



## INSTALLATION INSTRUCTIONS

---

### FIREPLUS SERIES

---

38" & 43" Wood Burning Fireplaces  
P/N 850,007M REV. N/C 03/2001

#### MODELS

*FP-38*

*FP-43*

This installation manual will enable you to obtain a safe, efficient and dependable installation of your fireplace system. Please read and understand these instructions before beginning your installation.

Do not alter or modify the fireplace or its components under any circumstances. Any modification or alteration of the fireplace system, including but not limited to the fireplace, chimney components and accessories, may void the warranty, listings and approvals of this system and could result in an unsafe and potentially dangerous installation.

**IMPORTANT! TO ASSURE PROPER ALIGNMENT OF GLASS DOORS:  
INSTALL THIS FIREPLACE IN A SQUARE AND PLUMB CONDITION,  
USING SHIMS AS NECESSARY AT SIDES AND/OR BOTTOM.**

**PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.**

**RETAIN THESE INSTRUCTIONS  
FOR FUTURE REFERENCE**



WH Report No. 629-935173

## TABLE OF CONTENTS

Safety Rules .....	page 2
Tools and Building Supplies .....	page 2
Precautions .....	page 2
Introduction .....	page 3
Clearances/Height Requirements .....	page 3
Chimney System .....	page 3
Assembly Outline .....	page 4
Location of Fireplace .....	page 4
Assembly Steps .....	page 5
Preinstallation Notes .....	page 5
Clearances .....	page 5
Installing the Fireplace .....	page 5
Fireplace Specifications .....	page 6
Framing Specifications .....	page 7
Installing the Chimney System .....	page 8
30° Offset through Floor/Ceiling .....	page 9
Ten Foot Rule Summary .....	page 11
Multiple Terminations .....	page 11
Chimney Component Calculations .....	page 11
Special Offset Instructions .....	page 12
Offset Calculations .....	page 12
Vertical Elevation Chart .....	page 13
Offset Elevation Chart .....	page 14
Installing Offsets .....	page 14
Glass Doors .....	page 15
Combustion Air Kits .....	page 16
Optional Equipment Considerations .....	page 17
Gas Line Connection .....	page 17
Cold Climate Insulation .....	page 17
Fireplace Finishes .....	page 17
Mantels and Trim .....	page 17
Hearth Extensions/Wall Shields .....	page 18
Finish Requirements .....	page 19
Installation Components .....	page 19

## IMPORTANT: PLEASE READ AND UNDERSTAND THESE RULES TO FOLLOW FOR SAFETY.

1. Before starting your fireplace installation, read these installation instructions carefully to be sure you understand them completely and in entirety. Failure to follow them could cause a fireplace malfunction resulting in serious injury and/or property damage.

2. Always check your local building codes. The installation must comply with all local, regional, state and national codes and regulations.

3. Model FP-38 must only be installed with either FireCraft's Model FTF8 [8" (203 mm) inside diameter] or Model FTF10 [10" (254 mm) inside diameter] Thru-Flow Chimney System. Model FP-43 must only be installed with FireCraft's Model FTF10 [10" (254 mm) inside diameter] Thru-Flow Chimney System. The chimney system must always vent to the outside of the building.

4. To ensure a safe fireplace system and to prevent the build-up of soot and creosote, inspect and clean the fireplace and chimney prior to use and periodically during the heating season.

5. Use solid fuel only. DO NOT use artificial wax based logs, chemical chimney cleaners or flame colorants in your fireplace.

6. DO NOT use charcoal or coal under any circumstances.

7. NEVER use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this fireplace. Keep any flammable liquids at safe distance from the fireplace.

8. NEVER leave children unattended when there is a fire burning in the fireplace.

9. Always keep flue damper open when heat is present in the fireplace.

10. Before servicing, allow the fireplace to cool. Always shut off any electricity or gas to the fireplace while working on it. This will prevent any possible electrical shock or burns.

11. This fireplace is not intended to heat an entire home or be used as a primary heat source. It is designed to ensure homeowner comfort by providing supplemental heat to the room.

12. Always ensure that an adequate supply of replacement combustion air from the outside of the house is accessible to the fire to support normal combustion. Fireplaces consume large volumes of air during the normal combustion process. In the event the home is tightly sealed with modern energy efficient features, the optional combustion air kit may not provide all the air required to support combustion. The manufacturer is not responsible for any smoking or related problems that may result from the lack of adequate combustion air. It is the responsibility of the builder/contractor to ensure that adequate combustion air has been provided for the fireplace.

13. DO NOT use a fireplace insert or any other products not specified herein by the manufacturer for use with this fireplace. All gas log sets must be operated with the damper clamped open.

14. "Smoke free" operation is not warranted nor are we responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney heights, adverse wind conditions and/or unusual environmental factors or conditions beyond our control.

15. Never, under any circumstances, install a fireplace, chimney component or any accessories, that has visible or suspected physical damage as a result of handling or transportation. These items should be inspected by your distributor or qualified factory representative to ensure safe condition. When in doubt, consult your distributor.

16. For additional safety considerations and complete operating instructions, refer to the Care and Operation Manual provided with the fireplace.

## TOOLS AND BUILDING SUPPLIES NORMALLY REQUIRED

Tools should include:

- Phillips screwdriver
- Hammer
- Saw and/or sabersaw
- Level
- Measuring tape
- Plumb line
- Electric drill and bits
- Pliers
- Square

Building supplies:

- Framing materials
- Wall finishing materials
- Caulking materials (noncombustible)
- Fireplace surround and hearth extension materials (noncombustible)

## PRECAUTIONS

*Note: These fireplace systems are not difficult to install. However, in the interest of safety, it is recommended that the installer be a qualified or certified "tradesman" familiar with commonly accepted fireplace installation and safety techniques as well as prevailing local codes.*

The most important areas of concern dealing with the installation of factory-built fireplaces are clearances to combustible materials, proper assembly of component parts, height of the chimney system, the proper use of accessories supplied by the manufacturer and the techniques employed in using finishing materials applied to the wall surrounding the fireplace, hearth extensions and wall shields. Each of these topics will be covered in thorough detail throughout this manual. Please give each your special attention as you progress with your installation.

**IMPORTANT: WHEN INSTALLING THESE FIREPLACE SYSTEMS IN CANADA AND THE U.S., THE REQUIRED MINIMUM AIR SPACE TO COMBUSTIBLE MATERIALS FROM THE CHIMNEY IS 2" (51 MM). THE CHIMNEY COLLAR ENCLOSURE KIT, MODEL CCEK, MUST BE INSTALLED PER THE WARNOCK HERSEY INC. LISTING.**

**INTRODUCTION**  
General Information

The FirePlus™ Series fireplaces are traditional wood-burning heat-circulating systems. These systems also employ a built-in heat exchanger resulting in a high convected heat output when the blower (provided) is turned on. Twin-pane ceramic glass doors and blower are standard. A steel bar/refractory grate is also included with both models to properly position the fire. Outside combustion air kits, Models FOAK-4 and FOAK-4LD, are optional equipment.

**TYPICAL INSTALLATION**

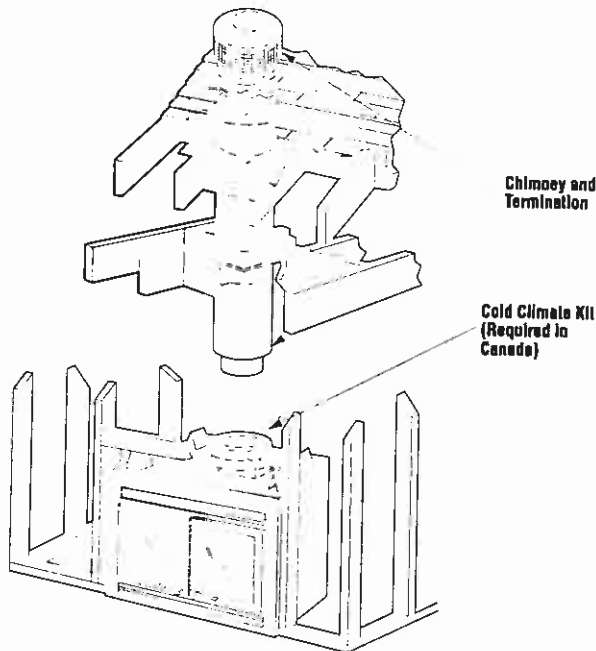


Figure 1

*Note: Illustrations shown reflect "typical" installations with nominal dimensions and are for design and framing reference only. Actual installations may vary due to individual design preferences. However, always maintain minimum clearances to combustible materials and do not violate any specific installation requirements.*

These fireplaces have been tested and listed by Warnock Hersey (Report No. 629-935173) to U.L. standard 127. These units are intended for installation in residential homes and other buildings of conventional construction including commercial, not in mobile homes.

These fireplace systems are designed for installation in accordance with the National Fire Protection Standard for chimneys, fireplaces and solid fuel burning appliances; NFPA 211 and in accordance with codes such as the BOCA Basic/National Codes, the Standard Mechanical Code and the Uniform Building Codes.

**WARNING: FAILURE TO USE MANUFACTURE PROVIDED PARTS, VARIATIONS IN TECHNIQUES AND CONSTRUCTION MATERIALS OR PRACTICES OTHER THAN THOSE DESCRIBED IN THIS MANUAL MAY CREATE A FIRE HAZARD AND VOID THE LIMITED WARRANTY.**

The FirePlus™ system consists of six basic "sub-systems":

1. The fireplace with ceramic glass doors
2. The chimney and termination
3. The standard and optional louver kits
4. The optional combustion air kit
5. The cold climate kit
6. The blower

**CLEARANCES AND HEIGHT REQUIREMENTS**

The fireplace may be placed on or near normal construction materials\*. The combustion air kit, firestop spacer and roof flashing (not chase flashings) may be placed directly on or against normal construction materials. The chimney and fireplace outer wrapper require a minimum 2" air space to combustibles. A combustible mantle may be installed 12" above the opening of the fireplace as per NFPA 211, Section 7-2.3.3.

If there is a continuous perpendicular side wall closer than 18" (457 mm) from the nearest side of the fireplace opening, it must be protected with a 40" x 40" x 1/2" (1016 mm x 1016 mm x 13 mm) wall shield constructed of millboard or a durable noncombustible material with equal or greater insulating value (refer to page 19). A continuous perpendicular side wall cannot be closer than 12" (305 mm) from the fireplace opening under any circumstances, even if protected.

The fireplace and chimney system must be enclosed when installed in or passing through a living area where combustibles or people may come in contact with it. This is important to prevent possible personal injury or fire hazard.

For questions, please call your distributor or the manufacturer. Special restrictions apply to the front and facing of the fireplace and nearby walls (See pages 18 and 19).

**CHIMNEY SYSTEM**

These fireplaces are designed and code listed for use with FireCraft's FTF8 (Models FP-38 or FP-43) and FTF10 (Models FP-43 or FP-38) Chimney System only, both requiring a minimum 2" air space to combustible material. Always use FireCraft's FTF8 or FTF10 chimney components with these fireplaces. Do not modify or alter these components as this may cause a potential serious hazard and void the Warranty.

- \*Construction Materials:*
- framing materials
  - particle board
  - millboard
  - plywood
  - paneling
  - flooring
  - dry wall
  - etc.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

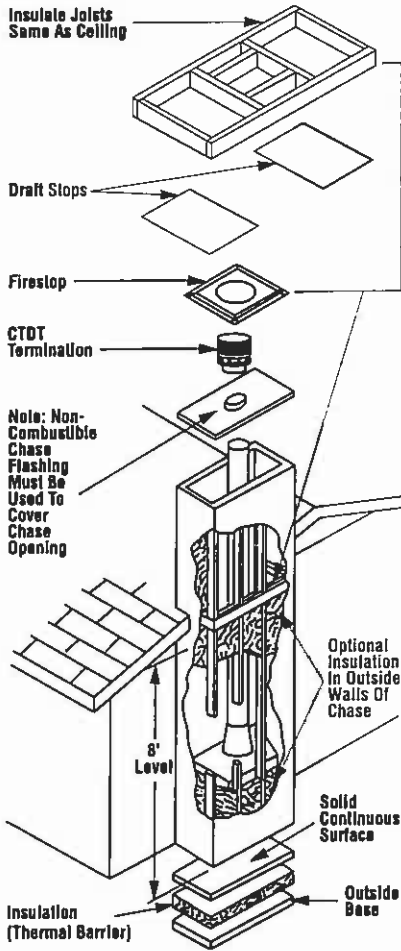


Figure 2

**WARNING: IF INSULATION IS USED, THE FIREPLACE MUST NOT BE PLACED DIRECTLY AGAINST IT. INSULATION OR VAPOR BARRIERS, IF USED, MUST FIRST BE COVERED WITH GYPSUM BOARD, PLYWOOD, PARTICLE BOARD OR OTHER MATERIAL TO ASSURE INSULATION AND VAPOR BARRIERS REMAIN IN PLACE.**

**WARNING: DO NOT PACK OR FILL REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIAL. NO MATERIAL IS ALLOWED IN THESE AREAS.**

*Note: Do not insulate the chase cavity with blown or fill type insulation materials.*

*Note: Local codes may not require firestopping at the ceiling levels for outside chase installations. However, it is recommended for safety and the reduction of heat loss.*

**Chimney Height**

The total height of your completed fireplace system from the surface the fireplace rests on to the chimney top must not exceed 80' and must also meet minimum height requirements. Refer to the minimum system height chart.

**Minimum System Height**

	FirePlus 38 FTF8/FTF10	FirePlus-43 FTF10
Vertical Installation	15'6" (4.7 m)	15'6" (4.7 m)
One Offset	15'6" (4.7 m)	15'6" (4.7 m)
Two Offsets	24' (7.3 m)	24' (7.3 m)

**Chase Enclosure**

A chase is a vertical box-like structure constructed to surround the fireplace and chimney. Refer to Figure 2 for a typical chase configuration. As with all chimney installations, avoid overhead obstructions such as trees, power lines, etc. A chase should be constructed and insulated just like any outside wall. In a cold climate, we recommend the base of the chase should also be insulated between the solid continuous floor beneath the fireplace and the chase bottom. Chase insulation in a cold climate installation is not required for safety.

**ASSEMBLY OUTLINE**

**Before You Start**

Check your inventory list to be sure you have all the necessary parts supplied in good usable condition. Check also for any concealed damage.

Check the operation of the damper. The damper is controlled through the use of a control lever located within the firebox opening at the top center just behind the firebox lintel (Figure 3).

The control lever snaps into place at the extreme range of motion, up and back in the closed position. When pulled forward and down, the damper is open.

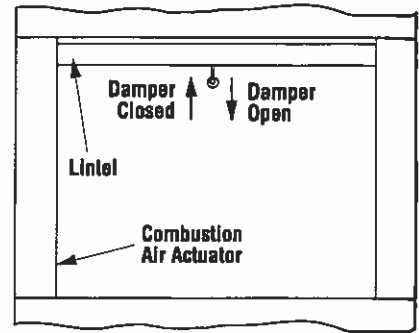


Figure 3

**LOCATION OF FIREPLACE**

Carefully select the proper location for heat circulation, aesthetics, chimney obstructions and clearance to side wall(s). With proper pre-planning, a slight adjustment of a few inches can save considerable time and expense later during construction and assembly.

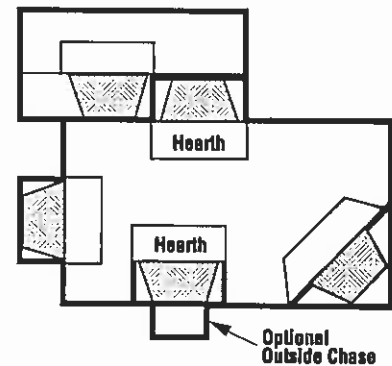


Figure 4

Carefully consider the position of the fireplace opening with respect to the location of adjacent or nearby stairwells, bath or kitchen exhaust fans and/or return air registers for forced air furnaces/air conditioners that could cause a smoking fireplace condition if the house is tightly insulated.

When locating the fireplace, consideration must be given to combustibles and final finishing. See Figure 5 and confine the final location of combustible finish materials to the "Safe Zone".

DO NOT permanently place furniture or other items such as decorative pillows within 60" of the fireplace front face.

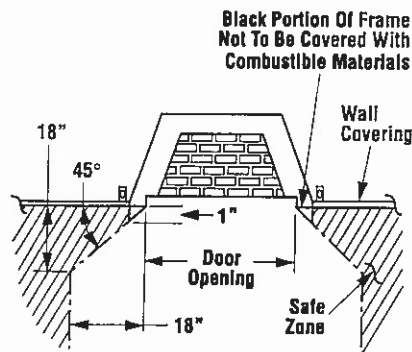


Figure 5

### ASSEMBLY STEPS

*Note: The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.*

1. Position firebox prior to framing or into prepared framing.
2. Install the chimney system.
3. Install optional outside combustion air kit.
4. Plumb gas line if a decorative gas appliance will be used. (Gas connections should only be performed by an experienced, licensed/certified tradesman.)

5. Complete the installation, finish wall material, surround and hearth extension to your individual taste.

6. Assemble and attach optional glass door assembly.

Study the three dimensional illustration (Figure 1) to get a general idea of each element of your fireplace system.

### PRE-INSTALLATION NOTES

The fireplace may be installed directly on a combustible floor or raised on a platform of an appropriate height. Do not place fireplace on carpeting, vinyl or other soft floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard surfaces.

Be sure fireplace rests on a solid continuous floor or platform with appropriate framing for support and so that no cold air can enter the room from under the fireplace. The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace positioned into the opening.

Usually, no special floor support is needed for the fireplace, however, to be certain:

1. Estimate the total weight of the fireplace system including chimney and surround materials such as brick, stone, etc., to be installed. Shipping weights for the fireplace may be found on page 19.
2. Measure the square footage of the floor space to be occupied by the system, surrounds and hearth extensions.
3. Note the floor construction, i.e. 2 x 6's, 2 x 8's or 2 x 10's, single or double joists, type and thickness of floor boards.
4. Use this information and consult your local building code to determine if you need additional support.

**CAUTION: DO NOT BLOCK THE FRONT, TOP/BOTTOM HEAT-CIRCULATING AIR INLETS AND OUTLETS ON MODELS FIREPLUS-38 AND FIREPLUS-43. DOING SO MAY RESULT IN A POTENTIAL FIRE HAZARD.**

If you plan to raise the fireplace and hearth extension, build the platform assembly then position fireplace and hearth extension on top. Secure the platform to the floor to prevent possible shifting.

### CLEARANCES

Minimum clearance to combustibles for the fireplace is as follows; sides and back - ½" (13mm), combustible floor - 0" (0mm), adjacent wall 18" (457mm), adjacent shielded wall (K factor of .84 or less 40" W x 40" H) 8" (203mm), ceiling - 37 ½" (953mm). Refer to page 18 for more detail.

*Note: Clearance at the nailing flange for both fireplace models is 0" (0mm).*

*Note: Adjacent wall considerations are for an adjacent wall on only a single side. Walls should not be placed at minimum distance at both sides of the fireplace.*

### INSTALLING THE FIREPLACE

**Step 1.** Slide the fireplace into prepared framing or position fireplace in its final position and frame later.

The fireplace may not be recessed into a combustible floor. Maintain the floor to hearth clearance established by the fireplace lower front face.

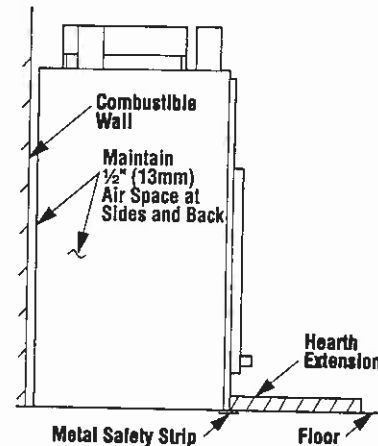


Figure 6

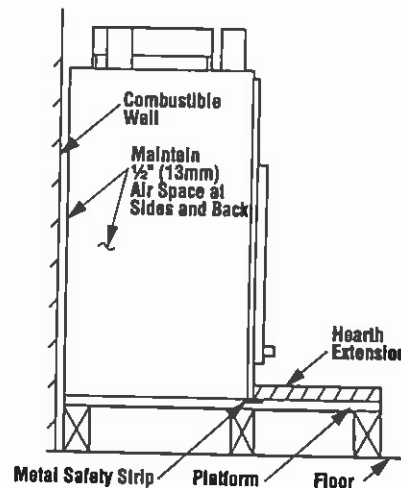


Figure 7

**Step 2.** Insert the provided metal safety strips, beneath the fireplace as illustrated (Figures 6, 7 and 8). The safety strips should overlap ½" for continual coverage of the floor.

*Note: Safety strips are not required when fireplace rests on a noncombustible surface.*

*Note: Install the hearth extension only as illustrated.*

The safety strips should extend from front of the fireplace at least 1 ½" and should extend to be at least flush with the sides. In the event a wooden support is used to elevate the fireplace above the floor, a "Z" type safety strip should be fabricated and used to protect the front surface of the wood support as well as the floor beneath the hearth extension (Figures 8 and 9). The safety strips should be tacked down to prevent possible movement.

Note: The "Z" type safety strip is not supplied.

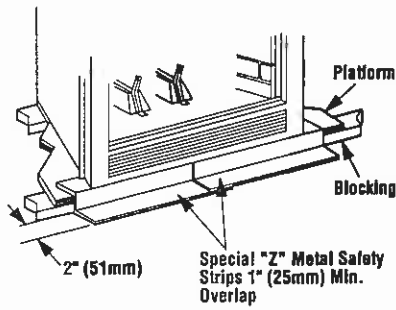


Figure 8

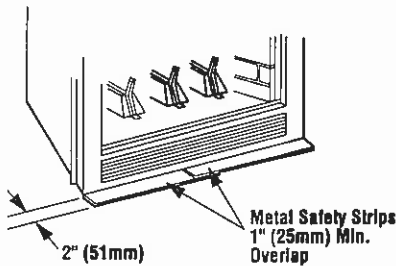


Figure 9

Step 3. Refer to fireplace drawings and specifications on pages 6 and 7 for framing dimensions and details. Frame appliance enclosure as illustrated in Figures 11 through 14 on page 7.

**IMPORTANT: UNDER NO CIRCUMSTANCES CAN THE FIREPLACE TOP SPACERS (FIGURE 10) BE REMOVED OR MODIFIED, NOR MAY YOU NOTCH THE HEADER TO FIT AROUND OR BE INSTALLED LOWER THAN THE SPACERS. THE HEADER MAY BE IN DIRECT CONTACT WITH THE TOP SPACERS BUT MAY NOT BE SUPPORTED BY THEM.**

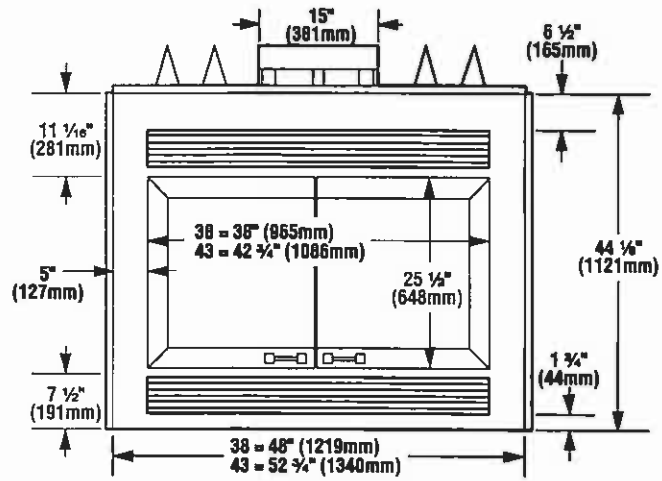
Note: The framed depth, 25 1/2" (648 mm) from a framed wall, must always be measured from a finished surface. If a wall covering such as drywall is to be attached to the rear wall, then the framed depth must be measured from the drywall surface. It is important that this dimension be exact.

If the appliance is to be elevated above floor level, a solid continuous platform must be constructed.

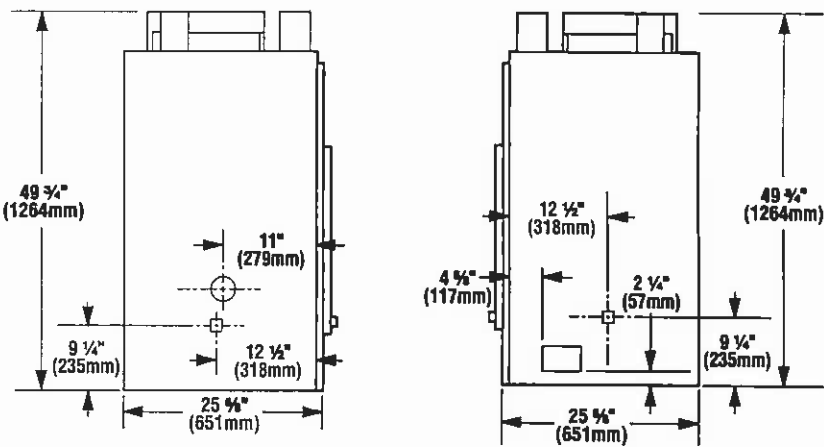
The header may rest on the top metal spacers, but must not be notched to fit around them.

Consult all local codes.

## FIREPLACE SPECIFICATIONS

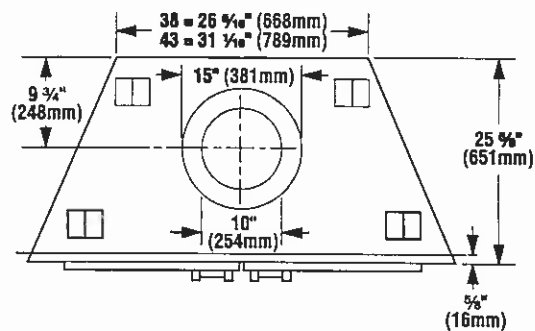


Front View



Right Side

Left Side



Top View

Figure 10

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

# FRAMING SPECIFICATIONS

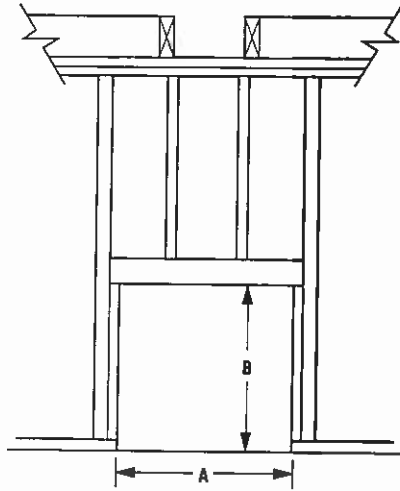


Figure 11

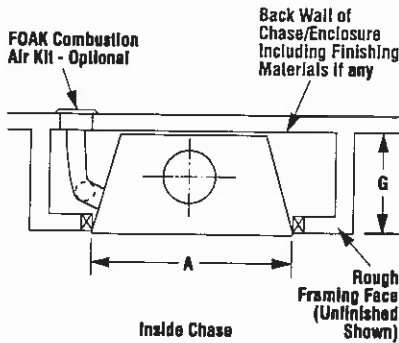


Figure 12

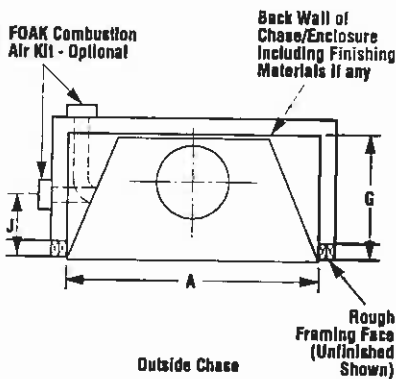


Figure 13

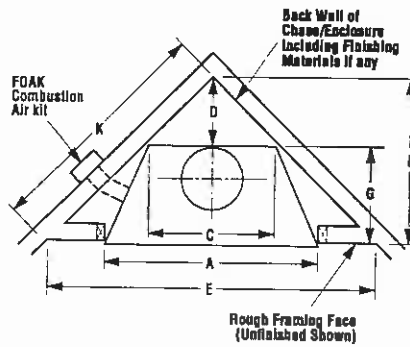


Figure 14

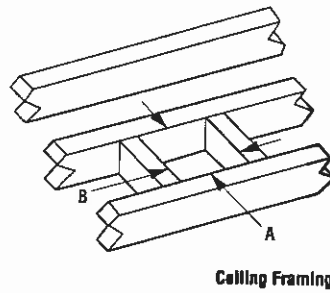


Figure 15

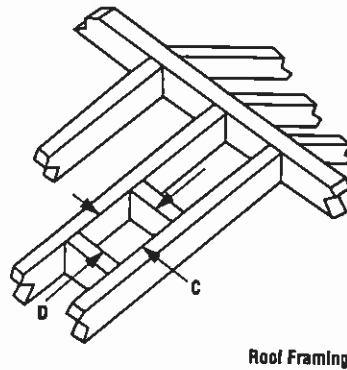


Figure 16

## Framing Dimensions

	Fireplace Model	
	FirePlus-38	FirePlus-43
A	48 1/2" (1223 mm)	52 7/8" (1343 mm)
B	50" (1270 mm)	50" (1270 mm)
C	26 1/4" (667 mm)	31" (787 mm)
D	13 1/2" (334 mm)	15 1/2" (394 mm)
E	77 1/4" (1962 mm)	82" (2083 mm)
F	38 5/8" (981 mm)	41" (1041 mm)
G	25 1/2" (648 mm)	25 1/2" (648 mm)
J	10 7/8" (276 mm)	10 7/8" (276 mm)
K	54 5/8" (1388 mm)	58" (1473 mm)

Note: All framing dimensions calculated for 1/2" dry wall at the fireplace face. If sheathing the chase or finishing with other thickness materials, calculations will need to be made.

## Framing Dimensions for Ceiling

Flue Type	Ceiling Opening	
	A	B
FTF8, Vertical at 2" (51 mm)	16 1/2" (419 mm)	16 1/2" (419 mm)
FTF8, Offset at 2"	16 1/2" (419 mm)	27" (686 mm)
FTF10, Vertical at 2" (51 mm)	19" (483 mm)	19" (483 mm)
FTF10, Offset at 2" (51 mm)	19" (483 mm)	28" (711 mm)

## Framing Dimensions for Roof

Pitch	FTF8 at 2" (51 mm)		FTF10 at 2" (51 mm)	
	C	D*	C	D*
0/12	16 1/2" (419 mm)	16 1/2" (419 mm)	19" (483 mm)	19" (483 mm)
6/12	16 1/2" (419 mm)	19" (483 mm)	19" (483 mm)	21" (533 mm)
12/12	16 1/2" (419 mm)	23 1/2" (597 mm)	19" (483 mm)	26" (660mm)

\*Perpendicular to roof ridge

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

**Step 4.** The fireplace should be anchored to the floor. Bend down four (4) anchor tabs located at the base of the fireplace and secure to the floor by nailing with 8d nails (Figure 17).

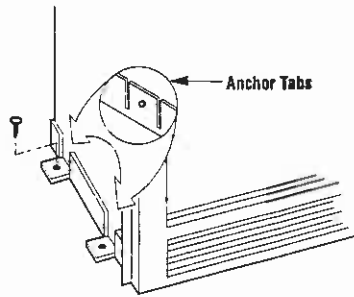


Figure 17

**Step 5.** The fireplace should be secured to side framing members through the nailing flange (Figure 18).

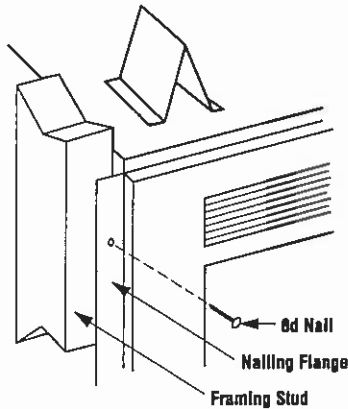


Figure 18

**Note:** The nailing tabs and the area directly behind the nailing tabs are exempt from the clearances described on page 5. Maintain at least 1/2" clearance from the firebox wrapper to the framing at the closest point of contact, directly adjacent to the flange.

**For Canadian Installations Proceed with Steps 6 through 9**

**Step 6.** Attach the cold climate kit, Model CCK, around the chimney collar with the screws provided (Figure 19).

**Step 7.** Connect the 4" (102 mm) Class 0 metallic air duct provided to the collar on the chimney collar enclosure with the screws provided in the hardware kit.

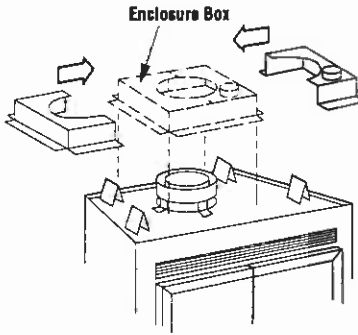


Figure 19

**Step 8.** Route the Class 0 metallic air duct out the back wall or side wall, up through the ceiling or floor joists to an outside wall. The air duct's inlet should be located above any anticipated snow level.

**Note:** If the fireplace is installed against an inside wall, the Class 0 metallic air duct may be extended into a ventilated attic space at least 18" (457 mm) above the attic floor. Secure the duct hood to a vertical post with the inlet positioned downward. Ensure that nothing blocks the hood opening. This air duct must never terminate higher than the fireplace chimney.

**Step 9.** Cut or frame a hole through the outside wall for the installation of the duct inlet hood. A 4 1/2" (114 mm) diameter hole is required. Feed the loose end of the flexible duct through the hole cut for the inlet hood and attach to the collar on inlet hood using two (2) screws. Insert the hood into the opening. Secure in place with nails driven through the holes in hood flange. Seal with noncombustible waterproof silicon type caulking. If additional air duct is needed, use Class 0 metallic duct.

**INSTALLING THE CHIMNEY SYSTEM**

**Step 1.** Before continuing, check the operation of the damper, as described on page 4, (refer to Figure 3).

**Step 2.** Using standard construction framing techniques, construct opening for chimney route up through the ceiling(s) and roof or through an outside chase.

Framing must maintain adequate minimum air space clearance at all times.

**A minimum 2" air space must be reserved for all combustible materials extending for any continuous length surrounding the chimney.**

**CAUTION: ALLOW MINIMUM 2" CHIMNEY AIR SPACE TO COMBUSTIBLE FRAMING MEMBERS THROUGHOUT VERTICAL OR OFFSET CHIMNEY INSTALLATION.**

Reference Figures 15 and 16 and charts Framing Dimensions for Ceiling and Roof, which specify minimum ceiling and roof dimensions.

In new construction, to determine chimney center line, use plumb line from roof or ceiling above fireplace to center of flue collar on fireplace.

For remodeling, plumb to center of flue collar from ceiling above, drive nail through ceiling from below to mark position, then mark and cut to passage from above ceiling (around nail) (Figure 20). Then plumb from ceiling or roof level directly above hole which has just been completed.

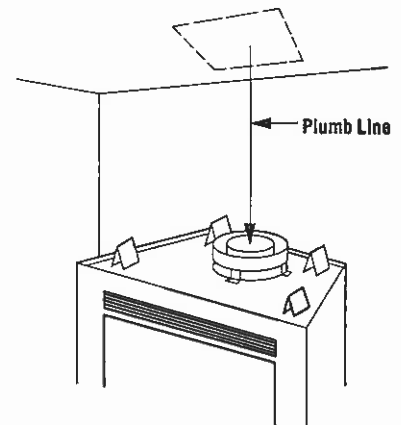


Figure 20

**Step 3.** Position appropriate firestop spacer at ceiling and nail temporarily with two (2) 8d nails. Use flat firestop spacer, Model F10FS-2, if chimney penetrates ceiling vertically. If chimney penetrates ceiling at 30° angle (offset chimney), use 30° firestop spacer, Model F10FS30-2. Use one nail on opposite sides to hold firestop spacer in position. Nail permanently, using at least two (2) more 8d nails, after chimney sections have been assembled through the firestop spacer and after any necessary adjustments have been made. Firestop spacer must be secured by at least four (4) 8d nails when completely installed.

**Note:** If there is a room above ceiling level, firestop spacer must be installed on the bottom side of the ceiling. If an attic is above ceiling level, firestop spacer must be installed on top side of ceiling joist (Figures 21 and 22).



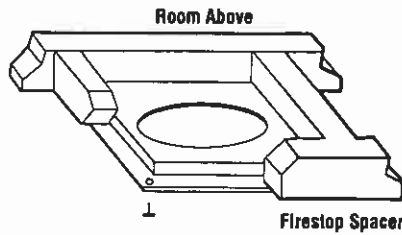


Figure 21

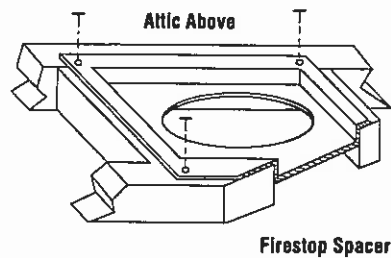


Figure 22

### CHIMNEY 30° OFFSET THROUGH FLOOR OR CEILING

It may be necessary to assemble the chimney at 30° when passing through the floor or ceiling area. Use the F10FS30-2 firestop spacer as shown in Figures 23 and 24. Support the chimney at floor or ceiling penetration with a FTF10 stabilizer if distance of chimney below ceiling is 10' or more. Maintain 2" minimum air space to combustibles from chimney sections.

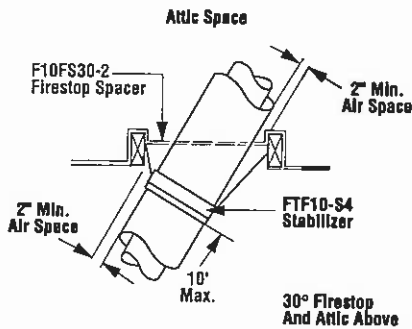


Figure 23

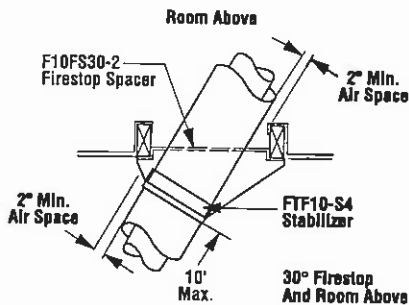


Figure 24

### For Canada Only

When installing the chimney system through an open attic space, the attic shield assembly-firestop spacer must be used (Figure 25). This installation is Warnock Hersey Inc. listed for use in Canada, and whenever blown in insulation is used.

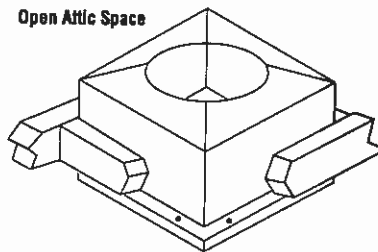


Figure 25

**Step 4. Note:** All chimney sections are constructed with a unique locking tab and hem design, which ensures an immediate, tight assembly between sections. Plan your chimney requirements carefully before assembly, as the chimney is difficult to disassemble after installation. If disassembled, the tabs might become damaged. Be certain that the tabs are properly formed to ensure they engage properly.

**Note:** For Canadian installation, all chimney installed outside the building must be constructed with galvalume (outer sections only). The appropriate model designations (with a "C" suffix) are located in the back of this manual.

The FireCraft FTF10 chimney system is a two piece chimney, which snap together from the fireplace up. Start with the inner flue section with the lanced end up, snap lock it in to the matching collar on top of the fireplace. At all subsequent joints, the upper flue section fits into the preceding flue section. Each piece snaps together by means of locking tabs (9 locking tabs per joint). Check each piece by pulling up slightly from the top to ensure proper engagement before installing the next section. If the flue has been installed correctly, it will not separate when you test it. Also, the inner flue joint where each section is joined should be tight and flat without gaps (Figure 26).

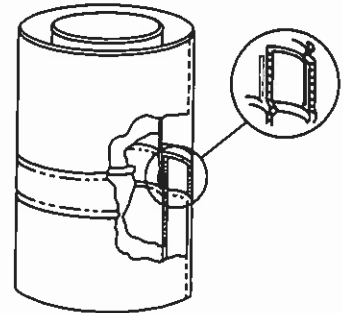


Figure 26

Outer pipe section installs in just the opposite way; the lanced end goes down and each new section goes OVER the outside of the previous section installed (Figure 27).

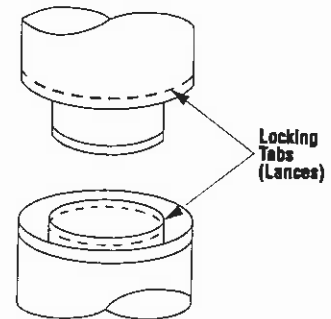


Figure 27

**Note:** Assemble one component of chimney at a time (inner section first, then outer section last) before proceeding with the next complete section.

Continue to assemble the chimney up through framed opening. Assemble just enough to penetrate the roof flashing openings (Figure 28). Always maintain 2" minimum air space to combustible materials and always check each chimney joint (inner and outer) to ensure proper engagement. Check vertical alignment of chimney so that it projects from the roof in true vertical position.

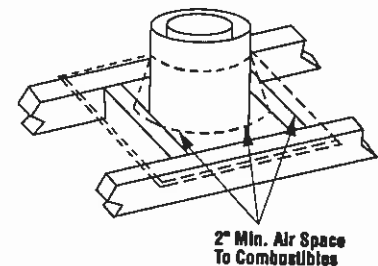


Figure 28

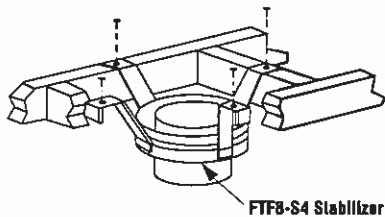
NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

FireCraft chimney sections do not need to be screwed together. Additional reinforcement is not necessary except in certain offset conditions (refer to page 12, *Figure 39*).

**Step 5.** The height of vertical chimney pipe supported only by the fireplace must not exceed 30'. Chimney heights above 30' must be supported by a Model FTF10-S4 stabilizer installed at 30' intervals.

*Note: The Model FTF10-S4 adds 3" net effective height to the total chimney system.*

Install the Model FTF10-S4 stabilizer by fitting inner section down into respective section of proceeding flue pipe and locking outer stabilizer section into place over the outer chimney pipe. Position for proper clearance through framed opening and nail straps securely (under tension in "shear") into place on framing. Use 8d nails. Attach successive lengths of chimney pipe directly to stabilizer using same techniques as described in Step 4 (*Figure 29*).



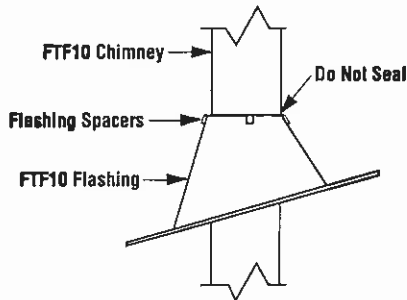
**Figure 29**

*Note: Do not apply excessive pressure to any subsequent chimney sections following the stabilizer when installing. Ensure each subsequent chimney section is securely attached by testing as noted in Step 4.*

**Step 6.** Select the proper FireCraft roof flashing based on pitch of roof. Use chart below for selection:

Roof Pitch	FTF8	FTF10
Flat to 6/12	8F6	10F6
6/12 to 12/12	8F12	10F12

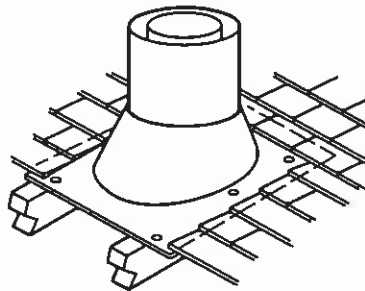
Next, slide roof flashing over extended chimney section that previously has been installed above the roof opening in Step 4. FTF10 flashings require flashing spacers. Slide flashing all the way down until the flashing base rests flat on the roof (*Figure 30*). Again, check the vertical position of the chimney and the 2' minimum air space to combustibles.



**Figure 30**

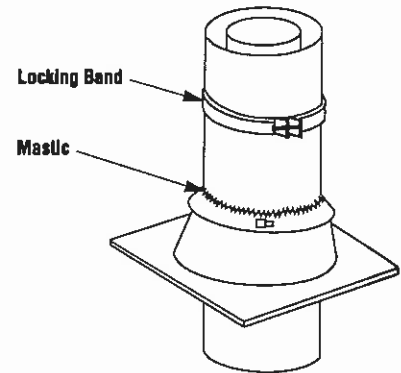
*Note: Do not caulk or seal the ventilating openings.*

**Step 7.** Secure flashing by nailing along the perimeter into roof using 8d nails. If shingled roof, slide upper end and sides of roof flashing under shingles (trim if necessary), seal the top and both sides of the flashing to the roof with roof caulking. Cover nail heads with roof caulking (*Figure 31*).



**Figure 31**

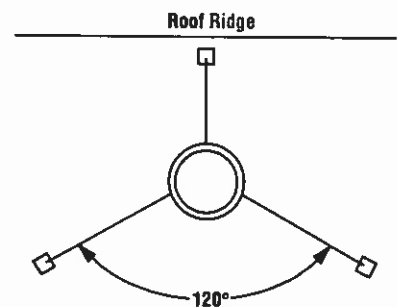
**Step 8.** The standard FireCraft FTF10 roof flashing assemblies include a storm collar. Slide the storm collar over outer chimney, rest on flashing spacers and align with top surface of flashing. Insert tab in slot, pull tight and bend tab back over slot. Seal storm collar to outer chimney with roof caulking or mastic around entire circumference of pipe. Also add extra roof caulking to the tab/slot area to seal completely against water penetration (*Figure 32*). Check all joints very carefully to ensure no water intrusion can take place.



**Figure 32**

**Step 9.** FireCraft locking bands, Model FLB, may be required if the chimney extends too high above the roof flashing. As a general rule, if the chimney extends more than 6' above the roof flashing, the use of locking bands is advisable to strengthen the chimney assembly. Align the locking band at the chimney joint. Locking bands wrap around pipe joints equally covering the joints of both pipe sections. Use the nut provided and TIGHTEN snugly. Do not over-tighten as this might damage the chimney section (refer to *Figure 32*).

*Note: If chimney extends more than 8' above roof surface, guy wires are also recommended. Use three (3) guy wires, attach to locking band assembly, extend and secure to roof in a triangular pattern (*Figure 33*). Guy wires are not supplied by the manufacturer.*



**Figure 33**

**Step 10. Using an FTF8/FTF10-CTD Round Termination:**

1. Hold the FTF8/FTF10-CTD over top of last chimney section (Figure 34).
2. Center inner slip section in inner flue pipe-slip down.

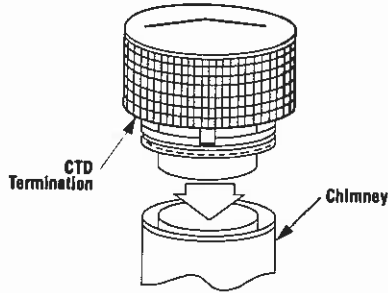


Figure 34

3. Center outer locking section over outer flue pipe. Push down until locking tabs are firmly engaged.
4. Pull up slightly on CTD to ensure locking joint has firmly engaged.

**Using an FTF8/FTF10-CTDT Chase Termination:**

Refer to specific installation instructions included with the FTF8/FTF10-CTDT chase termination for clearance and installation details.

**Using an FTF8/FTF10-CT1 Chase Termination:**

Refer to specific installation instructions included with FTF8/FTF10-CT1 chase terminations for clearance and installation details.

**Using an FTF8/FTF10-CT2 Chase Termination:**

Refer to specific installation instructions included with FTF8/FTF10-CT2 chase terminations for clearance and installation details.

*Note: It is recommended that all exterior exposed metal fireplace components; such as terminations, flashings, storm collars and/or flue be painted with a premium quality, high temperature, rust preventative paint designed for metal. This is especially important when installations are made in abnormally adverse or corrosive environments; such as near lakes, oceans or in areas with consistently high humidity conditions. Consult the paint manufacturer's instructions for proper preparation and application.*

**TEN FOOT RULE SUMMARY**

The minimum chimney height above the roof and/or to adjacent walls and buildings is specified by all major building codes.

If the horizontal distance from the peak of the roof is less than 10', the top of the chimney must be at least 2' above the peak of the roof.

If the horizontal distance from the chimney edge to the peak of the roof is more than 10' a chimney height reference point is established on the roof surface 10' horizontally from the chimney edge. The top of the chimney must be at least 2' above this reference point. In all cases, the chimney cannot be less than 3' above the roof at the edge of the chimney.

The 2' in 10' rule is necessary in the interest of safety but does not ensure smoke-free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc., may require a taller chimney should the fireplace not draft properly (see Figure 35).

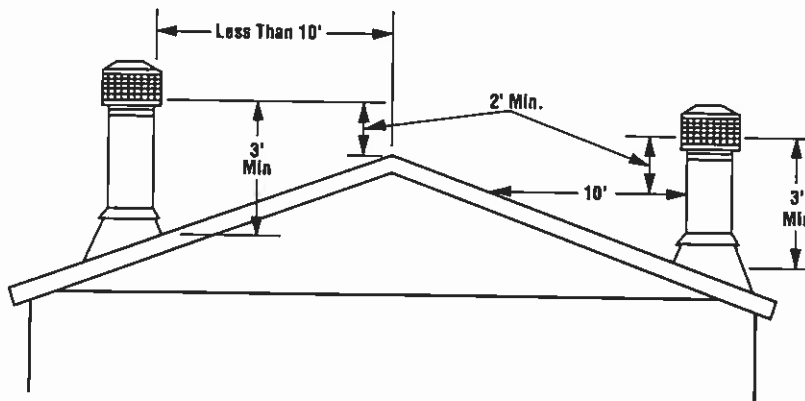


Figure 35

**MULTIPLE TERMINATIONS**

If more than one termination is located in the same chase or within the same general proximity, we suggest they should be separated in distance at least 24" horizontally from flue center to flue center and stacked or staggered vertically at least 18" apart, from the termination of one smoke exit to the termination of another smoke exit (Figure 36).

This suggestion is provided in the interest of better operation. If the terminations are located too close to each other, smoke may migrate from one flue into the other.

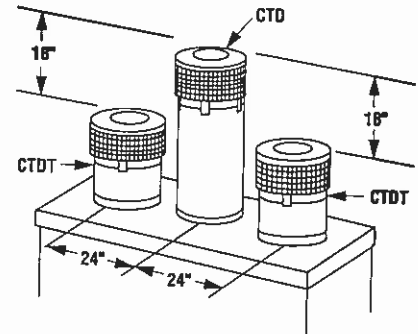


Figure 36

**FTF8 AND FTF10 CHIMNEY COMPONENT CALCULATIONS**

The minimum installed height of the FirePlus-38 and the FirePlus-43 fireplace systems is 15' 6" (4.7 m). 24' (7.3 m) with two offsets. The maximum system height is 80' (24.4 m).

To determine the number of chimney sections and chimney components required, follow these steps:

1. Determine total vertical height of the fireplace installation. This distance is measured from the surface the fireplace sets on to the point where smoke exits from the termination.
2. Determine the number of chimney components required, except chimney sections. This would include firestop spacers, stabilizers, roof flashing, etc.

3. The effective heights of the components are:

The Fireplace	=	48 3/8" (1229 mm)
FTF8-SS Starter Section	=	19" (483 mm)
FTF8/10-12	=	10 1/4" (260 mm)
FTF8/10-18	=	16 1/4" (413 mm)
FTF8/10-36	=	34 1/4" (870 mm)
FTF8-48	=	46 1/4" (1175 mm)
FTF8/10 CT1 Termination	=	12" to 18" (305 to 457 mm)
FTF10-CTDTM Termination	=	13" (330 mm)
FTF10-CT2RS Termination	=	15" to 23" (381 to 584 mm)
FTF8/10-S4 Stabilizer*	=	3" (76 mm)

\* Required for every 30' (9.1 m) of vertical chimney and/or 10' of offset chimney.

4. Determine amount of chimney height required by subtracting total combined height of all pre-selected components (fireplace and chimney components from total desired height.)

Reference the Vertical Elevation Chart and determine the number of chimney sections (quantity and length) required.

**SPECIAL OFFSET INSTRUCTIONS**

To clear any overhead obstructions, you may offset your chimney system using FireCraft 30° offset and return elbows. Use two elbows - an offset elbow to initiate the offset and a return elbow to terminate it. A 30° offset elbow, angling in any direction, may be the first component used off the top of the fireplace flue collar.

The offset and return elbows may be attached together, or a section or sections of chimney may be used between, but do not exceed 20' in total length between elbows. If sections of pipe exceed 10' between elbows, a chimney stabilizer must be used at the midpoint (Figure 37). The stabilizer support straps must be attached under tension (in shear) to structural framing members above. When two sets of elbows are used, the maximum combined length of chimney used between elbows cannot exceed 20' (Figure 38). Example: If C<sub>1</sub> = 10' then C<sub>2</sub> cannot exceed 10'.

If an offset exceeds 6' in length, each chimney joint beyond the first 6' of offset to the return elbow, must be secured by a No. 8 x 1/2" sheet metal screw located at the underside of the joint (Figure 39).

A 1/8" diameter hole must be drilled in the chimney joint using a 1/8" diameter drill. Hole should be drilled in center of joint overlap (see Figure 41). Be sure to drill only through the outer chimney casting. Do not puncture the inner flue.

Maximum offset of chimney system is 30°. Two offsets must not be assembled to form a 60° offset. However, two sets of offset and return elbows may be used on a single flue system, provided the total height of the system exceeds 25'.

Return elbow support straps must be securely attached under tension (in shear) to structural framing members above. Do not substitute a FTF10-30 offset elbow in place of a FTF10-E30 return elbow.

**OFFSET CALCULATIONS**

**Step 1.** Use Offset Chart to determine amount of horizontal offset (A) and height (B) for various chimney section assemblies.

**Step 2.** Use "Height of Chimney Only" column in The Vertical Elevation Chart to determine combinations of chimney used above return elbow to achieve desired heights. Reference Components Effective Height Chart in vertical elevation chart section.

**Step 3.** Use Elevation Chart as job estimator only. Add necessary firestop spacers and stabilizers as required. Firestop spacers must be used as shown in Figures 23 and 24 and stabilizers as shown in Figure 29.

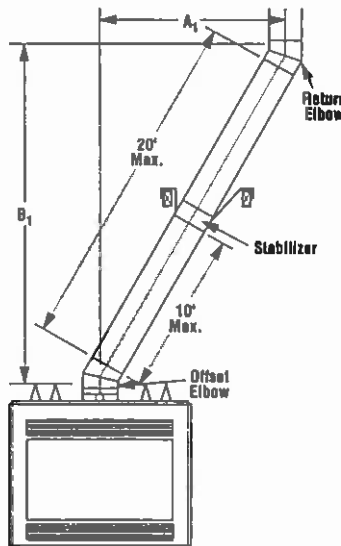


Figure 37

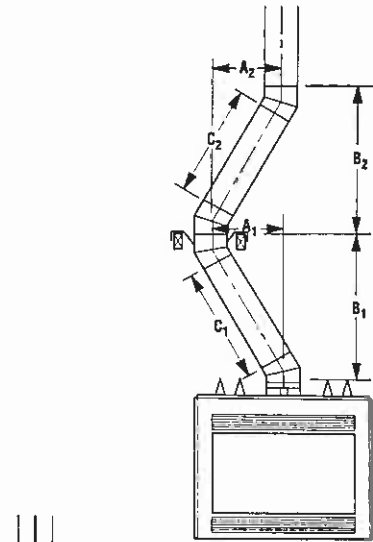


Figure 38

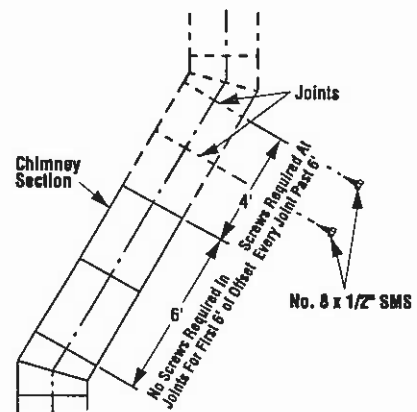


Figure 39



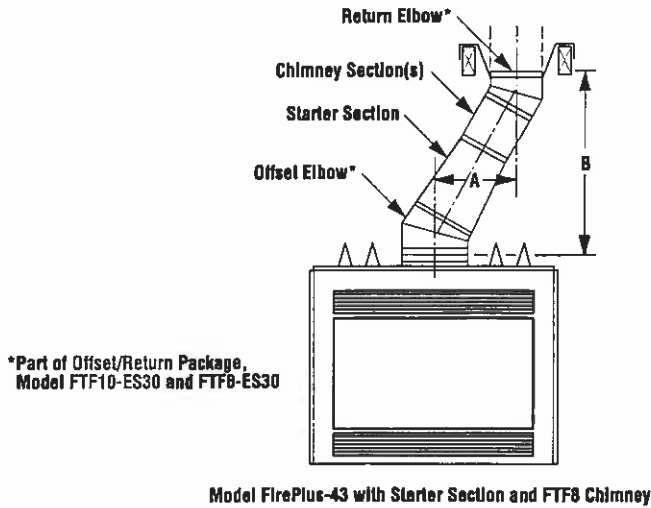


Figure 40

### FTF8 OFFSET ELEVATION CHART (With FTF8-SS Starter Section)

A Offset (Inches)	B Height (Inches)	FTF10/8-ES30 Offset/Return Elbow Set	FTF8-SS Starter Section	FTF8-S4 Stabilizer	Number of FTF8 Chimney Sections				A Offset (mm)	B Height (mm)
					12"	18"	36"	48"		
14	32 1/2	1	1	0	0	0	0	0	356	826
19	41 1/4	1	1	0	1	0	0	0	483	1048
22	46 1/2	1	1	0	0	1	0	0	559	1181
24 1/2	50 1/4	1	1	0	2	0	0	0	616	1276
27 1/4	55 1/4	1	1	0	1	1	0	0	692	1403
30 1/4	60 1/2	1	1	0	0	2	0	0	768	1537
31	62	1	1	0	0	0	1	0	787	1575
32 1/4	64 1/4	1	1	0	2	1	0	0	819	1632
35 1/4	69 1/4	1	1	0	1	2	0	0	885	1759
36 1/4	71	1	1	0	1	0	1	0	921	1803
37	72 1/2	1	1	0	0	0	0	1	940	1842
38 1/4	74 1/2	1	1	0	0	3	0	0	972	1892
39 1/4	76	1	1	0	0	1	1	0	997	1930
41 1/4	79 3/4	1	1	0	2	0	1	0	1048	2026
42 1/4	81 1/4	1	1	0	1	0	0	1	1073	2064
44 1/4	85	1	1	0	1	1	1	0	1124	2159
45 1/4	86 1/2	1	1	0	0	1	0	1	1149	2197
47 1/4	90	1	1	0	0	2	1	0	1200	2286
48 1/4	91 3/4	1	1	0	0	0	2	0	1226	2330
49 1/4	93 3/4	1	1	0	2	1	1	0	1251	2381
51 1/4	97 1/4	1	1	0	1	4	0	0	1308	2470
53 1/4	100 1/2	1	1	0	1	0	2	0	1353	2553
54 1/4	102	1	1	0	0	0	1	1	1378	2591
55 1/4	104 1/4	1	1	0	0	3	1	0	1403	2648
56 1/4	105 3/4	1	1	0	0	1	2	0	1429	2686
58 1/4	109 1/4	1	1	0	2	0	2	0	1480	2775
59 1/4	111	1	1	0	1	0	1	1	1505	2819
60 1/4	112 1/2	1	1	0	0	0	0	2	1530	2858
61 1/4	114 1/2	1	1	1	1	1	2	0	1556	2908
66 1/4	123	1	1	1	0	2	2	0	1689	3124
67 1/4	124 3/4	1	1	1	1	0	0	2	1715	3169
68 3/4	126 3/4	1	1	1	2	1	2	0	1746	3219
70 1/4	129 3/4	1	1	1	0	1	0	2	1791	3296
72 1/4	133 1/2	1	1	1	1	0	3	0	1842	3381
75 1/4	138 3/4	1	1	1	0	1	3	0	1918	3524
77 3/4	142 1/2	1	1	1	2	0	3	0	1975	3613
79 1/2	145 1/2	1	1	1	0	0	1	2	2019	3696
80 3/4	147 1/2	1	1	1	1	1	3	0	2051	3747
83 3/4	152 3/4	1	1	1	0	2	3	0	2127	3880
85 1/2	155 3/4	1	1	1	0	0	0	3	2172	3956
89 3/4	163	1	1	1	1	0	4	0	2280	4140
90 1/2	164 3/4	1	1	1	1	0	0	3	2289	4185
92 3/4	168 1/4	1	1	1	0	1	4	0	2356	4274
93 1/2	169 3/4	1	1	1	0	1	0	3	2375	4312

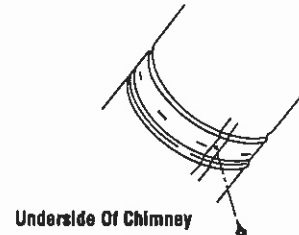
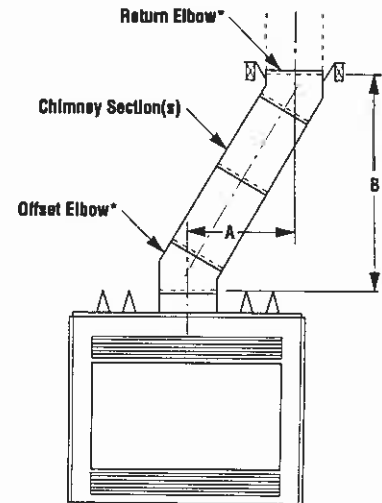


Figure 41



Model FirePlus-43 with FTF10 Chimney  
Model FirePlus-38 with FTF8 Chimney

\*Part of Offset/Return Package,  
Model FTF10-ES30 or FTF8-ES30

Figure 42

### INSTALLING OFFSETS

First, review the Offset Elevation Charts and Figure 42 for reference.

**Step 1.** Determine the offset distance where chimney is to pass through the first ceiling-dimension "A." To find this point on your ceiling, first determine the center point for a vertical chimney following the instructions for vertical installation.

Measure height to the ceiling from the top of fireplace-dimension "B." Use the appropriate Offset Elevation Chart to find dimension "A." Mark point where you will drive your nail to show the center point for your offset ceiling cut.

## FTF8/FTF10 OFFSET ELEVATION CHART

A Offset (Inches)	B Height (Inches)	ES30 Offset/Return Elbow Set	S4 Stabilizer	Number of Chimney Sections				A Offset (mm)	B Height (mm)
				12"	18"	36"	48"		
4	15 3/4	1	0	0	0	0	0	102	400
9	24 1/4	1	0	1	0	0	0	229	822
12	29 3/4	1	0	0	1	0	0	305	756
14 1/4	33 1/2	1	0	2	0	0	0	362	851
17 1/4	38 1/4	1	0	1	1	0	0	438	978
20 1/4	43 3/4	1	0	0	2	0	0	514	1111
21	45 1/4	1	0	0	0	1	0	533	1149
22 1/4	47 1/2	1	0	2	1	0	0	565	1207
25 1/4	52 1/4	1	0	1	2	0	0	641	1334
26 1/4	54 1/4	1	0	1	0	1	0	667	1378
27	55 3/4	1	0	0	0	0	1	686	1416
28 1/4	57 3/4	1	0	0	3	0	0	718	1467
29 1/4	59 1/4	1	0	0	1	1	0	743	1505
31 1/4	63	1	0	2	0	1	0	794	1800
32 1/4	64 1/4	1	0	1	0	0	1	819	1638
34 1/4	68 1/4	1	0	1	1	1	0	870	1734
35 1/4	69 3/4	1	0	0	1	0	1	895	1772
37 1/4	73 1/4	1	0	0	2	1	0	946	1861
38 1/4	75	1	0	0	0	2	0	972	1905
39 1/4	77	1	0	2	1	1	0	997	1956
41 1/4	80 1/4	1	0	1	4	0	0	1054	2045
43 1/4	83 3/4	1	0	1	0	2	0	1099	2127
44 1/4	85 1/4	1	0	0	0	1	1	1124	2165
45 1/4	87 1/4	1	0	0	3	1	0	1149	2223
46 1/4	89	1	0	0	1	2	0	1175	2261
48 1/4	91 1/4	1	0	2	0	2	0	1226	2324
49 1/4	94 1/4	1	0	1	0	1	1	1251	2394
50 1/4	95 3/4	1	0	0	0	0	2	1276	2432
51 1/4	97 3/4	1	0	1	1	2	0	1302	2483
54 1/4	103	1	0	0	2	2	0	1378	2818
55 1/4	104 1/4	1	0	1	0	0	2	1403	2654
56 1/4	108 1/4	1	0	2	1	2	0	1435	2705
58 1/4	109 3/4	1	0	0	1	0	2	1480	2788
62 1/4	116 3/4	1	1	1	0	3	0	1588	2965
65 1/4	122	1	1	0	1	3	0	1664	3099
67 1/4	125 1/4	1	1	2	0	3	0	1721	3188
69 1/4	128 3/4	1	1	0	0	1	2	1765	3270
70 3/4	130 3/4	1	1	1	1	3	0	1797	3321
73 3/4	136	1	1	0	2	3	0	1873	3454
75 1/4	139	1	1	0	0	0	3	1918	3531
79 3/4	146 1/4	1	1	1	0	4	0	2026	3715
80 3/4	148	1	1	1	0	0	3	2051	3759
82 3/4	151 1/4	1	1	0	1	4	0	2102	3848
83 1/4	153	1	1	0	1	0	3	2121	3886

\* 48" chimney sections are not available with the FTF10 system.

**Step 2.** Proceed by using the Straight Up Installation instructions for cutting and framing ceiling and roof openings.

*Note: See Framing and Dimension Chart for the sizes of the ceiling and roof openings. The size of the roof opening varies with the degree of pitch of the roof.*

### Offset Elbow Assembly

Offset elbows install the same as chimney sections. First, snap the inner section INTO the preceding inner section of flue. Check connection by pulling up slightly to ensure a tight fit. Next, the outer sections snap lock OVER the preceding outer section of chimney. Again, check outer section by pulling up slightly to ensure proper connection is made.

### Return Elbow Assembly

Return elbows install the same way as round terminations and stabilizers:

**Step 1.** Hold return elbow over top of last chimney section.

**Step 2.** Center inner slip section into inner flue pipe-slip down.

**Step 3.** Center outer-locking section over outer chimney pipe. Push down until locking joint has firmly engaged.

**Step 4.** Pull up slightly on return elbow to ensure locking joint has firmly engaged.

**Step 5.** Secure support straps to framing members by nailing under tension in shear (Figure 43).

*Note: The return elbow assembly performs the same function as a stabilizer. Consider this when determining the need for a stabilizer.*

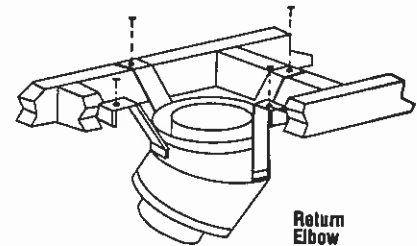


Figure 43

*Note: Do not apply excessive pressure to any subsequent chimney section following return elbow assembly when installing. Ensure that each subsequent chimney section is securely attached by testing as noted above.*

## GLASS DOORS

### Safety Precautions

Lennox's FirePlus™ systems include a twin-pane, full enclosure, ceramic door with conventional screen panels. The door and screen panels can be opened for easy refueling. While the fireplace may be operated with the glass doors fully open, it is recommended that the doors be fully closed during operation for best performance. When opening the doors to refuel, a slight spillage should be expected and is considered normal. Open doors slowly, otherwise an increase in smoke spillage could occur.

**WARNING: IF THE DOORS ARE LEFT PARTIALLY OPEN, GAS AND FLAMES MAY BE DRAWN OUT OF THE OPENING, CREATING RISK OF BOTH FIRE AND SMOKE.**

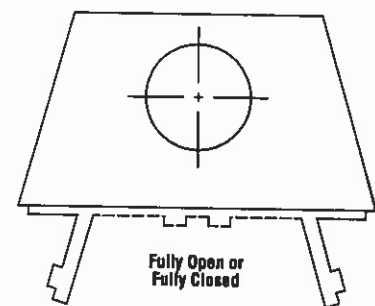


Figure 44

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

**CAUTION: YOUR FIREPLACE IS EQUIPPED WITH CERAMIC GLASS DOORS. EXERCISE CAUTION WHEN OPENING AND CLOSING THESE DOORS AS CERAMIC GLASS IS EASILY BROKEN BY A MECHANICAL IMPACT.**

**IMPORTANT: DO NOT OPERATE THIS FIREPLACE SYSTEM WITH BOTH THE SCREEN PANELS AND GLASS DOORS OPEN.**

### Attaching the Door Assembly

The door assemblies have been packaged separately, protected in their own special carton. Carefully remove the protective carton wrap and inspect the door assemblies for any signs of damage. The glass pane is made from ceramic glass and can be broken relatively easy from a hard impact. Handle these door assemblies with care.

**Step 1.** Behind each screen assembly, on both sides of the firebox, there are five (5) screws that are oriented in a vertical fashion. Two (2) of these screws (2 per side) must be loosened and must remain in place. Remove the three (3) remaining screws (3 per side) from the fireplace and set aside (Figure 45).

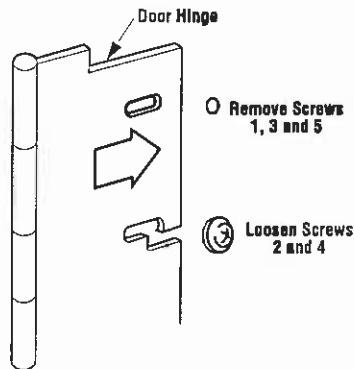


Figure 45

**Step 2.** Starting with either the right or left side door assembly, slide the door hinge (attached to the door) behind the two (2) screws that remain in the fireplace side, that align with the open slots in the hinge. Hang the door assembly over these two (2) screws so that the door hinge is set towards the rear of the fireplace as far as it will go (Figure 46).

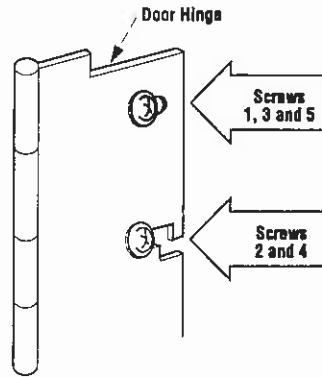


Figure 46

**Step 3.** Replace the other three (3) screws, previously removed, back through the slots in the hinge and into the fireplace side. Tighten all five screws only until resistance is felt.

**Step 4.** Repeat Steps 1 through 3 for the opposite door assembly.

**Step 5.** Close both doors to determine where and how adjustments are to be made. Proceed to the following section on door adjustment procedures. After adjustments have been made, tighten all screws.

### Glass Door Adjustments

The glass doors on your FirePlus™ fireplace will have to be adjusted after they are attached. The doors may also become misaligned due to long periods of burning, excessive overheating, and opening and closing the doors. The following procedure explains how to adjust and remove the door assemblies.

#### Horizontal and Vertical Adjustments

By loosening the acorn nuts (B) that attach the door to the hinge, the entire door assembly can be adjusted in both a horizontal and vertical orientation. Care must be taken when all five (5) acorn nuts are loosened as there will be nothing to support the door assembly from dropping.

Adjustments can be made in both horizontal and vertical planes by tilting the door assembly in or out at the top or bottom. It is also possible to rotate the door assembly in both a clockwise and counter clockwise motion.

### In or Out Adjustment

By loosening the (A) Phillips head screws, it is possible to move the door assembly towards or away from the fireplace. It is also possible to tilt the door assembly in or out at the top or bottom.

**Note:** The door adjustment procedure will be difficult to control if either the (A) or (B) fasteners are loosened too much.

### Door Removal

Should it become necessary to remove the door assemblies from the fireplace, always remove the five (5) Phillips head screws that attach the door hinge to the fireplace, identified as (A) in Figure 47.

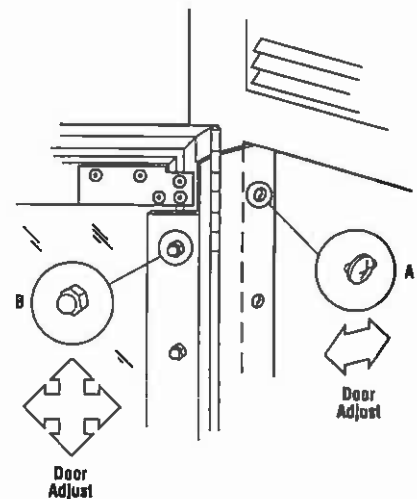


Figure 47

### Combustion Air Kits

The installation of an outside combustion air kit is highly recommended. It is very important to ensure good fireplace operation in homes which are tightly weather sealed or have ventilating appliances installed.

**Step 1.** Determine the source for outside air, which can be installed through an outside wall or into a ventilated crawl space. In either case, a 4 1/2" diameter hole will be required for installation of the air inlet assembly.



**CAUTION: AVOID INSTALLING THE AIR INLET WHERE THE OPENING COULD BE BLOCKED BY SNOW, BUSHES OR OTHER OBSTACLES. THE MAXIMUM HEIGHT FOR THE OUTSIDE AIR IS 50 FEET ABOVE THE HEARTH, PROVING THE AIR INLET IS TERMINATED A MINIMUM OF THREE (3) FEET BELOW THE CHIMNEY CAP LEVEL.**

*Note: Combustion air inlet ducts must not terminate in attic space.*

**Step 2.** Install the air inlet eyebrow (FOAK-4 or FOAK-4LD) through the wall opening (see Figure 48). Push a 4 inch diameter NON-COMBUSTIBLE Class 0 or Class I flexible duct onto the eyebrow.

**Step 3.** Secure the duct to the air gate assembly, using the pipe clamp provided (Figure 49).

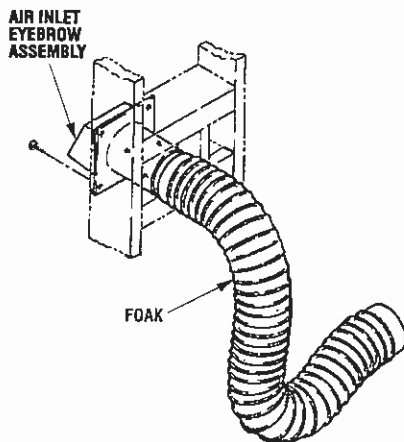


Figure 48

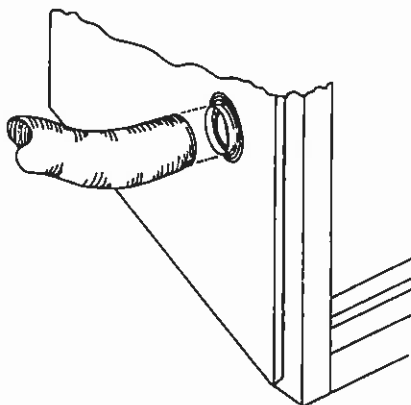


Figure 49

## OPTIONAL EQUIPMENT CONSIDERATIONS

### Gas Line Connection

Always plumb gas line installation per local codes. Check all connections with soap suds; leaks will bubble. Never test any gas line connection with a match or open flame.

This provision is intended for connection to a decorative gas appliance incorporating an automatic shut-off device and complying with the Standard for Decorative Gas Appliances for installation in vented fireplaces, ANSI Z21.60 (1991) or American Gas Association draft requirements for Gas-Fired Log Lighters for Wood Burning Fireplaces, Draft No. 4 dated August, 1993. Install in accordance with the National Fuel Gas Code, ANSI Z223.1. This complies with the revised U.L. 127 standard.

**WARNING: THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.**

**CAUTION: WHEN USING THE DECORATIVE GAS APPLIANCE, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION.**

**CAUTION: PLUMBING CONNECTIONS SHOULD ONLY BE PERFORMED BY A QUALIFIED, LICENSED PLUMBER. MAIN GAS SUPPLY MUST BE OFF WHEN PLUMBING GAS LINE TO FIREPLACE OR PERFORMING SERVICE.**

If you're installing a gas line, connect it before the fireplace is framed and enclosed in the finished wall. The gas knockout is determined by the indentation located at the bottom and slightly off center in the side refractories. **THE KNOCKOUT IS ALWAYS REMOVED FROM INSIDE THE FIREPLACE. DO NOT REMOVE THE KNOCKOUT UNLESS YOU ARE INSTALLING A GAS LINE.** If removal is attempted from the outer wrapper, side refractory damage may occur. With a medium-sized hammer, lightly tap the surface of the indentation. The refractory material is very thin in this area and is easily removed. Once a small hole has been made, continue tapping until you have reached sufficient diameter for the gas line to fit through. The entire knockout does not have to be removed. Remove insulation in the gas line channel.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

**IMPORTANT: REPACK INSULATION MATERIAL IN SQUARE HOLE AROUND GAS LINE, INTERIOR AND EXTERIOR OF FIREPLACE, TO SEAL.**

### COLD CLIMATE INSULATION

If you live in a cold climate, it is especially important to seal all cracks around the fireplace opening with noncombustible material and wherever cold air could enter the room. Surrounding materials must be caulked where it meets the black metal facing of the fireplace to avoid cold air intrusion. Use noncombustible caulking material only on fireplace facing to seal. Also, the outside air inlet duct should be wrapped with noncombustible insulation to minimize the formation of condensation. Do not place insulation materials on top of fireplace or against chimney sections.

*Note: A 2" air space must be preserved for all combustible materials extending for any continuous length adjacent to the chimney.*

It is especially important to insulate between the studs of an outside chase cavity and under the floor if the floor is above ground level. Do not place insulation directly against the fireplace or chimney system.

### FIREPLACE FINISHES

#### Mantels and Trim

It is sometimes best to frame your fireplace after it is positioned and the chimney is installed. Frame enclosure for chimney and fireplace with 2 x 4's (or heavier) lumber.

*Note: The header may rest on the two (2) metal top spacers on top of the unit but the header must not be notched to fit around the spacers.*

In Canada, the minimum height for a combustible mantel is 18" (457 mm) above the fireplace opening. Figure 50 shows a typical Canadian installation. For installations other than Canada, combustible mantels and trim may either project in front of or be flush with the finished wall as per NFPA 211 section 7-3.3.3. and Figure 51. If a mantel is of a noncombustible material, it is exempt from these requirements as long as it does not interfere with the installation or operation of glass doors.

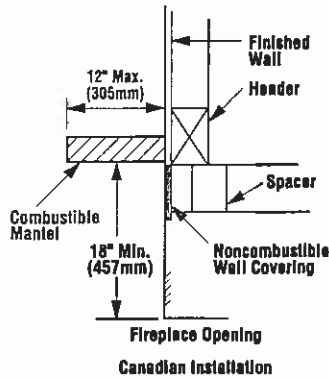
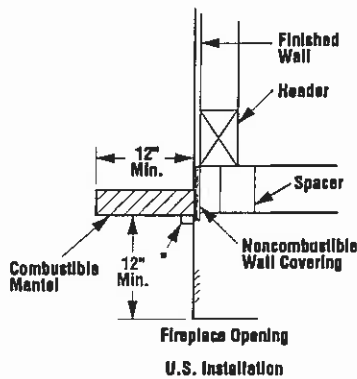


Figure 50



\* A 1/2" Projection is Permitted Between The Face Top And Mantle

Figure 51

### Hearth Extensions and Wall Shields

A hearth extension must be installed with all fireplaces. It is to protect the combustible floor in front of the fireplace from both radiant heat and sparks. The hearth extension must extend 12" (305mm) beyond both sides of the fireplace opening and 20" (508mm) beyond the front. Use a hearth extension constructed of a durable noncombustible material having an equal or greater insulating value of  $k = .84 \text{ BTU IN/FT}^2 \text{ HR } ^\circ\text{F}$  or a thermal resistance that equals or exceeds:

$$r = 1.19 \text{ HR } ^\circ\text{F FT}^2/\text{BTU IN.}$$

A minimum 3/8" (10 mm) thick noncombustible material is all that is required over a noncombustible or slab floor.

*Note: Any noncombustible material whose 1" (25 mm) k value is less than .84 or whose r value is more than 1.19 is acceptable.*

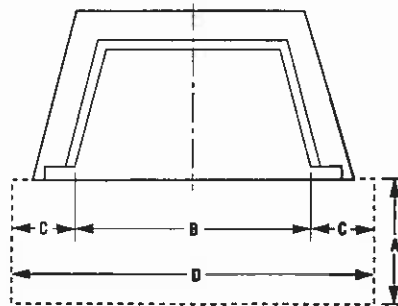


Figure 52

If the fireplace is installed on a combustible floor, use the metal safety strips (provided) on the floor extending half under the fireplace and half under the hearth extension.

Secure the hearth extension to the floor to prevent possible shifting.

### Hearth Extensions Dimensions (For Figures 52 and 53)

Opening Width	38"	43"
A	20" (508 mm)	20" (508 mm)
B	38" (965 mm)	43" (1092 mm)
C	12" (305 mm)	12" (305 mm)

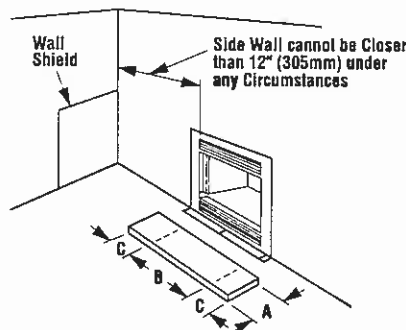


Figure 53

If a continuous perpendicular side wall is closer than 24" (610 mm) to the fireplace opening, a wall shield is required. Use a 40" x 40" x 1/2" (1016 mm x 1016 mm x 13 mm) wall shield constructed of millboard or a durable noncombustible material with an equal or greater insulating value than  $k = .84 \text{ BTU IN/FT}^2 \text{ HR } ^\circ\text{F}$ . In no case shall a continuous perpendicular side wall be closer to the fireplace opening than 12" (305 mm).

If the fireplace is installed diagonally across a 90° corner, a wall shield is not required.

### Methods of Determining Hearth Extension Equivalents

To determine the thickness required for any desired material when either the k or r values are known:

- $T_M$  = Thickness of desired material in inches
- $k_M$  = k value of desired material
- $r_M$  = r value of desired material
- $T_L$  = Minimum listed thickness

**Example:** Micore CV230 is to be used with the FirePlus-43 fireplace. How thick must this material be?

Using the k formula:

$$\text{Desired Required Thickness} = \frac{k \text{ value of desired material (per inch)}}{k \text{ value of listed material (per inch)}} \times \text{Min. thickness of Listed Material}$$

$$T_M \text{ (inches)} = \frac{k_M}{.84} \times T_L$$

$$T_M \text{ (inches)} = \frac{0.43^*}{.84} \times 1^{**} = .51 = \frac{1}{2}''$$

Answer using  $k = 0.51 \times 1'' = 0.51 = \frac{1}{2}''$ .

Using the r formula:

$$\text{Desired Required Thickness} = \frac{r \text{ value of listed material}}{r \text{ value of desired material}} \times \text{Min. thickness of Listed Material}$$

$$T_M \text{ (inches)} = \frac{1.19}{r_M} \times T_L$$

$$T_M \text{ (inches)} = \frac{1.19}{2.33^*} \times 1^{**} = .51 = \frac{1}{2}''$$

Answer using  $r = 0.51 \times 1'' = 0.51 = \frac{1}{2}''$ .

At times it is important to know what combinations of materials are acceptable for use as hearth extensions. The "R values" are used to determine acceptable combinations of materials because "R values" are additive where r and k values are not.

\* value taken from chart  
\*\* minimum thickness per listing

### Alternative Hearth Extension Materials

Listed Material	Values		Min. Thick
	k	r	T <sub>L</sub>
Millboard	0.84	1.19	1"
Alternative Materials	Values		Min. Thick
	k	r	T <sub>M</sub>
Wonderboard	1.92	0.56	2 ¼"
Common brick	5.00	0.20	6"
Cement mortar	5.00	0.20	6"
Ceramic tile	12.5	0.08	15"
Marble	11.0	0.09	13"
Micore CV230 (U.S. Gypsum)	0.43	2.33	½"
Ceraform 126 (Johns-Manville)	0.27	3.70	¾"

"R value" =  $\frac{1}{k} = r \times \text{thickness of material used}$

**Example:** Given that the required "R value" for a suitable hearth extension used with the FirePlus-43 must be equal to or greater than "R" =  $r \times T_L = 1.19 \times 1" = 1.19$ . It is desired to elevate a marble hearth extension to a level of 6 ¾" or more above the floor surface. What combination of noncombustible materials can be used to accomplish this?

If common brick is used so that the 3 ¼" flat dimension is the height, "R" for the common brick becomes:

"R"<sub>M</sub> =  $r \times T_M = 0.20 \times 3 \frac{1}{4}" = 1.10$

Using ¼" of mortar to set the brick, "R" for the mortar becomes:

"R"<sub>M</sub> =  $r \times T_M = 0.20 \times \frac{1}{4}" = 0.05$

A ¾" marble slab set in ¼" mortar covers the brick, "R" for the marble and mortar becomes:

"R"<sub>M</sub> =  $r \times T_M = 0.09 \times \frac{3}{4}" = 0.068$   
 "R"<sub>M</sub> =  $r \times T_M = 0.20 \times \frac{1}{4}" = 0.05$

The sum of all "R values" is:

$1.1 + 0.05 + 0.068 + 0.05 = 1.268$

This would be an acceptable combination of material for the hearth extension since the total calculated "R value" of the materials used exceeds the required "R value" of 1.19.

**WARNING: THE CRACK BETWEEN THE FIREPLACE AND THE HEARTH EXTENSION MUST BE SEALED WITH A NON-COMBUSTIBLE MATERIAL.**

**WARNING: FIREPLACE MUST BE RAISED IF THE HEIGHT OF THE HEARTH EXTENSION EXCEEDS 1 ½" (38mm) ABOVE THE BOTTOM OF THE FIREPLACE (FIGURE 54).**

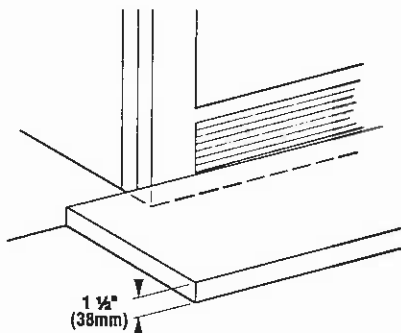


Figure 54

Secure the hearth extension to the floor to prevent possible shifting.

### FINISH TO YOUR TASTE

There are a wide variety of "finished looks" for these fireplaces, from formal wall decor with elaborate mantels to rustic wood paneling or warm brick facings.

Only noncombustible materials like stone, tile, brick, etc., may overlap the black front facing. Do not extend these materials beyond the black facing and into the firebox area. Be sure not to interfere with the installation and operation of glass doors or block the upper or lower grilles. Seal all joints between the black facing and wall surrounds to prevent air intrusion. Use non-combustible caulking material only to seal the black metal facing to the surround material on the finished wall.

Combustible materials may project beyond the sides of the fireplace opening as long as they are kept within the shaded areas illustrated in Figure 55.

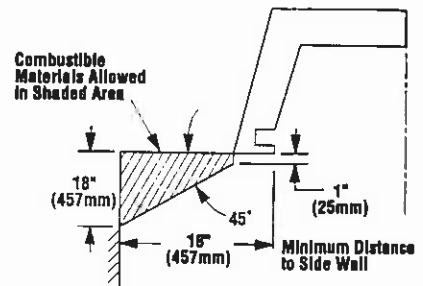
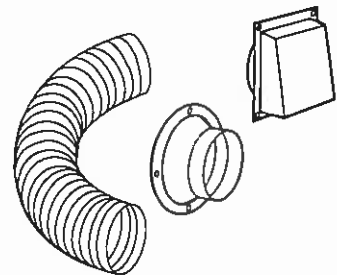


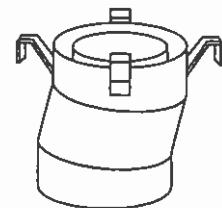
Figure 55

### INSTALLATION COMPONENTS

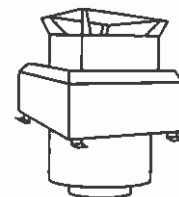
The following items are available for use in the installation of this appliance.



Outside Combustion Air Kits		
(with duct)	81L87	FOAK
(without duct)	81L88	FOAK-LD



Combination	63L28	FTF8-OR15
Offset/Return Elbow	63L34	FTF10-OR15



Chase Termination (Square)	63L51	FTF8-CT2
	63L52	FTF10-CT2


Model	Catalog Number	Weight
FirePlus-38	89L58	265 lbs.
FirePlus-43	89L59	275 lbs.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

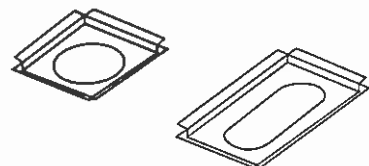
# INSTALLATION COMPONENTS



Round Termination	63L42	FTF8-CTD
	63L43	FTF10-CTD




Chimney Section	63L10	FTF8-12
	63L13	FTF8-18
	63L14	FTF8-36
	63L15	FTF8-48
	63L16	FTF10-12
	63L17	FTF10-18
Canada (Outside) Chimney Section	63L18	FTF10-36
	62L92	FTF8-18C
	62L93	FTF8-36C
Canada (Outside) Chimney Section	62L94	FTF10-18C
	62L95	FTF10-36C



Firestop Spacer	63L29	F8FS-2
	63L36	F10FS-2
Firestop Spacer (30°)	63L30	F8FS30-2
	63L37	F10FS30-2




Starter Section	63L72	FTF8-SS
-----------------	-------	---------



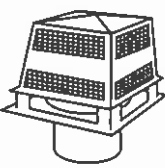
Flashing	63L38	F8F6
	63L39	F8F12
	63L40	F10F6
	63L41	F10F12



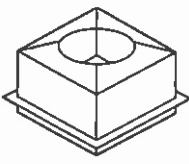
Locking Band	63L60	FLB
--------------	-------	-----



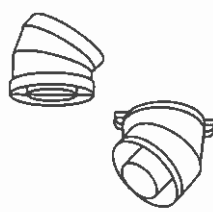
Storm Collar	63L59	FSC
--------------	-------	-----



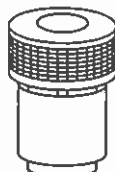
Chase Termination (Square)	63L48	FTF8-CT1
	63L49	FTF10-CT1



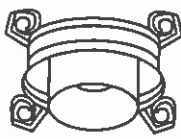
Attic Shield Assembly Firestop Spacer (Canada Only)	63L67	FTF8-FSAS
	63L68	FTF10-FSAS



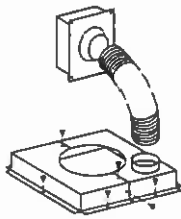
Offset/Return Package (30°)	63L22	FTF8-E830
	63L69	FTF8-E845C
	63L23	FTF10-E830



Chase Termination (Round)	63L45	FTF8-CTDT
	63L46	FTF10-CTDT



Stabilizer	63L25	FTF8-S4
	63L28	FTF10-S4



Cold Climate Kit (Canada Only)	63L63	FTF10-CCK1-LD
-----------------------------------	-------	---------------

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

LENNOX reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.

# LENNOX®

## HEARTH PRODUCTS

Printed in U.S.A. © 2001 by LENNOX  
P/N 850,007M REV. N/C 03/2001

4325 Artesia Avenue • Fullerton, CA 92833  
714-521-7302