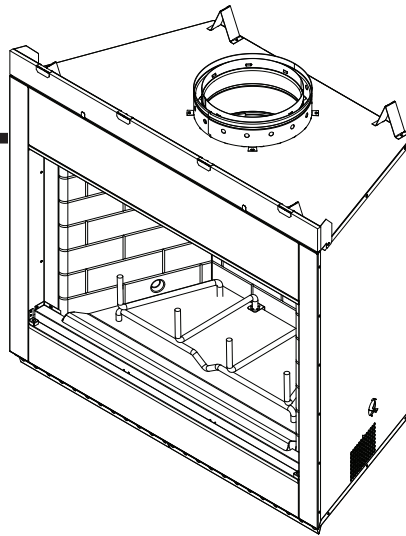


Models:
Montana-36
Montana-42
Woodburning Fireplace



CAUTION



DO NOT DISCARD THIS MANUAL

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



⚠ WARNING



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

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

⚠ WARNING



HOT SURFACES!

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

Hot glass will cause burns.

- Do not touch glass until it is cooled
 - NEVER allow children to touch glass
 - Keep children away
 - CAREFULLY SUPERVISE children in same room as appliance.
 - Alert children and adults to hazards of high temperatures.
- High temperatures may ignite clothing or other flammable materials.**
- Keep clothing, furniture, draperies and other combustibles away.

⚠ WARNING: For Outdoor Use Only.

Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals.



⚠ WARNING



Fire Risk

- For use with solid wood fuel or decorative gas appliance only.

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

Congratulations!

Congratulations on selecting a Outdoor Lifestyles wood burning fireplace. The Outdoor Lifestyles 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 Outdoor Lifestyles wood burning fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Outdoor Lifestyles family of fireplace products!

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

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 Number
Grate
Fireplace Model



	FIREPLACE NO.	MODEL NO.	MODEL NO.	MFG. DATE
	WARNING: RISK OF FIRE DAMAGE. REPLACE GRATE WITH HEARTH & HOME TECHNOLOGIES			
OUTDOOR FIREPLACE INTENDED FOR USE WITH HEARTH & HOME TECHNOLOGIES LISTED FIREPLACE PARTS. SEE INSTALLATION AND OPERATING INSTRUCTIONS FOR THIS MODEL. ONLY HEARTH & HOME TECHNOLOGIES GLASS DOOR KITS CAN BE INSTALLED ON THIS UNIT.				
CAN/ULC-S610	USE HHT SL SERIES CHIMNEY	CLEARANCE TO COMBUSTIBLES: 2 IN. MIN.	CHIMNEY FIREBOX	IN. MIN.
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 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.		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! TO AVOID THE RISK OF DAMAGING FIREPLACE MATERIALS AND INCREASING THE RISK OF SPREADING A FIRE DO NOT USE THE FIREPLACE TO COOK OR WARM FOOD.		
UTILISER DU CARBURANT SOLIDE SEULEMENT	IF INSTALLATION OR OPERATING INSTRUCTIONS ARE MISSING CONTACT: HEARTH & HOME TECHNOLOGIES, 7571 215th Street West, Lakeville, MN 55044			 PIN. 4021-723E

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

1 Listing and Code Approvals



A. Appliance Certification


This fireplace system has been tested and listed in accordance with **UL 127** and **CAN/ULC-S610-M87** 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 a dual cooling air kit is required and must be installed at the time of the initial fireplace installation. Failure to do so may result in a fire causing property damage and/or personal injury.


Outdoor Lifestyles is a registered trademark of Hearth & Home Technologies.

 WARNING
 Fire Risk
<ul style="list-style-type: none">• Do not install or operate damaged fireplace.• Do not modify fireplace.• Installation other than as instructed by Hearth & Home Technologies is strictly prohibited.• Do not operate the fireplace without fully assembling all components.• Do not overfire.• Installation and/or use of any component part not approved by Hearth & Home Technologies. <p>Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the above actions.</p>

 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.

 WARNING
 Fire Risk
TO AVOID THE RISK OF DAMAGING FIREPLACE MATERIALS AND INCREASING THE RISK OF SPREADING A FIRE, DO NOT USE THE FIREPLACE TO COOK OR WARM FOOD.

 WARNING: This product and the fuels used to operate this product (wood and wood pellets), and the products of combustion of such fuels, can expose you to chemicals including carbon black, which is known to the State of California to cause cancer and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.
--

2 Getting Started

A. Design and Installation Considerations

CAUTION

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

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

- Where the fireplace is to be installed. See Sections 3 and 4.
- The vent system configuration to be used. See Sections 5 and 6.
- Framing and finishing details. See Sections 3, 6 and 8.
- Whether optional accessories are desired. See Section 12.

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

- Location of fireplace and chimney

Moisture Resistance:

This outdoor fireplace will shed moderate amounts of water, but is not waterproof. Water and condensing water vapor may enter the chase under certain conditions.

The fireplace will not perform as an exterior wall. Moisture penetration must be considered for construction that places the fireplace in structure walls or on moisture sensitive surfaces.

When installed on exterior walls: Hearth & Home Technologies recommends that the fireplace chase be constructed outside the structure's weather envelope. Where the platform meets the wall, use a flashing detail similar to that required for attached decks. Chase platforms, including hearths should slope away from the structure at 1/8 in. to 1/4 in. per foot. The fireplace can be shimmed level.

When installed on surfaces where water may collect or cause damage: Hearth & Home Technologies recommends that a drainage pan be placed under the unit. This can be constructed of metal, adhesive polymer membrane (such as ice and water shield) or other suitable materials. A means of drainage out of the pan such as tubes or weep holes should be provided. A slope of 1/8 in. to 1/4 in. per foot towards the drain port is suggested. The fireplace can be shimmed level.

Hearths should slope away from the front of the fireplace and chase at 1/8 in. to 1/4 in. per foot. Spark strips must be on top of any combustible hearth materials used for moisture management.

B. Typical Fireplace System

The Outdoor Lifestyle fireplace system consists of the following:

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

Optional components include:

- Glass doors
- Weather cover
- SLA10 11-10 in./279-254 mm Adapter (required in Canada)
- CAK5A (required in Canada)

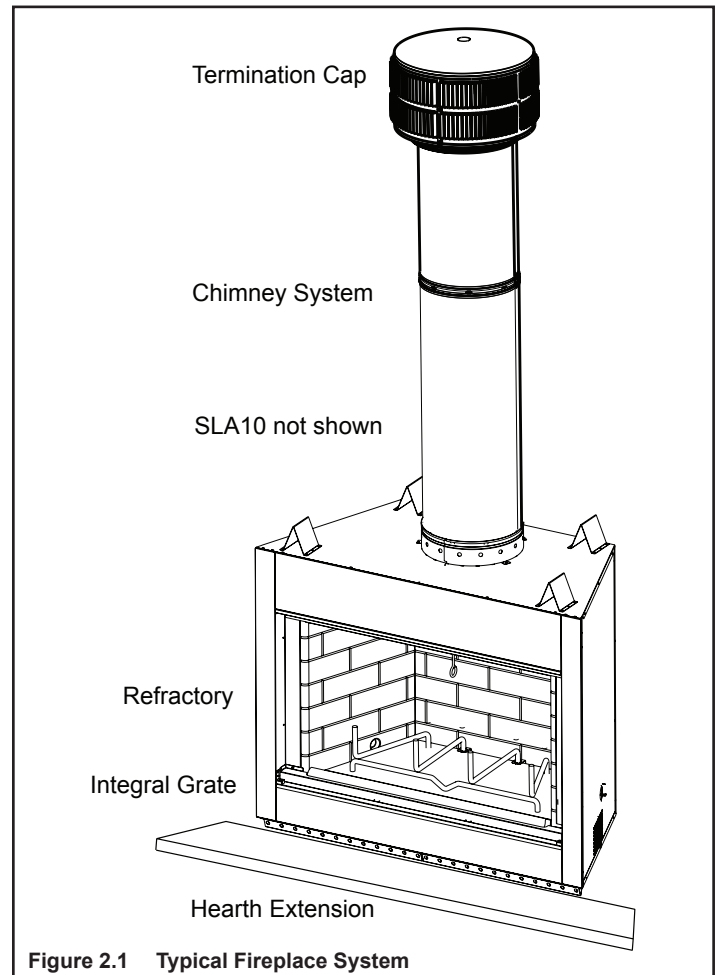


Figure 2.1 Typical Fireplace System

C. 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.

D. Inspect Fireplace and Components

WARNING



Fire Risk

Explosion Risk

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



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

Report damaged parts to dealer.



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

3 Framing and Clearances

 WARNING
 Fire Risk Provide adequate clearances. <ul style="list-style-type: none">• Around air openings• To combustibles• For service access. Locate fireplace away from traffic areas.

Note: <ul style="list-style-type: none">• 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

This outdoor fireplace will shed moderate amounts of water, but is not waterproof. Water and condensing water vapor may enter the chase under certain conditions.

The fireplace will not perform as an exterior wall. Moisture penetration must be considered for construction that places the fireplace against structure walls or on moisture sensitive surfaces.

- **Exterior Walls (see Figure 3.1)**

Hearth & Home Technologies recommends that the fireplace chase be constructed outside the structure's weather envelope. Where the platform meets the wall, use a flashing detail similar to that required for attached decks. Chase platforms, including hearths, should slope away from the structure at 1/8 in to 1/4 in. per foot. The fireplace can be shimmed level. Build the outside enclosure out of standard building materials, being careful to maintain the minimum air clearances specified in these installation instructions.

- **Freestanding Installations (see Figure 3.2)**

When installing this fireplace as a freestanding fireplace on your porch, patio or in your yard, it must be enclosed to prevent impact damage to the fireplace. The exterior of the enclosure may be finished in a textured plywood, a wood clapboard siding, brick, or a cultured stone. Vinyl siding is not recommended for use on the front of the fireplace due to the heat the fireplace produces. This can cause the vinyl siding to deteriorate.

- **When Installed on Surfaces Where Water May Collect or Cause Damage:**

Hearth & Home Technologies recommends that a drainage pan be placed under the unit. This can be constructed of metal, adhesive polymer membrane (such as ice and water shield) or other suitable materials. A means of drainage out of the pan such as tubes or weep holes should be provided. A slope of 1/8 in. to 1/4 in. per foot towards the drain port is suggested. The fireplace can be shimmed level.

Hearths should slope away from the front of the fireplace and chase at 1/8 in. to 1/4 in. per foot. Spark strips must be used on top of any combustible hearth materials used for moisture management.

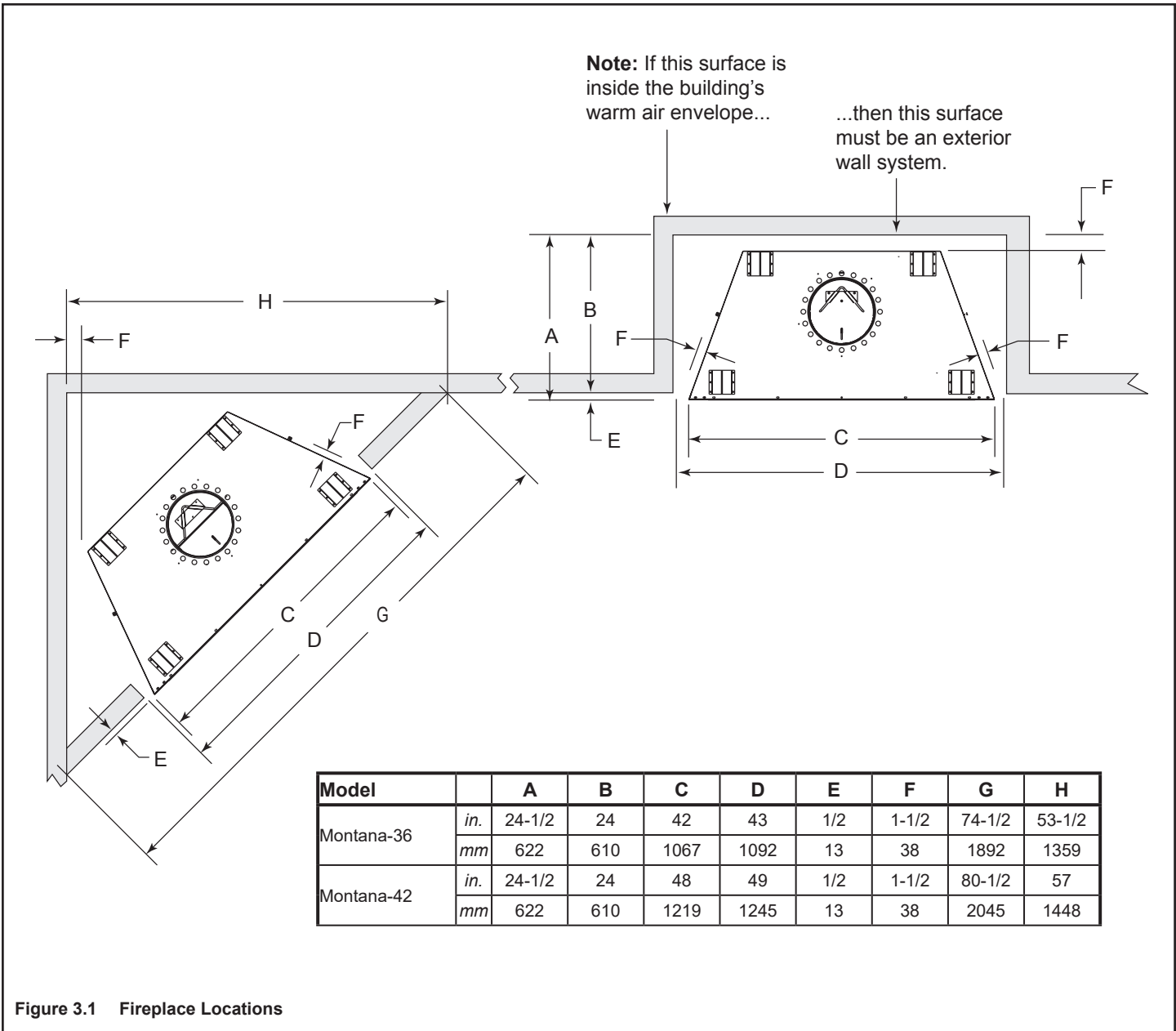


Figure 3.1 Fireplace Locations

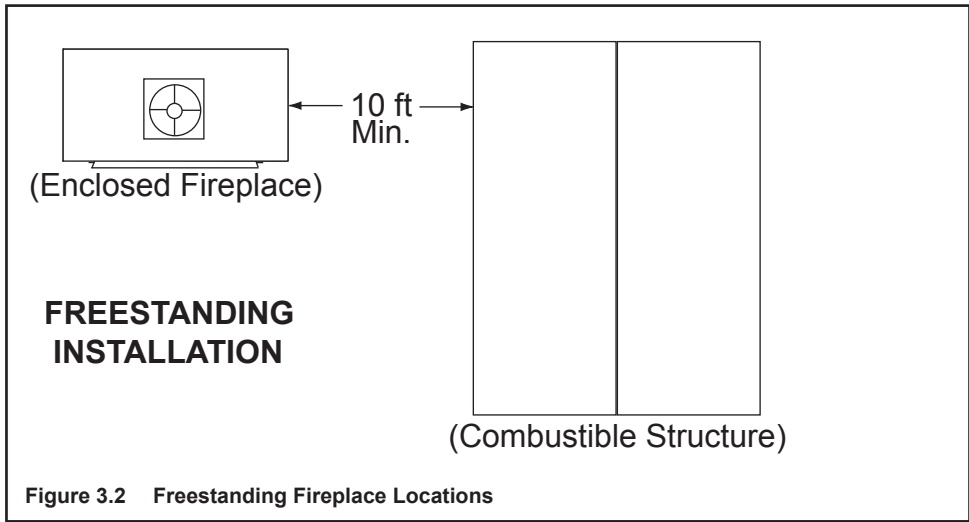


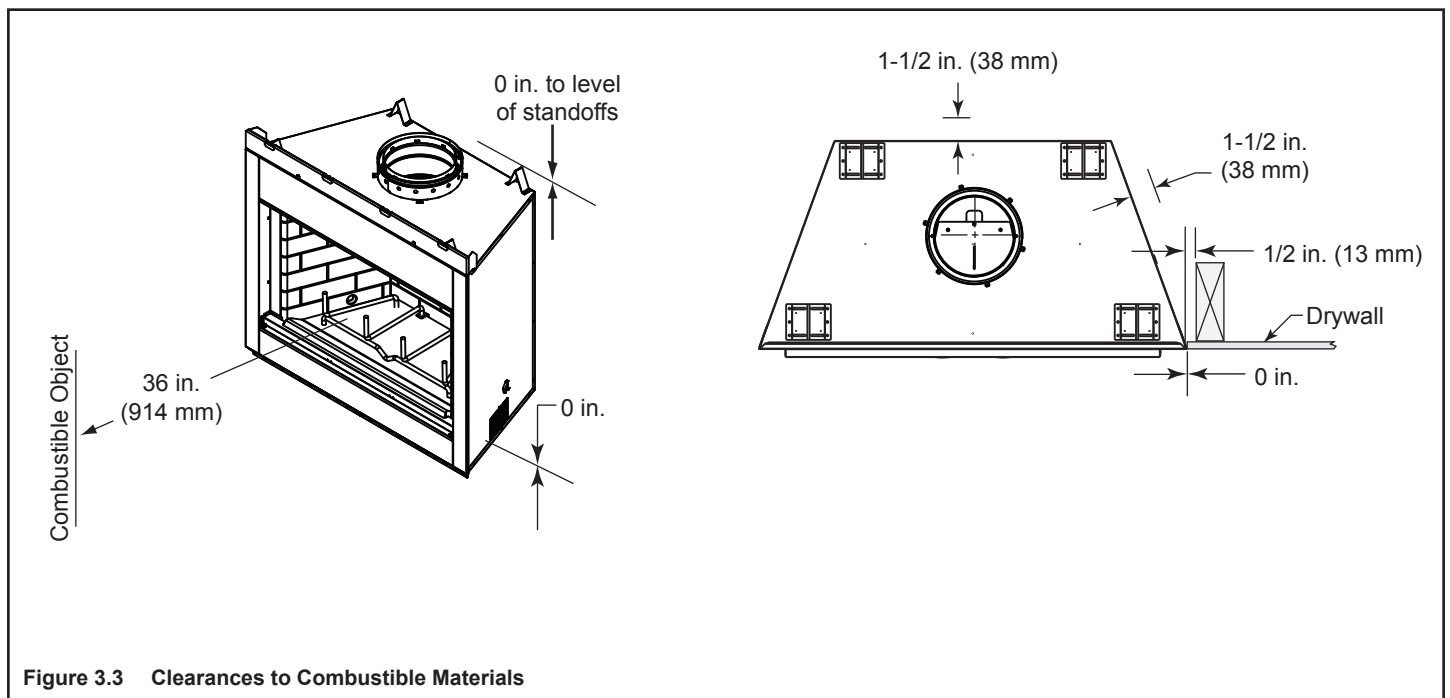


Figure 3.2 Freestanding Fireplace Locations

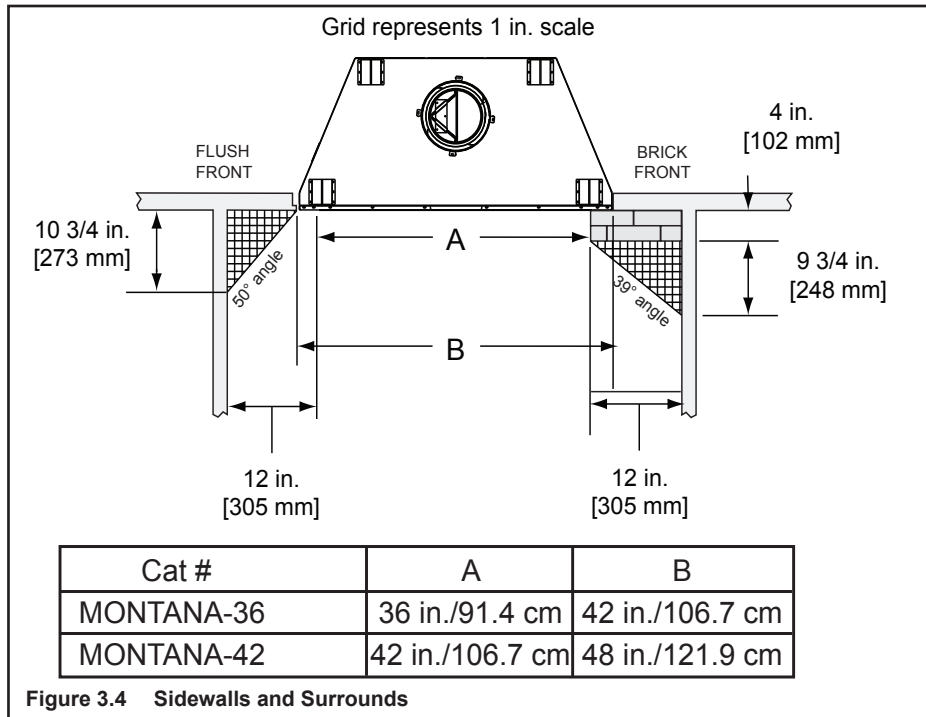
B. Clearances

	WARNING
	<p>Fire Risk</p> <ul style="list-style-type: none">• 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.). <p>Failure to comply may cause fire.</p>



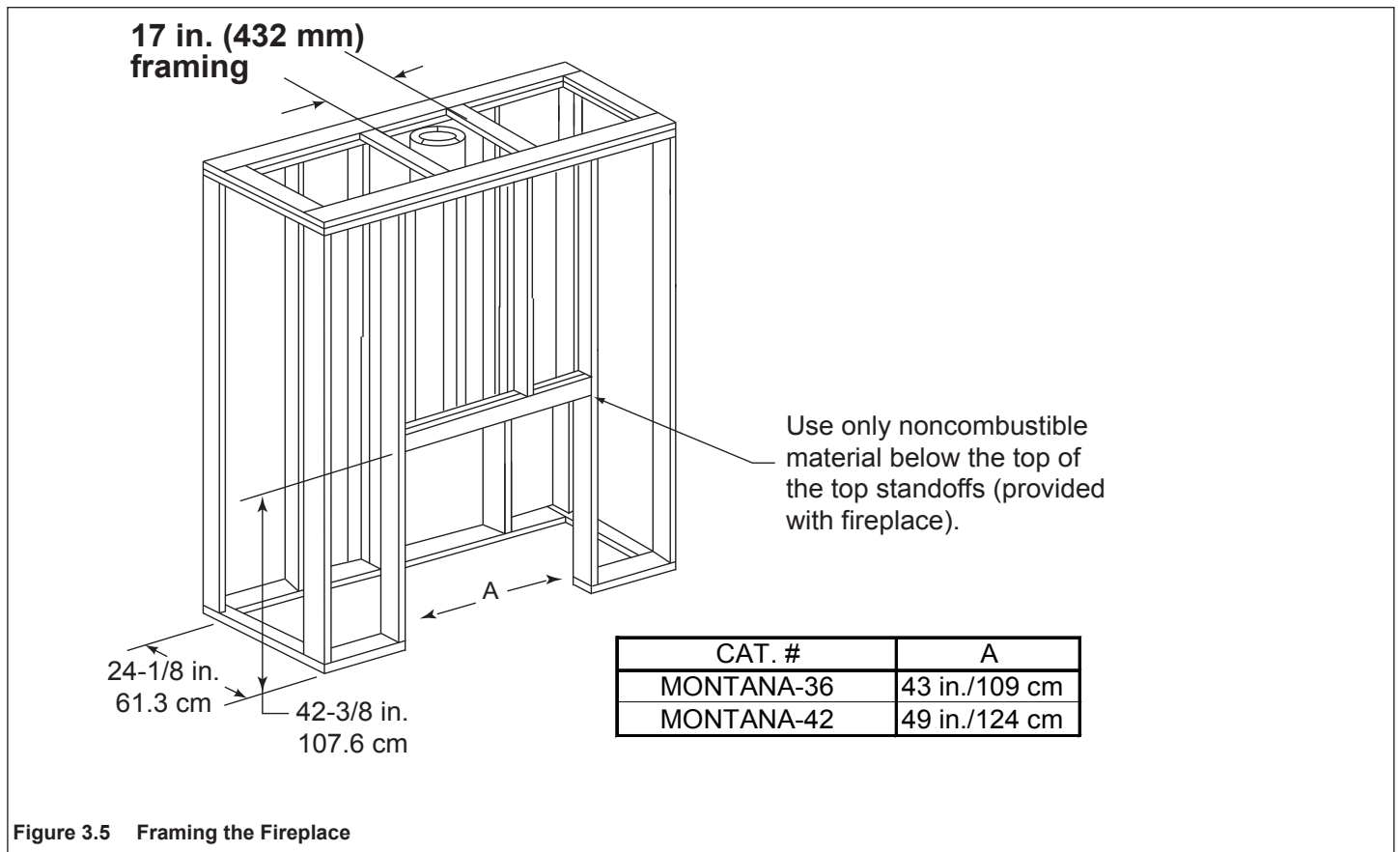
C. Sidewalls/Surrounds

Adjacent combustible side walls must be located a minimum of 12 in. (305 mm) from the fireplace opening. See Figure 3.4. 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 3.5 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. Chimney Requirements

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



- Minimum overall straight height is **6 ft 4 in. if the fireplace is freestanding** and a minimum of 10 ft from a combustible structure. See Figure 3.2.
- Chimney must extend 2 ft (.6 m) above any portion of the roof within 10 ft (3 m) of the chimney. Refer to Figure 6.1.

	ft	m
• Minimum height with offset/return	14.5	4.42
• Maximum height	90	27.43
• Maximum chimney length between an offset and return	20	6.1
• Maximum distance between chimney stabilizers	35	10.67
• Double offset/return minimum height	24	7.32
• Maximum unsupported chimney length between the offset and return	6	1.83
• Maximum unsupported chimney height above the fireplace	35	10.67
• Minimum overall straight height if fireplace is freestanding	6.4	1.95
• Minimum Straight Height	14.5	4.42

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

The SLA10 and CAK5A are required for Canada Installations.

4 Installation of Fireplace

	CAUTION
	Sharp Edges <ul style="list-style-type: none">• Wear protective gloves and safety glasses during installation.

A. Install the Dual Cooling Air Kit

The cooling air kit is a standard feature with this fireplace and is required for safe operation. Installation must be done at the time of initial construction. Locate air inlet hoods to prevent blockage from leaves, snow/ice, or other debris.

Note: The air kit hood and collar are supplied with unit. Air ducts are sold separately.

To install the air kit collar, slide one of the tabs down into the seam. See Figure 4.1. Secure the collar tabs to the fireplace with screws placed into the holes provided. See Figure 4.2. Repeat for other side.

Note: Locate cooling air inlet hoods to prevent blockage from leaves, snow/ice, or other debris.

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!	<ul style="list-style-type: none">• Prevent contact with sagging, loose insulation.• Do NOT install against vapor barriers or exposed insulation.




	WARNING
 	Fire Risk Asphyxiation Risk Do not draw outside combustion air from: <ul style="list-style-type: none">• 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.



Figure 4.1 Slide the Tabs

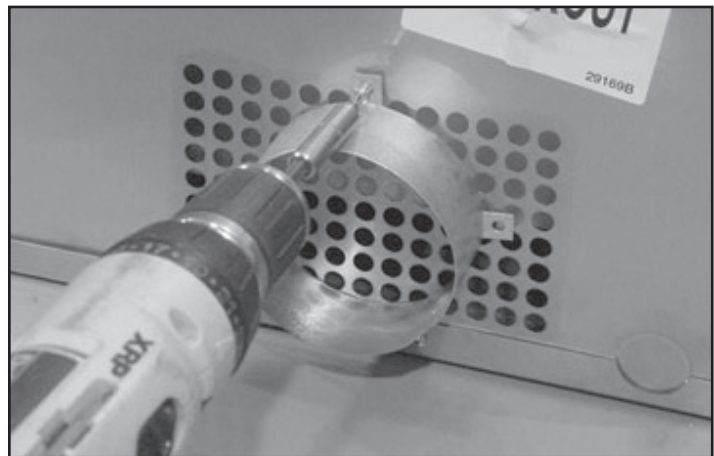
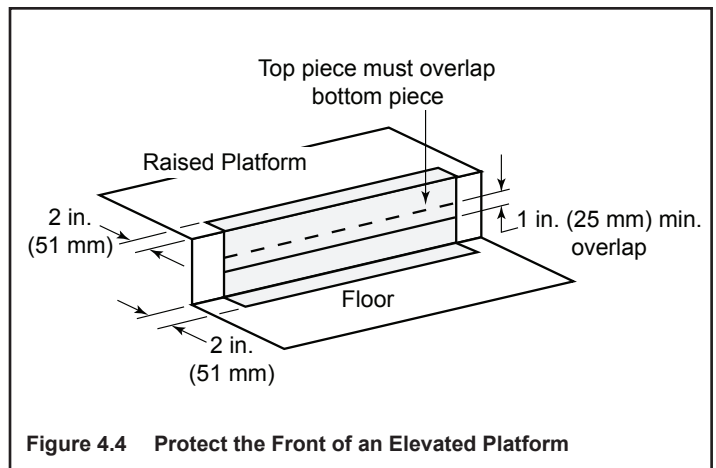
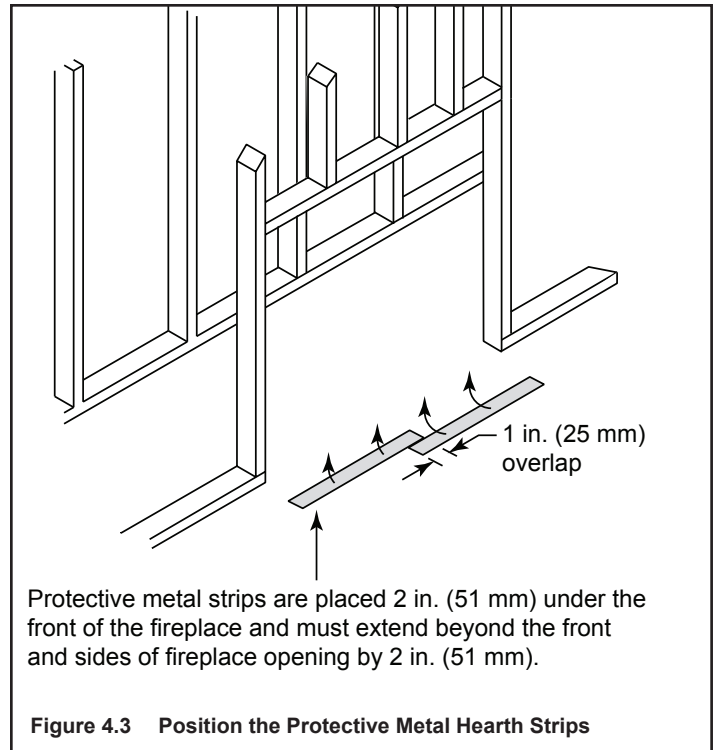


Figure 4.2 Secure the Tabs

- **Place the Protective Metal Hearth Strips**

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 4.3. These metal strips should extend from the front and sides of the fireplace opening by 2 in. (51 mm).



	WARNING
	<p>Fire Risk!</p> <ul style="list-style-type: none"> • Metal hearth strips MUST be installed. Sparks or embers may ignite flooring.

- **Level the Fireplace**

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

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

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

5 Chimney Assembly

A. Chimney Requirements

Vertical distances are measured from the base of the fireplace.

- Minimum overall straight height is **6 ft 4 in. if the fireplace is freestanding** and a minimum of 10 ft from a combustible structure. See Figure 3.2.
- Chimney must extend 2 ft (.6 m) above any portion of the roof within 10 ft (3 m) of the chimney. Refer to Figure 6.1.

	ft	m
• Minimum height with offset/return	14.5	4.42
• Maximum height	90	27.43
• Maximum chimney length between an offset and return	20	6.1
• Maximum distance between chimney stabilizers	35	10.67
• Double offset/return minimum height	24	7.32
• Maximum unsupported chimney length between the offset and return	6	1.83
• Maximum unsupported chimney height above the fireplace	35	10.67
• Minimum overall straight height if fireplace is freestanding	6.4	1.95
• Minimum Straight Height	14.5	4.42

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

WARNING



Fire Risk

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

The SLA10 and CAK5A are required for Canada installations.

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.

CAUTION

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

Table 5.1

HEIGHT OF CHIMNEY COMPONENTS		in.	mm
US	Canada ONLY		
Chimney Stabilizer			
SL11	SL4	4-3/4	121
Ceiling Firestops			
FS538	FS538	0	0
FS540	FS540	0	0
Offsets/Returns			
SL1130	SL430	14-1/2	368
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.

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:

	<h3>WARNING</h3>
<p>Fire Risk</p> <ul style="list-style-type: none"> Draft will be restricted if offsets/returns greater than 30° are used. 	

- Measure how far the chimney needs to be shifted to enable it to avoid the overhead obstacle. See Figure 5.1. Use dimension “A” to determine chimney section required to achieve the needed shift.
- After determining the offset dimension, refer to Table 5.2 and find the “A” dimension closest to but not less than the distance of shift needed for your installation.
- The “B” dimension that coincides with the “A” dimension represents the required vertical clearance that is needed to complete the offset and return.
- Read across the chart and find the number of chimney sections required and the model number of those particular chimney parts.
- Whenever the chimney penetrates a floor/ceiling, a ceiling firestop must be installed.
- The effective height of the fireplace assembly is measured from the base of the fireplace to the top of the starter collar. See Dimensions in Section 12.

Table 5.2

A		B		SL1106 SL406	SL1112 SL412	SL1118 SL418	SL1136 SL436	SL1148 SL448
in.	mm	in.	mm					
4 7/8	124	17 7/8	454	-	-	-	-	-
7 1/4	184	2 2	559	1	-	-	-	-
9 3/4	248	26 1/8	664	2	-	-	-	-
10 1/4	260	27 1/4	692	-	1	-	-	-
12 3/4	324	31 3/8	797	1	1	-	-	-
13 1/4	337	32 3/8	822	-	-	1	-	-
15 3/4	400	36 5/8	930	-	2	-	-	-
18 1/8	460	40 3/4	1035	1	2	-	-	-
18 3/4	476	41 3/4	1060	-	1	1	-	-
21 3/4	552	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.

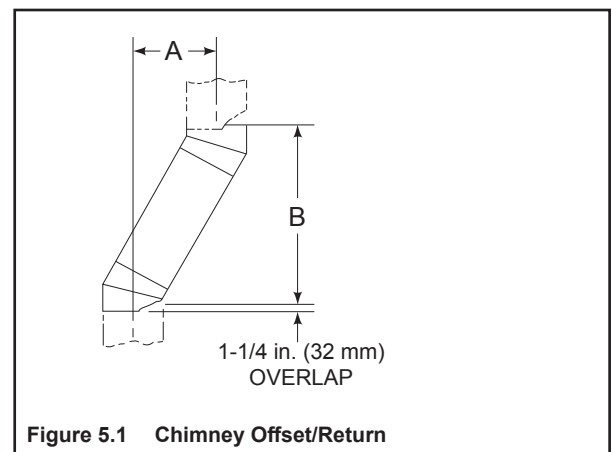


Figure 5.1 Chimney Offset/Return

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

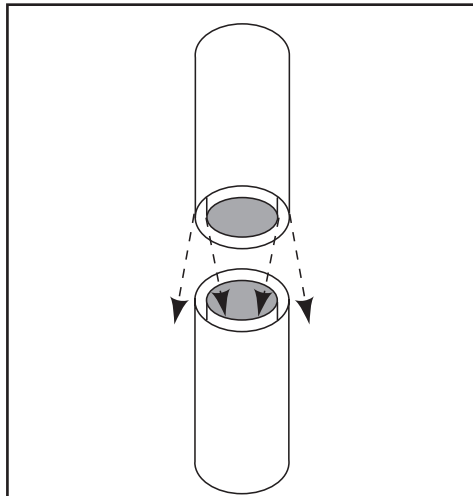


Figure 5.2 Assembling Chimney Sections

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

WARNING



Fire Risk

Do NOT install substitute or damaged chimney components.

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

Substitute or damaged chimney components may impair safe operation.

D. Install the Ceiling Firestops

Where the chimney system is installed in a chase on the exterior side of the building envelope or as a free standing installation, firestops are not required. Check building codes prior to installation.

Where the chimney system is on the interior side of the building envelope, follow the ceiling firestop instructions below:

- Mark and cut an opening in the ceiling for the ceiling firestop being used. See Figure 5.3.
- Frame the opening with the same size lumber used in the ceiling joists.
- Install the ceiling firestop.

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

ROOM ABOVE (non-insulated ceiling)

Ceiling firestop from bottom

ATTIC ABOVE (insulated ceiling)

Ceiling firestop from top

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

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

Figure 5.3 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 where chimney pipe penetrates ceiling/floor.

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

E. Install Attic Insulation Shield

WARNING! Risk of Fire! You MUST install an attic installation shield when there is any possibility of insulation or other combustible material coming into contact with the chimney.

- **DO NOT** pack insulation between the chimney and the attic insulation shield.
- Failure to keep insulation and other materials away from the chimney pipe could cause a fire.
- **DO NOT** offset chimney inside insulation shield.
- Combustible material may come into contact with the attic insulation shield as long as the required clearances are maintained to the chimney pipe.

Installation of a ceiling firestop is required:

Note: In Canada a CAS10 must also be installed. See instructions provided with kit.

- Refer to Figures 5.3, 5.4, and 5.5..
- If the attic shield is pre-rolled continue. If it is a flat part, try to roll it up to aid in wrapping it around the chimney.
- Pre-bend all the tabs in at the top to 45 degrees.
- Wrap the shield (around the chimney if already installed) until you have an 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 starting at the bottom.
- Bend the tabs on the bottom of the tube inward to 90 degrees to maintain chimney air space.
- Rest the insulation shield on the ceiling firestop below.
- Tape off any openings around the bottom.

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

- Metal is preferred, although any material stiff enough to hold back the insulation can be used.


WARNING! Risk of Fire! Use of cardboard or other materials that can deflect under humidity or other environmental conditions is not recommended.


- The shield or barrier must be tall enough to extend above the insulation and prevent blown-in insulation from spilling into the cavity and accommodate the amount of insulation as required by the National Building Code.
- Maintain specified air spaces 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.

 **WARNING**



Fire Risk

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

Keep chimney sections from separating or twisting.

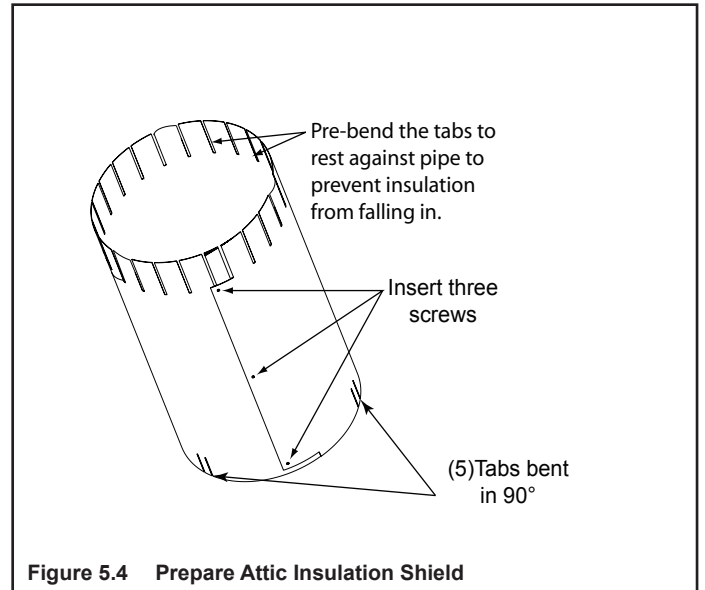


Figure 5.4 Prepare Attic Insulation Shield

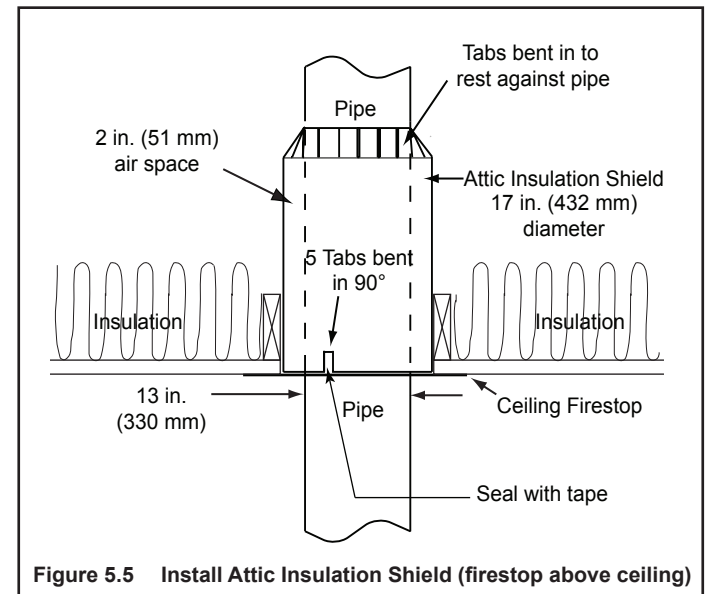
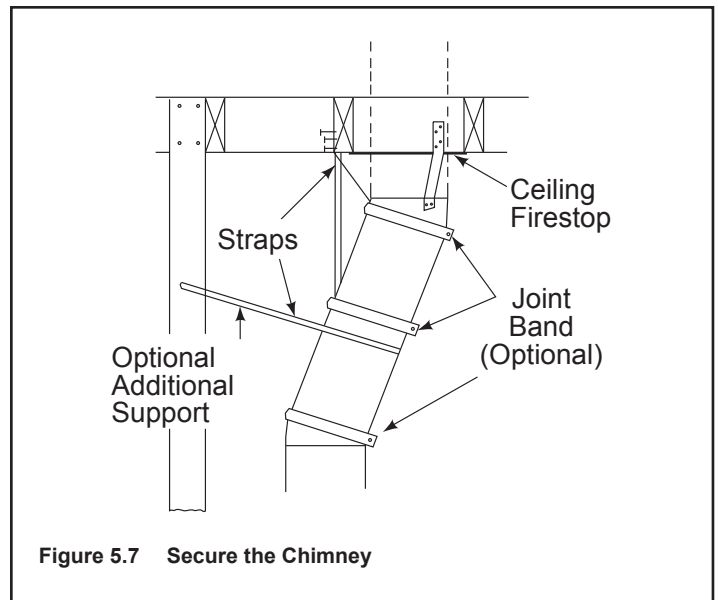


Figure 5.5 Install Attic Insulation Shield (firestop above ceiling)

G. Secure the Chimney

When offsets and returns are joined to straight pipe sections, they must be locked into position with the screws(outer only). 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 5.7.

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



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

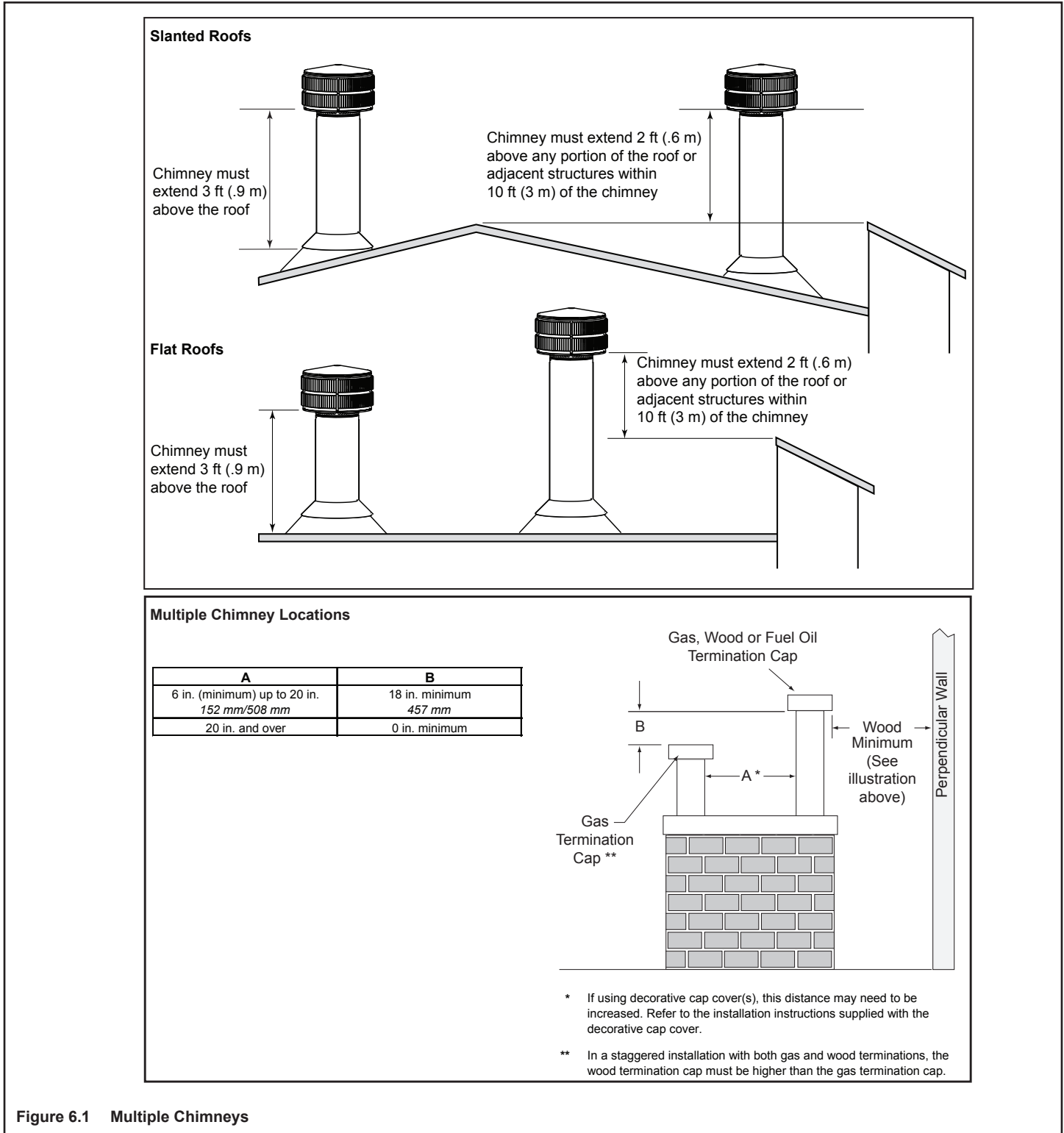


Figure 6.1 Multiple Chimneys


Mark the Exit Point of the Roof

Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 6.2.

► Cut Out the Hole in the Roof

Measure to either side of the nail and mark the 17 in. x 17 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.

Assemble the Chimney Sections Through the Roof

	WARNING
	Fire Risk
	<ul style="list-style-type: none">• Must maintain 2 in. (51 mm) air clearance to insulation and other combustible materials.

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

Install the Roof Flashing

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

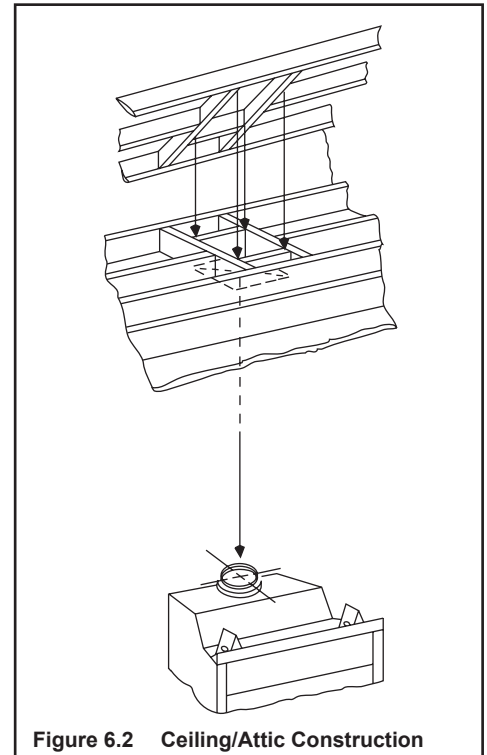


Figure 6.2 Ceiling/Attic Construction

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 may be field constructed.
- Attach the chase top to the top of the chase.

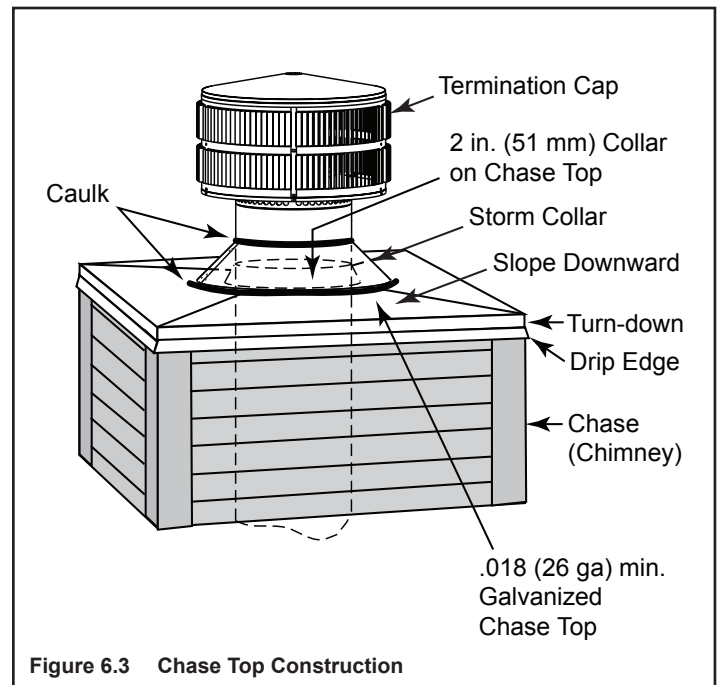


Figure 6.3 Chase Top Construction

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.



WARNING

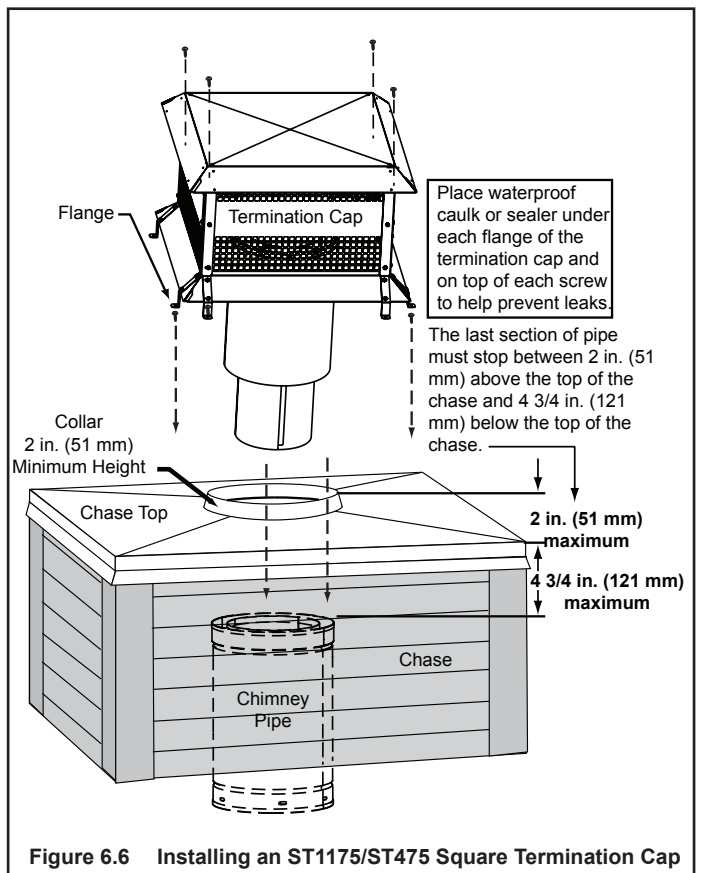
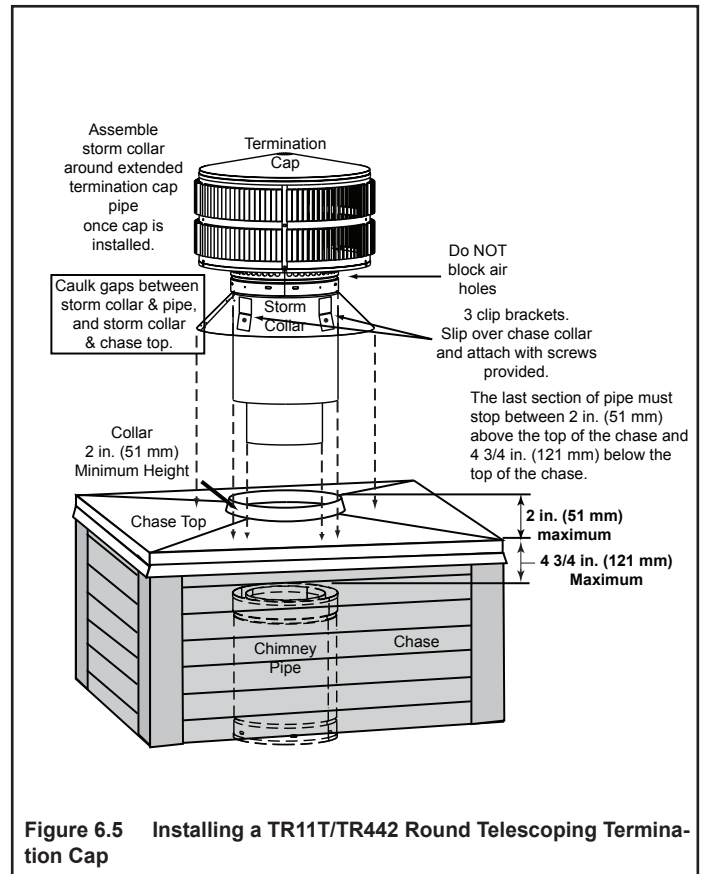
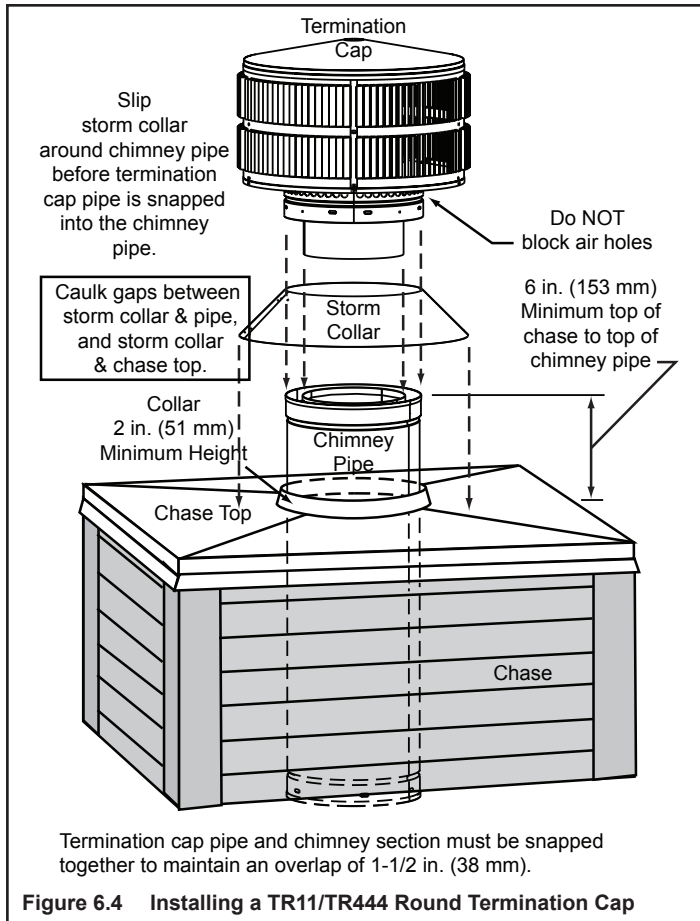
Fire Risk

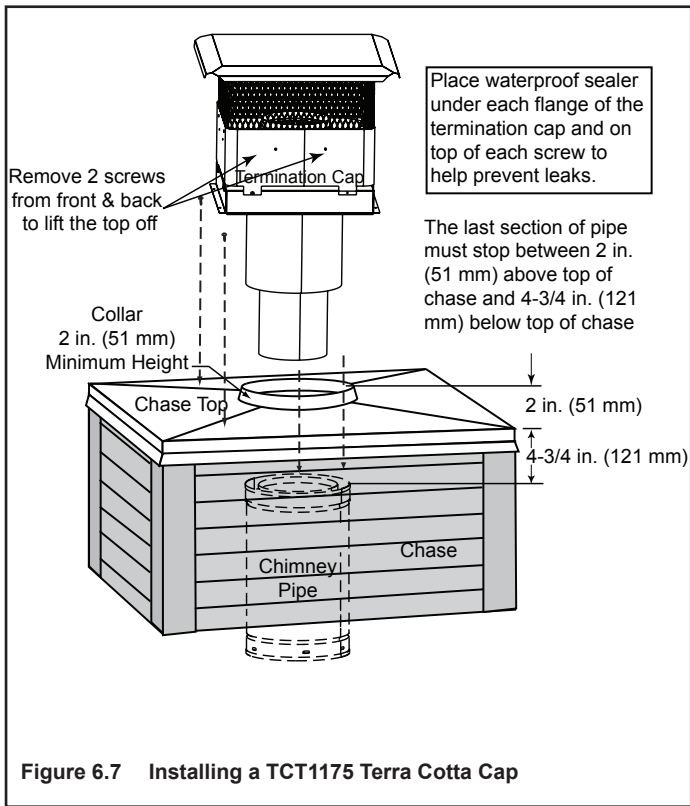
- The minimum overlap of cap to pipe **MUST** be met or chimney may separate from cap.

Separation allows sparks, heat and embers to escape.

Install the chimney sections up through the chase enclosure and refer to termination cap instructions.

• TR11/TR444 Round Termination Cap





7 Accessories

A. Gas Log/Lighter Provisions

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

Vented Gas Logs

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

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

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

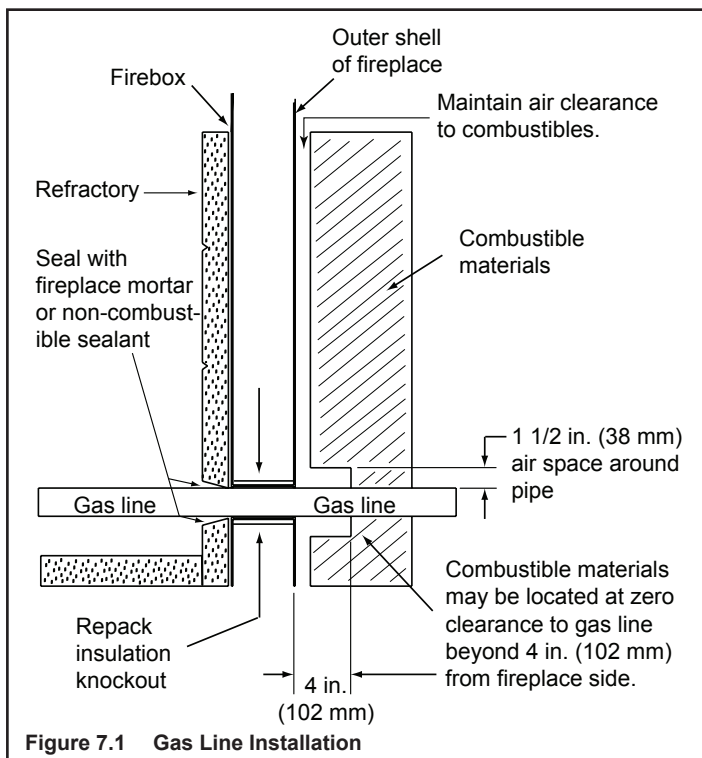


Figure 7.1 Gas Line Installation

⚠ WARNING



Asphyxiation Risk

- Damper must be locked open when gas logs installed.
- Gas fire generates fumes.

⚠ WARNING



Fire Risk

- For use with solid wood fuel or decorative gas appliance only.

⚠ 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.

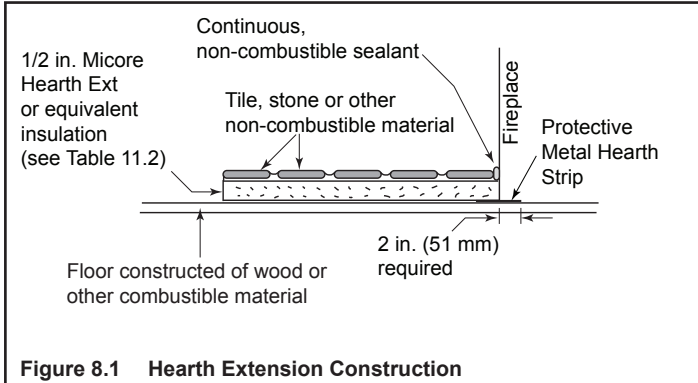
Unvented Gas Logs

CAUTION! If an unvented gas appliance is installed in the fireplace, the gas appliance must only be operated with the fireplace glass door fully open (if included). Only unvented gas log sets which have been found to comply with the standard for unvented room heaters, ANSI Z211.11.2, are to be installed in this fireplace. If an unvented gas appliance is installed it must incorporate an automatic shutoff device, and must be installed in accordance with the National Fuel Gas Code Z223.1, Latest edition.

8 Finishing

A. Hearth Extension

A hearth extension must be installed with all fireplaces to protect the combustible floor in front of the fireplace from both radiant heat and sparks. See Figures 8.1-8.3.



The hearth extension should slope away from the front of the fireplace and chase at 1/8 in. to 1/4 in. per foot. Spark strips must be used on top of any combustible hearth materials used for moisture management.

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, see Figure 8.3 and calculate insulation alternatives as per Table 8.1 and the following formulas:

- Thermal conductivity per inch thickness = k
- $k = (\text{BTU})(\text{inch}) / (\text{foot}^2)(\text{hour})(^\circ\text{F})$
- Required thickness = Rk

- Thermal resistance per inch thickness = r
- $r = (\text{foot}^2)(\text{hour})(^\circ\text{F}) / (\text{BTU})(\text{inch})$
- Required thickness = R / rB .

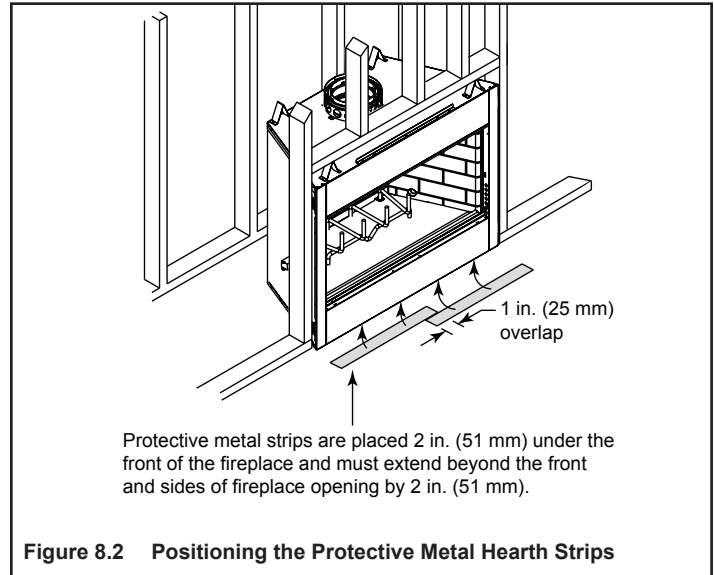
Table 8.1

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 Mortar	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.

WARNING

Fire Risk

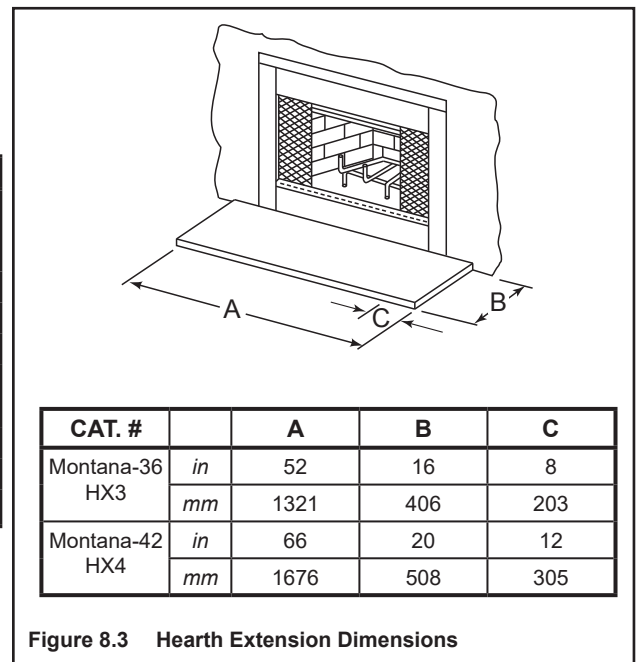
- Metal hearth strips **MUST** be installed. Sparks or embers may ignite flooring.



WARNING

Fire Risk

- Hearth extensions must be installed exactly as specified. High temperatures or hot embers may ignite concealed combustibles.



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.

• Non-Combustible Sealant Material

Sealants which will not ignite and burn: Rutland, Inc. Fireplace Mortar #63, Rutland 76R, Nuflex 304, GE RTV106 or GE RTV116 (or equivalent).

WARNING! Risk of Fire! You must maintain clearances.

- Do NOT cover metal fireplace front with combustible materials.
- Install combustible materials only to specified clearances on top, front and side edges.
- Complete framing and apply the wall sheathing over framing.
- A bead of 300-degree F minimum non-combustible sealant must be used to close off any gaps at the top and sides between the fireplace and sheathing 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 and provided.
- 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 and Wall Projections

The combustible mantel may have a maximum depth of 12 in. (305 mm). Combustible trim pieces that project no more than 1-1/2 in. (38 mm) from the face of the fireplace can be placed no closer than 6 in. (152 mm) from the top of the fireplace opening. See Figure 8.4. Combustible trim must not cover:

- the metal surfaces of the fireplace
- where the non-combustible board is placed over the metal surfaces
- the space between the metal face of the fireplace and framing members

WARNING! Risk of Fire!

- You must seal around the finishing material to fireplace.

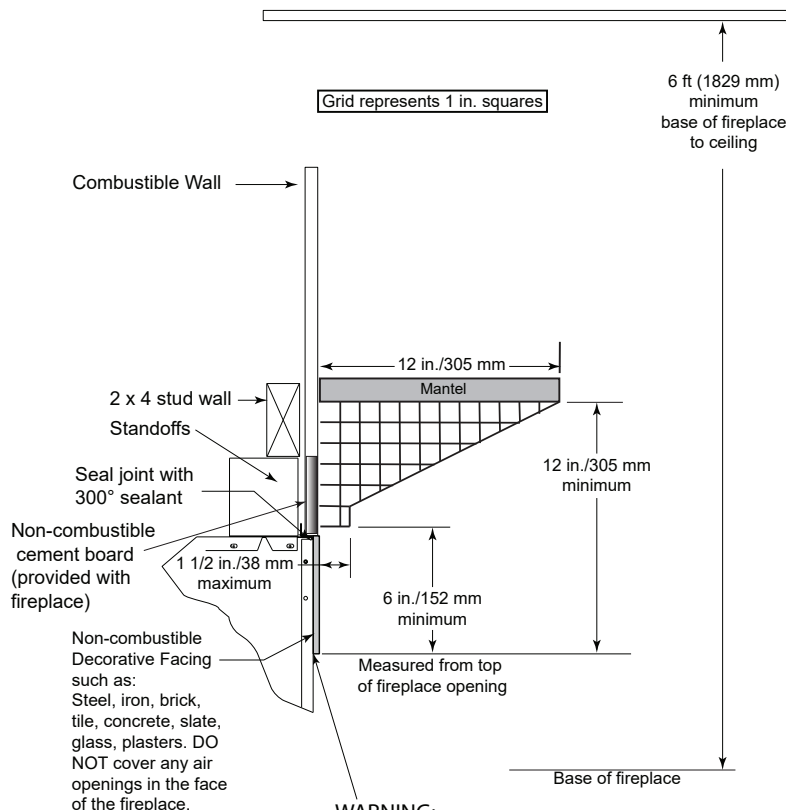



Figure 8.4 Mantel Specifications


D. Sidewalls/Surrounds

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

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



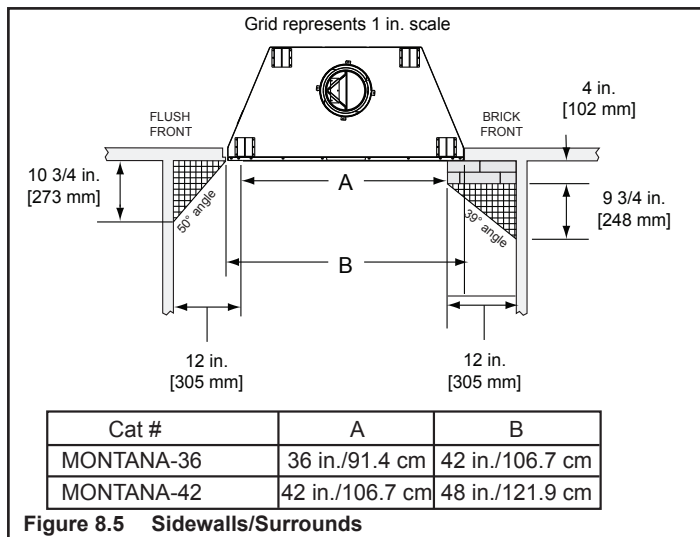
Fire Risk


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


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

Finishing materials must not interfere with:

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




WARNING




Fire Risk

Finish all edges and fronts to clearances and specifications.

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

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

High temperatures may ignite clothing or other flammable materials.

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

⚠ WARNING



Fire Risk

- For use with solid wood fuel or decorative gas appliance only.

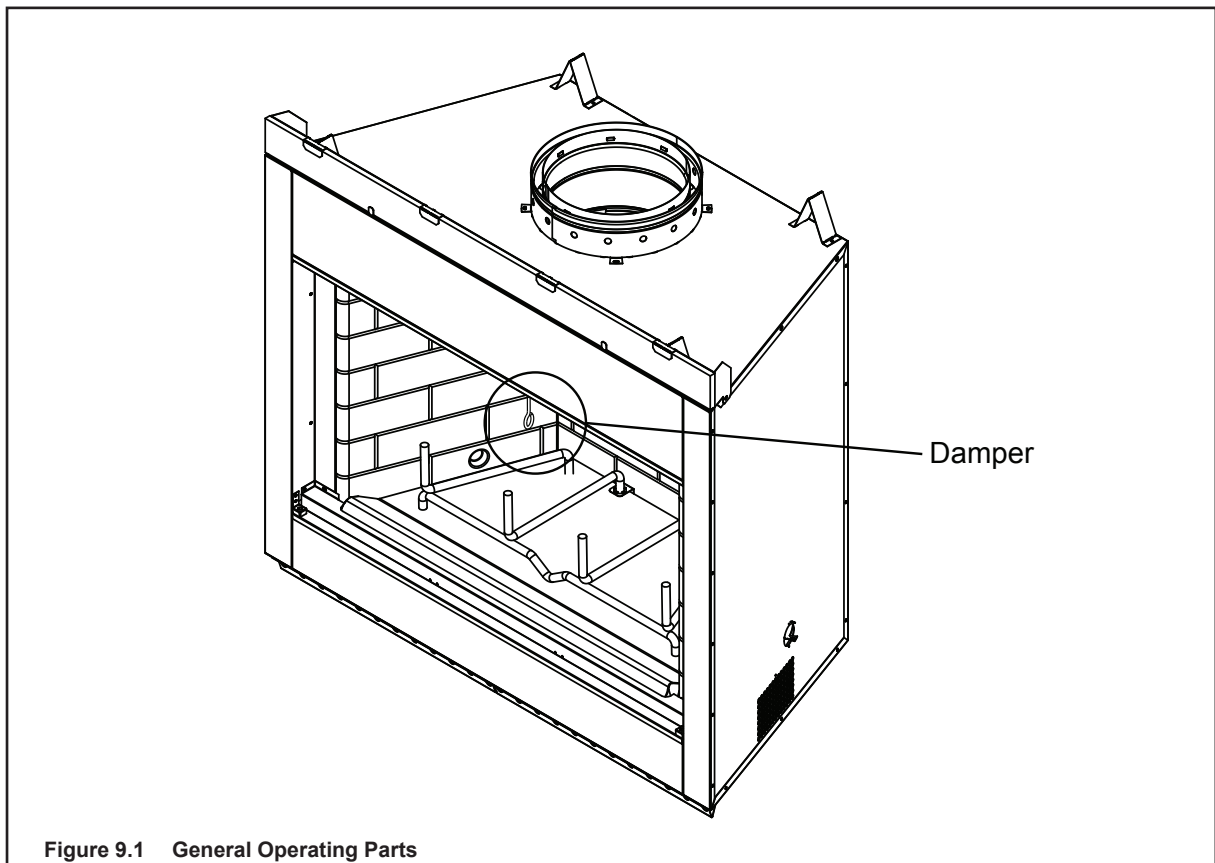


Figure 9.1 General Operating Parts




B. 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.

C. 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
	<p>Asphyxiation Risk Fire Risk</p> <ul style="list-style-type: none"> • Open damper to operate fireplace. <p>Closed damper will over-fire fireplace and prevent venting of combustion gases.</p>
	

D. 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
	<p>Fire Risk</p> <ul style="list-style-type: none"> • Close firescreen when burning fireplace. • Do not use firescreen or glass doors to hold burning material in fireplace. <p>Firescreen controls sparks. Glass may break or burning material may roll out.</p>

E. Glass Doors

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

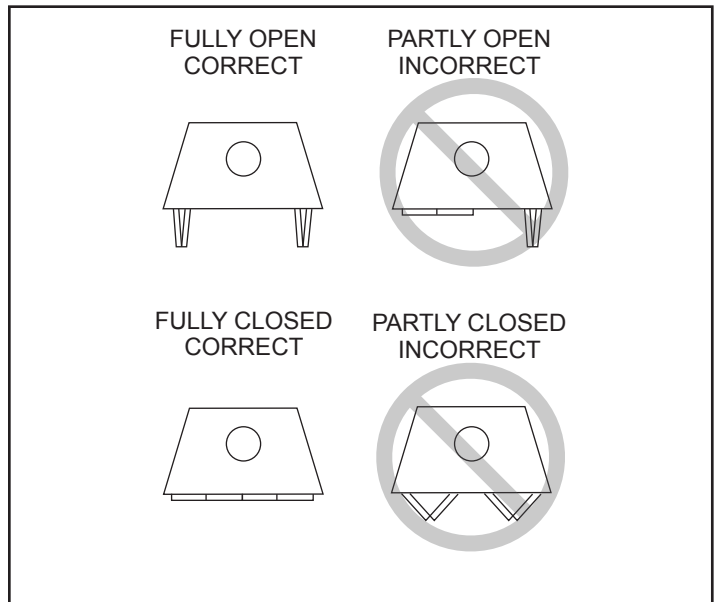






Figure 9.2 Proper Operating Positions of Bi-fold Doors

	WARNING
	<p>Fire Risk Smoke Risk</p> <ul style="list-style-type: none"> • Doors must be fully opened or fully closed when operating fireplace. <p>Partially opened doors may draw flame, smoke or heat from fireplace.</p>

F. 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
	<p>Fire Risk</p> <ul style="list-style-type: none"> • Use only factory installed integral grate. <p>May cause overfire.</p>

G. 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.

	WARNING
	Fire Risk <ul style="list-style-type: none">• Do NOT burn wet or green wood.• Store wood in dry location.• Stack wood so both ends are exposed to air. <p>Wet, unseasoned wood can cause accumulation of creosote.</p>



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	<p>Do NOT store wood:</p> <ul style="list-style-type: none">• Closer than required clearances to combustibles to fireplace.• Within space required for loading or ash removal.

H. 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

With outdoor applications, wind may affect the flame pattern and performance of the fireplace. Smoke spillage and sporadic flame extending beyond the front of the fireplace may be possible when doors are open.

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

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	Use small split wood that is well seasoned (split, covered on top at least 6 months, preferably a year).
	• Insufficient air passage	
	• Insufficient surface area	
	• Ignition temperature high due to moisture	
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.
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.
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.

11 Maintenance and Servicing the Fireplace

A. Disposal of Ashes

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

WARNING

Fire Risk
Disposal of ashes

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

WARNING

Fire Risk
Prevent creosote buildup

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

B. Chimney Inspection/Cleaning

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

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

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

Refer to Figure 11.1 to remove/reinstall termination caps.

Remove screws, lift top cover.

Top Cover
Cap
Chimney

TR11/TR11T
TR444/TR442
Round Termination Cap

Remove 4 screws and lift top pan off.

Cap
Slip Section

ST1175/ST475
Square Termination Cap

Remove 2 screws from the front and back and lift the top off.

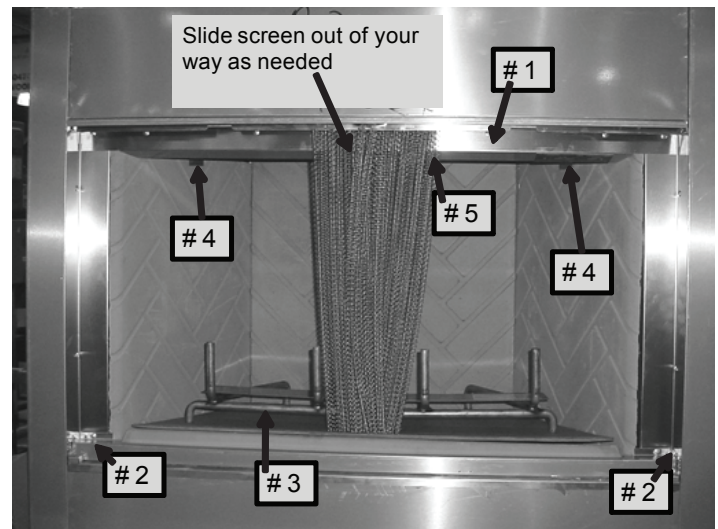
TCT1175
Terra Cotta Termination Cap

Figure 11.1 Chimney & Termination Cap Cleaning

C. Firebox Refractory Replacement

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.

1. Remove Smoke Shield, by unscrewing 8 screws.
2. Remove Hearth Retainer by unscrewing 2 screws on the left and the right side.
3. Remove Grate Lift up and out
4. Remove side refractory, by unscrewing the 1- screw holding the refractory bracket in place. Can start on left or right side. Slide refractory forward and lift up and out. Repeat on other side.
5. Remove Back Refractory, by unscrewing the one screw holding refractory bracket in place. Lift up and out.
6. Install new refractory Reverse steps 5-1




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.

WARNING




Fire Risk


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

Will corrode chimney.

WARNING



Asphyxiation Risk



Fire Risk

Annual inspection by qualified technician recommended.

Check:

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

Clean:

- Glass
- Air passageways, grilles

D. Maintenance Task List

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

E. Chimney Fire

In the event of a chimney fire:

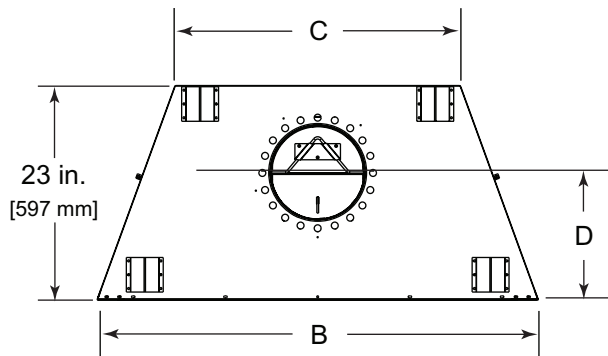
- Have the chimney and adjacent structure inspected by qualified professionals. Hearth & Home Technologies recommends that NFI or CSIA certified professionals, or technicians under the direction of certified professionals, conduct a minimum of an **NFPA 211 Level 2** inspection of the chimney.

- Replace components of the chimney and fireplace as specified by the professionals.
- Ensure all joints are properly engaged and the chimney is properly secured.

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

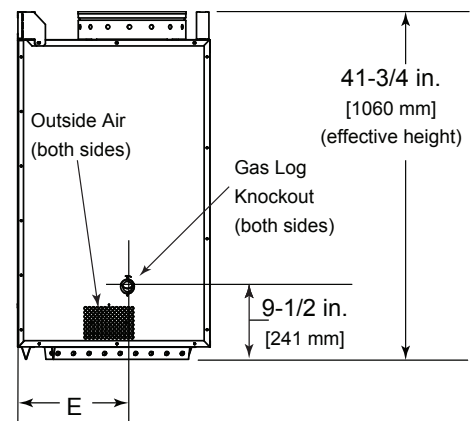
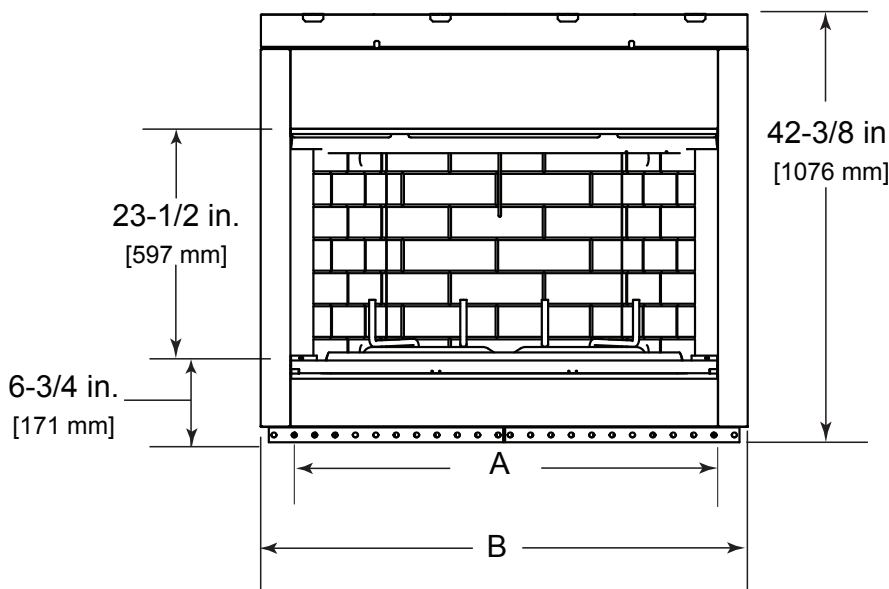
12 Reference Materials

A. Appliance Dimensions/Weight



Appliance Weight Table

Model	Pounds
Montana-36	221
Montana-42	250



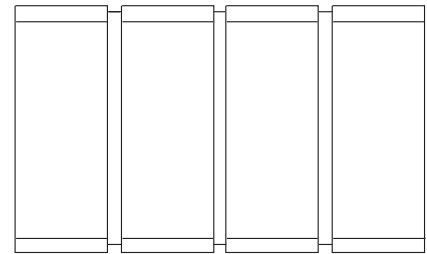
Model	A	B	C	D	E
MONTANA-36	36 in.	42 in.	25 in.	13-7/8 in.	13-1/4 in.
	915 mm	1067 mm	635 mm	353 mm	337 mm
MONTANA-42	42 in.	48 in.	31 in.	14 in.	14 in.
	1067 mm	1219 mm	787 mm	356 mm	356 mm

B. Fireplace Components

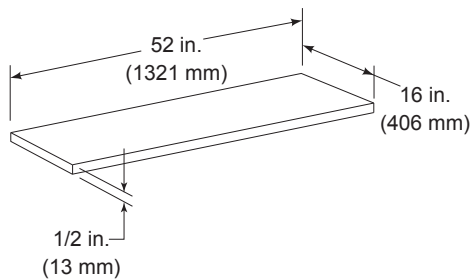
		Description
MONTANA-36	MONTANA-42	Fireplace with Integral Grate, Cooling Air Kit, Traditional Brick Refractory and Hearth Protection Strips
MONTANA-36H	MONTANA-42H	Fireplace with Integral Grate, Cooling Air Kit, Herringbone Pattern Refractory and Hearth Protection Strips
DM1836S	DM1842S	Bi-fold Glass Doors, Clear-View - Stainless Steel
HX3	HX4	Hearth Extension
	WC42S	Weather Cover - Stainless Steel
GR33	GR21	Integral Grate (included with fireplace)
OD-18NG (US Only) ODSP-18LP (US or Canada)	OD-24NG (US Only) ODSP-24LP (US or Canada)	Outdoor Gas Log (natural or propane gas)The control valve is located on the right side of ODSP LP burners. This may offset the unit in the fireplace. To avoid an off-center installation, be sure to consider the valve size and location when choosing the appropriate size log set for your fireplace.



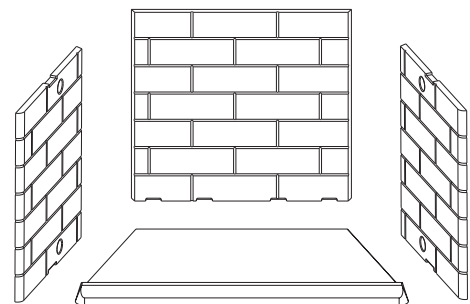
**GR21 & GR33
Integral Grate**



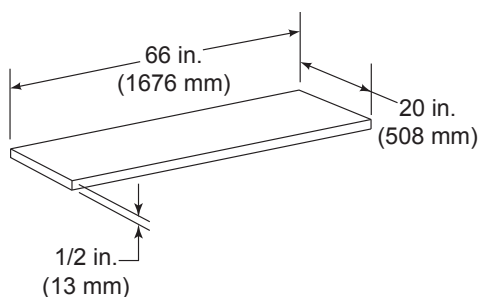
Bi-fold Glass Doors



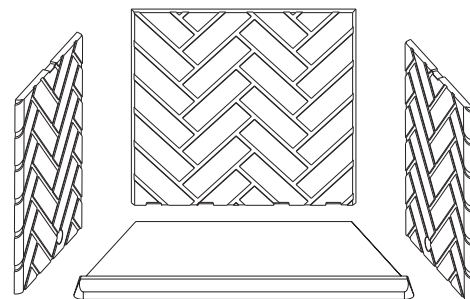
HX3 Hearth Extension



Traditional Brick Pattern Refractory



HX4 Hearth Extension



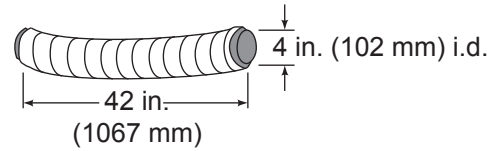
Herringbone Pattern Refractory

C. Chimney Components

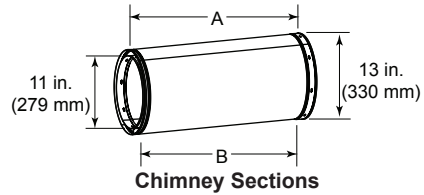
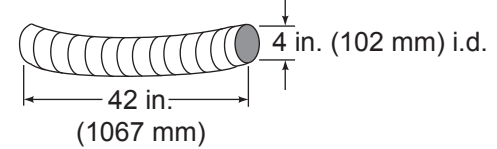
The following pictures show only those chimney components which may be safely used with this fireplace.

Catalog #		Description
US	CAN	
CAK5A	CAK5A	Chimney Air Kit
n/a	SLA10	Adapter 11 in. (457mm) long
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
	CAS10	Attic Shield
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-B	TR442	Round Telescoping Termination Cap
TCT1175		Terra Cotta Termination Cap
ST1175	ST475	Square Termination Cap
ST1175SS		Stainless Steel Square Termination Cap
DTO134	DTO134	Short Octagon Decorative Cap
DTO146	DTO146	Tall Octagon Decorative Cap
DTS134	DTS146	Short Square Decorative Cap
DTS146	DTS146	Tall Square Decorative Cap
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-B	n/a	Adapter-May be used with the following Copper Caps
	n/a	CT-Series
	na	DT-Series

ID4 Insulated Duct



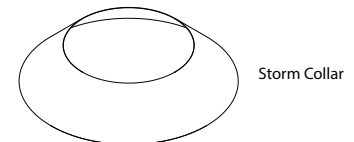
UD4 Uninsulated Duct



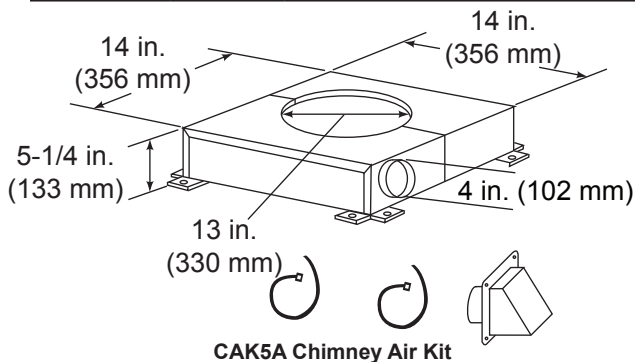
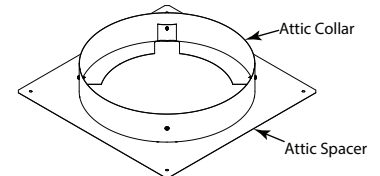
Catalog #		A		B	
US	CAN	in	mm	in	mm
SL1106	SL406	6	152	4-3/4	121
SL1112	SL412	12	305	10-3/4	273
SL1118	SL418	18	457	16-3/4	425
SL1136	SL436	36	914	34-3/4	883
SL1148	SL448	48	1219	46-3/4	1187

A = Actual Length

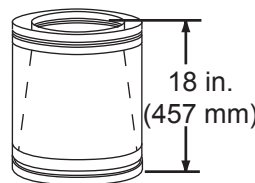
B = Effective Length (length of chimney part after it has been snapped to another)



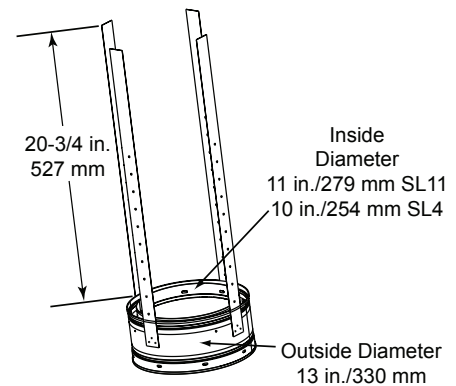
Attic Shield Kit



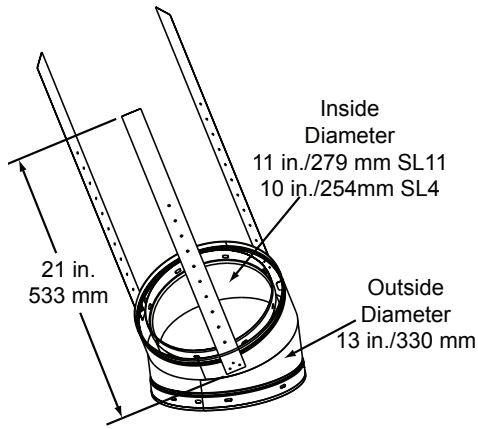
CAK5A Chimney Air Kit



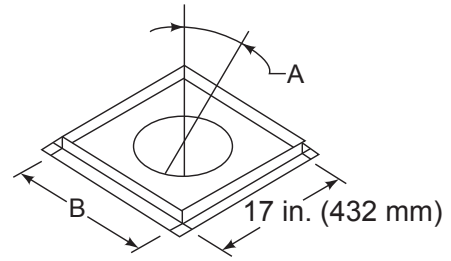
SLA10 Adapter



SL11/SL4 Chimney Stabilizer

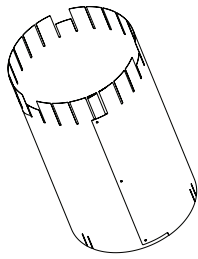


SL1130/SL430 Offset/Return



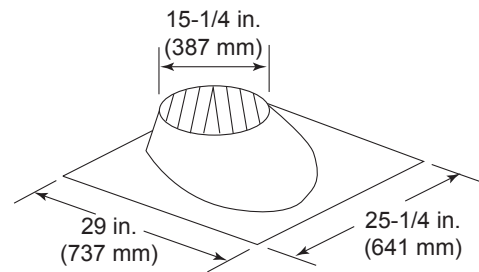
Ceiling Firestop

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

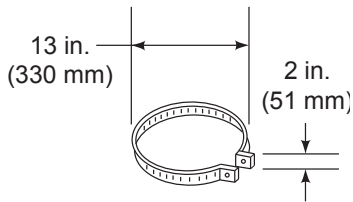


Assembled
Diameter: 17 in./432 mm
Height: 24 in./610 mm

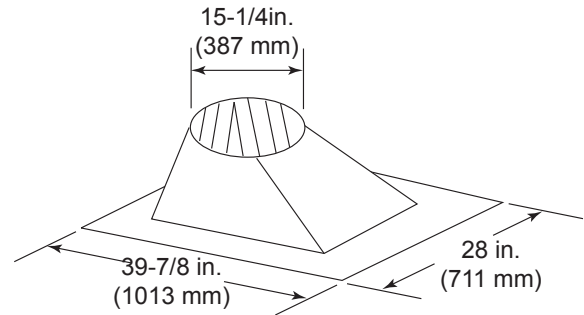
AS10 Straight Attic Insulation Shield



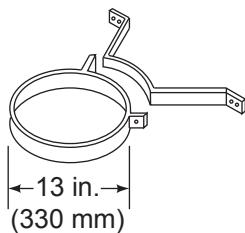
RF570 Roof Flashing



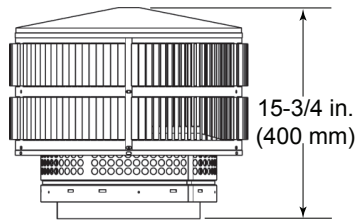
JB577 Chimney Joint Band



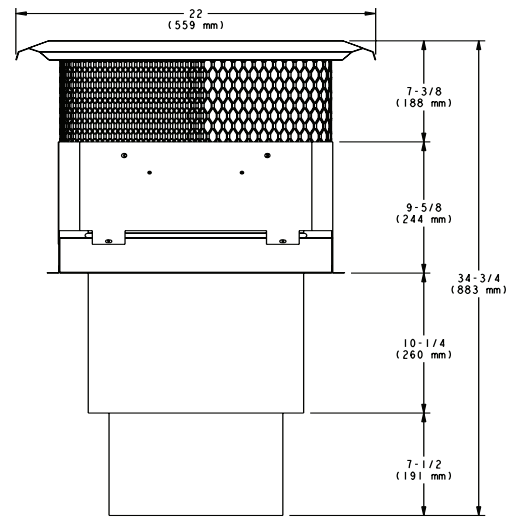
RF571 Roof Flashing



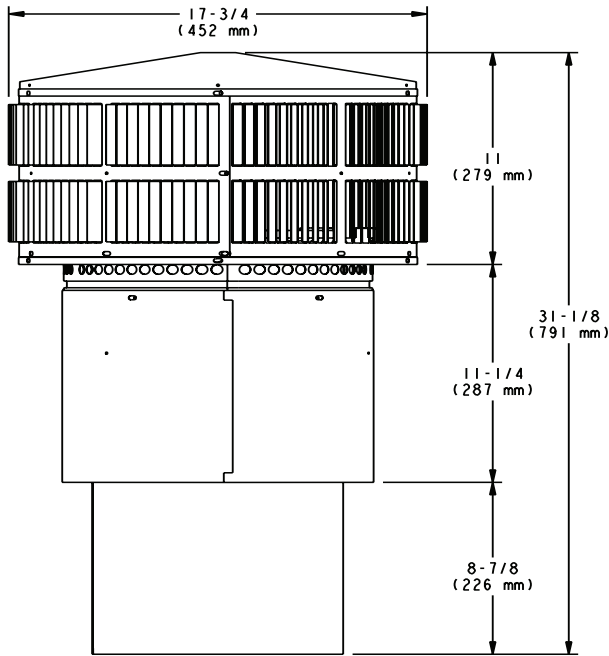
CB576 Chimney Bracket



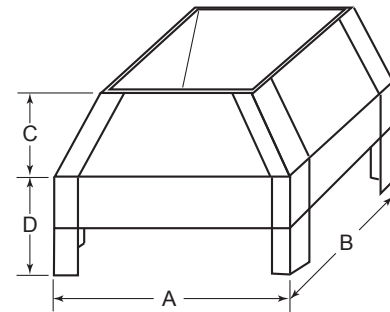
TR11/TR444 Round Termination Cap



TCT1175 - Terra Cotta Cap

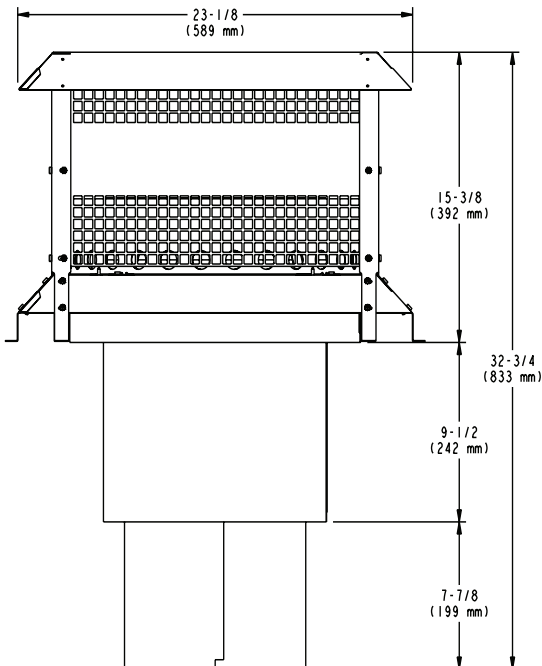


TR11T - Round Telescoping Termination Cap

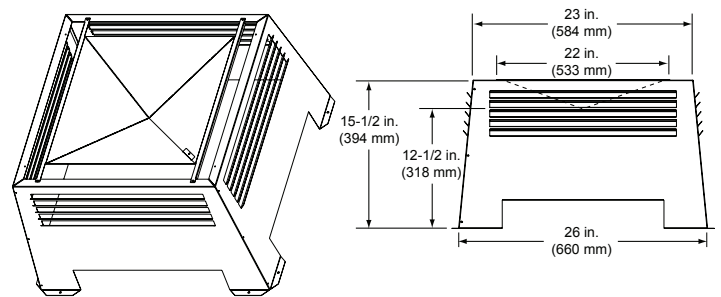


LDS33/LDS46 Decorative Shroud

Catalog #	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
LDS33	36	914	36	914	8.5	216	11	279
LDS46	48	1219	72	1829	8.5	216	11	279

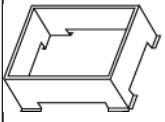

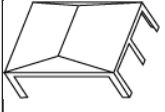


ST1175 - Square Termination Cap
ST1175SS - Stainless Steel Square Termination Cap



LDS-BV Decorative Shroud

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				
Minimum 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)
<p>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).</p>					
All dimensions are INSIDE dimensions.					

D. Service Parts

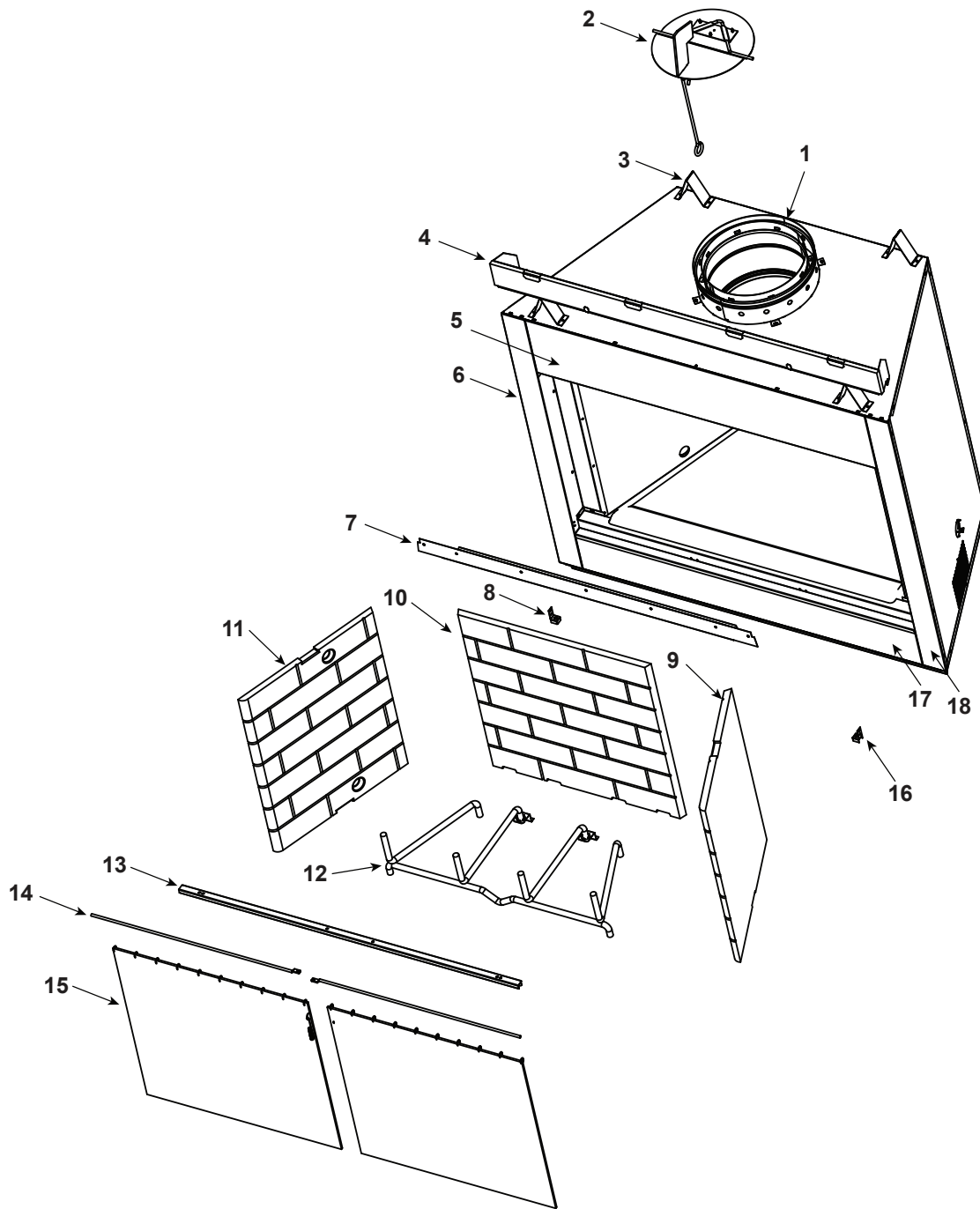


Service Parts

MONTANA-36, MONTANA-36H

36" Outdoor Woodburning Fireplace

Beginning Manufacturing Date: Sept 2003
Ending Manufacturing Date: Active



Part number list on following page.

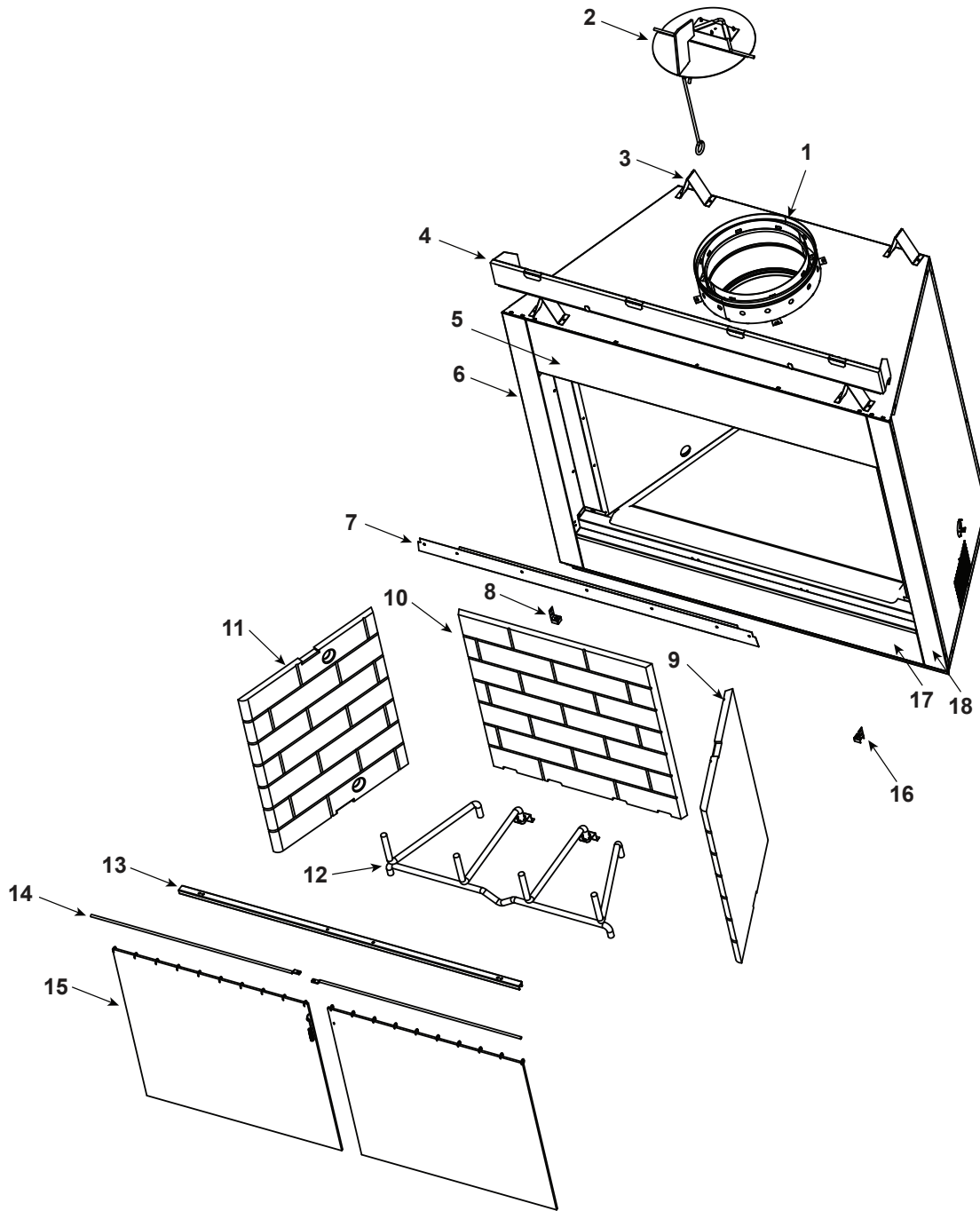
11/21

IMPORTANT: THIS IS DATED INFORMATION. Parts must be ordered from a dealer or distributor. **Hearth and Home Technologies does not sell directly to consumers.** Provide model number and serial number when requesting service parts from your dealer or distributor.



Stocked
in Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
1	Starter Collar		30399	
2	Damper Assembly		34454	
3	Top Stand Off	Qty 4 Req	SRV4044-111	
4	Non-Comb Board Assembly		SRV4039-132	
5	Upper Front Face	Overlay	4039-114L	
6	Side Column Left	Overlay	30375L	
7	Top Door Track		4039-118	
8	Door Clips	Qty 2 Req	30407	
Traditional Refractory				
9	Right Side Refractory		SRV28393	
10	Back Refractory		SRV29992	
11	Left Side Refractory		SRV28393	
	Hearth Refractory		SRV29993	
Herringbone Refractory available post week 3/04				
9	Right Side Refractory		4010-013	
10	Back Refractory		4010-016	
11	Left Side Refractory		4010-014	
	Hearth Refractory		4010-019	
12	Grate		GR33	Y
13	Hearth Pan	Pre AK560843	4039-102	
	Hearth Stone Retainer		4039-108	
14	Firescreen Rod	Qty 2 Req	4039-120	
15	Screen Assembly	Qty 2 Req	4039-119	
16	Door Pivot Clip	Qty 2 Req	SRV31527	
17	Bottom Front Face	Overlay	4039-113L	
18	Side column Right	Overlay	30376L	
	Gas Tube		SRV4039-116	
	Smoke Shield		4039-106	
	Air Kit w/box		30416	
	Outside Air Hood	Qty 2 req	SRV33271	
	Nailing Flange	Qty 4 Req	31190	



Part number list on following page.

11/21



Service Parts

MONTANA-42, MONTANA-42H

Beginning Manufacturing Date: Sept 2003
Ending Manufacturing Date: Active

IMPORTANT: THIS IS DATED INFORMATION. Parts must be ordered from a dealer or distributor. **Hearth and Home Technologies does not sell directly to consumers.** Provide model number and serial number when requesting service parts from your dealer or distributor.



**Stocked
in Depot**

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
1	Starter Collar		30399	
2	Damper Assembly		34454	
3	Top Stand Off	Qty 4 Req	SRV4044-111	
4	Non-Comb Board Assembly		SRV4039-133	
5	Upper Front Face	Overlay	30395L	
6	Side Column Left	Overlay	30375L	
7	Top Door Track		30400	
8	Door Clips	Qty 2 Req	30407	
Traditional Refractory				
9	Right Side Refractory		SRV28393	
10	Back Refractory		SRV28394	
11	Left Side Refractory		SRV28393	
	Hearth Refractory		SRV28391	
Herringbone refractory available post week 3/04				
9	Right Side Refractory		4010-013	
10	Back Refractory		4010-015	
11	Left Side Refractory		4010-014	
	Hearth Refractory		4010-020	
12	Grate		GR21	
13	Hearth Pan	Pre AK560843	30405	
	Hearth Stone Retainer		30403	
14	Firescreen Rod	Qty 2 Req	31375	Y
15	Screen Assembly	Qty 2 Req	30371	
16	Door Pivot Clip	Qty 2 Req	SRV31527	
17	Bottom Front Face	Overlay	30393L	
18	Side column Right	Overlay	30376L	
	Gas Tube		SRV30412	
	Smoke Shield		30402	
	Air Kit w/box		30416	
	Outside Air Hood	Qty 2 req	SRV33271	
	Nailing Flange	Qty 4 Req	31190	

E. Warranty

Outdoor Lifestyles by Hearth & Home Technologies™ Limited Lifetime Warranty

Hearth & Home Technologies (“HHT”) extends the following warranty for all Outdoor Lifestyles by HHT™ brand products (“Products”) that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the Product at the site of installation, and to any transferee taking ownership of the Product at the site of installation within one year following the date of original purchase, that the Product will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

The warranty period begins on the earlier of: (i) the date of invoice for the Product; (ii) in the case of new home construction, the date of first occupancy of the residence or six months after the date of sale of the Product by an HHT authorized dealer, whichever occurs first; or (iii) the date 24 months following the date of Product shipment from HHT, regardless of the invoice or occupancy date.

WARRANTY CONDITIONS:

- The Limited Lifetime Warranty covers Products that are purchased through a HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the Product remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the Product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.
- The Product body, metal firebox and heat exchanger carry the Limited Lifetime Warranty from the date of installation.
- The following components do not carry the Limited Lifetime Warranty but are warranted as follows:
 - One Year from Date of Installation:
 - Gas and Electrical Components or Gaskets
 - Nickel Plated Materials
 - Excludes tarnishing
 - Glass Breakage, Logs/Refractory/Glass Panels due to thermal breakage
 - Surface, hairline cracks, scratches and slight color changes are not covered
 - Venting, optional accessories, optional glass doors
 - Labor Associated with Warranty Service Work

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur; this is not a flaw and not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, firebricks, grates, flame guides and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.

Warranty (continued)

- Damages resulting from: (1) failure to install, operate, or maintain the Product in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the Product; (2) failure to install the Product in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or incorrectly performed repairs; (5) inadequate ventilation, negative pressure or environmental conditions, including, without limitation: hail, snow, ice, fallen branches, flooding, water damage and fading of color; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the Product or any other components not expressly authorized and approved by HHT; (8) modification of the Product not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the Product.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the Product.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- The Product's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to the Product's location and configuration and environmental conditions.

This warranty is void if:

- The Product has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes and cracking or spalling of refractory or cementitious materials.
- The Product is subjected to prolonged periods of dampness, condensation, ice or snow.
- There is any damage to the Product or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

Repair or replacement in accordance with the provisions of this warranty will be the owner's exclusive remedy for and will constitute HHT's sole obligation under this warranty, under any other warranty (express or implied), or in contract, tort or otherwise; provided, however, that if HHT is unable to provide repair or replacement in an expedient and cost effective manner, HHT may discharge all such obligations by refunding the purchase price of the Product. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of HHT. TO THE EXTENT ALLOWED BY LAW, HHT MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HHT WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF DEFECTS IN OR USE OF THE PRODUCTS. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you also may have other rights, which vary from state to state. The duration of any implied warranty is limited to the duration of the warranty period specified herein.

F. Contact Information



Hearth & Home Technologies
7571 215th Street West
Lakeville, MN 55044

Please contact your Outdoor Lifestyles dealer with any questions or concerns.

- NOTES -

CAUTION		
	DO NOT DISCARD THIS MANUAL	
<ul style="list-style-type: none">• Important operating and maintenance instructions included.	<ul style="list-style-type: none">• Read, understand and follow these instructions for safe installation and operation.	<ul style="list-style-type: none">• Leave this manual with party responsible for use and operation.

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