

INSTALLATION INSTRUCTIONS

Installation Instructions

*For Superior's
BCF Series
And BRF Series
Fireplaces*

*Models
BCF-3885
BCF-4385
BRF-3875
And BRF-4375*

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.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.

BCF Series

BRF Series



U.L. Report No. MH8988

 **SUPERIOR.**
The Fireplace Company

BURNIE FIREPLACE SERVICES 858-513-3915

TABLE OF CONTENTS

Safety Rules	page 2
Tools and Building Supplies	page 3
Precautions	page 3
Introduction	page 3
General Information	page 3
Clearances/Height Requirements	page 3
Chimney System	page 3
Assembly Outline	page 4
Location of Fireplace	page 4
Assembly Steps	page 4
Installing the Fireplace	page 5
Fireplace Dimensions	page 6
Framing Dimensions	page 7
Installing the Chimney System	page 8
Ten Foot Rule Summary	page 10
Multiple Terminations	page 10
Chimney Component Calculations ...	page 11
Special Offset Instructions	page 11
Vertical Elevation Charts	page 12
Offset Elevation Charts	page 13
Offset Calculations	page 14
30° Offset Through Floor or Ceiling .	page 15
Optional Equipment	page 15
Collar Duct Kits	page 15
Glass Doors	page 15
Combustion Air Kit	page 15
Forced Air Kits	page 16
Variable Speed Wall Switch	page 16
Gas Line Installation	page 16
Cold Climate Insulation	page 16
Fireplace Finishes	page 16
Hearth Extensions/Wall Shields	page 16
Finish to Your Taste	page 18
Accessories/Components List	page 18

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. The 38" Superior models must be installed with either Model BC8 (8" inside diameter, 10" outer diameter) or TF8 (8" inside diameter, 12 1/2" outer diameter) Thru-Flow Chimney System only. The 43" models must be installed with either BC8, TF8 or TF10 (10" inside diameter, 15" outer diameter) Thru-Flow chimney systems only. These systems are intended for use as residential type appliances. 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 wood 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 a 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.

TYPICAL INSTALLATION

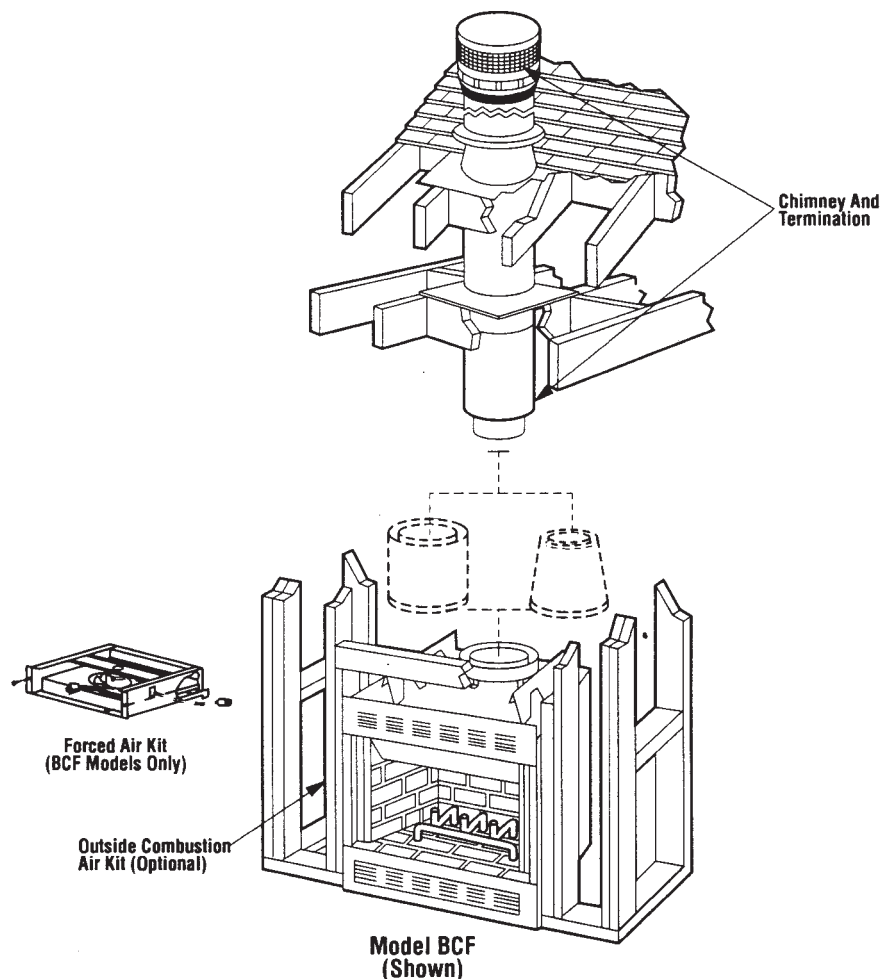


Figure 1

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

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, Superior's optional combustion air kit may not provide all the air required to support combustion. Superior 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 Superior for use with this fireplace. All gas log sets must be operated with the damper clamped open, including "vent free" log sets.

14. Superior Fireplace Company does not warranty "smoke free" operation, 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, supplied by Superior Fireplace Company, that have visible or suspected physical damage as a result of handling or transportation. These items should be inspected by a Superior distributor or qualified factory representative to ensure safe condition. When in doubt, consult your Superior distributor.

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 (non-combustible)
- Fireplace surround and
- Hearth extension materials (non-combustible)

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 Superior 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.

INTRODUCTION General Information

The BCF Series are wood-burning fireplaces featuring a self-contained heat-circulating system. A standard bar grate is also included to properly position the fire. Outside combustion air kits, decorative glass doors, forced air kits and the fan adapter kit are available as optional equipment.

The BRF Series are conventional radiant-heat fireplaces with a standard bar grate, optional outside combustion air kits and optional decorative glass doors.

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.*

The BRF and BCF Series Fireplaces have been tested and listed by Underwriters Laboratories, Inc. (File No. MH8988-1/91) to the U.L. 127 standard for U.S. installations. These systems are intended to be installed in residential homes and buildings of conventional construction, 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, Uniform Building Codes.

WARNING: FAILURE TO USE PARTS MANUFACTURED BY SUPERIOR FIREPLACE COMPANY OR VARIATIONS IN TECHNIQUES AND CONSTRUCTION MATERIALS DESCRIBED IN THIS MANUAL MAY CREATE A FIRE HAZARD AND VOID SUPERIOR'S LIMITED WARRANTY.

The BCF and BRF systems consist of six basic "sub-systems":

1. The Fireplace
2. The Chimney and Termination
3. The Optional Glass Doors
4. The Optional Forced Air Kits (BCF Series only)
5. The Optional Combustion Air Kits
6. The Optional Collar Duct Kits

CLEARANCES AND HEIGHT REQUIREMENTS

The fireplace may be placed on or near normal construction materials*. The combustion air kit, firestop spacer and roof flashings (not chase flashings) may be placed directly on or against normal construction materials*. The chimney requires a minimum 2" air space to combustibles (See ****Note**). A combustible mantle may be installed 12" above the opening of the fireplace as per NFPA 211, Section 7-3.3.3.

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.

Special restrictions apply to the front and facing of the fireplace and nearby walls (see pages 16, 17 and 18).

CHIMNEY SYSTEM

Superior's 38" manufactured fireplace Series BRF and BCF are designed and code listed for use with Superior's BC8 or TF8 Thru-Flow Chimney System. Superior's 43" models are designed and code listed for use with BC8, TF8 and TF10 Thru-Flow Chimney Systems. Always use Superior's Thru-Flow chimney components with these fireplaces. Do not modify or alter these components as this may cause a potential serious hazard and void Superior's Limited Warranty.

*Construction materials:

- framing materials
- particle board
- millboard
- plywood
- paneling
- dry wall
- flooring
- etc.

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

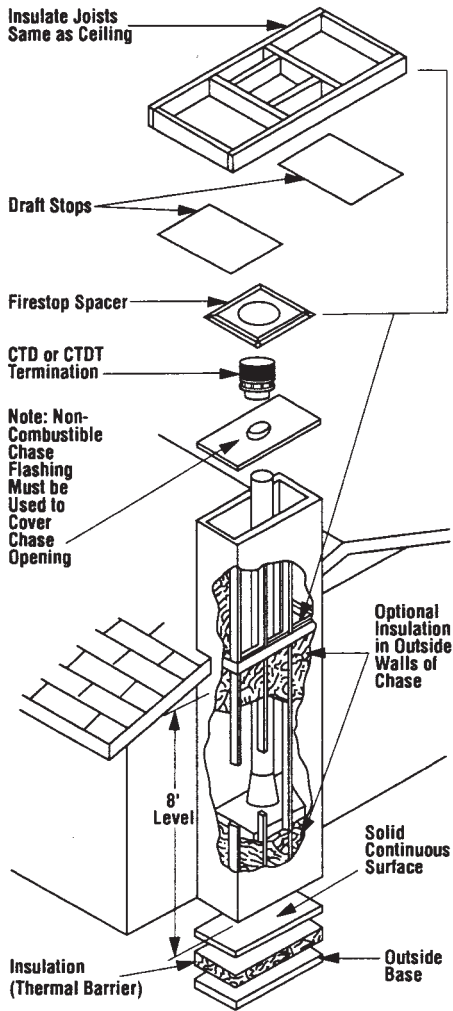


Figure 2

WARNING: IF INSULATION IS USED, THE FIREPLACE MUST NOT BE PLACED DIRECTLY AGAINST IT. INSULATION OR VAPOR BARRIERS, IF USED, MUST BE COVERED WITH GYPSUM BOARD, PLYWOOD, PARTICAL BOARD OR OTHER CONTAINMENT METHODS, SUCH AS STAPLING 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 BCF or BRF 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

Opening Width	38"	43"	43"
Chimney Type	BC8 or TF8	BC8 or TF8	TF10
Vertical Installation	12' 0"	16' 8"	15' 0"
One Offset	12' 0"	16' 8"	15' 0"
Two Offsets	25' 0"	25' 0"	25' 0"

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 flue damper handle extends down from the inside top of the fireplace; push in to close, pull out to open - takes firm pressure to lock closed.

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.

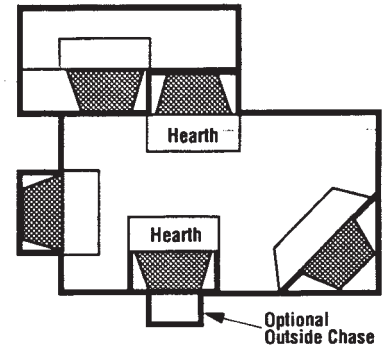


Figure 3

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.

If there is a continuous perpendicular side wall closer than 15' from the nearest side of any 38" fireplace opening or 18" from any 43" model, it must be protected with a 40" x 40" x 1/2" wall shield constructed of millboard or a durable non-combustible material with equal or greater insulating value than $k = 84\text{BTU-IN/FT}^2\text{HR-}^\circ\text{F}$ (see page 16). A continuous perpendicular side wall cannot be closer than 8" from the fireplace opening under any circumstances, even if protected.

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. Field wire main power supply to BCF models for fan kit and install CF-ADK adapter kit. (Electrical connections should only be performed by an experienced, licensed/certified tradesman.)

5. Plumb gas line if a decorative gas appliance will be used. (Gas connections should only be performed by an experienced, licensed/certified tradesman.)

6. Complete finish wall material, surround and hearth extension to your individual taste.

7. Assemble and attach optional glass door assembly.

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

INSTALLING THE FIREPLACE

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 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 and surround materials such as marble, brick, stone, etc., to be installed. Shipping weights for the fireplace and chimney may be found in the Suggested List Prices.
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. 2x6's, 2x8's or 2x10'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 HEAT-CIRCULATING AIR INLETS AND OUTLETS ON THE BCF MODELS. DOING SO MAY RESULT IN POTENTIAL A 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.

To Install

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

Step 2. Insert the metal safety strips, packaged with the fireplace, beneath the fireplace as illustrated (Figures 4 and 5). The safety strips should overlap 1" for continual coverage of the floor.

Note: Safety strips are not required when fireplace rests on a non-combustible surface.

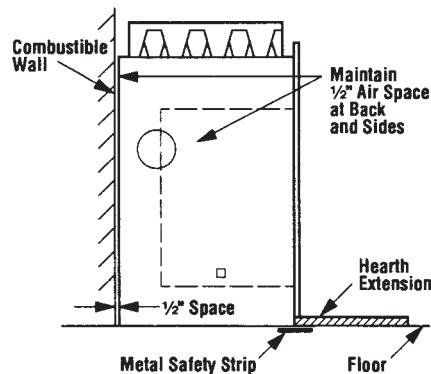


Figure 4

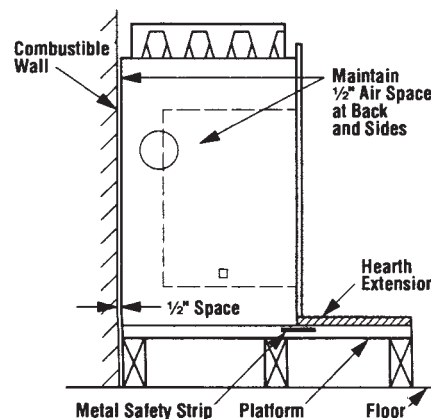


Figure 5

Note: Install the hearth extension only as illustrated.

The safety strips should extend from front and sides of the fireplace 2". 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 6 and 7). The safety strips should be tacked down to prevent possible movement.

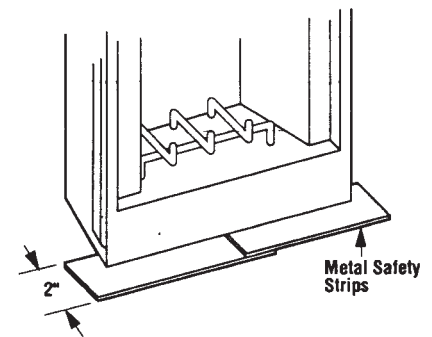


Figure 6

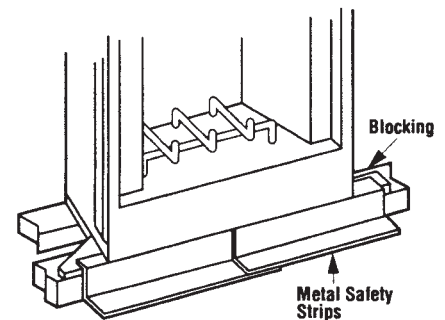


Figure 7

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

Step 3. Refer to fireplace drawings and specifications on pages 6 and 7 for framing dimensions and details. Framing header may be positioned directly on the fireplace top spacers.

IMPORTANT: UNDER NO CIRCUMSTANCES CAN THE FIREPLACE TOP SPACERS 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.

Step 4. Fireplace may be anchored to 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 8).

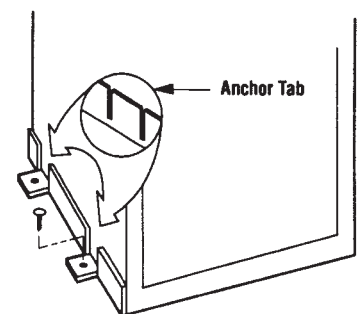
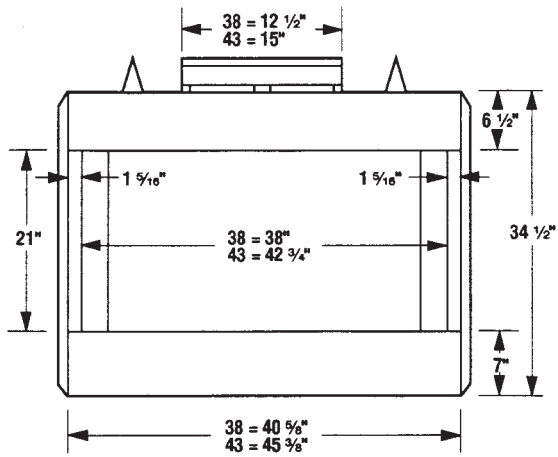


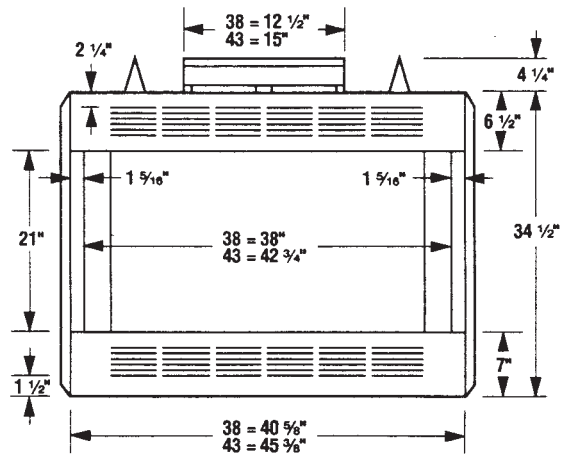
Figure 8

FIREPLACE DIMENSIONS



BRF Models

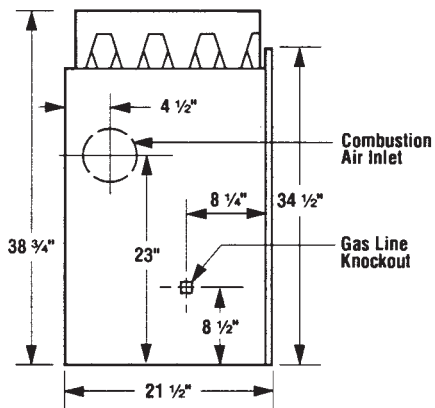
Figure 9



BCF Models

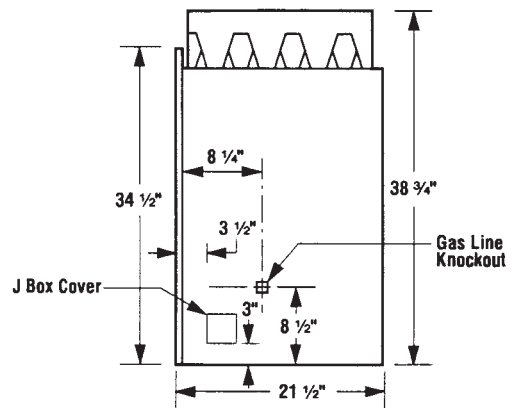
Figure 11

Note: If you will be installing glass doors, refer to page 20 for clearance requirements.



Left Side

Figure 10



Right Side

Figure 12

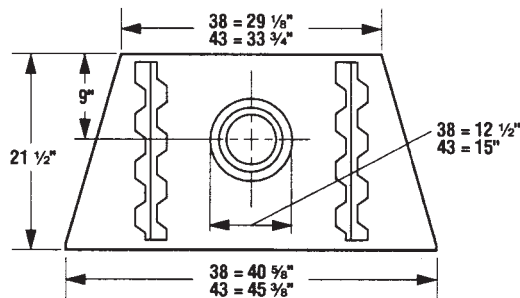


Figure 13

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

FRAMING DIMENSIONS

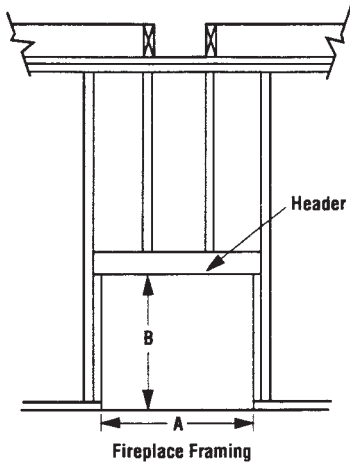


Figure 14

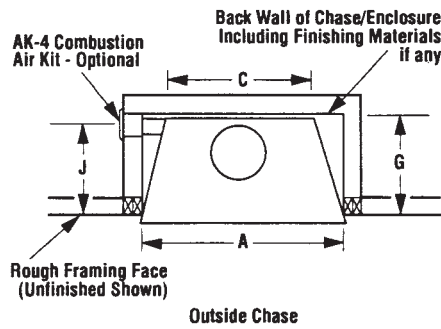


Figure 16

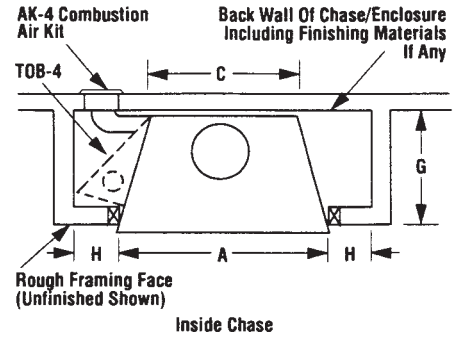


Figure 18

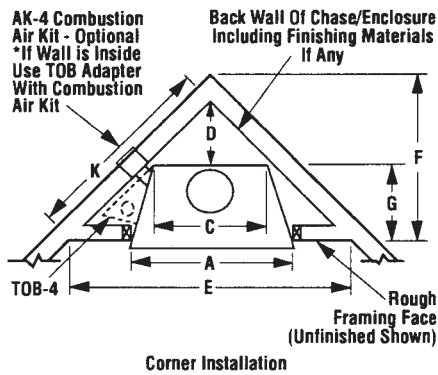


Figure 15

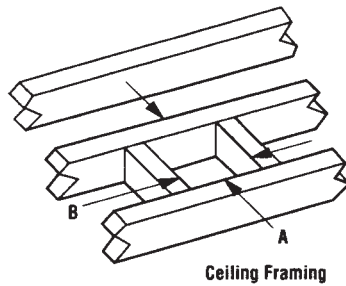


Figure 17

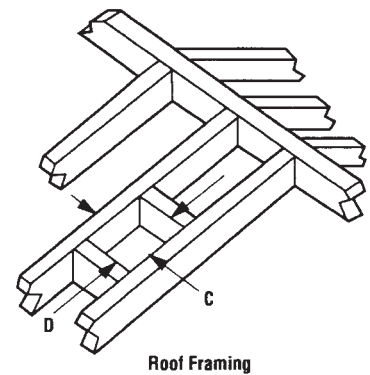


Figure 19

Framing Dimensions for BRF and BCF Series

Opening	38"	43"
A	40 3/4"	45 1/2"
B	39"	39"
C	29"	33 3/4"
D	14 1/2"	16 7/8"
E	71 3/4"	76 1/2"
F	35 7/8"	38 1/4"
G	21 3/8"	21 3/8"
H	8"	8"
J	17"	17"
K	50 3/4"	54"

Framing Dimensions for Ceiling

Flue Type	A	B
BC8 Vertical	14 1/2"	14 1/2"
BC8 Offset 30°	14 1/2"	25"
TF8 Vertical	14 1/2"	14 1/2"
TF8 Offset 30°	14 1/2"	25"
TF8 Vertical at 2"	16 1/2"	16 1/2"
TF8 Offset 30° at 2"	16 1/2"	27"
TF10 Vertical	17"	17"
TF10 Offset 30°	17"	26"

Framing Dimensions for Roof

Pitch	TF8 at 1"		TF8 at 2"	
	C	D*	C	D*
0/12	14 1/2"	14 1/2"	16 1/2"	16 1/2"
6/12	14 1/2"	17"	16 1/2"	19"
12/12	14 1/2"	21 1/2"	16 1/2"	23 1/2"
Pitch	TF10 at 1"		BC8 at 2"	
	C	D*	C	D*
0/12	17"	17"	14 1/2"	14 1/2"
6/12	17"	19"	14 1/2"	17"
12/12	17"	24"	14 1/2"	21 1/2"

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

*Perpendicular to Roof Ridge

Step 5. Fireplace should be secured to side framing members using nailing flanges. Use 8d nails (Figure 20).

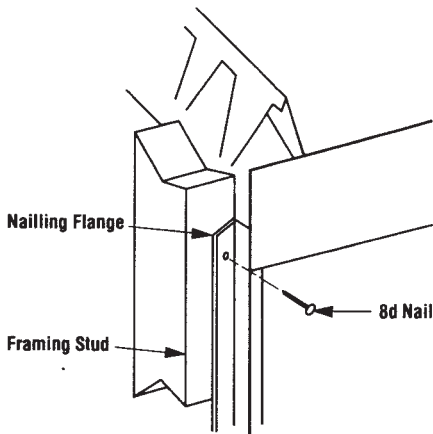


Figure 20

Note: The nailing flange and the area directly behind the nailing flange is exempt from the clearances described on the fireplace clearance label.

INSTALLING THE CHIMNEY SYSTEM

Step 1. Check flue damper for proper operation. When the damper is in the fully closed position, the damper control lever is pushed all the way to the rear of the firebox. When the damper is in the fully open position, the damper control lever is pulled all the way to the front of the firebox.

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.

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

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

Reference Figures 17 and 19 and charts Framing Dimensions for Ceiling and Roof, which specify minimum ceiling and roof dimensions.

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

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 21). Then plumb from ceiling or roof level directly above hole which has just been completed.

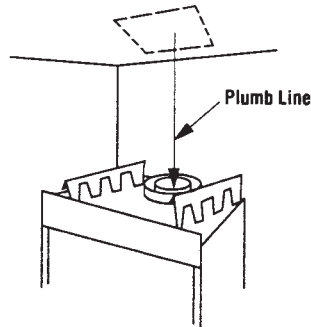


Figure 21

Note: If Desired the optional collar duct kit, Model TF8-CDK or TF10-CDK, should be installed after the chimney has been attached to the flue collar.

Step 3. Position appropriate firestop spacer at ceiling and nail temporarily with two (2) 8d nails. Use flat firestop spacer, Model BC8-FS, 8FS or 10FS, if chimney penetrates ceiling vertically (See *Note). If chimney penetrates ceiling at 30° angle (offset chimney), use 30° firestop spacer, Model BC8-FS30, 8FS30 or 10FS30 (See *Note). 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 22 and 23).

***Note:** Use Models 8FS-2 and 8FS30-2 to maintain 2" clearance when installing TF8 chimney on 43" fireplaces.

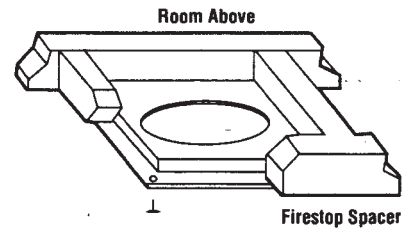


Figure 22

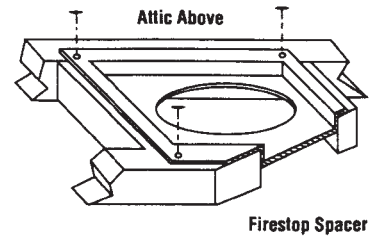


Figure 23

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

The BC8, TF8 and TF10 chimney systems are two piece chimneys, which snap together from the fireplace up. Start with the inner flue section. With the lanced end up, snap lock it into 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 succeeding sections. 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 24).

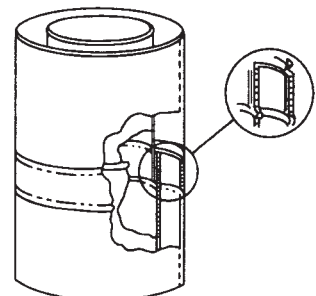


Figure 24

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 25).

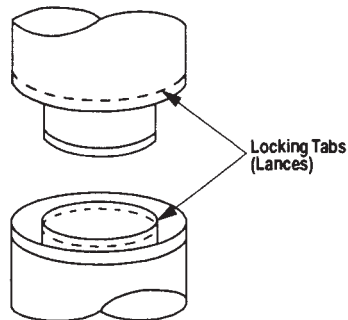


Figure 25

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 26). Always maintain 2" minimum air space to combustible materials and always check each chimney joint (inner and outer) to ensure proper engagement (See ****Note**). Check vertical alignment of chimney so that it projects from the roof in true vertical position.

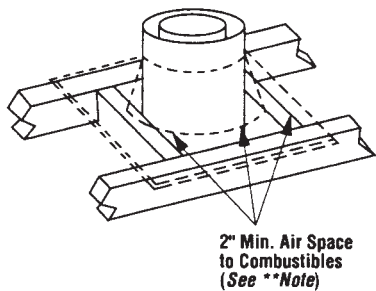


Figure 26

Superior chimney sections should not be screwed together, and it is not required for additional reinforcement.

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 an S4 stabilizer installed at 30' intervals.

Note: Models BC8-S4, TF8-S4 and TF10-S4 add 3" net effective height to the total chimney system.

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

Install Model BC8-S4, TF8-S4 or TF10-S4 stabilizer by fitting inner section down preceding inner 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.

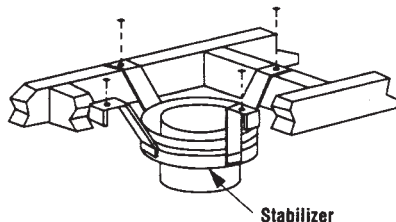


Figure 27

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 proper Superior roof flashing based on pitch of roof. Use chart below for selection:

Roof Pitch	BC8	TF8	TF10
Flat to 6/12	BC8-F6	8F6	10F6
6/12 to 12/12	BC8-F12	8F12	10F12

Next, slide roof flashing over last chimney section installed above the roof opening in Step 4. BC8 flashings require spacers. Slide flashing all the way down until the flashing base rests flat on the roof (Figure 28). Again, check the vertical position of the chimney and the 2" minimum air space to combustibles (See ****Note**).

Note: Do not caulk or seal the ventilating openings in the BC8 roof flashings.

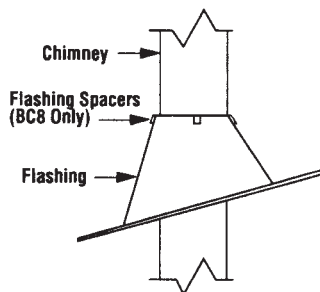


Figure 28

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

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 29).

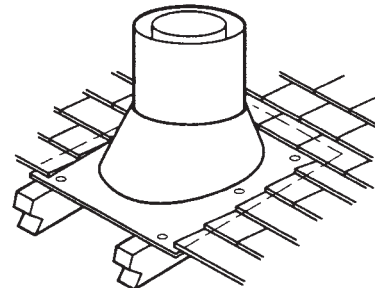


Figure 29

Step 8. The standard Superior roof flashing assemblies include a storm collar. Slide storm collar over outer chimney, 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 where storm collar meets flashing and to the tab/slot area to seal completely against water penetration (Figure 30). Check all joints very carefully to ensure no water intrusion can take place.

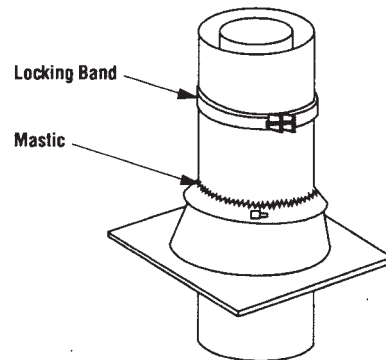


Figure 30

Step 9. Superior locking bands, Model LB, 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 nut provided and TIGHTEN snugly. Do not over-tighten as this might damage chimney section (Figure 30).

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 31). Guy wires are not supplied by Superior.

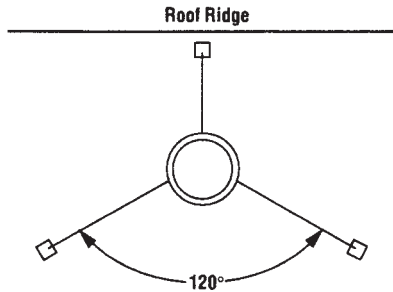


Figure 31

Step 10. Using a CTD Round Termination:

1. Hold CTD over top of the last chimney section (Figure 32).
2. Center inner slip section in the inner flue pipe and slip down.
3. Center outer locking section over the outer flue pipe. Push down until the locking tabs are firmly engaged.
4. Pull up slightly on CTD to ensure locking joint has firmly engaged.

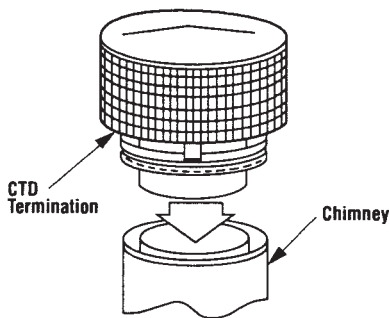


Figure 32

Note: Special galvanized over-dipped CTD terminations and CTD terminations are available for installations susceptible to corrosive environments. Contact your distributor or Superior Customer Service for pricing and availability.

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

Using a CT1 Chase Termination

Refer to specific installation instructions included with CT1 chase termination for clearance statements and installation details.

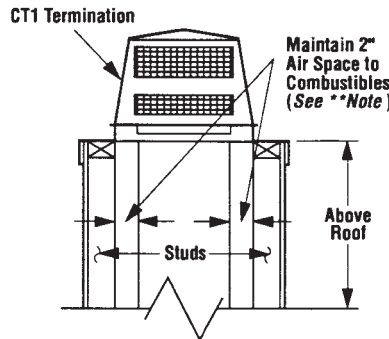


Figure 33

Using a TF8 or TF10-CT2 Chase Termination

Refer to specific installation instructions included with the CT2 chase terminations for clearance statements and installation details.

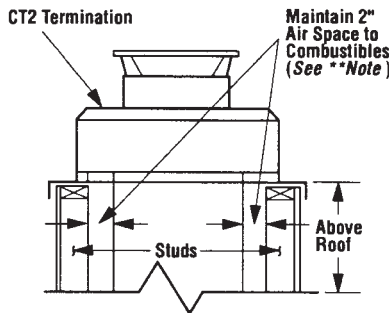


Figure 34

Using a CTDT Chase Termination

Refer to specific installation instructions included with the CTDT chase termination for details.

Note: It is recommended that all exterior exposed related 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 manufacturers 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 (Figure 36).

MULTIPLE TERMINATIONS

If more than one termination is located in the same chase or within the same general proximity, it is suggested 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 35).

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.

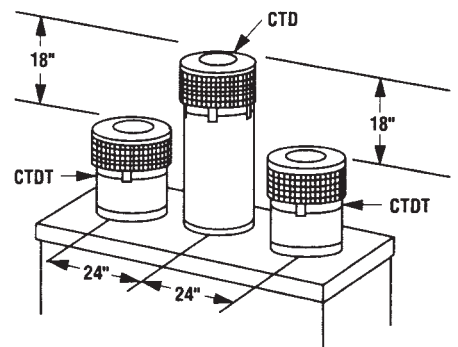


Figure 35

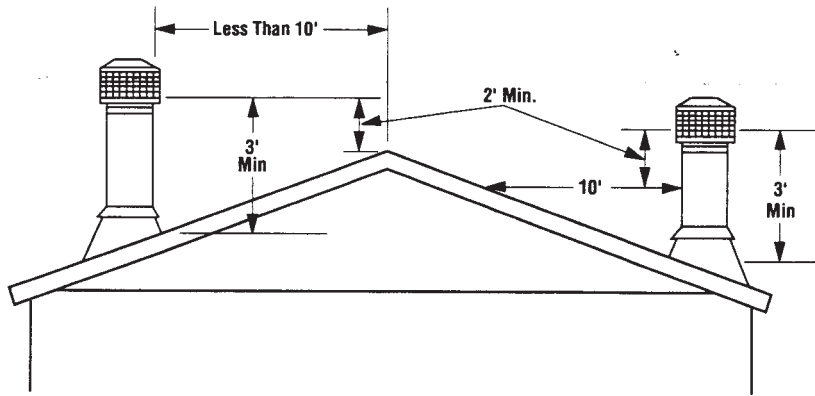


Figure 36

CHIMNEY COMPONENT CALCULATIONS

The minimum installed height of the BRF-3875 and BCF-3885 Series Fireplace Systems is 12'. The minimum installed height of the BRF-4375 and BCF-4385 Series Fireplace Systems is 15'. The maximum height for all systems is 80'.

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

1. Determine total vertical height of the fireplace installation. This dimension is the distance 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	=	38"
SS Starter Section	=	19 1/4"
BC8/TF8/10-12	=	10 1/4"
BC8/TF8/10-18	=	16 1/4"
BC8/TF8/10-36	=	34 1/4"
BC8/TF8-48	=	46 1/4"
CTD Termination	=	4"
CT1 Termination	=	12' to 18'
CT2 Termination	=	15' to 23'
CTDT Termination	=	12' to 18'
S4 Stabilizer *	=	3"

* Required for every 30' 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 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 Superior 30° offset and return elbows. Use two elbows - an offset elbow to initiate the offset and a return elbow to terminate it.

The offset and return elbows may be attached together, or a section(s) of chimney may be used between them, but must not exceed 20' in total length between elbows (Figure 41). A 30° offset elbow, angling in any direction, may be the first component used off the top of the fireplace flue collar.

When offsetting directly off the 43" systems, always use a TF10-30 offset elbow. A starter section, Model BC8-SS or TF8-SS, must then be used as a transition to the BC8 or TF8 chimney system.

If sections of pipe exceed 10' between elbows, a chimney stabilizer must be used at the 10' point. 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 42). Example: If $C_1 = 10'$, then C_2 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 37).

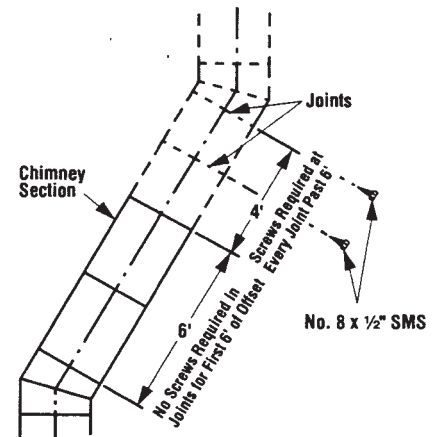


Figure 37

A 1/8" diameter hole must be drilled in the chimney joint using a 1/8" diameter drill. Hole should be drilled in the center of the joint overlap (Figure 38). Be sure to drill only through the outer chimney casting. Do not puncture the inner flue.

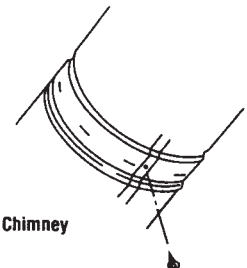


Figure 38

Maximum offset angle of chimney system is 30°. Two offsets must not be assembled to form a 60° angle offset. However, two sets of offset and return elbows may be used in a single flue system, provided the total height of the system exceeds 25' (Figure 43).

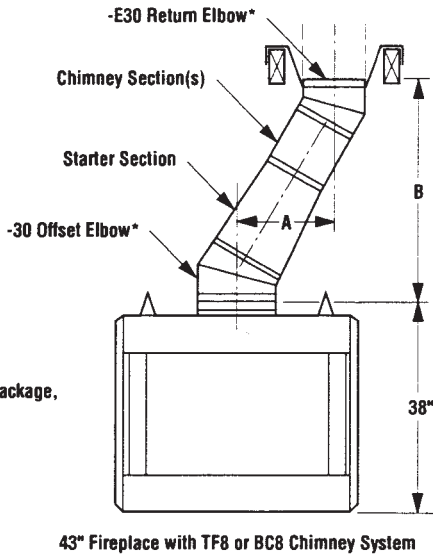
Return elbow support straps must be securely attached under tension (in shear) to structural framing members above. Do not substitute a BC8-30, TF8-30 or TF10-30 offset elbow in place of a BC8-E30, TF8-E30 or TF10-E30 return elbow.

BC8/TF8 VERTICAL ELEVATION CHART

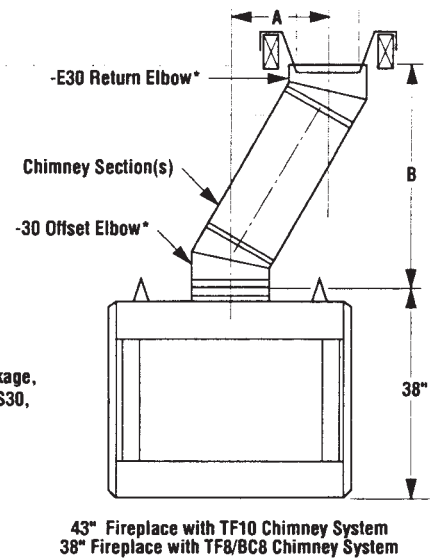
Height Of Chimney Only		Number Of BC8/TF8 Chimney Lengths				Height Of Chimney Only		Number Of BC8/TF8 Chimney Lengths				Height Of Chimney Only		Number Of BC8/TF8 Chimney Lengths			
Inches	Feet/Inches	12"	18"	36"	48"	Inches	Feet/Inches	12"	18"	36"	48"	Inches	Feet/Inches	12"	18"	36"	48"
11	0 11	1	0	0	0	185 1/2	15 5 1/2	0	0	0	4	344 1/2	28 8 1/2	2	0	0	7
17	1 5	0	1	0	0	189 3/4	15 9 3/4	0	1	1	3	350 1/2	29 2 1/2	1	1	0	7
21 1/4	1 9 1/4	2	0	0	0	195 3/4	16 3 3/4	1	0	0	4	358 1/4	29 10 1/4	0	0	1	7
27 1/4	2 3 1/4	1	1	0	0	201 3/4	16 9 3/4	0	1	0	4	368 1/2	30 8 1/2	1	0	1	7
35	2 11	0	0	1	0	206	17 2	2	0	0	4	370 1/4	30 10 1/4	0	0	0	8
47	3 11	0	0	0	1	212	17 8	1	1	0	4	374 1/2	31 2 1/2	0	1	1	7
51 1/4	4 3 1/4	0	1	1	0	219 3/4	18 3 3/4	0	0	1	4	380 1/2	31 8 1/2	1	0	0	8
57 1/4	4 9 1/4	1	0	0	1	230	19 2	1	0	1	4	386 1/2	32 2 1/2	0	1	0	8
63 1/4	5 3 1/4	0	1	0	1	231 3/4	19 3 3/4	0	0	0	5	390 3/4	32 6 3/4	2	0	0	8
67 1/4	5 7 1/4	2	0	0	1	236	19 8	0	1	1	4	396 3/4	33 0 3/4	1	1	0	8
73 1/4	6 1 1/4	1	1	0	1	242	20 2	1	0	0	5	404 1/2	33 8 1/2	0	0	1	8
81 1/4	6 9 1/4	0	0	1	1	248	20 8	0	1	0	5	414 3/4	34 6 3/4	1	0	1	8
93 1/4	7 9 1/4	0	0	0	2	252	21 0	2	0	0	5	416 1/2	34 8 1/2	0	0	0	9
97 1/4	8 1 1/4	0	1	1	1	258	21 6	1	1	0	5	420 3/4	35 0 3/4	0	1	1	8
102 1/2	8 6 1/2	1	0	0	2	266	22 2	0	0	1	5	426 3/4	35 6 3/4	1	0	0	9
109 1/4	9 1 1/4	0	1	0	2	276	23 0	1	0	1	5	432 3/4	36 0 3/4	0	1	0	9
113 1/2	9 5 1/2	2	0	0	2	278	23 2	0	0	0	6	437	36 5	2	0	0	9
119 1/2	9 11 1/2	1	1	0	2	282	23 6	0	1	1	5	443	36 11	1	1	0	9
127 1/4	10 7 1/4	0	0	1	2	288	24 0	1	0	0	6	450 3/4	37 6 3/4	0	0	1	9
137 1/2	11 5 1/2	1	0	1	2	294 3/4	24 6 3/4	0	1	0	6	461	38 5	1	0	1	9
139 1/4	11 7 1/4	0	0	0	3	298 1/4	24 10 1/4	2	0	0	6	462 3/4	38 6 3/4	0	0	0	10
143 1/2	11 11 1/2	0	1	1	2	304 1/4	25 4 1/4	1	1	0	6	466 3/4	38 10 3/4	0	1	1	9
149 1/2	12 5 1/2	1	0	0	3	312	26 0	0	0	1	6	472 3/4	39 4 3/4	1	0	0	10
155 1/2	12 11 1/2	0	1	0	3	322 1/4	26 10 1/4	1	0	1	6	478 3/4	39 10 3/4	0	1	0	10
159 3/4	13 3 3/4	2	0	0	3	324	27 0	0	0	0	7	483	40 3	2	0	0	10
165 3/4	13 9 3/4	1	1	0	3	328 1/4	27 4 1/4	0	1	1	6	489	40 9	1	1	0	10
173 1/2	14 5 1/2	0	0	1	3	334 1/4	27 10 1/4	1	0	0	7	496 3/4	41 4 3/4	0	0	1	10
183 3/4	15 3 3/4	1	0	1	3	340 1/4	28 4 1/4	0	1	0	7	507	42 3	1	0	1	10

TF10 VERTICAL ELEVATION CHART

Height Of Chimney Only		Number Of TF10 Chimney Lengths			Height Of Chimney Only		Number Of TF10 Chimney Lengths			Height Of Chimney Only		Number Of TF10 Chimney Lengths			Height Of Chimney Only		Number Of TF10 Chimney Lengths		
Inches	Feet/Inches	12"	18"	36"	Inches	Feet/Inches	12"	18"	36"	Inches	Feet/Inches	12"	18"	36"	Inches	Feet/Inches	12"	18"	36"
11	0 11	1	0	0	123 3/4	10 3 3/4	2	0	3	260 1/2	21 8 1/2	2	0	7	397 1/4	33 1 1/4	2	0	11
17	1 5	0	1	0	129 3/4	10 9 3/4	1	1	3	266 1/2	22 2 1/2	1	1	7	403 1/4	33 7 1/4	1	1	11
21 1/4	1 9 1/4	2	0	0	137 1/2	11 5 1/2	0	0	4	274 1/4	22 10 1/4	0	0	8	411	34 3	0	0	12
27 1/4	2 3 1/4	1	1	0	147 3/4	12 3 3/4	1	0	4	284 1/2	23 8 1/2	1	0	8	421 1/4	35 1 1/4	1	0	12
33 1/4	2 9 1/4	0	2	0	153 3/4	12 9 3/4	0	1	4	290 1/2	24 2 1/2	0	1	8	427 1/4	35 7 1/4	0	1	12
35	2 11	0	0	1	158	13 2	2	0	4	294 3/4	24 6 3/4	2	0	8	431 1/2	35 11 1/2	2	0	12
37 1/4	3 1 1/4	2	1	0	164	13 8	1	1	4	300 3/4	25 0 3/4	1	1	8	437 1/2	36 5 1/2	1	1	12
43 1/4	3 7 1/4	1	2	0	171 3/4	14 3 3/4	0	1	5	308 1/2	25 8 1/2	0	0	9	445 1/4	37 1 1/4	0	0	13
51 1/4	4 3 1/4	0	1	1	182	15 2	1	0	5	318 3/4	26 8 3/4	1	0	9	455 1/2	37 11 1/2	1	0	13
55 1/4	4 7 1/4	2	0	1	188	15 8	0	1	5	324 3/4	27 0 3/4	0	1	9	461 1/2	38 5 1/2	0	1	13
61 1/4	5 1 1/4	1	1	1	192	16 0	2	0	5	328 3/4	27 4 3/4	2	0	9	465 1/2	38 9 1/2	2	0	13
67 1/4	5 7 1/4	0	2	1	198	16 6	1	1	5	334 3/4	27 10 3/4	1	1	9	471 1/2	39 3 1/2	1	1	13
69 1/4	5 9 1/4	0	0	2	206	17 2	0	0	6	342 3/4	28 6 3/4	0	0	10	479 1/2	39 11 1/2	0	0	14
79 1/4	6 7 1/4	1	0	2	215 3/4	17 11 3/4	1	0	6	352 3/4	29 4 3/4	1	0	10	489 1/2	40 9 1/2	1	0	14
85 1/4	7 1 1/4	0	1	2	222	18 6	0	1	6	358 3/4	29 10 3/4	0	1	10	495 1/2	41 3 1/2	0	1	14
89 1/2	7 5 1/2	2	0	2	226 1/4	18 10 1/4	2	0	6	363	30 3	2	0	10	499 3/4	41 7 3/4	2	0	14
95 1/2	7 11 1/2	1	1	2	232 1/4	19 4 1/4	1	1	6	369	30 9	1	1	10	505 3/4	42 1 3/4	1	1	14
103 1/4	8 7 1/4	0	0	3	240	20 0	0	0	7	376 3/4	31 4 3/4	0	0	11	513 1/2	42 9 1/2	0	0	15
113 1/2	9 5 1/2	1	0	3	250 1/4	20 10 1/4	1	0	7	387	32 3	1	0	11	523 3/4	43 7 3/4	1	0	15
119 1/2	9 11 1/2	0	1	3	256 1/4	21 4 1/4	0	1	7	393	32 9	0	1	11	529 3/4	44 1 3/4	0	1	15



* Part of Offset/Return Package, Model TF10/8-ES30 or TF10/BC8-ES30.



* Part of Offset/Return Package, Model TF10-ES30, TF8-ES30, or BC8-ES30.

Figure 39

Figure 40

**BC8/TF8 OFFSET ELEVATION CHART
(with BC8/TF8-SS Starter Section)**

A Offset (Inches)	B Height (Inches)	ES30 Offset/Return Elbow Set	SS Starter Section	S4 Stabilizer	Number of Chimney Sections			
					12"	18"	36"	48"
14	32 1/2	1	1	0	0	0	0	0
19	41 1/4	1	1	0	1	0	0	0
22	46 1/2	1	1	0	0	1	0	0
24 1/4	50 1/4	1	1	0	2	0	0	0
27 1/4	55 1/4	1	1	0	1	1	0	0
30 1/4	60 1/2	1	1	0	0	2	0	0
31	62	1	1	0	0	0	1	0
32 1/4	64 1/4	1	1	0	2	1	0	0
35 1/4	69 1/4	1	1	0	1	2	0	0
36 1/4	71	1	1	0	1	0	1	0
37	72 1/2	1	1	0	0	0	0	1
38 1/4	74 1/2	1	1	0	0	3	0	0
39 1/4	76	1	1	0	0	1	1	0
41 1/2	79 3/4	1	1	0	2	0	1	0
42 1/4	81 1/4	1	1	0	1	0	0	1
44 1/4	85	1	1	0	1	1	1	0
45 1/4	86 1/2	1	1	0	0	1	0	1
47 1/4	90	1	1	0	0	2	1	0
48 1/4	91 3/4	1	1	0	0	0	2	0
49 1/4	93 3/4	1	1	0	2	1	1	0
51 1/2	97 1/4	1	1	0	1	4	0	0
53 1/4	100 1/2	1	1	0	1	0	2	0
54 1/4	102	1	1	0	0	0	1	1
55 1/2	104 1/4	1	1	0	0	3	1	0
56 1/4	105 3/4	1	1	0	0	1	2	0
58 1/4	109 3/4	1	1	0	2	0	2	0
59 1/4	111	1	1	0	1	0	1	1
60 1/4	112 1/2	1	1	0	0	0	0	2
61 1/4	114 1/2	1	1	1	1	1	2	0
66 1/2	123	1	1	1	0	2	2	0
67 1/2	124 3/4	1	1	1	1	0	0	2
68 3/4	126 3/4	1	1	1	2	1	2	0
70 1/2	129 3/4	1	1	1	0	1	0	2
72 1/2	133 1/2	1	1	1	1	0	3	0
75 1/2	138 3/4	1	1	1	0	1	3	0
77 3/4	142 1/4	1	1	1	2	0	3	0
79 1/2	145 1/2	1	1	1	0	0	1	2
80 3/4	147 1/2	1	1	1	1	1	3	0
83 3/4	152 3/4	1	1	1	0	2	3	0
85 1/2	155 3/4	1	1	1	0	0	0	3
89 3/4	163	1	1	1	1	0	4	0
90 1/2	164 3/4	1	1	1	1	0	0	3
92 3/4	168 1/4	1	1	1	0	1	4	0
93 1/2	169 3/4	1	1	1	0	1	0	3

BC8/TF8/TF10 OFFSET ELEVATION CHART

A Offset (Inches)	B Height (Inches)	ES30 Offset/Return Elbow Set	S4 Stabilizer	Number of Chimney Sections			
				12"	18"	36"	48**
4	15 3/4	1	0	0	0	0	0
9	24 1/2	1	0	1	0	0	0
12	29 3/4	1	0	0	1	0	0
14 1/4	33 1/2	1	0	2	0	0	0
17 1/4	38 1/2	1	0	1	1	0	0
20 1/4	43 3/4	1	0	0	2	0	0
21	45 1/4	1	0	0	0	1	0
22 1/4	47 1/2	1	0	2	1	0	0
25 1/4	52 1/2	1	0	1	2	0	0
26 1/4	54 1/4	1	0	1	0	1	0
27	55 3/4	1	0	0	0	0	1
28 1/4	57 3/4	1	0	0	3	0	0
29 1/4	59 1/4	1	0	0	1	1	0
31 1/4	63	1	0	2	0	1	0
32 1/4	64 1/2	1	0	1	0	0	1
34 1/4	68 1/4	1	0	1	1	1	0
35 1/4	69 3/4	1	0	0	1	0	1
37 1/4	73 1/4	1	0	0	2	1	0
38 1/4	75	1	0	0	0	2	0
39 1/4	77	1	0	2	1	1	0
41 1/2	80 1/2	1	0	1	4	0	0
43 1/4	83 3/4	1	0	1	0	2	0
44 1/4	85 1/4	1	0	0	0	1	1
45 1/4	87 1/2	1	0	0	3	1	0
46 1/4	89	1	0	0	1	2	0
48 1/4	91 1/2	1	0	2	0	2	0
49 1/4	94 1/4	1	0	1	0	1	1
50 1/4	95 3/4	1	0	0	0	0	2
51 1/4	97 3/4	1	0	1	1	2	0
54 1/4	103	1	0	0	2	2	0
55 1/4	104 1/2	1	0	1	0	0	2
56 1/2	106 1/2	1	0	2	1	2	0
58 1/4	109 3/4	1	0	0	1	0	2
62 1/2	116 3/4	1	1	1	0	3	0
65 1/2	122	1	1	0	1	3	0
67 3/4	125 1/2	1	1	2	0	3	0
69 1/2	128 3/4	1	1	0	0	1	2
70 3/4	130 3/4	1	1	1	1	3	0
73 3/4	136	1	1	0	2	3	0
75 1/2	139	1	1	0	0	0	3
79 3/4	146 1/4	1	1	1	0	4	0
80 3/4	148	1	1	1	0	0	3
82 3/4	151 1/2	1	1	0	1	4	0
83 1/2	153	1	1	0	1	0	3

* 48" chimney sections are not available with the TF10 system.

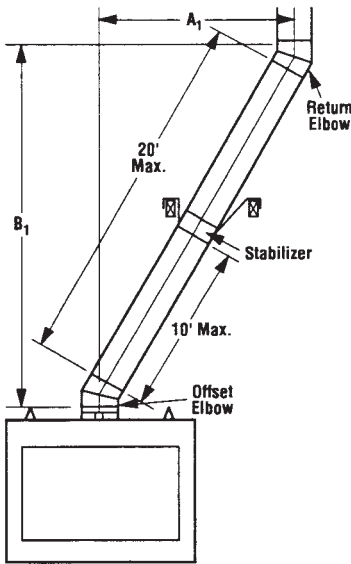


Figure 41

OFFSET CALCULATIONS

1. Use the appropriate Offset Chart to determine amount of horizontal offset (A) and height (B) for various chimney section assemblies.
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.
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 22 and 23 and stabilizers as shown in Figure 27.

TO INSTALL OFFSETS

First, review the appropriate Offset Elevation Chart and Figure 39 or 40 on page 12 and 13 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 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.

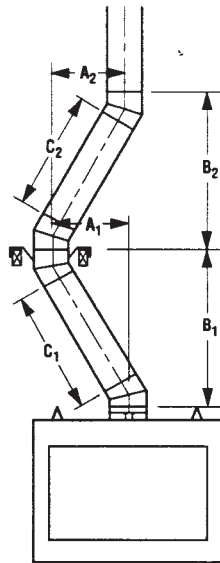


Figure 42

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 below chimney pipe. Push down until locking joint has firmly engaged.

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.

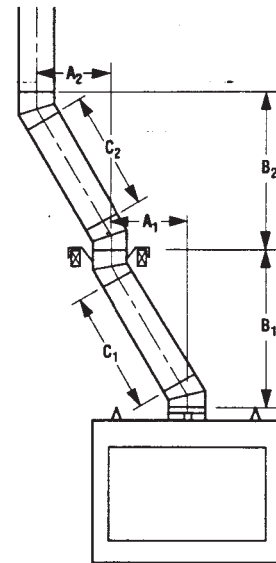


Figure 43

Step 5. Secure support straps to framing members by nailing under tension in shear.

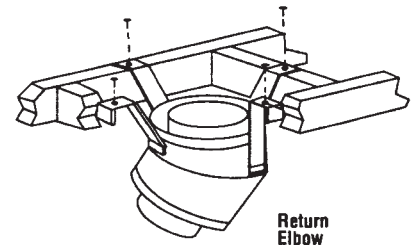


Figure 44

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

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.

BC8-OR15, TF8-OR15 AND TF10-OR15 OFFSET/RETURN ELBOWS

Primarily used when fireplace penetrates a 6" thick wall. Refer to installation instructions packed with Model BC8-OR15, TF8-OR15, or TF10-OR15 offset/return elbows for proper usage. These components provide for a 2 1/2" offset.

CHIMNEY OFFSET 30° THROUGH FLOOR OR CEILING

It may be necessary to assemble the chimney at 30° when passing through the floor or ceiling area. Use appropriate 30° angled firestop spacer as shown in *Figures 45 and 46*. Support the chimney at floor or ceiling penetration with a stabilizer if distance of chimney below ceiling is 10' or more. Maintain 2" minimum air space to combustibles from chimney sections (See ****Note**).

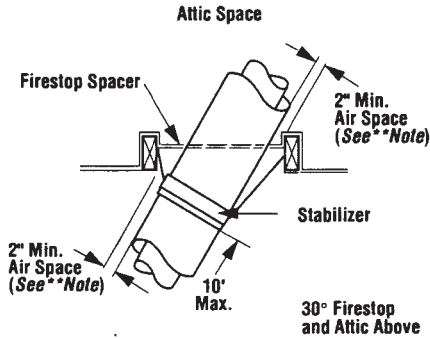


Figure 45

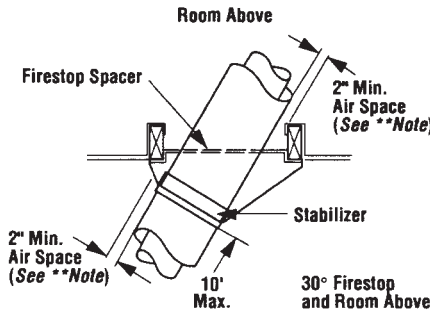


Figure 46

OPTIONAL EQUIPMENT Collar Duct Kit

Refer to the installation instructions (P/N 097881) provided with the collar duct kits, Models TF8-CDK and TF10-CDK, for proper usage.

Glass Doors

If glass doors are to be installed on BRF and BCF Series fireplaces, refer to specific installation instructions packed with the glass doors. Superior glass doors, Model numbers 38BF, 43BF, 38BF-PB, 43BF-PB, 38BF-SPB, 43BF-SPB, 38BF-ABR, 43BF-ABR, 38C-SPB, 43C-SPB, 38SBF-BR, 43SBF-BR, Sonata 38, and Sonata 43 are for use on these Superior factory-built fireplaces. Use of any non-listed glass doors on these fireplaces may constitute a potential fire hazard and must not be used.

CAUTION: DO NOT ATTEMPT TO TOUCH THE DOORS WITH YOUR HANDS WHILE THE FIREPLACE IS IN USE. ALWAYS USE DOOR HANDLES. DOORS WILL BECOME VERY HOT WHEN FIREPLACE IS IN USE.

WARNING: FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH THE DOORS FULLY OPEN OR FULLY CLOSED.

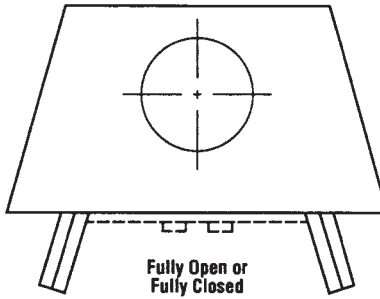


Figure 47

CAUTION: CERTAIN GLASS DOORS OVERLAP THE BLACK METAL FACING OF THE FIREPLACE. IF THE FIREPLACE HAS BEEN FACED WITH NON-COMBUSTIBLE MATERIALS, THERE MIGHT NOT BE SUFFICIENT CLEARANCE TO INSTALL THE GLASS DOORS OF YOUR CHOICE. ENSURE ADEQUATE CLEARANCE IS MAINTAINED AT ALL TIMES SO AS NOT TO INTERFERE WITH THE INSTALLATION AND OPERATION OF GLASS DOORS.

Combustion Air Kit

Use combustion air kit, Model AK-4 or AK4-LD, with the BCF and BRF Series fireplaces. Refer to installation instructions packed with the air kits for specific installation information. The outside air kit must be installed before the fireplace is framed and enclosed in the finished walls.

Outside air drawn into the fireplace supplies air to the fire for combustion. Only one combustion air duct on the left side of the fireplace is necessary if installed.

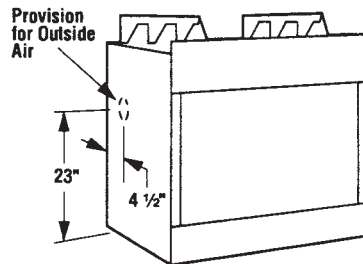


Figure 48

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

If additional length of duct is necessary, purchase locally available Type 0 or 1 metallic duct. The duct may extend up to 50' in any direction.

Note: When installing the air duct vertically, DO NOT terminate the duct closer than 3' below the chimney top.

There is a one hand operated shut-off valve located in the left side of the fireplace opening behind the screen. To open, pull out all the way. The combustion air damper should be fully open when the fireplace is in use and fully closed when the fireplace is not in operation to prevent outside air from entering your home.

CAUTION: NEVER LOCATE INLET WHERE IT CAN BE BLOCKED BY SHRUBS, SNOW DRIFTS, ETC. NEVER LOCATE INLET IN A GARAGE OR ANY AREA WHERE THERE IS ANOTHER FUEL-BURNING APPLIANCE OR PRODUCT EMITTING COMBUSTIBLE GASES SUCH A PAINT, GASOLINE, ETC. IN COLD CLIMATES IT IS RECOMMENDED THAT THE COMBUSTION AIR DUCT BE INSULATED.

Outside combustion air ducting may be run upwards or vertically through framing and ceiling joists, with the hood installed through an outside wall and 3' below the termination. Ducting may also be run downward through floor joists and under the home to a ventilated crawlspace not considered part of the living area of the home.

Note: Do not terminate combustion air kit in attic space under any circumstances.

A take-off boot adapter, Model TOB, may be used in conjunction with the AK-4 to reduce the framing dimensions when installing the fireplace diagonally in a corner (*Figures 15 and 49*). Refer to installation instructions packed with the TOB for specific installation information.

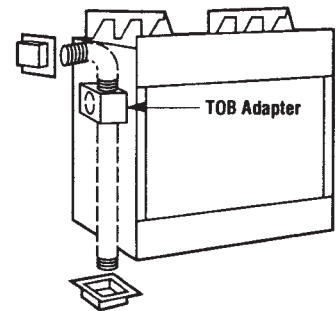


Figure 49

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

Forced Air Kits – BCF Series Only

If you are installing a Superior forced air kit, Model FAK-1500 or FAK-3000, on BCF models; see the installation instructions provided with the kit for electrical wiring requirements. Use Superior's fan adapter kit, Model CF-ADK, to allow the fireplace to be connected to the main power supply. The fireplace must be connected to main power supply at time of installation if a forced air kit is to be installed later. The electrical connections must be made before the fireplace is framed and enclosed in the finished walls.

CAUTION: ELECTRICAL CONNECTIONS SHOULD ONLY BE PERFORMED BY A QUALIFIED, LICENSED ELECTRICIAN. MAIN POWER MUST BE OFF WHEN CONNECTING THE CF-ADK ADAPTER TO MAIN ELECTRICAL POWER SUPPLY OR PERFORMING SERVICE.

Variable Speed Wall Switch

Refer to the installation instructions provided with the variable speed wall switch, Model VSW, for installation details.

GAS LINE INSTALLATION

Superior's BCF and BRF Series fireplaces have been approved to accept a 1/2" gas line for an approved gas appliance. Always have the appliance installed by a qualified licensed plumber in accordance with all local building codes. The gas line may enter either side of the fireplace.

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 a 1 1/8" round 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.

Install only a 1/2" black iron pipe through fireplace wall for connection to a decorative gas appliance inside the firebox. Outside, the iron pipe connects to a gas shut-off valve recessed flush into the wall or floor. The valve should be controlled by a removable valve key for safety.

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.

IMPORTANT: RE-PACK INSULATION MATERIAL IN SQUARE HOLE AROUND GAS LINE, INTERIOR AND EXTERIOR, TO SEAL.

This provision is intended only 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. Install in accordance with the National Fuel Gas Code, ANSI Z223.1. This complies with the revised U.L. 127 standard.

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

COLD CLIMATE INSULATION

If you live in a cold climate, it is especially important to seal all cracks around the fireplace opening with non-combustible 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 non-combustible caulking material only on fireplace facing to seal.

Also, the outside air inlet duct should be wrapped with non-combustible insulation to minimize the formation of condensation. Do not place insulation materials against chimney sections. Superior strongly recommends that the CF-ADK adapter kit be purchased and installed on the BCF Series fireplace. This will help prevent outside intrusion air from entering your home through the fireplace. Installing the CDK collar duct kits may be beneficial in cold climates.

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

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

Framing

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 spacers on top of the unit, but the header must not be notched to fit around the spacers.

These fireplaces may sit directly on a combustible surface. A 2" air space is required between combustible framing and the chimney (See ****Note**). Combustible mantels and trim may be installed 12" above the fireplace opening as per NFPA 211, Section 7-3.3.3. and Figure 50. If a mantel is of a non-combustible material, it is exempt from these requirements as long as it does not interfere with the installation or operation of glass doors or block the inlets and outlets on the BCF Series fireplaces.

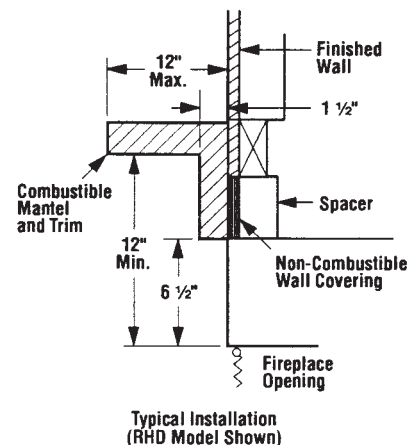


Figure 50

Hearth Extensions and Wall Shields

A hearth extension must be installed with all fireplaces. Its purpose is twofold. It protects a combustible floor in front of the fireplace from both radiant heat and sparks and it distinguishes the prescribed hearth extension area from other non-protected surfaces. The hearth extension must extend beyond the front at least 16" and both sides at least 8". Use a hearth extension constructed of a durable non-combustible material having an equal or greater insulating value of $k=0.84 \text{ BTU-IN/FT}^2\text{HR-}^\circ\text{F}$ 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" thick non-combustible material is all that is required over a non-combustible or slab floor.

****Note:** 1" clearance when installing TF8 on 38" models or TF10 on 43" models.

Note: Any 1/2" non-combustible material whose k value is less than .84 or whose r value is more than 1.19 is acceptable.

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.

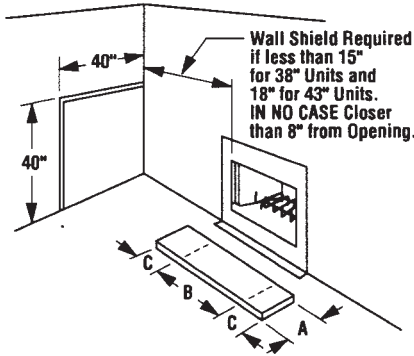


Figure 51

Hearth Extension Dimensions

Opening	38"	43"
A	16"	16"
B	30 1/4"	35"
C	8"	8"

If a continuous perpendicular side wall is closer than 15" (18" on 43" models) to the fireplace opening, a wall shield is required. Use a 40" x 40" x 1/2" wall shield constructed of millboard or a durable non-combustible material with equal or greater insulating value than:

$$K = .84 \text{ BTU-IN./SQ.FT.-HR.-}^\circ\text{F}$$

In no case shall a continuous perpendicular side wall be closer to the fireplace opening than 8".

If fireplace is installed diagonally across a 90° corner no wall shields are required.

Methods of Determining Hearth Extensions and Wall Shield 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 BRF-3875 fireplace. How thick must this material be?

Using the k formula:

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

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

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

Answer using $k = 0.51 \times 1/2" = 0.25 = 1/4"$.

Using the r formula:

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

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

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

Answer using $r = 0.51 \times 1/2" = 0.25 = 1/4"$

Alternative Hearth Extension and Wall Shield Materials

Listed Material	Values		Min. Thick
	k	r	T_L
Millboard	.84	1.19	1/2"
Alternative Materials	Values		Min. Thick
	k	r	T_M
Common brick	5.00	0.20	3"
Cement mortar	5.00	0.20	3"
Ceramic tile	12.5	0.08	7 1/2"
Marble	11.0	0.09	6 1/2"
Micore CV230 (U.S. Gypsum)	0.43	2.33	1/4"
Ceraform 126 (Johns-Manville)	0.27	3.70	1/4"

* value taken from chart
 ** minimum thickness per listing

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.

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

Example: Given that the required "R value" for a suitable hearth extension used with the BRF-3875 is equal to or greater than:

$$\text{"R"} = r \times T_L = 1.19 \times 1/2" = 0.595$$

If it is desired to elevate a marble hearth extension to a level of 5" or more above the floor surface. What combination of non-combustible materials can be used to accomplish this?

If common brick is used so that the 3 1/2" dimension is the height, "R" for the common brick becomes:

$$\text{"R"}_M = r \times T_M = 0.20 \times 3 1/2" = 0.70$$

Using 1/2" of mortar to set the brick, "R" for the mortar is calculated as follows:

$$\text{"R"}_M = r \times T_M = 0.20 \times 1/2" = 0.10$$

A 3/4" marble slab set in 1/2" mortar covers the brick, "R" for the marble and mortar becomes:

$$\text{"R"}_M = r \times T_M = 0.09 \times 3/4" = 0.068$$

$$\text{"R"}_M = r \times T_M = 0.20 \times 1/2" = 0.10$$

The sum of all "R Values" is:

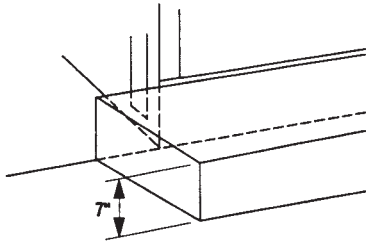
$$0.70 + 0.10 + 0.068 + 0.10 = 0.968$$

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 0.595

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

WARNING: WHEN INSTALLING THE HEARTH EXTENSION, BE CAREFUL NOT TO BLOCK THE HEAT-CIRCULATING AIR INLET GRILL ON BCF MODELS.

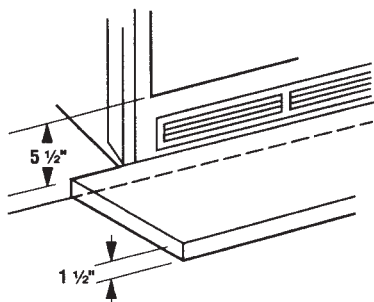
WARNING: WHEN INSTALLING BRF MODELS, THE FIREPLACE MUST BE RAISED IF HEIGHT OF HEARTH EXTENSION EXCEED 7" ABOVE THE BOTTOM OF THE FIREPLACE (FIGURE 52).



Max. Thickness of Hearth Extension when BRF Models are on the Floor

Figure 52

WARNING: WHEN INSTALLING BCF MODELS, THE FIREPLACE MUST BE RAISED IF HEIGHT OF HEARTH EXTENSION EXCEEDS 1 1/2" ABOVE THE BOTTOM OF FIREPLACE (FIGURE 53).



Max Thickness of Hearth Extension when BCF Models are on the Floor

Figure 53

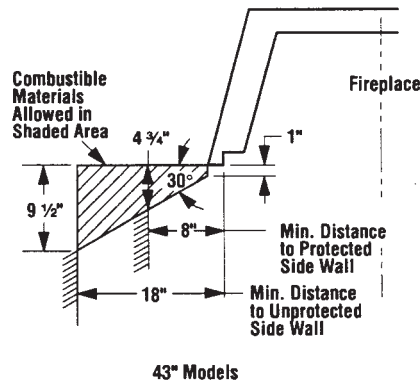
Secure the hearth extension to the floor to prevent possible shifting.

FINISH TO YOUR TASTE

There are a wide variety of "finished looks" for your BCF and BRF Series from formal wall decor with elaborate mantels to rustic wood paneling or warm brick facings.

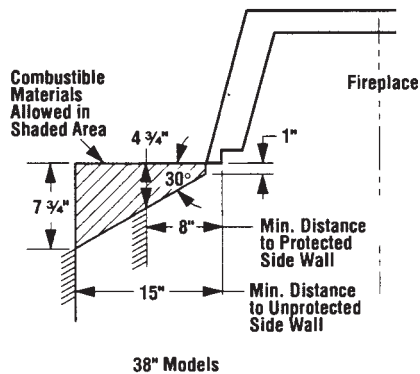
Only non-combustible materials like marble, stone, tile, brick, etc. may overlap the black front facing but be sure not to interfere with the installation and operation of glass doors or block the upper or lower grilles. Seal all joints between the black facing and wall surrounds to prevent air intrusion. 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 Figures 54 and 55.



43" Models

Figure 54



38" Models

Figure 55

SUPERIOR ACCESSORY PARTS AND COMPONENTS LIST FOR BRF AND BCF SERIES FIREPLACES

The following accessory parts and components are to be used only with your Superior fireplace system. Separate installation instructions are packaged with all combustion air kits, forced air kits and chimney terminations.

If you encounter any problems or have questions concerning the installation or application of this system, please contact your distributor or:

SUPERIOR FIREPLACE COMPANY
4325 Artesia Ave.
Fullerton, California 92633
714-521-7302

Model	Part Number	Weight
BRF-3875	P/N 037633	170 lbs.
BRF-4375	P/N 037634	190 lbs.
BCF-3885	P/N 037631	170 lbs.
BCF-4385	P/N 037632	190 lbs.

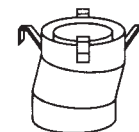
ACCESSORIES AND COMPONENTS



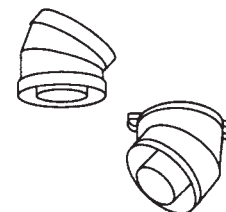
TF8-12	P/N 008330
BC8-12	P/N 019881
TF10-12	P/N 010297
TF8-18	P/N 008335
BC8-18	P/N 019882
	P/N 010298



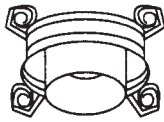
TF8-SS	P/N 008345
--------	------------



TF8-OR15	P/N 014881
15"	P/N 014882



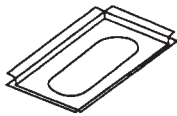
TF8-ES30	P/N 014881
BC8-ES30	P/N 014882
	P/N 019951



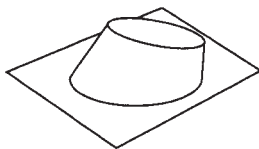
TF8-S4 P/N 010293
P/N 019981



8FS P/N 006916
10FS P/N 002150
P/N 020141



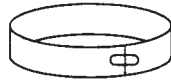
8FS30 P/N 006918
10FS30 P/N 002300
P/N 020151



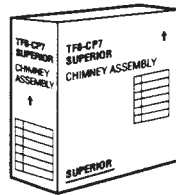
8F6 P/N 006921
8F12 P/N 006923
10F6 P/N 002000



Storm Collar P/N 002013

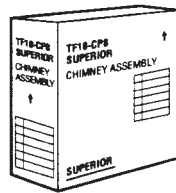


Locking Band P/N 002400



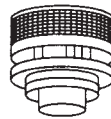
Chimney Pack Conventional P/N 011691

Contains:
3 TF8-36
1 8FS
1 8F6
1 TF8-CTD

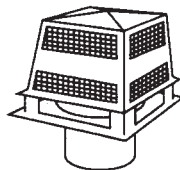


Chimney Pack Conventional P/N 013981

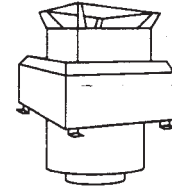
Contains:
4 TF10-36
1 10FS
1 10F6
1 TF10-CTD



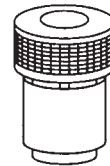
TF8-CTD P/N 010218
P/N 020031



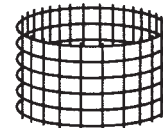
TF8-CT1 P/N 005302
P/N 020041



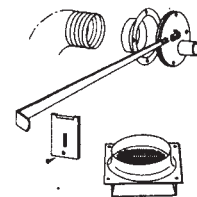
TF8-CT2 Chase Termination P/N 015601
P/N 015604



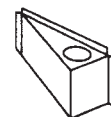
TF8-CTDT Chase Termination P/N 021961
P/N 021951



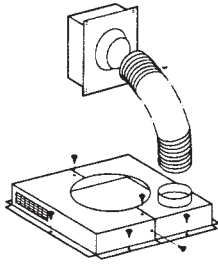
Spark Arrester P/N 032231



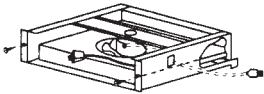
Combustion Air Kit AK-4 P/N 011761



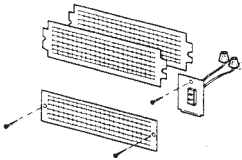
Take Off Boot P/N 011771



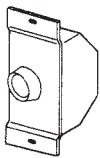
Collar Duct Kit P/N 020165 TF8-CDK
P/N 020173 TF10-CDK



Forced Air Kit (BCF Models Only) P/N 011781 FAK-1500
P/N 045421 FAK-3000

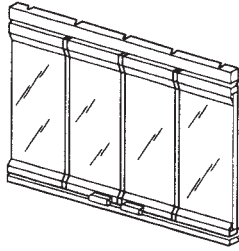


Fan Adapter Kit (BCF Models Only) P/N 016751 CF-ADK



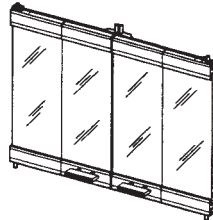
Variable Speed Wall Switch P/N 045571 VSWS

Note: The B-Fold glass doors overlap the frame around the fireplace opening. Allow 1/16" clearance top, bottom and each side when applying facing materials.

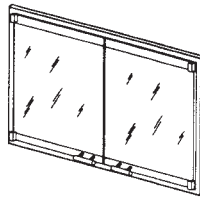


"ALL-GLASS™" Bi-Fold Doors

P/N 027711	38BF
P/N 027712	43BF
P/N 027632	38BF-PB
P/N 027633	43BF-PB
P/N 027634	38BF-ABR
P/N 027635	43BF-ABR
P/N 026962	38BF-SPB
P/N 026963	43BF-SPB



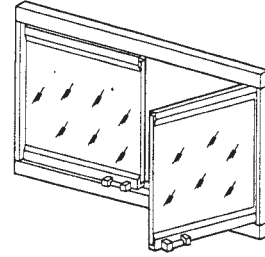
Aluminum Bi-Fold Glass Doors P/N 037832 38SBF-BR
P/N 037833 43SBF-BR



Brass Twin-Pane Glass Doors P/N 097271 Sonata 38
P/N 097272 Sonata 43

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

Note: The "C" Series glass doors overlap the frame around the fireplace opening. Allow 1/2" clearance at each side when applying facing materials.



"ALL-GLASS™" Door P/N 038952 38C-SPB
P/N 038953 43C-SPB



Refractory Tint Kit P/N 008988 RTK



Refractory Patch Kit P/N 010405 RPK

Superior 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.

Printed in U.S.A. © 1990 by Superior Fireplace Company
P/N 095928 REV. F 6/95

SUPERIOR
The Fireplace Company

4325 Artesia Avenue • Fullerton, CA 92633-2522
(800) 854-0257
Plants in Fullerton, CA • Union City, TN

BURNIE FIREPLACE SERVICES 858-513-3915