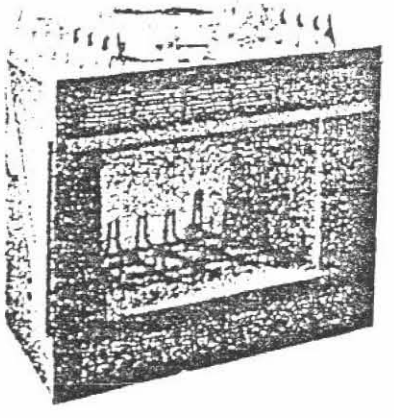
SUPERIOR
The Fireplace Company

Installation Instructions

For Superior
HC Series Fireplaces
Model HC-3320
Model HC-3820

And

Hearthstar
B Series Fireplace
Model 38B



This installation manual will help you obtain a safe, efficient, dependable installation for your fireplace and chimney system. Please read and understand these installation instructions before beginning your installation.

Do not attempt to modify or alter the construction of the fireplace or its components. Any modification or alteration of construction may void the warranty, listings and approvals of this system.

The name Superior is used synonymously with the name Hearthstar throughout this Installation Instruction manual.

RULES TO FOLLOW FOR SAFETY

1. Before starting your fireplace installation, read and understand these safety tips and installation instructions carefully. Failure to follow them could cause a fireplace malfunction resulting in serious bodily injury and/or property damage.

2. Always check your local building codes. The installation must comply with their regulations.

3. Connect this model fireplace to a Superior Model TF8 Thru Flow Chimney System (8" inside diameter) residential type appliance chimney only and vent to the outside of the building.

4. To maintain top efficiency, and to prevent 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 logs, chemical chimney cleaners, coal or flame colorants in your fireplace.

6. Do NOT use charcoal or coal. This fuel gives off deadly carbon monoxide fumes.

7. NEVER light a fire with gasoline, kerosene or lighter fluid because of the danger of explosion. Keep all volatile liquids away from fireplace.

8. DO NOT INSTALL FIREPLACE IN A BEDROOM OF A MANUFACTURED HOME.

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

10. Always keep flue damper open while heat is present in fireplace.

11. Before servicing, allow fireplace to cool. Always shut off any electricity and gas (if used) to fireplace while working on it. This will prevent electrical shocks or burns.

12. This fireplace is not intended to heat an entire home. Its use should be for supplemental heating only.

13. Ensure an adequate supply of combustion air to prevent hazards due to poor combustion and to avoid affecting other fuel burning appliances.

TOOLS AND BUILDING SUPPLIES NORMALLY REQUIRED

Tools should include:
- Phillips screwdriver
- Slot style screwdriver
- Hammer
- Saw and/or Sabersaw
- Level
- Measuring tape
- Plumb line
- Electric drill and bits
- Pliers
- Square

If gas pipe is used:
- Pipe wrench
- Pipe cutter
- Pipe threader
- Pipe joint compound
- Pipe key valve

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

PRECAUTIONS

The most important areas of concern dealing with the installation of zero clearance fireplaces are clearances to combustible materials, secure assembly of component parts, height of chimney system, the proper use of accessory equipment, and the techniques employed in using finishing materials applied to fireplace surrounds, hearth extensions and wall shields. Each of these topics will be covered in great detail throughout this manual. Please give each your special attention as you progress with your installation.

INTRODUCTION

General Information

The HC and B units are energy-efficient, heat-circulating fireplaces, featuring a self-contained heat circulating system, full refractory lined firebox, optional outside combustion air kit, optional glass doors and optional forced air fan kit (outside combustion air and glass doors are required for manufactured housing).

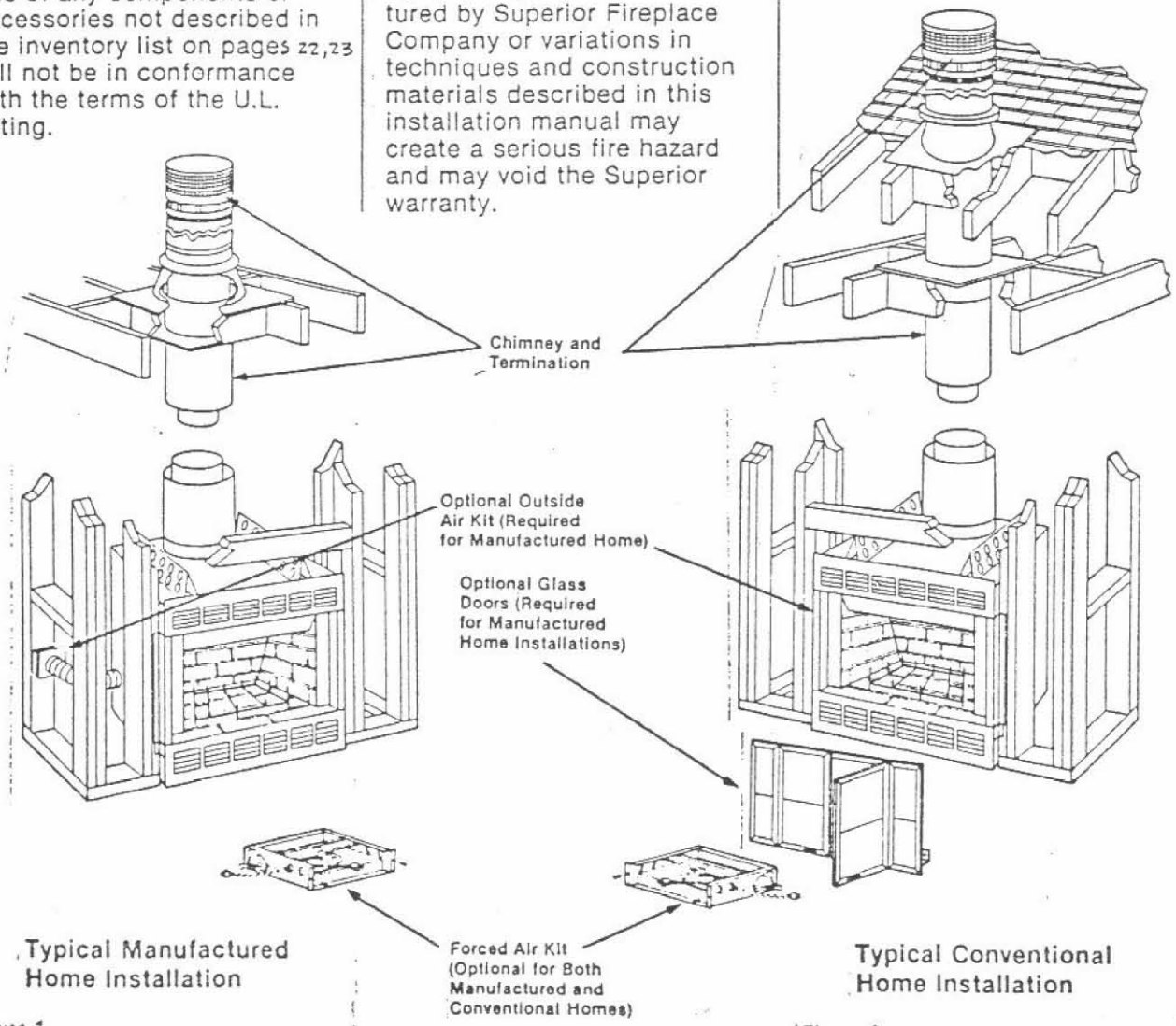
Use of any components or accessories not described in the inventory list on pages 22,23 will not be in conformance with the terms of the U.L. listing.

Your HC (or B) fireplace has been tested and listed to be installed in both conventional and manufactured homes by Underwriters Laboratories, Inc. (NO. MH-8988); other agency listings are pending. You will receive a lifetime of comfort and enjoyment from your fireplace provided it is installed, maintained and operated properly. These instructions are written to give you an easy-to-follow outline for fast, safe installation and trouble-free operation.

Failure to use parts manufactured by Superior Fireplace Company or variations in techniques and construction materials described in this installation manual may create a serious fire hazard and may void the Superior warranty.

The HC and B series fireplace subsystems.

1. The Fireplace
2. Chimney and Termination
3. Glass Door Assembly (optional for conventional homes)
4. Outside Combustion Kit (optional for conventional homes)
5. Forced Air Fan Assembly (optional for both conventional and manufactured homes)



Typical Manufactured Home Installation

Figure 1

Typical Conventional Home Installation

Figure 2

CLEARANCES AND HEIGHT REQUIREMENTS

The fireplace, combustion air kit, firestop spacer, flashing and firestop thimble (required for manufactured housing installation) may be placed directly on or against normal construction materials.* The chimney sections, chimney elbows and the stabilizer require a minimum 1" clearance to combustible materials. Both the fireplace and chimney must be enclosed when installed in, or passing through, a living area where combustible materials might come in contact with the chimney.

*Construction materials:

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

For questions please call Superior Fireplace Company. Special restrictions apply to the front and facing of the fireplace and nearby walls. *(See pages 18 and 19).*

CHIMNEY SYSTEM

Superior zero clearance fireplace systems Models HC-3320, HC-3820 and 38B are designed and code listed for use with Superior TF8 Thru Flow Chimney Systems. Always use Superior's Thru Flow chimney and chimney components with this fireplace system. Do NOT modify or alter these components as this could create a serious hazard and will void the Superior warranty.

CHIMNEY HEIGHT

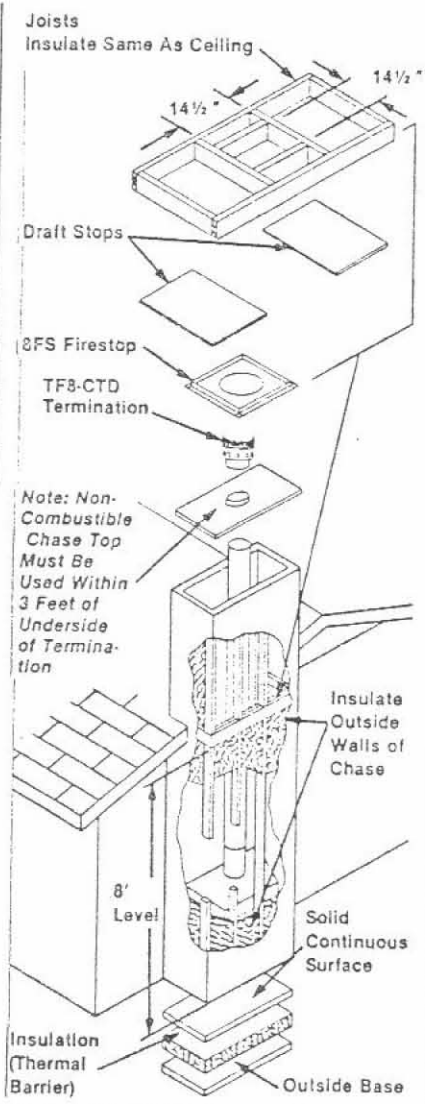
The total height of your HC or B fireplace system from the floor of the firebox to the chimney top must not exceed 80' for conventional homes and 20' for manufactured homes, and must also meet minimum height requirements. Refer to the minimum chimney height chart.

MINIMUM CHIMNEY HEIGHT

MODEL	HC-3320 HC-3820 38B
Vertical Installation Conventional Home	12'-0"
Vertical Installation Manufactured Home	12'-0"
Offset Installation Conv. and Manuf. Home	(1 offset) 12'-0"
Offset Installation Conventional Home	(2 offsets) 25'0"

CHASE ENCLOSURE

If you plan on using a chase (a vertical box-like structure), overhead obstructions will normally be avoided, however, other factors must be considered. A chase should be constructed (and insulated) just like any other outside wall. The base of the chase should also be insulated between the solid continuous floor beneath the fireplace and the chase bottom. Refer to *(Figure 3)* for typical chase configuration.



WARNING: THE FIREPLACE MUST NOT BE PLACED AGAINST INSULATION OR VAPOR BARRIER. INSULATION OR VAPOR BARRIER MUST FIRST BE COVERD WITH GYPSUM BOARD, PLYWOOD OR PARTICLE BOARD.

Notes:

1. Do Not Insulate the Chase Cavity with Blown or Fill Type Insulation Materials.
2. Local Codes May Not Require Firestopping at the Ceiling Level for Outside Chase Installations, But Is Recommended For Safety and the Reduction of Heat Loss.

Figure 3

ASSEMBLY OUTLINE

Before You Start

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

Check the operation of the flue damper. The flue damper handle extends down from the inside top of 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. With proper preplanning, a slight adjustment of a few inches can save considerable time and expense during construction and assembly.

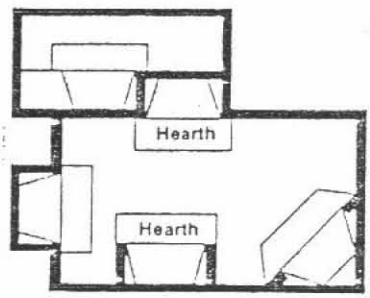


Figure 4

If there is a perpendicular side wall closer than 15" from the nearest side of the fireplace opening, it must be protected with a metal wall shield (WS40), manufactured by Superior or one constructed with a 40" x 40" x 1" millboard or a durable noncombustible material with equal or greater insulating value *(see page 21)*.

ASSEMBLY STEPS

1. Position firebox prior to framing or into prepared framing.

2. Install chimney system.

3. Install optional outside combustion air kit (required for manufactured housing).

4. Field wire main power supply to fireplace (if optional fan assembly is to be installed at a later time).

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

6. Attach optional glass door assembly (required for manufactured housing).

Study the three dimensional illustration *(Figure 2)* to get a general idea of the location of each element of your fireplace system for conventional homes. Refer to *(Figure 1)* for manufactured homes.

INSTALLING THE FIREPLACE

The fireplace may be installed directly on a combustible floor or may be raised on a platform of any desired height. Do not place fireplace on carpeting, vinyl or other soft-surfaced floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard-surfaced materials. Be sure fireplace

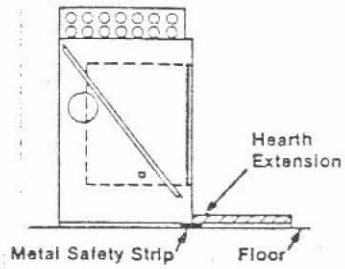


Figure 5

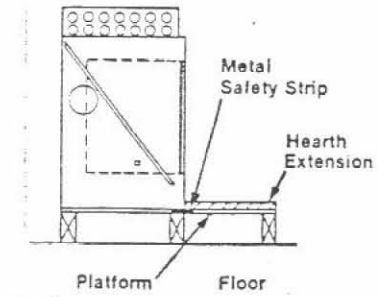


Figure 6

rests on a solid continuous floor or platform so no cold air can enter room from under fireplace.

The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace pushed 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 brick, stone, etc., to be installed. Shipping weights for the fireplace and chimney components may be found in the suggested price list.

2. Measure the square footage of the floor space to be occupied by the system, surrounds and hearth extension.

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 HEAT CIRCULATING AIR INLETS AND OUTLETS. DOING SO MAY RESULT IN A POTENTIAL FIRE HAZARD.

If you plan to raise the fireplace and hearth extension, build this platform assembly, then position fireplace and hearth extension on top.

TO INSTALL:

Step 1: Slide fireplace into the prepared framing, or position fireplace in its final location for framing later.

Step 2: Insert the metal hearth strips, packaged with your fireplace beneath the fireplace as illustrated *(Figure 7)*.

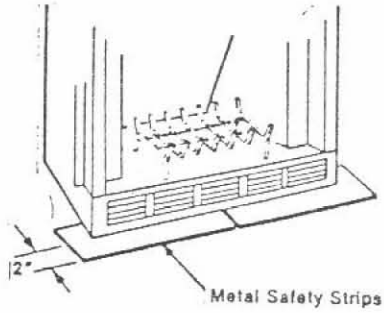


Figure 7

The hearth strips should extend in front of the fireplace two inches. In the event wooden blocking is used to elevate the fireplace above the floor, a "Z" type hearth strip should be fabricated and used to protect the front surface of

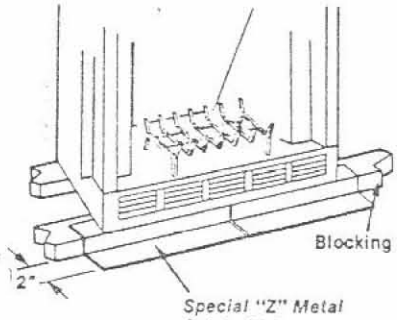


Figure 8

the blocking material as well as the floor beneath the hearth extension *(Figure 8)*.

Step 3: Refer to fireplace drawings and specifications on *(pages 8 and 9)* for framing dimensions and details. Framing header may be positioned directly on top of the fireplace spacers.

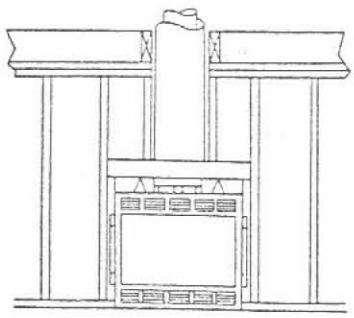


Figure 9

CAUTION: THE STRUCTURAL INTEGRITY OF A MANUFACTURED HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED.

Step 4: Fireplace should be anchored to floor (in manufactured housing, fireplace MUST BE anchored to the floor). Bend down four (4) anchor tabs located at base of fireplace and secure to floor with screws or nails *(see Figure 10)*.

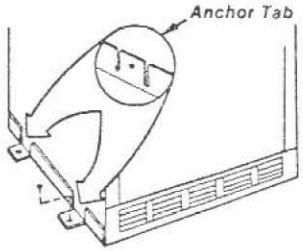


Figure 10

Step 5: Secure fireplace to side framing members utilizing appropriate nailing flange using 8d nails *(see Figure 11)*.

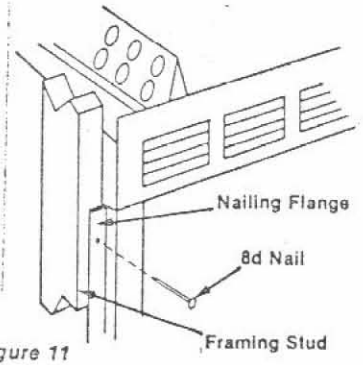
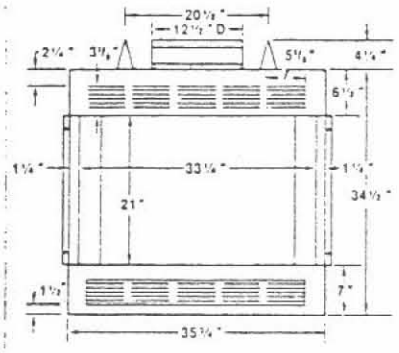


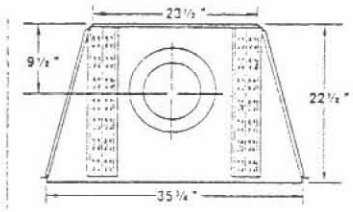
Figure 11

FIREPLACE SPECIFICATIONS

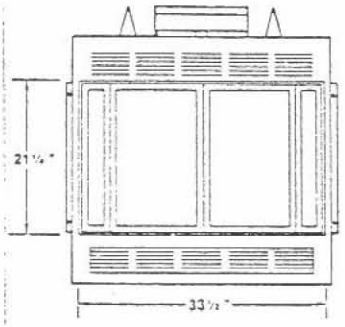


HC-3320
Without Glass Doors

Figure 12

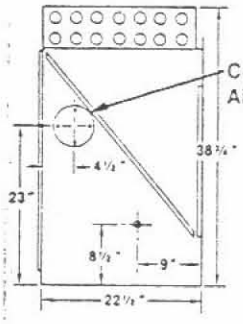


Top View

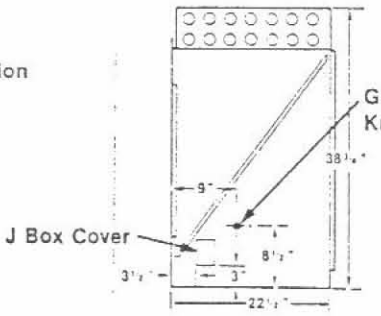


HC-3320
With Glass Doors

Figure 16

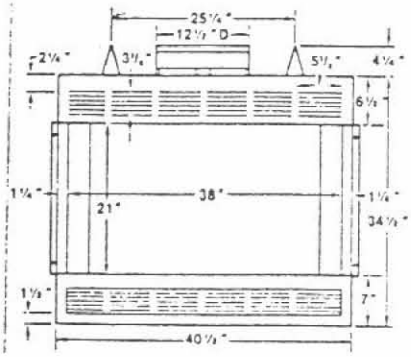


Left Side



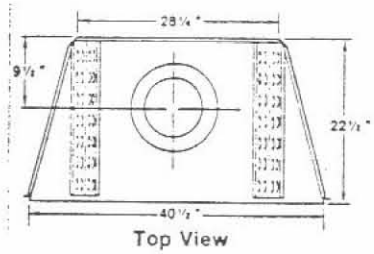
Right Side

Figure 14

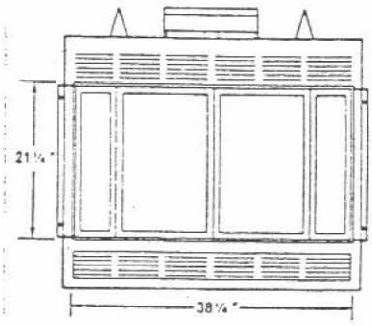


HC-3820 and 38B
Without Glass Doors

Figure 13

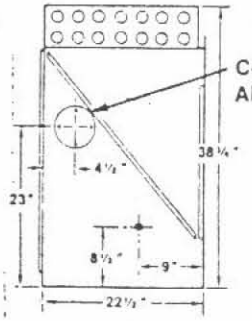


Top View

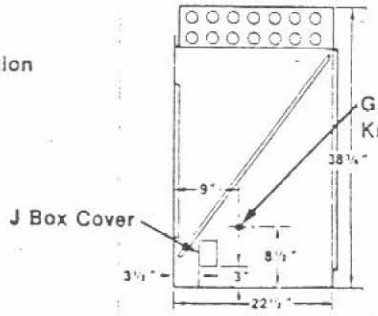


HC-3820 and 38B
With Glass Doors

Figure 17



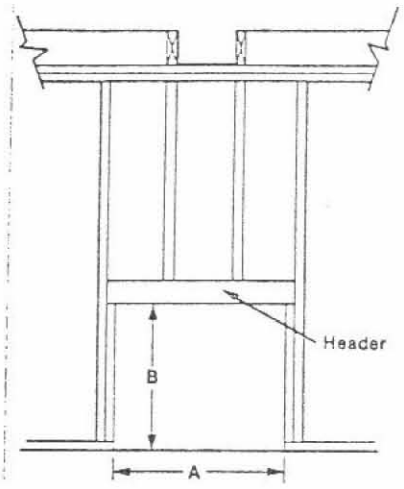
Left Side



Right Side

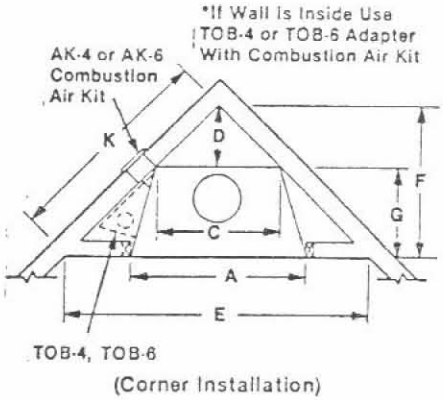
Figure 15

FRAMING SPECIFICATIONS



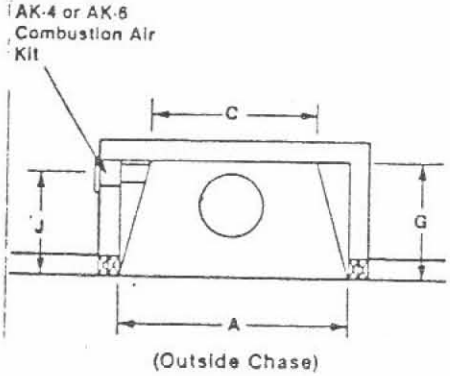
Fireplace Framing

Figure 18



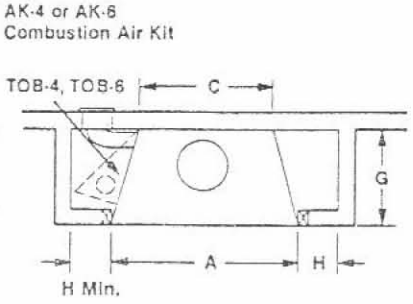
(Corner Installation)

Figure 19



(Outside Chase)

Figure 20



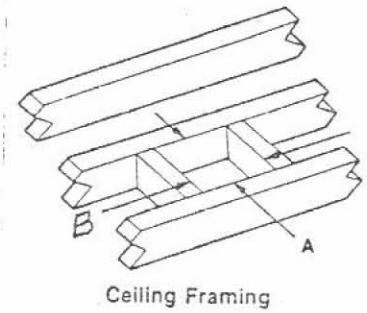
(Inside Chase)

Figure 21

HC AND B FRAMING DIMENSIONS

Installation	Models HC-3320	Models HC-3820 38B
A	36"	40¾"
B	39"	39"
C	23½"	28¼"
D	11¾"	14⅛"
E	68½"	73¼"
F	34¼"	36⅝"
G	22½"	22½"
H Without *	3"	3"
H With *	8"	8"
J	18"	18"
K	48½"	51¾"

*Combustion Air Kit AK-4, AK-6

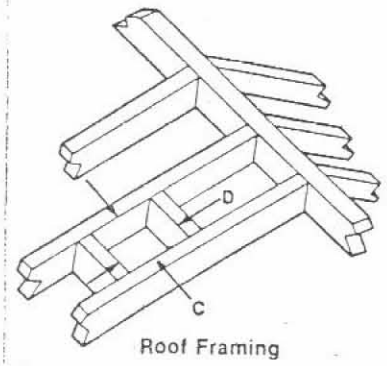


Ceiling Framing

Figure 22

FRAMING DIMENSIONS FOR CEILING

Type Flue	Ceiling Opening A	Ceiling Opening B
TF8, Vertical	14½"	14½"
TF8, Offset 30° (Offset applied only to ceiling openings)	14½"*	25"*



Roof Framing

Figure 23

FRAMING DIMENSIONS FOR ROOF

Type Flue	Roof Opening Pitch	C	D
TF8, Vertical	0/12	14½"	14½"
	6/12	14½"	17"
	12/12	14½"	21½"
	60°	14½"	30"

INSTALLING THE CHIMNEY SYSTEM

Step 1: Check flue damper for proper operation. When the damper is in a closed position, the damper blade should be UP and the damper control lever pushed all the way to the rear of the firebox. When the damper is open, the damper blade is DOWN and damper control lever is pulled all the way to the front of firebox.

Note: In Manufactured Housing, fireplace MUST BE anchored to the floor. (Figure 10) illustrates the seismic anchor tabs built into the fireplace. *(Figure 10)* illustrates the proper installation technique. [illegible] Nail to floor as shown.

Step 2: Using standard construction techniques, frame openings for chimney route up through ceiling(s) and roof or through outside chase.

Framing must maintain adequate support at all times.

CAUTION: ALLOW MINIMUM 1" CHIMNEY CLEARANCE TO COMBUSTIBLE FRAMING MEMBERS THROUGHOUT VERTICAL OR OFFSET CHIMNEY INSTALLATION.

Reference *(Figures 22 and 23)*, and charts "Framing Dimensions for Ceiling and Roof," which detail minimum ceiling and roof opening dimensions.

In new construction, to determine chimney center line, use plumb from roof or ceiling above fireplace to center or 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 passage from above ceiling (around nail), *(Figure 24)*. Then

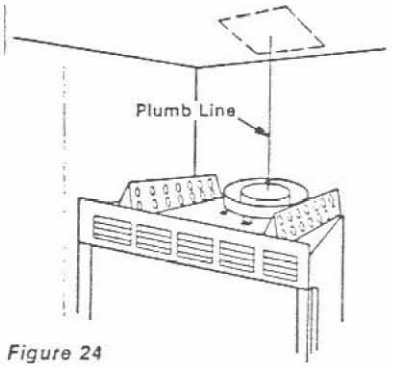


Figure 24

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

Step 3 Conventional Housing: Position Model 8FS or Model 8FS30 Firestop Spacer at ceiling and nail temporarily with two (2) 8d nails. Use flat Firestop Spacer, Model 8FS, if chimney penetrates ceiling vertically. If chimney penetrates ceiling at 30° angle (offset chimney), use 30° Firestop Spacer, Model 8FS30. Use one nail on opposite sides to hold Firestop Spacer in position. Nail permanently, using at least 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 bottom side of ceiling. If attic is above ceiling level, Firestop Spacer must be installed on top side of ceiling. (Figures 25 and 26).

Room Above

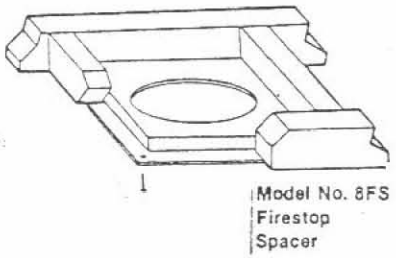


Figure 25

Attic Above

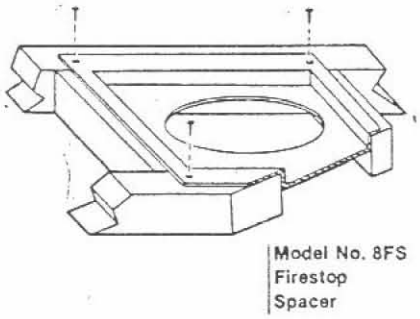


Figure 26

Manufactured Housing: Position firestop thimble, Model 8-MHFT, in ceiling opening, 14½" x 14½" square or 14½" diameter hole, and fasten securely to ceiling. The firestop thimble must extend through the upper part of the roof opening. If higher attic space does not allow firestop thimble to extend through the roof opening, a thimble extension is required. Use Model 8-TE2 thimble extension

manufactured by Superior Fireplace Company to extend firestop thimble to proper length. *(Figure 27)* illustrates typical firestop thimble installation. *(Figure 28)* shows an installation requiring the 8-TE2 thimble extension. The thimble extension slides over the firestop thimble for a maximum 30" combined height. After determining proper height, fasten with four sheet metal screws where the two thimbles overlap *(Figure 28).* Screws are provided with the 8-TE2 thimble extension.

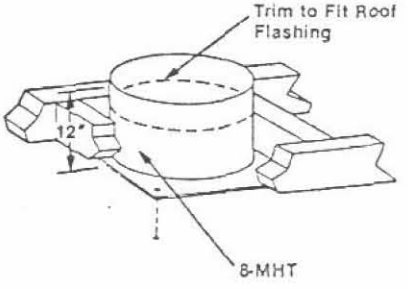


Figure 27

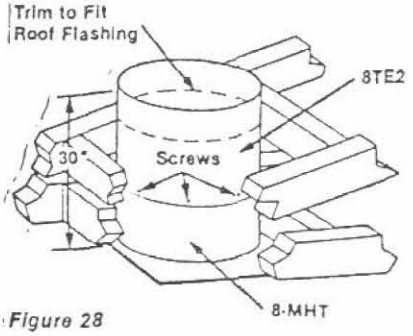


Figure 28

Step 4: *Note: Chimney sections are constructed with a unique locking tab design which insures an immediate, tight assembly between sections. Plan your chimney requirements carefully before assembly as chimney is difficult to disassemble after installation.*

The TF8 Chimney System is a two piece chimney, which snaps together from the fireplace up.

Start with the inner flue section. With the hemmed end down, snap lock it to the matching locking flue collar on top of fireplace. At all subsequent joints, the upper piece fits inside of the lower piece. Each piece snaps together and locks by means of locking tabs (9 locking tabs per joint). Check each piece to insure proper engagement, before installing preceding section by pulling slightly from the top. If the chimney section has been installed correctly, it will not separate when you test it. Also, the chimney joint where each section is joined should be tight and flat with no gaps *(Figure 29).*

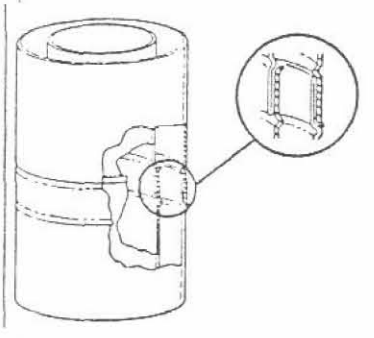


Figure 29

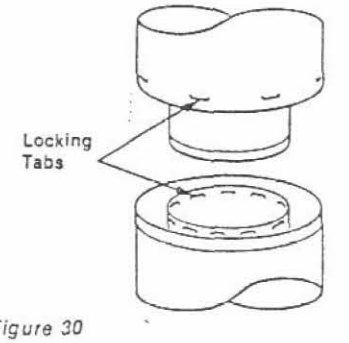


Figure 30

Outer pipe section installs in just the opposite way; the hemmed end goes UP and each new section goes OVER the outside of the previous section installed. *(Figure 30).*

Note: *Assemble one complete section of chimney at a time (inner section first, then outer section last) before proceeding with the next complete section.* Continue to build flue pipe assembly up through framed ceiling openings and roof frame opening. Assemble just enough to penetrate the roof and flashing openings *(Figure 31).* Always maintain 1" minimum clearance to combustible materials and always check each pipe joint (inner and outer) to insure proper engagement. Check vertical alignment of flue pipe so that it projects the roof in a true vertical position. Use level if necessary to insure proper vertical position.

Superior chimney sections need not be screwed together for additional reinforcement.

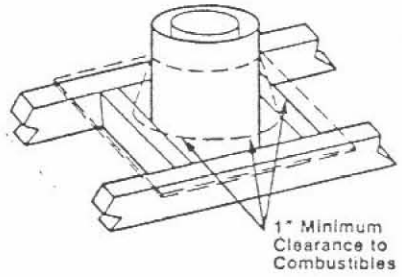


Figure 31

Note For Manufactured Home Housing: *The chimney sections can be installed in any sequence, by length; however, there are two important considerations:*

1) If two sections of chimney need to be joined together inside the thimble, join the sections first before inserting through the thimble.

2) The height of flashing and chimney sections which project above the roofline shall not exceed 13'6" from ground level for transportation purposes. In (Figure 32), it is assumed the floor level of the Manufactured Home is 30" above the ground.

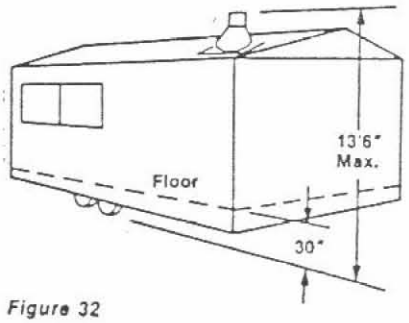


Figure 32

Step 5: The height of vertical flue pipe supported only by the fireplace must not exceed 30 feet. Flue heights above 30 feet must be supported by a Model 8-S4 unitized stabilizer installed at 30 foot intervals.

Note: *The Model 8-S4 unitized stabilizer adds 2½ inches net effective height to the total chimney system.*

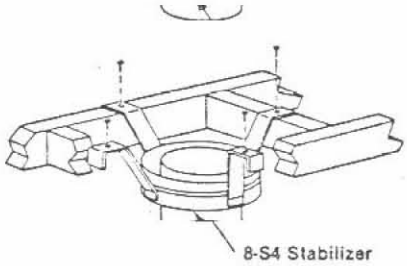


Figure 33

Install the model 8-S4 stabilizer by fitting inner section down into respective section of preceding flue pipe and locking outer stabilizer section into place over the outer flue 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 flue pipe directly to stabilizer using same technique as described in Step 3.

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

Step 6: Select proper Superior roof flashing, depending on the pitch of roof. Use chart below for selection:

Roof Pitch	Model
Flat to 6/12	8-F6
6/12 to 12/12	8-F12
12/12 to 60°	8-F60

Next, slide roof flashing over extended chimney section that previously had been installed above the roof opening in Step 4. Slide flashing all the way down until the flashing base rests flat on the roof. Again, check the vertical position of the chimney and the 1' minimum clearance to combustibles.

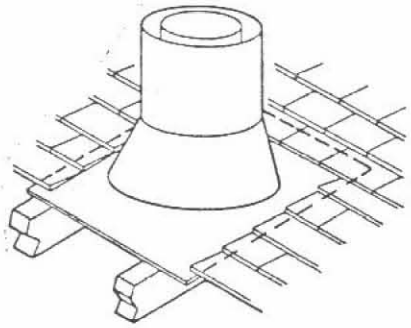


Figure 34

Step 7: Secure flashing by nailing along perimeter into roof using 8d nails. If shingled roof, slide upper end and sides of flashing under shingles (trim if necessary) *(Figure 34)*, seal the top and both sides of the flashing to the roof with roof caulking. Cover nail heads with roof caulking.

Step 8: The standard Superior roof flashing assemblies include a storm collar. Slide storm collar over outer flue, align with top surface of flashing, insert storm tab in slot, pull tight and bend tab back over slot. Seal storm collar to outer flue pipe 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 35)*. Check all joints very carefully to insure no water intrusion can take place.

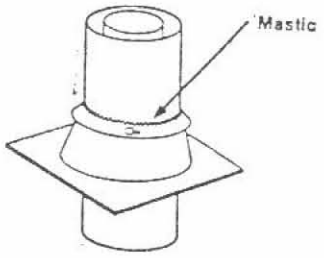


Figure 35

Step 9: Superior locking bands (Model 8LB) may be required if chimney extends too high above the roof/ flashing. As a general rule, if the chimney extends more than 6 feet above the roof/ flashing, the use of locking bands is advisable to strengthen the chimney joints.

Align locking band (one per pipe joint) at the pipe joint - locking band wraps around pipe joint, equally covering the joint of both pipe sections. Use nut provided and TIGHTEN snugly. Do not over tighten as this may damage flue section *(Figure 36)*.

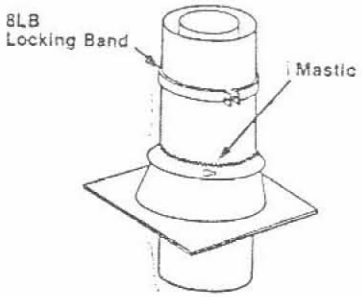


Figure 36

Note: If chimney extends more than 8 feet above roof line, 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 37). Guy wires not supplied by Superior.

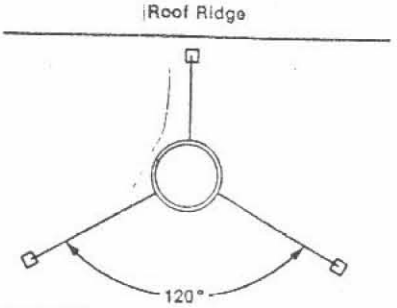


Figure 37

Step 10 Conventional Homes: If using a CTD round contemporary termination:

1) Hold CTD over top of last chimney section *(Figure 38)*.

2) Center inner slip section into inner flue pipe - slip down.

3) Center outer locking section over outer flue pipe - push down until locking joint snaps into position.

4) Pull up slightly on CTD to insure locking joint has firmly engaged.

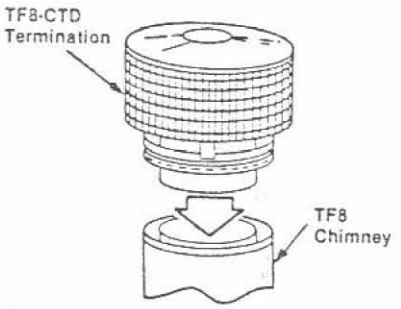


Figure 38

Using a CT1 Chase Termination

Note: Refer to specific installation instructions included with CT1 chase termination for details.

Manufactured Housing

Note: Complete and inspect installation Steps 1 through 9 as required prior to shipment from factory. Step 10, installing the termination, will be completed after the manufactured home has arrived at the installation site.

Always cover exposed chimney sections with water proof protection for storage and transportation between factory and installation site to prevent rain and other foreign matter from collecting inside the fireplace and chimney. Remove this protective covering immediately prior to installing the termination. Failure to do so will create a fire hazard should the chimney sections and its cooling system become blocked.

The TF8-MHT mobile home termination adds 17¾" effective height to the installation. Use this dimension to determine if additional chimney sections are required. Provide a safe and legal termination height. Consult the ten foot rule summary section on this page for detailed information.

To install the TF8-MHT Manufactured Housing Termination, slip the termination onto the preceding chimney section. Wrap the locking band, Model 8-MHLB, around the joint and fasten securely with the nut and bolt provided *(Figure 39).*

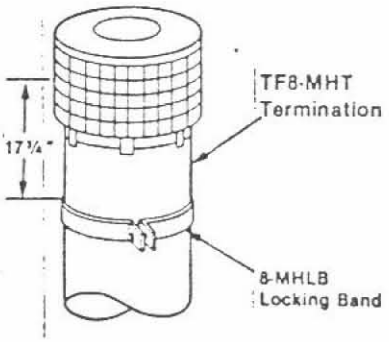


Figure 39

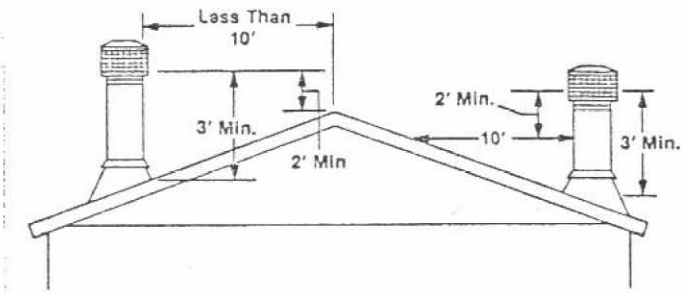


Figure 40

TEN FOOT RULE SUMMARY

The minimum chimney height above the roof is specified by all major U.S. building codes.

If the horizontal distance from the chimney edge to the peak of the roof is more than 10 feet or less, the top of the chimney must be at least 2 feet above the peak of the roof.

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

The 2' in 10' rule is necessary in the interest of safety and does not insure smoke-free operation. Trees, buildings, adjoining rooflines, adverse wind conditions, etc., may require a taller chimney should the fireplace not draft properly *(see Figure 40).*

MULTIPLE TERMINATIONS

If more than one termination is located on 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 soldiered vertically at least 18" apart, from termination smoke exit to termination smoke exit. See *(Figure 41)* for detail.

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

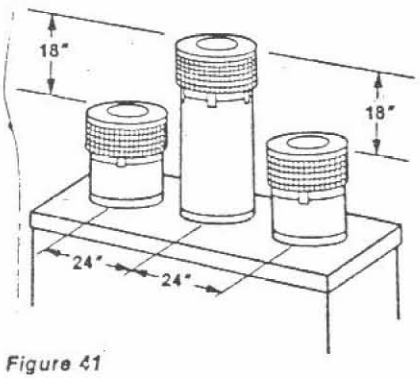


Figure 41

TF8 CHIMNEY COMPONENT CALCULATIONS

Minimum installed height of the HC and B series fireplace systems (including fireplace and chimney components) is 12'0" in conventional homes and 12'0" in manufactured housing. The maximum height is 80' in conventional homes and 20'0" in manufactured housing.

CONVENTIONAL HOMES

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 FLOOR 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 firestops, stabilizers, roof flashing, etc.

3. The effective heights of the components are:

HC and B Series Fireplaces	=	38"
CTD Termination	=	4"
CTI Termination	=	18"
S4 Stabilizer (required for every 30' of vertical chimney and 10' of offset chimney	=	2½"

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

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

MANUFACTURED HOUSING

Use Model TF8-MHCP-1 which contains all chimney components and chimney sections for typical manufactured housing installations. It provides for an installed height of 12'2". If additional chimney sections or components are required, order separately.

VERTICAL ELEVATION CHART

Height Of Flue Only		Number TF8 Flue Lengths			Height Of Flue Only		Number TF8 Flue Lengths			Height Of Flue Only		Number TF8 Flue Lengths			Height Of Flue Only		Number TF8 Flue Lengths		
Inches	Feet	12"	18"	36"	Inches	Feet	12"	18"	36"	Inches	Feet	12"	18"	36"	Inches	Feet	12"	18"	36"
80¼"	6' 8¼"	1		2	293¼"	24' 5¼"		1	8	504¼"	42' 0¾"	2		14	717¼"	59' 9¾"	1	1	20
86¼"	7' 2¼"		1	2	297¼"	24' 9¾"	2		8	510¾"	42' 6¾"	1	1	14	725¼"	60' 5¼"			21
90¾"	7' 6¾"	2		2	303¾"	25' 3¼"	1	1	8	518¼"	43' 2¼"			15	728¼"	60' 8¼"	2	1	20
98¼"	8' 0¼"	1	1	2	311¼"	25'11¼"			9	521¼"	43' 5¼"	2	1	14	735¼"	61' 3¾"	1		21
103¾"	8' 7¾"			3	314¾"	26' 2¼"	2	1	8	528¾"	44' 0¾"	1		15	741¾"	61' 9¾"		1	21
107¼"	8'11¼"	2	1	2	321¼"	26' 9¼"	1		9	534¾"	44' 6¾"		1	15	746¼"	62' 2¼"	2		21
114¾"	9' 6¾"	1		3	327¾"	27' 3¼"		1	9	539¼"	44'11¼"	2		15	752¼"	62' 8¼"	1	1	21
120¼"	10' 0¼"		1	3	332¼"	27' 8¼"	2		9	545¼"	45' 5¼"	1	1	15	759¾"	63' 3¾"			22
124¾"	10' 4¾"	2		3	338¼"	28' 2¼"	1	1	9	552¼"	46' 0¾"			16	762¾"	63' 6¾"	2	1	21
130¼"	10'10¼"	1	1	3	345¾"	28' 9¾"			10	555¾"	46' 3¼"	2	1	15	770¼"	64' 2¼"	1		22
138¾"	11' 6¾"			4	348¾"	29' 0¾"	2	1	9	563¼"	46'11¼"	1		16	776¼"	64' 8¼"		1	22
141¾"	11' 9¾"	2	1	3	356¼"	29' 8¼"	1		10	569¼"	47' 5¼"		1	16	780¾"	65' 0¾"	2		22
149¼"	12' 5¼"	1		4	362¾"	30' 2¼"		1	10	573¾"	47' 9¾"	2		16	786¼"	65' 6¾"	1	1	22
155¾"	12'11¼"		1	4	366¼"	30' 6¼"	2		10	579¼"	48' 3¼"	1	1	16	794¼"	66' 2¼"			23
159¼"	13' 3¾"	2		4	372¾"	31' 0¼"	1	1	10	587¼"	48'11¼"			17	797¼"	66' 5¼"	2	1	22
165¾"	13' 9¾"	1	1	4	380¼"	31' 8¼"			11	590¾"	49' 2¼"	2	1	16	804¾"	67' 0¾"	1		23
173¼"	14' 5¼"			5	382¾"	31'10¾"	2	1	10	597¼"	49' 9¾"	1		17	810¼"	67' 6¾"		1	23
176¾"	14' 8¾"	2	1	4	390¼"	32' 6¼"	1		11	603¾"	50' 3¼"		1	17	815¼"	67'11¼"	2		23
183¾"	15' 3¾"	1		5	396¾"	33' 0¾"		1	11	608¼"	50' 8¼"	2		17	821¾"	68' 5¼"	1	1	23
189¾"	15' 9¾"		1	5	401¼"	33' 5¼"	2		11	614¼"	51' 2¼"	1	1	17	828¼"	69' 0¾"			24
194¼"	16' 2¼"	2		5	407¼"	33'11¼"	1	1	11	621¾"	51' 9¾"			18	831¾"	69' 3¾"	2	1	23
200¼"	16' 8¼"	1	1	5	414¼"	34' 6¾"			12	624¼"	52' 0¼"	2	1	17	839¼"	69'11¼"	1		24
207¾"	17' 3¾"			6	417¾"	34' 9¾"	2	1	11	632¼"	52' 8¼"	1		18	845¼"	70' 5¼"		1	24
210¼"	17' 6¾"	2	1	5	425¼"	35' 5¼"	1		12	638¾"	53' 2¼"		1	18	849¾"	70' 9¾"	2		24
218¾"	18' 2¼"	1		6	431¼"	35'11¼"		1	12	642¾"	53' 6¼"	2		18	855¾"	71' 3¾"	1	1	24
224¼"	18' 8¼"		1	6	435¾"	36' 3¼"	2		12	648¼"	54' 0¾"	1	1	18	863¼"	71'11¼"			25
228¾"	19' 0¾"	2		6	441¾"	36' 9¾"	1	1	12	656¼"	54' 8¼"			19	866¼"	72' 2¼"	2	1	24
234¼"	19' 6¾"	1	1	6	449¼"	37' 5¼"			13	659¾"	54'11¼"	2	1	18	873¾"	72' 9¾"	1		25
242¼"	20' 2¼"			7	452¼"	37' 8¼"	2	1	12	666¾"	55' 6¾"	1		19	879¼"	73' 3¼"		1	25
245¼"	20' 5¼"	2	1	6	459¾"	38' 3¼"	1		13	672¼"	56' 0¼"		1	19	884¼"	73' 8¼"	2		25
252¼"	21' 0¾"	1		7	465¼"	38' 9¾"		1	13	677¾"	56' 4¼"	2		19	890¼"	74' 2¼"	1	1	25
258¾"	21' 6¾"		1	7	470¾"	39' 2¼"	2		13	683¼"	56'10¼"	1	1	19	897¾"	74' 9¾"			26
263¼"	21'11¼"	2		7	476¼"	39' 8¼"	1	1	13	690¾"	57' 6¾"			20	900¼"	75' 0¾"	2	1	25
269¼"	22' 5¼"	1	1	7	483¾"	40' 3¼"			14	693¾"	57' 9¾"	2	1	19	908¼"	75' 8¼"	1		26
276¾"	23' 0¾"			8	486¾"	40' 6¾"	2	1	13	701¼"	58' 5¼"	1		20	914¼"	76' 2¼"		1	26
279¾"	23' 3¾"	2	1	7	494¼"	41' 2¼"	1		14	707¼"	58'11¼"		1	20	918¾"	76' 6¾"	2		26
287¼"	23'11¼"	1		8	500¼"	41' 8¼"		1	14	711¼"	59' 3¼"	2		20					

OFFSET CALCULATIONS

1. Use Offset Charts to determine amount of horizontal offset (A) and height (B) for various flue pipe section assemblies.

2. Use "Height of Flue Only" column on Vertical Elevation Chart to determine combinations of pipe used above return elbow to achieve desired heights. Reference components effective height chart in vertical elevation chart section.

3. To use Elevations Chart as job estimator only; add necessary firestop spacers and stabilizers, as required. Firestop spacers must be used as shown in *(Figures 25 and 26)* and stabilizers as shown in *(Figure 33)*.

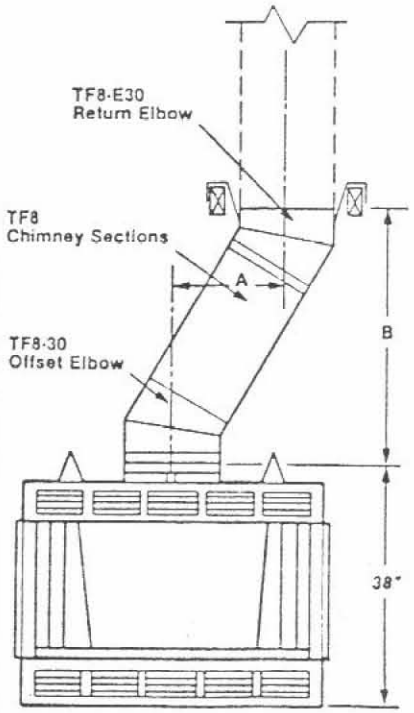


Figure 42

OFFSET ELEVATION CHART

A Offset (Inches)	B Height (Inches)	TF8-30 8" Offset Elbow	TF8-E30 8" Return Elbow	8-S4 8" Stabilizer	TF8 12" Flue Length	TF8 18" Flue Length	TF8 36" Flue Length
4 1/4	15 3/4	1	1	—	—	—	—
9 1/4	24	1	1	—	1	—	—
12 1/4	29 1/4	1	1	—	—	1	—
14 1/4	33 1/4	1	1	—	2	—	—
17 1/2	38 1/2	1	1	—	1	1	—
20 1/2	43 1/2	1	1	—	—	2	—
21 1/4	45	1	1	—	—	—	1
22 3/4	47 1/2	1	1	—	2	1	—
25 3/4	52 3/4	1	1	—	1	2	—
26 1/2	54	1	1	—	1	—	1
28 3/4	58	1	1	—	—	3	—
29 1/2	59 1/4	1	1	—	—	1	1
31 3/4	63	1	1	—	2	—	1
34 3/4	68 1/4	1	1	—	1	1	1
37 3/4	73 1/4	1	1	—	—	1	1
38 1/2	74 3/4	1	1	—	—	—	2
40	77 1/4	1	1	—	2	1	1
42 1/4	81 1/4	1	1	—	1	4	—
43 3/4	83 3/4	1	1	—	1	—	2
46	87 3/4	1	1	—	—	3	1
46 3/4	89	1	1	—	—	1	2
49	93	1	1	—	2	—	2
52	98 1/4	1	1	—	1	1	2
55	103 1/4	1	1	—	—	2	2
55 3/4	104 3/4	1	1	—	—	—	3
57 1/4	107 1/4	1	1	—	2	1	2
61	113 3/4	1	1	—	1	—	3
62 1/4	116	1	1	1	1	—	3
65 1/4	121	1	1	1	—	1	3
67 1/2	124 3/4	1	1	1	2	—	3
70 1/2	130	1	1	1	1	1	3
73 1/2	135 1/4	1	1	1	—	2	3
75 3/4	139 1/4	1	1	1	2	1	3
79 1/2	145 1/2	1	1	1	1	—	4
87 1/2	150 3/4	1	1	1	—	1	4
84 3/4	154 3/4	1	1	1	2	—	4
87 3/4	159 3/4	1	1	1	1	1	4
90 3/4	165	1	1	1	—	2	4
93	169	1	1	1	2	1	4
96 3/4	175 1/2	1	1	1	1	—	5
99 3/4	180 1/2	1	1	1	—	1	5
102	184 1/2	1	1	1	2	—	5
105	189 3/4	1	1	1	1	1	5
108	195	1	1	1	—	2	5
110 1/4	198 3/4	1	1	1	2	1	5
114	203 1/4	1	1	1	1	—	6
117	210 1/2	1	1	1	—	1	6
119 1/4	214 1/2	1	1	1	2	—	6

OFFSET INSTALLATIONS

Special Offset Instructions

To clear any overhead obstructions, you may offset your chimney system using Superior 30° offset and return elbows (Models TF8-30 and TF8-E30).

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 or sections of chimney in between may be used, but do not exceed 20' in total length between elbows *(see Figure 43)*. If sections of pipe exceed 10' between elbows, a chimney stabilizer must be used at the 10' point. The stabilizer support straps must be securely attached under tension (in shear) to structural framing members above *(see Figure 43)*. When two sets of elbows are used, the maximum combined length of chimney used between each set of elbows cannot exceed 20' *(see Figures 44 and 45)*. Example: If C_1 = 10' then C_2 cannot exceed 10'. A 30° offset elbow, angling in any direction, may be the first component used off the top of the fireplace flue collar.

Maximum offset of chimney system is 30°. Two offset elbows must not be assembled to form a 60° 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'.

Return elbow support straps must be securely attached under tension (in shear) to structural framing members above *(Figure 46 Page 18)*.

***Note:** The TF8-MHCP-1 Manufactured Housing Chimney Pack does not contain any offset or return elbows to facilitate offset chimney installation. Calculate the additional chimney components needed for your installation and purchase before beginning installation.*

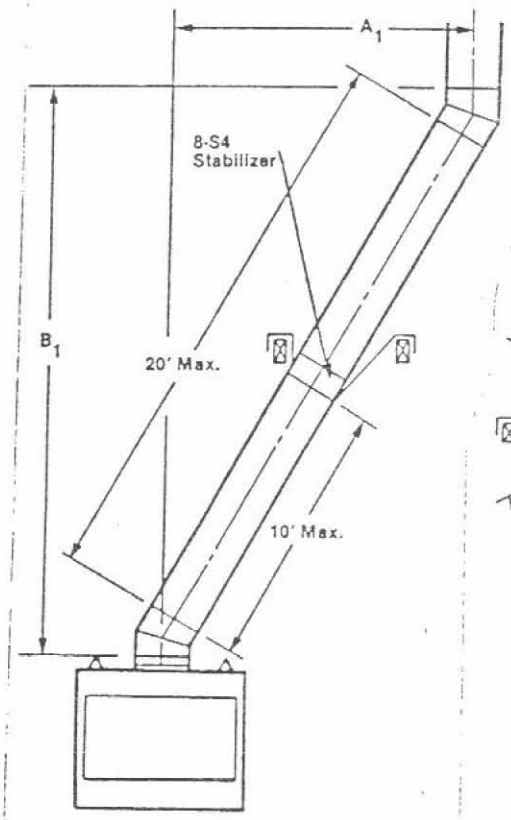


Figure 43

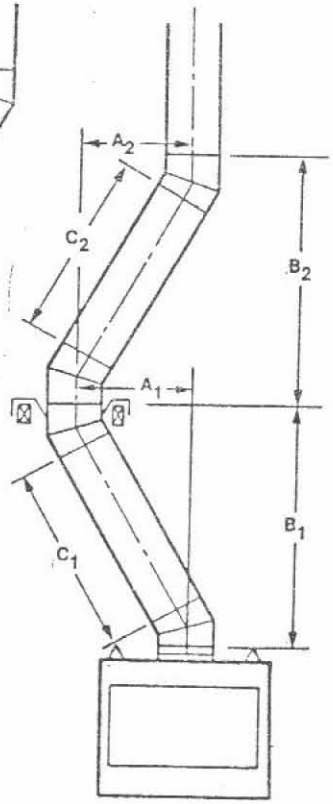


Figure 44

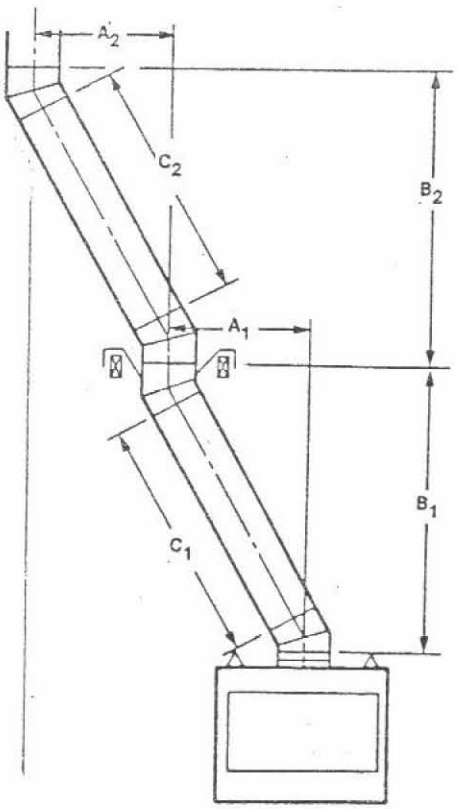


Figure 45

TO INSTALL OFFSETS

First, review chimney offset elevation chart and *Figure 42* on *page 16* for reference.

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

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

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 the pitch of the roof.*

OFFSET ELBOW ASSEMBLY

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

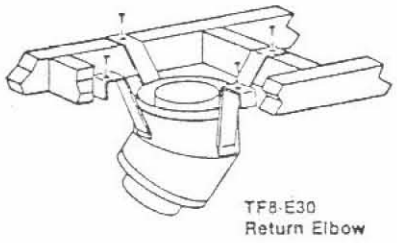


Figure 46

RETURN ELBOW ASSEMBLY

Return elbows install the same as stabilizers and round contemporary terminations. Follow these easy steps:

1) Hold unitized return elbow over top of last chimney section.

2) Center inner slip section into inner flue pipe - slip down.

3) Center outer locking section over outer flue pipe - push down until locking joint snaps into position.

4) Pull up slightly on return elbow to insure locking joint has firmly engaged.

Remember, all offset and return elbows and any chimney in between must be installed to maintain at least 1" clearance to combustible materials.

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

CHIMNEY OFFSET 30° THRU FLOOR OR CEILING

It may be necessary to construct the chimney at 30° when passing through the floor or ceiling area. Use 30° angled firestops as shown in *(Figures 47 and 48).* Support the chimney at floor or ceiling penetration with stabilizer if distance below the ceiling is 10' or more. Maintain 1" minimum clearance to combustibles from chimney sections.

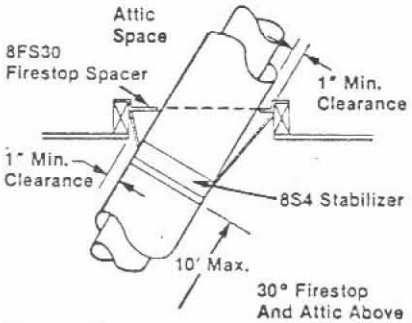


Figure 47

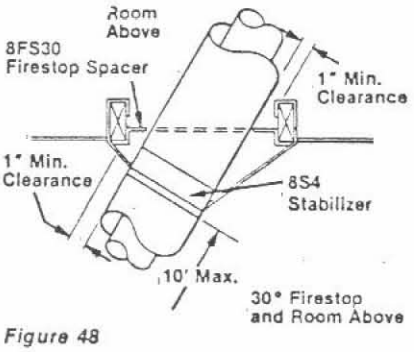


Figure 48

ACCESSORIES

Glass Doors Optional For Conventional Homes - Required For Manufactured Housing

If glass doors are to be installed on this fireplace, refer to specific installation instructions packed with glass doors. Superior glass doors, Model Numbers 33HGD-AB, 38HGD and 38HGD-AB are for use only on certain Superior factory-built fireplaces. Use on any other fireplace may constitute a potential fire hazard. Glass and metal frames get hot - always use wood handles to open and close.

Glass doors are required for installation in all manufactured home installations to comply with Federal HUD requirements.

COMBUSTION (FRESH) AIR SYSTEM OPTIONAL FOR CONVENTIONAL - REQUIRED FOR MOBILE HOME INSTALLATION

In Conventional Homes:

Use Combustion Air Kit Model AK-4 with Superior HC and B fireplaces.

In Manufactured Housing:

Combustion Air Kit Model AK-6 must be installed with the Superior HC or B fireplace to comply with Federal HUD requirements.

GENERAL INFORMATION

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

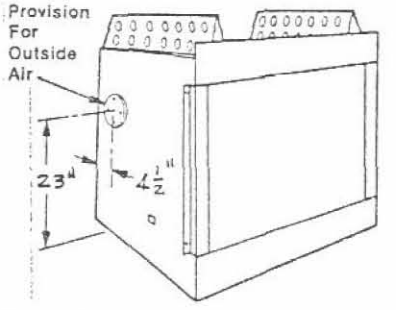


Figure 49

If additional length of duct is required, use locally available U.L. Class 1, aluminum ducting. The duct may be extended up to 50' in any direction.

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

There is one hand operated shut-off damper at the left of the firebox opening inside the fireplace. To open, pull out all the way. The combustion air damper should be fully open when the fireplace is being operated. When the fireplace is not in use, fully close the combustion air damper to prevent cold air from entering your home.

TO INSTALL:

Reference installation instructions supplied with Models AK-4 or AK-6.

Never locate inlet where it can be blocked by shrubs, snow drifts, etc. Never locate in garage or any area where there is another fuel burning appliance or products emitting combustible gases such as paint, gasoline, etc. In cold climates, it is recommended that the combustion air duct be insulated.

Outside combustion air ducting may be installed upwards, or vertically, through framing and ceiling joists, with the hood installed through an outside wall or ducting may be installed downwards, through floor joists, and under the floor of the home. Ducting may be installed into a basement area, not considered part of the living area or the home.

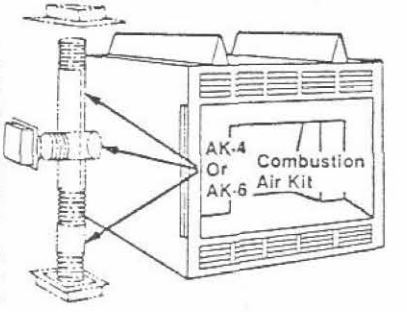


Figure 50

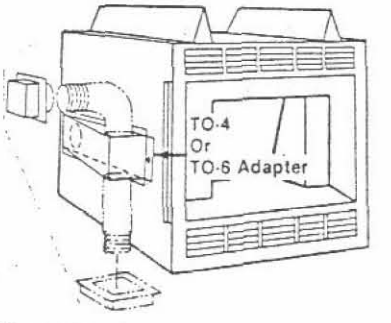


Figure 51

FORCED AIR KIT

If you are installing a Superior Forced Air Kit, Model FAK-1500, see the instruction sheet provided in the kit for electrical wiring requirements. The fireplace has been prewired at the factory to accept the forced air kit at some later time. The fireplace must, however, be connected to main power supply at time of installation if the FAK-1500 is to be installed later.

FIREPLACE FINISHES, HEARTH EXTENSIONS, WALL SHIELDS

FRAMING

It's best to frame your fireplace after it is positioned, the chimney and the combustion air kit, if applicable, is installed. Frame with 2 x 4's (or heavier) lumber. Frame in accordance with local prevailing building codes.

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

No clearance is required between the framing and fireplace and thimble (for manufactured housing use only). However, remember a 1" clearance is required between framing and the chimney.

To install the fireplace facing flush with the finished wall, position framework to accommodate the thickness of the finished wall *(Figures 52, A, B and C).*

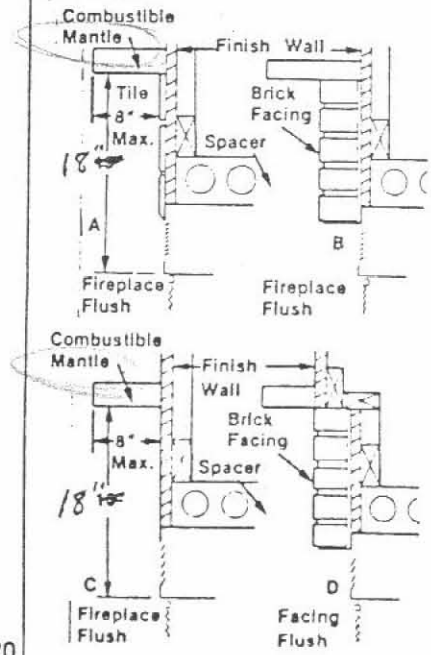


Figure 52

To install the fireplace facing flush with surround materials, position framework to accommodate the thickness of the final surround materials *(Figure 52 D).*

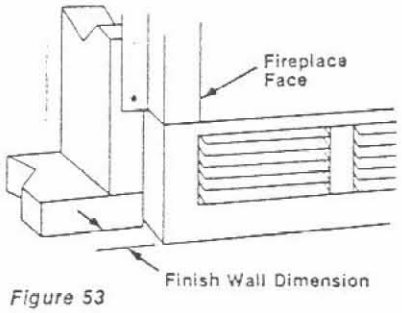


Figure 53

GAS LINE

This provision is intended for connection to a decorative gas appliance only, in accordance with the National Fuel Gas Code, ANSI Z 223.1-1980.

If you're installing a gas line, connect it now. The gas knock out location is determined by a 1 1/8" round indentation located at the bottom and slightly off center on the side refractories. THE KNOCK OUT IS ALWAYS TO BE REMOVED FROM INSIDE THE FIREBOX. If removal is attempted from the outer wrapper into the firebox, side refractory damage may occur. With a medium-sized hammer, lightly tap the surface of the indentation. The refractory material is very thin in the area of the indentation, and can be easily removed. Once a small hole is made in the knock out, continue to tap lightly until the desired diameter is obtained. The knock out area can be removed to a total diameter of 1 1/8"; however, the entire knock out does not have to be removed.

With the refractory knock out removed to the desired diameter, remove knock out on outer wrapper and install gas line. Use only ½" black iron pipe through fireplace wall for connection to a log lighter or gas log unit inside the firebox. Outside, the iron pipe connects to a gas shut off valve recessed flush into a wall or floor and controlled by a removable valve key for safety.

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

IMPORTANT: Re-pack insulation in square hole around gas line to seal.

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, seal all cracks around fireplace with non-combustible material and wherever cold air could enter room. It's especially important to insulate outside chase cavity between studs and under floor on which fireplace rests, if floor of outside is above ground level. Surround material must be caulked where it meets the black metal face of the fireplace to avoid air intrusion. Use non-combustible caulking material only on fireplace facing, to seal. Also the outside air inlet duct should be insulated to minimize formation of condensation.

HEARTH EXTENSIONS/ WALL SHIELDS

•A hearth extension must be installed with all fireplaces. It is required to protect the floor in front of the fireplace from both radiant heat and sparks.

•The hearth extension must extend beyond the front and both sides of the fireplace opening per the dimensions in the chart accompanying *(Figure 54)*. Use either the metal hearth extension (Model HE-33 for HC-3320 or Model HE-36 for HC-3820 and 38B) manufactured by Superior Fireplace Company, or a ½" thickness of millboard or a durable non-combustible material with equal or greater insulating value. These materials may be covered by a decorative non-combustible veneer.

CAUTION: FIREPLACE MUST BE RAISED IF HEIGHT OF HEARTH EXTENSION EXCEEDS 1½" ABOVE BOTTOM OF FIREPLACE *(FIGURE 55)*.

•If 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.

•WARNING: THE CRACK BETWEEN THE FIREPLACE AND 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 INLETS *(FIGURE 55)*.

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

•If a side wall is closer than 15" to the fireplace opening, a wall shield is required. Use metal wall shields (Model No. WS40) manufactured by Superior Fireplace Company or construct with a 40" x 40" x 1" millboard or a durable non-combustible material with equal or greater insulating value. The wall shields may be covered with a decorative non-combustible veneer.

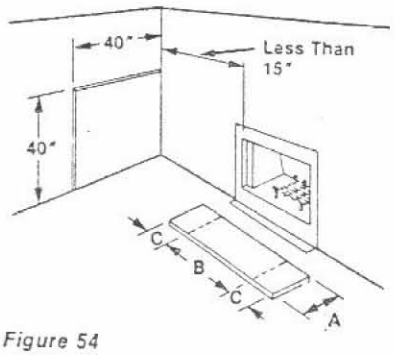


Figure 54

HEARTH EXTENSION DIMENSIONS

Letter	Models	
	HC-3300 33B	HC-3800 38B
A	16"	16"
B	33"	38"
C	8"	8"

•If fireplace is installed diagonally, across a 90° corner, no wall shields are required *(Figure 12)*.

•For information regarding non-combustible materials and construction details, contact Superior Fireplace Company, Customer Service Department.

FINISH TO YOUR TASTE:

There are a wide variety of "finished looks" for your Superior fireplace - from formal wall treatments to mantels to rustic wood paneling to warm brick facings.

If you are using a combustible material, do not overlap the black fireplace facing *(Figure 53)*.

CAUTION: SEAL ALL JOINTS BETWEEN FIREPLACE FACING AND WALL SURROUNDS WITH A NON-COMBUSTIBLE MATERIAL.

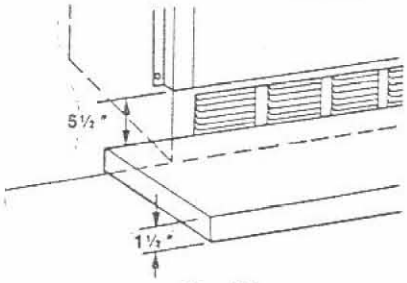


Figure 55

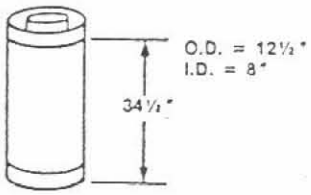
Non-combustible materials, like tile, stone, brick, etc., may overlap the edge of the fireplace opening, thus completely hiding the black fireplace facing; but be sure not to interfere with the operation of the glass door. See *(Figures 16 and 17)* for minimum front facing dimensions if glass doors are to be installed.

SUPERIOR ACCESSORY PARTS COMPONENTS LIST

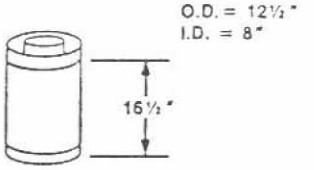
The following accessory parts and components are to be used only with your Superior fireplace system. Separate installation instructions all packaged separately with all glass doors, combustion air kits, forced air fan kits, chimney top terminations and the manufactured home chimney pack.

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

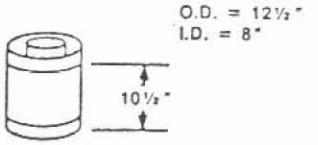
SUPERIOR FIREPLACE COMPANY
Special Services Coordinator
4325 Artesia Ave.
Fullerton, California 92633
714-521-7302



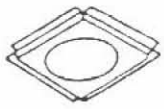
Chimney Section TF8-36



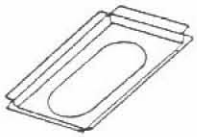
Chimney Section TF-18



Chimney Section TF8-12



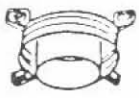
Firestop Spacer (Flat) 8FS



Firestop Spacer (30°) 8FS30

Offset Elbow TF8-30

Return Elbow TF8-E30

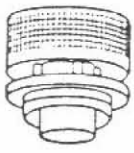


Stabilizer TF8-S4

Locking Band 8LB

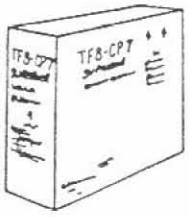
Flashing 8F6 8F12 8F60

Storm Collar 8SC



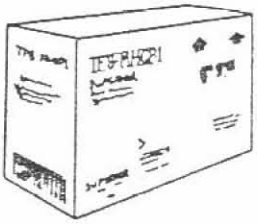
Round Termination TF8-CTC

Chase Termination — TF8-CT1



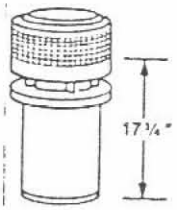
Contents
3 - TF8-36
1 - 8FS
1 - 8F6
1 - TF8-CTD

Chimney Pack
Conventional — TF8-CP7

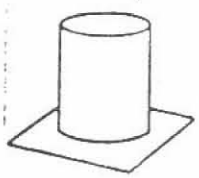


Contents
2 - TF8-36
2 - TF8-12
1 - 8MHFT
1 - 8MHLB
1 - TF8-MHT
1 - 8F6

Chimney Pack
Manufactured Home — TF8-MHCP-1

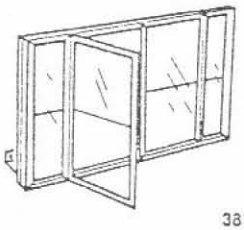


Termination
Manufactured Home — TF8-MHT



Firestop Thimble — 8MHFT

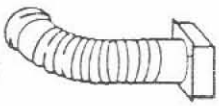
Thimble Extension — 8TE2



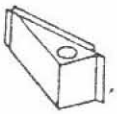
Glass Doors — 38HGD, 33HGD-AB, 33HGD-AB

Forced Air Kit — FAK-1500

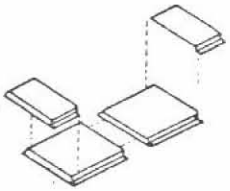
Glass Door Trim — 33 SDT-AB, 38 SDT-AB



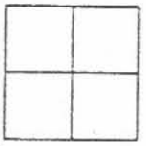
Combustion Air Kit — AK-4, AK-6



Take Off Boot — TOB-4, TOB-6

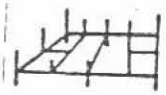


Hearth Extensions — HE-36



Wall Shield — WS40

Refractory Patch Kit — RPK



Cast Grate — CGR-33, CGR-3843

Refractory Trim Kit — RTK