heatilator®
The first name in fireplaces

Owner's Manual

Installation and Operation

Models:
CI60
Woodburning Fireplace



(Traditional refractory shown.)

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.

c UL us LISTED

CAUTION

DO NOT DISCARD THIS MANUAL

DO NOT DISCARD

- 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.
- Do not overfire. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

⚠ 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 fireplace.
- Alert children and adults to hazards of high temperatures.
- Keep clothing, furniture, draperies and other combustibles away.

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

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED

Wood Energy Technical Training

⚠ WARNING

Fire Risk

- For use with solid wood fuel or decorative gas appliance only.
- Do not install unvented gas logs.

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

Congratulations!

Congratulations on selecting a Heatilator wood burning fireplace. The Heatilator fireplace you have selected is designed to provide the utmost in safety, reliability and efficiency.

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

This owner's manual should be retained for future reference. We suggest 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 wood burning fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Heatilator family of fireplace products!

Homeowner Reference Information

We recommend that you record the following pertinent information about your fireplace:

Model Name: _____ Date purchased/installed: _____

Serial Number: _____ Location on fireplace: _____

Dealership purchased from: _____ Dealer phone: _____

Notes: _____

_____

_____

Listing Label Information/Location

The model information regarding your specific fireplace can be found on the rating plate located on the smoke shield of the fireplace.

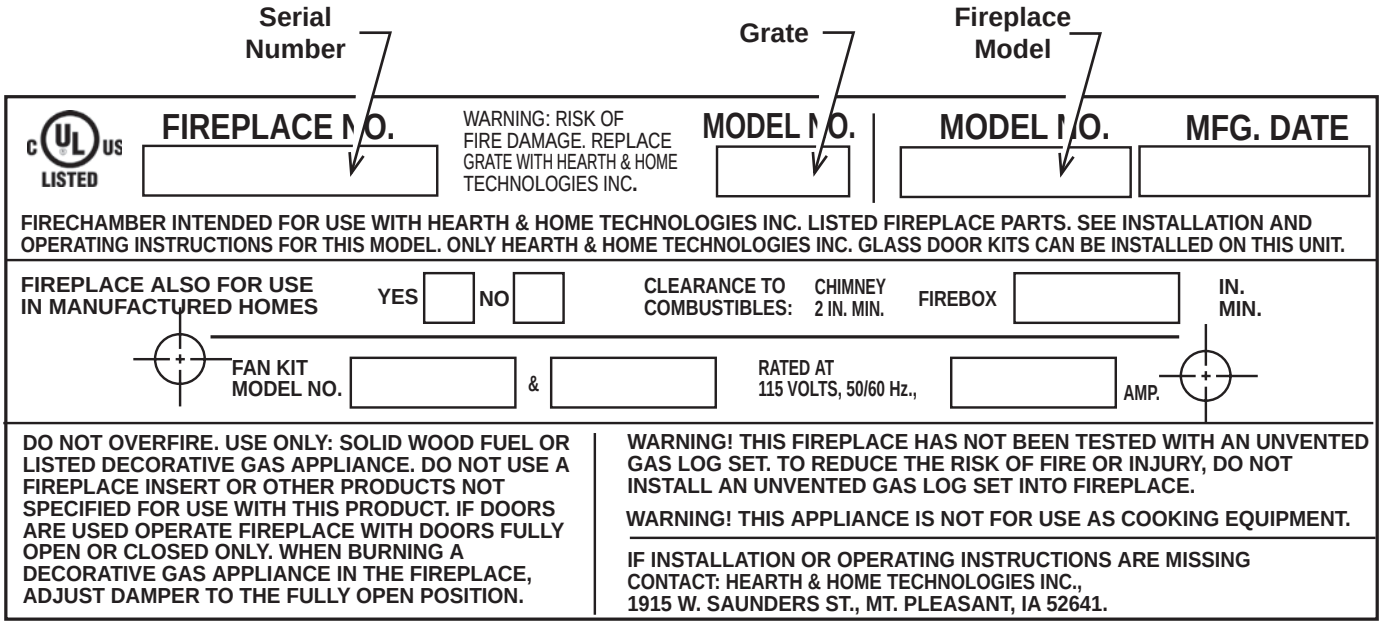


Table of Contents

1 Listing and Code Approvals 4
- A. Appliance Certification 4

2 Getting Started 5
- A. Design and Installation Considerations 5
- B. Negative Pressure 5
- C. Typical Fireplace System 7
- E. Inspect Fireplace and Components 8

3 Framing and Clearances 9
- A. Selecting Fireplace Location 9
- B. Clearances 10
- C. Sidewalls/Surrounds 11
- D. Frame the Fireplace 11
- E. Construct the Chase 12
- F. Chimney Requirements 12

4 Installation of Fireplace 13
- A. Install the Outside Air Kit 13
- B. Securing the Fireplace 15

5 Chimney Assembly 16
- A. Chimney Requirements 17
- B. Using Offsets/Returns 18
- C. Assemble the Chimney Sections 19
- D. Install the Ceiling firestops 19
- E. Install the Attic Insulation Shield 20
- F. Double-check the Chimney Assembly 20
- G. Secure the Chimney 20

6 Complete the Enclosure 21
- A. Chimney Termination 21
- B. Chase Top 22
- C. Install the Termination Cap 22

7 Accessories 23
- A. Gas Log/Lighter Provisions 23

8 Finishing 24
- A. Hearth Extension 24
- B. Finishing Material 26
- C. Mantel 26
- D. Sidewalls/Surrounds 26
- E. Glass Doors 26

9 Operating Instructions 27
- A. General Information 27
- B. Outside Air 28
- C. Clear Space Near the Fireplace 28
- D. Flue Damper 28
- E. Firescreen 28
- F. Glass Doors 28
- G. Grate 29
- H. Wood Fuel 29
- I. Starting a Fire 30

10 Troubleshooting 31
- A. Understanding Vent Problems 31
- B. Diagnostics and Problem Solving 32

11 Maintenance and Servicing the Fireplace 34
- A. Disposal of Ashes 34
- B. Chimney Inspection/Cleaning 34
- C. Firebox Refractory 34
- D. Maintenance Task List 35
- E. Chimney Fire 35

12 Reference Materials 36
- A. Fireplace Dimensions 36
- B. Fireplace Components 37
- C. Chimney Components 38
- D. Service Parts 42
- E. Limited Warranty 47
- F. Contact Information 48

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

1 Listing and Code Approvals

A. Appliance Certification

This fireplace system has been tested and listed in accordance with **UL 127** and **ULC-S610** standards by Underwriters Laboratories Inc. for installation and operation in the United States and Canada.

This fireplace has been tested and listed for use with the optional components specified in this manual. These optional components may be purchased separately and installed at a later date. Installation of an outside air kit will require significant reconstruction and is best if installed at the time of fireplace installation.

Heatilator is a registered trademark of Hearth & Home Technologies Inc.

⚠ WARNING



Fire Risk

- **Do not** install or operate damaged fireplace.
- **Do not** modify fireplace.
- Installation other than as instructed by Hearth & Home Technologies Inc. is strictly prohibited.
- **Do not** operate the fireplace without fully assembling all components.
- **Do not overfire**.
- **Do not install an unvented gas log set.** This fireplace has not been tested for use with unvented gas log sets.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the above actions.

⚠ WARNING

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

Not intended for use as a primary heat source.

This fireplace is tested and approved as a decorative fireplace. It should not be factored as a primary heat source in residential heating calculations.

2 Getting Started

A. Design and Installation Considerations

CAUTION

Check building codes prior to installation.

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

When planning a fireplace installation, it is necessary to determine the following information before installing:

- Where the fireplace is to be installed. See Sections 3 and 4.
- The vent system configuration to be used. See Sections 5 and 6.
- Gas supply piping. See Sections 7.
- Framing and finishing details. See Sections 3, 6 and 8.
- Whether optional accessories—devices such as a fan, wall switch or remote control—are desired. See Section 12.

Draft is the pressure difference needed to vent fireplaces successfully. Considerations for successful draft include:

- Preventing negative pressure
- Location of fireplace and chimney

⚠ WARNING



Asphyxiation Risk

Negative pressure can cause spillage of combustion fumes and soot. Fire needs to draft properly for safe operation.

B. Negative Pressure

Negative pressure results from the imbalance of air available for the fireplace to operate properly. Causes for this imbalance include:

- Exhaust fans (kitchen, bath, etc.).
- Range hoods.
- Combustion air requirements for furnaces, water heaters and other combustion appliances.
- Clothes dryers.
- Location of return-air vents to furnace or air conditioning.
- Imbalances of the HVAC air handling system.
- Upper level air leaks: recessed lighting, attic hatch opening, duct leaks.

To minimize the effects of negative air pressure, the following must be considered:

- Install the outside air kit. Install the intake on the side of the house towards prevailing winds during the heating season.
- Ensure adequate outdoor air is supplied for combustion appliances and exhaust equipment.
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the fireplace.
- Avoid installing the fireplace near doors, walkways or small isolated spaces.
- Recessed lighting should be a “sealed can” design; attic hatches weather stripped or sealed; attic mounted duct work and air handler joints and seams taped or sealed.
- Basement installations should be avoided due to stack effect. Stack effect creates negative pressure in lower levels. Hearth & Home Technologies recommends the use of direct vent fireplaces in basements.

Location of the fireplace and chimney will affect performance. As shown in Figure 2.1 the chimney should:

- Be installed through the warm airspace enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind turbulence.
- Be located away from trees, adjacent structures, uneven roof lines and other obstructions.

Offsets can restrict draft so their use should be minimized. Consider the fireplace location relative to floor and ceiling and attic joists.

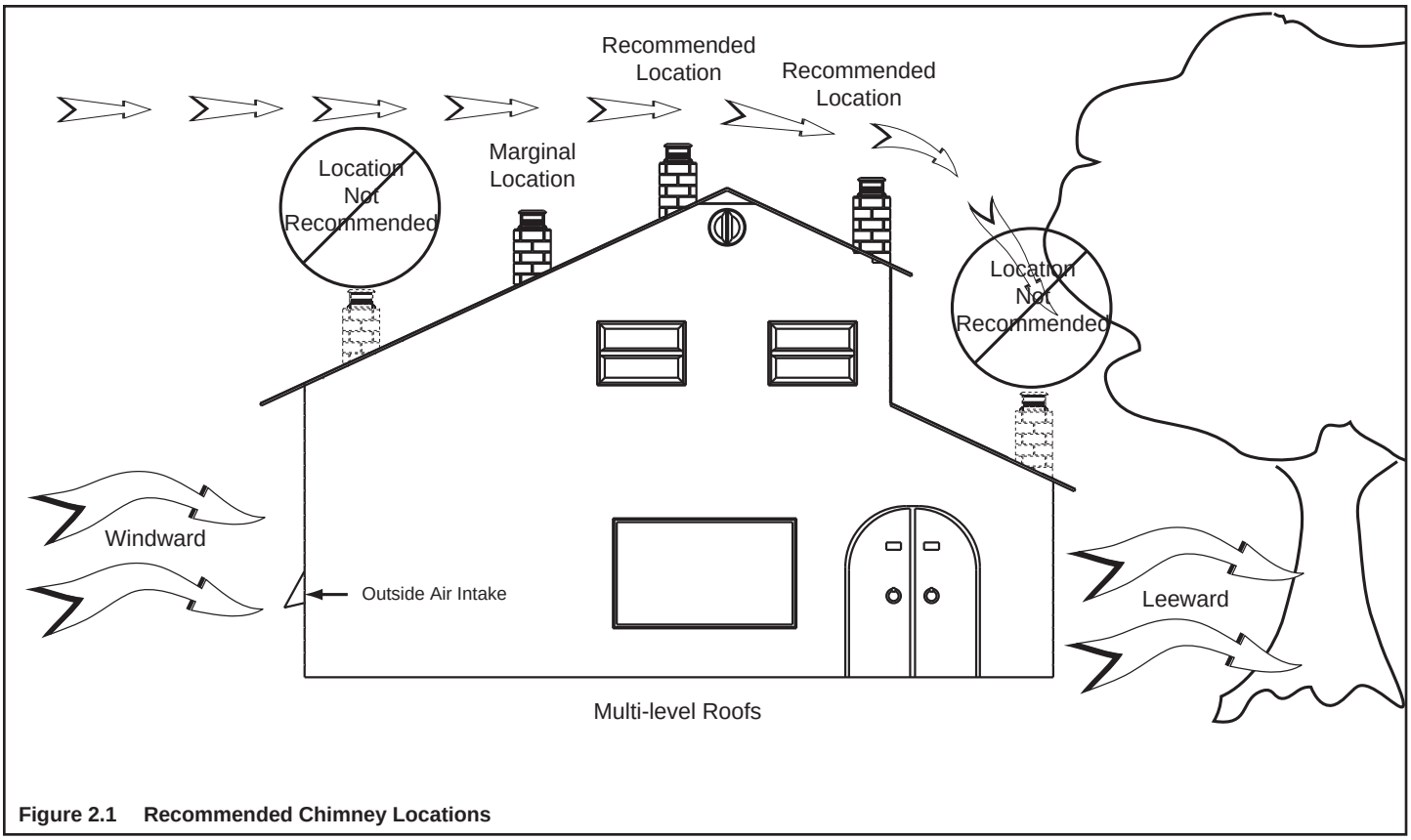


Figure 2.1 Recommended Chimney Locations

C. Typical Fireplace System

The Heatilator fireplace system consists of the following:

- Fireplace/integral grate/refractory/outside air system
- Chimney termination cap
- Chimney system
- Hearth extension

Optional components include:

- Glass doors
- Chimney air kit (Required in Canada)

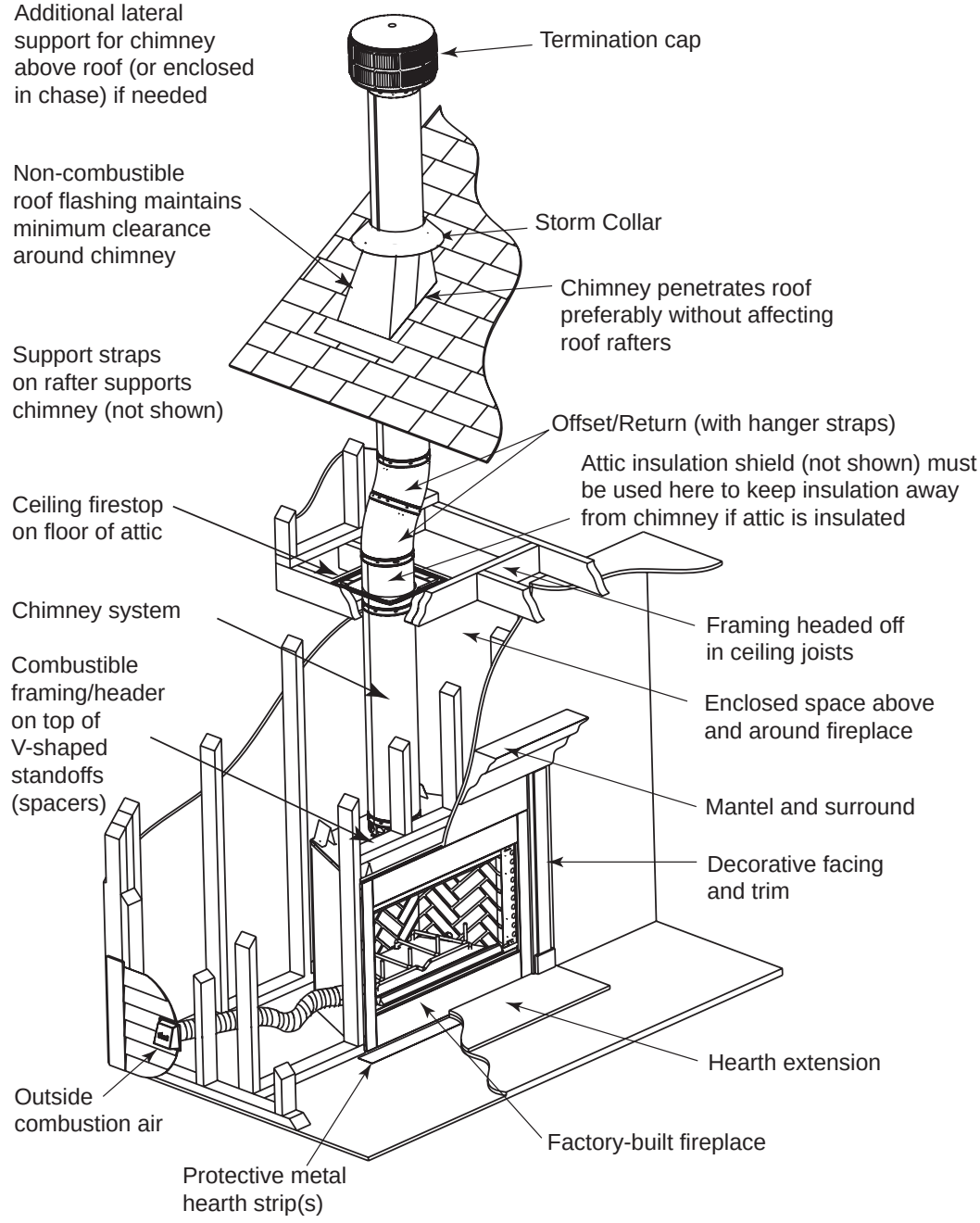


Figure 2.2 Typical Fireplace System

D. Tools and Supplies Needed

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

Reciprocating saw	Framing material
Pliers	High temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Flat blade screwdriver	Electric drill and bits
Plumb line	Safety glasses
Level	Tape measure

1/2-3/4 in. length, #6 or #8 self-drilling screws

Misc. screws and nails

CAUTION

- Keep fireplace dry.
- Mold or rust may cause odors.

E. Inspect Fireplace and Components

⚠ WARNING



Fire Risk

Explosion Risk

Inspect fireplace 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 fireplace and components from the packaging.
- The vent system components and doors are shipped in separate packages.
- Report to your dealer any parts damaged in shipment.
- **Read all the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

3 Framing and Clearances

⚠ WARNING

Fire Risk

Provide adequate clearances.• Around air openings

- To combustibles
- For service access.

Locate fireplace away from traffic areas.

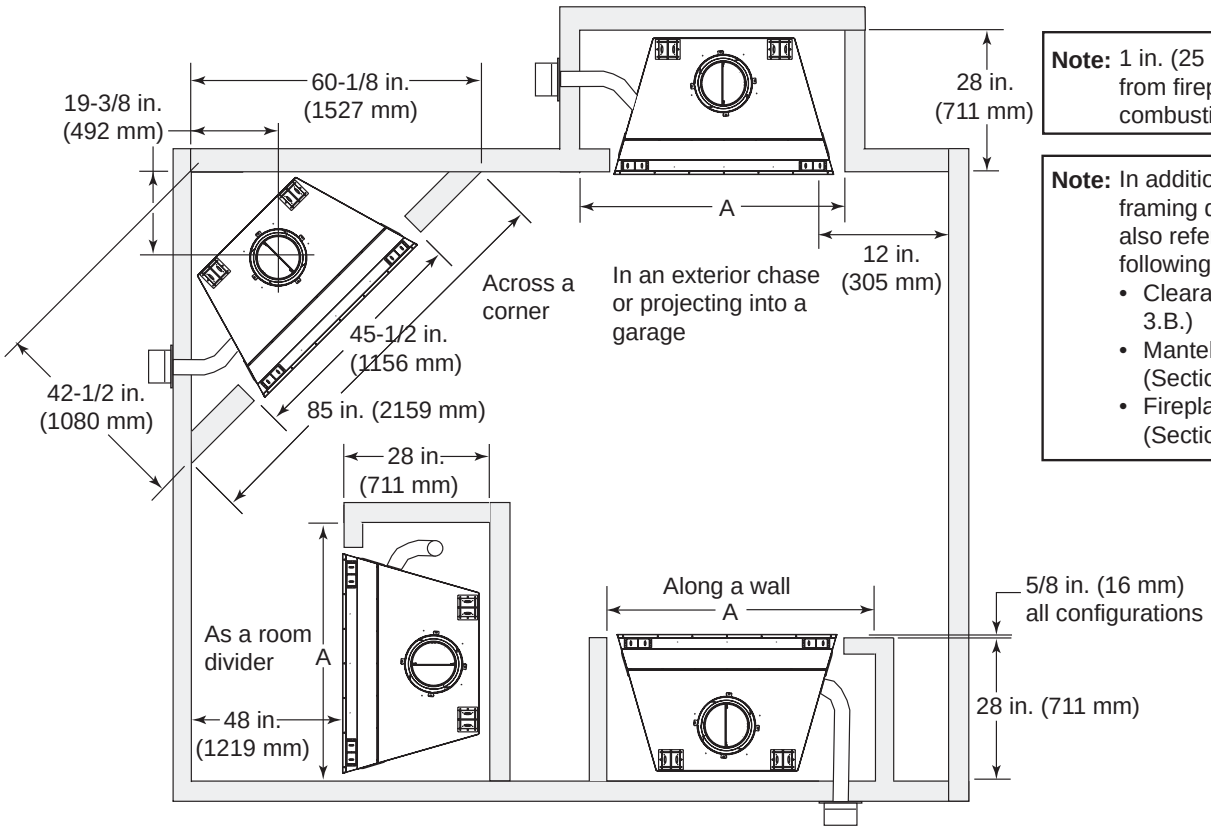
Note:

- Illustrations and photos reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation/appearance may vary due to individual design preference.
- Hearth & Home Technologies reserves the right to alter its products.

A. Selecting Fireplace Location

Several options are available to you when choosing a location for your fireplace. This fireplace may be used as a room divider, installed along a wall, across a corner or used in an exterior chase. See Figure 3.1.

Locating the fireplace in a basement, near frequently opened doors, central heat outlets or returns, or other locations of considerable air movement can affect the performance and cause intermittent smoke spillage from the front of the fireplace. Consideration should be given to these factors before deciding on a location. See Sections 2 and 10.



Note: 1 in. (25 mm) min. distance from fireplace to combustible materials.

Note: In addition to these framing dimensions, also reference the following sections:

- Clearances (Section 3.B.)
- Mantel Projections (Section 8.C)
- Fireplace Dimensions (Section 12.A.)

CI60		A
With Outside Air	in.	49-1/2
	mm	1257
Without Outside Air	in.	45-1/2
	mm	1156

Figure 3.1 Fireplace Locations

B. Clearances

⚠ WARNING

Fire Risk

- Comply with all minimum clearances to combustibles as specified.
- Framing or finishing material used on the front of, or in front of, the appliance closer than the minimums listed, must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc.).

Failure to comply may cause fire.

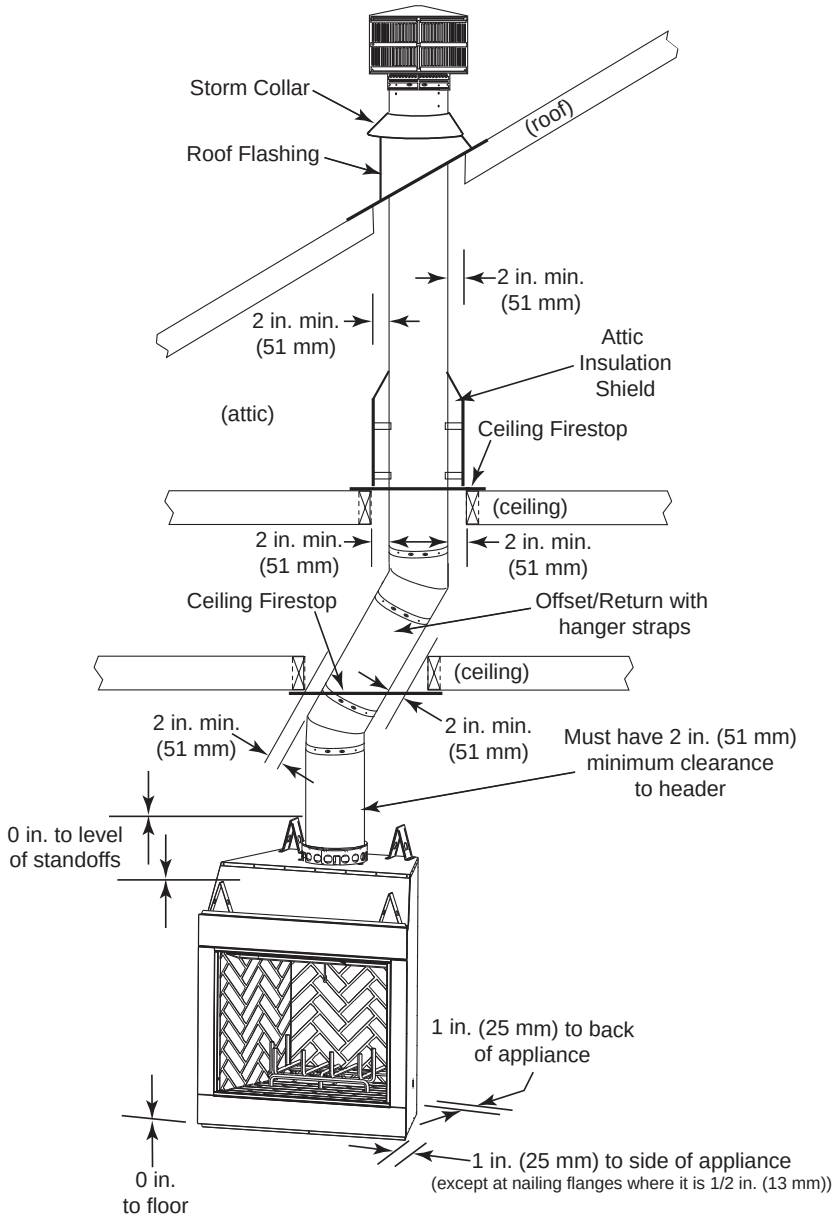
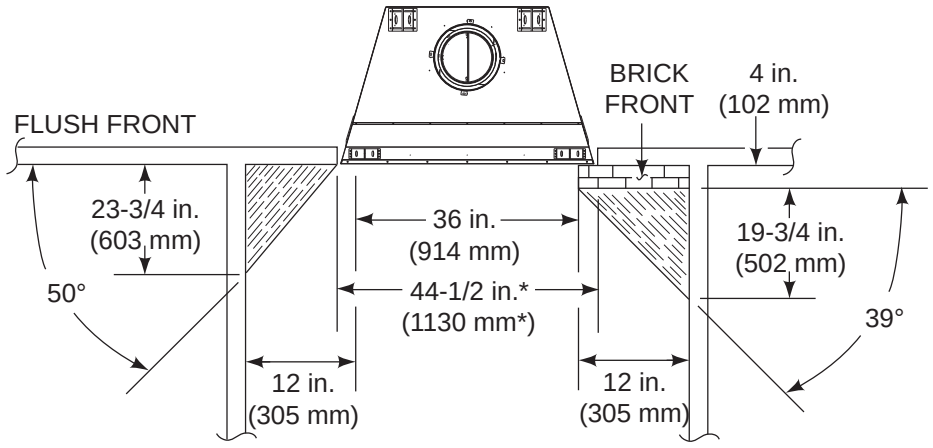


Figure 3.2 Clearances to Combustible Materials

Note: Chimney air kit is not shown, but required in Canada.

C. Sidewalls/Surrounds

Adjacent combustible side walls must be located a minimum of 12 in. (305 mm) from the fireplace opening. See Figure 3.3. If you are using a decorative surround constructed of combustible material, it must be located within the shaded area defined in Figure 3.3. Short stub walls are also acceptable if they are contained within the shaded area.



*Outside to outside edges of fireplace (not framing).

Figure 3.3 Sidewalls and Surrounds

D. Frame the Fireplace

Figure 3.4 shows a typical framing (using 2 x 4 lumber) of the fireplace, assuming combustible materials are used. All required clearances to combustibles around the fireplace must be adhered to. See Figure 3.2. Any framing across the top of the fireplace must be above the level of the top standoffs.

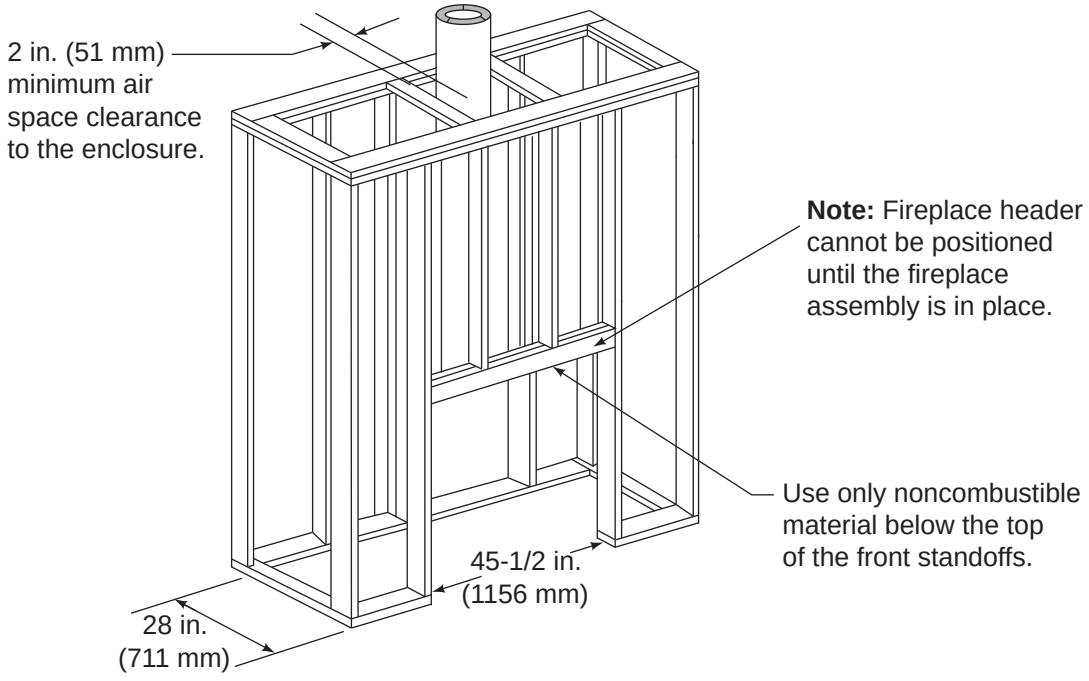


Figure 3.4 Framing the Fireplace

E. Construct the Chase

A chase is a vertical boxlike structure built to enclose the fireplace and/or its vent system. Vertical chimneys that run on the outside of a building must 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. All outer walls need to be insulated.

Building codes require false ceiling and ceiling firestops at each floor of the chase or every 10 ft (3.05 m) of clear space to control spread of fire.

Walls, ceiling, base plate and cantilever floor at the first level of the chase should be insulated. See Figure 3.5. 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 sheet rocked and taped (or the use of an equivalent method) for maximum air tightness.

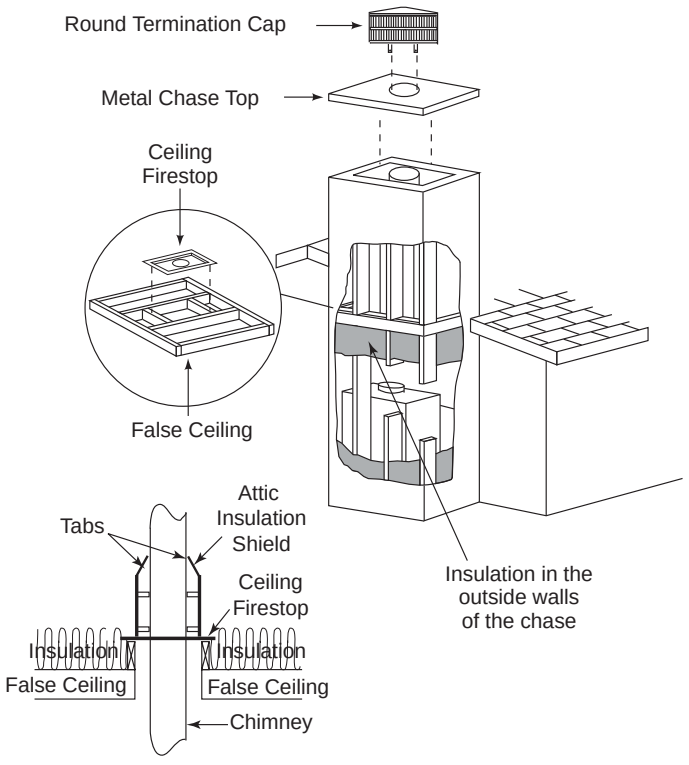


Figure 3.5 Chase Assembly

Gas line holes and other openings should be caulked with high temperature caulk or stuffed with unfaced fiberglass insulation. If the fireplace is being installed on a cement slab, we recommend that in cold climates, a sheet of plywood or other raised platform be placed underneath to prevent conducting cold up into the room.

Three examples of chase applications are shown in Figure 3.6

1. Fireplace and chimney enclosed in an exterior chase.
2. Chimney offset through exterior wall and enclosed in chase.
3. Chase constructed on roof.

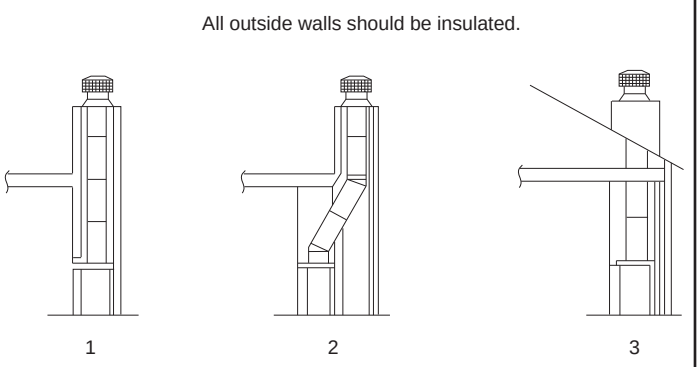


Figure 3.6 Chase Constructions

F. Chimney Requirements

When planning your fireplace location, the chimney construction and necessary clearances must be considered. The fireplace system and chimney components have been tested to provide flexibility in construction. The following figures are the minimum distances from the base of the fireplace.

	ft	***m***
• Minimum overall straight height	18	5.5
• Minimum height with offset/return	18.5	5.6
• Maximum height	90	27.4
• Maximum chimney length between an offset and return	20	6
• Maximum distance between chimney stabilizers	35	10.7
• Double offset/return minimum height	24	7.3
• Maximum unsupported chimney length between the offset and return	6	1.8
• Maximum straight unsupported chimney height above the fireplace	35	10.7
• Maximum unsupported chimney above roof	6	1.8

Note: A maximum of two pairs of offsets and returns may be used.

4 Installation of Fireplace

CAUTION

Sharp Edges

- Wear protective gloves and safety glasses during installation.

A. Install the Outside Air Kit

This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system. See Section 2.

The outside air kit is supplied with this fireplace and its use is highly recommended to minimize the effects of negative pressure within the structure. We recommend you utilize the shortest duct run to optimize the performance of the outside air kit. Cold air flow can be minimized by putting a small dip in the duct creating a cold air trap. This trap can also help prevent heat build-up and exhausting out the intake due to the stack effect. The outside air kit inlet should be positioned in a manner that will not allow snow, leaves, etc. to block the inlet. In some installations the air duct may need to be run vertically. In such an installation, a 3 ft (.914 m) height difference must be maintained from the top of the uppermost chimney section to the outside combustion air inlet. See Figure 4.2.

See Figure 4.3 for proper placement of outside air inlet.

The outside air kit is installed on the left hand side of the fireplace. See Figure 4.4 for handle location/operation.

⚠ WARNING

Fire Risk

Asphyxiation Risk

Do not draw outside combustion air from:

- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.
- Close proximity to exhaust vents or chimneys.

Fumes or odor may result.

CAUTION

Risk of Smoke Spillage

Outside air inlet must be located to prevent blockage from:

- Leaves
- Snow/ice
- Other debris

Blockage may cause combustion air starvation.

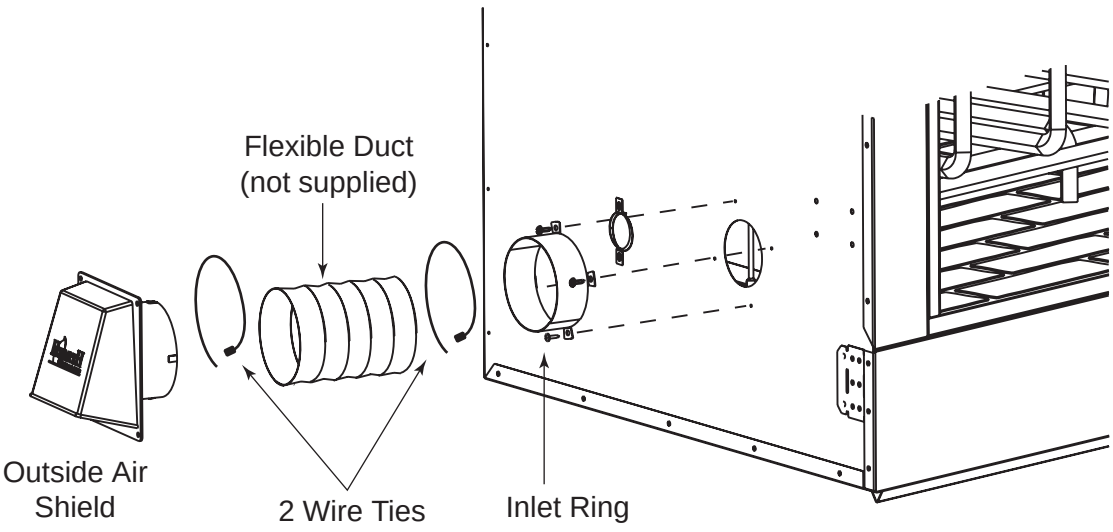


Figure 4.1 Outside Air Installation

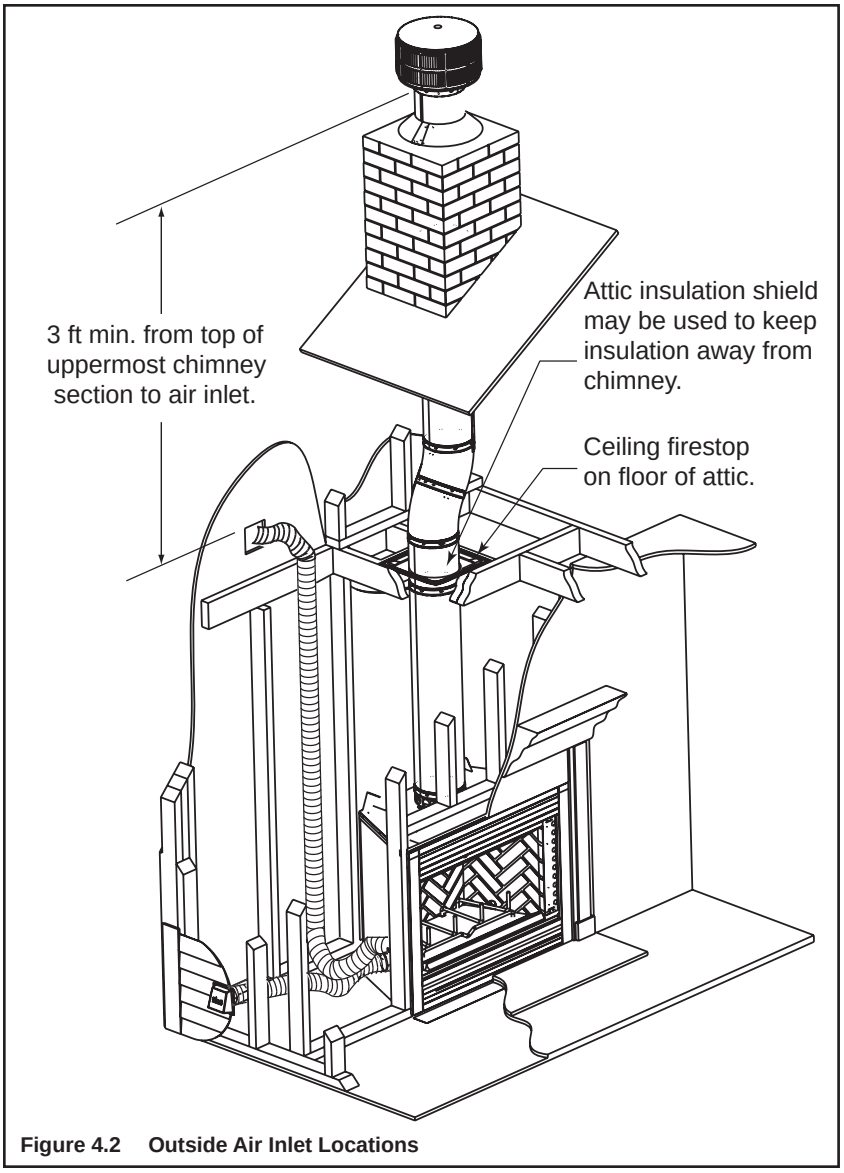


Figure 4.2 Outside Air Inlet Locations

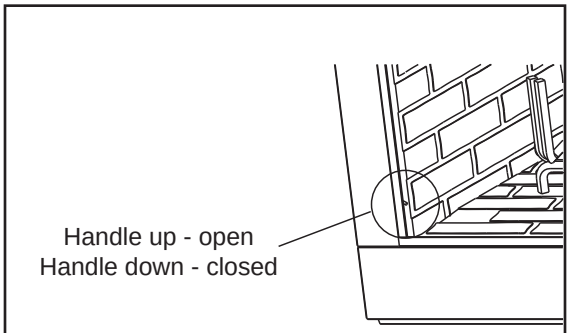


Figure 4.4 Locating the Outside Air Control

Note: Chimney air kit is required in Canada.

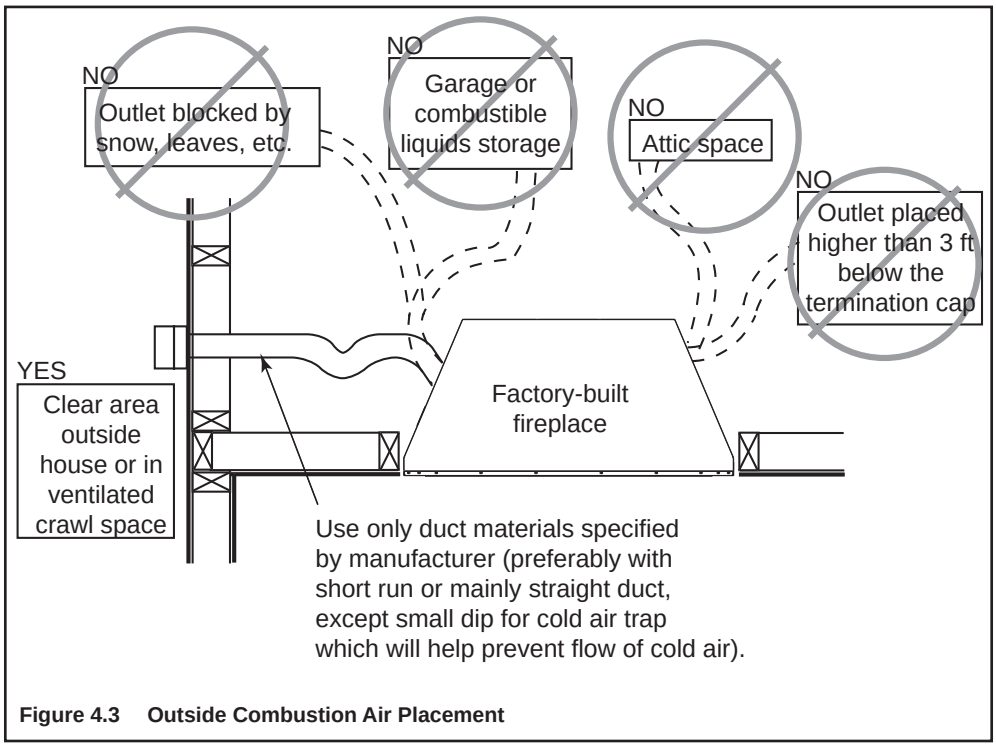


Figure 4.3 Outside Combustion Air Placement

B. Securing the Fireplace

- **Position the Fireplace**

  This fireplace may be placed on either a combustible or noncombustible continuous flat surface. Follow the instructions for framing in Section 3.D. Slide the fireplace into position. **Be sure to provide the minimum air clearance at the sides and back of the fireplace assembly.** See Section 3.B.

⚠ WARNING

Fire Risk!

- Prevent contact with sagging, loose insulation.
- Do NOT install against vapor barriers or exposed insulation.

- **Place the Protective Metal Hearth Strips**

⚠ WARNING

Fire Risk!

- Metal hearth strips MUST be installed.

Sparks or embers may ignite flooring.

Included with your fireplace you will find two metal hearth strips measuring approximately 26 in. (660 mm) x 4 in. (102 mm) These strips are used to provide added protection where the fireplace and the hearth extension meet.

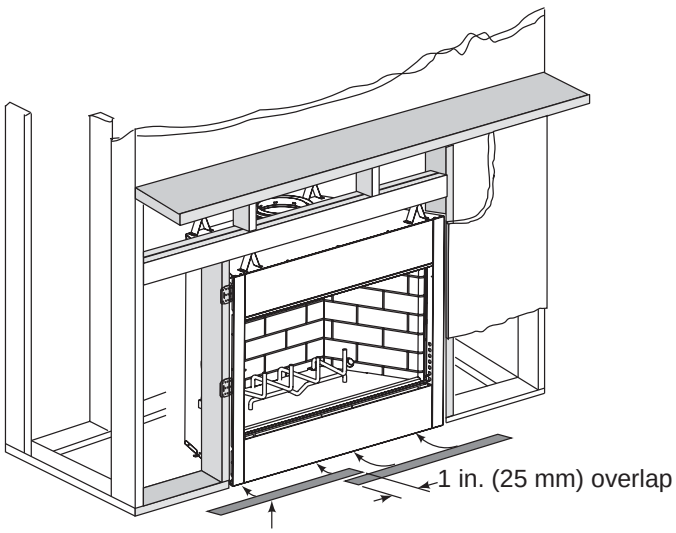
Slide each metal strip 2 in. (51 mm) under the front edge of the fireplace. The individual pieces must overlap each other by 1 in. (25 mm) minimum in the middle of the fireplace to provide continuous coverage of the floor. See Figure 4.3. These metal strips should extend from the front and sides of the fireplace opening by 2 in. (51 mm).

Note: When elevating the fireplace above the hearth extension the front of the elevated platform must be protected with a protective metal hearth strip as shown in Figure 4.4.

- **Level the Fireplace**

  Level the fireplace side-to-side and front-to-back. Shim with noncombustible material, such as sheet metal, as necessary. Secure the fireplace (using the nailing flanges located on either side of the fireplace) to the vertical framing.

Important: To ensure proper fit of the glass doors, check the fireplace opening for square. Measure diagonal distances of the opening to make sure they are equal. If they are not, continue to shim the fireplace until those diagonals are equal.



Metal strips are placed 2 in. (51 mm) under the front of the fireplace and must extend beyond the front and sides of fireplace opening by 2 in. (51 mm).

Figure 4.3 Position the Protective Metal Hearth Strips

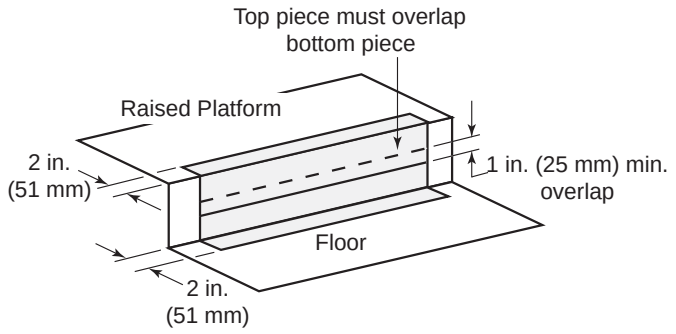


Figure 4.4 Protect the Front of an Elevated Platform

5 Chimney Assembly

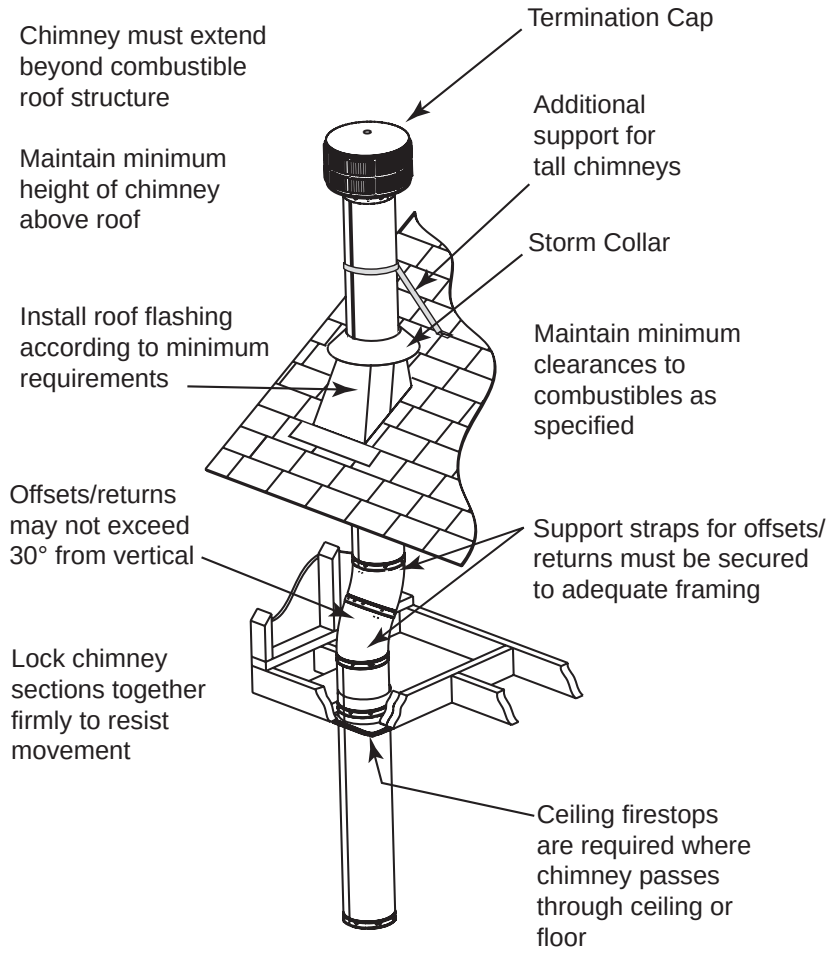


Figure 5.1 Typical Chimney System - Guidelines for Chimney System Installation

NOTE:

- Chimney performance may vary.
- Trees, buildings, roof lines and wind conditions affect performance.
- Chimney height may need adjustment if smoking or overdraft occurs.

A. Chimney Requirements

Vertical distances are measured from the base of the fireplace as shown in Figure 5.2.

	ft	*m*
• Minimum overall straight height	18	5.5
• Minimum height with offset/return	18.5	5.6
• Maximum height	90	27.4
• Maximum chimney length between an offset and return	20	6
• Maximum distance between chimney stabilizers	35	10.7
• Double offset/return minimum height	24	7.3
• Maximum unsupported chimney length between the offset and return	6	1.8
• Maximum straight unsupported chimney height above the fireplace	35	10.7
• Maximum unsupported chimney above roof	6	1.8

Note: A maximum of two pairs of offsets and returns may be used.

To determine the chimney components needed to complete your particular installation, follow the steps below:

- Determine the total vertical height of the fireplace installation. This dimension is measured from the base of the fireplace assembly to the point where the smoke exits the termination cap.
- Subtract the effective height of the fireplace assembly from the overall height of the fireplace installation (measured from the base of the fireplace to the bottom of the termination cap).
- Refer to Table 5.1 to determine what components must be selected to complete the fireplace installation.
- Determine the number of ceiling firestops, stabilizers, roof flashing, etc. required to complete the fireplace installation.

⚠ WARNING

Fire Risk

- Must maintain 2 in. (51 mm) air clearance to insulation and other combustible materials.

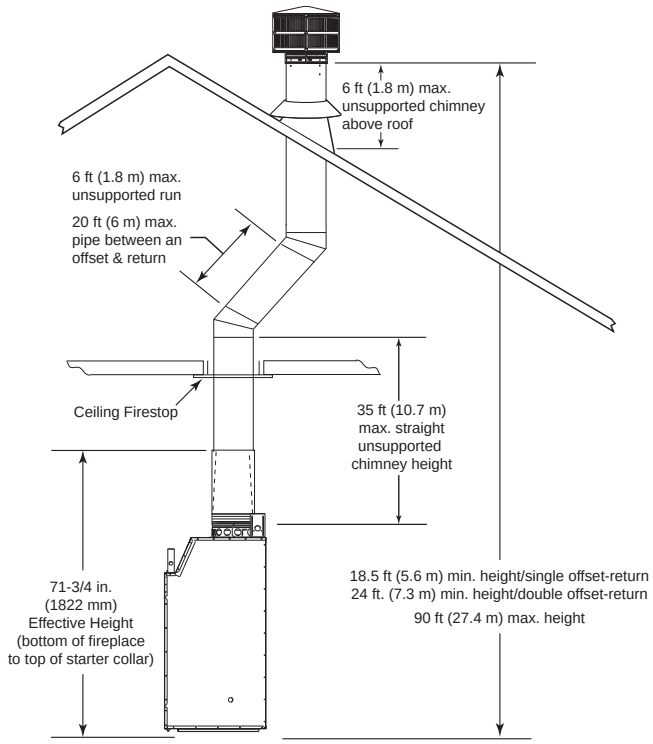


Figure 5.2 Chimney Requirements

Table 5.1

HEIGHT OF CHIMNEY COMPONENTS		*in.*	*mm*
Chimney Stabilizer			
	SL4	4-3/4	121
Ceiling Firestops			
	FS538	0	0
	FS540	0	0
Offsets/Returns			
	SL430	14-1/2	368
Roof Flashing			
	RF570	0	0
	RF571	0	0
Chimney Sections*			
	SL406	4-3/4	121
	SL412	10-3/4	273
	SL418	16-3/4	425
	SL436	34-3/4	883
	SL448	46-3/4	1187

*** Dimensions reflect effective height.**

⚠ CAUTION

- Do NOT connect this fireplace to a chimney flue servicing another appliance.
- Do NOT connect to any air distribution duct or system.

➡ B. Using Offsets/Returns

To bypass any overhead obstructions, the chimney may be offset using an offset/return.

An offset and return may be attached together or a chimney section(s) may be used between an offset and return.

Perform the following steps to determine the correct chimney component combination for your particular installation:

⚠ WARNING

Fire Risk

- Draft will be restricted if offset/returns greater than 30° are used.

- Measure how far the chimney needs to be shifted to enable it to avoid the overhead obstacle. See Figure 5.3. Use dimension “A” to determine chimney section required to achieve the needed shift.
- After determining the offset dimension, refer to Table 5.2 and find the “A” dimension closest to but not less than the distance of shift needed for your installation.
- The “B” dimension that coincides with the “A” dimension represents the required vertical clearance that is needed to complete the offset and return.
- Read across the chart and find the number of chimney sections required and the model number of those particular chimney parts.
- Whenever the chimney penetrates a floor/ceiling, a ceiling firestop must be installed.
- The effective height of the fireplace assembly is measured from the base of the fireplace to the top of the starter collar. See Dimensions in Section 12.

Table 5.2

A		B						
in.	*mm*	*in.*	*mm*	SL406	SL412	SL418	SL436	SL448
4 7/8	124	17 7/8	454	-	-	-	-	-
7 1/4	184	2 2	559	1	-	-	-	-
9 3/4	248	26 1/8	664	2	-	-	-	-
10 1/4	260	27 1/4	692	-	1	-	-	-
12 3/4	324	31 3/8	797	1	1	-	-	-
13 1/4	337	32 3/8	822	-	-	1	-	-
15 3/4	400	36 5/8	930	-	2	-	-	-
18 1/8	460	40 3/4	1035	1	2	-	-	-
18 3/4	476	41 3/4	1060	-	1	1	-	-
21 3/4	552	4 7	1194	-	-	2	-	-
22 1/4	565	48	1219	-	-	-	1	-
24 3/4	629	52 1/8	1324	1	-	-	1	-
27 3/4	705	57 3/8	1457	-	1	-	1	-
28 1/4	718	58 3/8	1483	-	-	-	-	1
30 3/4	781	62 1/2	1588	1	-	-	-	1
33 3/4	857	67 3/4	1721	-	1	-	-	1
36 3/4	933	73	1854	-	-	1	-	1
39 3/4	1010	78 1/8	1984	-	-	-	2	-
41 1/8	1045	82 3/8	2092	1	-	-	2	-
45 3/4	1162	88 1/2	2248	-	-	-	1	1
48 1/8	1222	92 3/4	2356	1	-	-	1	1
51 3/4	1314	98 7/8	2511	-	-	-	-	2

Proper assembly of air cooled chimney parts results in an overlap of chimney joints of 1-1/4 in. (32 mm). Effective length is built into this table.

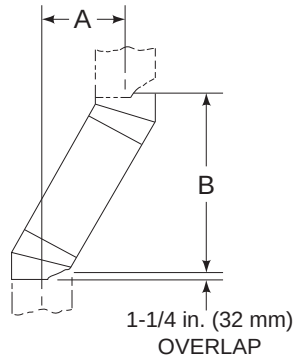


Figure 5.3 Chimney Offset/Return

Example: Your “A” dimension from Figure 5.3 is 14 1/2 in. (368 mm). Using Table 5.2 the dimension closest to, but not less than 14 1/2 in. (368 mm) is 15 3/4 in. (400 mm) using a 30° offset/return. It is then determined from the table that you would need 36 5/8 in. (930 mm) (Dimension “B”) between the offset and return. The chimney components that best fit your application are two SL412s.

C. Assemble the Chimney Sections

Attach either a straight chimney section or an offset to the top of the fireplace (depending on your installation requirement). Chimney sections are locked together by pushing downward until the top section meets the stop bead on the lower section.

The inner flue is placed to the inside of the flue section below it. The outer casing is placed outside the outer casing of the chimney section below it. See Figure 5.4.

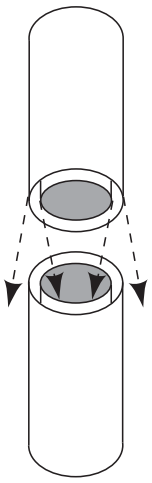


Figure 5.4 Assembling Chimney Sections

Note: Inner flue and outer liner sections cannot be disassembled once locked together. Plan ahead to ensure the proper installation height is achieved with the selected chimney components.

⚠ WARNING



Fire Risk

Do NOT install substitute or damaged chimney components.

- MUST use chimney system described in this manual.
- NO OTHER chimney components may be used.

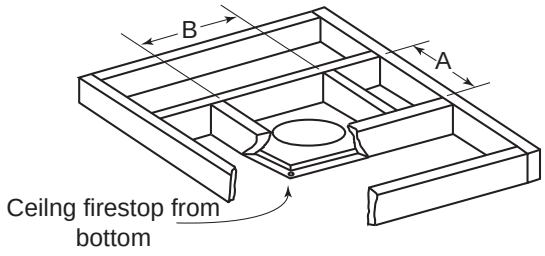
Substitute or damaged chimney components may impair safe operation.

D. Install the Ceiling firestops

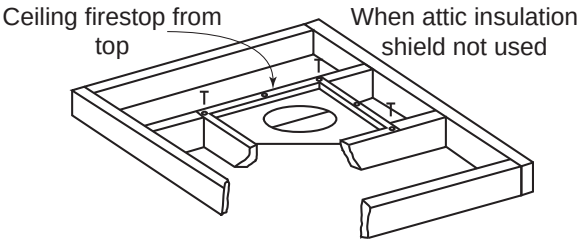
- Mark and cut an opening in the ceiling for the ceiling firestop being used. See Figure 5.5.
- Frame the opening with the same size lumber used in the ceiling joists.
- Install the ceiling firestop.

Note: The ceiling firestop MUST be nailed to the bottom of the ceiling joists EXCEPT when the space above is uninsulated and the attic insulation shield is not being used (see Figure 5.5). When the attic insulation shield is used the ceiling firestop may be above or below the joist of an insulated ceiling.

ROOM ABOVE (non-insulated ceiling)



ATTIC ABOVE (insulated ceiling)



Note: Use same dimensional lumber for framing ceiling firestop and joists.

Catalog #	A		B	
	in.	*mm*	*in.*	*mm*
FS538	17	432	17	432
FS540	17	432	26	660

Figure 5.5 Installing the Ceiling Firestop

Note: You must provide support for the pipe during construction and check to be sure inadvertent loading has not dislodged the chimney section from the fireplace or at any chimney joint.

CAUTION

- Ceiling firestops must be used at ceiling/floor.
- Chase construction requires ceiling firestops at each floor or every 10 ft. [3 m] of clear space.
- Use same dimensional lumber as joists.

Ceiling firestop slows spread of fire and reduces cold air infiltration.

E. Install the Attic Insulation Shield

An insulation shield must be installed when there is a possibility of insulation coming into contact with the factory built chimney system.

- Bend the tabs at the top of the attic insulation shield inward. This will help keep the chimney section centered in the shield.
- Position the shield over the vertical chimney section where it penetrates a ceiling firestop.
- Slide the shield down until it rests on the ceiling firestop. The ceiling firestop will support the insulation shield. See Figures 5.6 and 5.7.

⚠ WARNING

Fire Risk

- DO NOT pack insulation or other combustibles: between ceiling firestops; between chimney and attic insulation shield.
- ALWAYS maintain specified clearances around chimney and ceiling firestop systems.
- Install ceiling firestops as specified.

Failure to keep insulation or other material away from chimney pipe may cause fire.

F. Double-check the Chimney Assembly

Continue assembling the chimney sections up through the ceiling firestops as needed. While doing so, be aware of the height and unsupported chimney length limitations given under Section 5.A. Chimney Requirements.

Check each section by pulling up slightly from the top to ensure proper engagement before installing the succeeding sections. If they have been connected correctly, they will not disengage when tested.

G. Secure the Chimney

When offsets and returns are joined to straight pipe sections, they must be locked into position with the screws provided* (outer only), using the predrilled holes. To prevent gravity from pulling the chimney sections apart, the returns and the chimney stabilizers have hanger straps for securing these parts to joists or rafters. See Figure 5.8.

* or equivalent #6 or #8 sheet metal screw no longer than 3/4 in. (19 mm).

⚠ WARNING

Fire Risk

- Secure offsets with screws (not to exceed 3/4 in./19 mm in length).
- Secure returns with strapping.
- Straight chimney sections may be secured with screws (not to exceed 3/4 in./19 mm in length) at the joints.

Keep chimney sections from separating or twisting.

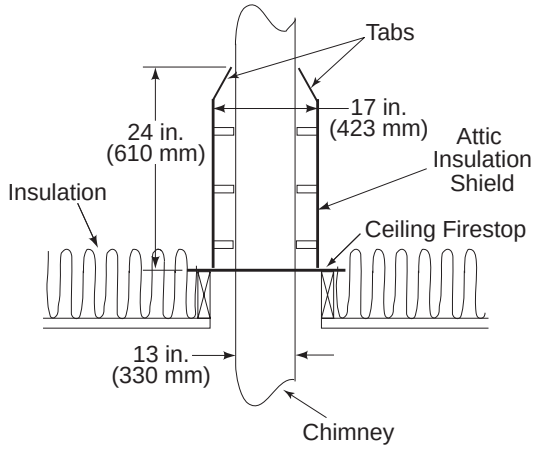


Figure 5.6 Install Attic Insulation Shield Above the Ceiling

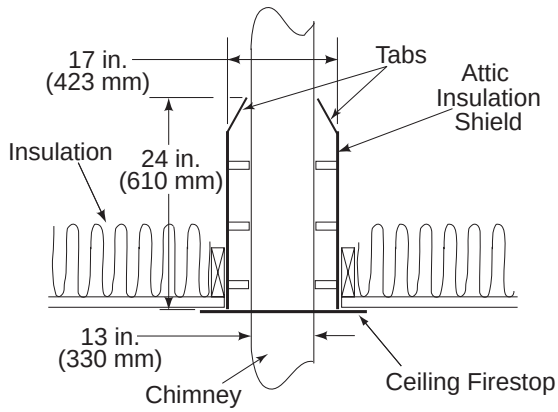


Figure 5.7 Install Attic Insulation Shield Below the Ceiling

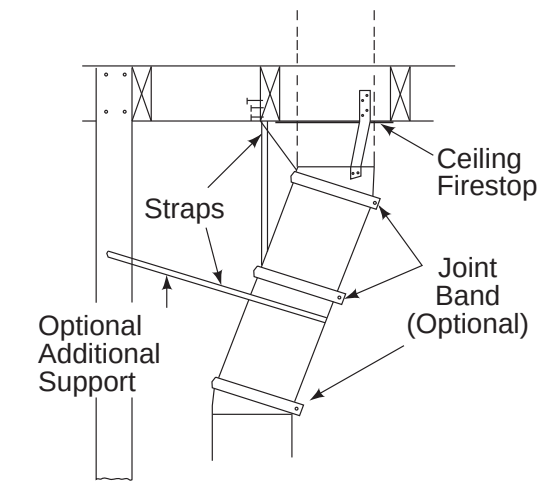


Figure 5.8 Secure the Chimney

6 Complete the Enclosure

A. Chimney Termination

Chimney Termination Requirements (See Figures 6.1 and 6.2)

- Must have a cap approved and listed for this fireplace system
- Must not be located where it will become plugged by snow or other material
- Must terminate at least 3 ft (914 mm) above the roof **and** at least 2 ft (61 mm) above any portion of the roof within 10 ft (3.05 m).
- Must be located away from trees or other structures

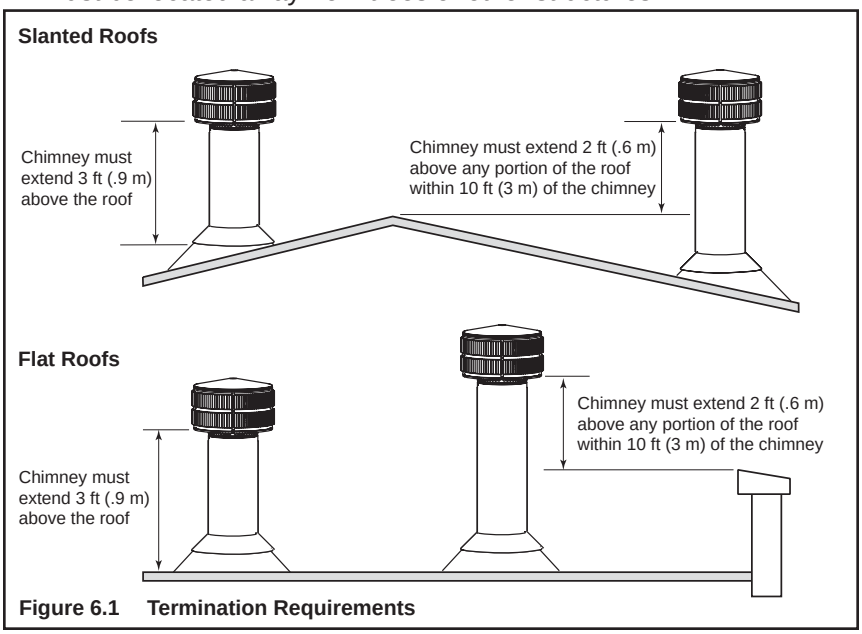
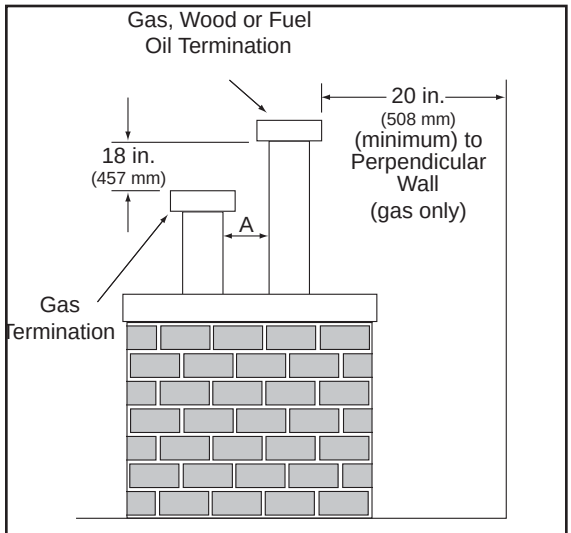


Figure 6.1 Termination Requirements



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

Figure 6.2 Multiple Chimneys

Mark the Exit Point of the Roof

Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 6.3.

Cut Out the Hole in the Roof

Measure to either side of the nail and mark the 14-1/2 in. x 14-1/2 in. (368 mm x 368 mm) opening required. This is measured on the horizontal; actual length may be larger depending on the pitch of the roof. Cut out and frame the opening. See **Chapter 25** of the **Uniform Building Code** for roof framing details.

⚠ WARNING

Fire Risk

- Must maintain 2 in. air clearance to insulation and other combustible materials.

Assemble the Chimney Sections Through the Roof

Continue to add chimney sections through the roof opening, maintaining at least a 2 in. (51 mm) air space to combustible materials.

Install the Roof Flashing

If a roof flashing is to be used, install the roof flashing appropriate to the roof pitch and install a round termination cap and storm collar following the instructions shipped with the cap.

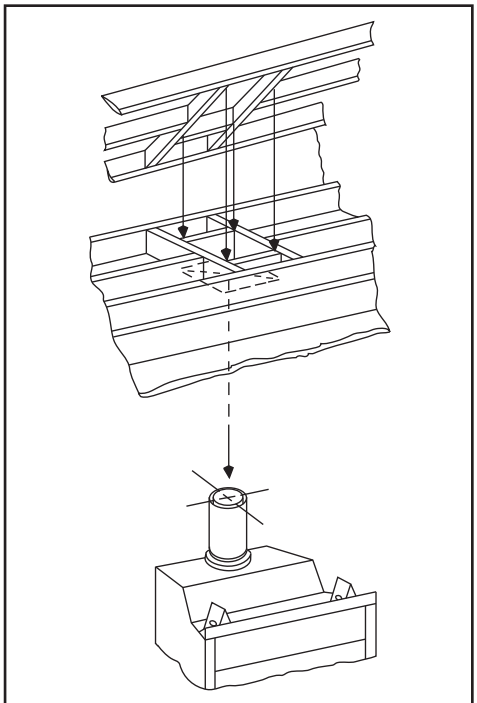


Figure 6.3 Ceiling/Attic Construction

Install the Chimney Air Kit (required in Canada):

When installing the chimney air kit, follow the instructions provided with this accessory.

B. Chase Top

A metal chase top is required to seal the top of the chase around the chimney pipe. The top should include a turn-down and drip edge to prevent water from seeping into the chase. Provide a 1/8 in. (3 mm) gap around the flue pipe and slope the top downward away from the penetration. See Figure 6.4.

- All seams must be caulked to prevent leaks.
- A chase installation must use a chase top. Chase tops are available from your Heatilator dealer or may be field constructed.
- Attach the chase top to the top of the chase.

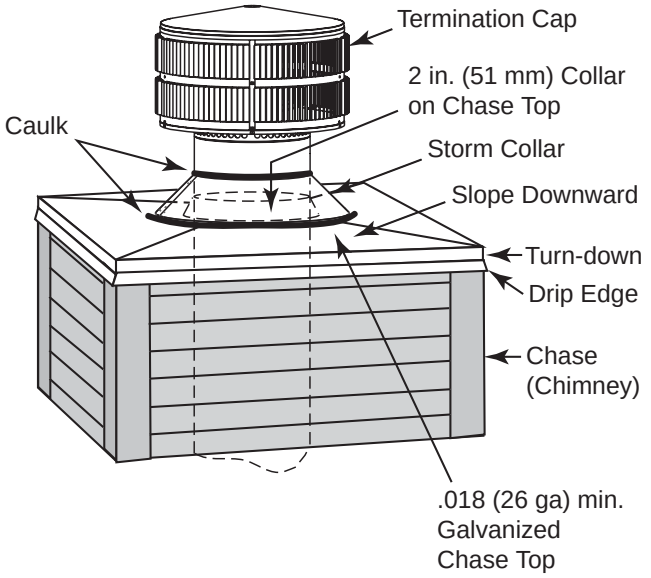


Figure 6.4 Chase Top Construction

C. Install the Termination Cap

- Install the chimney sections up through the chase enclosure. When using a TR444 Round Termination Cap, the uppermost top section of pipe must extend 6 in. (152 mm) above the top of the flashing collar to allow installation of the storm collar and termination cap. See Figure 6.5.
- For installations utilizing a TR442 Round Telescoping Termination Cap, the uppermost chimney section must be below the top of the chase top, but not more than 14-1/2 in. (368 mm) below the top of the chase top. Minimum overlap of chimney and termination cap must be 1-1/2 in. (38 mm). See Figure 6.6.
- For installations utilizing an ST475 Square Termination Cap the last chimney section must not be more than 4-1/2 in. (114 mm) below the chase top. See Figure 6.7.
- For chase installations you can use a TR444 Round Termination Cap, a TR442 Round Telescoping Termination Cap, or an ST475 Square Termination Cap
- Install the termination cap following the instructions provided with it.

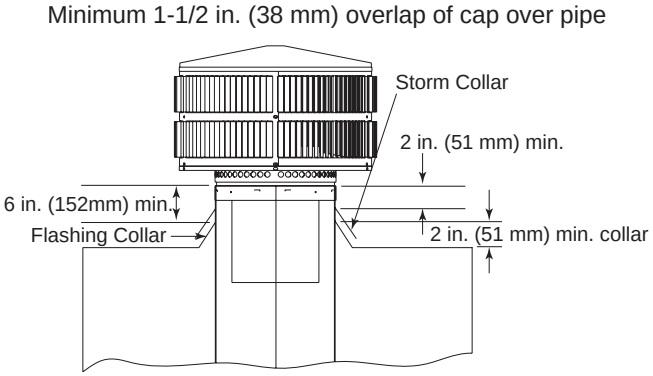


Figure 6.5 Installing a TR444 Round Termination Cap

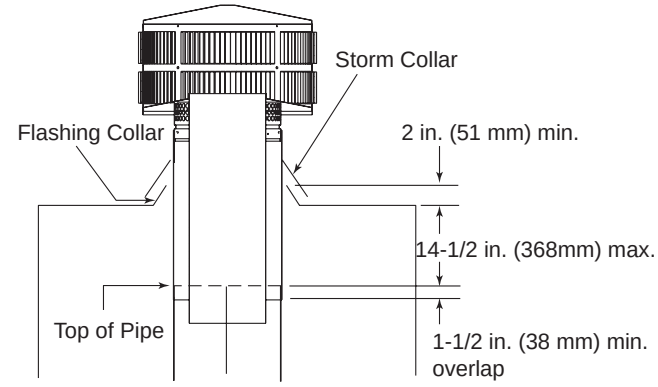


Figure 6.6 Installing a TR442 Round Telescoping Termination Cap

Note: To protect against the effect of corrosion on those parts exposed to the weather, the termination cap can be painted with a rust-resistant paint.



⚠ WARNING

Fire Risk

- The minimum overlap of cap to pipe MUST be met or chimney may separate from cap.

Separation allows sparks, heat and embers to escape.

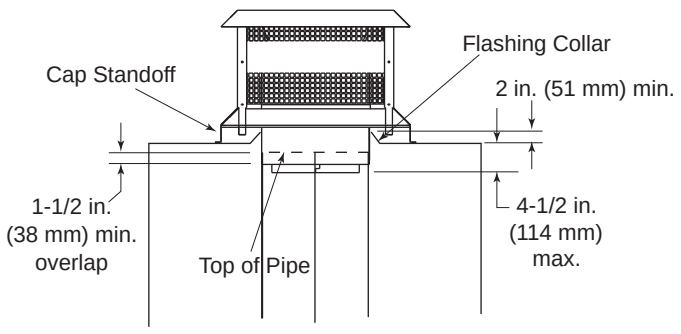


Figure 6.7 Installing an ST475 Square Termination Cap

7 Accessories

A. Gas Log/Lighter Provisions

A certified gas log lighter or decorative gas log set can be installed in this fireplace.

- Maximum input is 100,000 BTU/hr.
- Decorative gas appliance must be certified to **ANSI Z21.60** "Standard for Decorative Gas Appliances for Installation in Vented Fireplaces".
- Must be installed in accordance with the **National Fuel Gas Code, ANSI Z223.1.**
- A log set must incorporate a gas shutoff.
- Log set requires the damper to be locked fully open.

Knockouts are provided on both sides of the fireplace and in refractories for 1/2 in. (13 mm) iron pipe.

- We recommend you seal refractory around pipe with fireplace mortar or high temperature, noncombustible sealant.
- Repack insulation from the knockout around the pipe.
- Maintain 1-1/2 in. (38 mm) air space around the pipe for 4 in. (102 mm) beyond the fireplace.
- See Figure 7.1.

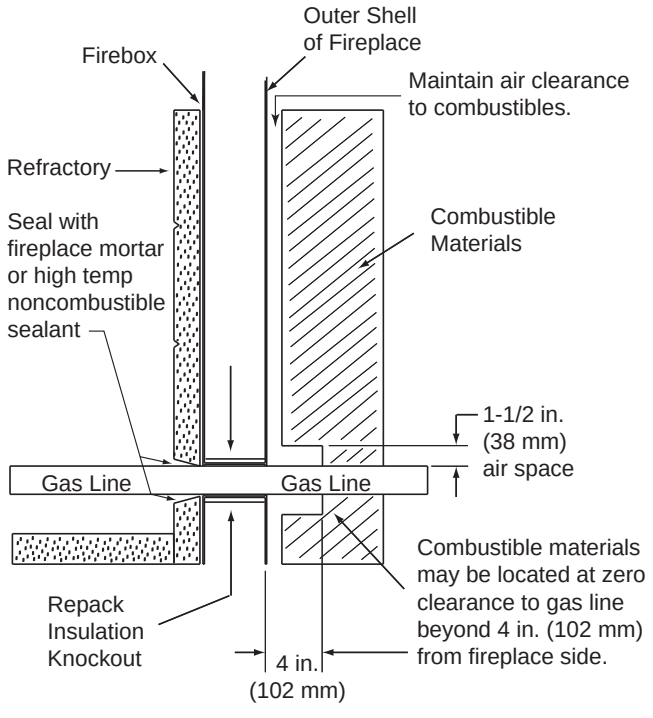


Figure 7.1 Gas Line Installation

⚠ WARNING

Asphyxiation Risk

- Damper must be locked open when gas logs installed.

Gas fire generates fumes.

⚠ WARNING

Fire Risk

- For use with solid wood fuel or decorative gas appliance only.
- DO NOT install unvented gas logs.

⚠ WARNING

Fire Risk

Explosion Risk

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.

8 Finishing

A. Hearth Extension

A hearth extension must be installed with all fireplaces to protect the combustible floor in front of the fireplace from both radiant heat and sparks. See Figures 8.1-8.5.

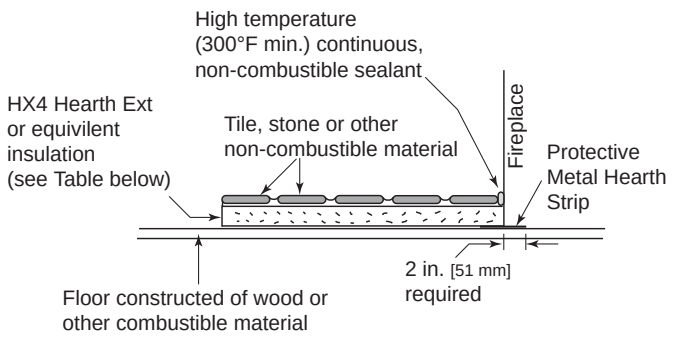


Figure 8.1 Hearth Extension Construction

⚠ WARNING

Fire Risk

- Metal hearth strips MUST be installed.

Sparks or embers may ignite flooring.

This fireplace has been tested and approved for use with a hearth extension insulated to a minimum R value of 1.16.

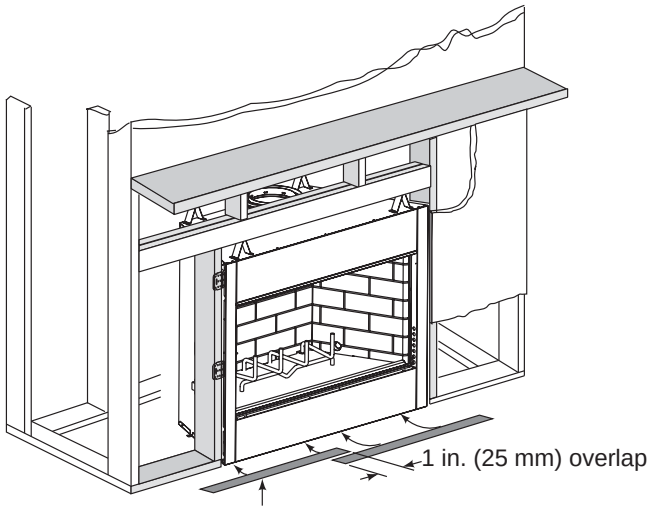
To substitute materials for the factory-available hearth extensions, see Figure 8.3 and calculate insulation alternatives as per Table 8.1 and the following formulas:

- Thermal conductivity per inch thickness = **k**
- k = (BTU)(inch) / (foot^2)(hour)(°F)
- Required thickness = Rk

- Thermal resistance per inch thickness = **r**
- r = (foot^2)(hour)(°F) / (BTU)(inch)
- Required thickness = R / rB.

Table 8.1

Hearth Extension Insulation Alternatives, R Value = 1.16				
Material	k per inch thick	r per inch thick	Minimum thickness required	
			in.	*mm*
Hearth & Home HX3, HX4	0.43	2.33	1/2	13
USG Micore 300™	0.46	2.18	1/2	13
USG Durock™ Cement Board	1.92	0.52	2-1/4	57
Cement Mortar	5.0	0.20	5-7/8	149
Common Brick	5.0	0.20	5-7/8	149
Ceramic Tile	12.50	0.08	14-5/8	371
Armstrong™ Privacy Guard Plus	.046	2.18	1/2	13
Marble	14.3 to 20.0	0.07 to 0.05	16-5/8 to 23-3/8	422 to 594



Metal strips are placed 2 in. (51 mm) under the front of the fireplace and must extend beyond the front and sides of fireplace opening by 2 in. (51 mm).

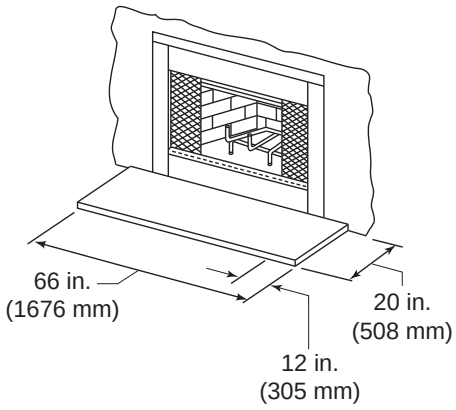
Figure 8.2 Positioning the Protective Metal Hearth Strips

⚠ WARNING

Fire Risk

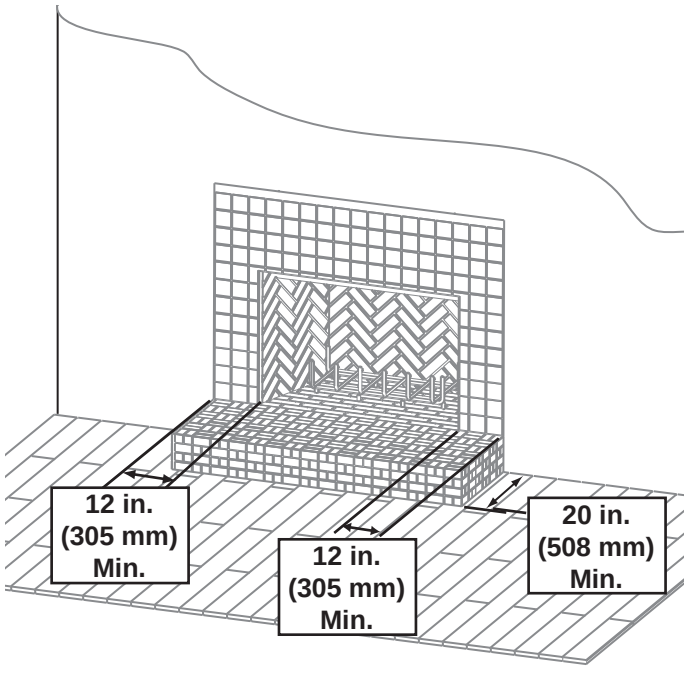
- Hearth extensions must be installed exactly as specified.

High temperatures or hot embers may ignite concealed combustibles.



See next page for flush installation.

Figure 8.3 Hearth Extension Dimensions



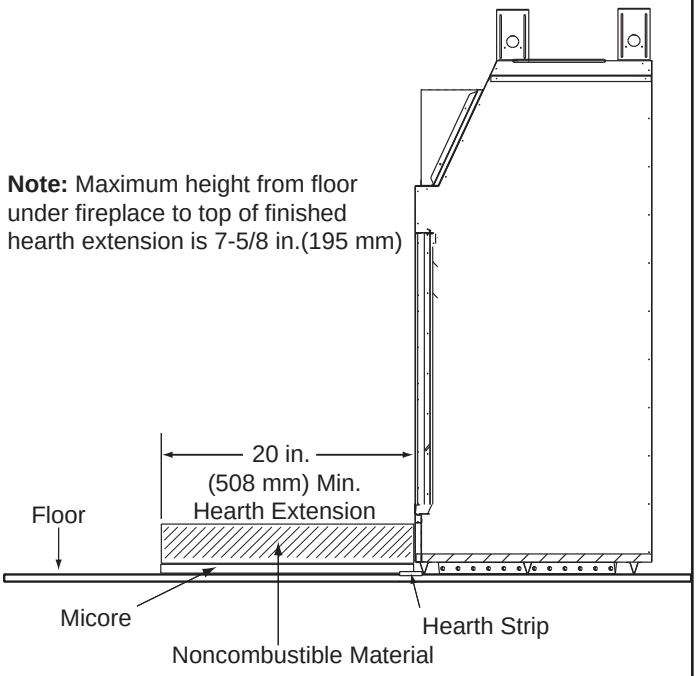
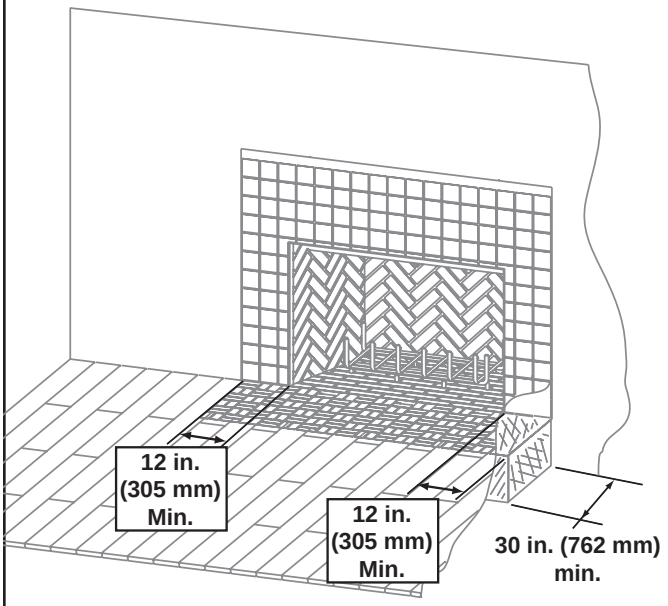


Figure 8.4 Raised Hearth Extension



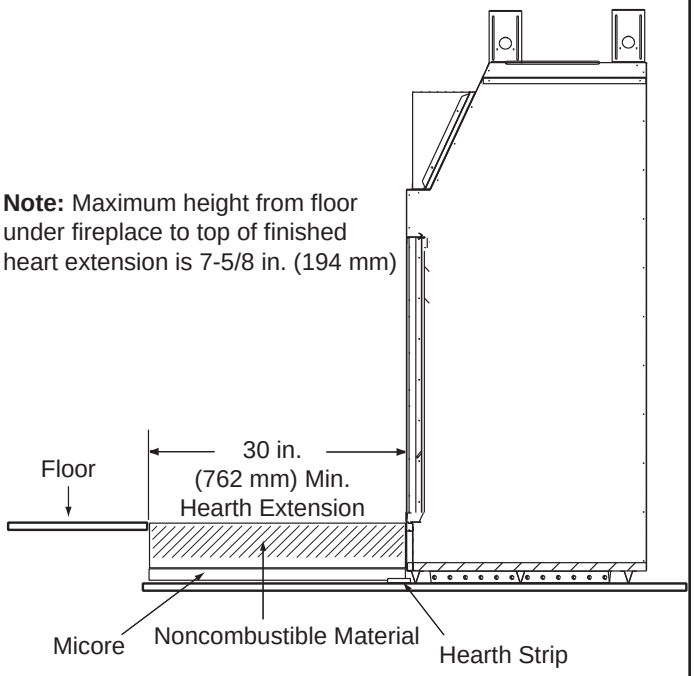


Figure 8.5 Flush Hearth Extension

B. Finishing Material

- **Combustible Material**
  Material which is made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or not plastered.
- **Non-Combustible Material**
  Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.
  Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750° C**, shall be considered non-combustible materials.
- **Non-Combustible Sealant Material**
  Sealants which will not ignite and burn: Rutland, Inc. Fireplace Mortar #63, Rutland 76R, Nuflex 304, GE RTV106 or GE RTV116 (or equivalent).

After completing the framing and applying the facing material (drywall) over the framing, a bead of non-combustible sealant must be used to close off any gaps at the top and sides between the fireplace and facing to prevent cold air leaks. Large gaps can be bridged with fiberglass rope gasket.

Only non-combustible materials may be used to cover the metal fireplace front.

⚠ WARNING

Fire Risk

- Maintain clearances.
- Use only non-combustible material below standoffs, material such as cement board is acceptable.
- Framing or finishing material used on the front of, or in front of, the appliance closer than the minimums listed, must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc.).

C. Mantel

A combustible mantel may be positioned no lower than 12 in. (305 mm) above the top of the fireplace opening. The combustible mantel may have a maximum depth of 12 in. (305 mm). Combustible trim pieces that project no more than 1-1/2 in. (38 mm) from the face of the fireplace can be placed no closer than 6 in. (152 mm) from the top of the fireplace opening. See Figure 8.4. Combustible trim must not cover the black metal surfaces of the fireplace. This mantel clearance is in accordance with **Section 7-3.3.3 of ANSI/ NFPA211**.

D. Sidewalls/Surrounds

Adjacent combustible side walls must be located a minimum of 12 in. (305 mm) from the fireplace opening. If you are using a decorative surround constructed of combustible material, it must be located within the shaded area defined in Figure 8.5. Short stub walls are also acceptable if they are contained within the shaded area.

⚠ 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

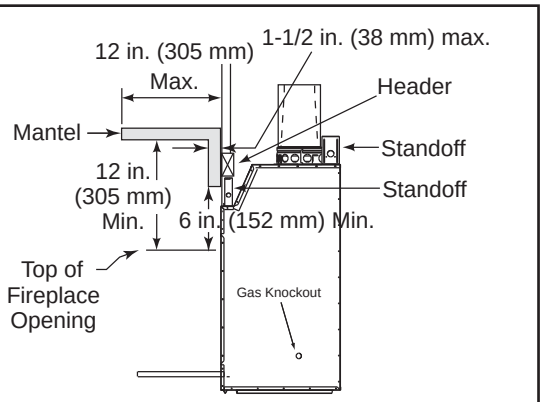
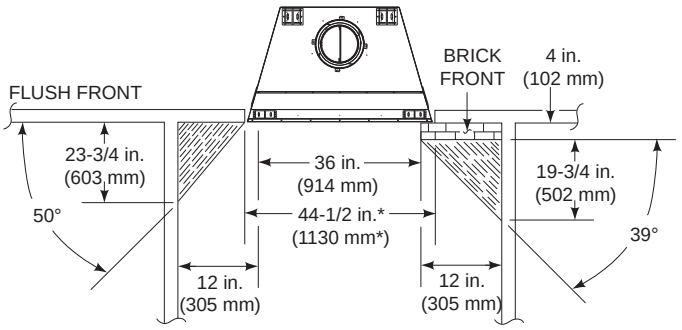


Figure 8.4 Mantel Specifications



*Outside to outside edges of fireplace (not framing).

Figure 8.5 Sidewalls/Surrounds

⚠ WARNING

Fire Risk

Finish all edges and fronts to clearances and specifications.

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

E. Glass Doors

This fireplace has been tested and listed for use with doors as specified in Section 12.B. Fireplace Components. Please refer to the manual packed with each set of doors for installation instructions.

9 Operating Instructions

⚠ WARNING

Fire Risk

- Do not operate fireplace before reading and understanding operating instructions.

Failure to operate fireplace properly may cause fire.

⚠ 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 fireplace.
- Alert children and adults to hazards of high temperatures.
- Do NOT operate with protective barriers removed.
- Keep clothing, furniture, draperies and other combustibles away.

A. General Information

Fireplaces, as well as other woodburning appliances, have been used safely for many years. It has been our experience that most problems are caused by improper installation and operation of the fireplace. Make certain that installation and operation of the fireplace system is in accordance with these instructions.

It is extremely important that the fire be supervised whenever the fireplace is in use. It is also recommended that an annual inspection be performed on the fireplace system to determine if the flue system needs to be cleaned, or as in the case of any appliance, if minor repairs are required to maintain the system in top operating condition.

⚠ WARNING

Fire Risk

- For use with solid wood fuel or decorative gas appliance only.
- Do not install unvented gas logs.

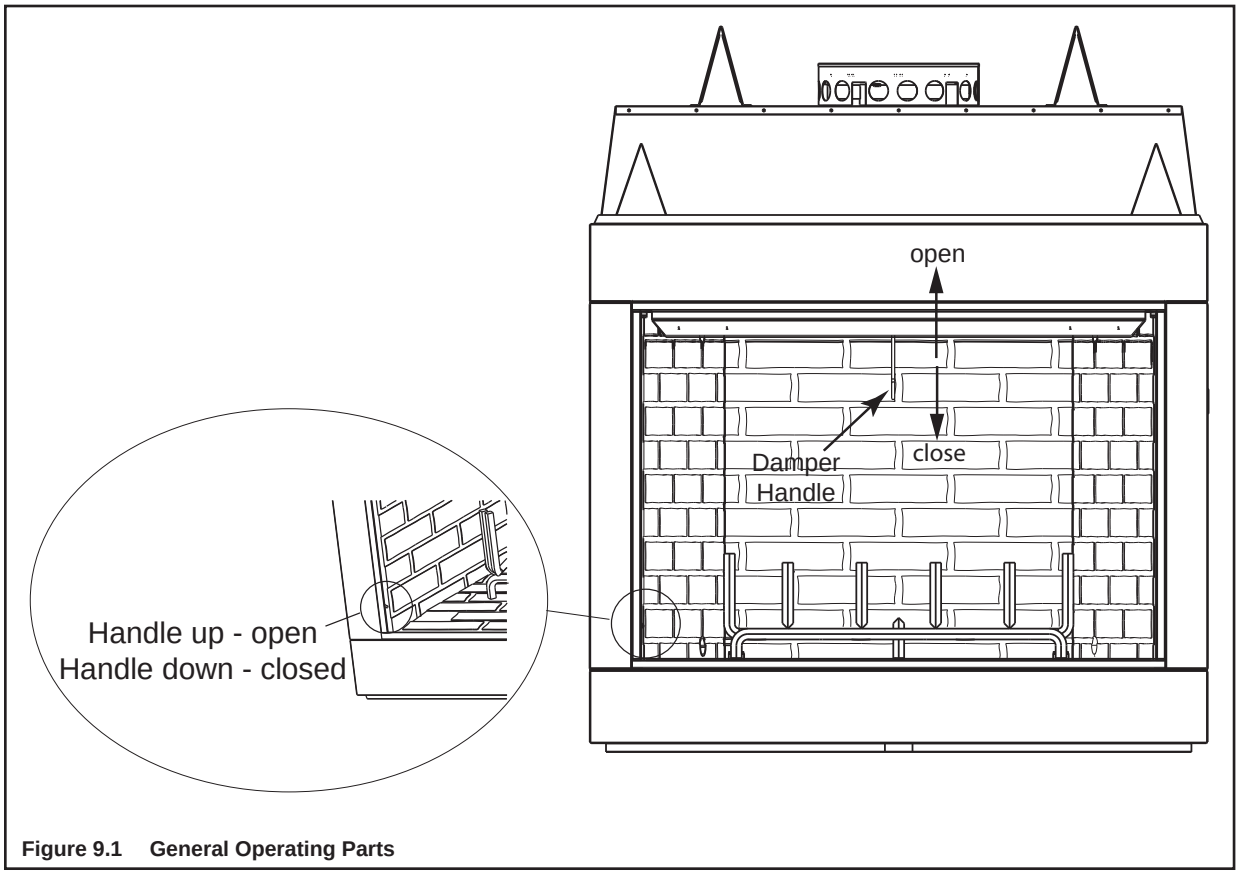


Figure 9.1 General Operating Parts

B. Outside Air

A source of air (oxygen) is required in order for combustion to take place. Whatever air is consumed by the fire must be replaced through cracks around windows, under doors, etc. Most newly constructed houses or existing homes fitted with tightly sealed doors and windows are relatively air tight. In this case, an outside air source must be made available to feed combustion air from outside the home.

An outside air control handle allows you control of the outside air inlet if your fireplace is equipped with this option. Use of outside air for combustion is highly recommended to conserve heated air within the structure and to provide make up air to keep the fireplace venting properly.

This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system.

See Figure 9.1 for location and operation.

CAUTION

Outside air control handle is HOT. Adjust before lighting fire.

C. Clear Space Near the Fireplace

Combustible materials must not be stored on the hearth extension. Room furnishings such as drapes, curtains, chairs or other combustibles must be at least 4 ft (1.22 m) from the open front of the fireplace.

D. Flue Damper

The flue damper must be in full open position, and is operated by moving the handle up toward the top of the fireplace. Before lighting the fire, verify this by looking up from the inside of the fireplace. Always operate this fireplace with the damper fully open. Please note: Down drafts, obstructions, damaged or poor (wet) fuels can cause smoke spillage.

See Figure 9.1 for location and operation.

⚠ WARNING

Asphyxiation Risk
Fire Risk

- Open damper to operate fireplace.

Closed damper will over-fire fireplace and prevent venting of combustion gases.

E. Firescreen

A firescreen is always provided to control sparks. It must be closed whenever the fireplace is in use. Glass doors or firescreens must not be used to hold burning material inside the fireplace. Only those glass doors specifically tested and listed for use with the specific fireplace model should be used. Screens should be closed when the glass doors are closed.

⚠ WARNING

Fire Risk

- Close firescreen when burning fireplace.
- Do not use firescreen or glass doors to hold burning material in fireplace.

Firescreen controls sparks.

Glass may break or burning material may roll out.

F. Glass Doors

Most efficient fireplace operation using glass doors is with the doors open. When the doors are open the screen must be closed. Only Hearth & Home Technologies glass doors may be used. See Figure 9.2 for proper glass door operation.

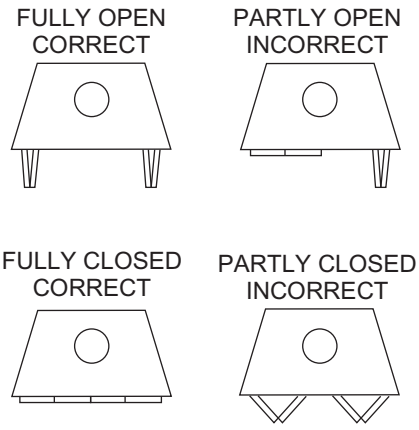


Figure 9.2 Proper Operating Positions of Bi-fold Doors

⚠ WARNING

Fire Risk
Smoke Risk

- Doors must be fully opened or fully closed when operating fireplace.

Partially opened doors may draw flame, smoke or heat from fireplace.

G. Grate

The factory installed integral grate must be used to hold the logs from falling out of an open fireplace and to allow air to pass between the burning logs. It is important to keep the fire off the hearth and to allow the ashes to collect beneath the fire, thereby forming a layer of additional heat protection.



⚠ WARNING

Fire Risk

- Use only factory installed integral grate.

May cause overfire.

H. Wood Fuel

Firewood

Your fireplace performance depends on the quality of the firewood you use. All seasoned wood, regardless of species, contains about 8,000 BTU's per pound, and hardwoods have a greater density than soft woods. A piece of hardwood will contain about 60% more BTU's than an equal size piece of soft wood. Firewood is commonly sold by the cord (128 cu. ft.). A cord of seasoned oak (hardwood) would contain about 60% more potential energy than a cord of seasoned pine (soft wood).

Examples of soft wood trees are Douglas fir, pine, spruce, and cedar, poplar, aspen and alder. Soft woods require less time to dry, burn faster and are easier to ignite than hardwoods.

Examples of hardwood trees are oak, maple, apple, and birch. Hardwoods require more time to season, burn slower and are usually harder to ignite than soft woods.

The best wood fuel is a combination of soft wood and hardwood. Start the fire with soft wood; the fire will give off quick heat to bring the fireplace up to operating temperature, and then the hardwood can be added for slow, even heat and longer burn time.

Moisture

Regardless of which species of wood you burn, the single most important factor that effects the way your fireplace operates is the amount of moisture in the wood. The majority of the problems fireplace owners experience are caused by trying to burn wet, unseasoned wood.

Freshly cut wood can be as much water as it is wood, having a moisture content of around 50%. Imagine a wooden bucket that weighs about eight pounds. Fill it with a gallon of water, put it in the fireplace and try to burn it. This sounds ridiculous but that is exactly what you are doing if you burn unseasoned wood.

Seasoning

Seasoned firewood is nothing more than wood that is cut to size, split and air dried to a moisture content of around 20%. The time it takes to season wood varies from around nine months for soft woods to as long as eighteen months for hardwoods. The key to seasoning wood is to be sure it has been split, exposing the wet interior and increasing the surface area of each piece. A tree that was cut down a year ago and not split is likely to have almost as high a moisture content now as it did when it was cut.

The following guideline will ensure properly seasoned wood:

- Stack the wood to allow air to circulate freely around and through the woodpile.
- Elevate the woodpile off the ground to allow air circulation underneath.
- The smaller the pieces, the faster the drying process. Any piece over 6 in. (152 mm) in diameter should be split.
- Cover the top of the woodpile for protection from rain and snow. Avoid covering the sides and ends completely. Doing so may trap moisture from the ground and impede air circulation.

The problems with burning wet, unseasoned wood are twofold: First, you will receive less heat output from wet wood because it requires energy in the form of heat to evaporate the water trapped inside. This is wasted energy that should be used for heating your home. Secondly, this moisture evaporates in the form of steam which has a cooling effect in your fireplace and chimney system. When combined with tar and other organic vapors from burning wood it will form creosote which condenses in the relatively cool fireplace and chimney.



⚠ WARNING

Fire Risk

- Do NOT burn wet or green wood.
- Store wood in dry location.
- Stack wood so both ends are exposed to air.

Wet, unseasoned wood can cause accumulation of creosote.



⚠ WARNING

Fire Risk

Do NOT store wood:

- Closer than required clearances to combustibles to fireplace.
- Within space required for loading or ash removal.

I. Starting a Fire

Check the flue damper to be certain it is in the full open position. Place crumpled or twisted paper under the fireplace grate. Loosely arrange kindling or small pieces of wood to form a layer above the paper.

The fires must be built on the fireplace grate, without danger of the burning fuel falling out of the fireplace opening.

Light the paper and add small pieces of wood until a hot bed of embers has been established.

After establishing the fire bed, and the small firewood is burning briskly, add a minimum of three average sized pieces of split firewood, place the wood in such a manner to allow combustion air and flames between them.

Note: When first lighting your fireplace, it may be necessary to pre-warm the flue to establish a draft. This is done by holding a rolled up piece of burning newspaper under the flue damper for a few moments. This will help reduce smoke spillage during start-up.

Note: The first three or four fires should be of moderate size to allow the oils and binders to be burned from the fireplace and the refractory and paint to cure. You may notice an industrial odor the first few fires. This is considered normal.

CAUTION

Odors and vapors released during initial operation.

- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.

⚠ WARNING



Fire Risk

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

- Do NOT store flammable materials close to the fireplace.
- Do NOT use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or “freshen up” a fire in this fireplace.
- Keep all such liquids well away from the fireplace while it is in use.

Combustible materials may ignite.

10 Troubleshooting

This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system. Hearth & Home Technologies assumes no responsibility for the improper performance of the fireplace system caused by inadequate draft due to environmental conditions, down drafts, tight sealing construction of the structure, or mechanical exhausting devices which will create a negative air pressure within the structure where the fireplace is located.

A. Understanding Vent Problems

If smoke spillage occurs from a fireplace opening when the door is open and the proper chimney height, flue size, and configuration requirements for the installation have been met, there is either a leakage in the flue, a blockage in the flue, or some condition is in effect to draw smoke from the fireplace into the house. Understanding and differentiating the conditions which can cause each of these kinds of spillage problems is essential to their solution.

- Flue Leakage
  Check for improperly connected flue joints or a damaged flue joint in the chimney system. Such leakage would reduce draft (air would be drawn in through the leaks rather than through the fireplace). The result might be difficult start-up and smoky fires that might spill if other adverse draft conditions accompany this problem.
- Flue Blockage
  The damper should be open.

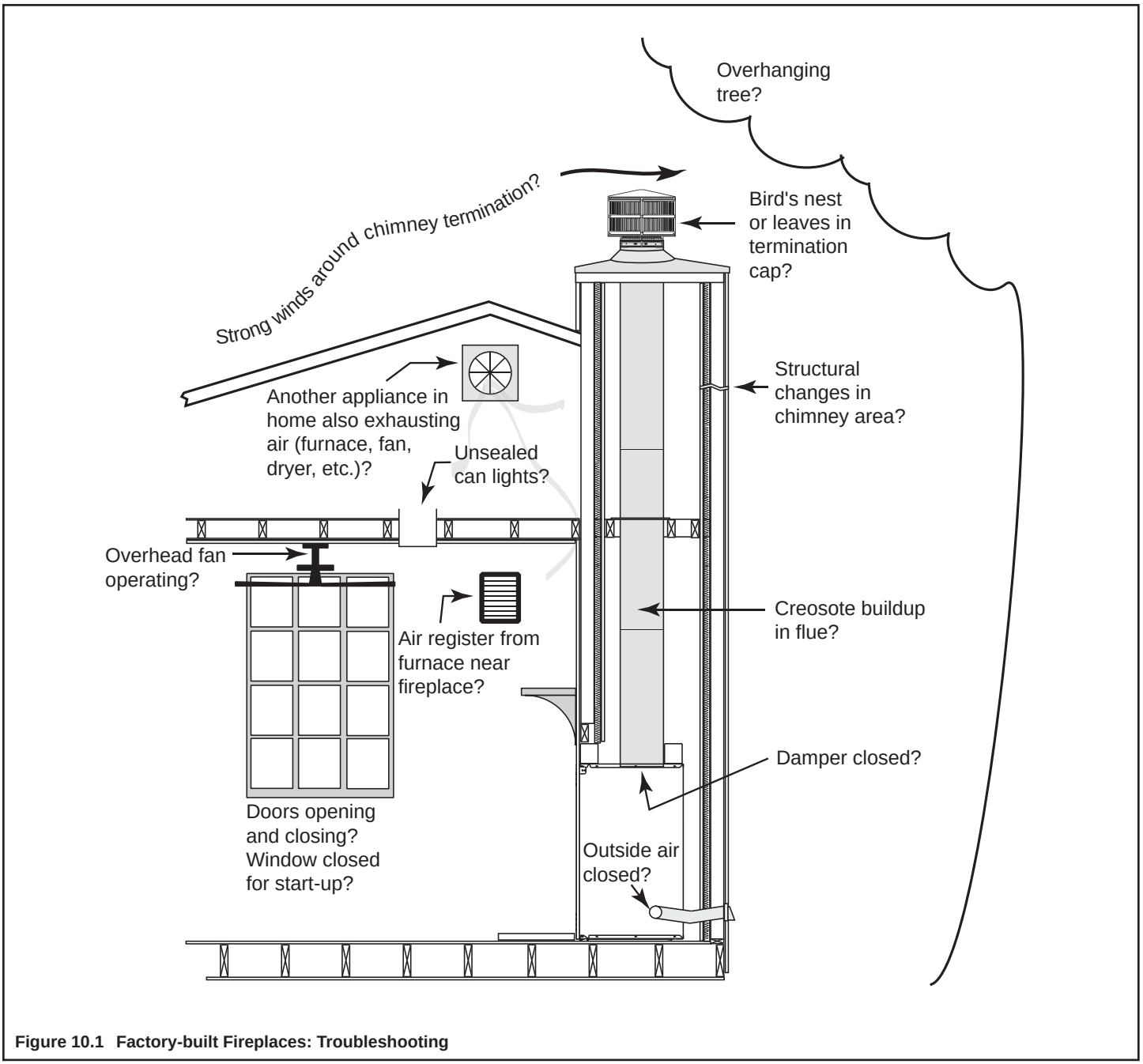


Figure 10.1 Factory-built Fireplaces: Troubleshooting

B. Diagnostics and Problem Solving

I can't get a good fire going. What am I doing wrong?

Diagnostic Questions	Possible Causes of Condition	Solutions
Is the damper open?	• No draft	Open damper.
Is there enough paper/starter?	• Insufficient heat to ignite kindling	Use more paper/starter.
Is there enough kindling? Is the kindling dry?	• Insufficient heat to ignite fuel	Use more dry kindling.
Is there enough or too much wood? Is it too large? Is it dry enough?	• Insufficient heat to establish draft • Insufficient air passage • Insufficient surface area • Ignition temperature high due to moisture	Use small split wood that is well seasoned (split, covered on top at least 6 months, preferably a year).
Are there adequate air spaces between fuel pieces?	• Insufficient combustion air and exposed surface area	Arrange kindling and wood for air movement.
Is the chimney pre-warmed?	• Exposed, cold chimney down drafting	Use lighted rolled newspaper at throat or flue opening to start upward movement.
Is there smoke in the house?	• Damper closed • Obstruction in chimney • Downdraft from chimney temperature or from negative house pressure	Check damper; have chimney checked if it worked previously; pre-warm chimney, shut off exhaust devices, open window slightly.
Does the kindling, wood not ignite?	• Condition, amount, arrangement of kindling and fuel	Use more, drier, well-spaced kindling and fuel.
Does the kindling ignite, but the fuel doesn't?	• Amount of kindling • Condition of fuel	Use more kindling; use smaller, dry wood.
Does the fuel ignite, but not burn well?	• Condition of fuel • Draft problem	Use well-seasoned wood and sufficient amount; turn exhaust fans off; open window slightly. Perform Simplified House Pressure Test.

I don't get enough/any heat from the fireplace. What can I do about it?

Diagnostic Questions	Possible Causes of Condition	Solutions
How much wood is used for fire?	• Insufficient fuel	Make larger fires.
How well seasoned is the wood?	• Condition of fuel	Burn seasoned wood: covered on top, split and stacked for 9 months to 2 years.
Do you have a blower (where possible)?	• Yes: Turning blower on too early or setting too high, cooling firebox No: Need for all heat boosts possible	Yes: Wait until fire established and leave on lower speed. No: Add blower if available.
How much heat output do you expect?	• Unrealistic expectations	Explanation of decorative nature of fireplace; suggestion of approved fireplace insert.

The fireplace burns the wood too fast. What can I do?

Diagnostic Questions	Possible Causes of Condition	Solutions
Do you have glass doors?	• Need to slow air intake	Add glass doors.
What is the condition of the wood?	• Extremely dry wood	Mix in less seasoned wood after fire established.

I smell smoke in the house during operation. What's causing that?

Diagnostic Questions	Possible Causes of Condition	Solutions
Does the fire start and burn well?	No:	
	• Damper not fully open	Open damper; check and clean chimney if needed; use adequate kindling and fuel; open glass doors or open window, check for need for balanced air make-up.
	• Chimney obstruction	
	• Not enough kindling and/or fuel to establish draft	
	• Inadequate combustion air	
	Yes:	
	• Fire too close to front	Build fire farther back. Do not use exhaust fans during startup and/or check for need for balanced air make-up system.
	• Competition with exhaust devices	

I smell smoke in the house after we've had a fire in the fireplace. What is the cause/what can we do?

Diagnostic Questions	Possible Causes of Condition	Solutions
Is the damper closed?	• No: Downdraft or negative pressure	Close the damper at end of burn.
	• Yes: Negative pressure from exhaust fans and/or house stack effect.	Check for need for glass doors. Check for need for balanced air make-up system or raising chimney.
Is the chimney clean?	• No: Creosote odor	Have chimney cleaned.
	• Yes: Damper closed too early	Wait until fire completely out before closing damper.

11 Maintenance and Servicing the Fireplace

A. Disposal of Ashes

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all embers have thoroughly cooled.

⚠ WARNING

Fire Risk

Disposal of ashes

- Ashes should be placed in metal container with tight fitting lid.
- Do not place metal container on combustible surface.
- Ashes should be retained in closed container until all embers have thoroughly cooled.

⚠ WARNING

Fire Risk

Prevent creosote buildup

- Inspect chimney once every two months during heating season.
- Remove creosote to reduce risk of chimney fire.
- Ignited creosote is extremely HOT.

B. Chimney Inspection/Cleaning

Inspect the chimney internally for obstructions and construction damage. Flue pipe joints and seams must be continuous and mechanically tight.

The chimney should be inspected once every two months during the heating season.

If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

Refer to Figure 11.1 to remove/reinstall termination caps.

C. Firebox Refractory

Check firebox refractory for excessive cracks or gaps. If cracks exceed 1/4 in. (6 mm) in width the refractory should be replaced. See Section 12 for replacement information.

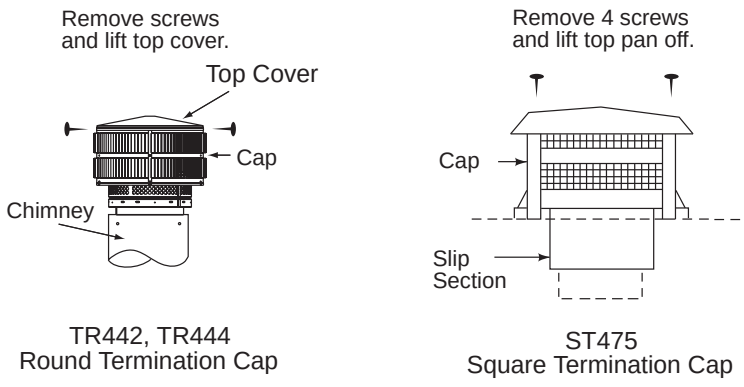
⚠ WARNING

Fire Risk

- Inspect fireplace refractory annually.

Crumbling, deteriorated refractory can allow overheating of surrounding materials.

Note: As you use the fireplace, expansion and contraction will cause minor cracking of the refractory. This is normal, unavoidable, and will not affect the performance of the fireplace. If the cracks become large enough that the metal behind the refractory is exposed or large pieces fall out, the panels should be replaced.



TR442, TR444
Round Termination Cap

ST475
Square Termination Cap

Figure 11.1 Chimney & Termination Cap Cleaning

CAUTION



Handle glass assembly with care.

When cleaning glass door:

- Avoid striking, scratching or slamming glass.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Do NOT clean glass when it is hot.

⚠ WARNING



Fire Risk

- Do not use chimney cleaners or flame colorants in your fireplace.

Will corrode chimney.

⚠ WARNING



Asphyxiation Risk

Fire Risk

Annual inspection by qualified technician recommended.



Check:

- Condition of doors, surrounds and fronts
- Condition of glass and glass assembly
- Obstructions of combustion and ventilation air
- Gas connections and fittings (if present)
- Obstructions of termination cap
- Refractory panels

Clean:

- Glass
- Air passageways, grilles

D. Maintenance Task List

Inspect	Maintenance Tasks
Screens	1. Assess condition of screen and replace as necessary. Screens are required.
	2. Verify maintenance of proper clearance to combustible household objects.
Glass Doors	1. Inspect glass panels for cracks. Replace if this condition is present.
	2. Confirm there is no damage to glass or glass frame. Replace as necessary.
	3. Clean glass using a non-abrasive cleaner such as Brasso©.
Circulation Compartment	1. Remove any foreign objects.
	2. Verify unobstructed air circulation.
Firebox	1. Inspect condition of refractory. Replace if crumbly, deteriorated, or if cracks exceed 1/4 in. (6 mm).
Chimney	1. Inspect for blockage or obstruction such as bird nests, leaves, etc.
	2. Confirm that termination cap remains clear and unobstructed by plants, etc.
	3. Verify that termination cap clearance to subsequent construction (building additions) has been maintained.
	4. Inspect for corrosion or separation.
	5. Verify weather stripping, sealing and flashing remain intact.
	6. Inspect for creosote and remove as needed. (See Sections 10 and 11)
Grate	1. If grate burns out, it should be replaced only with the grate specified on the rating plate and in the replacement parts list for this fireplace.

E. Chimney Fire

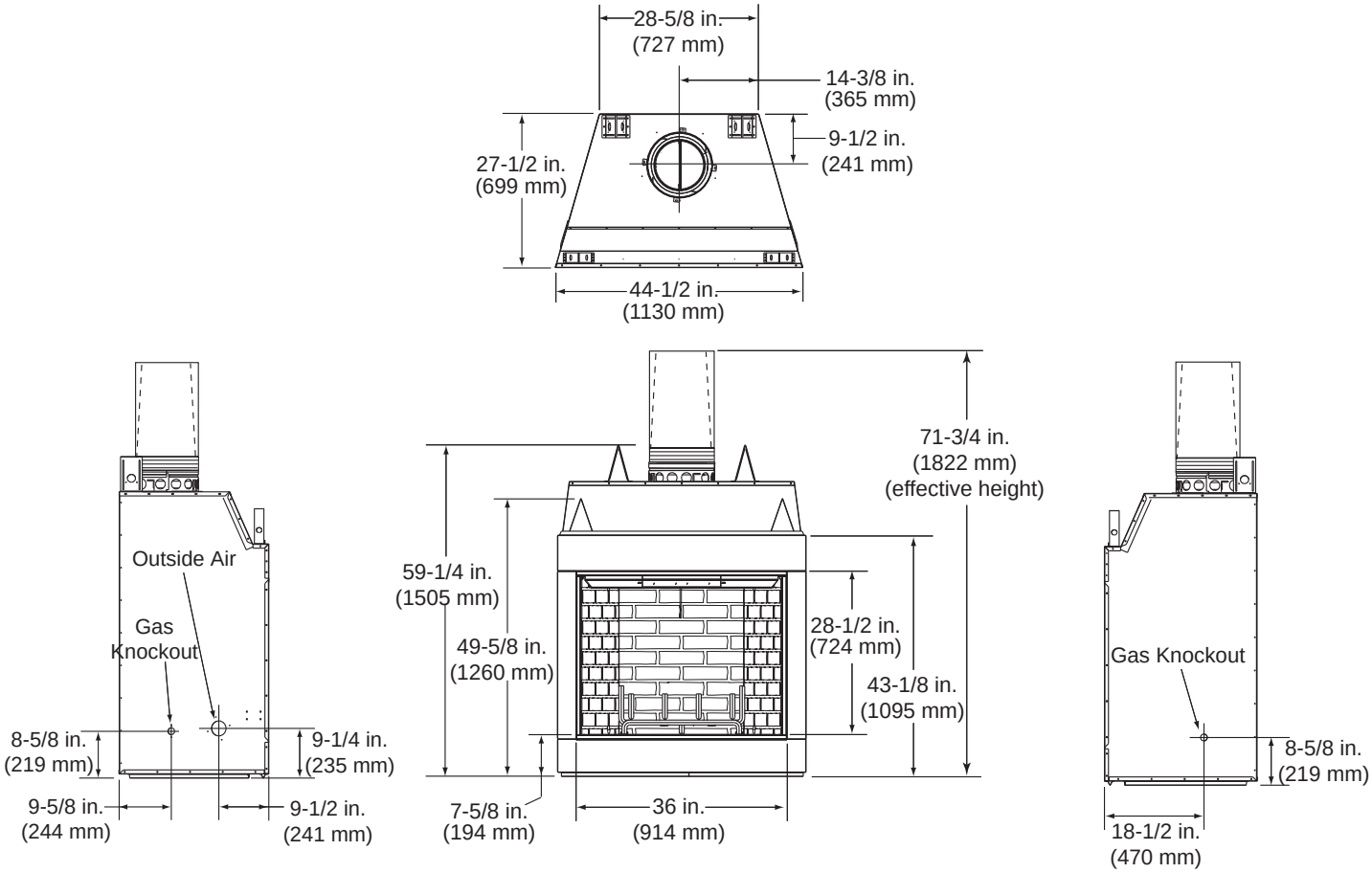
In the event of a chimney fire:

- Have the chimney and adjacent structure inspected by qualified professionals. Hearth & Home Technologies recommends that NFI or CSIA certified professionals, or technicians under the direction of certified professionals, conduct a minimum of an NFPA 211 Level 2 inspection of the chimney.
- Replace components of the chimney and fireplace as specified by the professionals.
- Ensure all joints are properly engaged and the chimney is properly secured.

A chimney fire can permanently damage your chimney system. Failure to replace damaged components and make proper repairs creates risk of fire.

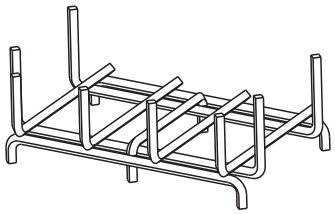
12 Reference Materials

A. Fireplace Dimensions

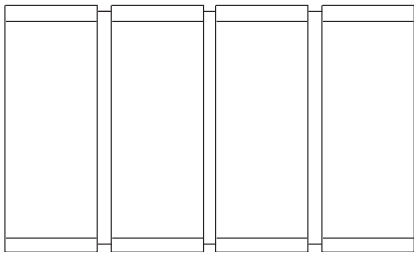


➡ B. Fireplace Components

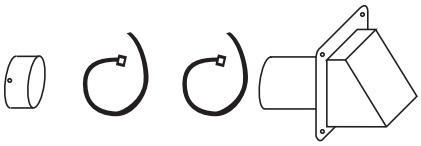
Model #	Description
CI60CT	Fireplace with integral grate, outside air kit, SLA10, hearth protection strips and colored traditional brick pattern refractory.
CI60H	Fireplace with integral grate, outside air kit, SLA10, hearth protection strips and herringbone pattern refractory.
DM6036	Glass doors - Bi-fold, clear-view, black
DM6036B	Glass doors - Bi-fold, clear-view, poslied brass
DM6036S	Glass doors - Bi-fold, clear-view, stainless steel
HX4	Hearth extension
GR30	Integral grate (included with fireplace)
AK22	Outside Air Kit (included with fireplace)



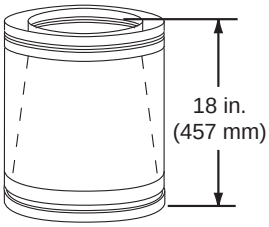
GR30
Integral Grate



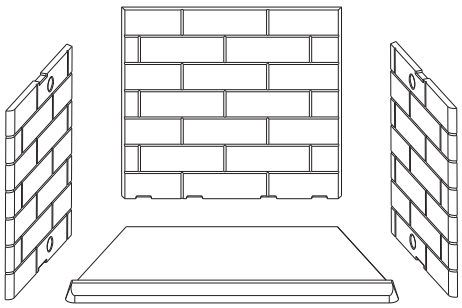
Bi-fold Glass Doors
DM6036



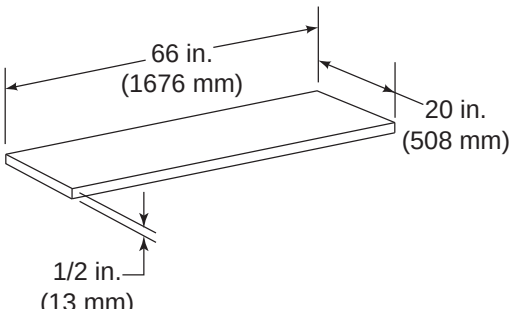
AK22 - Outside Air Kit



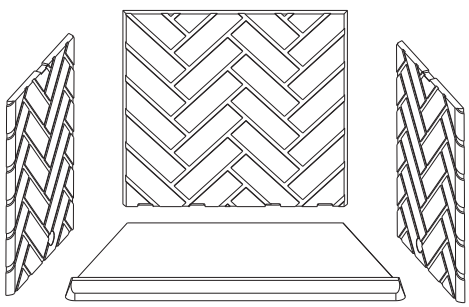
SLA10 flue Adaptor



Traditional Brick Pattern Refractory



HX4 - Hearth Extension



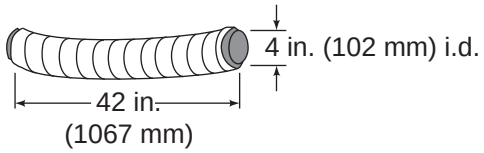
Herringbone Pattern Refractory

C. Chimney Components

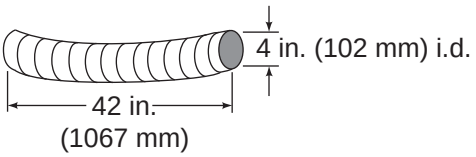
The following pictures show only those chimney components which may be safely used with this fireplace.

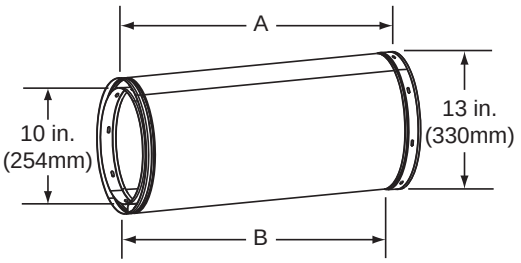
Catalog #	Description
CAK5A	Chimney Air Kit (required in Canada)
ID4	Insulated Duct/Outside Air
UD4	Uninsulated Duct/Outside Air
SL406	Chimney Section - 6 in. long
SL412	Chimney Section - 12 in. long
SL418	Chimney Section - 18 in. long
SL436	Chimney Section - 36 in. long
SL448	Chimney Section - 48 in. long
SL4	Chimney Stabilizer
SL430	Chimney Offset/Return - 30 deg
FS538	Ceiling Firestop - Straight
FS540	Ceiling Firestop - 30 deg
AS10	Straight Attic Insulation Shield, 24 in.
JB577	Chimney Joint Band
CB576	Chimney Bracket
RF570	Roof Flashing - Flat to 6/12 Pitch
RF571	Roof Flashing - 6/12 to 12/12 Pitch
TR444	Round Termination Cap
TR442	Round Telescoping Termination Cap
ST475	Square Termination Cap
CT56	Chase Top
LDS33	Decorative Shroud - 3 ft x 3 ft
LDS46	Decorative Shroud - 4 ft x 6 ft
	Field Constructed Shrouds (See “Woodburning Termination Cap”)

ID4 Insulated Duct



UD4 Uninsulated Duct

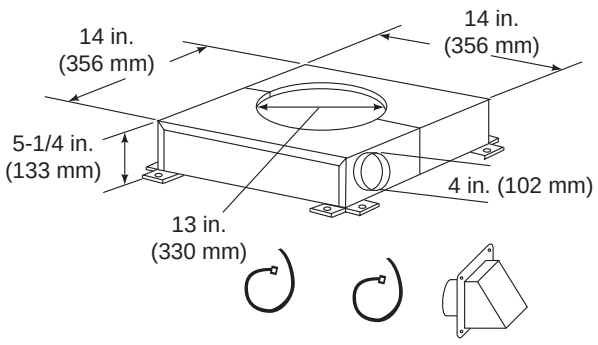




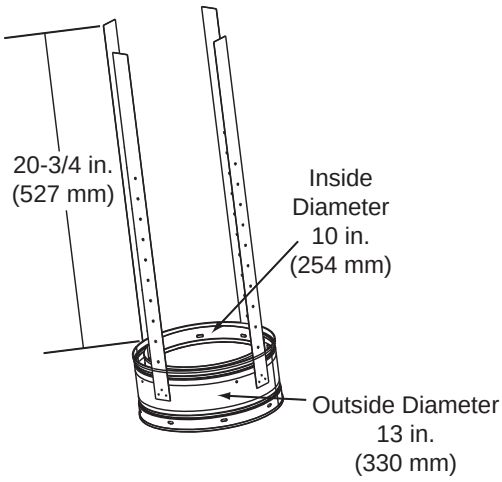
Chimney Sections

Catalog #	A		B	
	in.	mm	in.	mm
SL406	6	152	4-3/4	121
SL412	12	305	10-3/4	273
SL424	24	610	22-3/4	425
SL436	36	914	34-3/4	883
SL448	48	1219	46-3/4	1187

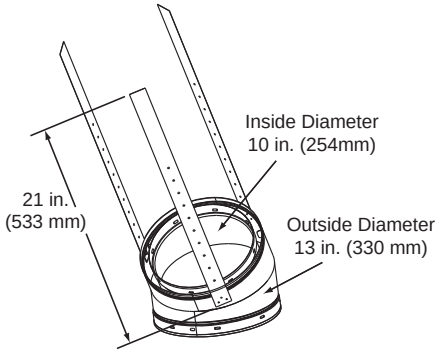
A = Actual Length
B = Effective Length (length of chimney part after it has been snapped to another)



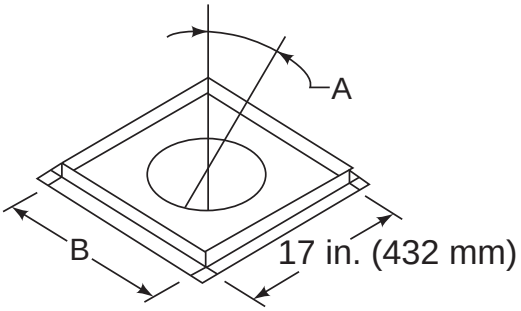
CAK5A Chimney Air Kit



SL4 - Chimney Stabilizer

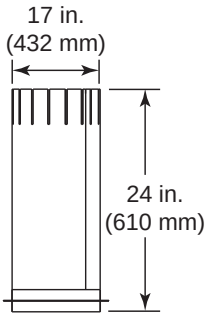


SL430 Offset/Return

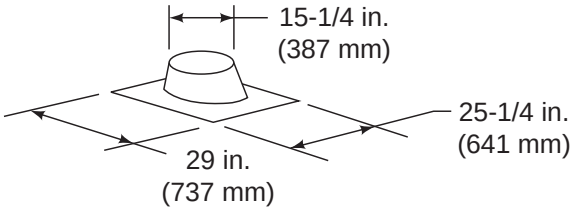


Ceiling firestop

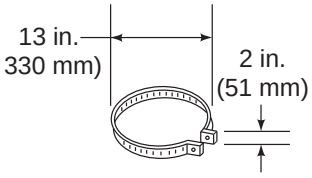
Catalog #	A	B	
		in.	*mm*
FS538	0-deg.	17	432
FS540	30-deg.	26	660



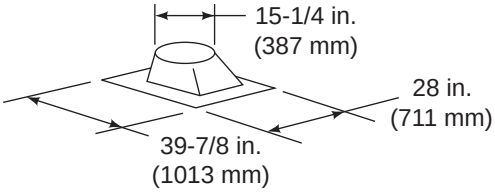
AS10 - Straight Attic Insulation Shield



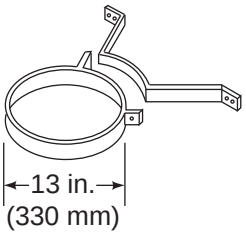
RF570 Roof Flashing



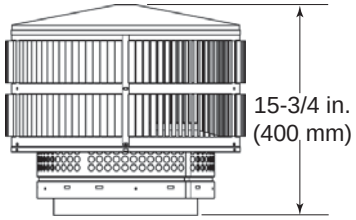
JB577 Chimney Joint Band



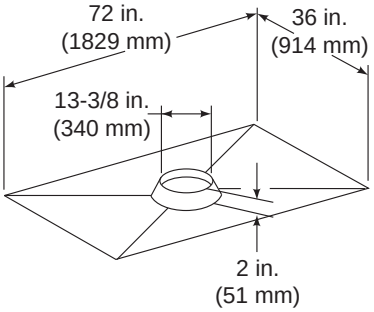
RF571 Roof Flashing



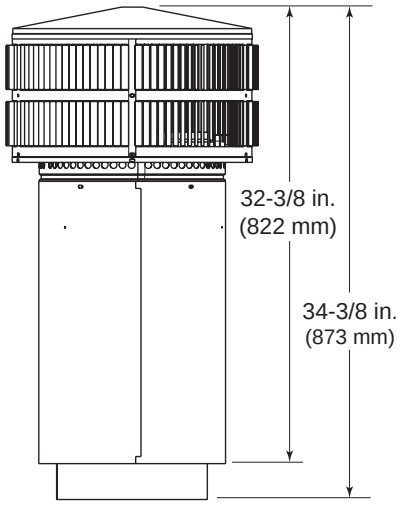
CB576 Chimney Joint Band



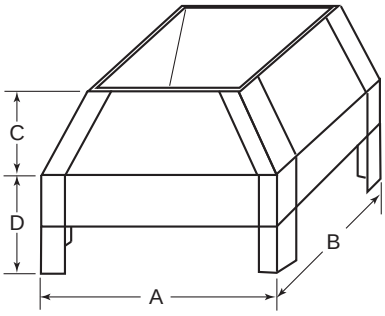
TR344 Round Termination Cap



CT56 Chase Top

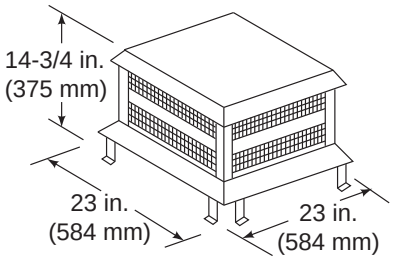


TR442 Round Telescoping Termination Cap



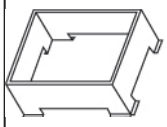
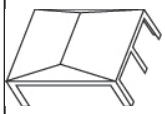
Decorative Shroud
LDS33/LDS46

Catalog #	A		B		C		D	
	in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*
LDS33	36	914	36	914	8-1/2	216	11	279
LDS46	48	1219	72	1829	8-1/2	216	11	279



ST475 Square Termination Cap

Woodburning Termination Cap

Shroud	TS345/T445 (Top Vent)	TR342/TR344 TR442/TR444	TV342 TR342/TR344* TR442/TR444* (* with TR-TVK installed)	TR11/TR11T	TV11/TV11T TR11/TR11T* (* with TR-TVK installed)
	**OPEN TOP** with solid sides and 3 in. (76 mm) opening at the bottom				
Mnimum Base Dimensions	23 in. x 23 in. (584 x 584 mm)	28 x 28 in. (711 x 711 mm) with Radiation Shield	26 x 26 in. (660 x 660 mm)	32 x 32 in. (813 x 813 mm) with Radiation Shield	26 x 26 in. (660 x 660 mm)
Minimum Top Dimensions	20 x 20 in. (508 x 508 mm)	25 x 25 in. (635 x 635 mm)	23 x 23 in. (584 x 584 mm)	29 x 29 in. (737 x 737 mm)	23 x 23 in. (584 x 584 mm)
	**MAILBOX STYLE** with open ends and 3 in. (76 mm) opening at the bottom of the sides.				
Minimum Base Dimensions	N/A	26.5 x 28 in. (673 x 711 mm) with Radiation Shield	28 x 30 in. (711 x 762 mm)	34 x 34 in. (864 x 864 mm) with Radiation Shield	28 x 30 in. (711 x 762 mm) with Radiation Shield or 34 x 34 in. (864 x 864 mm)
Minimum Height	N/A	28 1/4 in. (718 mm)	27 1/2 in. (699 mm)	28 1/4 in. (718 mm)	27 1/2 in. (699 mm)
	**ROOFED STYLE** with **12 x 22 in. (264 sq. in.) (305 x 559 mm)** opening on each side and 3 in. (76 mm) space between the radiation shield and chase top.				
Minimum Base Dimensions	N/A	27 x 27 in. (686 x 686 mm) with Radiation Shield	27 x 27 in. (686 x 686 mm) with Radiation Shield	34 x 34 in. (864 x 864 mm) with Radiation Shield	34 x 34 in. (864 x 864 mm) with Radiation Shield
Minimum Height	N/A	23 in. (584 mm)	23 in. (584 mm)	23 in. (584 mm)	23 in. (584 mm)

Minimum Height is measured from the bottom of the termination cap:
Minimum height is established with the bottom of the termination cap 7 in. (178 mm) above the chase top. Minimum height must increase accordingly for any height above 7 in. (178 mm).

All dimensions are INSIDE dimensions.

This page intentionally left blank.

This page intentionally left blank.

This page intentionally left blank.

E. Limited Warranty

heatilator®

The first name in fireplaces

HEATILATOR WOODBURNING FIREPLACE
Limited Warranty

As part of its
20-YEAR BUYER PROTECTION PROGRAM

AS PART OF ITS 20 YEAR BUYER PROTECTION PROGRAM ("PROGRAM"), HEARTH & HOME TECHNOLOGIES INC. ("HHT") is pleased to offer a Limited Warranty and a Replacement Parts Advantage covering specific components of your Heatilator® woodburning fireplace system (the "Fireplace"), installed in the United States of America or Canada. 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 Program.

Limited Warranty

HHT warrants the following components of your Heatilator woodburning fireplace to be free from original defects in material and workmanship during the applicable periods described: five years for the firebox assembly, chimney system and roof termination; two years for refractory firebox liners; and one year for the grate, wire mesh screens, fan system, outside air system, and glass doors. All limited warranty periods run from the date of initial installation of your Fireplace (the "Installation Date"). The Limited Warranty is subject to the conditions, exclusions and limitations of liability listed below.

Replacement Parts Advantage

Under **HHT**'s Replacement Parts Advantage, for a period of twenty years from your Installation Date of your Fireplace, if available, **HHT** will provide you with repair or replacement parts for defective components which are no longer under their applicable Limited Warranty, at 50% of the then current retail list price for such components. **HHT** shall have no responsibility for freight and labor charges related to such parts.

Conditions, Exclusions, & Limitations of Liability

A. Both the Limited Warranty and Replacement Parts Advantage supplied by **HHT** apply only while the Fireplace 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 Fireplace 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 Fireplace or any other components not expressly authorized and approved by **HHT**; and/or (7) modification of the Fireplace not expressly authorized and approved by **HHT** in writing. This warranty is limited to only the component parts manufactured or supplied by **HHT**.

B. During the first year of the Limited Warranty, **HHT** will, at its sole option, repair or replace any covered defective component and will provide replacement parts at no charge. And will pay reasonable labor and freight costs. During the second through the fifth years of the Limited Warranty (if applicable), **HHT** will provide replacement parts free of charge for any covered defective component, but will not pay for freight or labor costs related to the shipment of the parts or the actual repair or replacement. After the fifth anniversary of the Installation date, **HHT**'s sole obligation and your exclusive remedy is set forth in **HHT**'s Replacement Parts Advantage described above. **In no event shall HHT be liable for any incidental or consequential damages caused by defects in your Fireplace.**

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

1. To obtain service under this warranty you must:

2. 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.

3. Provide proof of purchase, model number, serial number, and manufacturing date code to **HHT**.

4. 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.

5. Obtain **HHT**'s consent to any warranty work before the work is done.

ADDITIONAL INFORMATION: If you would like information on current HEATILATOR products or want to locate a dealer in your area, call 1-800-927-6841.

©2003 Heatilator is a Registered Trademark of Hearth & Home Technologies Inc.

➡ 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 visit www.heatilator.com.

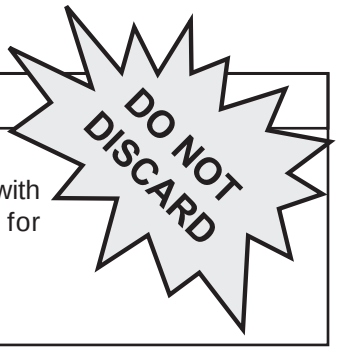
– NOTES –

CAUTION

DO NOT DISCARD THIS MANUAL



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



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