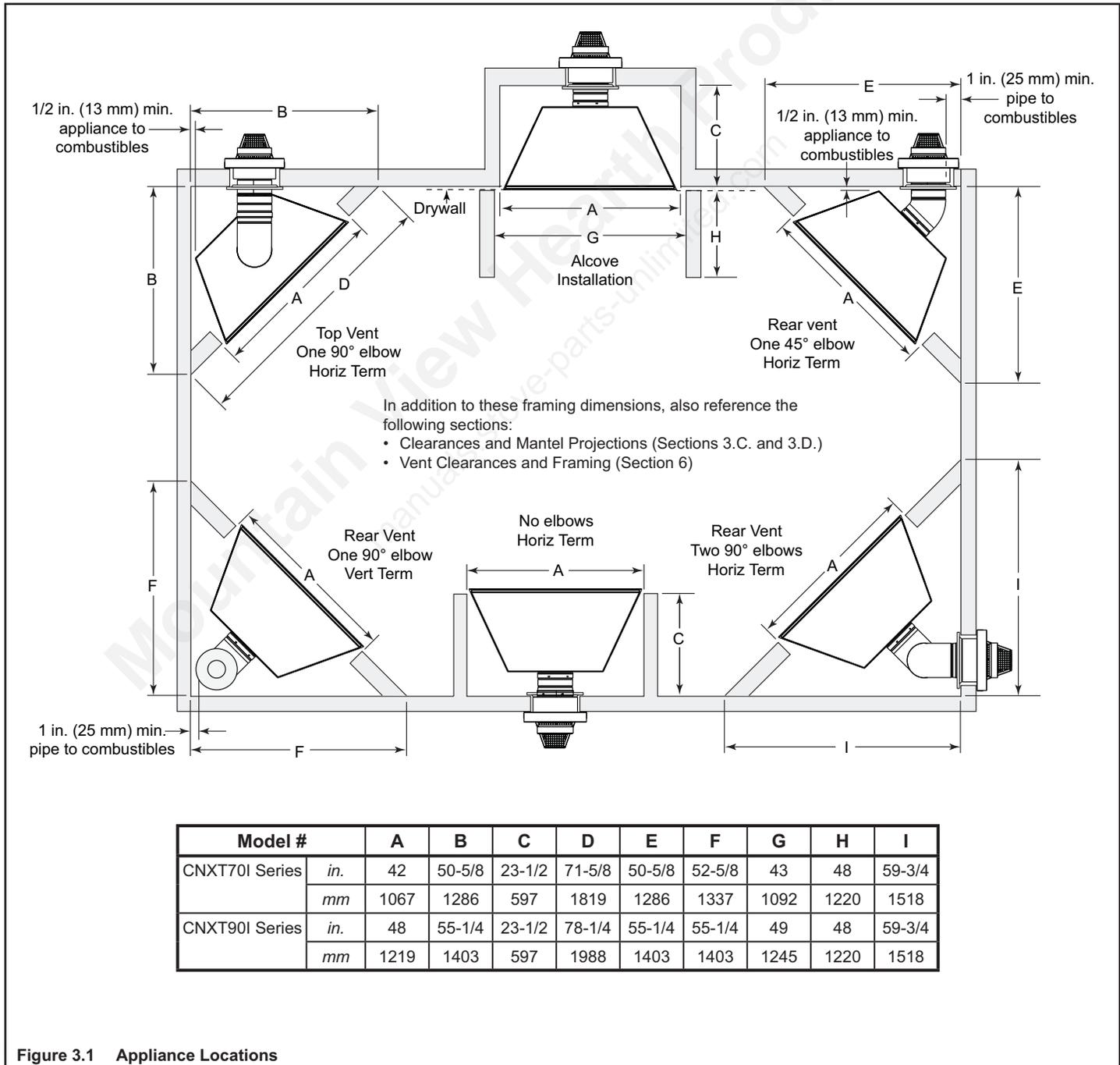
- Around air openings.
- For service access.

Locate appliance away from traffic areas.

Note: For actual appliance dimensions refer to Section 16.

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).



Model #		A	B	C	D	E	F	G	H	I
CNXT70I Series	in.	42	50-5/8	23-1/2	71-5/8	50-5/8	52-5/8	43	48	59-3/4
	mm	1067	1286	597	1819	1286	1337	1092	1220	1518
CNXT90I Series	in.	48	55-1/4	23-1/2	78-1/4	55-1/4	55-1/4	49	48	59-3/4
	mm	1219	1403	597	1988	1403	1403	1245	1220	1518

➔ **Figure 3.1 Appliance Locations**

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, Hearth & Home Technologies recommends that the inside surfaces be sheetrocked and taped for maximum airtightness.

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 temp caulk or stuffed with unfaced insulation. If the appliance is being installed on a cement slab, we recommend that a layer of plywood be placed underneath to prevent conducting cold up into the room.

WARNING

Fire Risk
Odor Risk

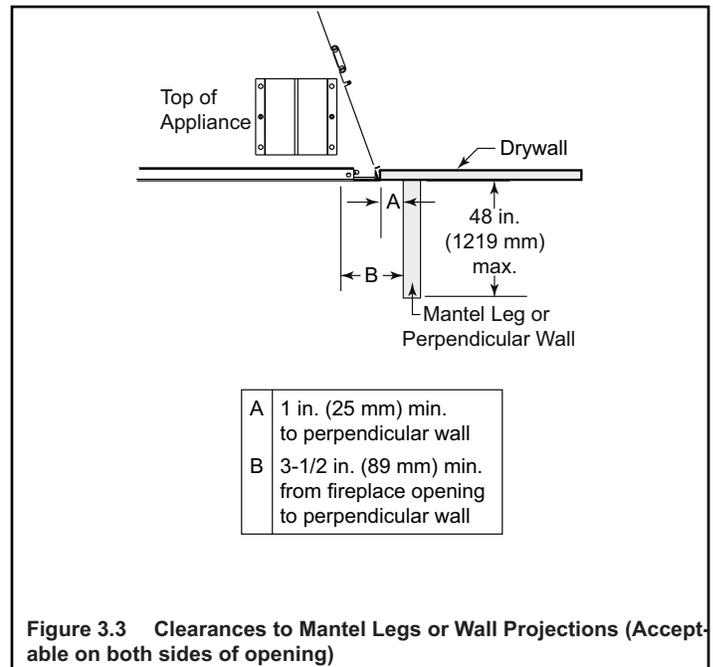
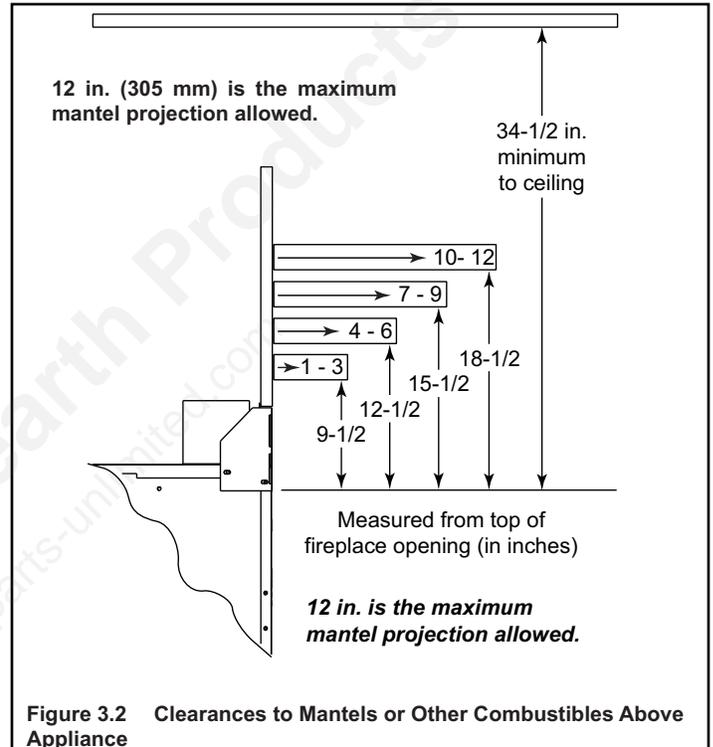
- Install appliance on hard metal or wood surfaces extending full width and depth of appliance.
- Do NOT install appliance directly on carpeting, vinyl, tile or any combustible material other than wood.

WARNING

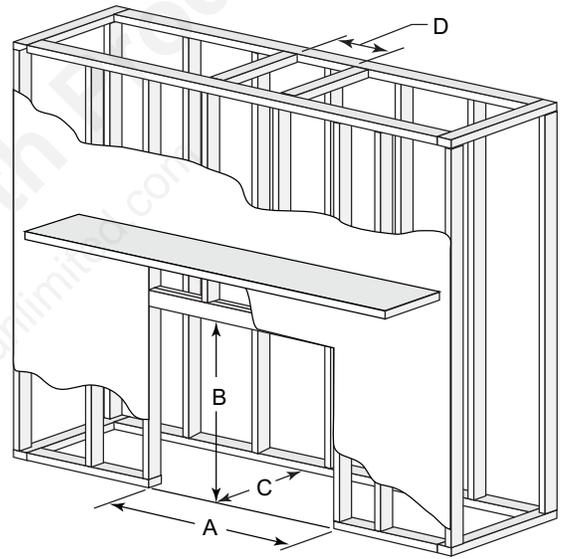
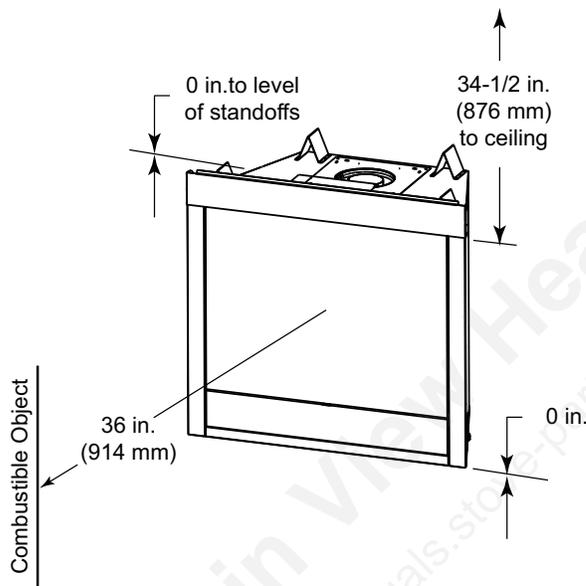
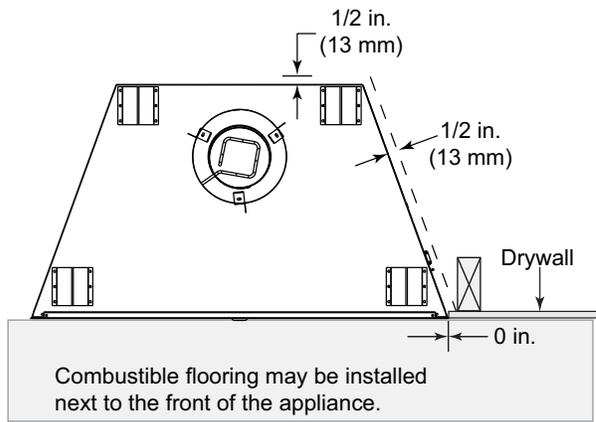
Fire Risk

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

C. Mantel Projections



D. Clearances



Model		A Rough Opening (Width)	B Rough Opening (Height)	C Rough Opening (Depth)	D Rough Opening (DVP Pipe)
CNXT70I Series	<i>in.</i>	42	38-3/4	23-1/2	10
	<i>mm</i>	1067	984	597	254
CNXT90I Series	<i>in.</i>	48	38-3/4	23-1/2	10
	<i>mm</i>	1219	984	597	254

➔ Figure 3.4 Clearances to Combustibles

4 Termination Locations

A. Vent Termination Minimum Clearances

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.

Measure vertical clearances from this surface

Measure horizontal clearances from this surface.

(see Figure 4.4 for specific clearances)

Figure 4.1 Clearances from Cap Surfaces

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

* 3 ft. minimum in snow regions

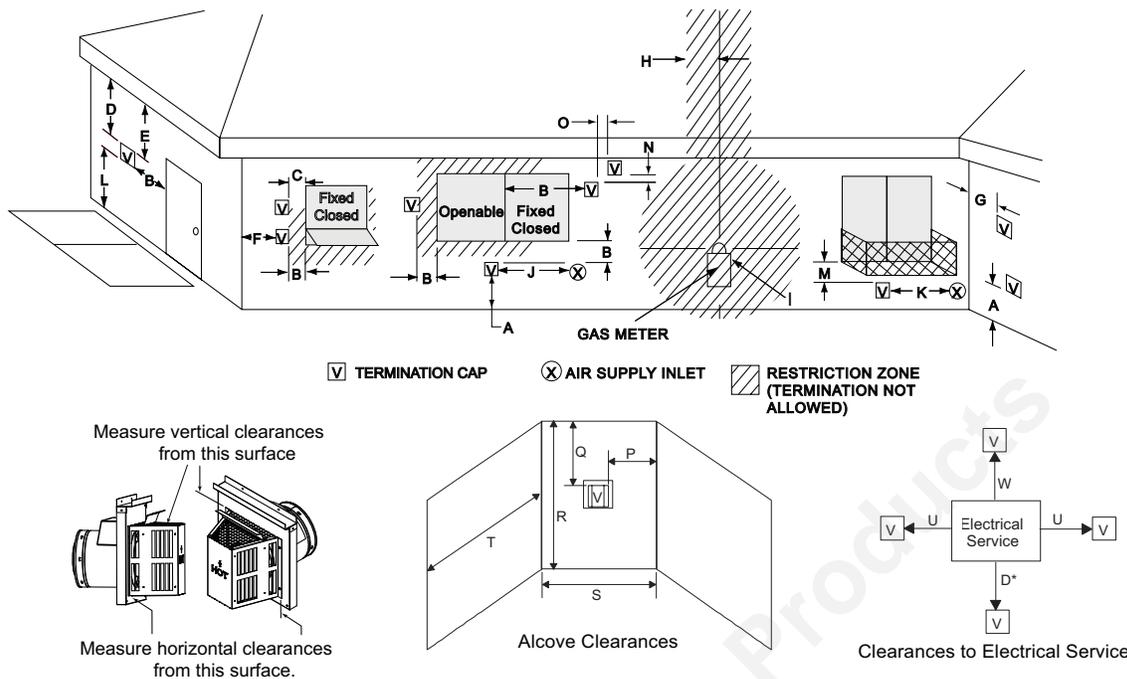
Figure 4.2 Minimum Height from Roof to Lowest Discharge Opening

Figure 4.2 specifies minimum vent heights for various pitched roofs.

Gas, Wood or Fuel Oil Termination

	Gas Termination	Wood & Fuel Oil Termination
A	6 in. (152 mm)	20 in. (508 mm)

Figure 4.3 Multiple Vertical Termination



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 6 ft (1.8 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_{min}	T_{max}
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
$S_{min} = \# \text{ term caps} \times 3$		$T_{max} = (2/\# \text{ term caps}) \times S \text{ (actual)}$

- 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

CAUTION: IF EXTERIOR WALLS ARE FINISHED WITH VINYL SIDING, IT IS SUGGESTED THAT A VINYL PROTECTOR KIT BE INSTALLED.

5 Vent Information and Diagrams

A. Vent Table Key

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

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

WARNING

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° elbows may be used in place of one 90° elbow. On 45° 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° elbows (see Figure 5.1).

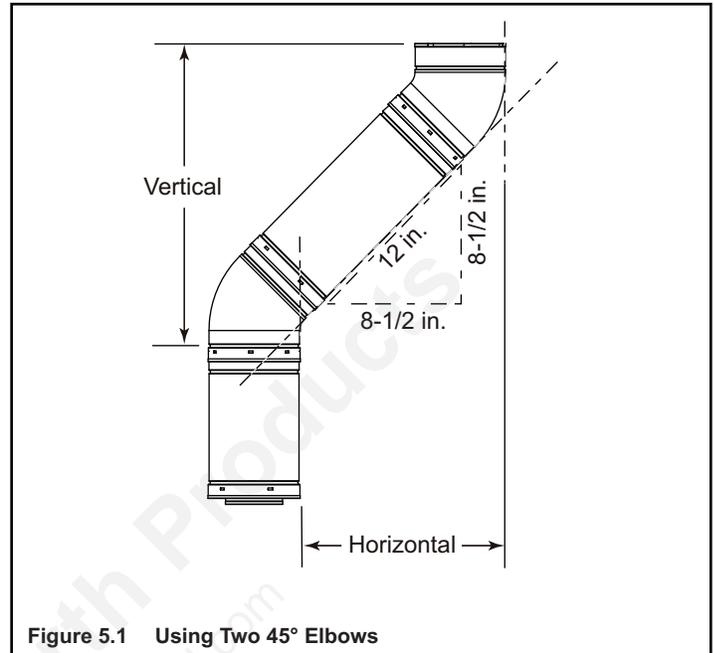


Figure 5.1 Using Two 45° Elbows

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 termination cap) (see Figure 4.1).
- Vertical terminations are measured to top of last pipe before termination cap.
- Horizontal pipe installed level with no rise.

Pipe	Effective Length in inches
DVP4	4
DVP6	6
DVP12	12
DVP24	24
DVP36	36
DVP48	48
DVP6A	3 to 6
DVP12A	3 to 12
DVP12MI	3 to 12
DVP24MI	3 to 24

DVP Pipe
(see chart)

Figure 5.2 DVP Pipe Effective Length

D. Vent Diagrams

⚠ WARNING	
	Fire Risk
	Explosion Risk
Do NOT pack insulation or other combustibles between firestops.	
<ul style="list-style-type: none"> • ALWAYS maintain specified clearances around venting and firestop systems. • Install firestops as specified. 	
Failure to keep insulation or other material away from vent pipe may cause fire.	

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 (457 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.

Top Vent—Horizontal Termination—One Elbow

Table 5.1

V_1 min.	V_1 max.	H_1 max.
0*	-	24 in./610mm
6 in./152 mm	-	6 ft/1.83 m
12 in./305 mm	-	11 ft/3.35 m
18 in./457 mm	-	18 ft/5.49 m
24 in./610 mm	-	25 ft/7.62 m
-	25 ft/7.62 m	25 ft/7.62 m
* You may install the elbow directly on top of the appliance		

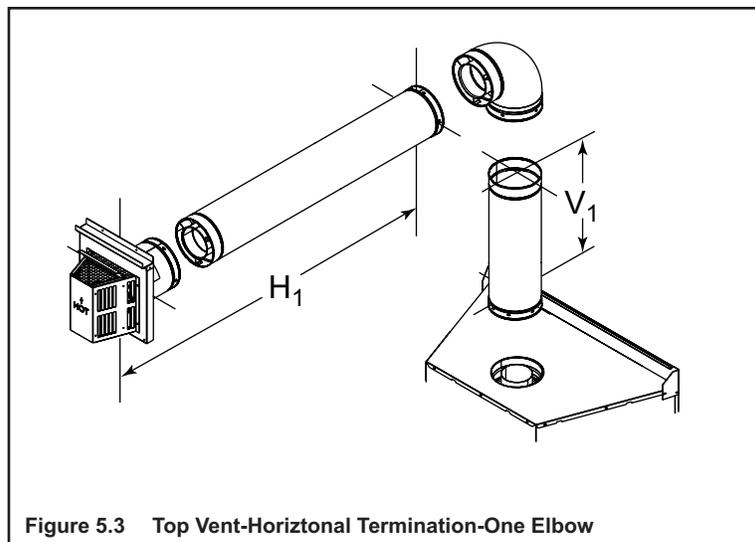
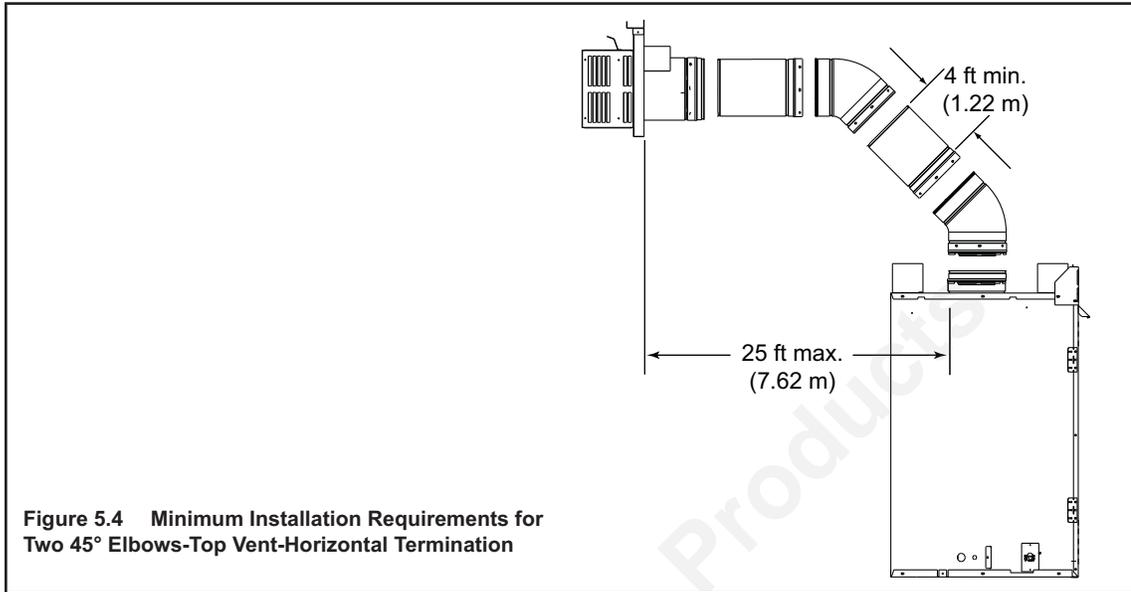


Figure 5.3 Top Vent-Horizontal Termination-One Elbow

Top Vent—Horizontal Termination—Two 45° Elbows

Installation requirements to replace the first 90° elbow with two 45° elbows:

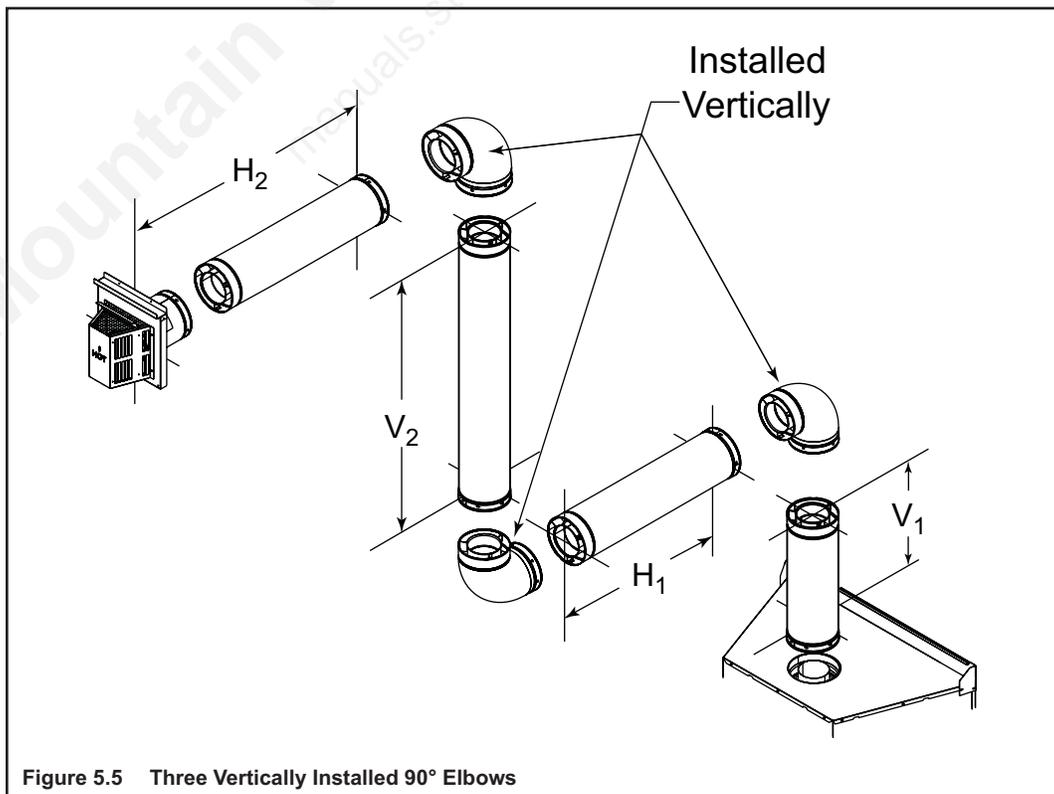


Top Vent—Horizontal Termination—Three Vertical Elbows

See Figure 5.6 for information about installing elbows horizontally.

Table 5.2

V_1 min.	V_1+V_2 max.	H_1+H_2 max.
12 in./305 mm	24 ft/7.32 m	19 ft/5.79 m



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 (457 mm) from the total horizontal measurement for each 45° elbow installed horizontally.

Table 5.3

V ₁ min.	V ₁ max.	H ₁ +H ₂ max.	H ₁ +H ₂ +H ₃ max.
6 in./152 mm	x	6 ft/1.83 m	x
12 in./305 mm	x	11 ft/3.35 m	11 ft/3.35 m
18 in./457 mm	x	18 ft/5.49 m	18 ft/5.49 m
24 in./610 mm	x	25 ft/7.62 m	25 ft/7.62 m
x	25 ft/7.62 m	25 ft/7.62 m	25 ft/7.62 m

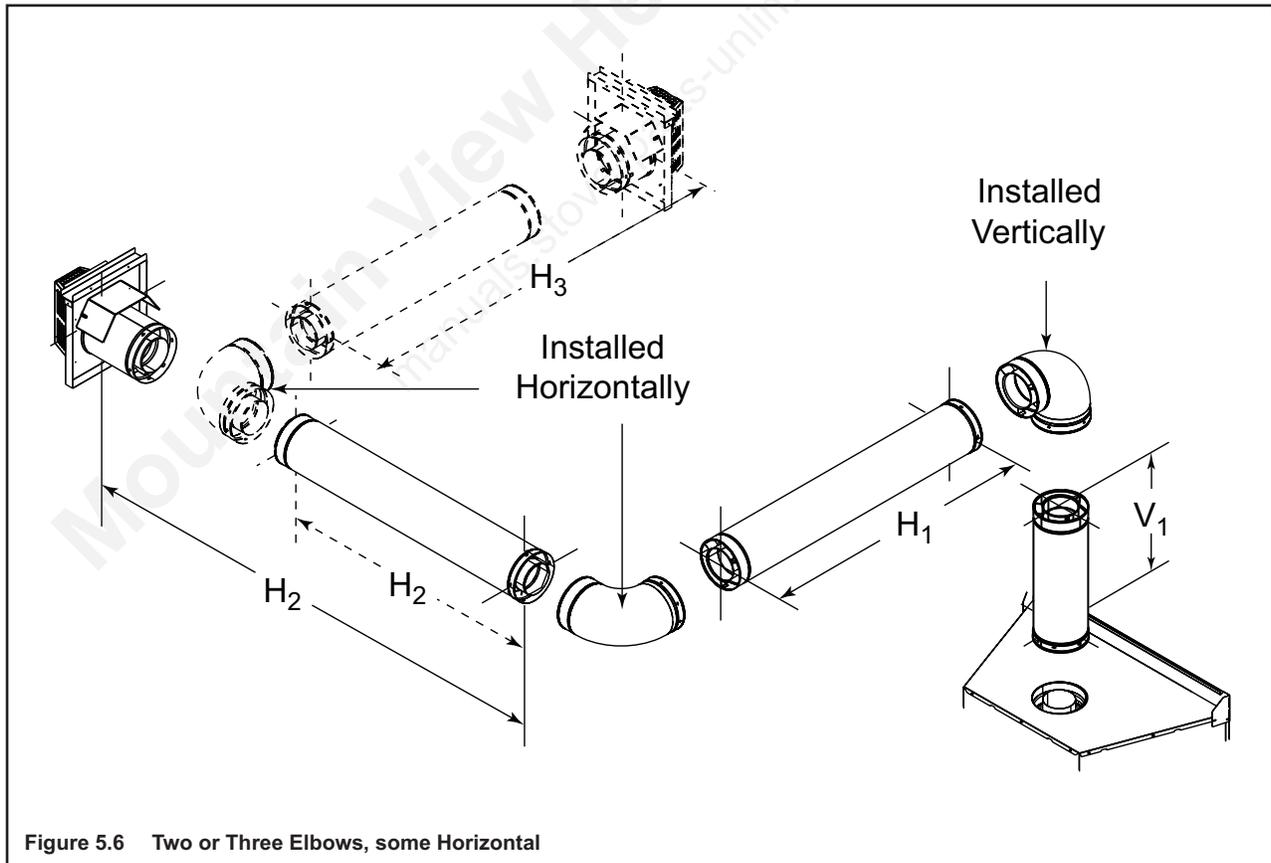


Figure 5.6 Two or Three Elbows, some Horizontal

Top Vent—Vertical Termination—No Elbows

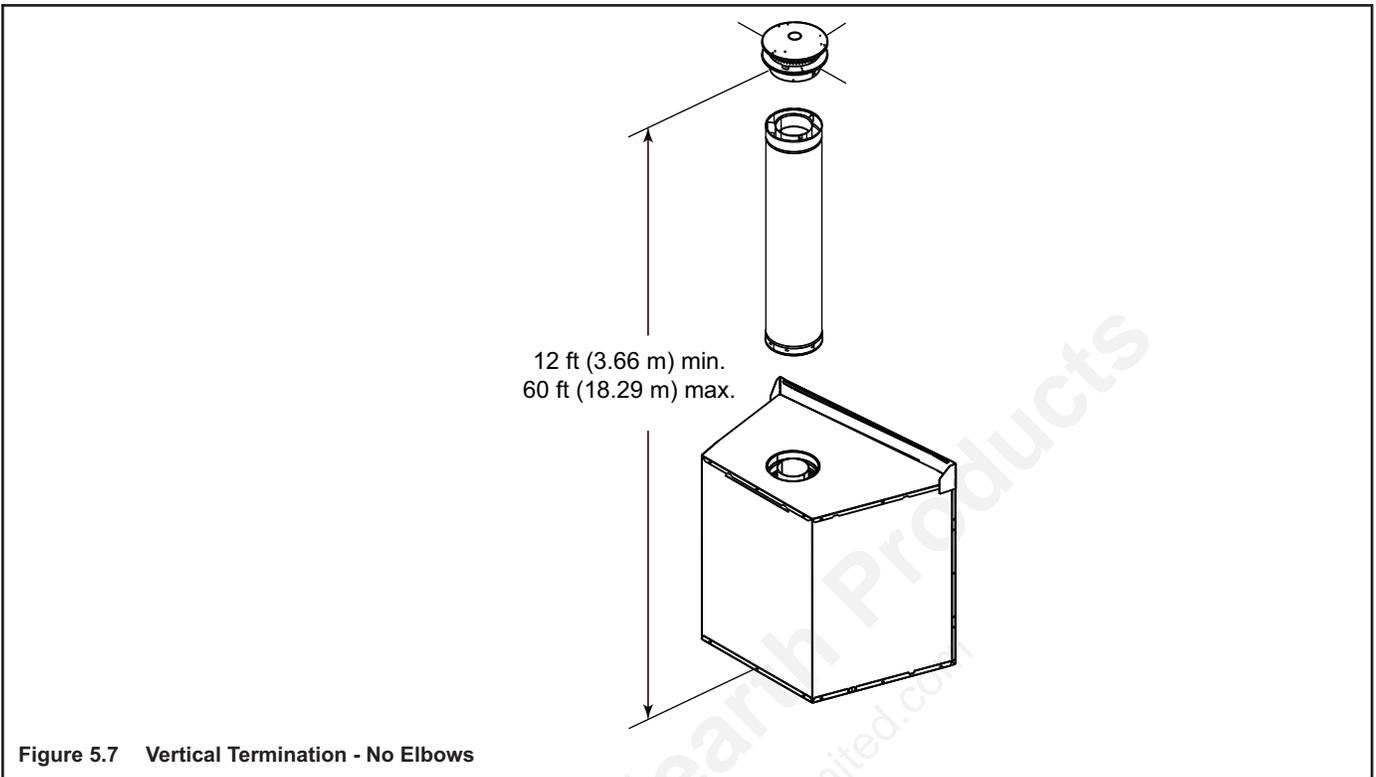


Figure 5.7 Vertical Termination - No Elbows

Top Vent—Vertical Termination—Two Elbows

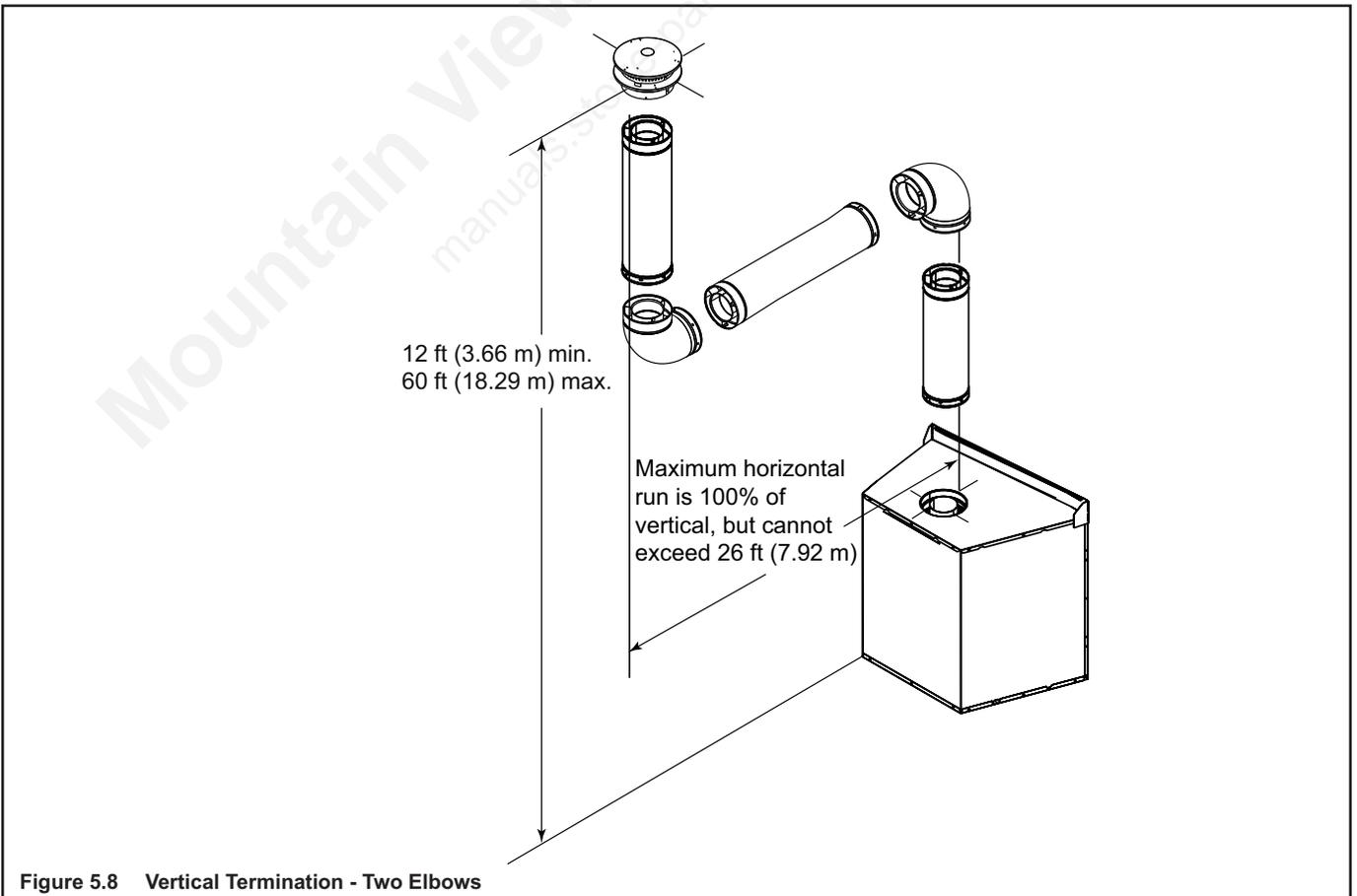
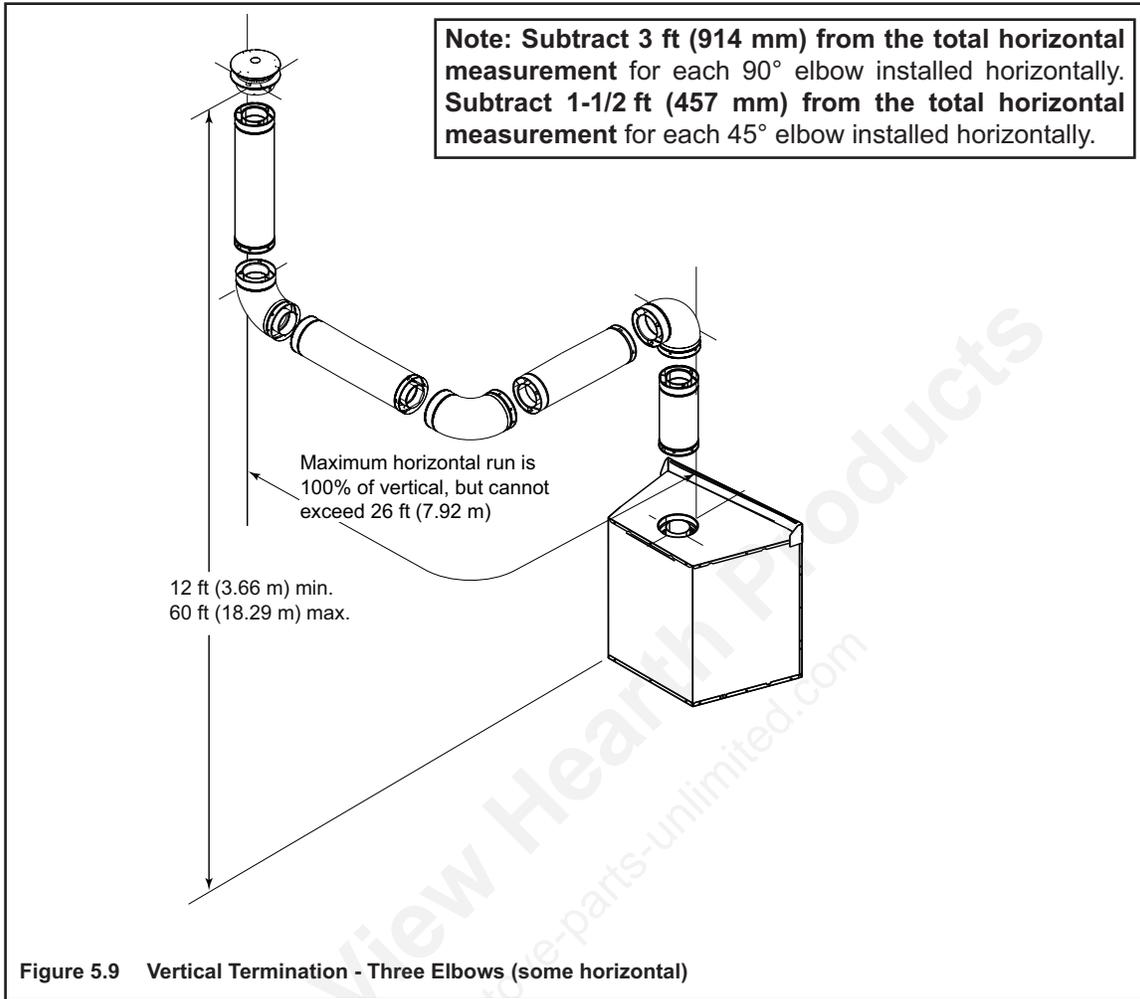
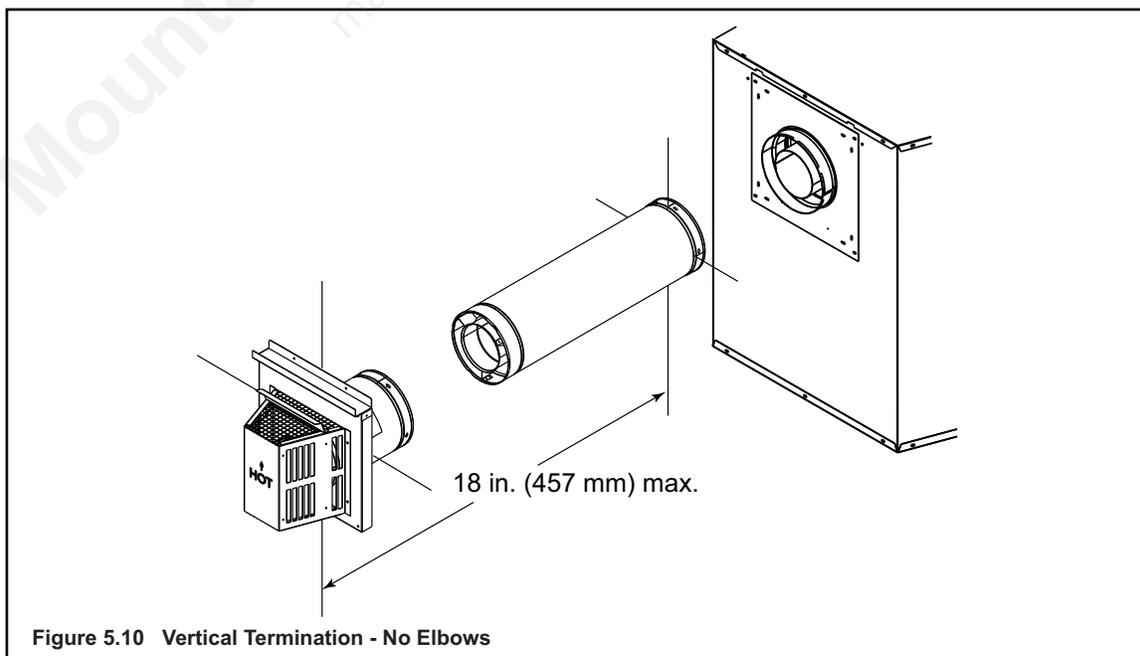


Figure 5.8 Vertical Termination - Two Elbows

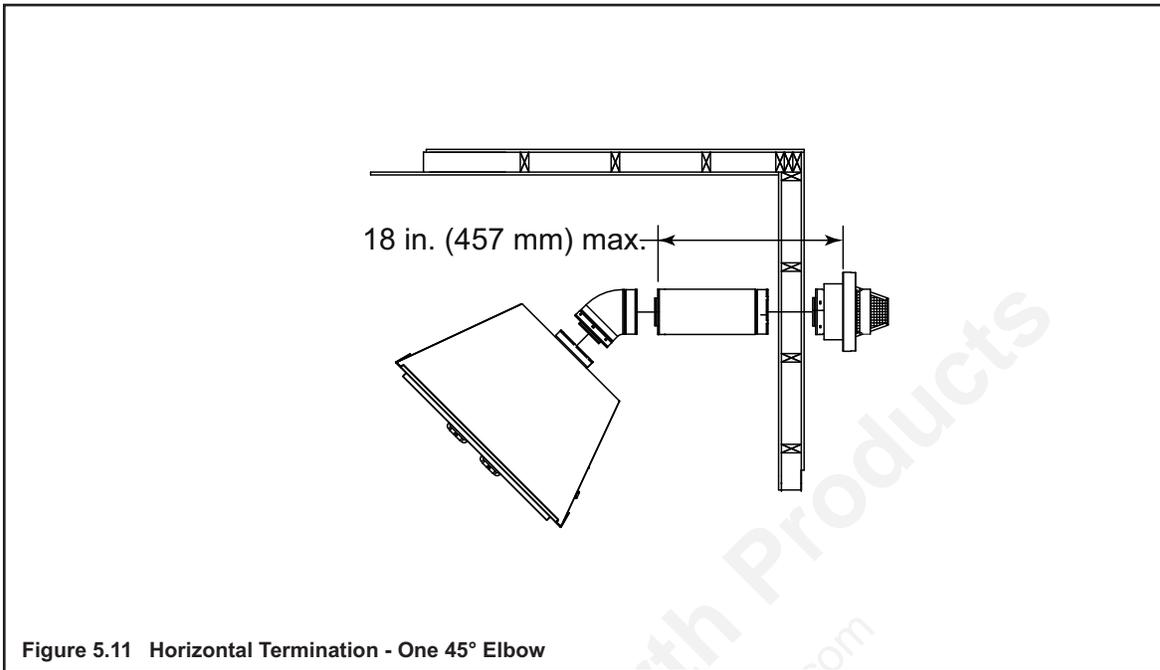
Top Vent—Vertical Termination—Three Elbows



Rear Vent—Horizontal Termination—No Elbows



Rear Vent—Horizontal Termination—One 45° Elbow



Rear Vent—Horizontal Termination—Two Elbows

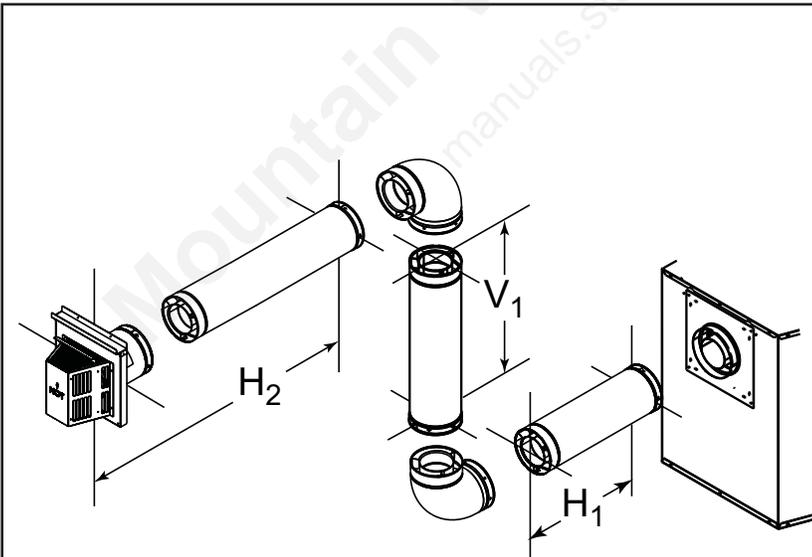


Table 5.4

H_1 Max	Total Vert V Min.	Total Horiz $H_1 + H_2$
0-1ft/0-.31 m	1 ft/.31 m	4 ft/1.22 m
2 ft/.61 m	1 ft/.31 m	4 ft/1.22 m
3 ft/.91 m	1 ft/.31 m	6 ft/1.83 m
0-1ft/0-.31 m	2 ft/.61 m	6 ft/1.83 m
2 ft/.61 m	2 ft/.61 m	6 ft/1.83 m
3 ft/.91 m	2 ft/.61 m	8 ft/2.44 m
0-1ft/0-.31 m	3 ft/.91 m	8 ft/2.44 m
2 ft/.61 m	3 ft/.91 m	8 ft/2.44 m
3 ft/.91 m	3 ft/.91 m	9 ft/2.74 m
0-1ft/0-.31 m	4 ft/1.22 m	10 ft/3.05 m
2 ft/.61 m	4 ft/1.22 m	10 ft/3.05 m
3 ft/.91 m	4 ft/1.22 m	10 ft/3.05 m

Figure 5.12 Horizontal Termination - Two Elbows

Rear Vent—Horizontal Termination—Three Elbows

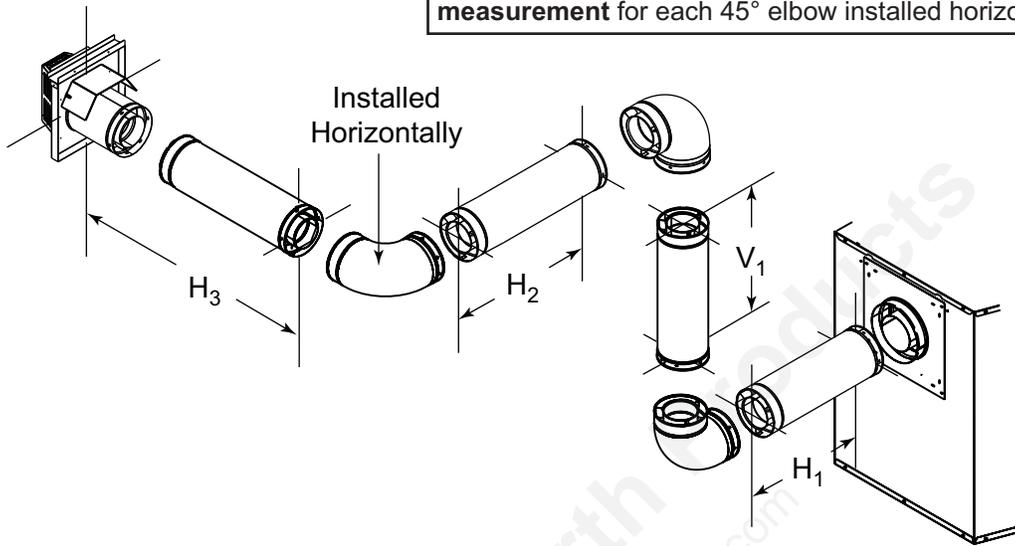
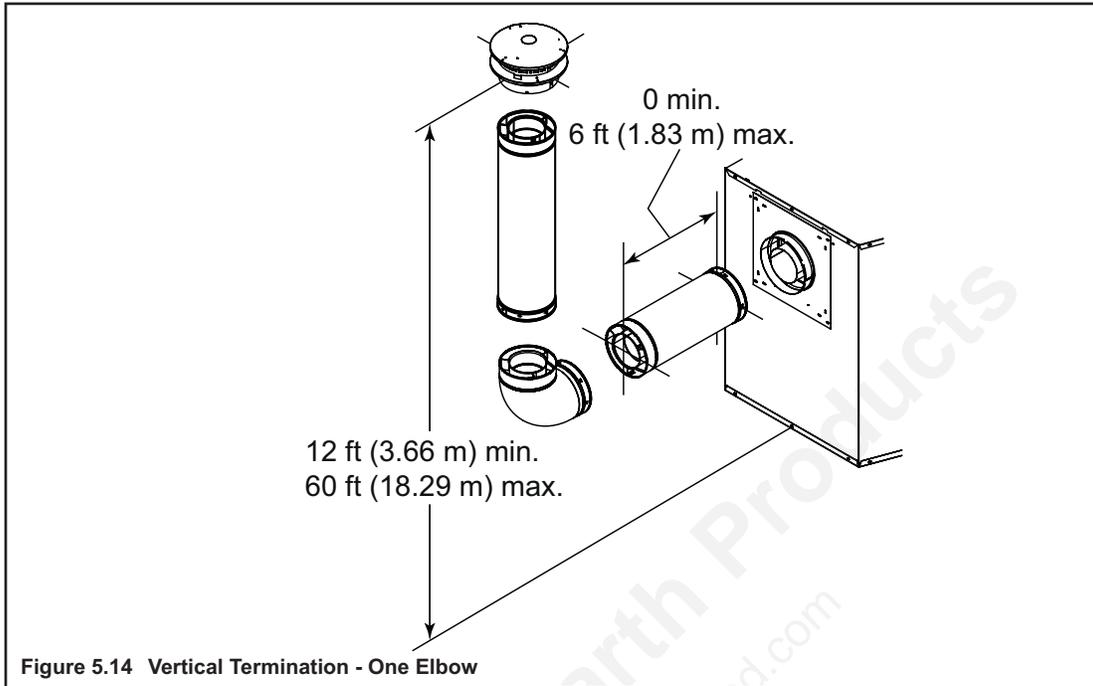


Table 5.5

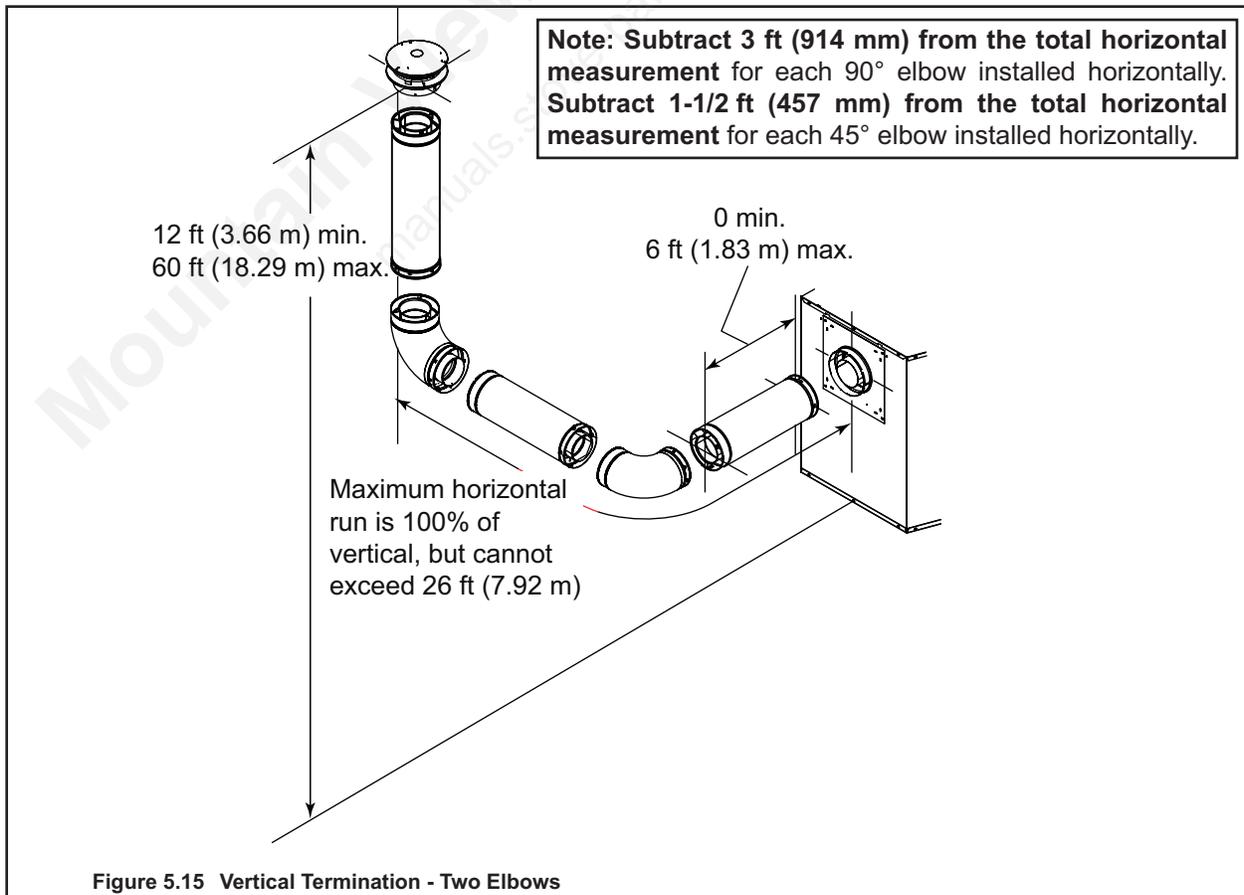
H_1 Max	Total Vert V Min.	Total Horiz $H_1 + H_2 + H_3$
0	1 ft/.31 m	4 ft/1.22 m
1ft/.31 m	1 ft/.31 m	4 ft/1.22 m
2 ft/.61 m	1 ft/.31 m	4 ft/1.22 m
0	2 ft/.61 m	5 ft/1.52 m
1ft/.31 m	2 ft/.61 m	5 ft/1.52 m
2 ft/.61 m	2 ft/.61 m	5 ft/1.52 m
0	3 ft/.91 m	5 ft/1.52 m
1ft/.31 m	3 ft/.91 m	5 ft/1.52 m
2 ft/.61 m	3 ft/.91 m	5 ft/1.52 m
0	4 ft/1.22 m	6 ft/1.83 m
1ft/.31 m	4 ft/1.22 m	6 ft/1.83 m
2 ft/.61 m	4 ft/1.22 m	6 ft/1.83 m

Figure 5.13 Vertical Termination - Three Elbows

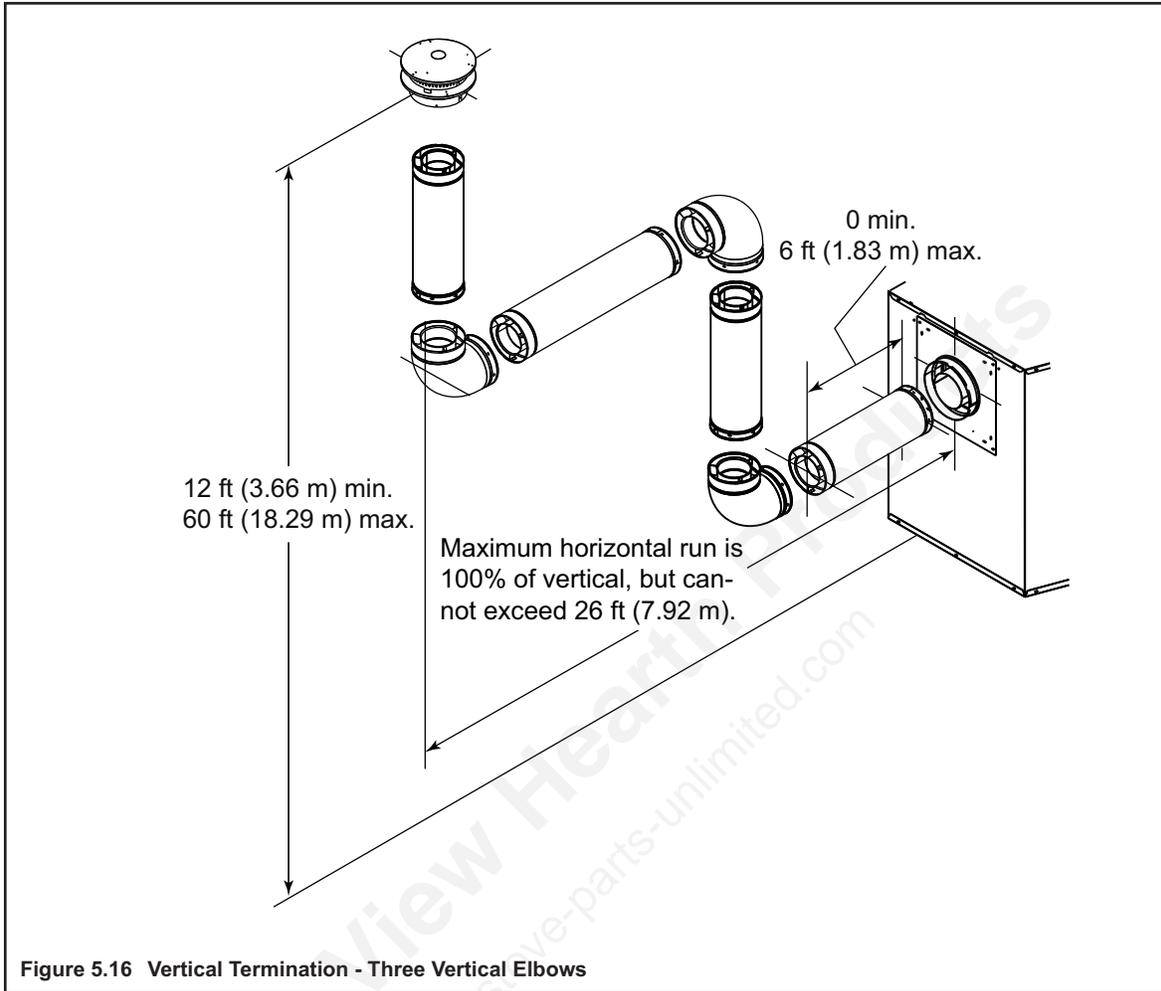
Rear Vent—Vertical Termination—One Elbow



Rear Vent—Vertical Termination—Two Elbows



Rear Vent—Vertical Termination—Three Vertical Elbows



6 Vent Clearances and Framing

A. Pipe Clearances to Combustibles

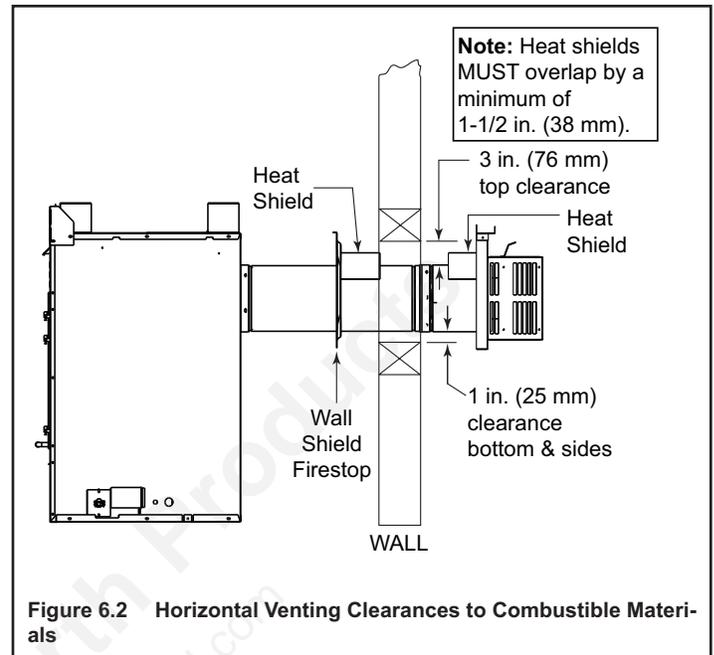
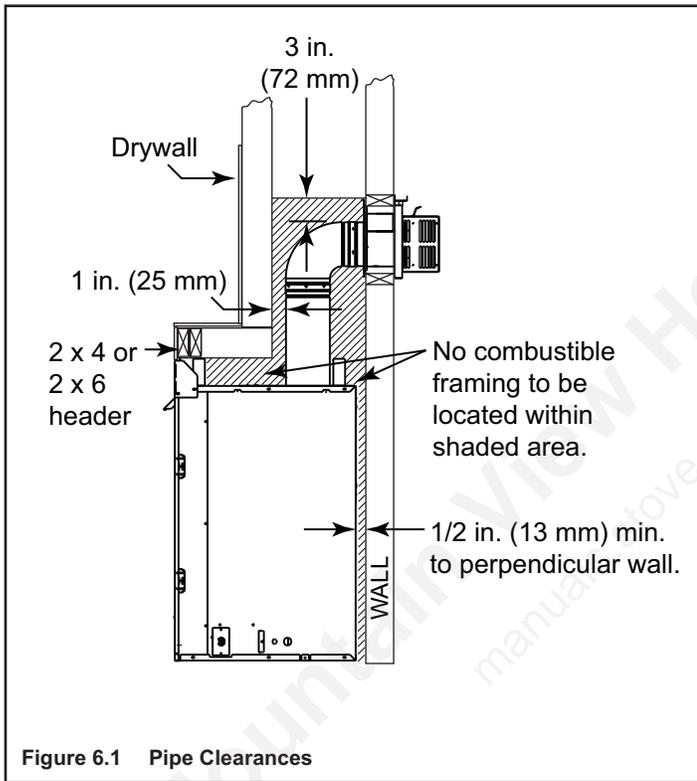
WARNING

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.



The center of the framing hole is 1 in. [25mm] above the center of the horizontal vent pipe.

Framing should be constructed of 2 X 4 lumber or heavier.

Model #	D Top Vent	E Rear Vent
CNXT70I	<i>in.</i>	42-1/4
	<i>mm</i>	1073
CNXT90I	<i>in.</i>	48-1/4
	<i>mm</i>	1226

Figure 6.3 Exterior Wall Hole

B. Wall Penetration Framing

- Frame a hole in a combustible wall for an interior wall shield firestop (Figures 6.1 through 6.3) whenever a wall is penetrated. Use same size framing materials as those used in the wall construction. The wall shield firestop maintains minimum clearances and prevents cold air infiltration.
- If the hole being penetrated is surrounded by non-combustible materials such as concrete, a hole with diameter 1 in. greater than the pipe is acceptable.

C. Vertical Penetration Framing



⚠ WARNING

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.

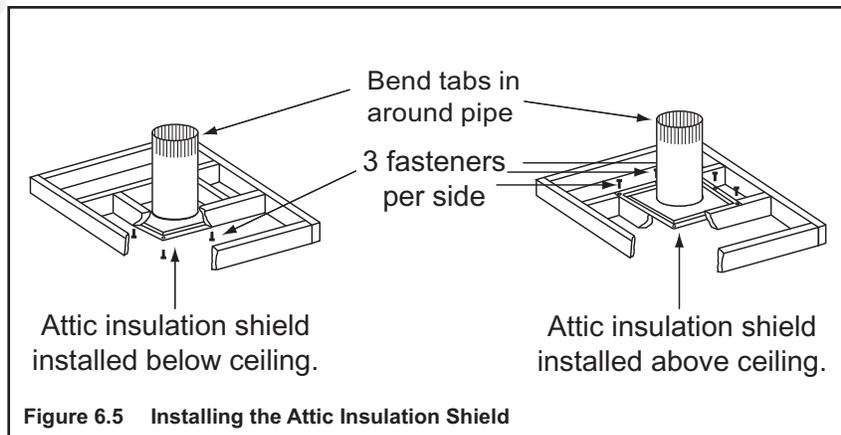
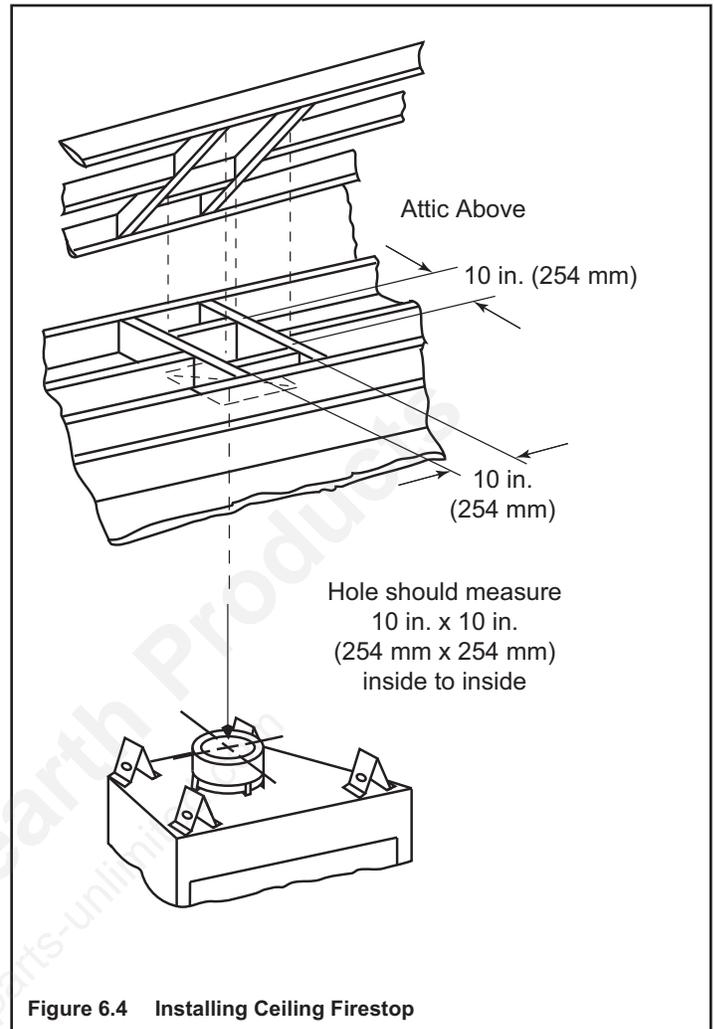
Install the Ceiling Firestop

- 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.
- Do not pack insulation around the vent. Insulation must be kept away from the pipe.

Note: An additional ceiling firestop is not required if attic insulation shield is used.

Install Attic Insulation Shield

- Frame opening for attic insulation shield.
- Attic insulation shield may be installed above or below ceiling (see Figure 6.5).
- Secure with three fasteners on each side.
- Fold tabs at top of attic shield in toward vent pipe. Tabs must keep vent pipe centered within shield.
- Field construct additional shield height if insulation is deeper than height of attic shield.



7 Appliance Preparation

CAUTION



Sharp Edges

- Wear protective gloves and safety glasses during installation.



Note: Once the vent cap has been removed it CANNOT be reattached.

If the appliance is to remain top vented, remove and discard the plate (Figure 7.1) and replace the screw you removed in the first step.

When converting from top vent to rear vent, retain all parts removed from the top. They will be used again with the exception of the top pan heat shield.

A. Conversion from Top Vent to Rear Vent

- Remove one screw holding the cover plate (Figure 7.1) to the top of the appliance and set aside.

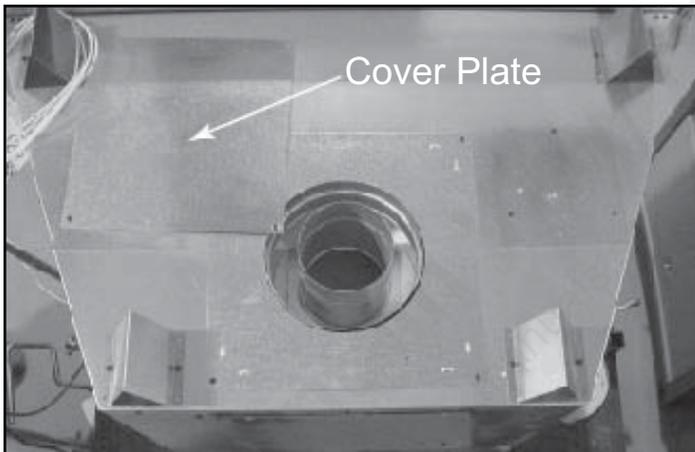


Figure 7.1 Cover Plate, Top of Appliance

- Remove four screws holding the plate surrounding the flue. See Figure 7.2. Remove the plate.

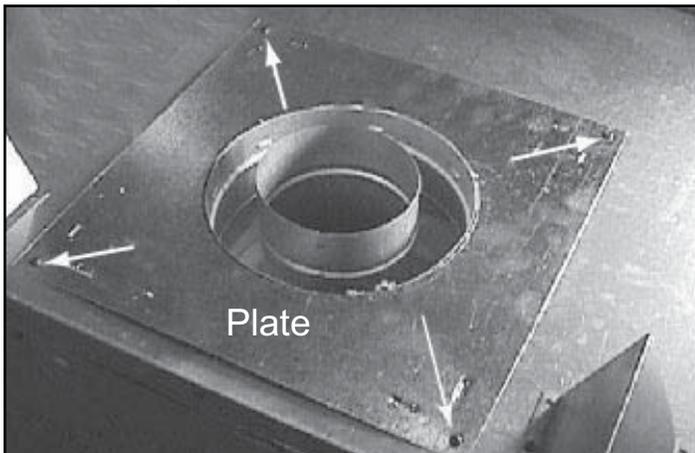


Figure 7.2 Remove Plate Screws

- Remove the cover plate (four screws) from the top pan heat shield and discard. See Figure 7.3.

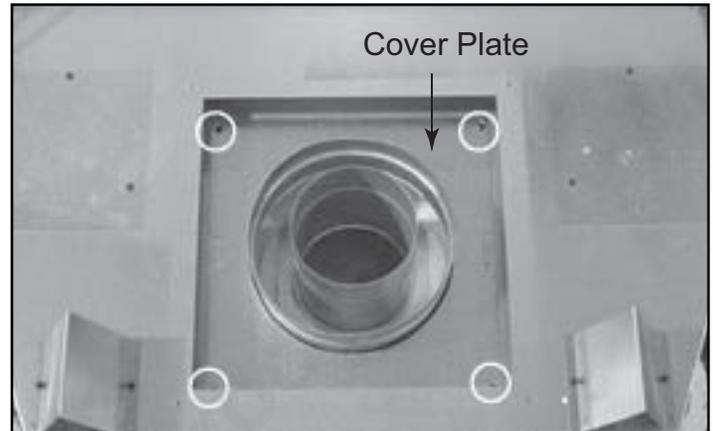


Figure 7.3 Cover Plate, Top Pan

- Remove four screws holding the outer collar to the appliance top. See Figure 7.4. Remove the outer collar.

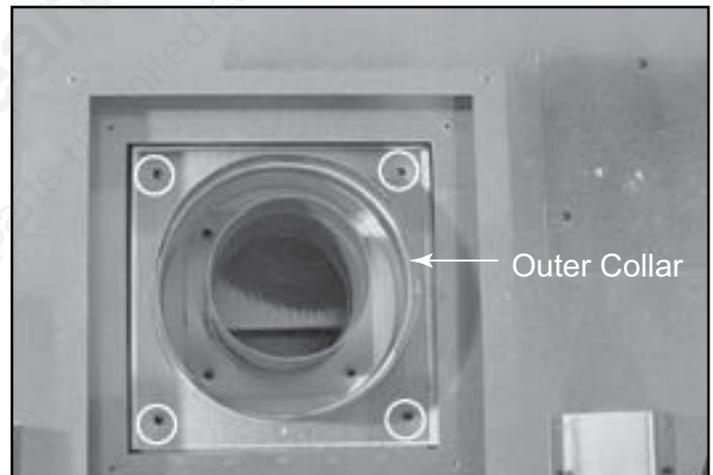


Figure 7.4 Remove Inner Cover Plate

- Remove four screws holding the inner collar to the appliance top. See Figure 7.5. Remove the inner collar.

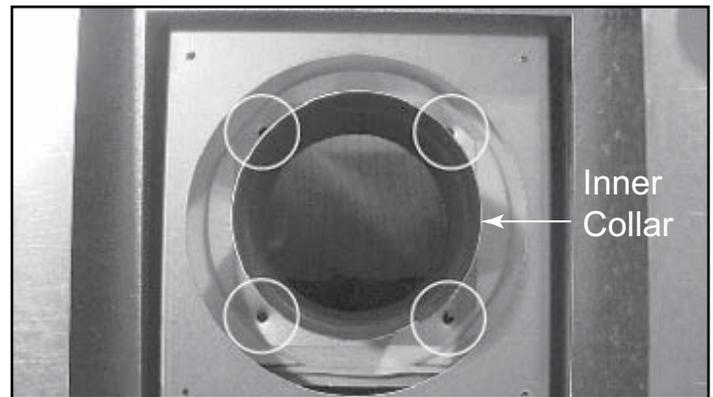


Figure 7.5 Remove Screws from Inner Collar

- Remove four screws holding the back cover plate. Remove the cover plate. See Figure 7.6.

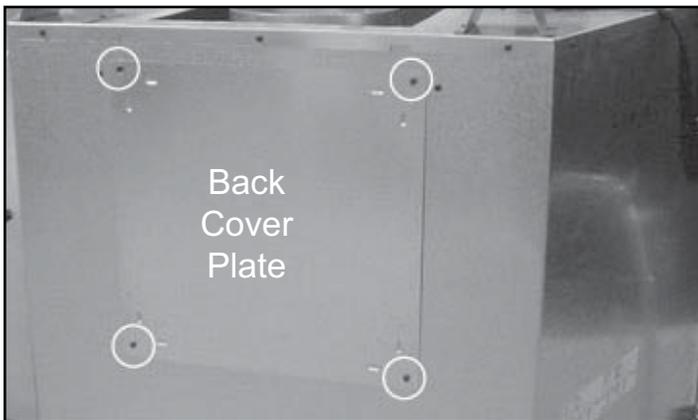


Figure 7.6 Back Cover Plate

- Place the inner collar on the appliance back. Use four screws to hold this collar in place. See Figure 7.9.

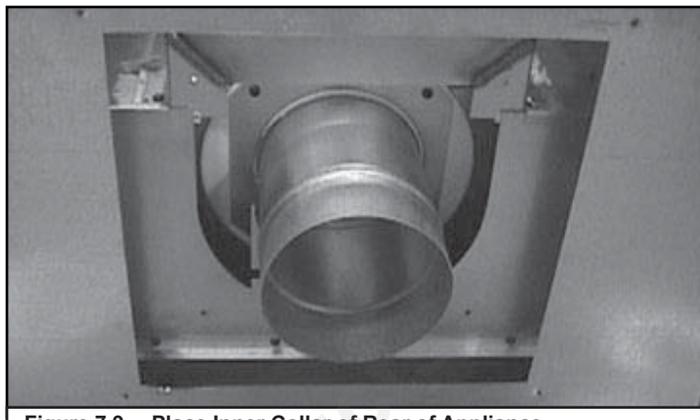


Figure 7.9 Place Inner Collar of Rear of Appliance

- Remove four screws holding the outer cover plate to the appliance back. See Figure 7.7. Remove the outer cover plate and white gasket.

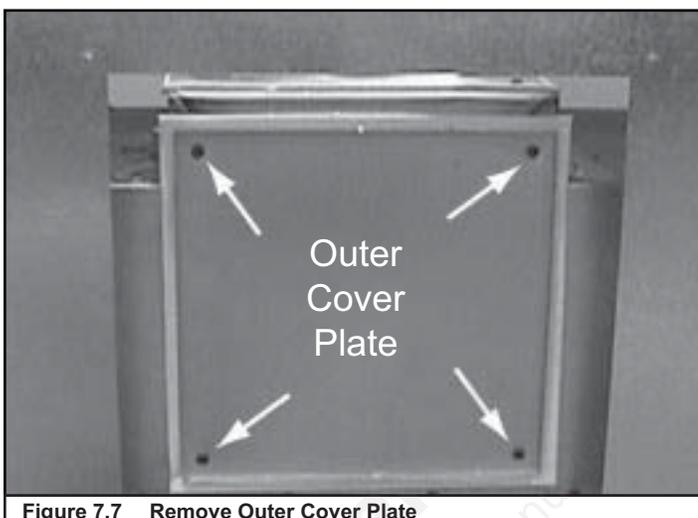


Figure 7.7 Remove Outer Cover Plate

- Place the outer collar on the appliance back. Use four screws to hold this collar in place. See Figure 7.10



Figure 7.10 Remove Inner Cover Plate

- Remove four screws holding the inner cover plate to the appliance back. See Figure 7.8. Remove the inner cover plate and white gasket.

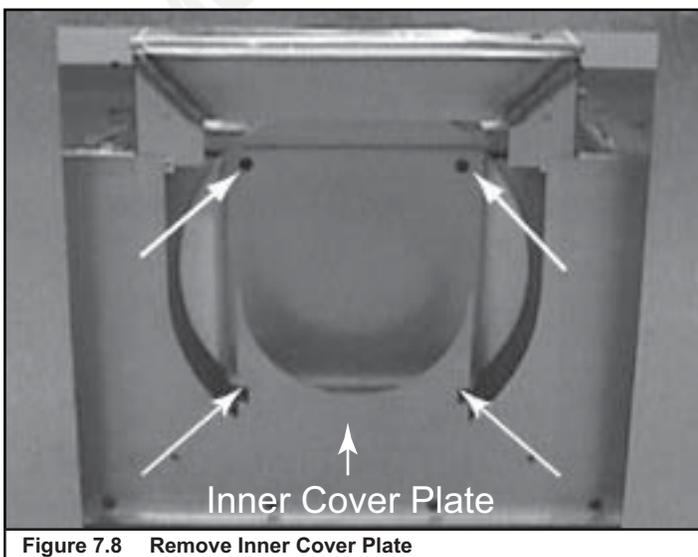


Figure 7.8 Remove Inner Cover Plate

- Locate the plate removed in Figure 7.2. Place the plate around the rear vented collars. Use four screws to hold the plate in place. See Figure 7.11.



Figure 7.11 Place Plate on Rear of Appliance

- Place the inner cover plate and white gasket (removed in Figure 7.8) on the appliance top. Place four screws to hold the inner cover plate in place. See Figure 7.12.

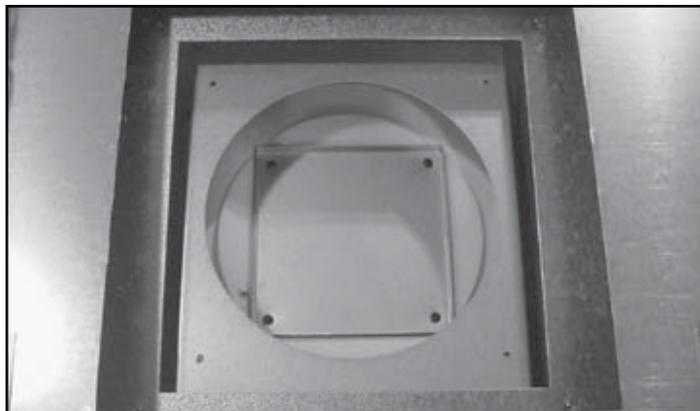


Figure 7.12 Place Inner Cover Plate on Top of Appliance.

- Locate the back cover plate removed in Figure 7.6. Place the plate on top of the appliance. See Figure 7.15. Use four screws to hold this plate in place. See Figure 7.16.

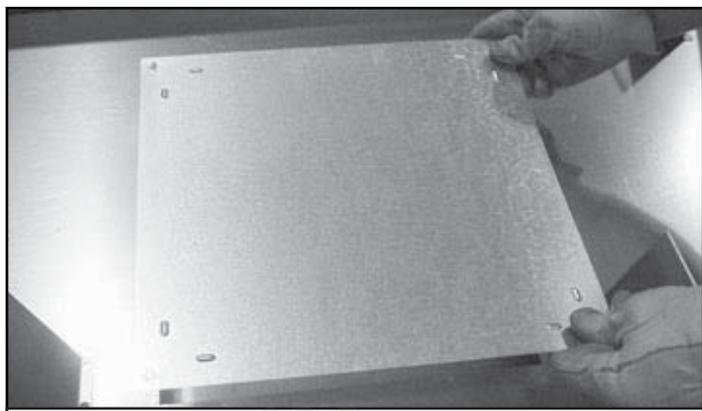


Figure 7.15 Plate on Top

- Place the outer cover plate and white gasket (removed in Figure 7.7) on the appliance top. Use four screws to hold the outer cover plate in place. See Figure 7.13.

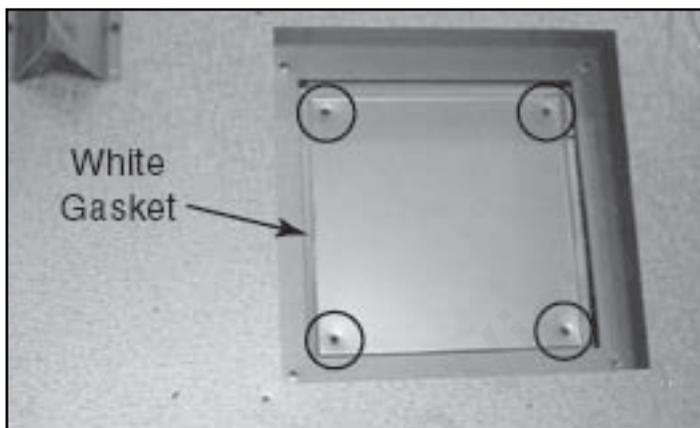


Figure 7.13 Place Outer Cover Plate on Top of Appliance

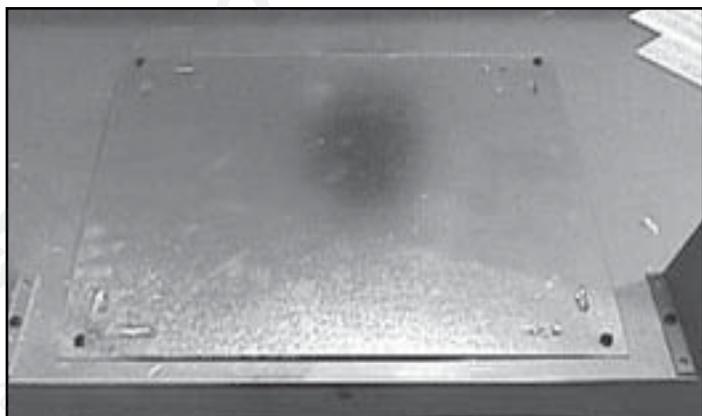


Figure 7.16 Plate into place.

- Locate the cover plate removed in the first step and place on top of top pan heat shield. Place four screws to hold this plate in place. See Figure 7.14.

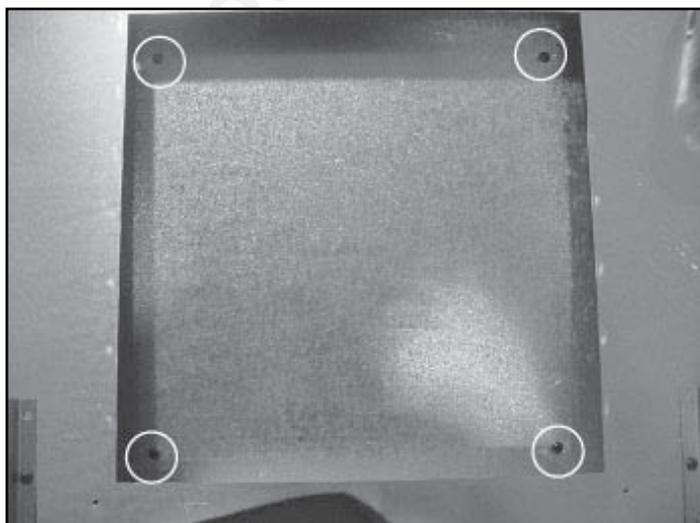


Figure 7.14 Cover Plate

- The appliance should look like the one shown in Figure 7.17 after it has been converted to a rear vented appliance.

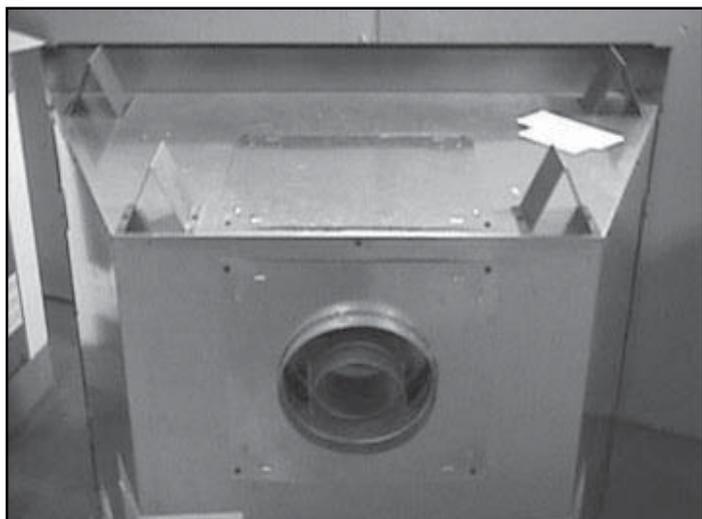


Figure 7.17 Completed Conversion

B. Securing and Leveling the Appliance



⚠ WARNING

Fire Risk!

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



⚠ WARNING

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.

The diagram shows how to properly position, level, and secure the appliance (see Figure 7.18). 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 as necessary. It is acceptable to use wood shims.
- 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.

Note: Once appliance is set up for top or rear venting, it CANNOT be changed at a later time.

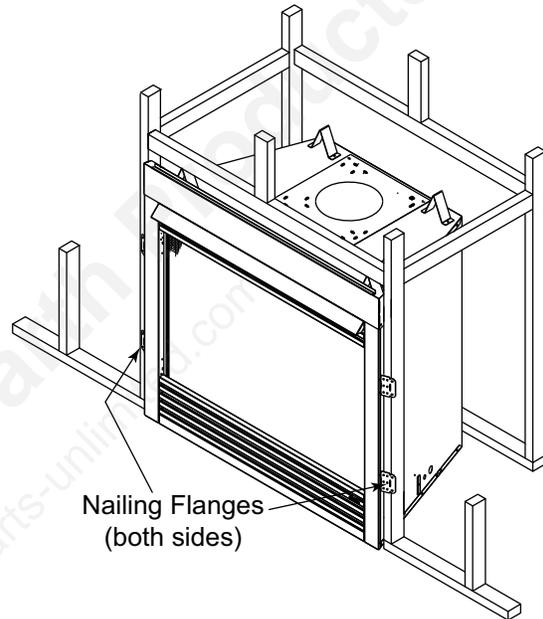


Figure 7.18 Proper Positioning, Leveling and Securing of an Appliance

CAUTION

Do NOT notch into the framing around the appliance spacers.

8 Installing Vent Pipe

A. Assemble Vent Sections

	WARNING
	Fire Risk Exhaust Fumes Risk
	<ul style="list-style-type: none">• 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.

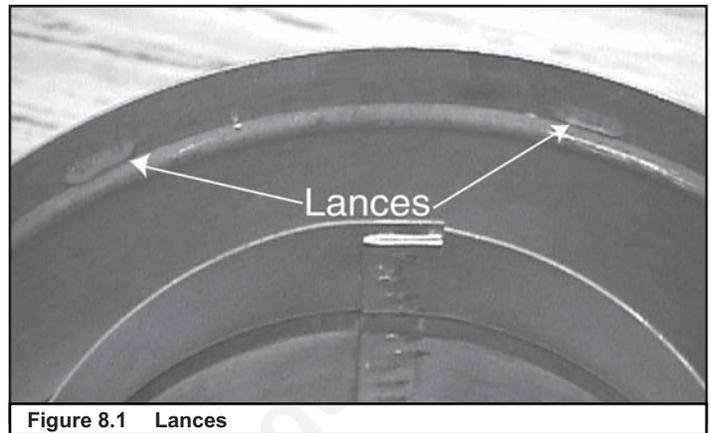


Figure 8.1 Lances

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.

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).

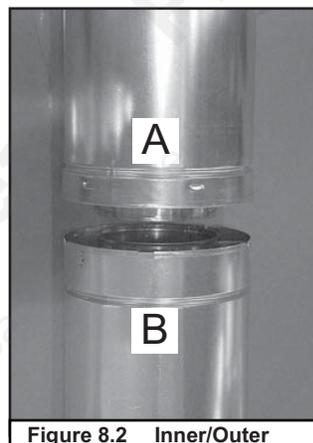


Figure 8.2 Inner/Outer

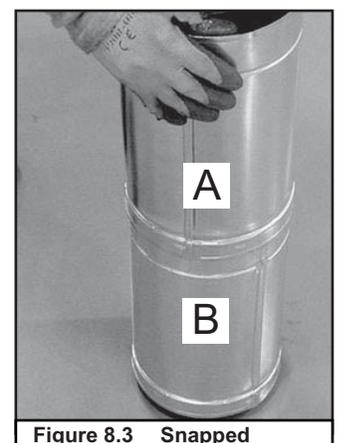


Figure 8.3 Snapped

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

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.

Make sure the seams are not aligned to prevent unintentional disconnection.

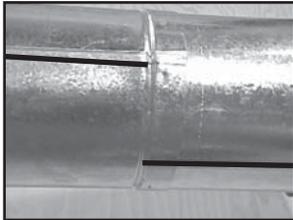
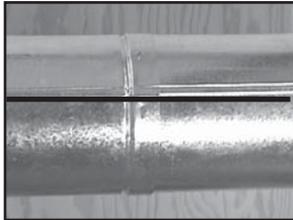
	
CORRECT	INCORRECT

Figure 8.4 Seams

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.

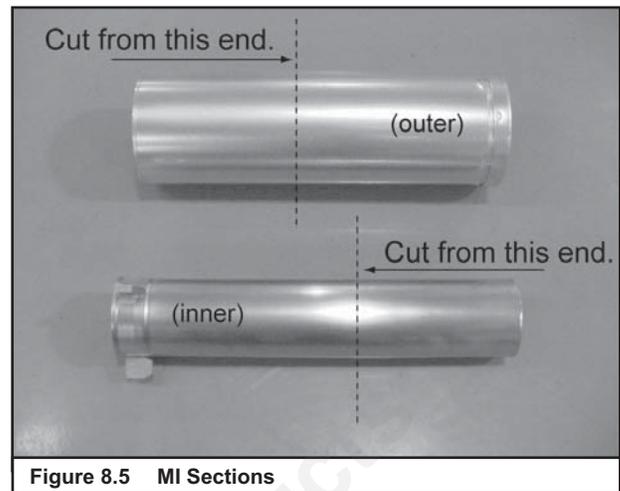


Figure 8.5 MI Sections

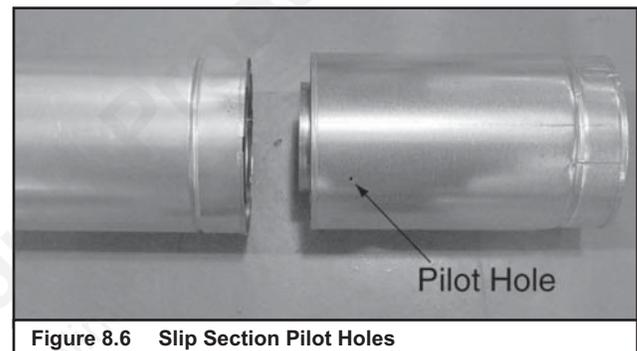


Figure 8.6 Slip Section Pilot Holes

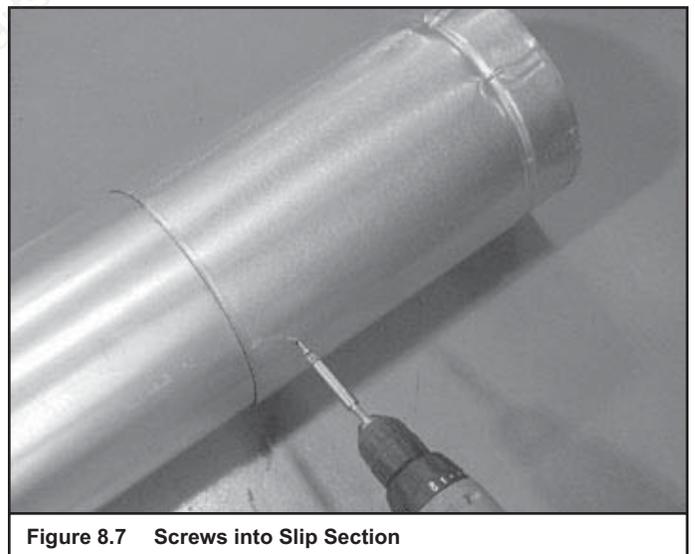


Figure 8.7 Screws into Slip Section

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.

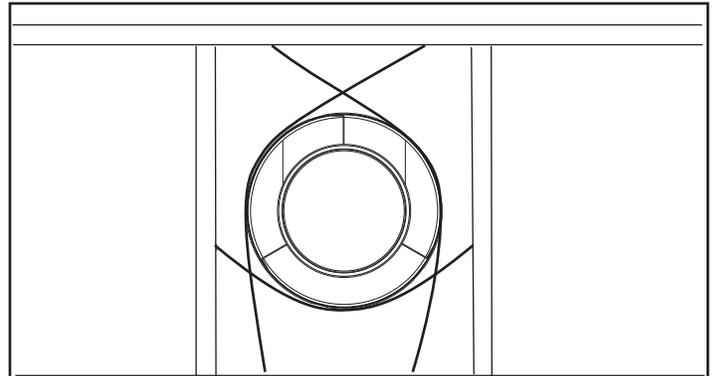


Figure 8.8 Securing Vertical Pipe Sections

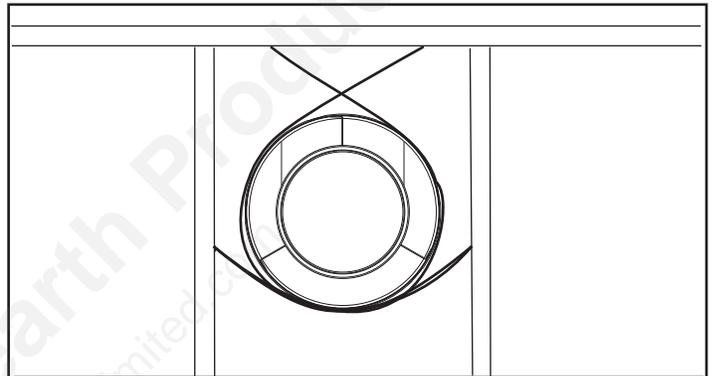


Figure 8.9 Securing Horizontal Pipe Sections

	WARNING
	Fire Risk
	Explosion Risk
	Asphyxiation Risk
	Use vent run supports per installation instructions.
	Connect vent sections per installation instructions
	<ul style="list-style-type: none">• Maintain all clearances to combustibles.• Do NOT allow vent to sag below connection point to appliance.
	Improper support may allow vent to sag or separate.

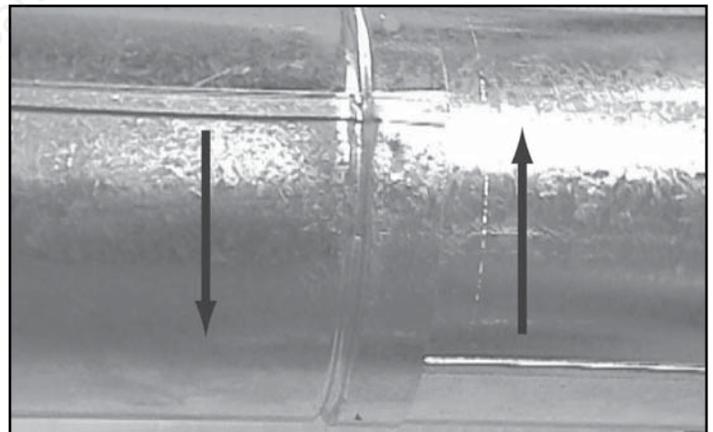


Figure 8.10 Rotate Seams for Disassembly

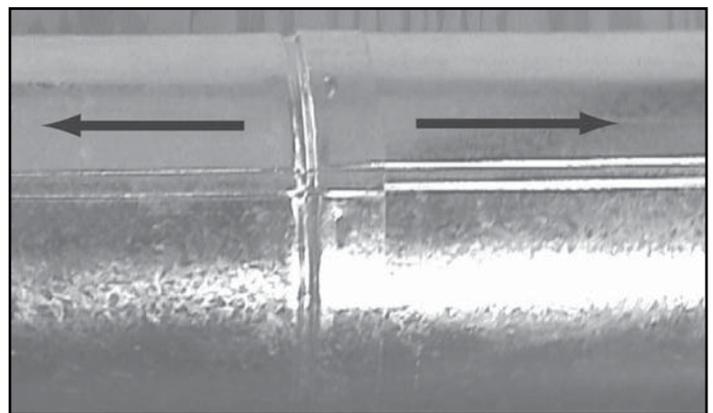


Figure 8.11 Align and Disassembly Vent Sections

C. Install the Heat Shield and Horizontal Termination Cap

 **WARNING**

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.

 **WARNING**

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.

Heat Shield Requirements for Horizontal Termination

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

There are two sections of the heat shield. One section attaches to the wall shield firestop with two screws. The remaining section is attached to the cap in the same manner.

If the wall thickness does not allow the required 1-1/2 in. heat shield overlap, an extended heat shield must be used.

The extended heat shield will need to be cut to the thickness of the wall and be attached to the wall shield firestop. 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 (see Figure 8.12).

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.

 **WARNING**

Burn Risk

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

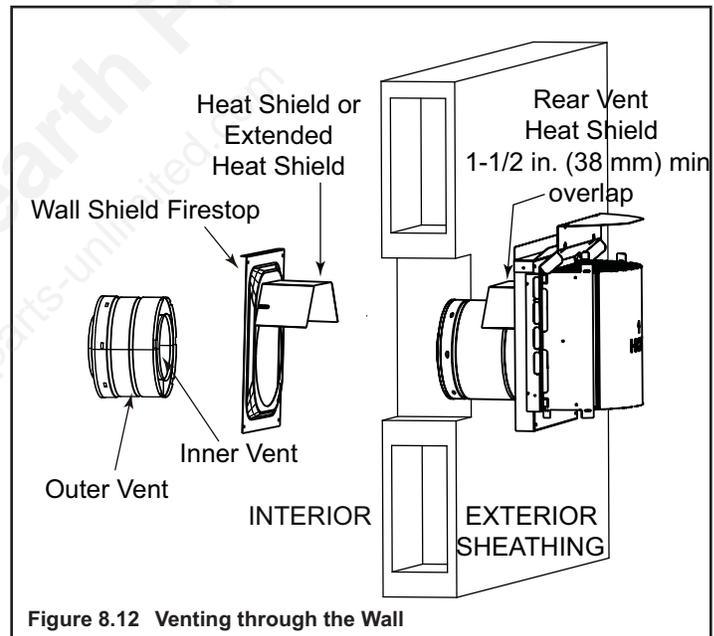


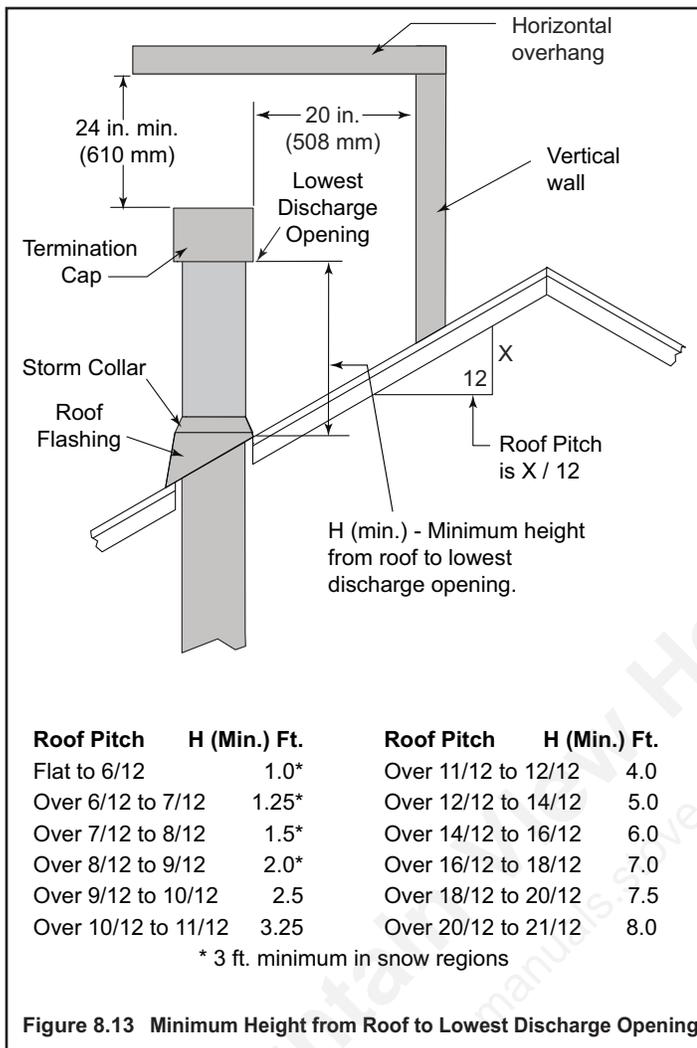
Figure 8.12 Venting through the Wall

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

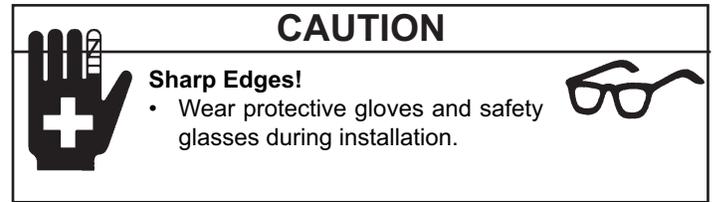
D. Install Roof Flashing and Vertical Termination Cap

To install roof flashing see Figure 8.13.

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



E. Assemble and Install Storm Collar

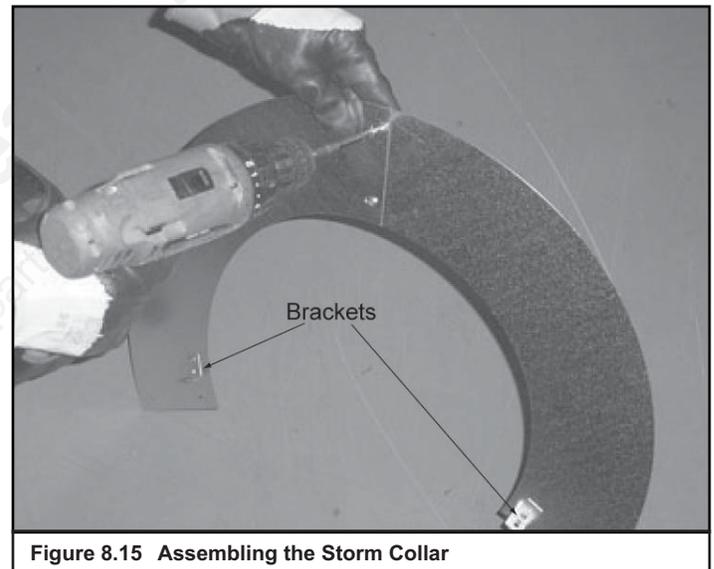


Connect both halves of the storm collar with two screws (see Figure 8.15).

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 8.16.

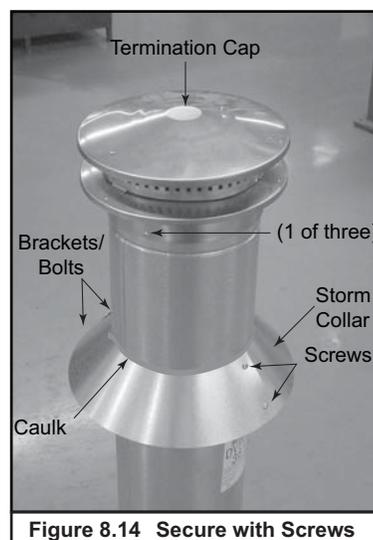
Slide the assembled storm collar down the pipe section until it rests on the roof flashing (see Figure 8.13).

Caulk around the top of the storm collar (see Figure 8.14).



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).



9 Gas Information

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**.

 **WARNING**



Fire Risk
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.

 **WARNING**



Fire Risk
Explosion Risk

Verify inlet pressures.

- High pressure may cause overfire condition.
- Low pressure may cause explosion.

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

Pressure requirements for appliance are shown in table below.

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 **National Fuel Gas Code ANSI 223.1-latest edition**. 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
 	<p>Fire Risk Explosion Risk</p> <ul style="list-style-type: none"> • 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.

	WARNING
  	<p>CHECK FOR GAS LEAKS Fire Risk Explosion Risk Asphyxiation Risk</p> <ul style="list-style-type: none"> • 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. <p>Fittings and connections may have loosened during shipping and handling.</p>

	WARNING
	<p>Fire Risk</p> <p>Do NOT change the valve settings.</p> <ul style="list-style-type: none"> • 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 and for proper operation of the appliance (Intellifire ignition).

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

B. Connecting to the Appliance

	⚠ WARNING
	Shock Risk Explosion Risk Do NOT wire 110V to valve. Do NOT wire 110V to wall switch <ul style="list-style-type: none">• Incorrect wiring will damage millivolt values.• Incorrect wiring will override IPI safety 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 10.1.

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

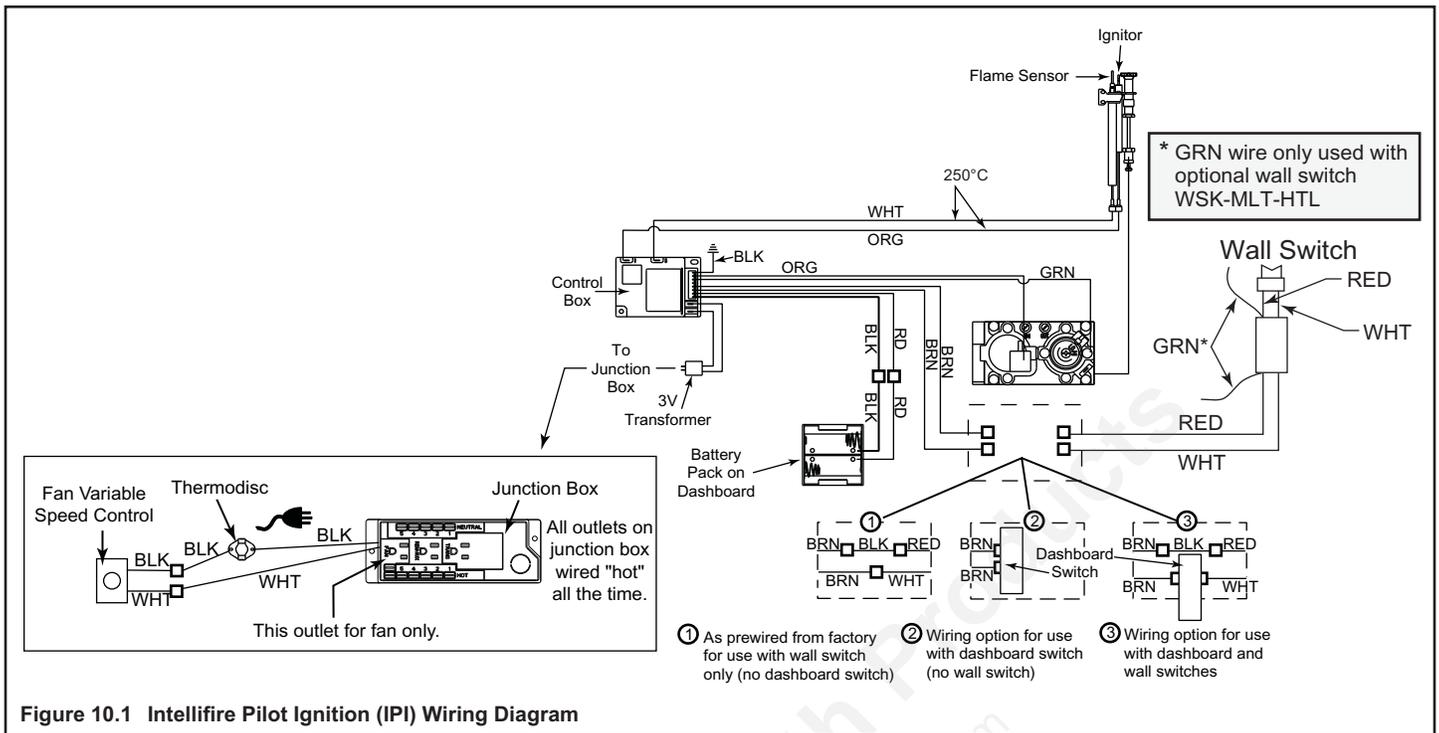
This appliance is supplied with a battery pack and a 3 volt AC transformer, which requires the installation of the supplied junction box. It is highly recommended that the junction box be installed at this time to avoid reconstruction.

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. Wall Switch and Dashboard Wiring

Wall Switch Wiring (only)

This appliance is pre-wired from the factory for use with a wall switch only.

Dashboard Switch Wiring (only)

- Find the two brown wires from the control box.
- Disconnect these two brown wires from the black jumper wires and the wall switch wire.
- Connect the two brown wires to the male connectors on the back of the dashboard switch. See Figure 10.1, #2 detail.

Wall Switch and Dashboard Switch Wiring

This appliance can be wired to run through both switches.

- Find the brown jumper wire that connects the control box to one side of the wall switch wire.
- Disconnect this brown jumper wire.
- Connect the free end of the brown control box wire to one of the male connectors on the back of the dashboard switch.
- Connect the free end of the wall switch wire to the other male connector on back of the dashboard switch. See Figure 10.1, #3 detail.

Fan Variable Speed Control (located on Dashboard)

To connect the variable speed control into the fan circuit:

- Find the black wire from the thermodisc and connect to the black wire from the variable speed control.
- Connect the white wire from the junction box to the white wire from the variable speed control.

CAUTION

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



CAUTION

Shock Risk

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

Note: The fan will not operate without the variable speed control wired.

If you wire the appliance to use both switches, both switches have to be on for the appliance to run, although you will be able to shut the appliance off with either switch.

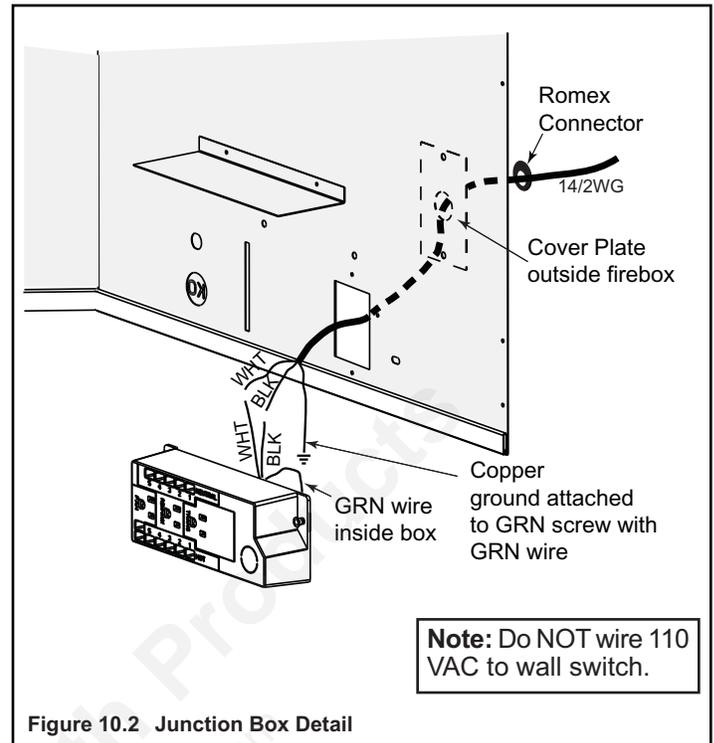
E. Junction Box Installation

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

- Remove the cover plate located on the outer shell - right side (see Figure 10.2).
- Install the supplied Romex™ connector in the cover plate.
- Feed the necessary length of wire through the connector.
- Make all necessary wire connections and reattach the cover plate to the outer shell.

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

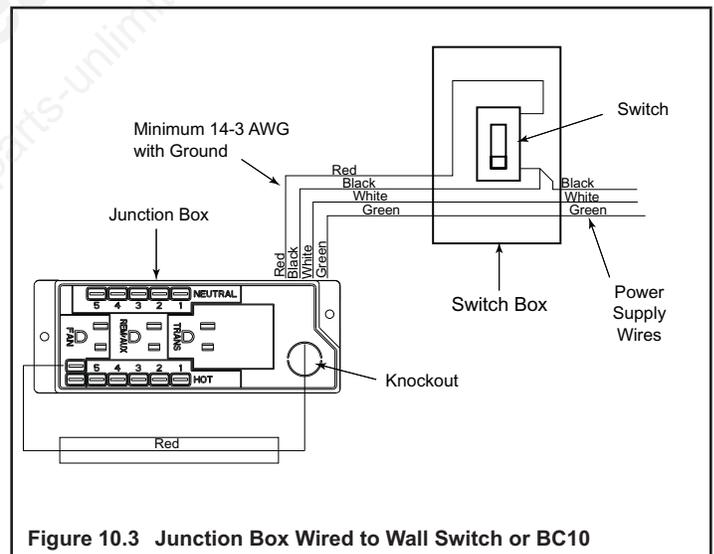
- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell (see Figure 10.2).
- Pull the electrical wires from outside the appliance through this opening into the valve compartment.
- Feed the necessary length of wire through the connector.
- Make all necessary wire connections to the junction box/receptacle and reassemble the junction box/receptacle to the outer shell.



F. Wall Switch Installation for Fan (Optional)

If the box is being wired to a wall mounted switch for use with a fan (See Figure 10.3):

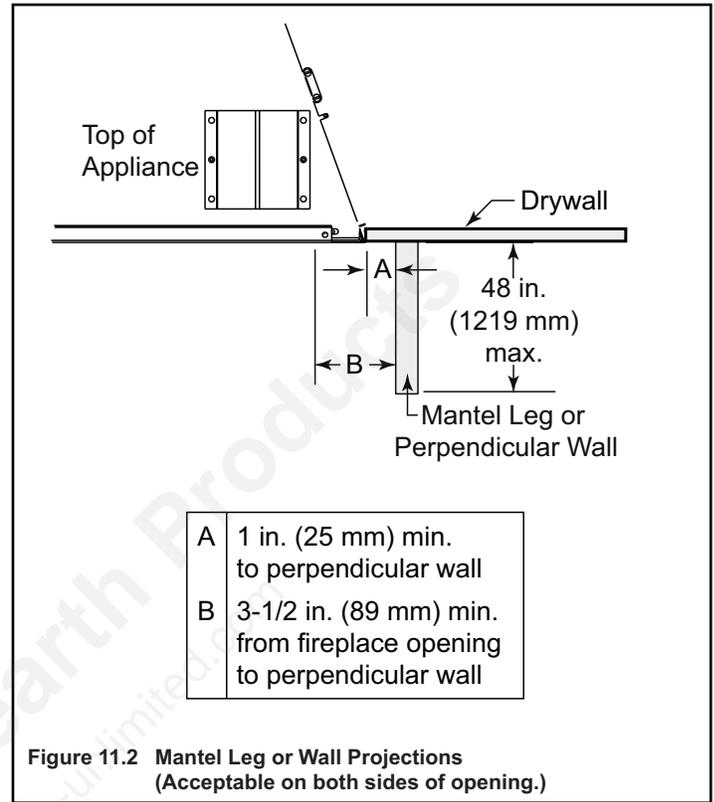
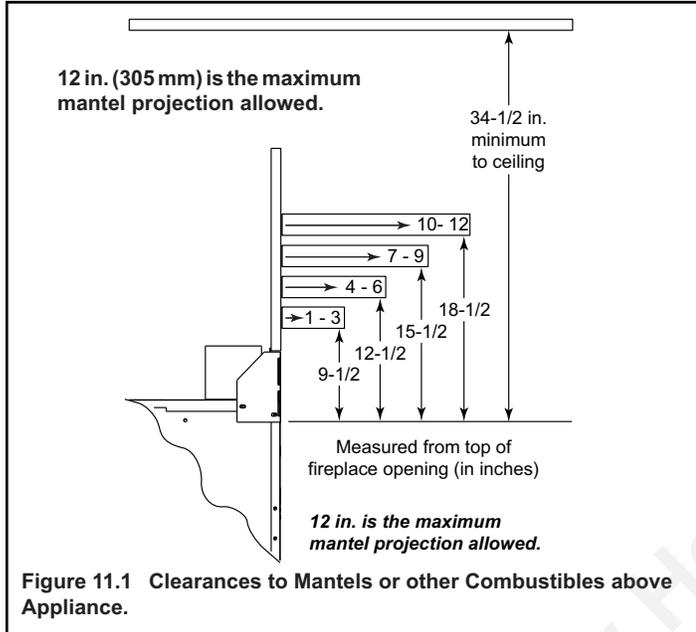
- The power supply for the appliance must be brought into a switch box.
- The power can then be supplied from the switch box to the appliance using a minimum of 14-3 with ground wire.
- At the switch box connect the black (hot) wire and red (switch leg) wire to the wall switch as shown.
- At the appliance connect the black (hot), white (neutral) and green (ground) wires to the junction box as shown.
- Add a 1/4 in. insulated female connector to the red (switch leg) wire, route it through the knockout in the face of the junction box, and connect to the top fan switch connector (1/4 in. male) as shown.



11 Finishing

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.



B. Facing Material

WARNING

Fire Risk

Do NOT obstruct air inlet or outlet grilles.
Do NOT modify grilles.

- Modifying or covering grilles could cause temperature rise and fire hazard.

Finishing materials must not interfere with:

- Air flow through grilles or louvers.
- Operation of louvers or doors.
- Access for service.

WARNING

Fire Risk

Explosion Risk

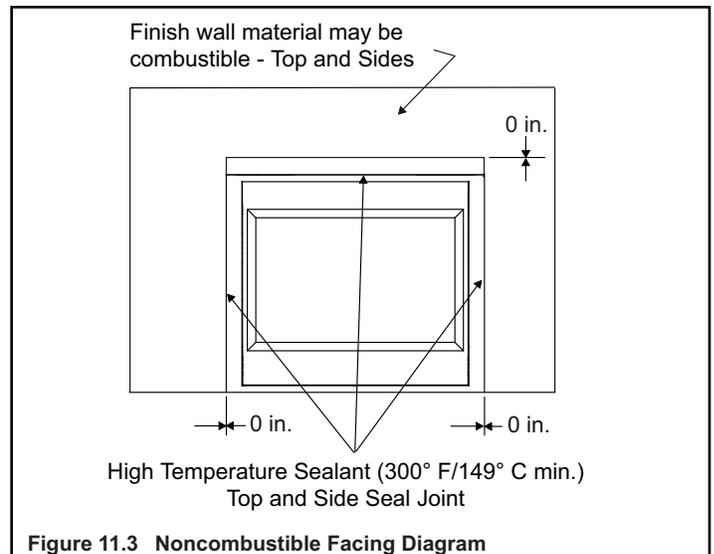
- Facing and/or finishing materials must never overhang into the glass opening.
- Overhanging materials may ignite.
- May interfere with proper operation of glass assembly.

WARNING

Fire Risk

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

- Metal appliance front may be covered with non-combustible 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.



12 Appliance Setup

A. Remove Glass Assembly

See Section 12.H.

B. Remove the Shipping Materials

Remove shipping materials from inside or underneath the firebox.

C. Install the Dashboard

- Remove the dashboard (located in the upper firebox, center, attached with three screws). See Figure 12.1.

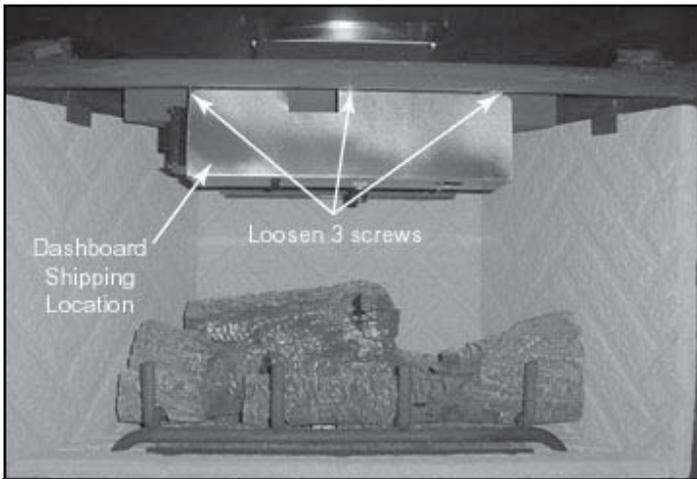


Figure 12.1 Dashboard Shipping Location

- Locate and remove the two screws on the left side of the control panel and one screw on the right side. See Figure 12.2.

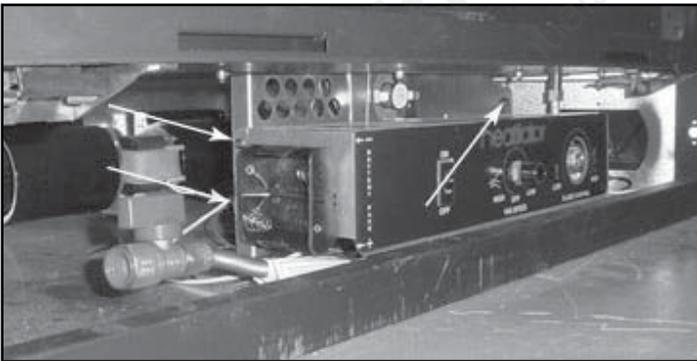


Figure 12.2 Screw Locations

- Hold the dashboard and plug in the wire as shown in Figure 10.1.
- Rotate the dashboard and place under the firebox (make sure the battery box wires are in the slot on the dashboard).
- Align the dashboard holes with the three holes on the control panel and attach with the three screws previously removed from the control panel. If any wires are exposed, tuck them behind the dashboard.
- See Figure 10.1 for dashboard switch wiring.

D. Clean the Appliance

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

E. Accessories

Install approved accessories per instructions included with accessories. Refer to Section 16.

⚠ WARNING	
	<p>Shock Risk Fire Risk</p> <p>Use ONLY optional accessories approved for this appliance.</p> <ul style="list-style-type: none">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.

F. Rockwool, Lava Rock, Vermiculite Placement

⚠ WARNING	
	<p>Explosion Risk</p> <ul style="list-style-type: none">Follow rockwool placement instructions in this manual.Do NOT place rockwool directly over burner ports.Replace rockwool material annually. <p>Improperly placed rockwool interferes with proper burner operation.</p>

Placing the Rockwool

- Place a small amount of 1/2 in. diameter pieces on all exposed parts of the hearth log, but not on the burners. See Figure 12.3.
- It is not necessary to use the entire bag. Save the remainder for future use.



Figure 12.3 Placing the Rockwool

Placing the Lava Rock and Vermiculite

- Place lava rock behind the sides of the hearth refractory.
- Sprinkle vermiculite over the lava rock.
- It is not necessary to use the entire bag. Save the remainder for future use.

G. Log Assembly

Set the Logs - CNXT70I (36 in.)

- Place LEFT FRONT LOG on the far left grate bar so the notch on the log sits on the horizontal portion of the grate bar and the body of the log is on the grate burner. See Figure 12.4.



Figure 12.4 Set Left Front Log

- Place LEFT TOP LOG on the white notches of the left center log and the back log. Set the log so that the "Y" is pointed down. See Figure 12.5.



Figure 12.5 Set Left Top Log

- Place RIGHT CENTER LOG on the white notches in the left center log and the back log. The log should sit on the log tab welded to the back of the far right grate bar. The long leg of the "Y" in the log should point towards the front center of the log set. See Figure 12.6.

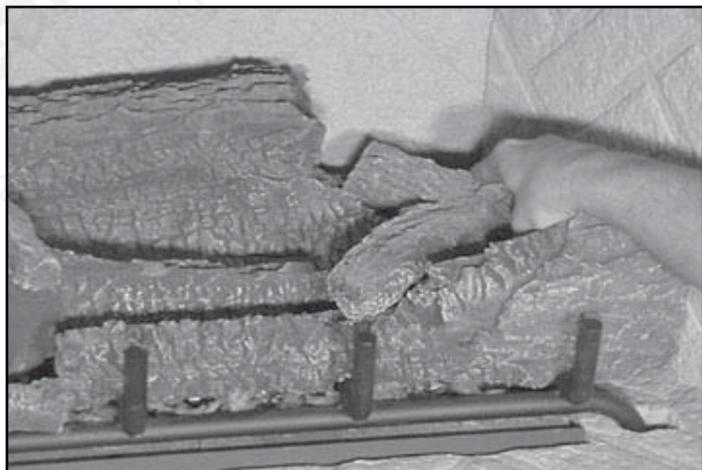


Figure 12.6 Set Right Center Log

Set the Logs - CNXT90I (42 in.)

- Place LEFT FRONT LOG on the front left corner of the far left grate bar. The rounded notch in the bottom of the log should sit over the grate bar with the remainder of the log sitting on the hearth log. See Figure 12.7.
- Place RIGHT CENTER LOG so that the groove in the bottom of the log sits on the right grate bar. The log should sit on the tip of the left center log against the log tab and against the tab on the right grate bar. See Figure 12.9.

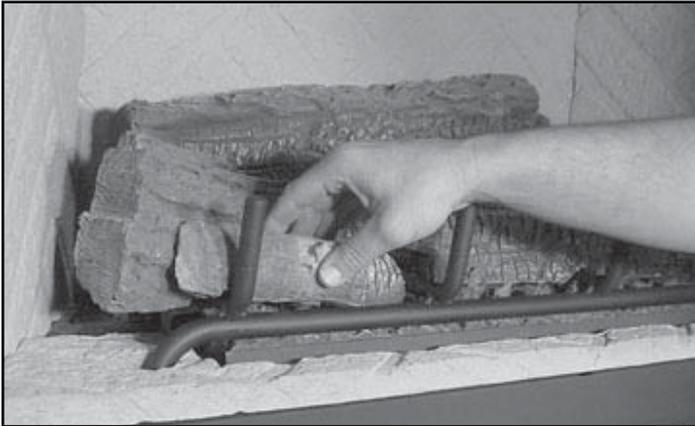


Figure 12.7 Set Left Front Log

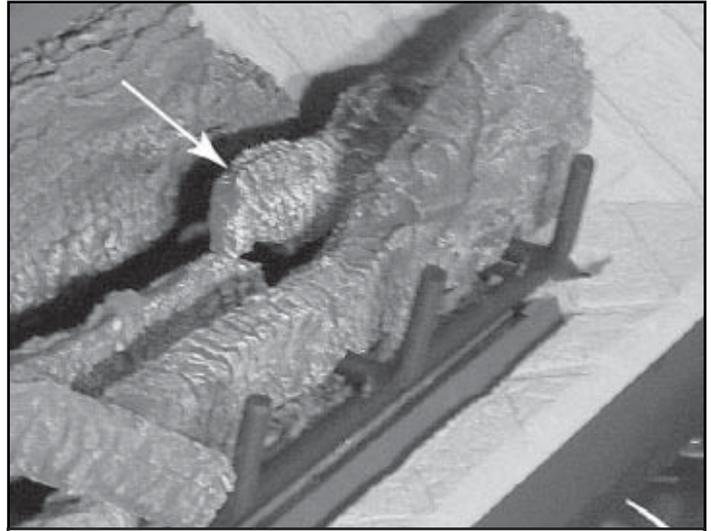


Figure 12.9 Set Right Center Log

- Place LEFT TOP LOG so that the burnt tip of the log sits against the left center grate bar. The body of the log should rest on the white groove on the left center log and the groove in the back log (natural gas). See Figure 12.8. If your appliance is set up for LP gas, this log will not sit on the back log.



Figure 12.8 Set Left Top Log (Natural Gas Shown)

H. Glass Assembly



⚠ WARNING

Handle glass doors with care.

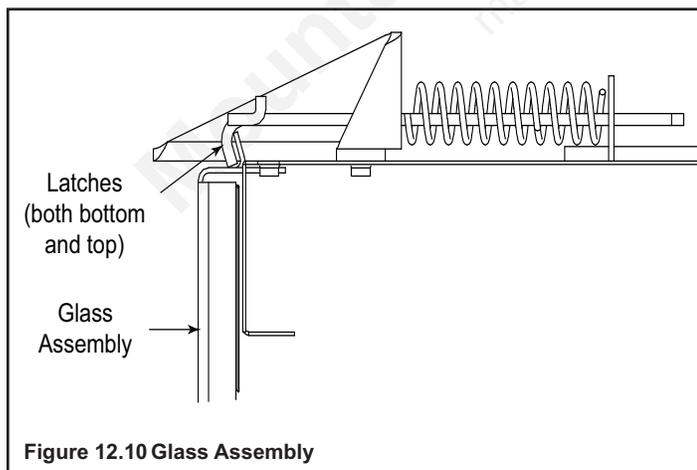
- Inspect the gasket to ensure it is undamaged.
- Inspect the glass for cracks, chips or scratches.
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass door removed, cracked, broken or scratched.
- Replace glass door assembly as a complete assembly.

• Removing Glass Assembly

Lift and pull the upper grille towards you to expose the two (36 in. model) or three (42 in. model) Quick Access Latches. Open the control access panel to expose the two (36 in. model) or three (42 in. model) Quick Access Latches. Rotate the bottom of the screen assembly away from the appliance and lower out of the top retainers. Release the top and bottom access latches and rotate the top of the glass door panel away from the top of the appliance. Place the glass panel on a surface that will not scratch the surface of the glass panel.

• Replacing Glass Assembly

Replace the glass panel on the lower access latches and rotate the upper portion of the glass assembly into place. Engage the top access latches. Engage the lower latches in a similar manner. Reinstall the top corners of the screen assembly in their retainer clips and rotate the screen assembly to rest on the lower latches. Close the access panel and reinstall the upper grille.



I. Grilles and Trim

- Install optional marble and brass trim surround kits using the installation instructions included with them.
- Marble, brass, brick, tile or other 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 space to lower and remove the bottom grille/access panel.

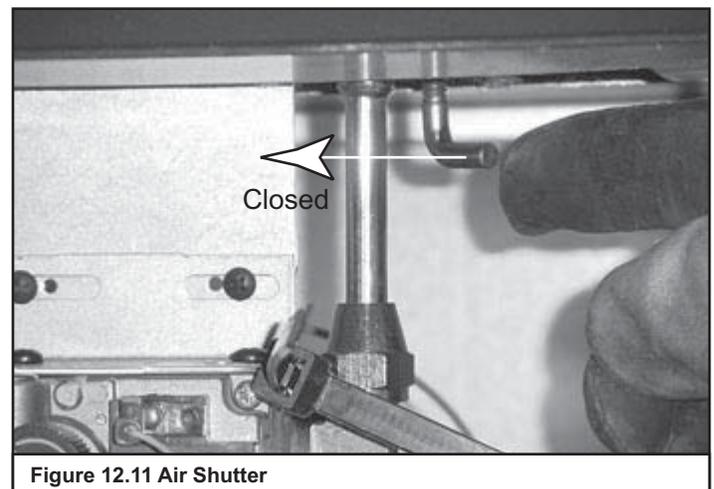
J. Hood

- Align back edge of hood with attachment clips and press firmly in place.

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 12.11). 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 16 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.



13 Operating Instructions

A. Before Operating this Appliance

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).



WARNING

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.



WARNING



Fire Risk Burn Risk

HOT! DO NOT TOUCH.

**SEVERE BURNS MAY RESULT.
CLOTHING IGNITION MAY RESULT**



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

- Keep children away.
- **CAREFULLY SUPERVISE** children in same room as appliance.
- Alert children and adults to hazards of high temperatures.
- Do NOT operate with protective barriers open or removed.
- 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 protective barrier removed.

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

WARNING

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

WARNING

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

B. Lighting the Appliance

Intellifire Ignition



FOR YOUR SAFETY READ BEFORE LIGHTING

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

- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- C. If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in and move the gas control valve or turn the gas control knob. Never use tools. If the lever or knob will not move by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn wall switch to the "OFF" position or thermostat to the lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the pilot. Do NOT try to light the pilot by hand.
5. Wait five minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
6. To turn on the burner, turn on all electric power to this appliance and turn on the wall switch or set the thermostat to the desired setting.
7. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Turn off wall switch or set thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Push the gas control lever in and move to the "OFF" position or push the gas control lever to the "OFF" position. Do not force.
4. Replace the control access panel.

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

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 Z223.1 or, in Canada, current CAN/CGA-B149.

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.

CAUTION: 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.

- * Also certified for installation in a bedroom or a bed-sitting room.
- * For U.S. only!

NATURAL GAS

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 High Temperatures

Keep combustible household items away from appliance.

Do NOT obstruct combustion and ventilation air.

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



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.

14 Troubleshooting

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

A. 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.
		B.	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 correctly.	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
		B.	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 the pilot flame has been lit, flame rectification has not occurred.)	A.	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.
		B.	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.
4.	Pilot sparks, but pilot will not light	A.	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.
		B.	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.	Verify battery voltage is at least 2.7 volts. Replace batteries if voltage is below 2.7.

15 Maintaining and Servicing the Appliance

A. Maintenance and Service

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.

WARNING

Risk of injury or property damage

Before servicing:

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

After Servicing:

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

WARNING



Annual inspection by qualified technician recommended.

Check:

- Condition of 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.

WARNING



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.

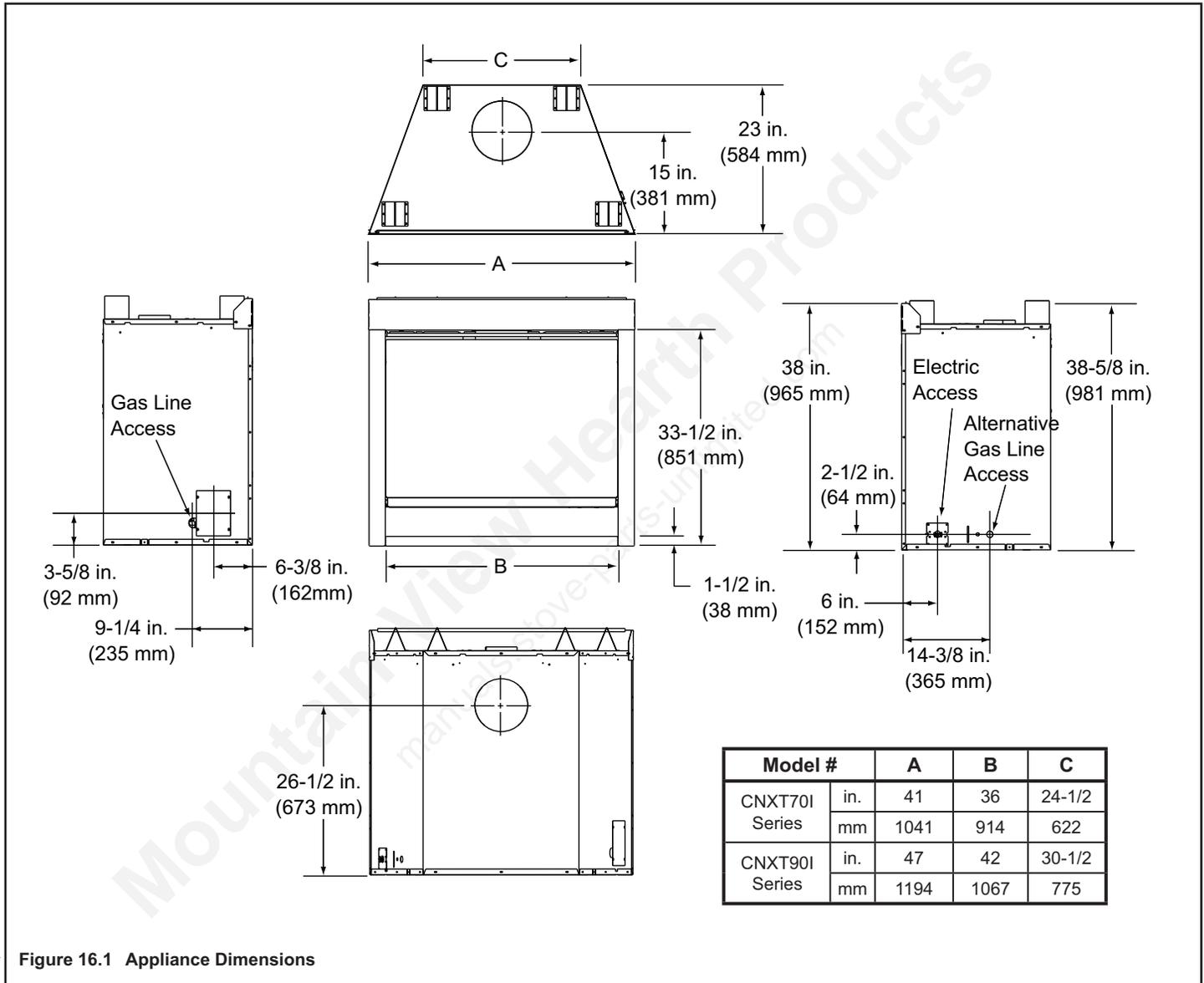
B. Maintenance and Service Tasks:

Inspect	Maintenance Tasks
Doors, surrounds and fronts	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Inspect gasket seal and its condition. 2. Inspect glass panels for scratches and nicks that can lead to breakage when exposed to heat. 3. Confirm there is no damage to glass or glass frame. Replace as necessary. 4. Verify that latches engage properly, clip studs are not stripped, and glass attachment components are intact and operating properly. Replace as necessary. 5. Clean glass using a nonabrasive cleaner such as Brasso®. Replace glass assembly if severely coated with silicate deposits that cannot be removed.
Valve compartment and firebox top	<ol style="list-style-type: none"> 1. Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided. 2. Remove any foreign objects. 3. Verify unobstructed air circulation.
Logs	<ol style="list-style-type: none"> 1. Inspect for broken, damaged, or missing logs. Replace as necessary. 2. Verify correct log placement and no flame impingement causing sooting. Correct as necessary.
Firebox	<ol style="list-style-type: none"> 1. Inspect for paint condition, warpage, corrosion or perforation. Sand and repaint as necessary. 2. Replace appliance if firebox has been perforated.
Burner ignition and operation	<ol style="list-style-type: none"> 1. Verify burner is properly secured and aligned with pilot or ignitor. 2. Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary. 3. Replace rockwool with new dime-sized and shaped pieces. Do not block ports or obstruct lighting paths. 4. Check for smooth lighting and ignition carryover to all ports. Verify there is no ignition delay. 5. Inspect for lifting 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 IPI sensor rod for soot, corrosion and deterioration. Clean with emery cloth or replace as required.
Venting	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Verify operation of remote. 2. Replace batteries in remote transmitters and battery-powered receivers. 3. Verify batteries have been removed from battery back-up in IPI systems to prevent premature battery failure or leaking.

16 Reference Materials

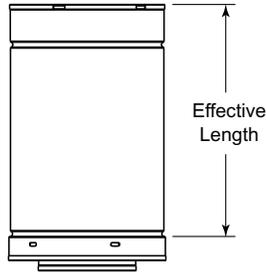
A. Appliance Dimension Diagram

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



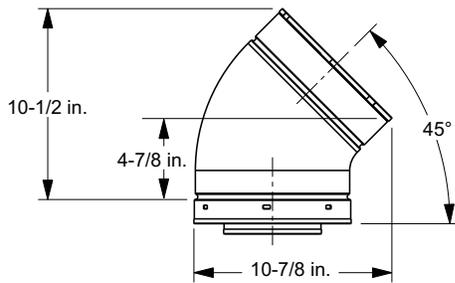
➔ Figure 16.1 Appliance Dimensions

B. Vent Components Diagrams

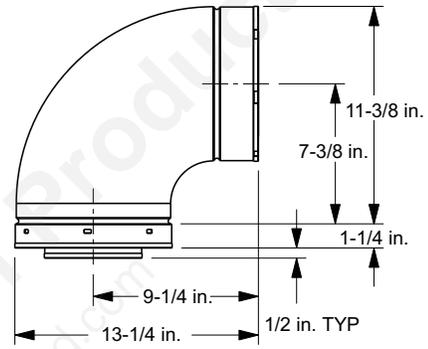


Pipe	Effective Length in inches
DVP4	4
DVP6	6
DVP12	12
DVP24	24
DVP36	36
DVP48	48
DVP6A	3 to 6
DVP12A	3 to 12
DVP12MI	3 to 12
DVP24MI	3 to 24

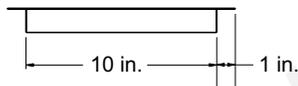
DVP Pipe
(see chart)



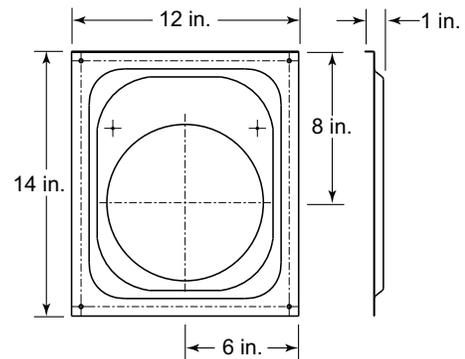
DVP45
45° Elbow



DVP90, DVP90ST
90° Elbow



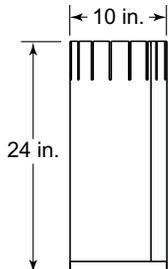
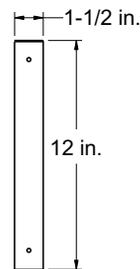
DVP-FS
Ceiling Firestop



DVP-WS
Wall Shield Firestop



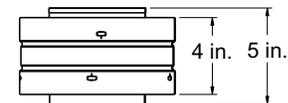
DVP-HVS
Vent Support



DVP-AS
Attic Shield



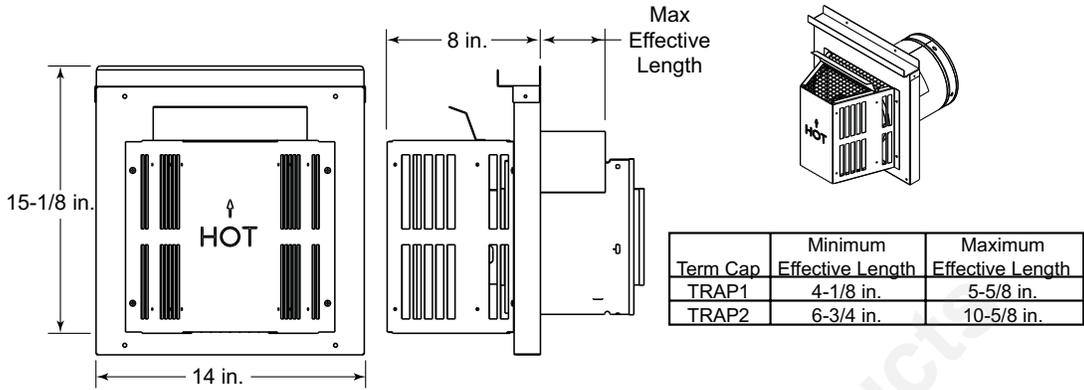
DVP-AD1
Adapter



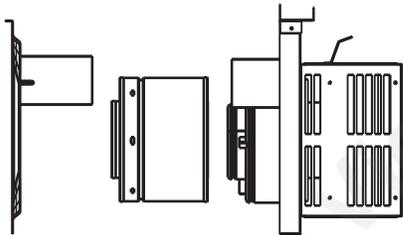
DVP-AD2
Adapter

Figure 16.2 DVP Vent Components

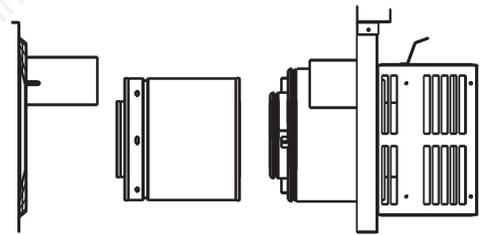
Vent Components Diagrams (con't)



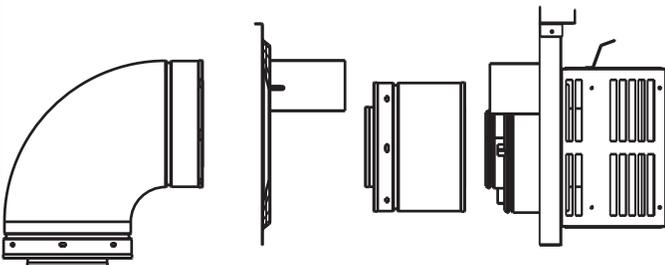
DVP-TRAP SERIES
Horizontal Termination Cap



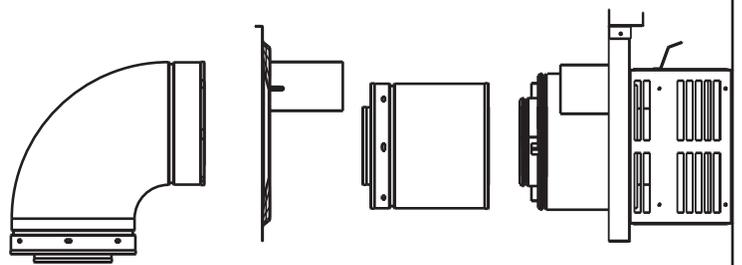
DVP-TRAP1
Horizontal Termination Cap Kit



DVP-TRAP2
Horizontal Termination Cap Kit

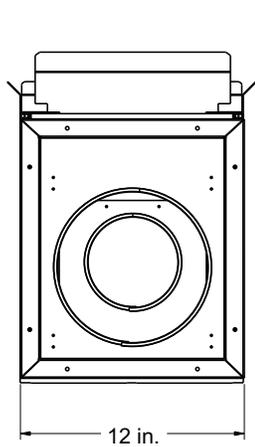


DVP-TRAPK1
Horizontal Termination Cap Kit

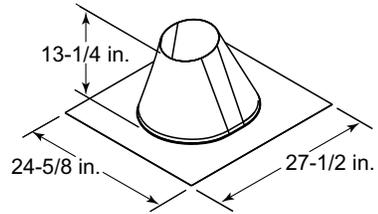
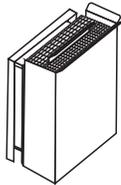
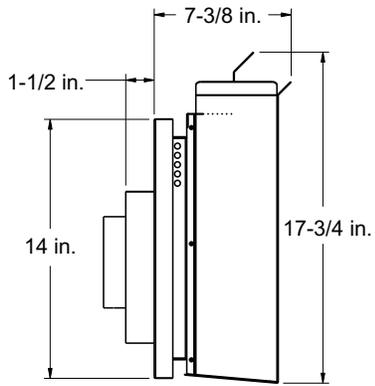


DVP-TRAPK2
Horizontal Termination Cap Kit

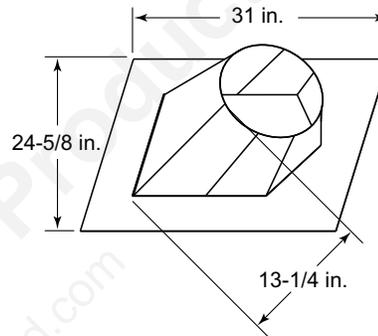
Vent Components Diagrams (con't)



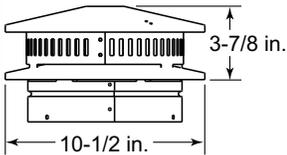
DVP-TB1
Basement Vent Cap



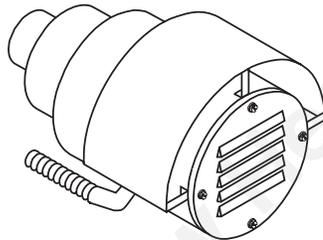
RF6M
Roof Flashing Multi-pak



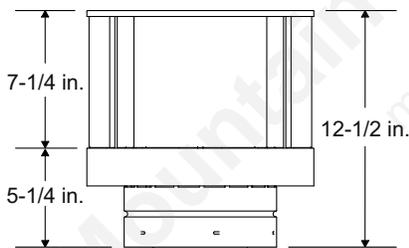
RF12M
Roof Flashing Multi-pak



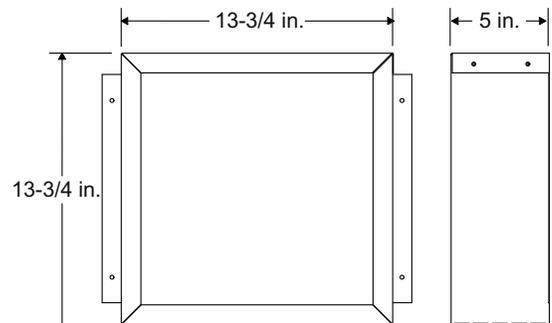
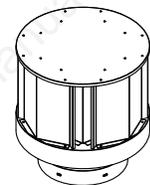
DVP-TV
Vertical Termination Cap



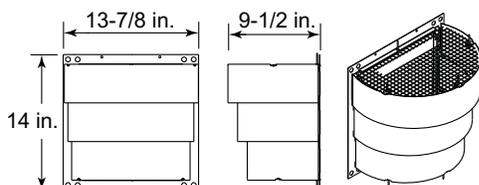
PVK-80
(For use with IPI and DSI appliances only.)



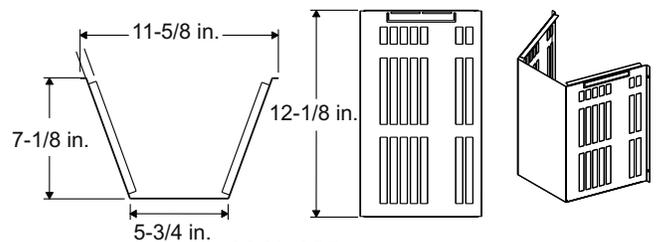
DVP-TVHW
Vertical Termination Cap (High wind)



BEK
Trap Cap Brick Extension



DRC-RADIUS
Cap Shield



COOL-ADD
Cap Shield

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E. Limited Lifetime Warranty



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 in writing. This warranty is limited to only the component parts manufactured or supplied 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.

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F. Contact Information

heatilator®

The first name in fireplaces

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 call 1-800-927-6841.

- NOTES -

CAUTION		
	DO NOT DISCARD THIS MANUAL	
• Important operating and maintenance instructions included.	• Read, understand and follow these instructions for safe installation and operation.	• Leave this manual with party responsible for use and operation.

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