

# INSTALLING & OPERATING YOUR MARCO WOOD-BURNING FIREPLACE



## BUILDER'S 41" FIREPLACES

STOCK #	MODEL REFERENCE	DESCRIPTION
792851	B41CF	BUILDER'S 41" CLEAN FACE
792847	B41HC	BUILDER'S 41" HEAT CIRCULATING
792857	B41HCI	BUILDER'S 41" HEAT CIRCULATING - INSULATED

**CHECK LOCAL CODES PRIOR TO INSTALLATION**

**OPTIONAL FEATURES:** GLASS DOORS  
OUTSIDE AIR KIT  
FAN KIT (HEAT CIRCULATING MODELS ONLY)

THIS MANUAL PROVIDES ALL THE INSTRUCTIONS NECESSARY FOR THE BUILDER OR HOMEOWNER TO INSTALL BUILDER'S 41" MARCO FIREPLACES SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPAIR PARTS WHEN NEEDED.

MARCO MFG., INC., 2520 Industry Way, Lynwood, CA 90262 (213) 564-3201



THIS SYMBOL ON THE PRODUCT  
MEANS IT IS LISTED BY  
UNDERWRITER'S LABORATORIES, INC.

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## SAVE THIS BOOK

**This book is valuable. In addition to telling you how to install and maintain your fireplace and chimney, it also contains the information that will enable you to obtain repair parts when needed. Keep it with your other important papers.**

## KEEP YOUR FIREPLACE SAFE

**NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN-UP" A FIRE IN THE FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE.**

## I. ACCESSORIES

### FIREPLACE GRATE:

This unit has been equipped with a grate designed to keep the operation of your fireplace efficient and safe. See Page 18 for operating instructions.

### GLASS DOORS:

Bi-fold glass doors can be installed as an optional accessory. Use MARCO door kit #793303 and refer to the installation instructions in that kit for installation details. The glass doors can be installed before, during or after the installation of the fireplace. **NOTE: Use of glass doors other than those manufactured by Marco Mfg., Inc. could create a potentially hazardous condition and will void the MARCO warranty.**

### OUTSIDE AIR:

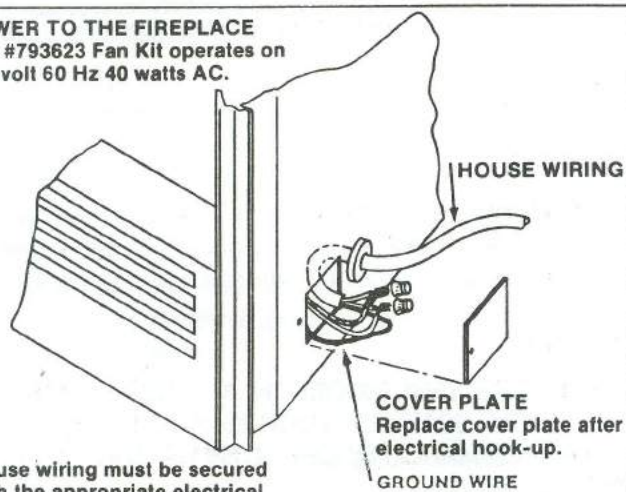
An optional outside air kit is available for installation. #793249 outside air kit, if desired, must be installed *during* the installation of the fireplace (see Page 6).

### FAN KIT (For Heat Circulating models only)

A fan kit (#793623) is also available for use with the heat circulating models as an optional accessory. The fan kit can be installed prior to or after installation of the fireplace. **NOTE:** This model fireplace does not require a wall switch in order for the fans to operate. Refer to the #P/N 181603 Fan Kit Installation instructions for installation details. **THE FIREPLACE MUST BE WIRED TO THE HOUSE ELECTRICAL SYSTEM AT THE TIME OF INSTALLATION IN ORDER FOR THE OPTIONAL FANS TO OPERATE (See Figure 1 & 1A)**

**NOTE:** The utilization of fans will increase the air flow around the firebox. However, only a minimal increase in heat output should be anticipated.

**POWER TO THE FIREPLACE**  
The #793623 Fan Kit operates on  
115 volt 60 Hz 40 watts AC.



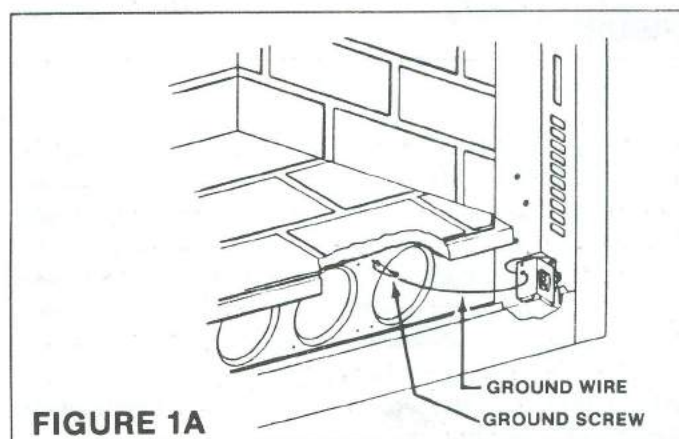
House wiring must be secured with the appropriate electrical connector to the fireplace convenience outlet wiring.

**FIGURE 1**

## II. INSTALLATION INSTRUCTIONS

### INTRODUCTION

- Before beginning the installation of your fireplace, read through these instructions and the instructions contained in the separate Operation Manual.
- This MARCO fireplace and components are safe when installed according to this Installation Manual. Unless you use MARCO components which have been designed and tested for the fireplace system, you may cause a fire hazard.
- MARCO Builders 41" fireplaces may be installed in a conventional home or a prefabricated home.
- The MARCO warranty will be voided by, and MARCO disclaims any responsibility for, the following actions:
  - a) Modifications of the fireplace and/or components, including assembly of chimney, glass doors, air inlet system and damper control.
  - b) Use of any component part not manufactured or approved by MARCO in combination with a MARCO fireplace system.
  - c) Installation other than as instructed in this manual.
  - d) Use of a stove type insert in a MARCO fireplace.
- **PROPER INSTALLATION** is the most important step in ensuring safe, long-term operation of this fireplace. Consult the local building codes as to the particular requirements concerning installation of all factory-built fireplaces. Although grounding may not be required by code, it is recommended by the manufacturer.



**FIGURE 1A**

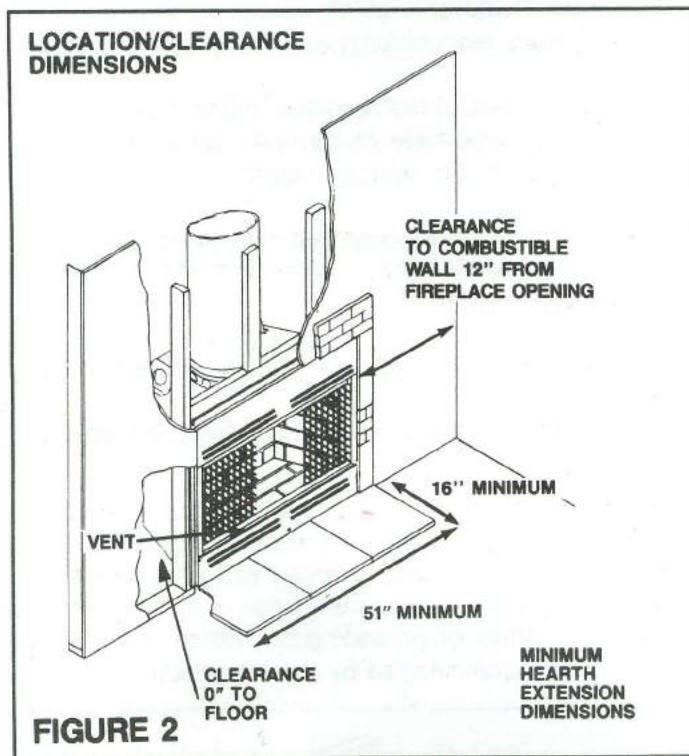
**This fireplace is not intended to be used as a substitute for a furnace to heat an entire home. Use for supplementary heating only.**

# SELECTING YOUR FIREPLACE LOCATION

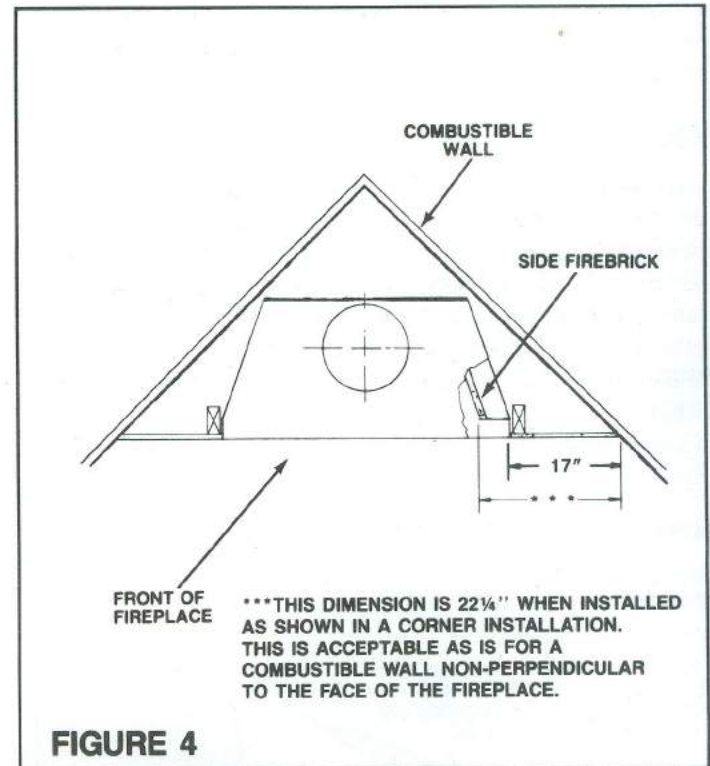
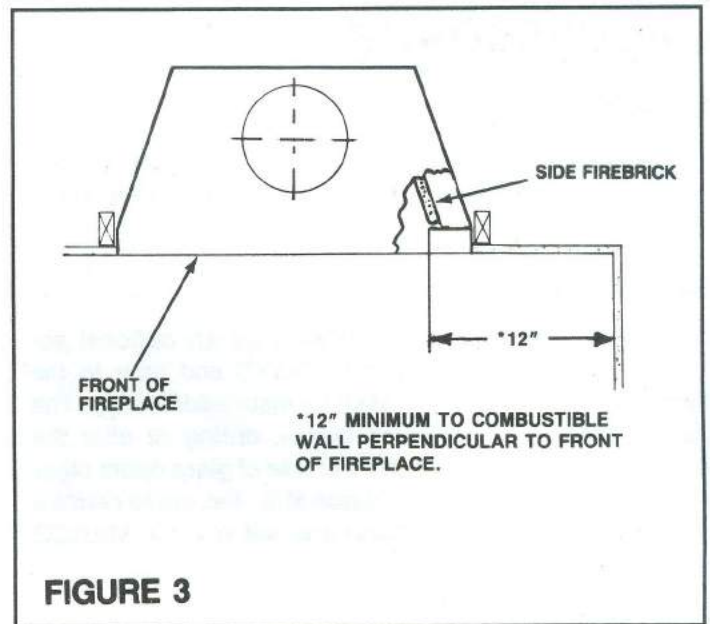
To determine the safest and most efficient location for your fireplace, consider such factors as room traffic, location of doors and windows, and construction above and below the installation area. The fireplace may be installed in any location that is free of air conditioning ducts, electrical wiring, and plumbing. This location must also provide the necessary clearances.

## CLEARANCES

- A fireplace must not be installed closer than 12 inches to any unprotected combustible wall perpendicular to the fireplace opening (Figures 2 and 3).



- When installed in accordance with the instructions given in this manual, the fireplace system may touch combustible materials at the bottom. The lower frame of the clean face model can be covered almost to the level of the hearth. The vent must remain unobstructed. On the heat circulating model the louvres must remain unobstructed. 1/2" clearance is required on sides and back of fireplace, except at the nailing flange along the front edge of each side, where the clearance is 0". The chimney system requires 2" minimum air space.

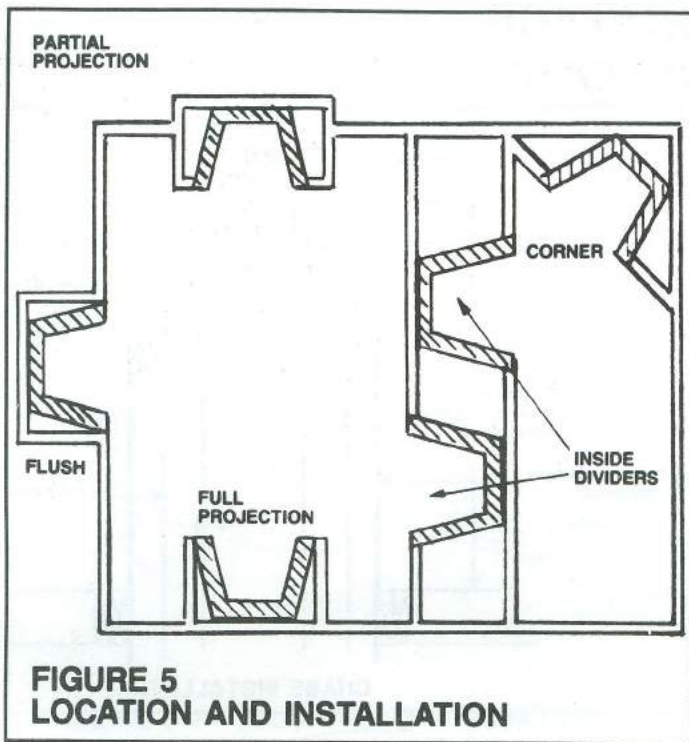


## LOCATION

Corners should be considered where space is limited or at a premium. A corner-installed fireplace can make use of space that may not normally be used (see Figure 3).

## WARNING:

**DO NOT USE THIS MODEL IN A MOBILE HOME INSTALLATION. CONSULT YOUR MARCO DEALER FOR THE PROPER MARCO MODEL TO BE USED IN A MOBILE HOME.**



- A fireplace may be installed flush with the finished wall or projecting any distance into the room. Flush installation is recommended for smooth or thin wall-facing materials. By installing the fireplace to project into the room, a shallower cavity is required to contain the fireplace; thicker, natural materials, such as field stone, can then be used for face material (Figure 5).

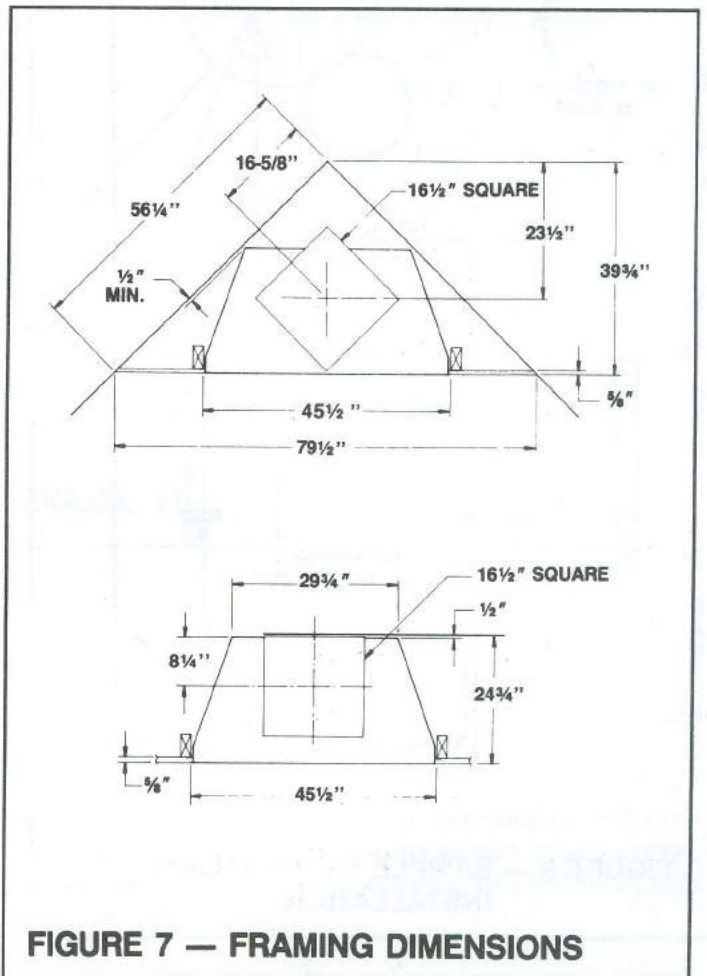
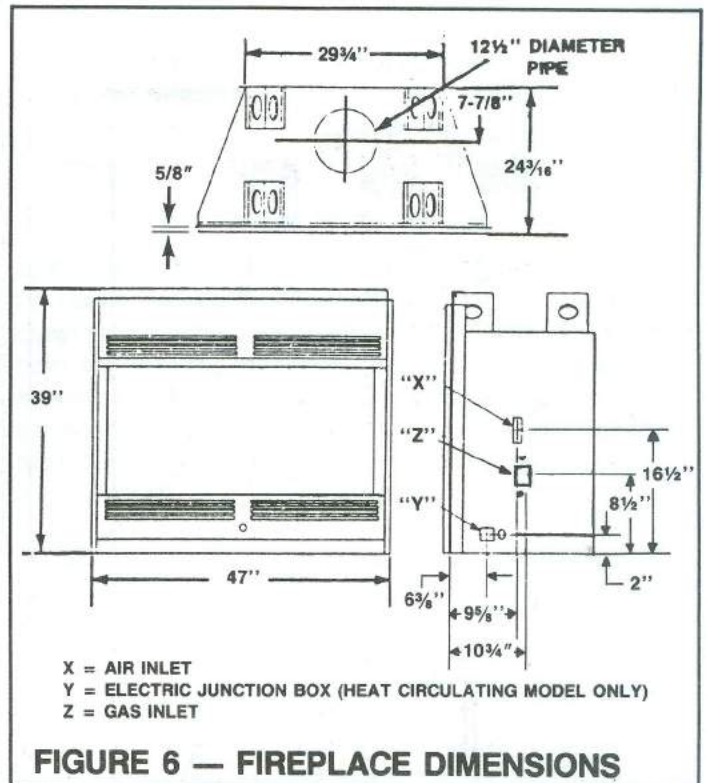
- A location that requires cutting the least number of joists, roof rafters, and floor joists will reduce costs and make installation easier. This may mean moving only one or two inches from the selected ideal location. Any location selected must allow adequate room to accommodate the fireplace and framing dimensions shown in Figures 6, 7 & 9.

- Do not place the fireplace on soft-surfaced floor coverings such as carpeting. The mounting surface must be flat and hard (such as plywood, wood flooring, particle board or any other hard-surfaced material), and support the total base of the fireplace evenly. A raised platform may be used to support the fireplace.

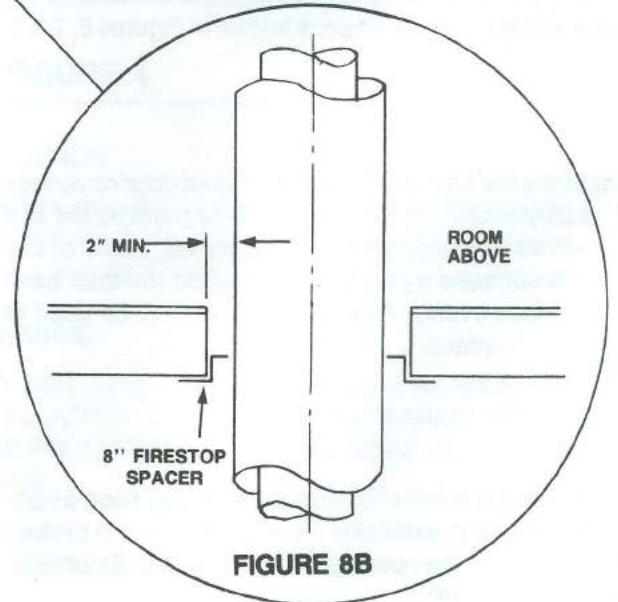
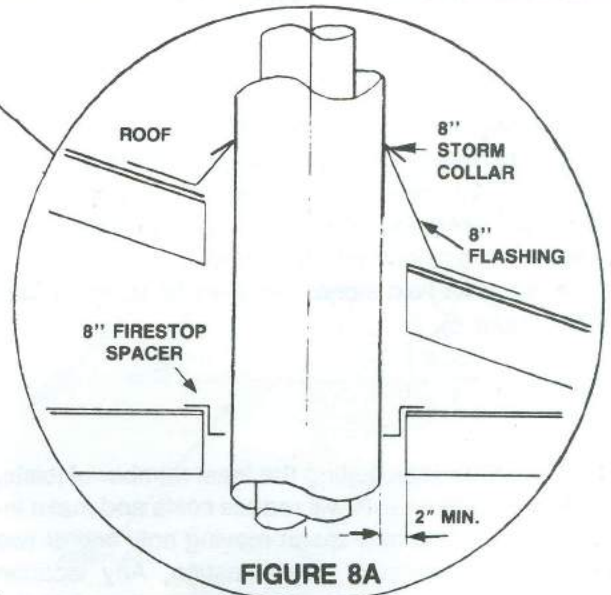
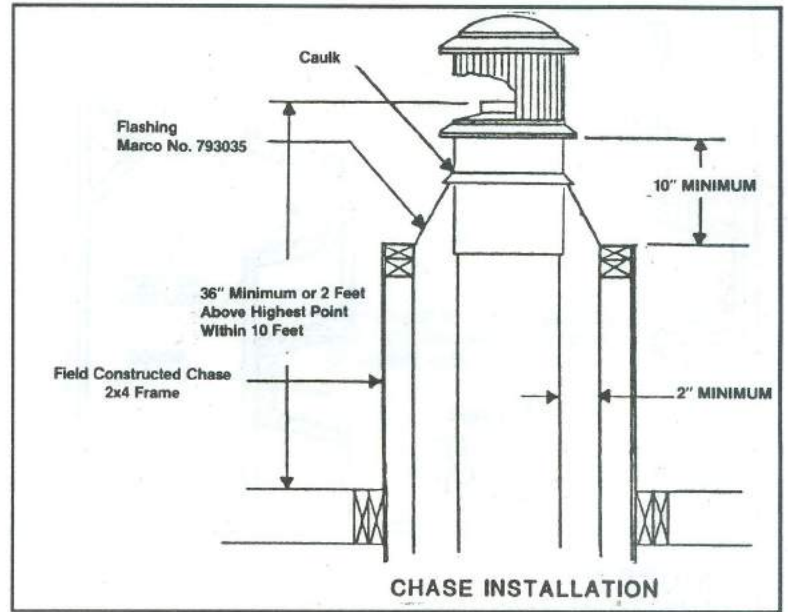
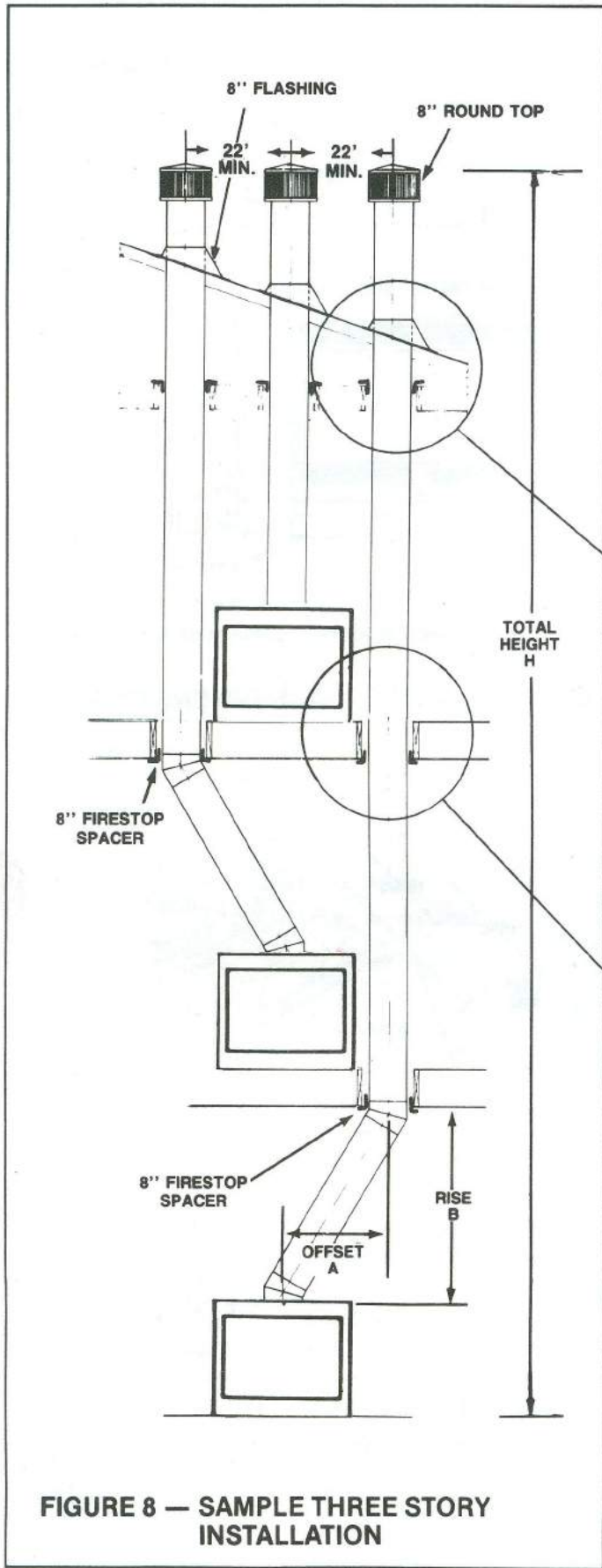
- When a fireplace is installed on a combustible floor, a non-combustible hearth extension must be installed to protect the floor in front of the opening. (Refer to Hearth Extension, Pages 14, 15, & 16).

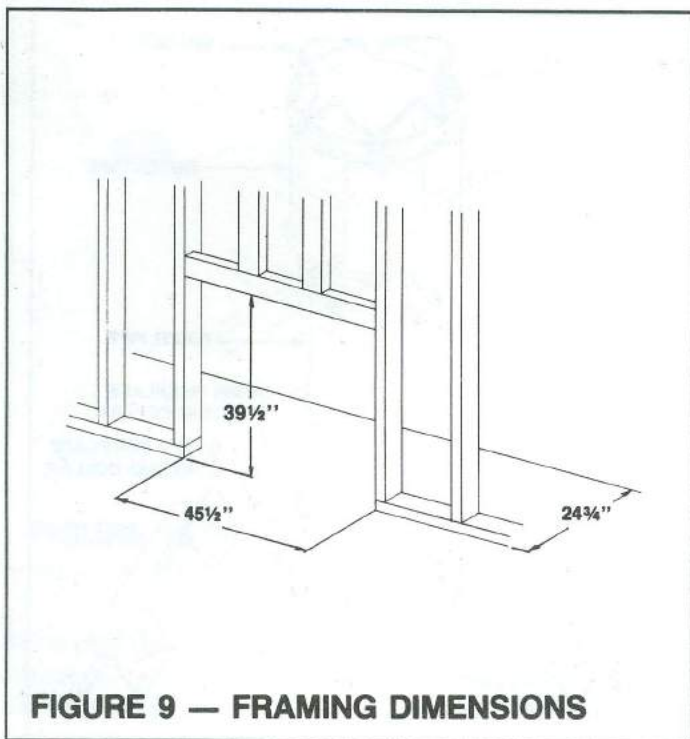
## FRAMING INSTRUCTIONS

Framing around the fireplace (flush or projected) can be designed to incorporate book shelves, wood bins, closets, etc.



# EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS





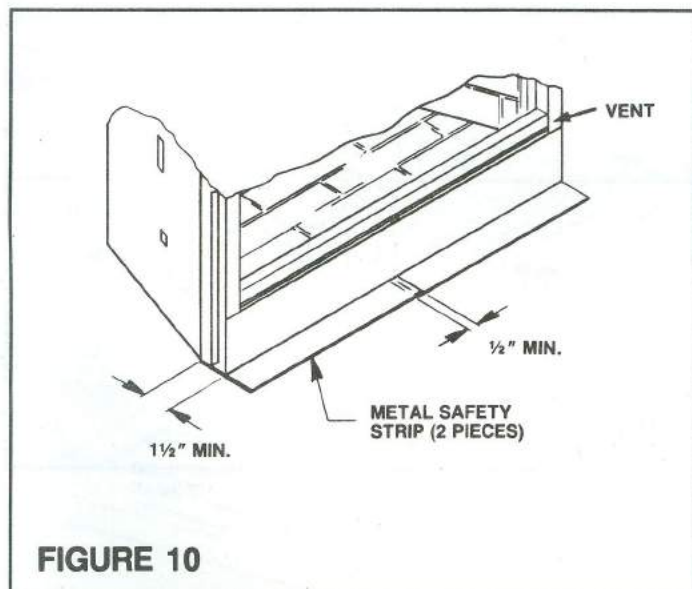
**FIGURE 9 — FRAMING DIMENSIONS**

- 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. The dimensions shown in Figure 9 may be used to construct the fireplace opening.

## INSTALLING YOUR FIREPLACE

**STEP 1:** Frame the cavity or opening for the fireplace at the chosen location (Figure 9). Move the fireplace into position and install the metal safety strips (provided) under the fireplace as shown in Figure 10.

If the fireplace and the hearth are not on the same level, a special safety strip may be required. Refer to page 14.



**FIGURE 10**

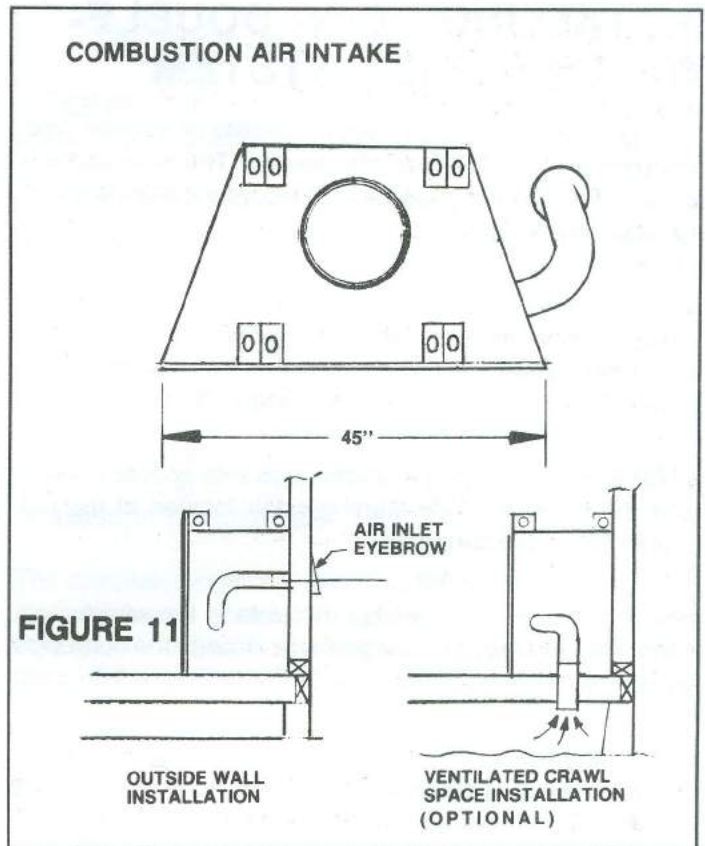
**WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATING OR OTHER MATERIALS. DO NOT BLOCK VENT OR LOUVRES AT BOTTOM OF FIREPLACE.**

**NOTE:** If the outside air kit (Basic-OAK) is not used, proceed to the next section and continue with installation. Otherwise, the Basic-OAK should be installed at this point.

### INSTALLATION OF AIR INLET ASSEMBLY

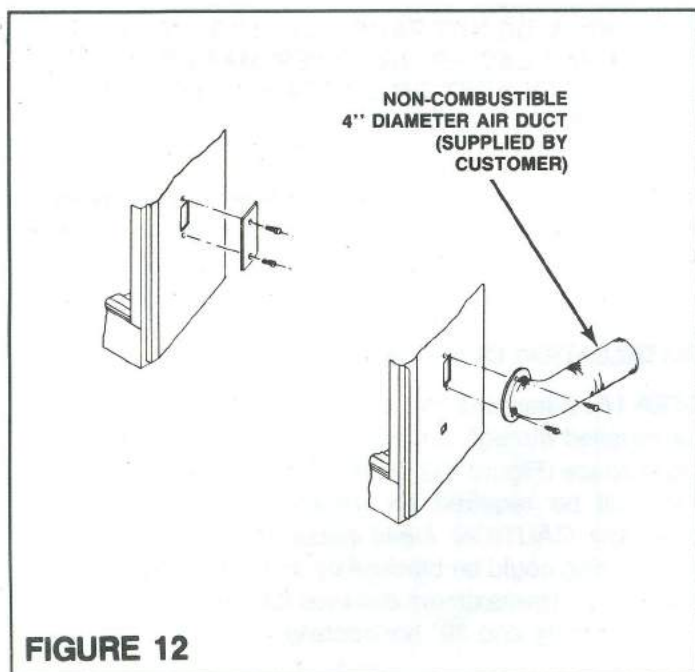
**STEP 1A:** Determine the source for outside air, which can be installed through an outside wall or into a ventilated crawl space (Figure 11). In either case, a 4 1/2" diameter hole will be required for installation of the air inlet assembly. **CAUTION:** Avoid installing the air inlet where the opening could be blocked by snow, bushes, or other obstacles. The maximum distance for the outside air inlet is 8' vertically and 20' horizontally.

**NOTE:** COMBUSTION AIR INLET DUCTS MUST NOT TERMINATE IN ATTIC SPACES.



**FIGURE 11**

**STEP 1B:** Remove the cover plate from the air inlet (Figure 12). Place the airduct flange over the air inlet, align the holes, and secure the flange with the 2 screws which formerly held the cover plate.



**FIGURE 12**

**STEP 1C:** Connect the opposite end of the air duct to the eyebrow (see Basic-OAK Installation Instructions for details).

## INSTALLING YOUR DOUBLE-WALL CHIMNEY SYSTEM

Each double-wall chimney section consists of an outer pipe, flue pipe and single-piece wire spacer. The pipe sections are not unitized and must be assembled independently as the chimney is installed.

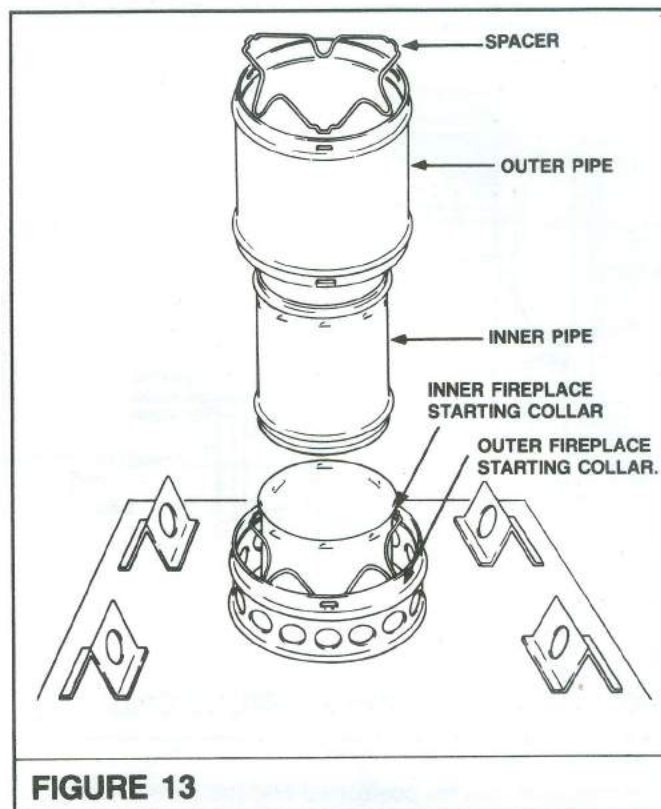
**STEP 1:** When starting the chimney directly on the fireplace, install the inner pipe section by fitting the male end into the inner fireplace starting collar. Make sure the male end is fully inserted to lock into the lances. (Figure 13).

**STEP 2:** Fit the outer galvanized pipe with spacer in place over the outer fireplace starting collar located at the top-center of the fireplace unit.

Rotate the outer pipe to align the slots to the wire spacer locks. The wire spacer must protrude through the outer pipe slots.

Continue to assemble chimney sections as outlined above, making sure that both inner and outer sections are locked together. Stop assembly before reaching the ceiling and cover exposed pipe end.

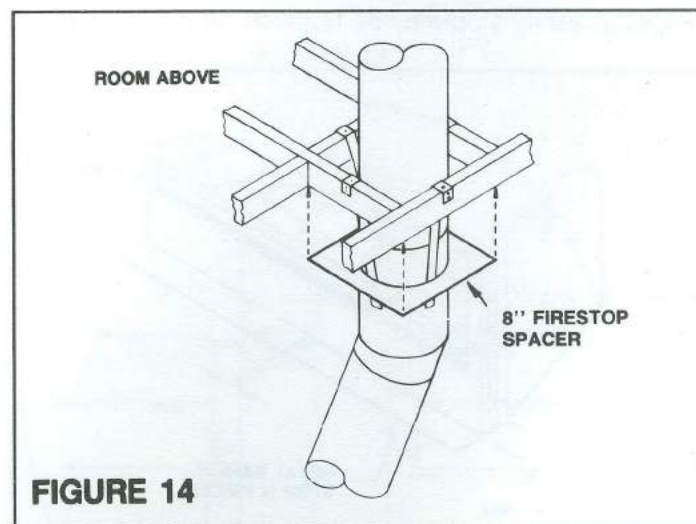
**STEP 3:** On the ceiling directly above the center of the double-wall pipe, lay out a 16½" square hole (use plumb bob) and cut out for chimney exit (Page 3, Figure 7).



**FIGURE 13**

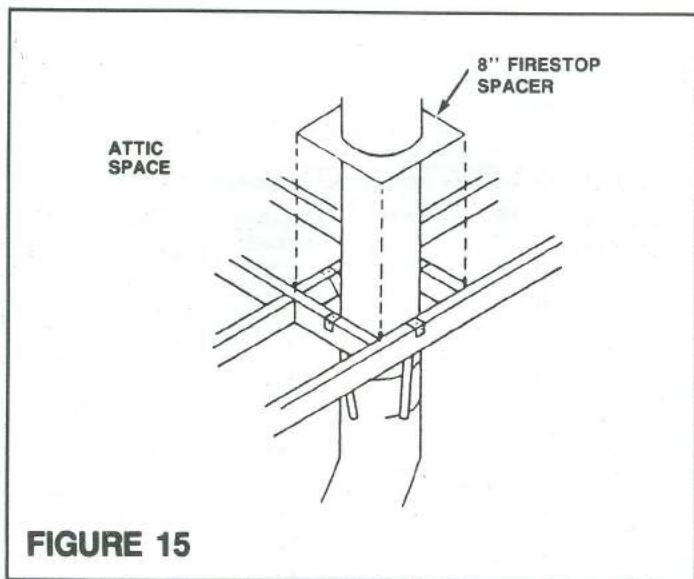
### FIRESTOP SPACERS:

Firestop spacers are required at each point where the chimney penetrates a floor or ceiling joist space. Their purpose is twofold: they establish and maintain the required clearance between the chimney and combustible materials, and they provide complete separation from one floor space to another floor or attic space, as required by most codes. When penetrating a floor or ceiling at an angle, either the 15° or 30° firestop should be used.



**FIGURE 14**



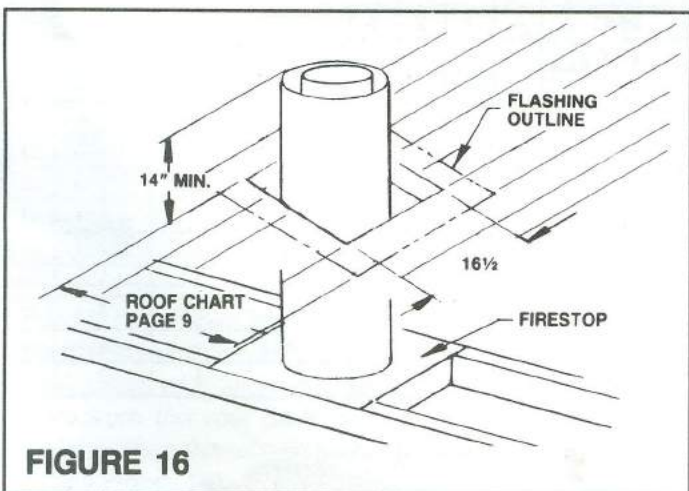


If the pipe passes through a framed opening *between floors*, install a firestop spacer to the *bottom* of the joists (Figure 14). When pipe passes through *into attic space*, install the firestop spacer on the *top* of the joists (Figure 15), and secure with sheet metal screws or nails.

**STEP 5:** Determine the location of the hole to be cut in the roof. The roof hole cut-out varies with the type of chimney termination that will be installed, so refer to the chart on page 9, Figure 18.

**STEP 6:** After cutting the hole in the roof, uncover the pipe and add sections until the chimney extends a minimum of 14 inches above the highest point of the roof cutout (Figure 16).

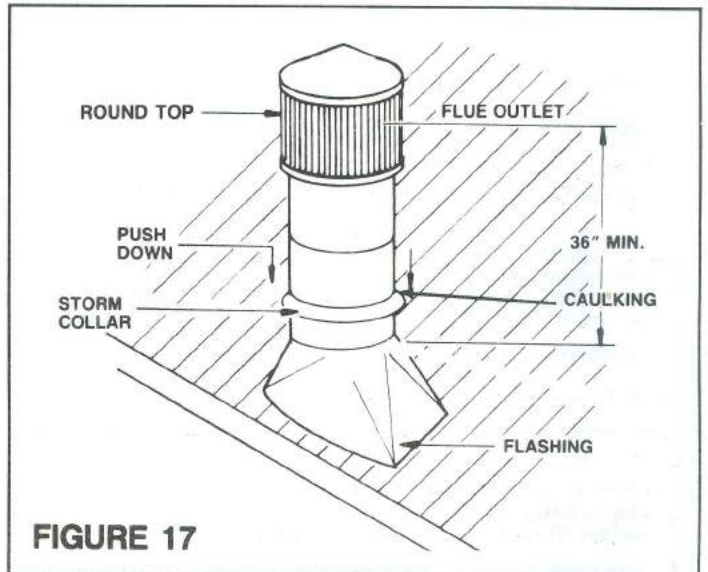
**STEP 7:** Position the flashing over the chimney and flat on the roof. Mark an outline of the flashing on the roof and remove the flashing. Remove all nails within the outlined area (Figure 16).



**STEP 8:** Place flashing into position on unshingled roof. Hold in position by nailing shingles in place over the flashing edges. **DO NOT** Nail through the flashing.

**STEP 9:** Install storm collar on the chimney and push down securely near the top of the flashing. Apply waterproof caulking around the top of the storm collar.

NOTE: This is an important step to insure a watertight system.



NOTE: You may wish to caulk seam notches on all joints above the flashing and paint all exposed parts of the chimney with galvanized primer paint. A coat of paint to match the house may then be applied.

#### TERMINATIONS:

The fireplace and chimney system must be vented to the out-of-doors and must be terminated with the listed termination in this manual.

The completed chimney, including the termination, must extend 36 inches above the highest point where it passes through the roof and not less than 2 feet above the highest point of the roof within 10 feet horizontally (Figure 19).

**STEP 10:** Install termination on last section of pipe. There are 5 different terminations approved for this chimney system. The Standard Builders or Classic Round Top "Long" can be used on an exposed chimney or chase installation. They are adjustable to compensate for height variations on the chase top. The Standard Builders or Classic Round Top can be used on either exposed chimney or chase installation, but are not adjustable.

# HOW TO DETERMINE YOUR FIREPLACE SYSTEM

1. DETERMINE TOTAL HEIGHT (DIMENSION H)  
If raised hearth extension is used subtract hearth extension height from Dimension H. \_\_\_\_\_
2. HEIGHT OF FIREPLACE **39"**
3. RISE OF ELBOWS INCLUDING PIPE \_\_\_\_\_  
Use table of contents offsets (page 10)
4. HEIGHT OF CHIMNEY TERMINATION \_\_\_\_\_  
(See chart below)
5. TOTAL OF LINES 2 THROUGH 4a \_\_\_\_\_
6. SUBTRACT LINE 5 FROM LINE 1 \_\_\_\_\_
7. LINE 6 IS DIMENSION C. THE LENGTH OF PIPE NEEDED TO COMPLETE INSTALLATION (Refer to Chimney Height Chart)

QUANTITY	
8. 12" PIECES OF PIPE	
9. 18" PIECES OF PIPE	
10. 36" PIECES OF PIPE	
11. 48" PIECES OF PIPE	
SUBTOTAL	

12. TOTAL OF LINES 5 AND 11 (SHOULD EQUAL LINE 1) \_\_\_\_\_

**LINEAL GAIN CHART**  
(REFER TO PAGE 10 FOR OFFSET CHART)

NUMBER	DESCRIPTION	LINEAL GAIN
792847-51	FIREPLACE	39"
793116	12" PIPE LENGTH	10 $\frac{3}{4}$ "
793117	18" PIPE LENGTH	16 $\frac{3}{4}$ "
793119	36" PIPE LENGTH	34 $\frac{3}{4}$ "
793120	48" PIPE LENGTH	46 $\frac{3}{4}$ "
793121	CHIMNEY SUPPORT	10 $\frac{3}{4}$ "
793073	ROUND TOP - STANDARD BUILDER	6"
793072	ROUND TOP LONG - STD. BUILDER	5" - 14"
793074	ROUND TOP - CLASSIC	6"
793075	ROUND TOP LONG - CLASSIC	11" - 17"

MARCO's Double-Wall Chimney System, when used on the Standard Builders type fireplace is listed for installation to a maximum of 60 feet high. This measurement includes the fireplace, chimney sections and the effective height of the termination assembly. The minimum height of the fireplace system must not be less than 15 feet including the fireplace, chimney sections, and termination assembly. The minimum height with 2 elbows (1 set) is 18 feet. The minimum height with 4 elbows (2 sets) is 25 feet.

**CHIMNEY MAINTENANCE:**  
Regular inspection and cleaning of the chimney system is important. Refer to the Warranty and Operations Manual for instructions.

**8" DIAMETER CHIMNEY HEIGHT CHART (DIMENSION H) FIGURE 8**

MAXIMUM HEIGHT	PIPE LENGTHS				MAXIMUM HEIGHT	PIPE LENGTHS			
	12	18	36	48		12	18	36	48
8'8"	1	—	—	2	32'7"	—	1	—	8
9'2"	—	1	—	2	33'0"	2	—	—	8
9'7"	2	—	—	2	33'6"	1	1	—	8
10'1"	1	1	—	2	34'1"	—	—	1	8
10'8"	—	—	1	2	34'6"	—	1	2	7
11'0"	2	1	—	2	35'1"	—	—	—	9
11'8"	—	—	—	3	35'6"	—	1	1	8
12'1"	—	1	1	2	36'0"	1	—	—	9
12'7"	1	—	—	3	36'6"	—	1	—	9
13'1"	—	1	—	3	36'10"	2	—	—	9
13'6"	2	—	—	3	37'4"	1	1	—	9
14'0"	1	1	—	3	38'0"	—	—	1	9
14'7"	—	—	1	3	38'4"	—	1	2	8
15'0"	—	1	2	2	39'0"	—	—	—	10
15'7"	—	—	—	4	39'4"	—	1	1	9
16'0"	—	1	1	3	39'10"	1	—	—	10
16'6"	1	—	—	4	40'4"	—	1	—	10
17'0"	—	1	—	4	40'9"	2	—	—	10
17'5"	2	—	—	4	41'3"	1	1	—	10
17'11"	1	1	—	4	41'10"	—	—	1	10
18'6"	—	—	1	4	42'3"	—	1	2	9
18'11"	—	1	2	3	42'10"	—	—	—	11
19'6"	—	—	—	5	43'3"	—	1	1	10
19'11"	—	1	1	4	43'9"	1	—	—	11
20'3"	2	—	1	4	44'3"	—	1	—	11
20'9"	1	1	1	4	44'8"	2	—	—	11
21'5"	—	—	2	4	45'2"	1	1	—	11
21'9"	1	1	—	5	45'9"	—	—	1	11
22'5"	—	—	1	5	46'2"	—	1	2	10
22'9"	—	1	2	4	46'9"	—	—	—	12
23'5"	—	—	—	6	47'2"	—	1	1	11
23'9"	—	1	1	5	47'8"	1	—	—	12
24'2"	2	—	1	5	48'2"	—	1	—	12
24'8"	1	1	1	5	48'7"	2	—	—	12
25'3"	—	—	2	5	49'1"	1	1	—	12
25'8"	1	1	—	6	49'8"	—	—	1	12
26'3"	—	—	1	6	50'1"	—	1	2	11
26'8"	—	1	2	5	50'8"	—	—	—	13
27'3"	—	—	—	7	51'1"	—	1	1	12
27'8"	—	1	1	6	51'7"	1	—	—	13
28'2"	1	—	—	7	52'1"	—	1	—	13
28'8"	—	1	—	7	52'5"	2	—	—	13
29'1"	2	—	—	7	52'11"	1	1	—	13
29'7"	1	1	—	7	53'7"	—	—	1	13
30'2"	—	—	1	7	53'11"	—	1	2	12
30'7"	—	1	2	6	54'7"	—	—	—	14
31'2"	—	—	—	8	54'11"	—	1	1	13
31'7"	—	1	1	7	55'5"	1	—	—	14
32'1"	1	—	—	8					

The roof hole cut-out varies with the type of chimney termination that will be installed (see Figure 18).

TYPE FLUE	CEILING OPENING	
	A	B
VERTICAL	16½	16½
30° OFFSET	23¼*	16½
15° OFFSET	20*	16½

ROOF OPENING			
TERMINATION	PITCH	C	D
ALL ROUND TOPS	FLAT	16½	16½
	6/12	16½	18½
	12/12	16½	22½
	18/12	16½	28
24/12	16½	34½	
TRIM STYLE	FLAT	16½	16½

\*NOTE: CONSTRUCT CHIMNEY OPENING IN SAME DIRECTION AS OFFSET

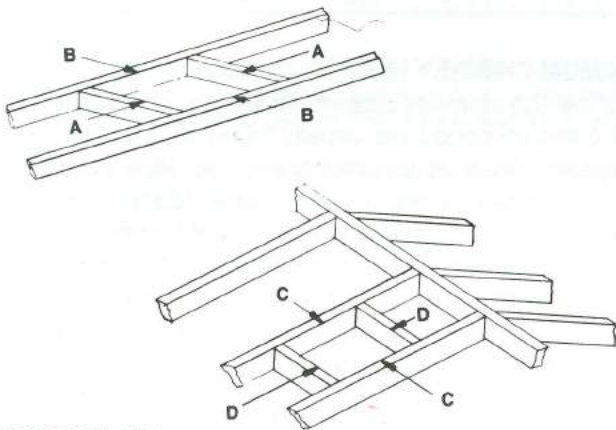


FIGURE 18

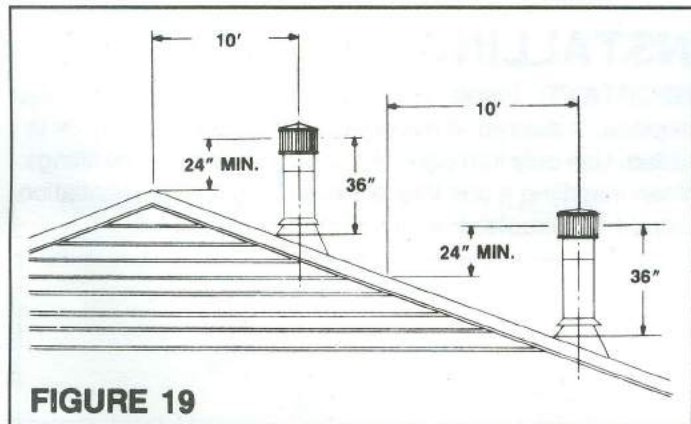


FIGURE 19

10' Rule—if chimney is within 10' of the roof peak, adjacent wall or building, the top should extend a minimum of 2' above the peak. When further than 10' from the roof peak, the tip should extend 2' higher than the closest point 10' away horizontally (See Figure 19).

IMPORTANT: If an exposed portion of chimney is greater than 5 feet above the roof line, use support wires to keep the chimney secure. The support wires may be attached to the outer pipe of the chimney with screws, provided the screws are not long enough to penetrate the inner flue pipe.

### CHIMNEY SUPPORTS:

The chimney support section is a double-wall, unitized 12" length of pipe. A chimney support is required at the 35 foot level above the fireplace after a straight chimney run or 35 feet above a return elbow after a straight chimney run (Figure 20).

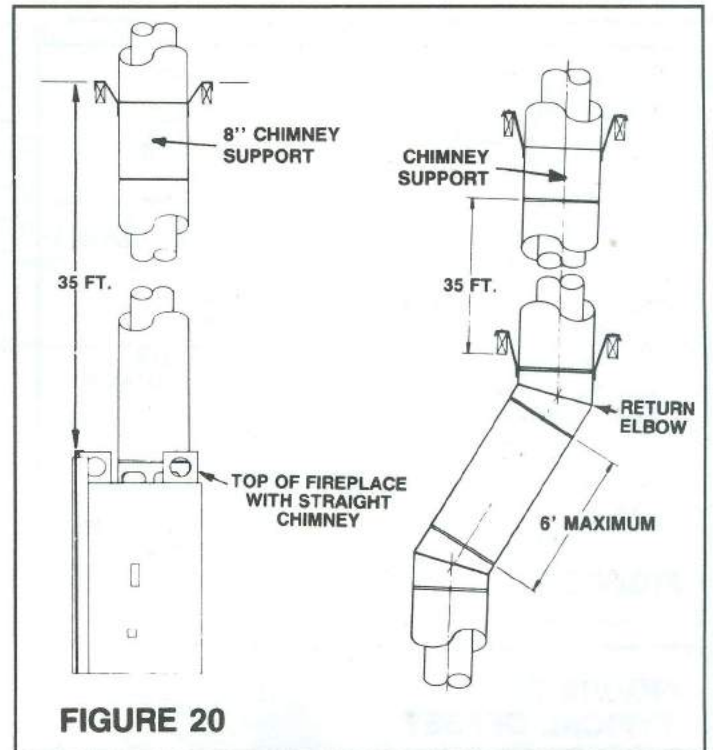


FIGURE 20

The Chimney Support is designed to relieve the extra weight load on the fireplace and elbows when high chimneys are installed.

## INSTRUCTIONS FOR OFFSET CHIMNEY USING ELBOWS

### TO INSTALL ELBOWS

1. To achieve desired offset, you may install combinations of 12", 18", 36", 48" lengths of double wall pipe (see single offset chart and Figures 21 & 23).
2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists. (See Figure 22.)
3. Maximum length of pipe between supports (return elbow or CPS 12-8DN) is 6' of angled run. Maximum of two 6' angles run sections per chimney system (Figure 23).
4. The maximum allowable offset is 30°. Elbows must be secured to the pipe utilizing a minimum of three screws per joint. Fasten screw through outer pipe slot. Drill 1/8" pilot hole or use self-drilling screws provided.

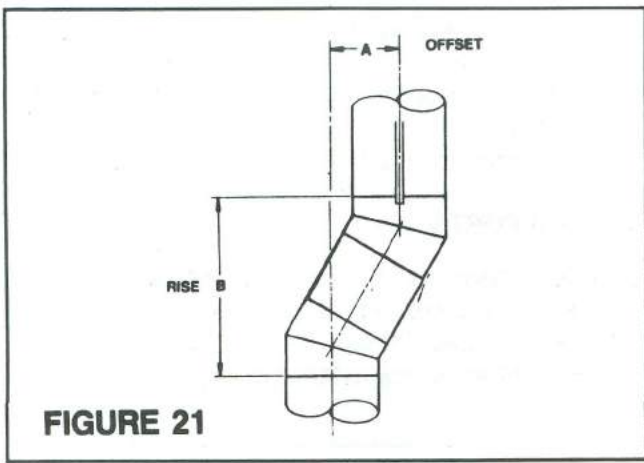


FIGURE 21

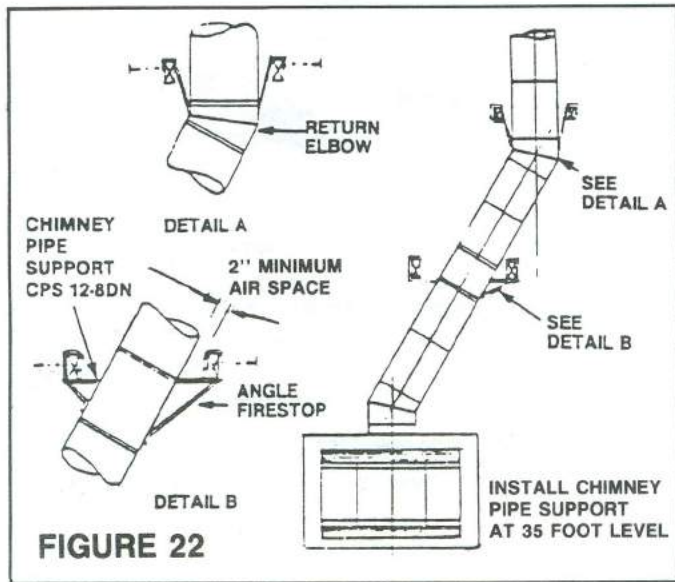


FIGURE 22

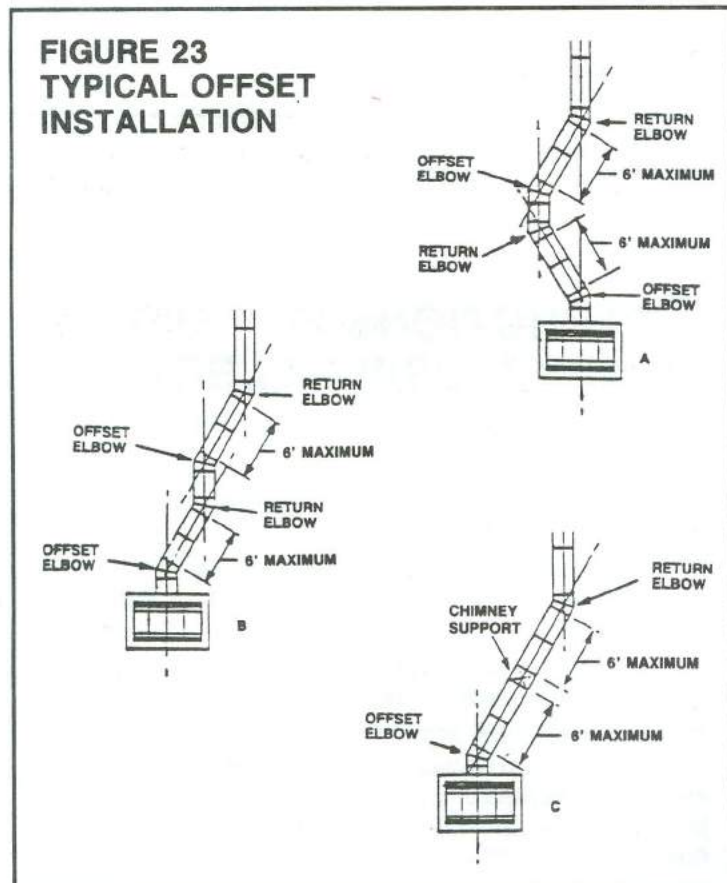


FIGURE 23  
TYPICAL OFFSET  
INSTALLATION

SINGLE OFFSET CHART								
NUMBER AND LENGTH OF DOUBLE WALL PIPE					1-30° OFFSET ELBOW 1-30° RETURN ELBOW		1-15° OFFSET ELBOW 1-15° RETURN ELBOW	
12"	18"	36"	CHIMNEY SUPPORT	48"	A	B	A	B
—	—	—	—	—	5¾	19¼	3	10
1	—	—	—	—	10½	28½	5½	30¾
—	1	—	—	—	13½	33¾	7	36½
2	—	—	—	—	16	37¾	8¼	41
1	1	—	—	—	19	43	9¾	46¾
—	2	—	—	—	22	48¼	11¼	52½
—	—	1	—	—	22½	49¼	11¾	53¾
2	1	—	—	—	24¼	52¼	12½	57¼
1	2	—	—	—	27½	57½	14¼	53
1	—	1	—	—	28	58¾	14½	64¼
—	—	—	—	1	28½	59¾	14¾	65½
—	3	—	—	—	30¼	62½	15½	68¾
—	1	1	—	—	31	63¾	16	70
2	—	1	—	—	33¾	68	17¼	74½
1	—	—	—	1	34	69	17½	75¾
1	1	1	—	—	37	74¼	19	81½
2	—	—	—	1	39¼	78¼	20¼	86¼
—	—	2	—	—	40	79½	20¾	87½
—	—	2	1	—	45¼	88¾	23½	97¾

**MINIMUM CHIMNEY HEIGHT:** The recommended minimum height of the chimney system (15 feet) is based on the wind and pressure conditions usually found around the average homesite. Unusual conditions such as adjacent hills, tall trees, high wind areas, etc. can cause downdrafts to occur in any chimney system and would therefore require an extra length of pipe to ensure the proper draft conditions during the use of the fireplace. Consult your supplier or the local building inspector for any information they may have regarding local weather characteristics.

## INSTALLING THE GAS LINE

**IMPORTANT:** Install the gas line before finishing the fireplace. If desired, a decorative gas appliance may be installed. Use only iron pipe, ½" size, and appropriate fittings. When installing a gas line, a valve designed for installation outside the fireplace is required. (Figure 24).

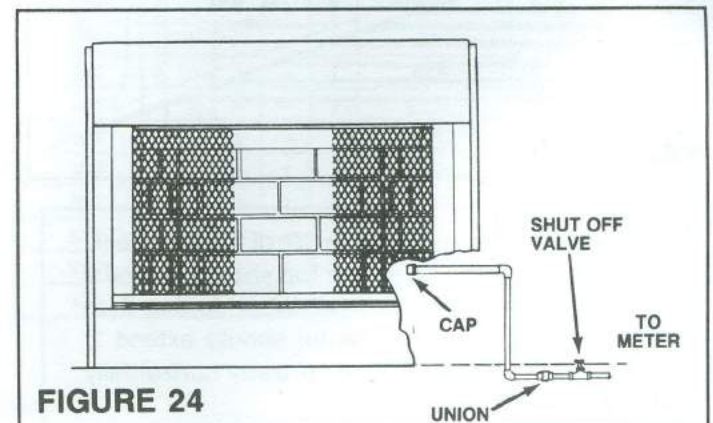


FIGURE 24

The gas line may be installed to enter the fireplace from either side. Refer to Figure 6 for hole location. The unit is shipped from the factory ready for installation on the right hand side. To install in the right hand side proceed as follows: First remove the cover from outside of fireplace casings with 5/16" socket wrench and remove conduit sleeve. Take insulation material out of gas line conduit and save for reuse. On the inside wall of firebox, using a light punch, strike mark or plug located 1½ inches from floor in the center of the side panel. Knock the plug through from inside the firebox to the outside. Reinsert the conduit sleeve.

If a left hand installation is desired: First knock out the plug in the fireplace case on the left side. Proceed as for a right hand installation, except that conduit from the right hand side must be moved to the left hand side. Be sure to replace the cover on the right hand side.

Run gas line to just inside entrance hole of fireplace. Install a 7" minimum nipple to reach inside the fireplace. Repack insulation to conduit sleeve around nipple, finish installation by either capping the gas line or attaching gas log.

### TEST FOR GAS LEAKS

All gas piping and connections must be tested for leaks after the installation is completed. Be sure gas valve is turned on. Apply soap suds solution to all connections and joints. If bubbles appear, leaks can be detected and corrected. DO NOT use a match or open flame of any kind to test for leaks. Never operate any appliance with leaky connections.

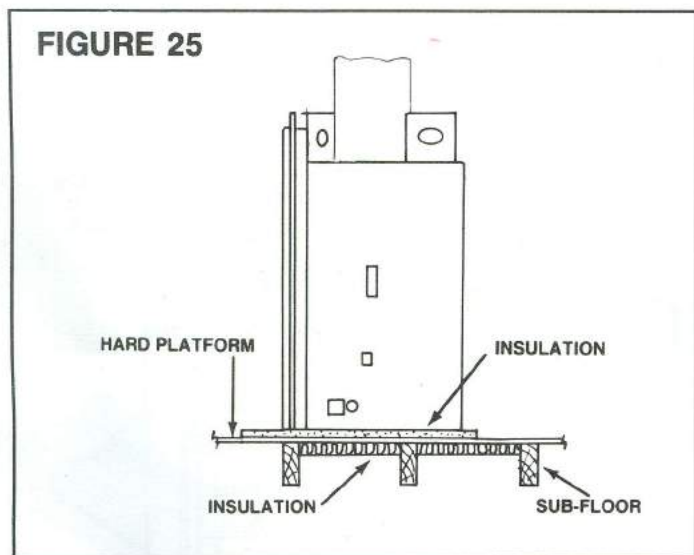
The gas pipe is intended for use with a decorative gas appliance only, in accordance with the National Fuel Gas Code, ANSI Z223.1-1984 and NFPA 54-1984.

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

When installing the gas line, pack non-combustible insulation around gas line where it enters the fireplace at the outer wall.

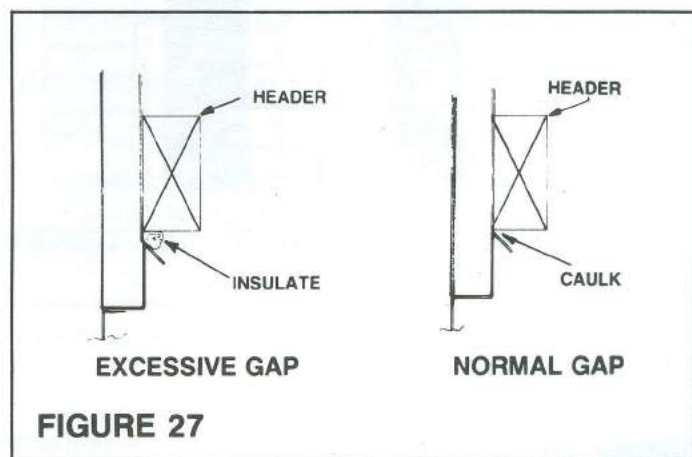
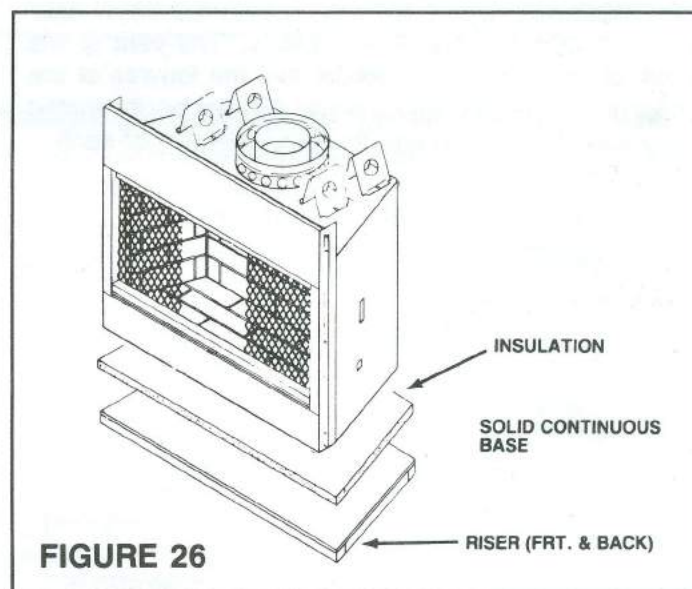
## COLD CLIMATE INSTALLATION

When installing a fireplace in an area where outside temperature reaches +32°F or lower, it is important to protect the metal bottom from the cold air by setting the fireplace on a non-combustible, insulated, solid surface.



Inspect all joints for fit. If a joint is not fitting properly, caulk or use duct tape to prevent cold air leaks through the fireplace into the room.

Caulk all cracks around fireplace wherever cold air can enter the room (see Figure 27 & 28).



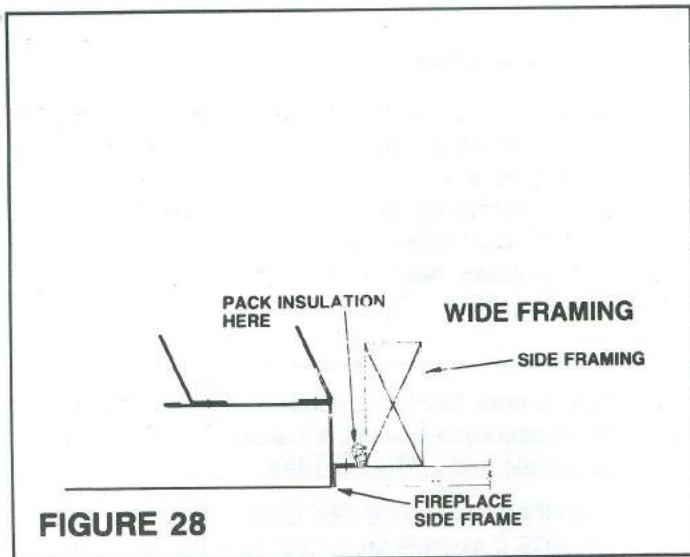


FIGURE 28

NOTE: Do not let insulation material come in contact with the fireplace in required air spaces.

As a further precaution, finish trim around the fireplace should be caulked between trim and fireplace to prevent entry of cold air or escape of warm air.

In areas of extreme cold, it is recommended that the outer walls of the chase be insulated. This will reduce the possibility of cold air convection currents on the fireplace. NEVER use blown-in type of insulation as this could plug the holes at the base of the chimney and interfere with the thermal syphoning action necessary to keep the chimney cool.

### III. FINISHING THE FIREPLACE

#### FIREPLACE FACING

When selecting the finish material for your fireplace, it is important to remember the following: THE BLACK FACE OF THE FIREPLACE MUST NOT BE COVERED WITH ANY TYPE OF COMBUSTIBLE MATERIAL. The vent at the bottom of the Clean Face Model and the louvres at the bottom of the heat circulating model may not be obstructed in any way. Figures 29 and 30 show samples of each.

Non-combustible facing material such as tile, brick, glass, etc. may overlap the black face of the fireplace. Be sure to use non-combustible heat resistant mortar or adhesive when attaching to fireplace face. The face of the fireplace may be painted to match the room decor provided you use a heat resistant paint. NOTE: Decorative facing must not extend into the fireplace opening at all, because it will interfere with the operation of the glass doors.

BRICK  
PANELING  
EXAMPLE  
(CLEAN FACE MODEL SHOWN)

#### FIREPLACE RAISED ON PLATFORM

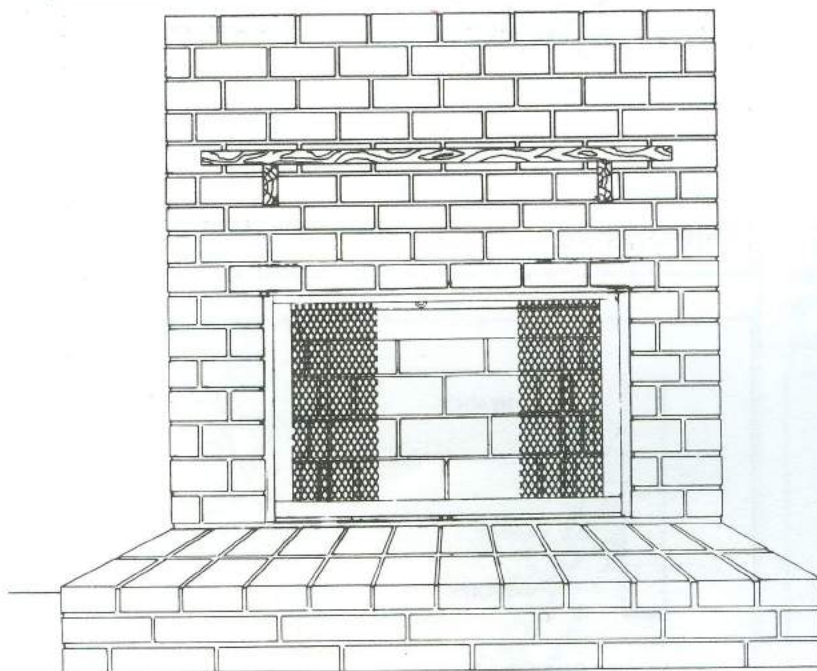
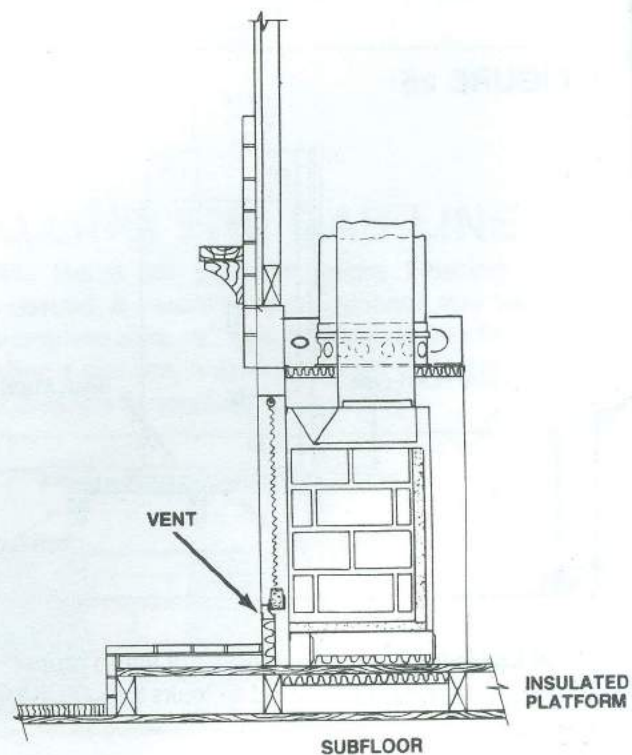


FIGURE 29

HEARTH EXTENSION



WOOD  
PANELING  
EXAMPLE

FIREPLACE FLUSH  
WITH WALL

(HEAT CIRCULATING MODEL SHOWN)

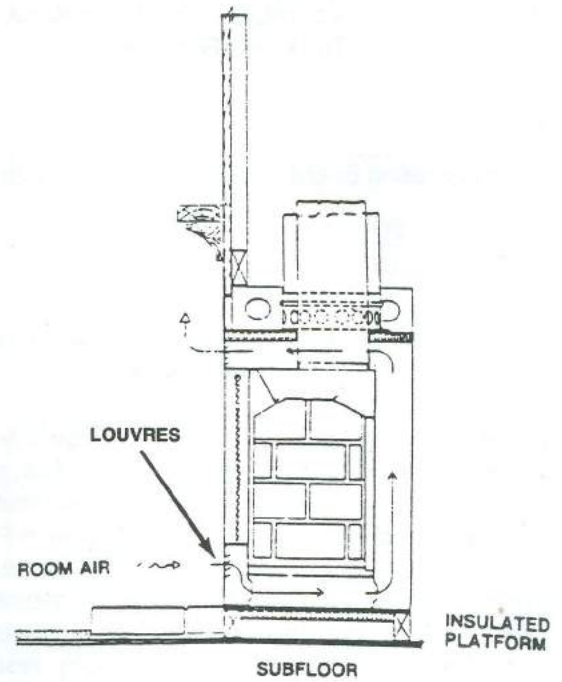
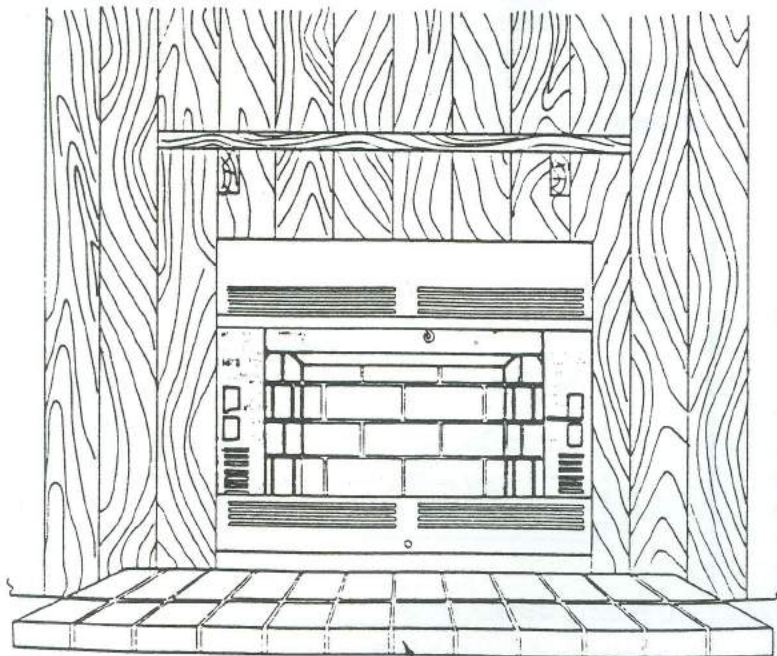


FIGURE 30

HEARTH EXTENSION

**HEARTH EXTENSION:** If there is combustible floor construction in front of the fireplace, a hearth extension is required to protect it. The hearth extension, as shown in Figure 24, must be a minimum of 20" deep by 51" wide, and extend a minimum of 8" beyond each side of the fireplace opening.

The hearth extension must be made from a non-combustible inorganic material with a thermal conductivity, K, of .07 or less. The thermal conductivity, K or thermal resistance, R of materials can usually be obtained from the manufacturer. The factors are related by the formula  $K = \frac{1}{R}$ . The thickness required for various common materials and their factors are shown in Figure 32.

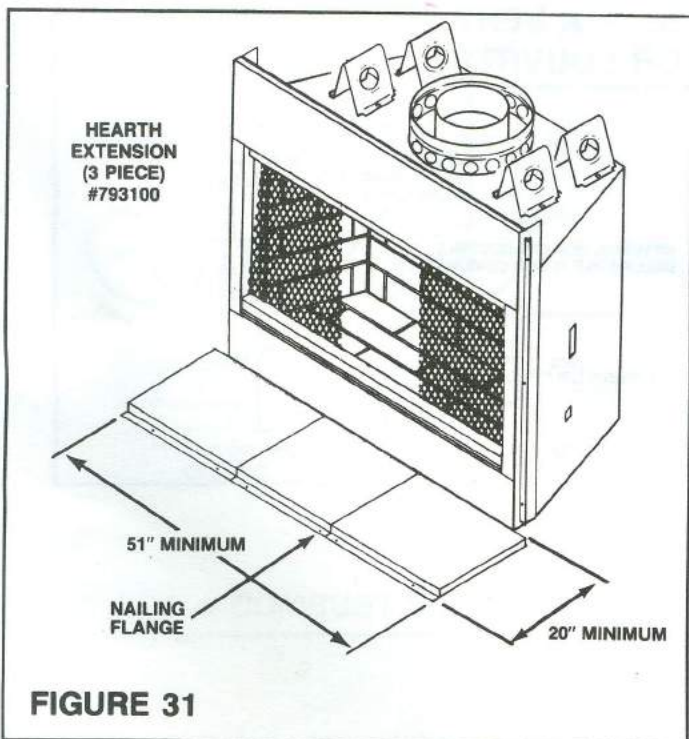


FIGURE 31

Material	K*	R	Minimum Thickness
Millboard	.07	14.3	1.0"
Insulating Board (K-FAC 19)**	.064	15.6	.91"
Mineral Wool - Resin Binder	.024	41.6	.34"
Common Brick	.41	2.4	5.85"

\*Units of K are BTU / Sq. Ft. / Hr. / °F / Ft.  
\*\* Product of U.S. Gypsum

**FIGURE 32 — COMMON MATERIALS AND THEIR FACTORS**

**EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT**

To determine the thickness required for any material:  
 $\frac{K \text{ new material} \times 1''}{.07} = \text{Thickness Required}$

\* Per Ft.

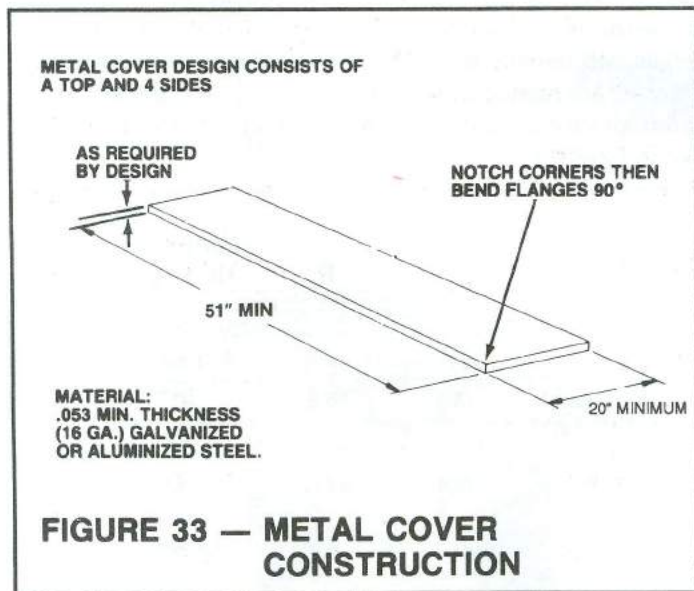
Example for Insulating Board - K-FAC 19 (K from Figure 25)

$$\frac{.064 \times 1}{.07} = .91''$$

Whatever the material used, sufficient thickness must be laid down to maintain an equivalent K factor.

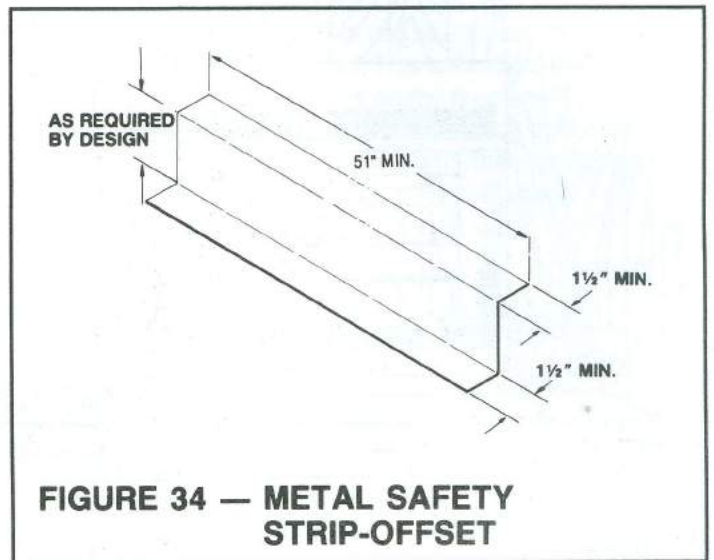
The thermal insulating layer may be covered by any non-combustible material such as metal, tile, slate, brick, glass, concrete, marble, or stone. When using a flexible insulating material a supporting metal cover such as shown in Figure 27 should be fabricated and installed. NOTE: Some non-combustible coverings such as metal, slate, sandstone and marble are relatively good conductors of heat and must be used in combination with the more thermally resistant materials.

In finishing up the hearth extension, be sure to fasten it securely to the floor to prevent shifting, and seal the gap between the fireplace frame and the hearth extension with a non-combustible material (see Figure 36).

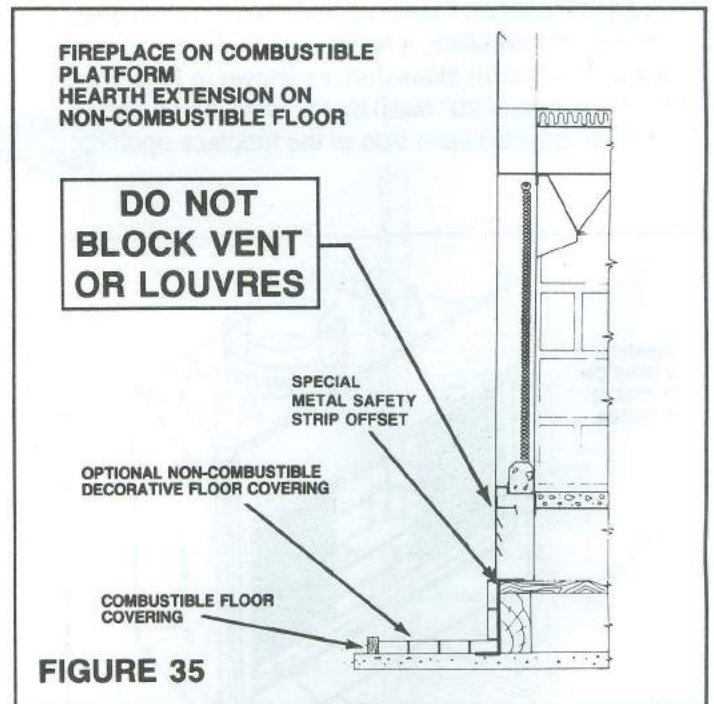


**METAL SAFETY STRIP-OFFSET (SUPPLIED BY OTHERS)**

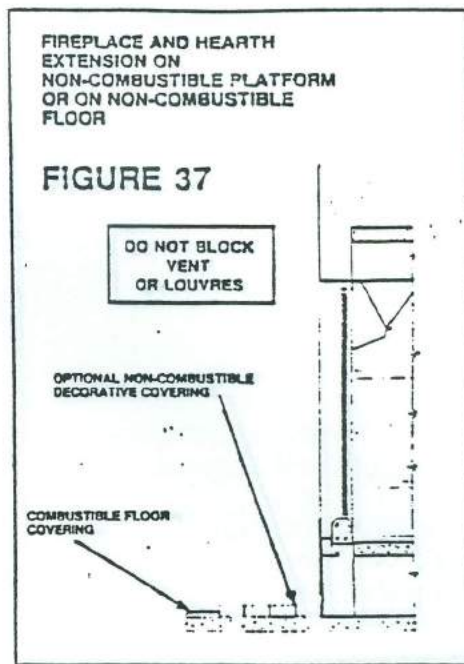
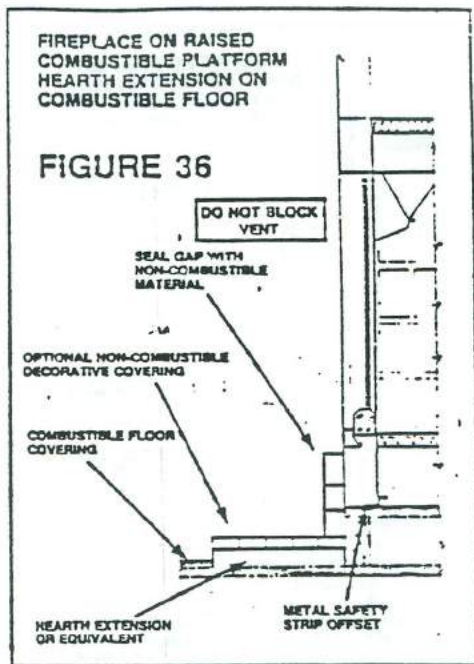
When the fireplace and hearth extension are not installed at the same height a custom safety strip will be required. The safety strip shall be constructed of a minimum thickness of .018 galvanized steel and should be shaped as shown in Figure 34.



Figures 35-37 show samples of this type of installation.



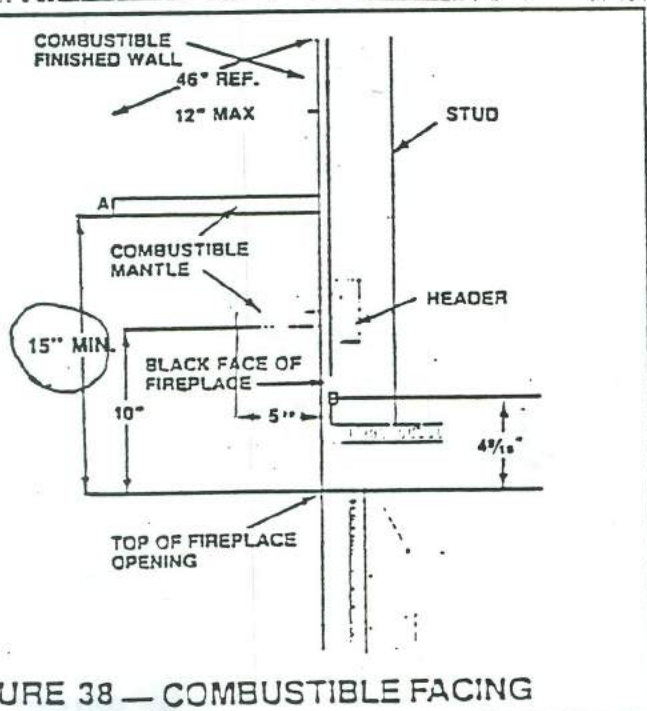




**\*NON-COMBUSTIBLE DECORATIVE COVERING:**

Should be at least 3/8" thick and meet H.U.D. and/or local building code requirements. The finished height of the hearth extension must not block the inlet grille at the bottom of the fireplace.

## MANTLES



Combustible mantles may be safely installed provided they do not project beyond safe zone as illustrated in Figure.

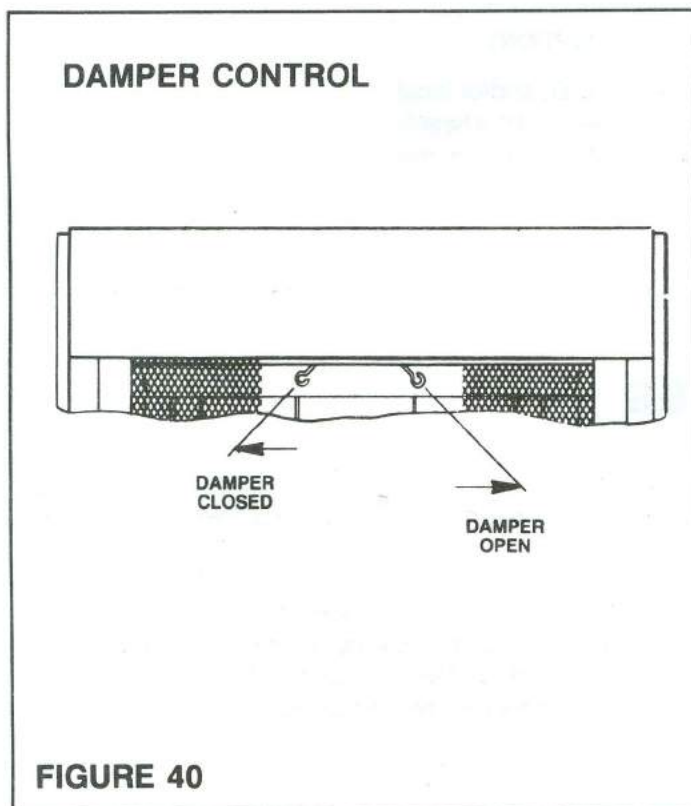
NOTE: Use an "L" shaped piece of metal (lintel) across the top of the fireplace opening when a non-combustible material is used on the face of the fireplace. It can be attached to the face of the fireplace with screws (see Figure 38).

## IV. OPERATING INSTRUCTIONS

### DAMPER CONTROL LEVER

The damper control lever located inside the top front of the firebox has been engineered to provide for safe operation of your fireplace. Do not close the damper in an attempt to reduce a large fire. To do so may cause a potential smoke hazard, just as any fuel-burning appliance would do if not properly exhausted. If you forget to open the damper before you start your fire (you will know immediately by the smoke entering your home), simply move the damper lever from its closed position notch to the open position (Figure 40).

The fireplace flue damper must always remain open until the fire is totally out. Partially burned logs can appear to be out even when still burning and giving off dangerous gases. If the damper is closed too soon, these gases may escape into the room.

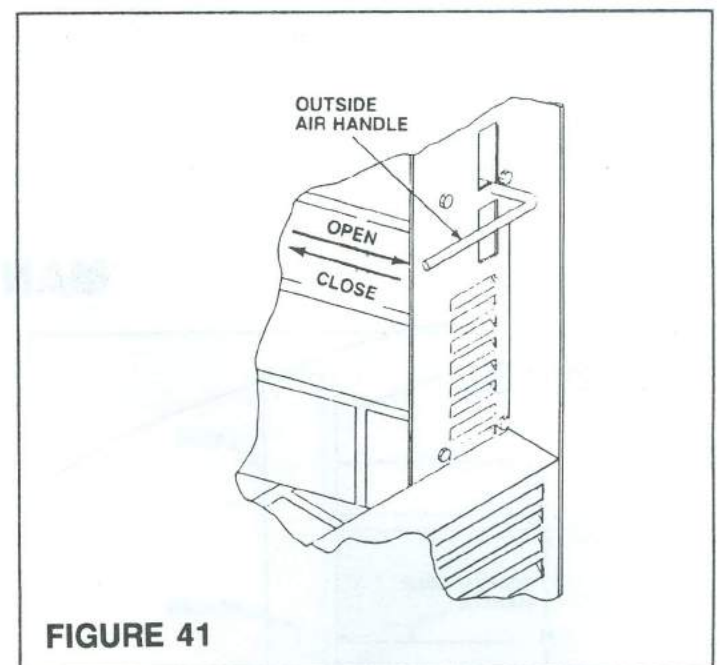


### FIREPLACE GRATE:

This unit has been equipped with a grate to keep the operation of your fireplace efficient and safe. **Do not attempt to defeat its purpose.** The size and position of the grate was engineered to give the ideal combustion characteristics for the fire. By keeping your logs within the grate and not on the hearth, you will prevent the chance of a log "spill" or roll out of the fireplace. **DO NOT OVERLOAD THE FIREPLACE.** Piling excessive wood on your grate will not increase efficiency and could possibly cause smoke to enter your room. Keep the hearth area under the grate free of excessive ash build-up to allow a free flow of air for the fire.

### OUTSIDE AIR:

If an outside air kit has been installed, the outside air damper should be opened before starting the fire. It supplies outside air for combustion and aids the fireplace in drawing properly.



When the fireplace is not in use, close the airgate to prevent cold air from entering your home. Check the intake screen periodically to make sure it is clear of debris.

## DO'S AND DON'TS

- Read operation and warranty manuals thoroughly before installing and using this fireplace.
- When installing this fireplace in cold climate areas be sure to follow the cold climate installation instructions outlined in his booklet.
- Check the hearth for cracks and damage. Because the firebrick refractory is repeatedly heated and cooled, this can cause hairline cracks to form. This is normal and does not damage the fireplace. If, however, a crack should become large (1/16" wide or larger), refractory should be replaced.
- Have repairs done by a qualified service technician.
- Open damper to ensure proper operation.
- Be sure outside air gate is open before starting your fire. Ventilating fans, central heating systems, and exhaust fans can cause fireplaces to smoke by stealing the available combustion air needed for burning the wood in your fireplace.
- "Cure" the refractory lining by building only small fires the first two or three times you use the fireplace. The refractory back, sides and bottom are made from a combination of materials including refractory cement and water. Large roaring fires built on "uncured" refractory could generate steam within the refractory and cause cracks.
- Keep area in front of fireplace clear of combustible materials such as drapes, paper products, wood storage, furniture etc.
- Creosote - Formation and Need for Removal  

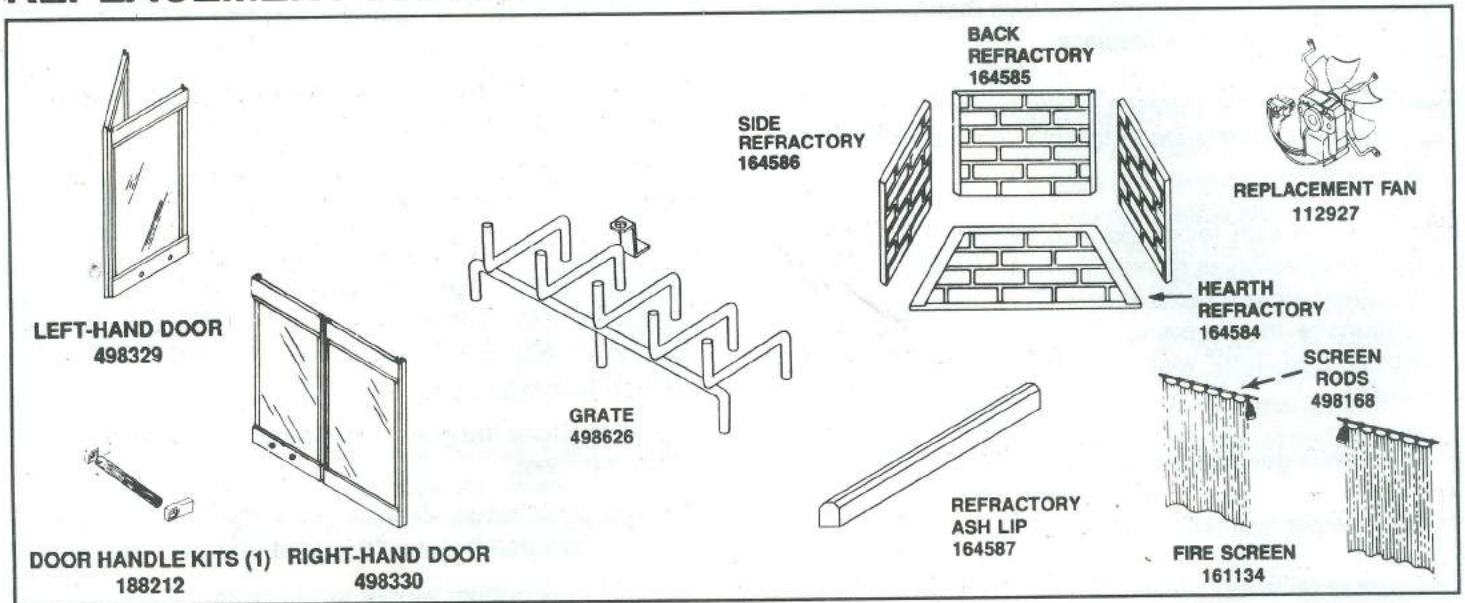
When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.
- The chimney should be inspected at least twice a year during the heating season to determine if a creosote buildup has occurred.  

If creosote has accumulated it should be removed to reduce the risk of a chimney fire.
- To prevent excessive creosote build-up, use only dry, seasoned wood.
- Regular inspection and cleaning of the creosote (soot) build-up in your chimney is important for the safe operation of your fireplace. Consult your warranty manual for cleaning instructions.
- When the fire is actively burning, open doors for maximum heat output.
- Keep base of fireplace clean of excess ash accumulation to prevent grate "burnout".
- Keep the fire screen closed at all times when burning, except when adding fuel.
- **WARNING: THE OPENINGS OF THE COLLAR AROUND THE BASE OF THE CHIMNEY AT THE TOP OF THE FIREPLACE MUST NOT BE OBSTRUCTED, NEVER USE BLOWN INSULATION TO FILL THE CHIMNEY ENCLOSURE.**
- Do not overload the grate; to do so could cause smoke to enter the room.
- Do not allow ashes directly under the burning logs to build up to a point where they hinder the air flow.
- Do not block bottom vent or louver grille.
- Do not burn large amounts of waste paper or cardboard in your fireplace.
- Do not burn scrap construction lumber; it produces excessive sparks.
- Do not burn wood products with synthetic binders like artificial logs or plywood, as these produce abnormally high temperatures.
- 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 all such liquids well away from the fireplace while it is in use.
- Never close the damper until you are certain that there are no warm embers.

### REFERENCE DOCUMENTS:

1. MARCO Woodburning Fireplace Warranty and Operation Manual. P/N 181536.
2. Bi-Fold Door Kit Installation Instructions, P/N 181587.
3. 8" Builders Round Termination Installation Instructions, P/N 181621.
4. 8" Classic & Builders Adjustable Round Termination installation Instructions, P/N 181633.
5. 8" Classic Round Termination Installation Instructions, P/N 181597.
6. 8" Builder's Round Top-Medium Installation Instructions, P/N 181663.
7. Builder's Fan Kit, P/N 181671.

# REPLACEMENT PARTS



## HOW TO ORDER REPAIR PARTS

1. Order repair parts from the Dealer through whom you purchased the fireplace, if possible.
2. Be sure to give the Part Number, the Name of the Part, and the Fireplace Model Number. The Model Number is on the inside righthand side of the fireplace.
3. When remittance is sent with the order, include enough for transportation.
4. There is a minimum invoice charge of \$10.00 plus postage for each order.
5. All parts are subject to change without notice.

## COMPONENT PARTS

THIS FIREPLACE IS NOT INTENDED TO BE USED WITH ANY COMPONENTS OTHER THAN THOSE SPECIFIED IN THIS MANUAL

### U.L. LISTED PARTS FOR 8" DOUBLE WALL FLUE SYSTEM.

