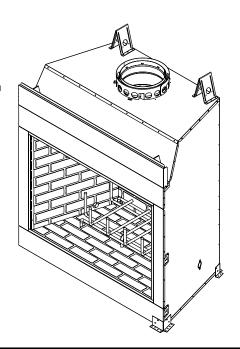
meatilator

The first name in fireplaces

Models: 180

Woodburning Fireplace



Owner's Manual

Installation and Operation



CAUTION

DO NOT DISCARD THIS MANUAL



and maintenance instructions included.

Important operating • Read, understand • and follow these instructions for safe installation and operation.

Leave this manual with party responsible for use and operation.

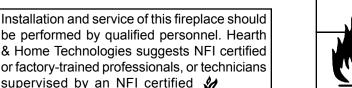


WARNING

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.

professional.



WARNING



HOT SURFACES!

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

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

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



▲ WARNING

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.

Serial	Grate Fireplace Model
FIREPLACE NO. WARNING: RISK FIRE DAMAGE. GRATE WITH HEAF TECHNOLOGIES	REPLACE WIODELTYO. WIODELTYO. WIFG. DATE
	TECHNOLOGIES INC. LISTED FIREPLACE PARTS. SEE INSTALLATION AND HOME TECHNOLOGIES INC. GLASS DOOR KITS CAN BE INSTALLED ON THIS UNIT.
FIREPLACE ALSO FOR USE IN MANUFACTURED HOMES YES NO	CLEARANCE TO CHIMNEY COMBUSTIBLES: 2 IN. MIN. FIREBOX IN. MIN.
FAN KIT MODEL NO. &	RATED AT 115 VOLTS, 50/60 Hz.,
DO NOT OVERFIRE. USE ONLY: SOLID WOOD FUEL OR LISTED DECORATIVE GAS APPLIANCE. DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE WITH THIS PRODUCT. IF DOORS	WARNING! THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO FIREPLACE. WARNING! THIS APPLIANCE IS NOT FOR USE AS COOKING EQUIPMENT.
ARE USED OPERATE FIREPLACE WITH DOORS FULLY OPEN OR CLOSED ONLY. WHEN BURNING A DECORATIVE GAS APPLIANCE IN THE FIREPLACE, ADJUST DAMPER TO THE FULLY OPEN POSITION.	IF INSTALLATION OR OPERATING INSTRUCTIONS ARE MISSING CONTACT: HEARTH & HOME TECHNOLOGIES INC., 1915 W. SAUNDERS ST., MT. PLEASANT, IA 52641.

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

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
- 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.

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 <u>before</u> 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 Section 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.

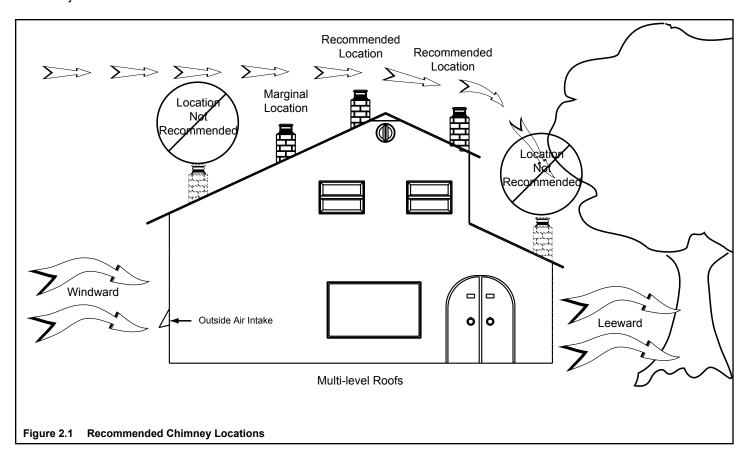
To minimize the effects of negative air pressure, the following must be considered:

- 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.



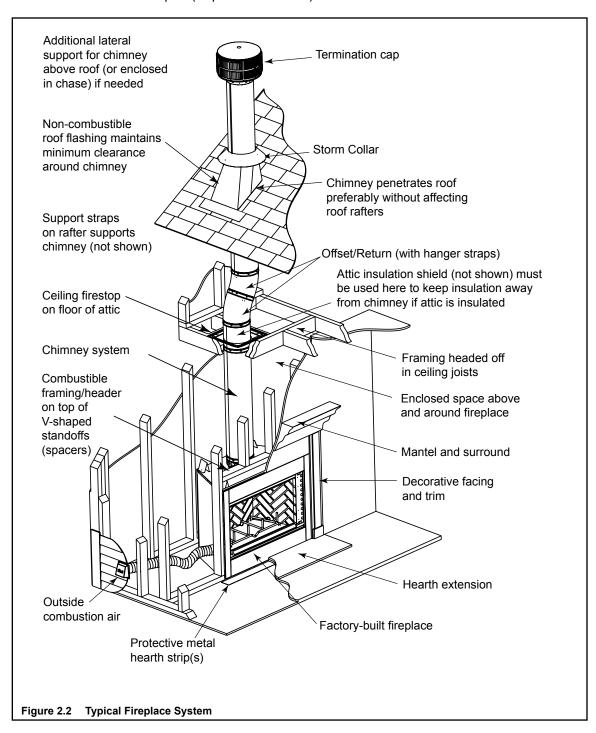
C. Typical Fireplace System

The Heatilator fireplace system consists of the following:

- · Fireplace/integral grate/refractory/outside air system
- Refractory
- · Chimney termination cap
- Chimney system (SL1100 series pipe is NOT approved for Canada)
- · Hearth extension

Optional components include:

- · Glass doors
- Chimney air kit (required in Canada)
- SLA10 11-10 in./279-254mm adaptor (required in Canada)



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



A WARNING

Fire Risk

Provide adequate clearances.

- · Around air openings
- To combustibles
- · For service access.

Locate fireplace away from traffic areas.

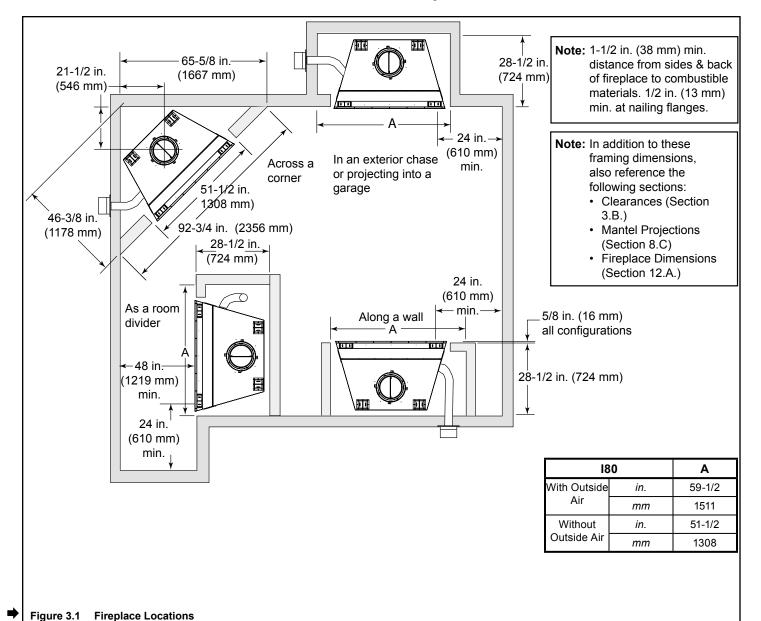
Note:

- 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.



B. Clearances



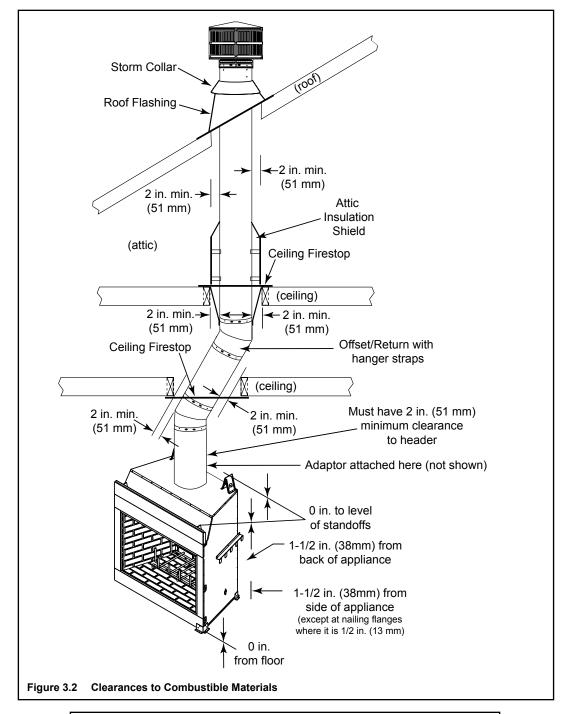
WARNING



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.).

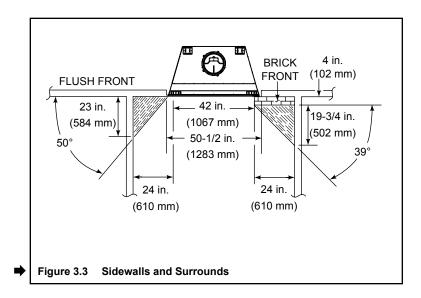
Failure to comply may cause fire.



Note: Chimney air kit and 11-10 in./279-254mm adaptor are not shown, but are required in Canada.

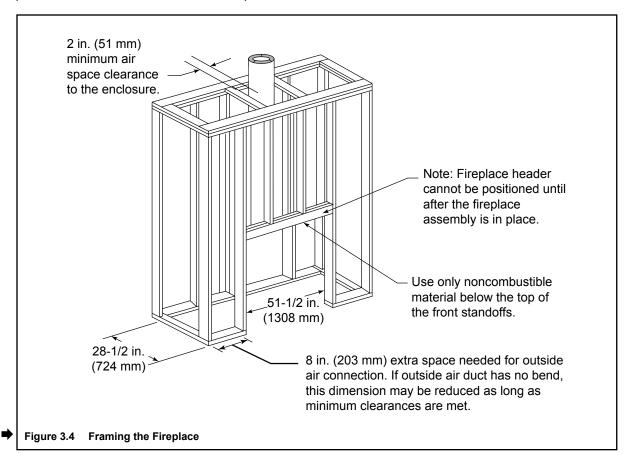
C. Sidewalls/Surrounds

Adjacent combustible side walls must be located a minimum of 24 in. (610 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.



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.



E. Construct the Chase

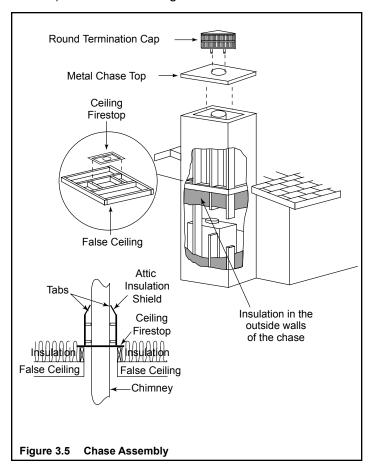
A chase is a vertical boxlike structure built to enclose the fireplace and/or its vent system. Vertical chimneys that run on the outside of a building must be installed inside a chase.

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.

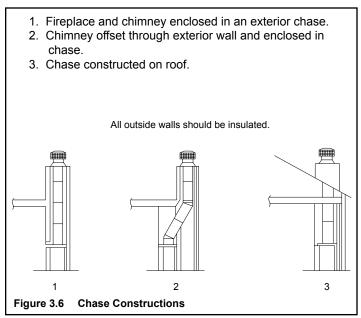
Building codes require false ceiling and ceiling firestops at each floor of the chase or every 10 ft (3.05 m) of clear space to control spread of fire.

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.



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.



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. 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.



Installation of Fireplace



CAUTION



Sharp Edges

 Wear protective gloves and safety glasses during installation.

⇒ A. Install the Outside Air Kit

The outside air assembly is factory installed on the left side of the fireplace. The kit is an optional component and its use is highly recommended to minimize the effect of negative pressure within the structure.

- · Use short duct run.
- A small dip in the duct will create a cold air trap.
- Position the outside air inlet in a manner that will now allow snow, leaves, etc. to block the inlet. See Figure 4.3.
- You may run the duct vertically; refer to Figure 4.2.
- Locate outside air kit on left side of fireplace. See Figure 4.1.
- Check the operation of the outside air inlet by moving the control handle up and down. See Figure 4.4.
- Mark and cut out a 4 in. (102 mm) hole in the building side for air entry.
- Install the hooded air inlet in the sidewall of the structure, flush with the building's exterior.
- Assemble the flexible duct (not supplied) between the collar and the air inlet. Secure into position with the supplied wire ties.
- Check for light leaks with a flashlight and seal with duct tape and/or insulation.



A 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.

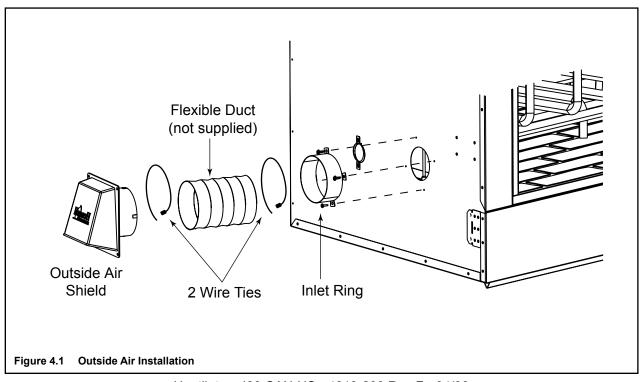
CAUTION

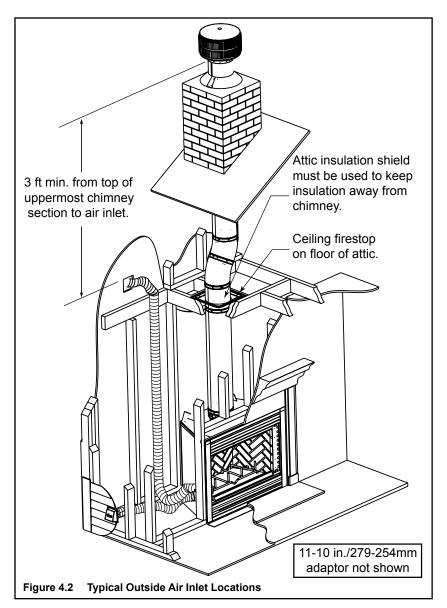
Risk of Smoke Spillage

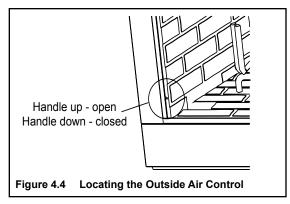
Outside air inlet must be located to prevent blockage from:

- Leaves
- · Snow/ice
- Other debris

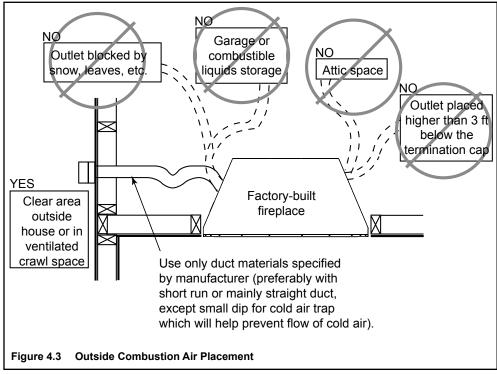
Blockage may cause combustion air starvation.







Note: Chimney air kit and 11-10 in./279-254mm adaptor are required in Canada.



B. Secure 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.

C. Install the Refractory

We recommend two installers for hearth stone and refractory installation!

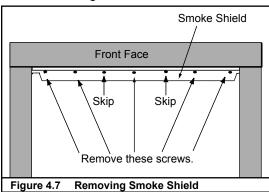
 Remove back refractory from outside of fireplace by bending tabs up and lifting refractory out of brackets.
 See Figure 4.5. Bend tabs back down out of the way.
 See Figure 4.6. Do not remove screws or brackets from fireplace. If brackets are removed, fill holes in outer shell with screws. Repeat this process to remove side refractories.

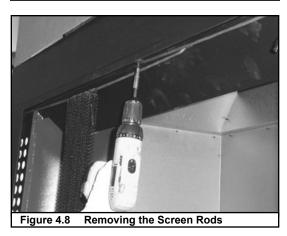


Figure 4.6 Bending Refractory Shipping Tabs

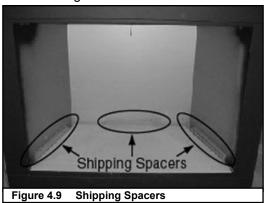
Back Down

- Remove smoke shield by removing five screws. See Figure 4.7. Smoke shield is located at top of fireplace front
- Remove screens by removing screw from the end of each screen rod. See Figure 4.8.





Remove hearth stone by removing three corrugated shipping spacers (Figure 4.9). Lift hearth stone out of fireplace. See Figure 4.10.

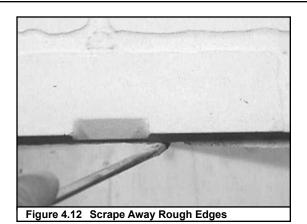




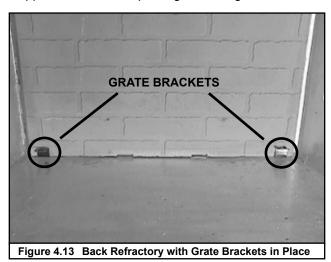
• Remove fireplace from pallet. The fireplace is attached to pallet with two brackets on each side and rear of outer shell. See Figure 4.11. Remove screws from bracket, pallet and fireplace. Replace screws removed from fireplace. Slide fireplace into position (brackets can be used to anchor fireplace in position). Once fireplace has been put into position, install refractories.

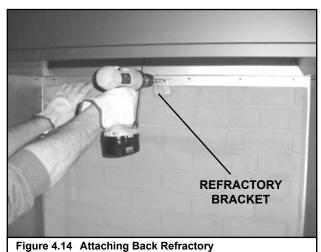


Note: Before installing refractories and hearth stone, be sure all back edges of each piece are smooth to ensure proper fit. Scrape away excess with a regular screwdriver. See Figure 14.12.

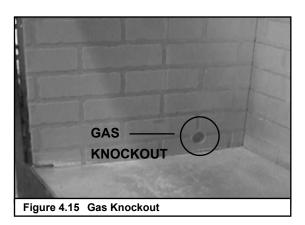


- Install back refractory, making sure refractory is centered and notches are to the bottom of firebox. Place grate brackets in outer two notches of refractory. See Figure 4.13.
- Secure back refractory in place with a screw and bracket supplied in hardware package. See Figure 4.14.





Note: To ensure proper installation, gas knockouts in the side refractory should be positioned towards back of fireplace. See Figure 4.15.



- Tilt top of side refractory towards center of firebox when placing it into fireplace. Push side refractory towards back corner of fireplace until it fits tightly against back refractory.
- Secure side refractory in place with a screw and bracket provided in the hardware package.
- Repeat these two steps for installation of the other side refractory.
- When placing hearth stone into fireplace, slide it back until it fits tightly against back refractory (underneath grate brackets). See Figure 4.16.

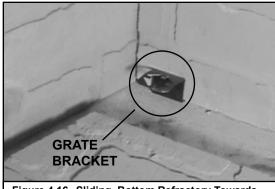
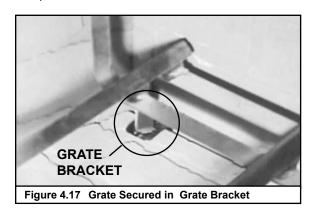


Figure 4.16 Sliding Bottom Refractory Towards Back of Fireplace

- Place grate into grate brackets. See Figure 4.17.
- · Replace smoke shield.



Replace left and right screens.

D. Place the Protective Metal Hearth Strips



WARNING

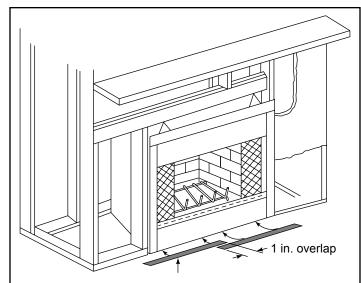
Fire Risk!

Metal hearth strips <u>MUST</u> be installed.
 Sparks or embers may ignite flooring.

Included with your fireplace you will find two metal hearth strips measuring approximately 26 in. x 4 in. (660 mm x 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 4.18. 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 4.19.



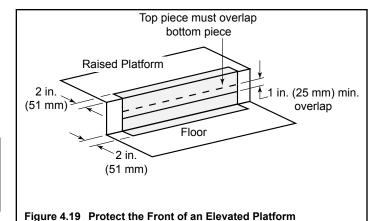
Metal strips are placed 2 in. (51 mm) under the front of the fireplace and must extend beyond the front and sides of fireplace opening by 2 in. (51 mm).

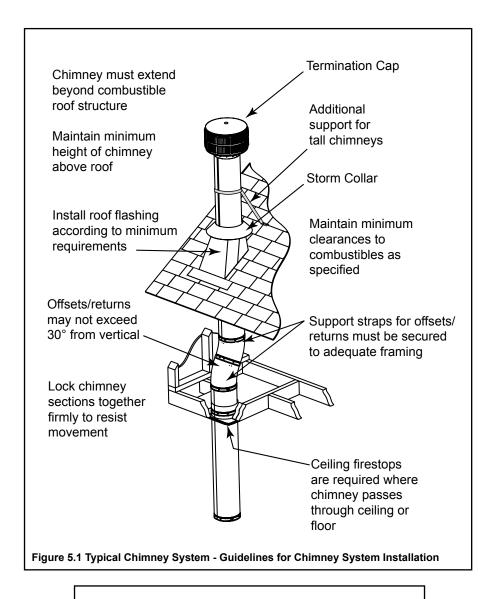
Figure 4.18 Position the Protective Metal Hearth Strips

E. Level the Fireplace

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

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





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.

A WARNING

Fire Risk

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

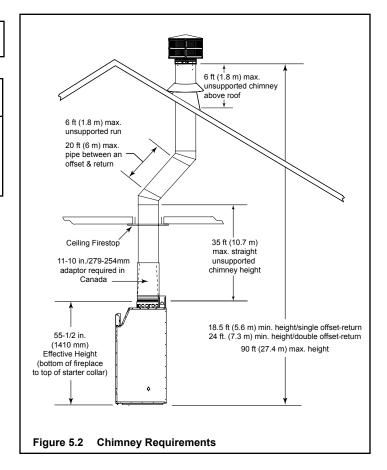
Table 5.1

HEIGHT OF CHIMN COMPONENTS	IEY	in.	mm
US	Canada		
Chimney Stabilize	•		
SL11	SL4	4-3/4	121
Ceiling Firestops			
FS538	FS538	0	0
FS540	FS540	0	0
Offsets/Returns			
SL1130	SL430	14-1/2	368
Roof Flashing			
RF570	RF570	0	0
RF571	RF571	0	0
Chimney Sections	*		
SL1106	SL406	4-3/4	121
SL1112	SL412	10-3/4	273
SL1118	SL418	16-3/4	425
SL1136	SL436	34-3/4	883
SL1148	SL448	46-3/4	1187
n/a	SLA10	16-3/4	425

^{*} Dimensions reflect effective height.

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.



A 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:

A WARNING

Fire Risk

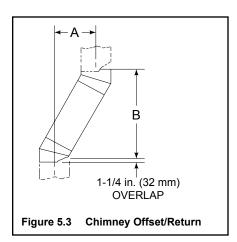
• Draft will be restricted if offset/return greater than 30° are used.

- 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

<i></i>	Α		B SL1106 SL111		SL1106 SL1112		SL1136	SL1148
in.	mm	in.	mm	SL406	SL412	SL1118 SL418	SL436	SL448
4 7/8	124	17 7/8	454	-	-	-	-	-
7 1/4	184	22	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	47	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.

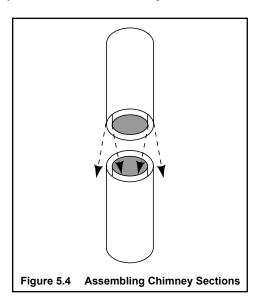


Example: Your "A" dimension from Figure 5.3 is 14 1/2 in. (368 mm). Using Table 5.2 the dimension closest to, but not less than 14 1/2 in. (368 mm) is 15 3/4 in. (400 mm) using a 30° offset/return. It is then determined from the table that you would need 36 5/8 in. (930 mm) (Dimension "B") between the offset and return. The chimney components that best fit your application are two SL1112s or 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, US only). 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.



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.

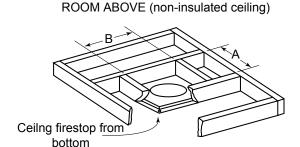
- MUST use chimney system described in this manual.
- NO OTHER chimney components may be used.

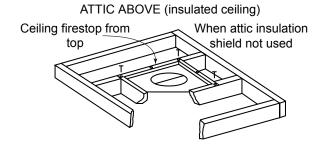
Substitute or damaged chimney components may impair safe operation.

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.





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

	Α		E	3
Catalog #	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 (3.05 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



WARNING

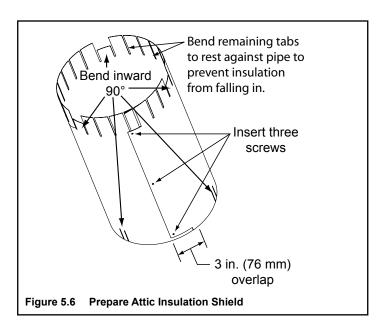
Fire Risk

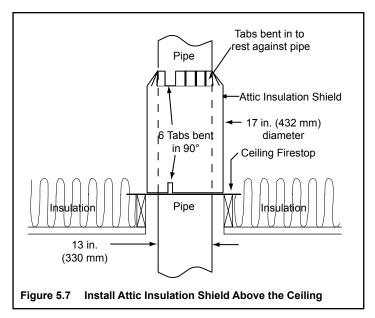
- DO NOT pack insulation or other combustibles: between ceiling firestops; between chimney and attic insulation shield.
- ALWAYS maintain specified clearances around chimney and ceiling firestop systems.
- Install ceiling firestops as specified.

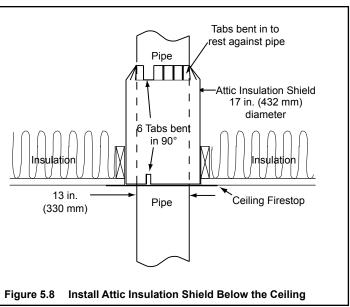
Failure to keep insulation or other material away from chimney pipe may cause fire.

An insulation shield must be installed when there is a possibility of insulation coming into contact with the factory built chimney system. Installation of a ceiling firestop is required (see Figures 5.7 and 5.8).

- Roll the shield (around the chimney if already installed) until you have a 3 in. (76 mm) overlap and the three holes on each side match up (large holes on top).
- Insert three screws into the matching holes to form a tube
- Bend three tabs on the bottom of the tube inward to 90° to maintain chimney clearance. See Figure 5.6.
- Rest the insulation shield on the ceiling firestop below.
- Bend the three short tabs at the top of the shield inward to 90° to maintain the 2 in. (51 mm) clearance from the chimney.
- Bend the remaining top tabs to just meet the pipe.







If you wish to make a custom shield or barrier, follow these guidelines:

- Metal is preferred, although any material stiff enough to hold up against the insulation can be used.
- The shield or barrier must be tall enough to extend above the insulation and prevent blown-in insulation from spilling into the cavity.
- Maintain specified cleaances around chimney.
- Check instructions and local codes for further details.

F. Double-check the Chimney Assembly

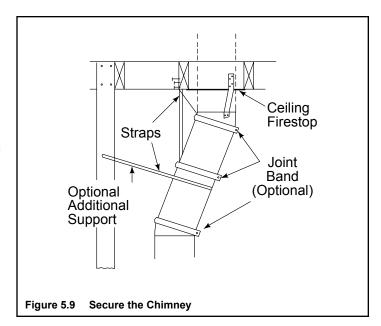
Continue assembling the chimney sections up through the ceiling firestops as needed. While doing so, be aware of the height and unsupported chimney length limitations given under Section 5.A. Chimney Requirements.

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 5.9.

* 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.

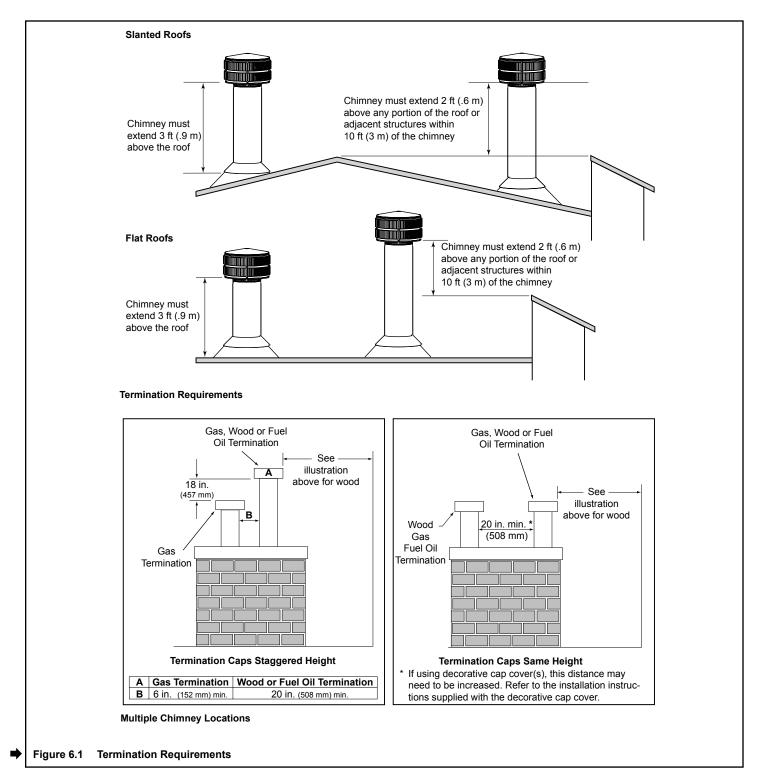
Keep chimney sections from separating or twisting.

6 Complete the Enclosure

A. Chimney Termination

Chimney Termination Requirements (See Figure 6.1)

- · 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 (610 mm) above any portion of the roof within 10 ft (3.05 m)
- Must be located away from trees or other structures



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 6.2.

Cut Out the Hole in the Roof

Measure to either side of the nail and mark the 17 in. x 172 in. (432 mm x 432 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. (51 mm) air clearance to insulation and other combustible materials.

Assemble the Chimney Sections Through the Roof

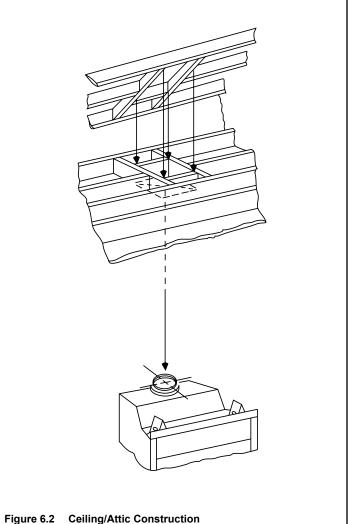
Continue to add chimney sections through the roof opening, maintaining at least a 2 in. (51 mm) air space to combustible materials.

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.

Install the Chimney Air Kit (required in Canada)

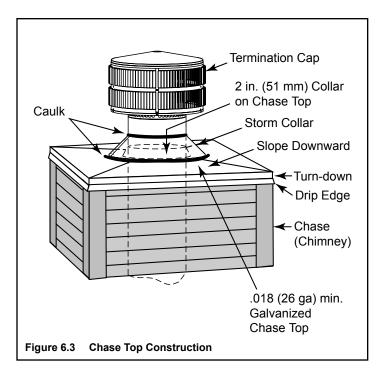
When installing the chimney air kit, follow the instructions provided with this accessory.



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 6.3.

- 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.



C. Install the 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.



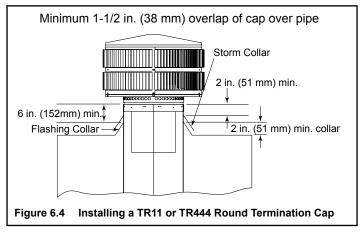
A WARNING

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.

• Install the chimney sections up through the chase enclosure. When using a TR11 or 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 6.4.



 For installations utilizing a TR11T or 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 6.5.

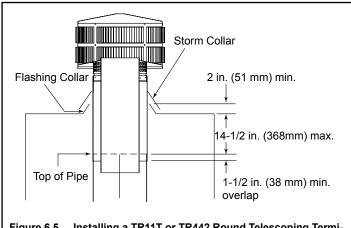
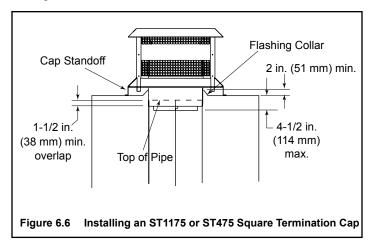
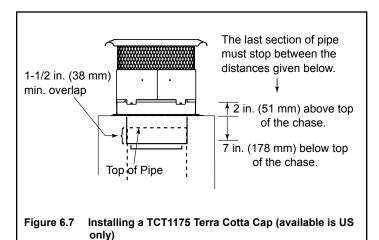


Figure 6.5 Installing a TR11T or TR442 Round Telescoping Termination Cap

 For installations utilizing an ST1175 or 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 6.6.

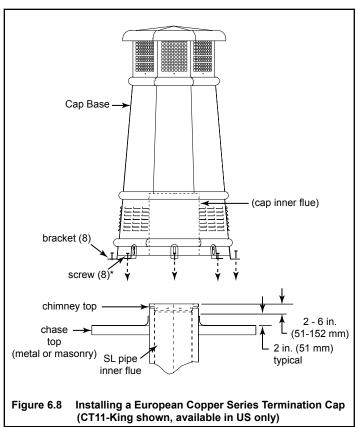


 For installations utilizing an TCT1175 Terra Cotta Cap the last chimney section must be between 7 in. (178 mm) below the chase top and 2 in. (51 mm) above. See Figure 6.7.



For chase installations you can use a TR11 or TR444
Round Termination Cap, a TR11T or TR442 Round
Telescoping Termination Cap, an ST1175 or ST475 Square
Termination Cap, or a TCT1175 Terra Cotta Termination
Cap.

 For installations utilizing a European Copper Series Termination Cap, See Figure 6.8.



 Install termination caps following instructions provided with them.

Accessories

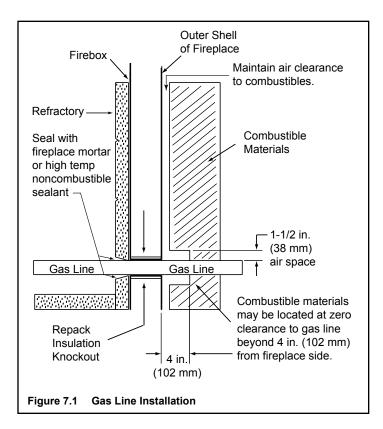
A. Gas Log/Lighter Provisions

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.





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**



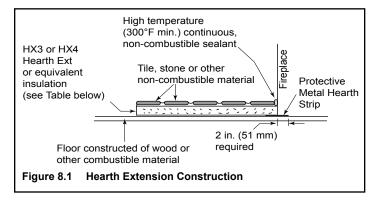
Inspect appliance and components for damage. Damaged parts may impair safe operation.

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

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.





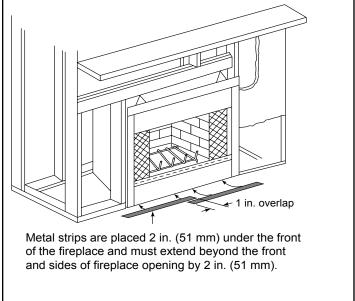
WARNING

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 1.03.

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

- Thermal conductivity per inch thickness = \mathbf{k}
- $k = (BTU)(inch) / (foot^2)(hour)(°F)$
- Required thickness = Rk
- Thermal resistance per inch thickness = \mathbf{r}
- $r = (foot^2)(hour)(^\circF) / (BTU)(inch)$
- Required thickness = R / rB.



Positioning the Protective Metal Hearth Strips



Figure 8.2

WARNING

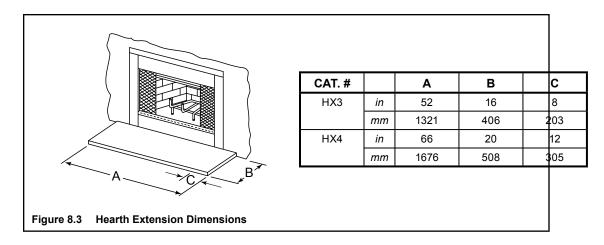
Fire Risk

Hearth extensions must be installed exactly as specified.

High temperatures or hot embers may ignite concealed combustibles.

Table 8.1

Hearth Extension Insulation Alternatives-Total minimum R Value must equal 1.03					
Material	k per inch thick	r per inch thick	Minimum thickness required		
Hearth & Home HX3, HX4 (Micore 300™)	0.49	2.06	1/2 in.		
USG Micore 160™	0.39	2.54	1/2 in.		
USG Durock™ Cement Board	1.92	0.52	2 in.		
Cement Mortor	5.0	0.20	5-1/8 in.		
Common Brick	5.0	0.20	5-1/8 in.		
Ceramic Tile	12.50	0.08	12-1/4 in.		
Armstrong™ Privacy Guard Plus	0.46	2.18	1/2 in.		
Marble	14.3-20.0	0.07-0.05	14-5/8 in 20-3/8 in.		



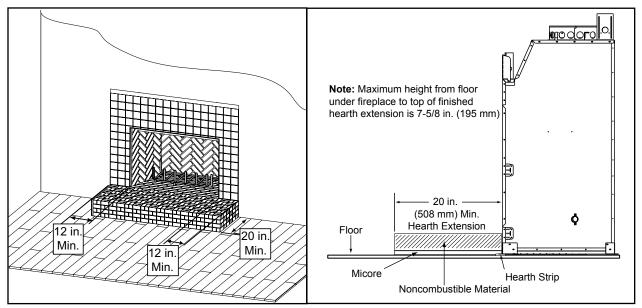


Figure 8.4 Raised Hearth Extension

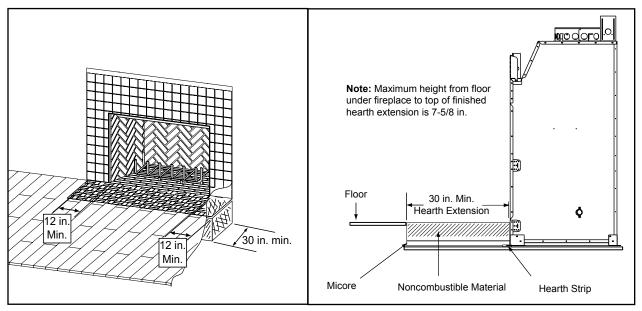


Figure 8.5 Flush Hearth Extension

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 (or equivalent), Rutland 76R, Nuflex 302, GE RTV116, GE RTV106 (or equivalent).

After completing the framing and applying the facing material (drywall) over the framing, a bead of non-combustible seal-ant 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.

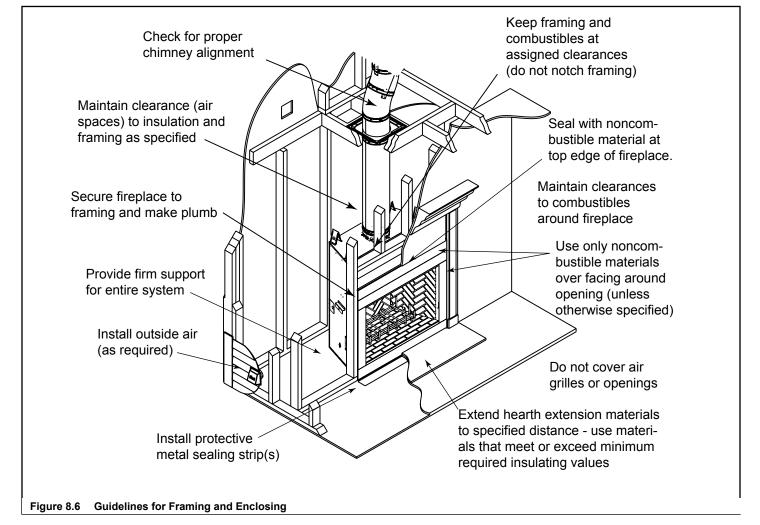
Only non-combustible materials may be used to cover the metal fireplace front.



▲ 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 8.7. Combustible trim must not cover the 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 24 in. (610 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 8.8. Short stub walls are also acceptable if they are contained within the shaded area.



WARNING

Fire Risk

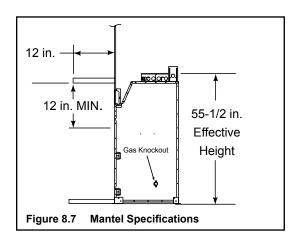
Do NOT obstruct air inlets.

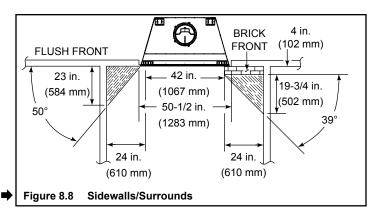
Do NOT modify air inlets.

 Modifying or covering air inlets could cause temperature rise and fire hazard.

Finishing materials must not interfere with:

- Air inlets
- · Access for service

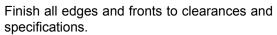






WARNING

Fire Risk



- Metal fireplace front may be covered with noncombustible 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.



WARNING

Fire Risk

Do not operate fireplace before reading and understanding operating instructions.

Failure to operate fireplace properly may cause fire.

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



HOT SURFACES!

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

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

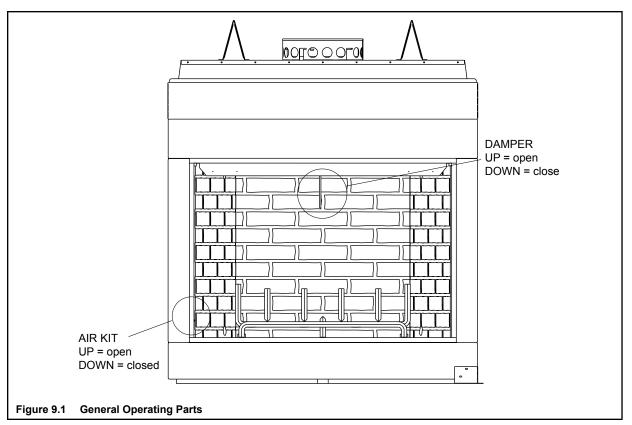
High temperatures may ignite clothing or other flammable materials.

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

WARNING

Fire Risk

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



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

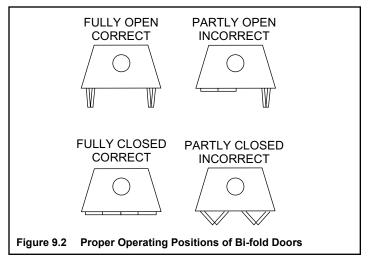
- Close firescreen when burning fireplace.
- Do not use firescreen or glass doors to hold burning material in fireplace.

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.





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

Wet, unseasoned wood can cause accumulation of creosote.



Fire Risk

WARNING

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.

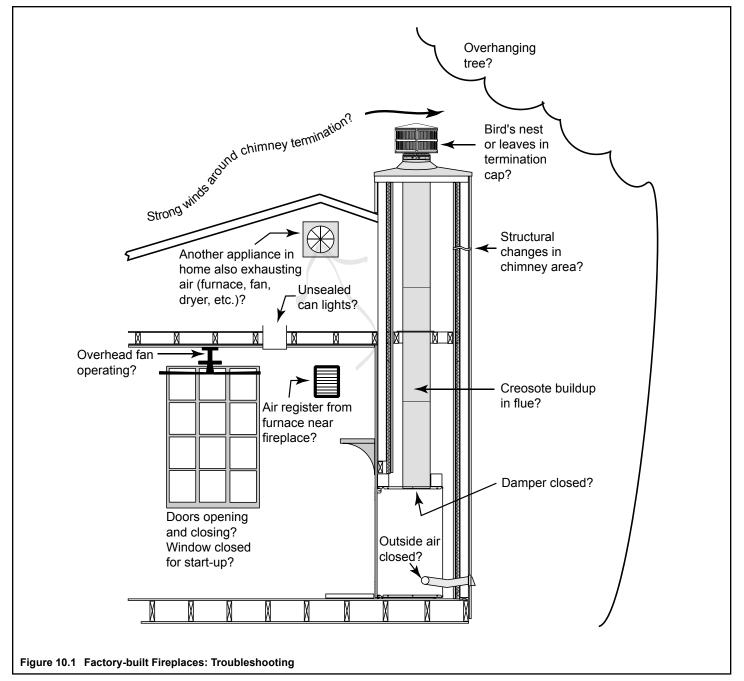
A. Understanding Vent Problems

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.



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 Down draft 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 Chimney obstruction Not enough kindling and/or fuel to establish draft Inadequate combustion air	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.
	Yes: Fire too close to front Competition with exhaust devices	Build fire farther back. Do not use exhaust fans during startup and/or check for need for balanced air make-up system.

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: Down draft 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.

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.

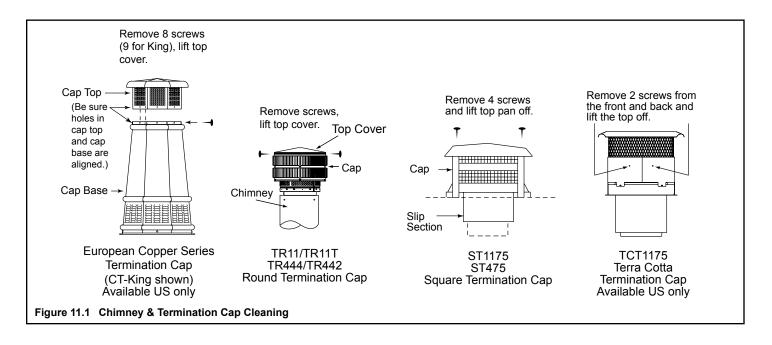


WARNING

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.



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.



M WARNING

Fire Risk

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

Will corrode chimney.



M 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	Assess condition of screen and replace as necessary. Screens are required.
	Verify maintenance of proper clearance to combustible household objects.
Glass Doors	Inspect glass panels for cracks. Replace if this condition is present.
	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	Remove any foreign objects.
	Verify unobstructed air circulation.
Firebox	1. Inspect condition of refractory. Replace if crumbly, deteriorated, or if cracks exceed 1/4 in. (6 mm).
Chimney	Inspect for blockage or obstruction such as bird nests, leaves, etc.
	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.
	Inspect for corrosion or separation.
	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.

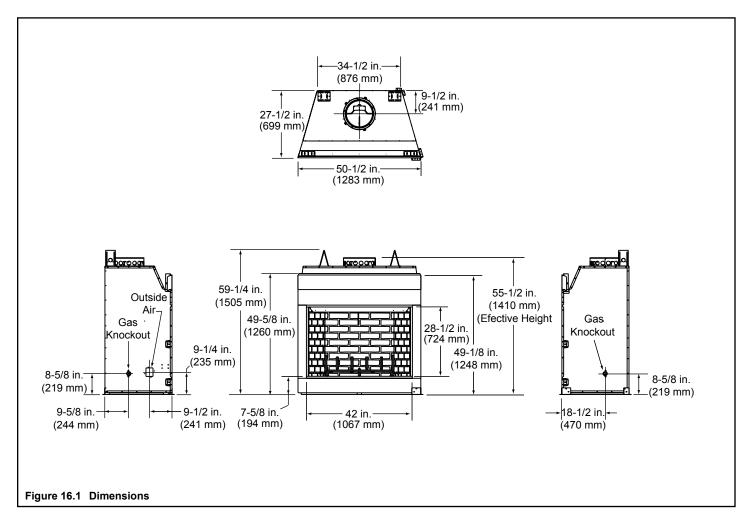
E. Chimney Fire

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.

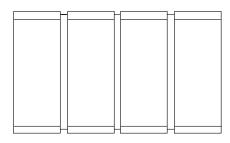
A. Fireplace Dimensions



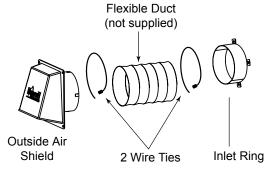
B. Fireplace Components

Catalog #	Description
180H	Fireplace with Integral Grate, Outside air Kit, Hearth Protection Strips and Herringbone Pattern Refractory
I80CT	Fireplace with Integral Grate, Outside air Kit, Hearth Protection Strips and Colored Traditional Brick Pattern Refractory
DM8042	Glass Doors - Bi-fold, Clear-View - Black
DM8042B	Glass Doors - Bi-fold, Clear-View - Polished Bradd
DM8042S	Glass Doors - Bi-fold, Clear-View - Stainless Steel
HX4	Hearth Extension
GR29	Integral Grate (included with fireplace)

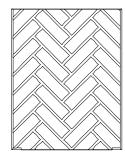




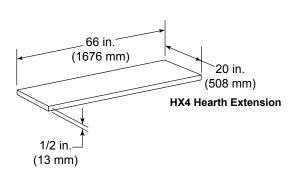
Bi-fold Glass Doors

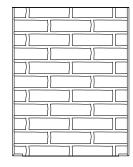


AK22 Outside Air Kit



Herringbone Pattern Refractory



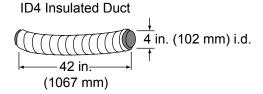


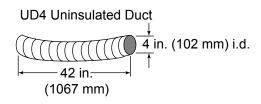
Traditional Brick Pattern Refractory

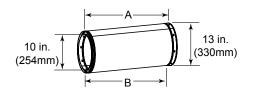
C. Chimney Components

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

Catalog #		
US	CAN	Description
CAK5A	CAK5A	Chimney Air Kit
ID4	ID4	Insulated Duct/Outside Air
UD4	UD4	Uninsulated Duct/Outside Air
SL1106	SL406	Chimney Section - 6 in. (152 mm) long
SL1112	SL412	Chimney Section - 12 in. (305 mm) long
SL1118	SL418	Chimney Section - 18 in. (457 mm) long
SL1136	SL436	Chimney Section - 36 in. (914 mm) long
SL1148	SL448	Chimney Section - 48 in. (1219 mm) long
SL11	SL4	Chimney Stabilizer
SL1130	SL430	Chimney Offset/Return - 30 deg
FS538	FS538	Ceiling Firestop - Straight
FS540	FS540	Ceiling Firestop - 30 deg
AS10	AS10	Straight Attic Insulation Shield, 24 in. (610 mm)
JB577	JB577	Chimney Joint Band
CB576	CB576	Chimney Bracket
RF570	RF570	Roof Flashing - Flat to 6/12 Pitch
RF571	RF571	Roof Flashing - 6/12 to 12/12 Pitch
TR11	TR444	Round Termination Cap
TR11T	TR442	Round Telescoping Termination Cap
TCT1175		Terra Cotta Termination Cap
ST1175	ST475	Square Termination Cap
CT56	CT56	Chase Top
LDS33	LDS33	Decorative Shroud - 3 ft x 3 ft (.91 m x .91 m)
LDS46	LDS46	Decorative Shroud - 4 ft x 6 ft (1.22 m x 1.83 m)
LDS-BV	LDS-BV	Decorative Shroud - 26 in. x 26 in. (660 mm x 660 mm)
		Field Constructed Shrouds (See "Woodburning Termination Cap")
CT-11A	n/a	European Copper Cap Adapter
CT11-King	n/a	European Copper Termination Cap - King Style
CT11-Queen	n/a	European Copper Termination Cap - Queen Style
CT11-Bishop I	n/a	European Copper Termination Cap - Bishop Style
CT11-Bishop II	n/a	European Copper Termination Cap - Bishop Style
CT11-Knight I	n/a	European Copper Termination Cap - Knight Style
CT11-Knight II	n/a	European Copper Termination Cap - Knight Style
CT11-Pawn	n/a	European Copper Termination Cap - Pawn Style





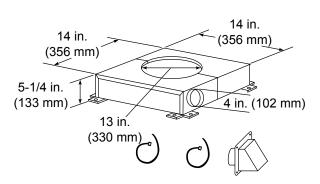


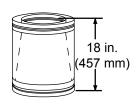
Chimney Sections

Catalog #			4	В	
US	CAN	in	mm	in	mm
SL1106	SL406	6	152	4-3/4	121
SL1112	SL412	12	305	10-3/4	273
SL1118	SL418	18	457	16-3/4	425
SL1136	SL436	36	914	34-3/4	883
SL1148	SL448	48	1219	46-3/4	1187

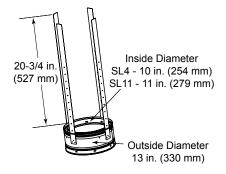
A = Actual Length

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



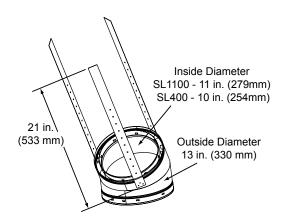


SLA10 Adaptor (Required in Canada)



SL11/SL4 Chimney Stabilizer

CAK5A Chimney Air Kit (Required in Canada)

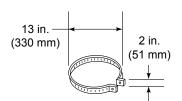


SL1130/SL430 Offset/Return

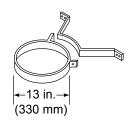


Assembled Diameter: 17 in./432 mm Height: 24 in./610 mm

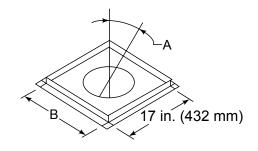
AS10 Straight Attic Insulation Shield



JB577 Chimney Joint Band

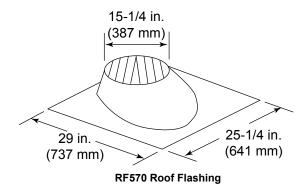


CB576 Chimney Joint Band



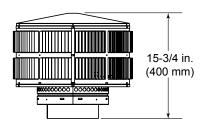
Ceiling Firestop

Catalog #	Α	В		
FS538	0-deg.	17 in.	432 mm	
FS540	30-deg.	26 in.	660 mm	

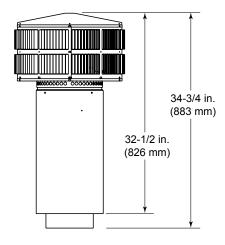


15-1/4in. (387 mm) 39-7/8 in. (1013 mm) 28 in. (711 mm)

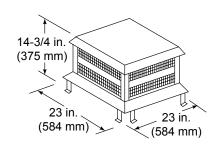
RF571 Roof Flashing



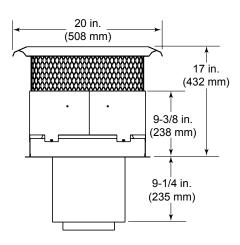
TR11/TR444 Round Termination Cap



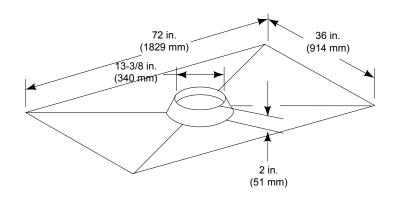
TR11T/TR442 Round Telescoping Termination Cap



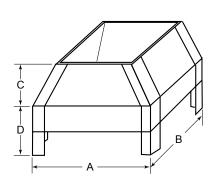
ST1175/ST475 Square Termination Cap



TCT1175 Terra Cotta Cap (Available US only)

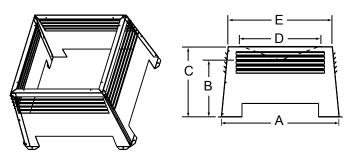


CT56 Chase Top



Decorative Shroud LDS33/LDS46

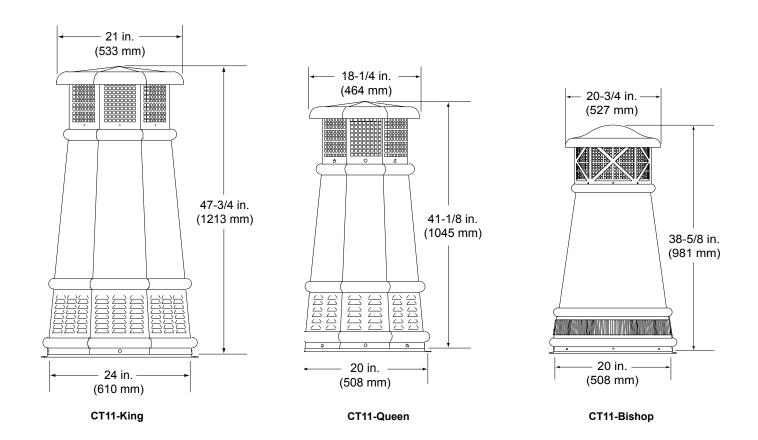
	-	4	В		ВС		C D)
Catalog #	in.	mm	in.	mm	in.	mm	in.	mm	
LDS33	36	914	36	914	8-1/2	216	11	279	
LDS46	48	1219	72	1829	8-1/2	216	11	279	

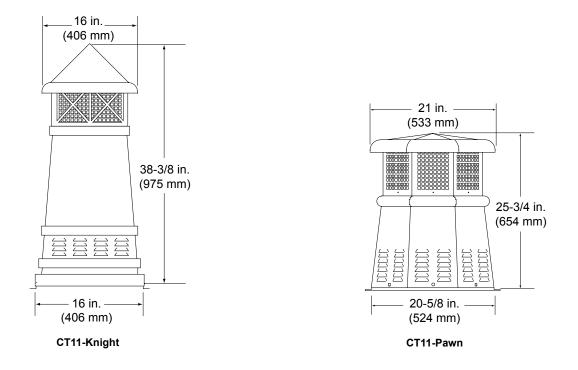


LDS-BV Decorative Shroud

Catalog #		Α	В	С	D	E
LDS-BV	in.	26	12-1/2	15-1/2	22	23
LD2-BA	mm	660	318	394	533	584

European Copper Caps (Available in US only)



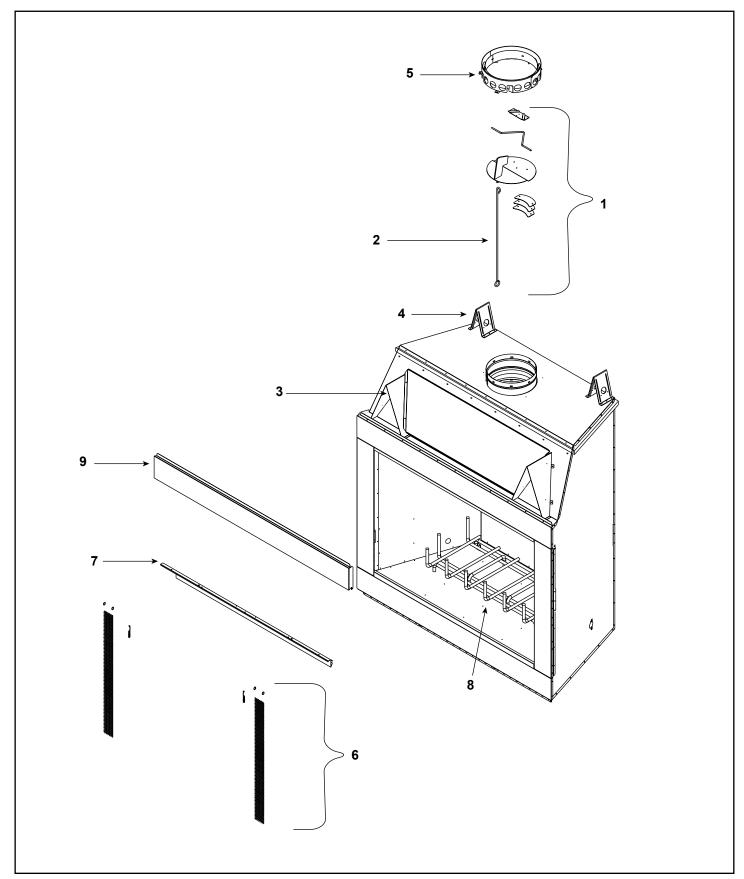


Woodburning Termination Cap

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.						

meatilator
The first name in fireplaces

Service Parts List 42 in. Woodburning Fireplace Beginning Manufacturing Date: N/A Ending Manufacturing Date: Active





Service Parts

ICON 180CT & 180H

Service Parts List 42 in. Woodburning Fireplace Beginning Manufacturing Date: N/A Ending Manufacturing Date: Active

#	Description of Part	Serial # Cutoff	I80CT	180H	Qty. req.
1	Damper Blade Assembly		29964	29964	1
	Damper Weight		19785A	19785A	1
2	Damper Control		20549	20549	1
3	Front Top Standoff		11864i	11864i	2
4	Rear Top Standoff		19228	19228	2
5	Starter Section Assembly		22072B	22072B	1
6	Firescreen Assembly		29958	29958	2
	Firescreen Handle		4021-150	4021-150	1 ea.
7	Smoke Shield		29946	29946	1
8	Grate		GR29	GR29	1
9	Upper Front		4013-207	4013-207	1
	Outside Air Kit		AK22	AK22	1
	Fastener Pack		17916B	17916B	1
	Long Cable Tie		19954A	19954A	2
	Outside Air Shield		33271	33271	1
	4 in. Outside Air Inlet Ring		25692	25692	1
	Refractory Retainer Kit		34584	34584	1
	Refractory Retainer		11847	11847	3
	Grate Retainer		34555	34555	2
	Dusky Rose Brick Hearth Refractory Assembly		33696	33696	1
	Dusky Rose Brick Left Side Refractory		33694	33677	1
	Dusky Rose Brick Right Side Refractory		33694	33676	1
	Dusky Rose Brick Back Refractory Assembly		33695	33687	1
	Oaland To differ al Diale Headth Defrectors	Pre AK994403	4013-058		1
	Colored Traditional Brick Hearth Refractory	Post AK994403	4013-226		
	Oaland Traditional Bride Oids Before them.	Pre AK994403	4013-193		2
	Colored Traditional Brick Side Refractory	Post AK994403	4013-224		
	Coloured Traditional Brists Book Before to	Pre AK994403	4013-195		1
	Colored Traditional Brick Back Refractory	Post AK994403	4013-227		
	Nailing Flange		31190	31190	4
	Firescreen Rod		28404	28404	2
	Screen Cover (top only)		29926	29926	2
	Smoke Shield Kit		35406	35406	1
	Rear Smoke Shelf		35597	35597	1
	Grate Retainer		34430	34430	2
	Strip Protector		18320	18320	2
	Side Trim		31326	31326	2
	Installation Instructions & Owner's Manual		4013-203	4013-203	1
	Powder Coat Touch-Up Paint		71479	71479	1

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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.

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F. Contact Information



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.

1418504 or other U.S. and foreign patents pending.

and follow these instructions for safe installation and operation.

Read, understand • 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,