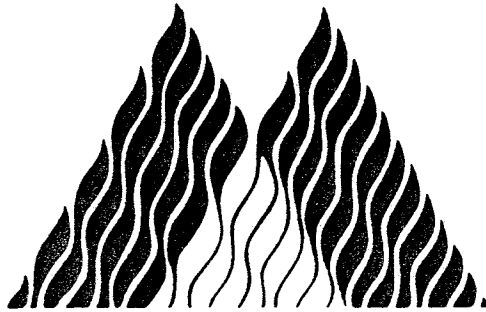


# INSTALLING & OPERATING YOUR MARCO WOOD-BURNING FIREPLACE

*U.L. FILE #*

*MH 9245*



# MARCO®

## CLASSIC 41" FIREPLACES

STOCK #	MODEL REFERENCE	DESCRIPTION
792848	C41CF	CLASSIC 41" CLEAN FACE
792849	C41HC	CLASSIC 41" HEAT CIRCULATING
792850	C41HCD	CLASSIC 41" HEAT CIRCULATING (WITH DOORS AND FANS)

**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 CLASSIC 41" MARCO FIREPLACES SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPAIR PARTS WHEN NEEDED.



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



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

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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 19 for operating instructions.

## GLASS DOORS:

Bi-fold glass doors can be installed as an optional accessory. Use MARCO door kit #793303 or #793410 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.**

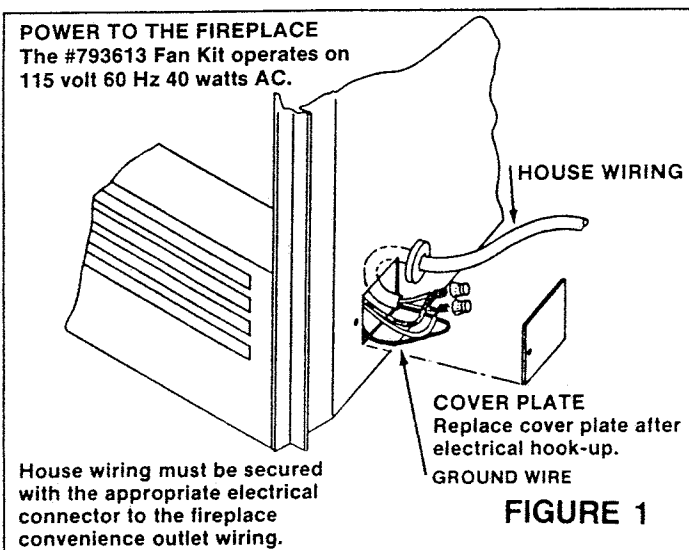
## OUTSIDE AIR:

An optional outside air kit is available for installation. #793250 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 #793613 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 181605 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)

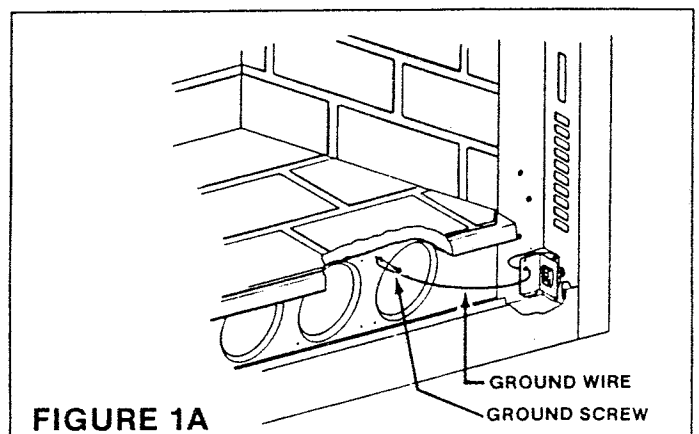
**NOTE:** The utilization of fans will increase the air flow around the firebox. However, only a minimal increase in heat output should be anticipated.



# 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 Classic 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) Do not use a fireplace insert or other products not specified for use with these fireplaces.
- **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.



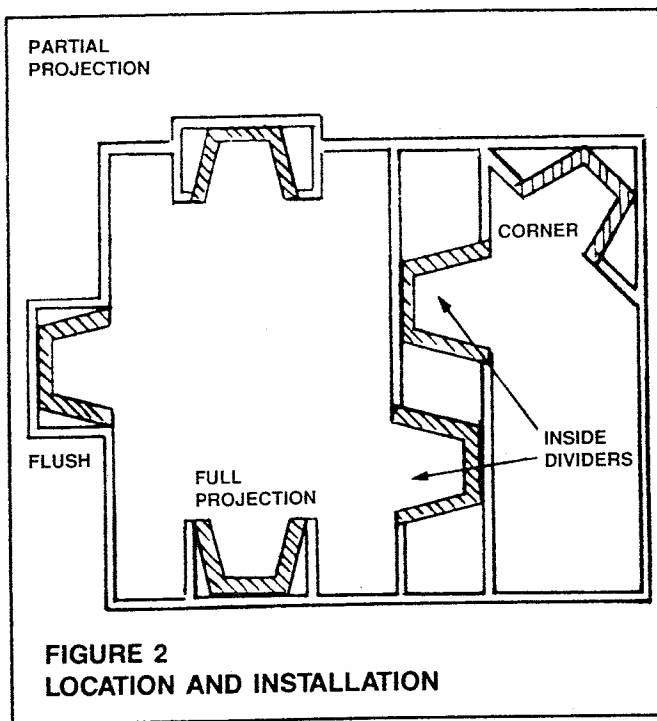
This fireplace is not intended to be used as a substitute for a furnace to heat an entire home. Use for supplementary heating only.

# 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.

## 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 5).



**FIGURE 2  
LOCATION AND INSTALLATION**

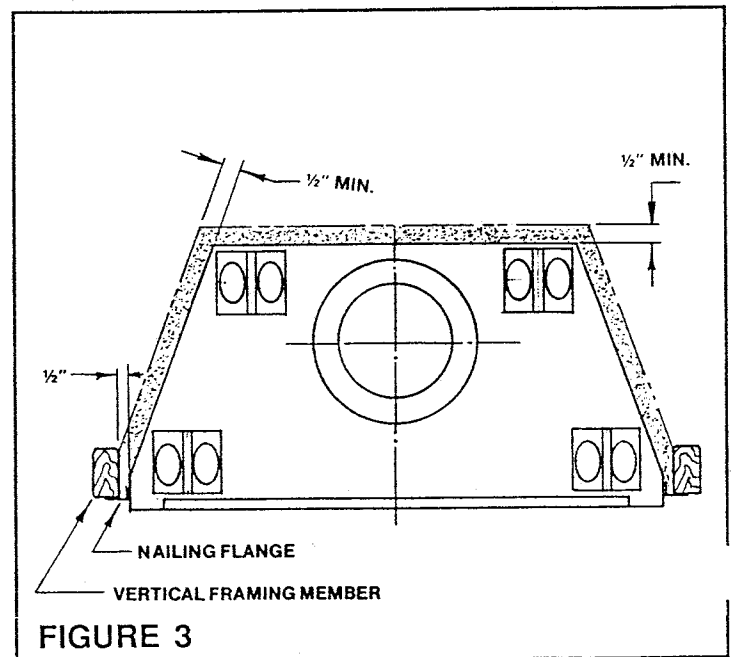
- A fireplace may be installed flush with the finished wall or projecting any distance into the room. Flush installation is recommended for smooth or thin wall-facing materials. By installing the fireplace to project into the room, a shallower cavity is required to contain the fireplace; thicker natural materials, such as field stone, can then be used for face material (Figure 2).
- 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 5, 6 & 8.

- 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 evenly support the total base of the fireplace. 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 provided to protect the floor in front of the opening. (Refer to Hearth Extension, Pages 16 & 17)

## CLEARANCES

- A fireplace must not be installed closer than 21" inches to any unprotected combustible wall perpendicular to the door opening (Figures 3 & 4) when a MARCO 40 WS insulated wall shield (or equivalent protection) is used clearance may be reduced to 9 inches.
- When installed in accordance with the instructions given in this manual, the fireplace system may touch combustible materials at the bottom. 1/2" clearance is required on sides and back of fireplace, except at the nailing flange, where clearance is 0". The chimney system requires 2" minimum air space.
- Combustible materials should not be in contact with mounting flange of upper frame.

**WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS**  
(Except as shown in Figure 30).



**FIGURE 3**

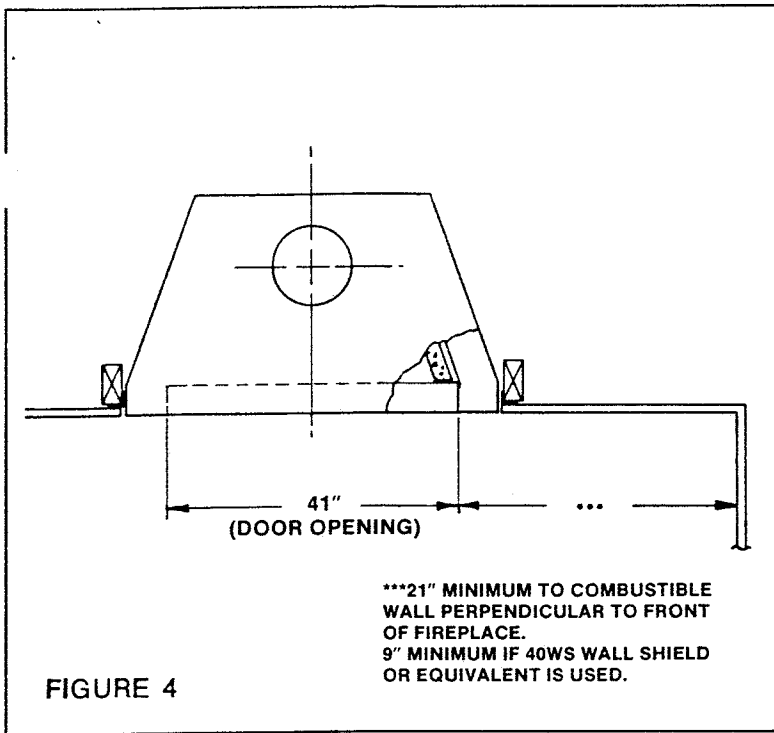


FIGURE 4

## FRAMING INSTRUCTIONS

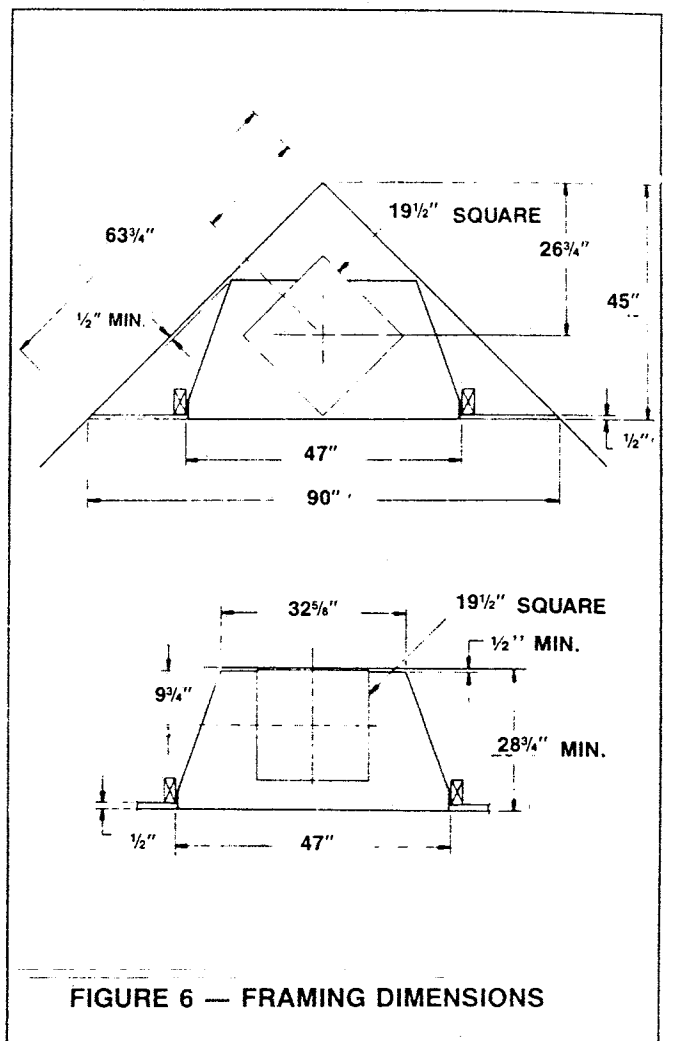


FIGURE 6 — FRAMING DIMENSIONS

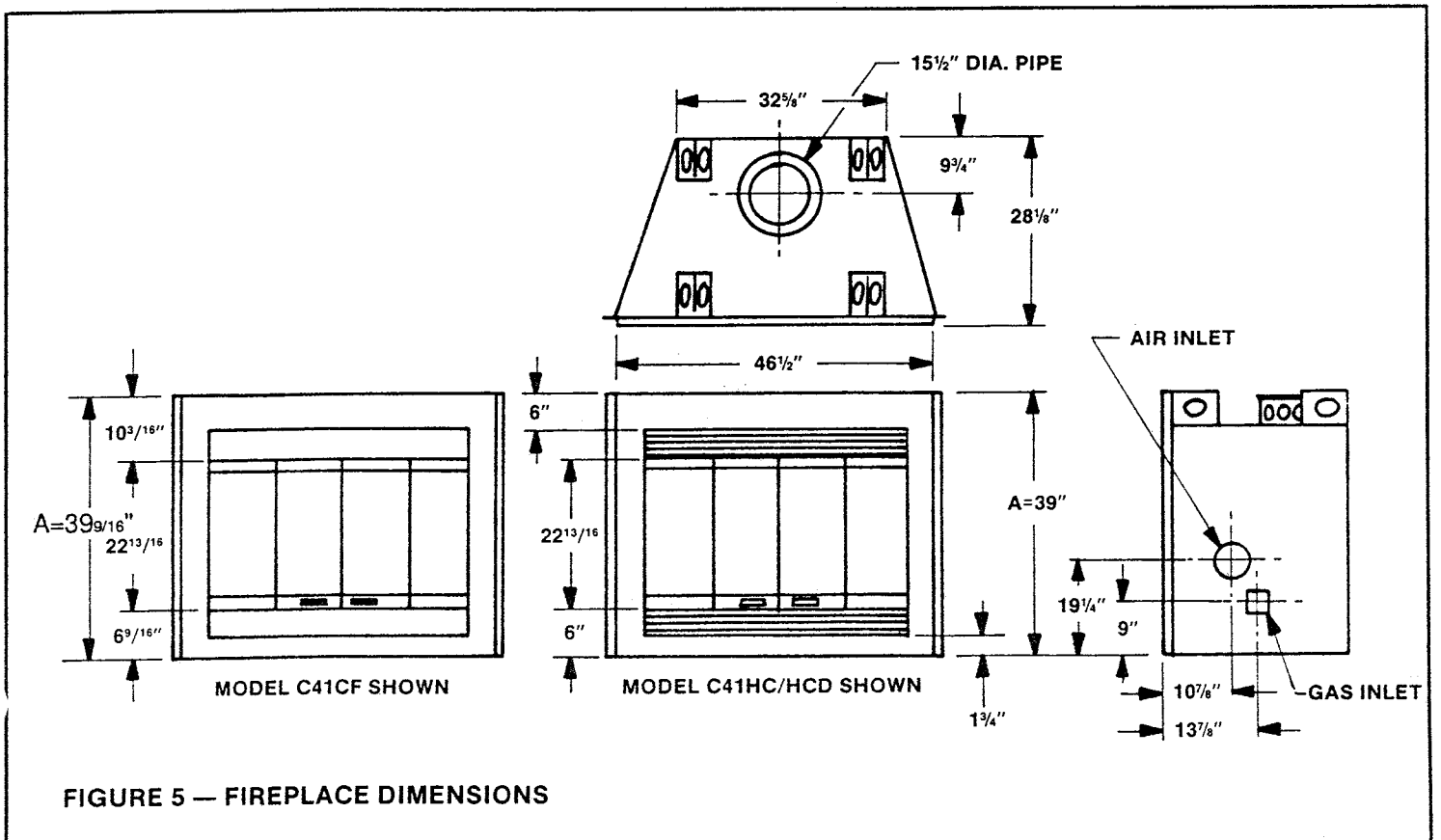
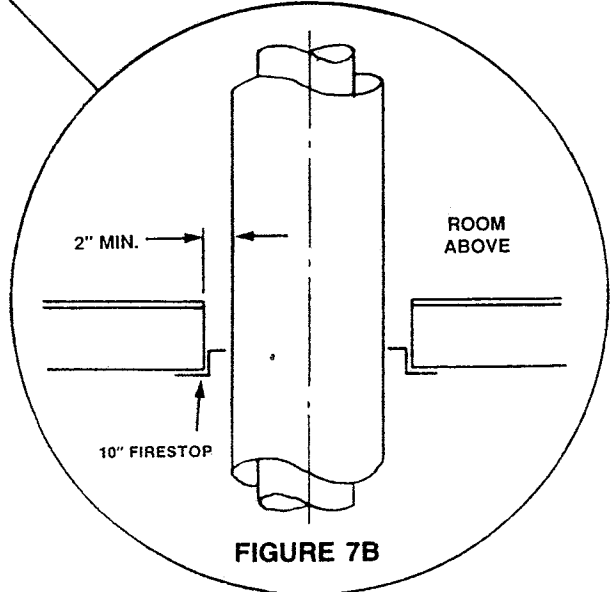
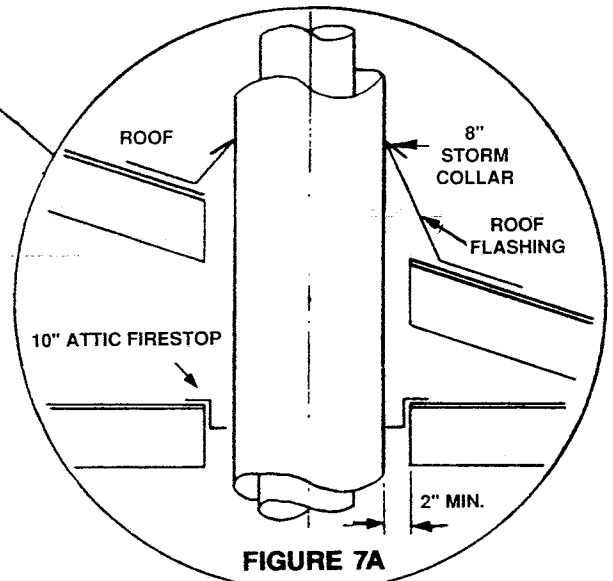
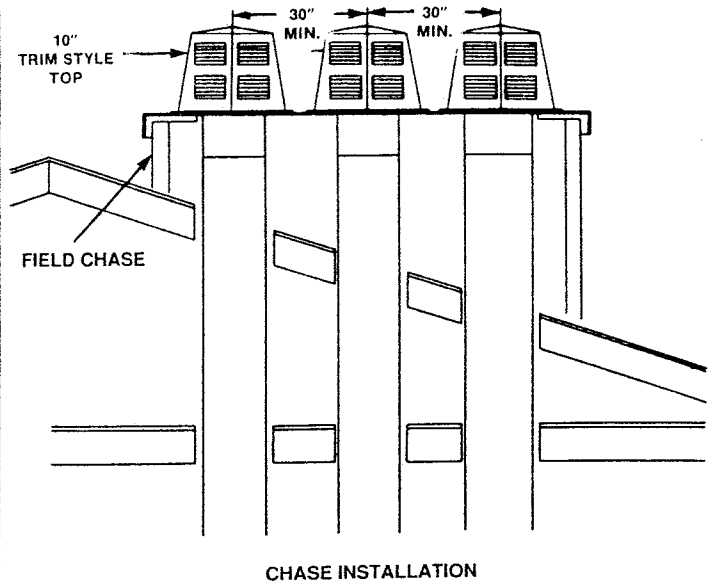
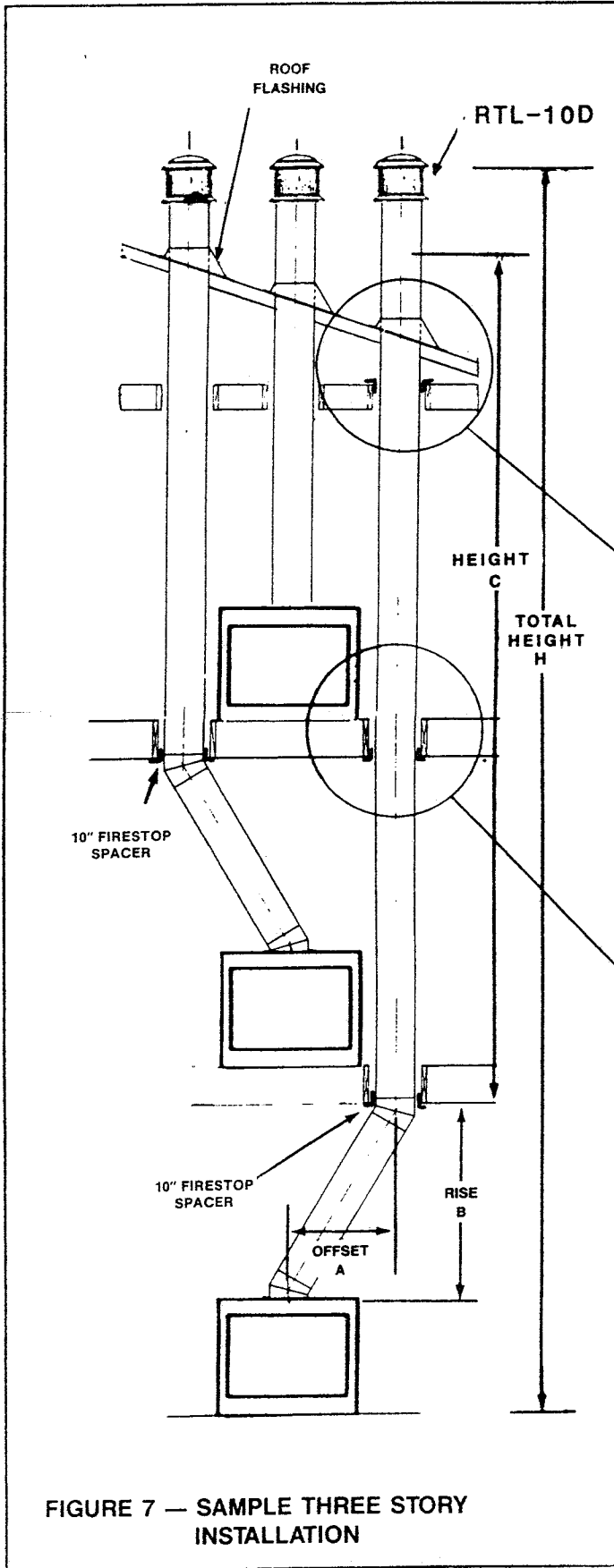
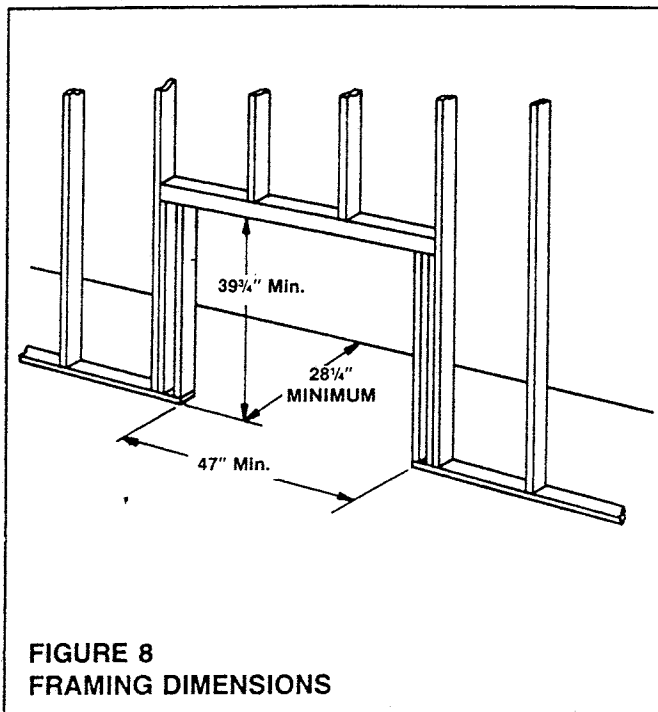
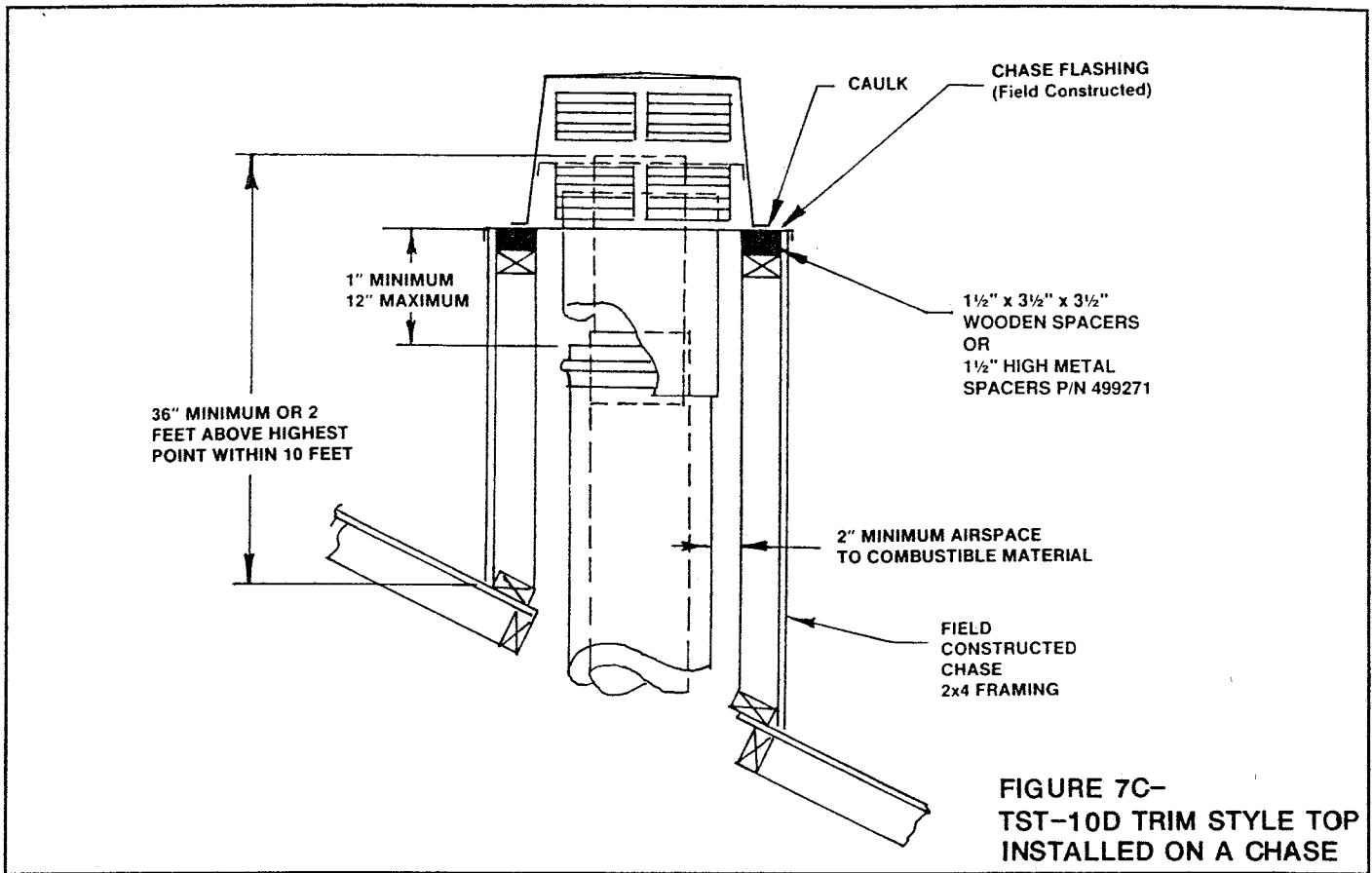


FIGURE 5 — FIREPLACE DIMENSIONS

# EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS

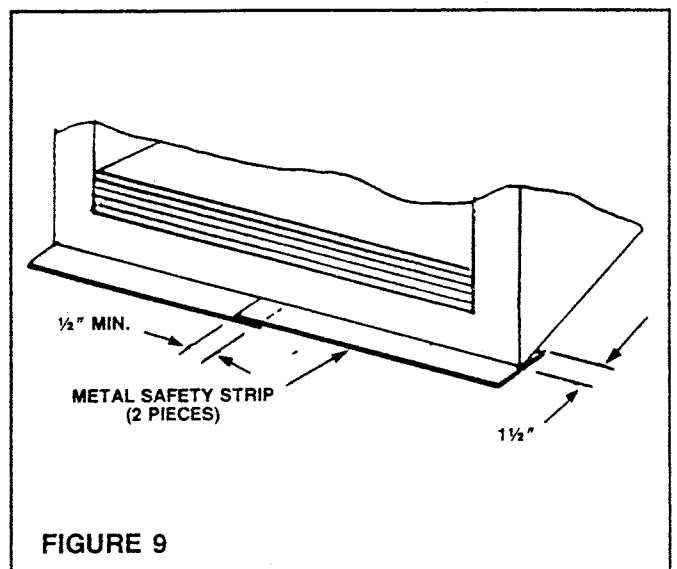




- The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace pushed into the opening. The dimensions shown in Figure 8 may be used to construct the fireplace opening.

### INSTALLING YOUR FIREPLACE

**STEP 1:** Frame the cavity or opening for the fireplace at the chosen location (Figure 8). Move the fireplace into position and install metal safety strips (provided) under the fireplace as shown in Figure 9.



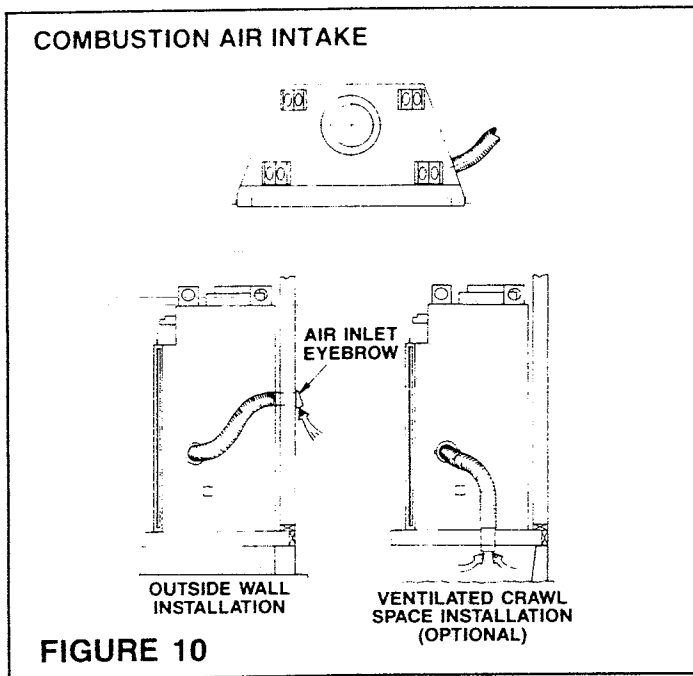
**NOTE:** If the #793250 Outside Air Kit is not used, proceed to the next section and continue with installation. Otherwise, the Outside Air Kit should be installed at this point.

# INSTALLATION OF AIR INLET ASSEMBLY

## OUTSIDE COMBUSTION AIR

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

**STEP 1:** Determine the source for outside air, which can be installed through an outside wall or into a ventilated crawl space (Figure 10). In either case, a 4-1/2" diameter hole will be required for installation of the air inlet assembly. **CAUTION:** Avoid installing the air inlet where the opening could be blocked by snow, bushes, or other obstacles. The maximum height for the outside air is 50" above the hearth, providing air inlet is terminated minimum 3 feet below chimney cap level.

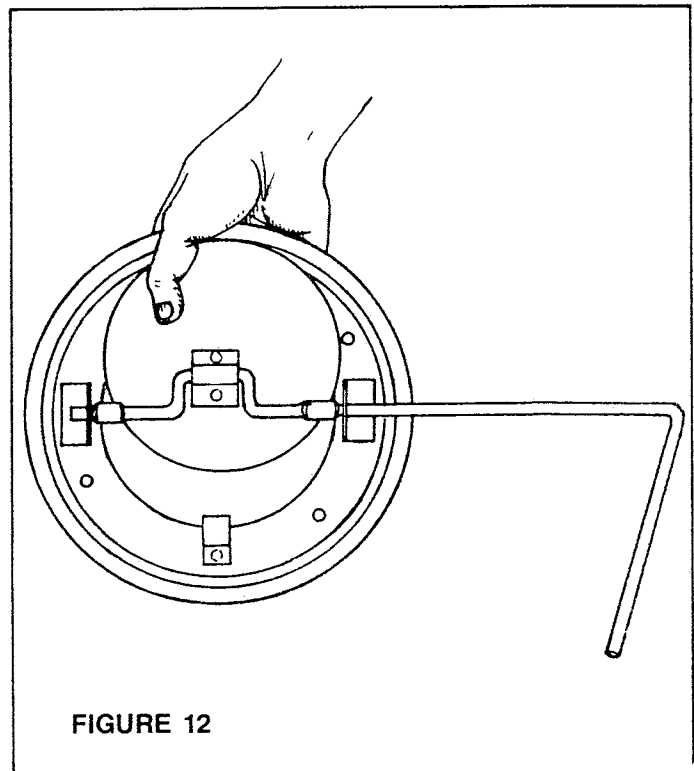
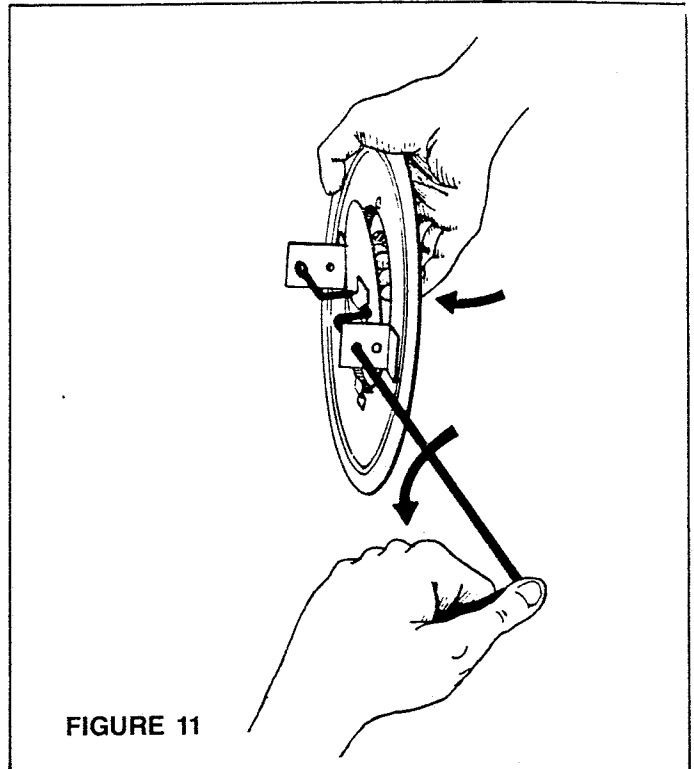


NOTE: COMBUSTION AIR INLET DUCTS MUST NOT TERMINATE IN ATTIC SPACE.

**STEP 2:** Remove the air inlet cover from the right hand side of the case (Figure 13). Discard the cover. On some models the cover may be of the "knock-out" type.

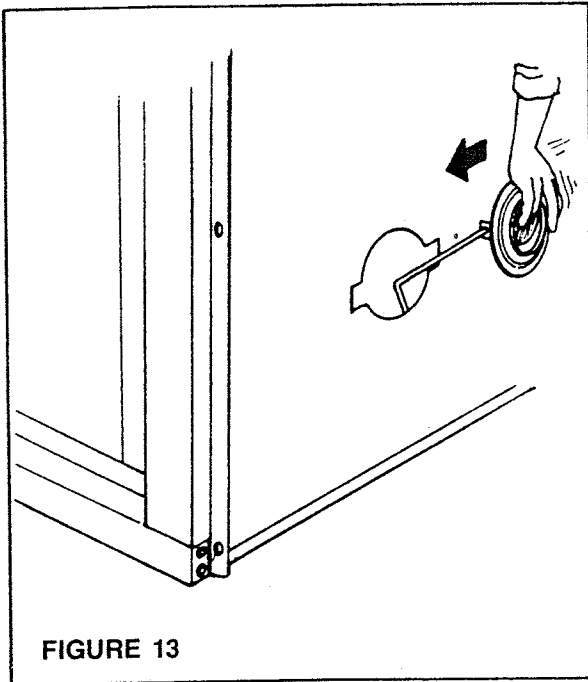
**STEP 3:** Grasp the outside air gate as shown in Figure 11. To thread it properly into the case the handle must be turned beyond its normal operating positions. Push the upper edge of the blade inward past the stop and rotate the handle until it points straight down.

**STEP 4:** Hold the air gate in the left hand as shown in Figure 12.

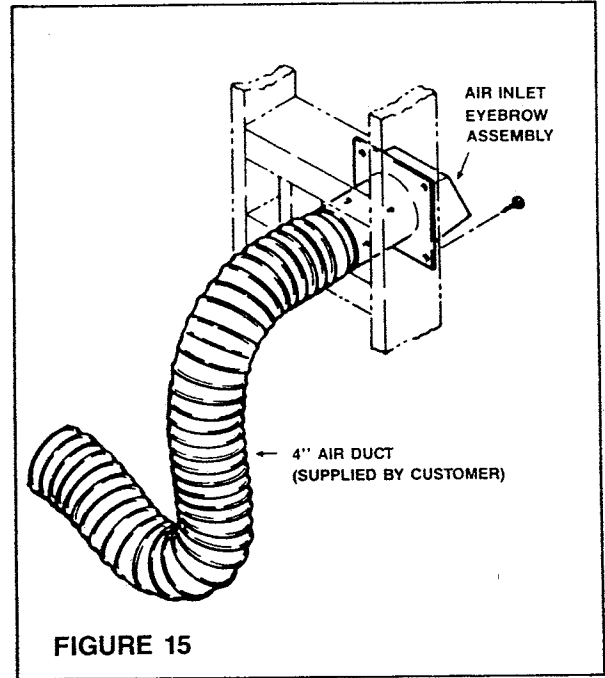




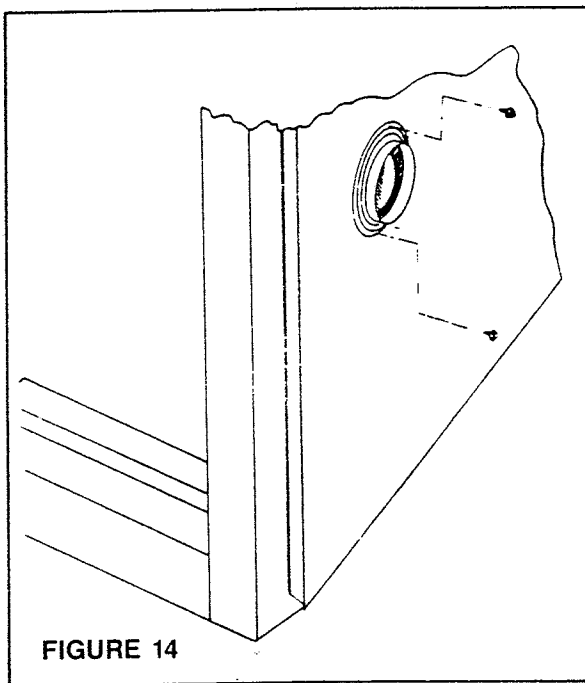
**STEP 5:** Insert the handle into the case as shown in Figure 13. Move the air gate assembly forward into position. Make sure the handle extends through the vertical slot in the front frame side (See Figure 46)



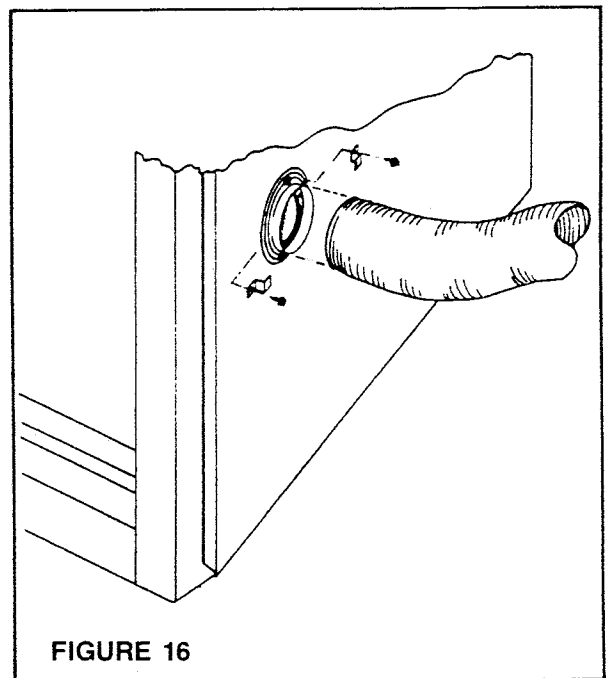
**STEP 7:** Install the air inlet eyebrow through the wall opening (Figure 15). Push a 4" diameter NON-COMBUSTIBLE Class 0 or Class 1 flexible duct onto the eyebrow.



**STEP 6:** Four screw holes are provided in the air gate assembly and case body to secure the assembly. At this point install only two screws at opposite sides of the flange as shown in Figure 14.



**STEP 8:** With the two remaining sheet metal screws and the two clamp brackets supplied, secure the duct to the air gate assembly as shown in Figure 16.



# 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 chimney is installed.

**STEP 1:** When starting the chimney directly on the fireplace, install the inner pipe section by fitting the male into the inner fireplace starting collar. Make sure the male end is fully inserted to lock into the lances (Figure 17).

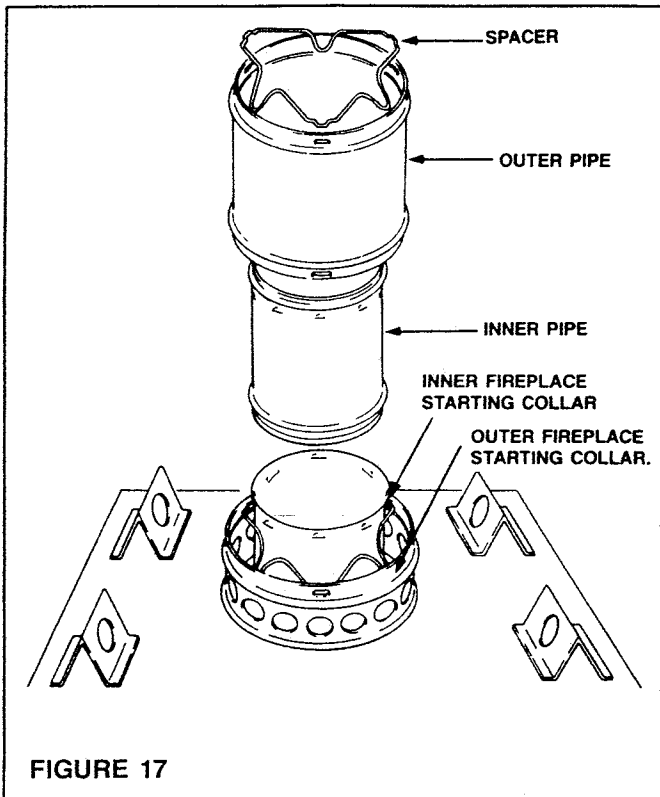


FIGURE 17

**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 19½-inch square hole (use plumb bob) and cut out for chimney exit (Figure 6).

## 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 must be used.

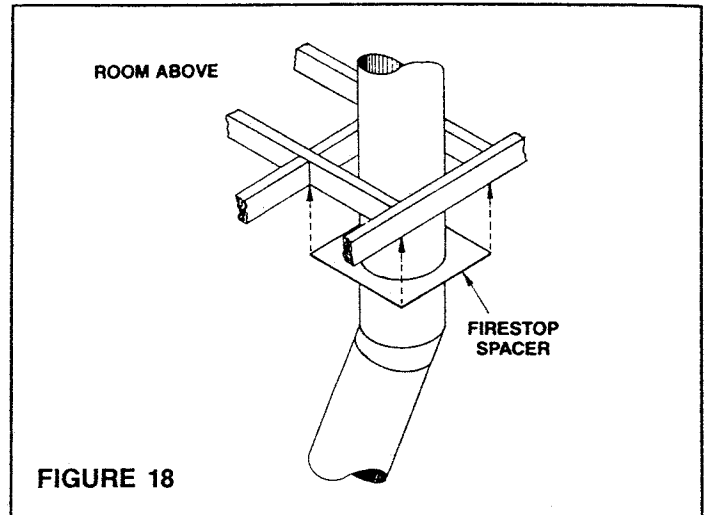


FIGURE 18

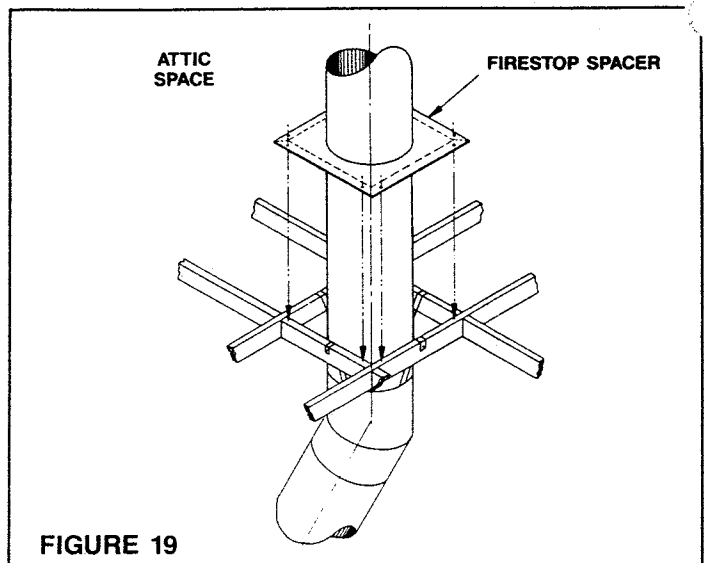


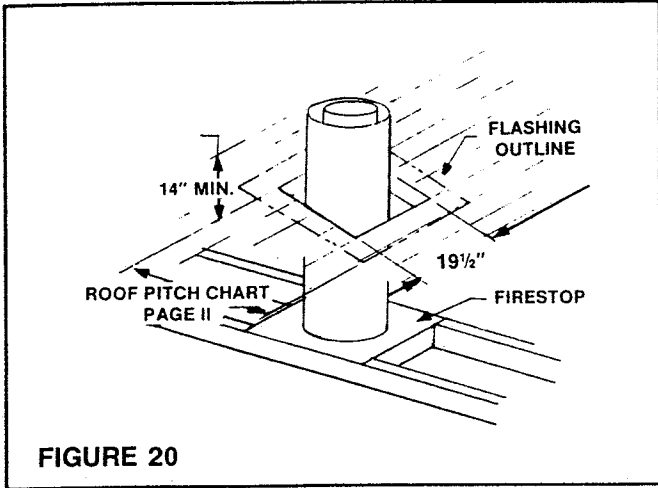
FIGURE 19

If the pipe passes through a framed opening *between floors*, install a firestop spacer to the *bottom* of the joists (Figure 18). When pipe passes *into the attic space*, install the firestop spacer on the *top* of the joists (Figure 19) and secure with sheet metal screws or nails.

**STEP 4:** Determine the location of the hole to be cut in the roof. The roof hole cut-out depends on the pitch of the roof, so refer to the chart on Figure 22, Page 11.

**STEP 5:** 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 20).

**STEP 6:** 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 20).

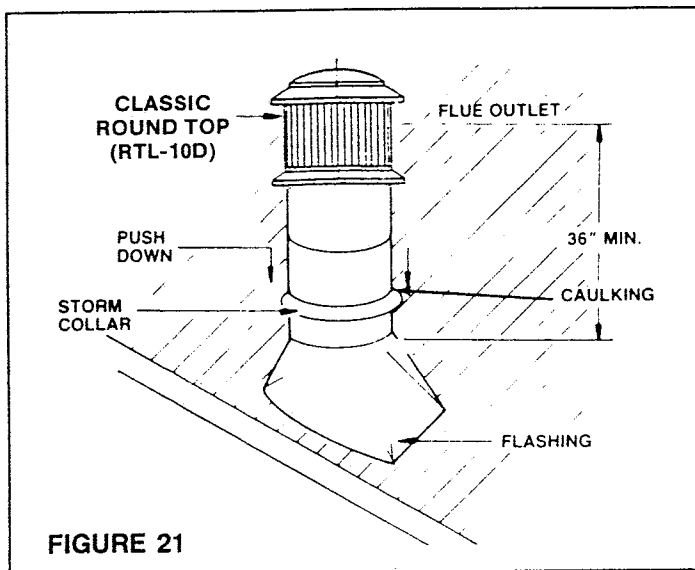


**FIGURE 20**

**STEP 7:** 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 8:** Install storm collar on the chimney and push down near the top of the flashing. Apply waterproof caulking around the top of the storm collar (Figure 21).

**NOTE:** this is an important step to insure watertight system.



**FIGURE 21**

**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 chimney terminations.

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 23).

**STEP 9:** Install termination on last section of pipe. There are 2 different terminations approved for this chimney system. The Classic Round Top long is adjustable to compensate for height variations. The Trim Style Top is designed to be used on a chase installation or decorative chimney enclosure only. For details, consult the installation instructions of the termination being used.

## HOW TO DETERMINE YOUR FIREPLACE SYSTEM

1. DETERMINE TOTAL HEIGHT (DIMENSION H, FIG. 7)  
If raised platform is used subtract its height from DIM. H. \_\_\_\_\_
2. HEIGHT OF FIREPLACE (DIM "A" FIG. 5) \_\_\_\_\_
3. RISE OF ELBOWS INCLUDING PIPE \_\_\_\_\_  
Use table of contents offsets (page 12)
4. LINEAL GAIN OF TERMINATION \_\_\_\_\_  
(See chart on page 10)
- 4a. HEIGHT OF TST-10 TOP \_\_\_\_\_
5. TOTAL OF LINES 2 THROUGH 4a \_\_\_\_\_
6. SUBTRACT LINE 5 FROM 1 \_\_\_\_\_
7. LINE 6 IS DIMENSION C. THE LENGTH OF PIPE NEEDED TO COMPLETE INSTALLATION (Refer to Chimney Height Chart)

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

QUANTITY	

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

## LINEAL GAIN CHART

STOCK#	DESCRIPTION	LINEAL GAIN
	"CLASSIC" FIREPLACE	DIM "A", FIG. 5
793124	12" DOUBLE-WALL PIPE	10¾"
793125	18" DOUBLE-WALL PIPE	16¾"
793127	36" DOUBLE-WALL PIPE	34¾"
793128	48" DOUBLE-WALL PIPE	46¾"
793129	12" CHIMNEY SUPPORT	10¾"
792901	"CLASSIC" ROUND TOP ASSEMBLY	10'-16'
793069	TRIM STYLE TOP ASSEMBLY	10'-15'

MARCO's Double-Wall Chimney System, when used on the Classic 41" 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 15 feet. The minimum height with 4 elbows (2 sets) is 24 feet.

### MINIMUM CHIMNEY HEIGHT:

The recommended minimum height of the chimney system (15 ft) 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.

### CHIMNEY MAINTENANCE:

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

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

CEILING OPENING CHART			
CHIMNEY SET UP	OPENING		USE FIRESTOP PART NO.
	A	B	
VERTICAL	19 1/2	19 1/2	792990
15° OFFSET	19 1/2	22 1/4	793102
30° OFFSET	19 1/2	27	792969

ROOF OPENING CHART		
PITCH	OPENING	
	C	D
FLAT	19 1/2	19 1/2
6/12	19 1/2	22
12/12	19 1/2	27 3/4
18/12	19 1/2	35 1/2
24/12	19 1/2	43 3/4

RECOMMENDED FLASHING	
ROOF PITCH	FLASHING PART NO.
0 - 6/12	792975
6 - 12/12	792976
12 - 18/12	792977
18 - 24/12	792978

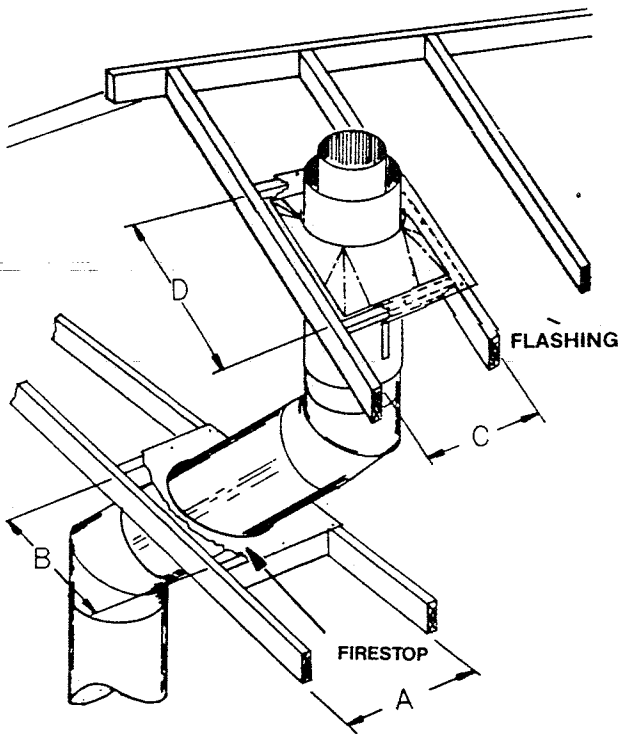


FIGURE 22

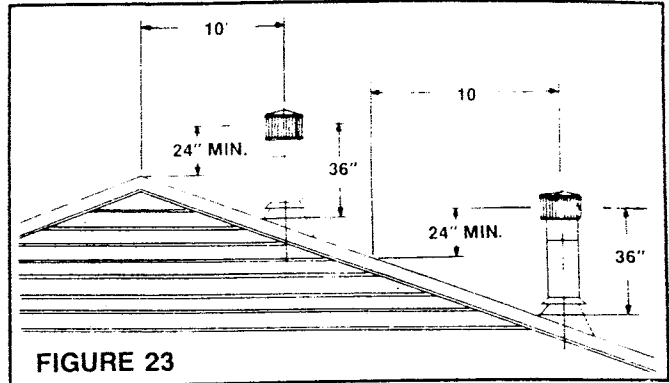


FIGURE 23

**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 23).

**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 PIPE SUPPORT:

The chimney pipe support is a double-wall, unitized 12" length of pipe and is designed to relieve the extra weight load on the fireplace and elbows when high chimneys are installed.

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 24).

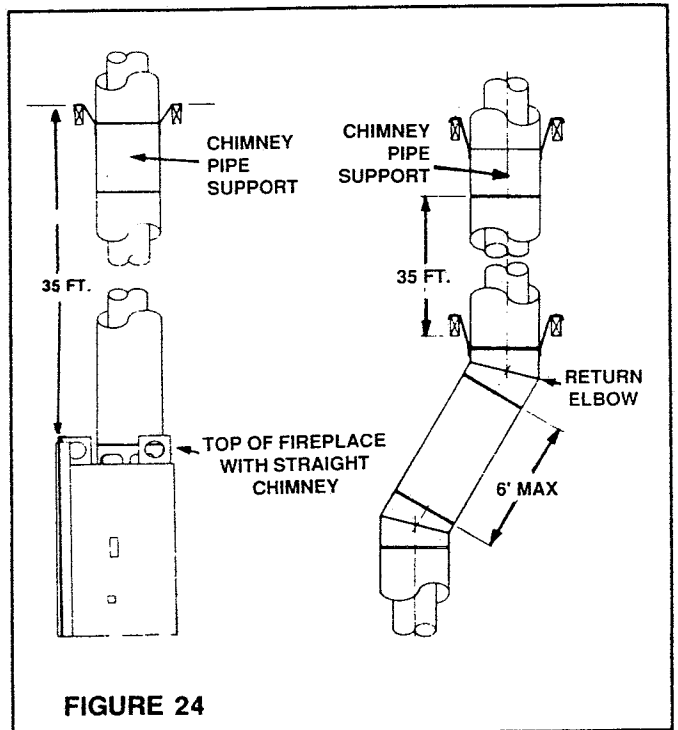
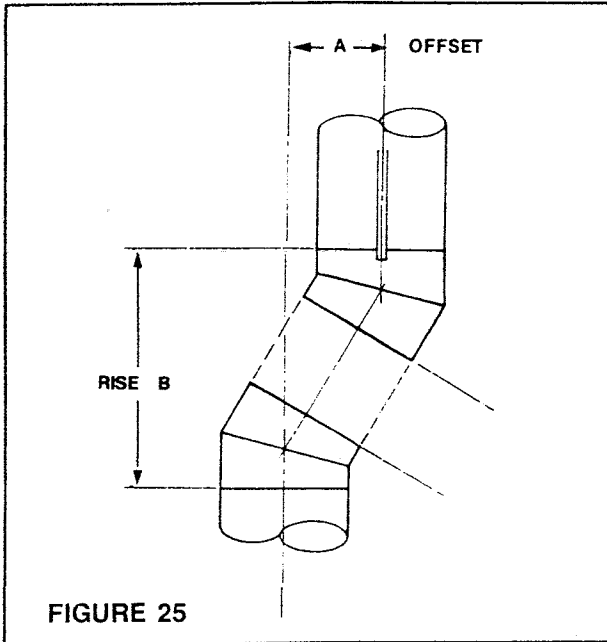
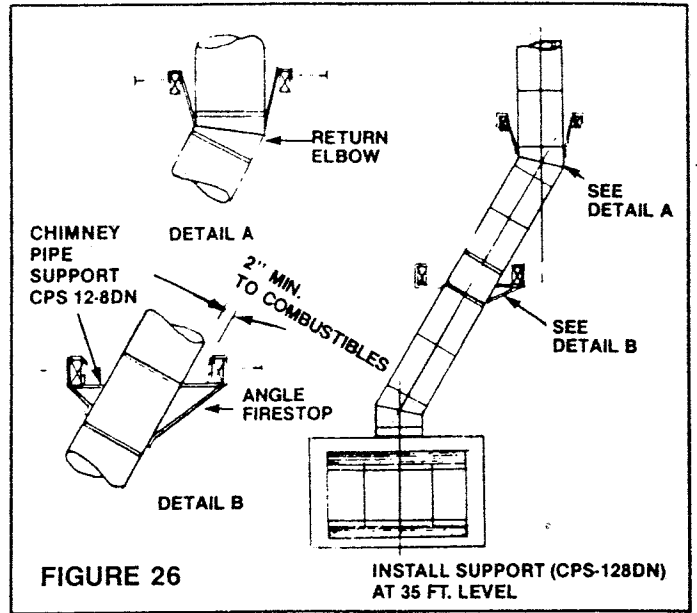


FIGURE 24

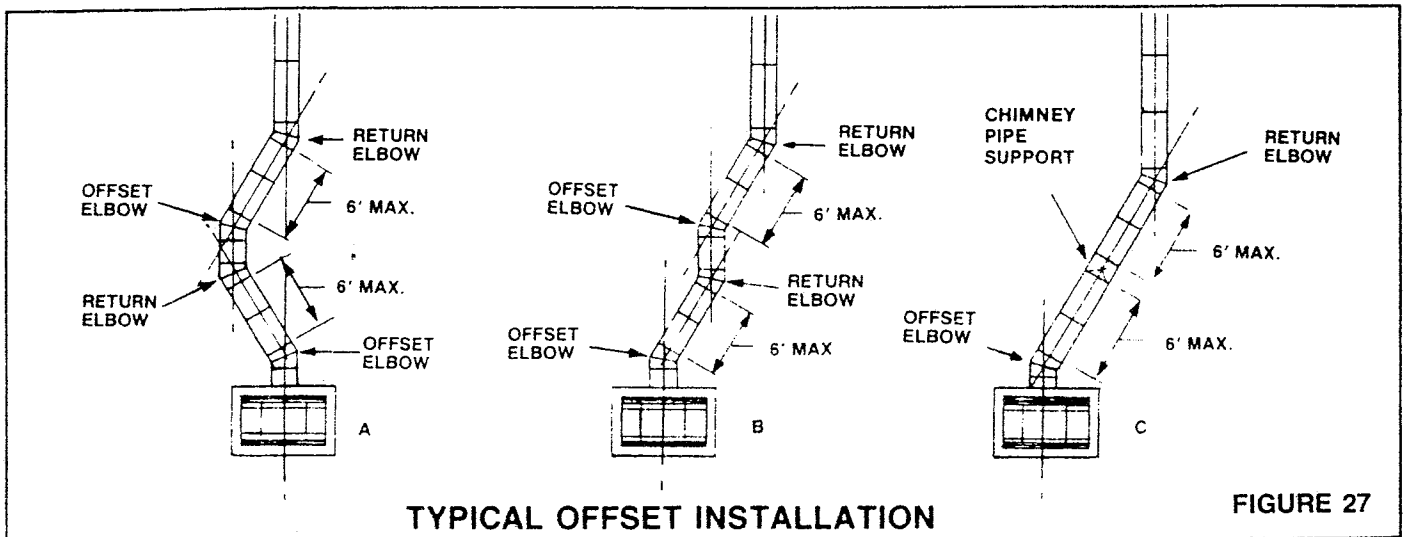
# INSTRUCTIONS FOR OFFSET OF CHIMNEY USING ELBOWS

## 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 24 and 27).
2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists. (See Figures 24 & 25).
3. Maximum length of pipe between supports (return elbow or chimney pipe support) is 6' of angled run. Maximum of two 6' angled run sections per chimney system (Figure 27).
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.

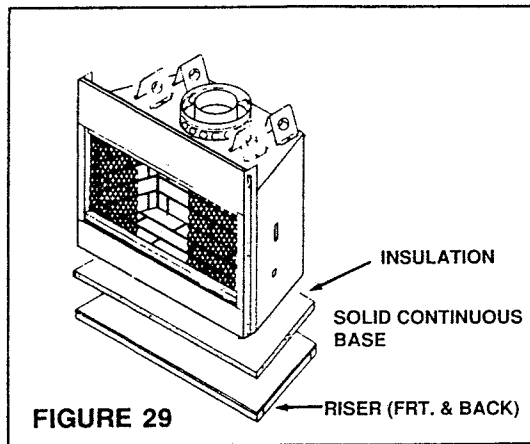
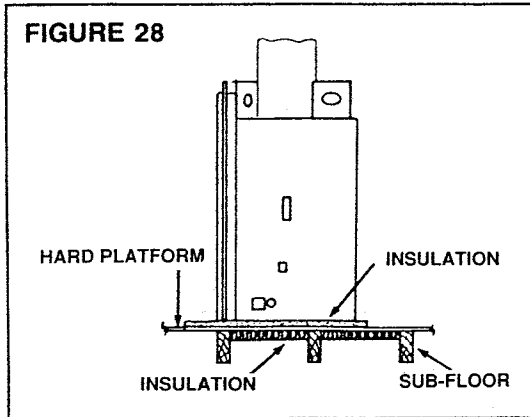


NUMBER AND LENGTH OF DOUBLE WALL PIPE				1-15° OFFSET ELBOW 1-15° RETURN ELBOW		1-30° OFFSET ELBOW 1-30° RETURN ELBOW	
12'	18'	36'	CHIMNEY SUPT.	A	B	A	B
-	-	-	-	2-3/4"	21-3/4"	5-1/4"	20-3/4"
1	-	-	-	5-1/2"	32-1/4"	10-3/4"	30-1/4"
-	1	-	-	7-1/4"	38-3/4"	13-3/4"	35-1/4"
2	-	-	-	8-1/2"	43-1/2"	16-1/4"	39-1/2"
1	1	-	-	9-3/4"	48-1/2"	19-1/4"	44-3/4"
-	2	-	-	11-1/2"	54-1/2"	22-1/4"	50"
-	-	1	-	11-3/4"	55-1/2"	22-3/4"	50-3/4"
2	1	-	-	12-3/4"	59"	24-1/2"	54-1/4"
1	2	-	-	14-1/4"	64-3/4"	27-1/2"	59-1/2"
1	-	1	-	14-1/2"	66"	28-1/4"	60-1/2"
2	1	-	1	15-1/2"	69-3/4"	30"	63-3/4"
-	3	-	-	15-3/4"	70-3/4"	30-1/2"	64-1/2"
-	1	1	-	16"	71-3/4"	31-1/4"	65-1/2"
2	2	-	-	17"	75-1/2"	33"	68-3/4"
2	-	1	-	17-1/2"	76-1/2"	33-1/2"	69-3/4"
1	1	1	-	18-3/4"	82-1/4"	36-1/2"	75"
2	-	1	1	20-1/4"	87"	39"	79-1/4"
-	-	2	-	20-3/4"	89-1/4"	40"	81-1/4"
1	1	1	1	21-3/4"	92-3/4"	42-1/4"	85"
-	-	2	1	23-1/2"	99-3/4"	45-1/2"	90-1/2"



# OPTIONAL COLD CLIMATE INSTALLATION

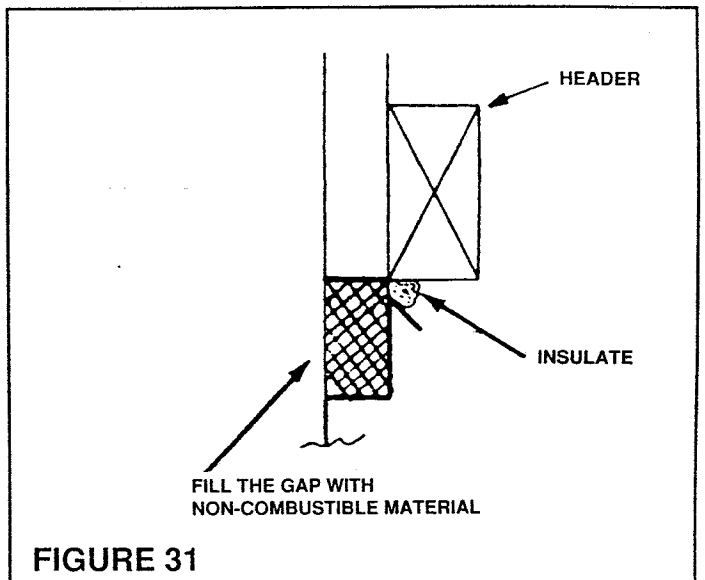
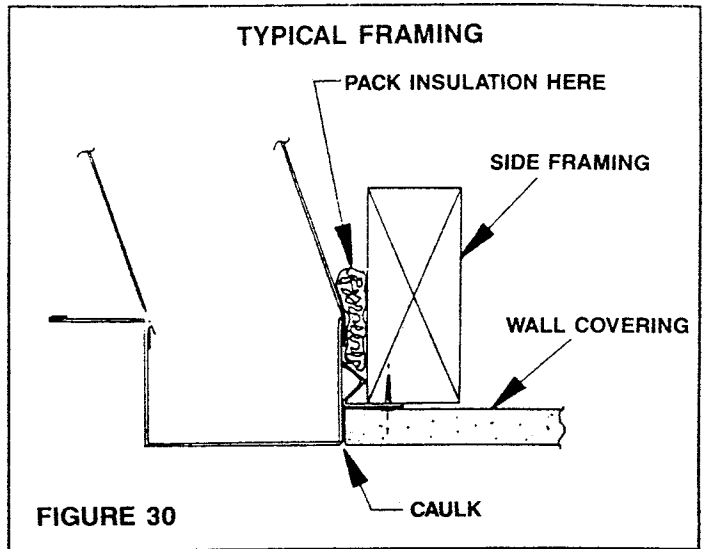
When installing a fireplace in an area where outside temperature reaches +32°F or lower, it is important to protect the metal bottom from the cold air by setting the fireplace on a non-combustible, insulated, solid surface.



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 30 & 31).

**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 for 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.

# 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, 1/2" size, and appropriate fittings. When installing gas line, a valve designed for installation outside the fireplace is required (Figure 26).

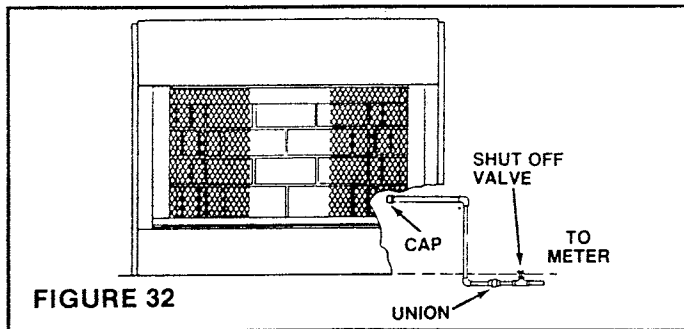


FIGURE 32

The gas line may be installed to enter the fireplace from either side. Refer to Figure 5 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 1 1/2 inches from floor in the center of the side panel. Knock the plug through from the 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.

The gas line is intended for connection to a decorative gas appliance incorporating an automatic shutoff device and complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60. Decorative gas appliance should be installed in accordance with the National Fuel Gas Code, ANSI Z223.1. and NFPA 54.

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

## 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.

**"THIS INSTALLATION IS NOT LISTED BY UNDERWRITERS LABORATORIES, INC."**

Gas log lighter has been tested by RADCO LAB. in accordance with ICBO requirements and approved for use with this fireplace model.

# INSTALLATION OF GAS LOG LIGHTER.

IF YOUR FIREPLACE IS PROVIDED WITH A GAS LINE FOR ATTACHMENT TO A GAS LOG LIGHTER, PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY:

- 1) BEFORE DOING ANYTHING, MAKE SURE THE GAS VALVE LOCATED OUTSIDE YOUR FIREPLACE IS SHUT OFF.
- 2) REMOVE THE CAP AT END OF GAS PIPELINE PROTRUDING FROM SIDE OF THE REFRACTORY. (SEE FIG. 32)
- 3) CONNECT FITTINGS:  
TWO - 1/2 INCH DIA. 45" ELBOW  
ONE - 1/2 INCH DIA. CLOSE NIPPLE
- 4) INSTALL GAS LOG LIGHTER MAX. 24" LONG, 1/2 INCH DIAMETER TO ELBOW. (SEE FIG. 33)  
GAS LOG LIGHTER MUST BE INSTALLED FLUSH TO THE HEARTH FLOOR OF YOUR APPLIANCE. **DO NOT ELEVATE GAS LOG LIGHTER.**  
**YOUR GAS LOG LIGHTER IS NOW READY FOR USE.**

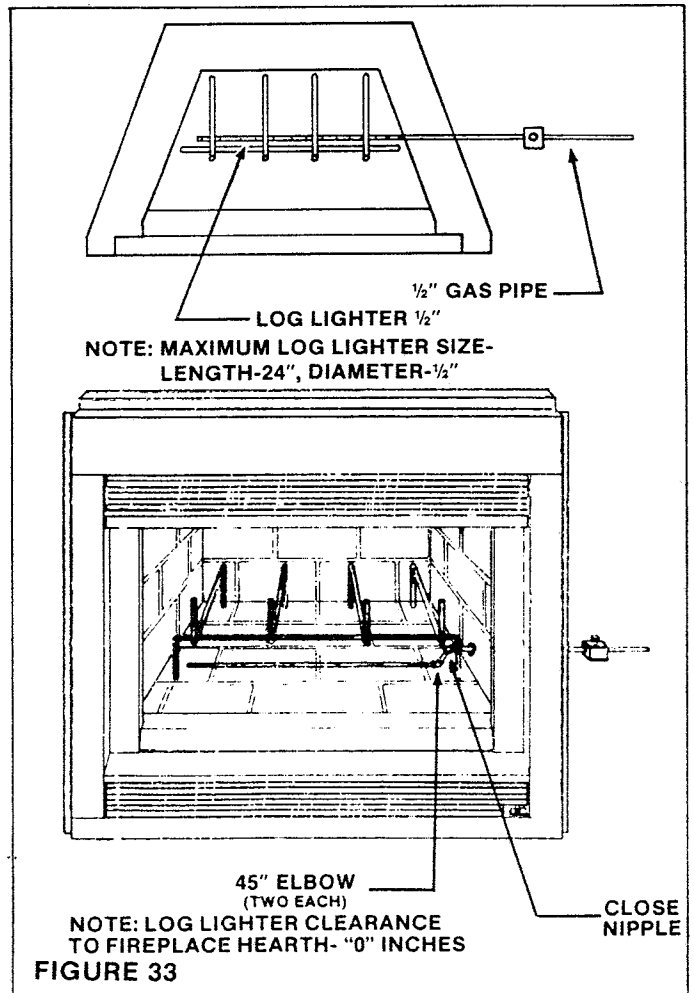


FIGURE 33



**CAUTION:**

- 1) MAKE SURE THE DAMPER IN YOUR FIREPLACE IS SET IN A PERMANENTLY OPEN POSITION IN CASE THE GAS VALVE IS TURNED ON BY ACCIDENT. BY FOLLOWING THIS SIMPLE INSTRUCTION, YOU WILL PREVENT GAS FROM ESCAPING INTO YOUR LIVING ROOM AND CAUSING POSSIBLE SERIOUS INJURIES OR DAMAGE TO YOUR DWELLING.
- 2) TURN ON GAS VALVE.
- 3) LIGHT LOG LIGHTER WITH A MATCH. USE COMMON SENSE IN LIGHTING. FOR YOUR SAFETY, NEVER USE OR STORE GASOLINE OR OTHER FLAMMABLE LIQUIDS IN THIS OR ANY OTHER APPLIANCE.
- 4) AFTER YOUR LOG HAS STARTED TO BURN, TURN OFF GAS VALVE. THE KEY USED FOR TURNING THE GAS VALVE ON/OFF SHOULD BE KEPT OUT OF REACH OF CHILDREN.

- 5) TO RESTART, REPEAT RELIGHTING INSTRUCTIONS.
- 6) KEEP ORIFICES CLEAN FROM ASHES AND DEBRIS. THIS WILL PREVENT THE ORIFICES FROM BECOMING CLOGGED. CLEAN IT ONLY WHEN COLD.

NEVER ALLOW GAS TO RUN UNLIGHTED. IF THIS HAPPENS, THERE IS A POSSIBILITY OF GAS ESCAPING INTO YOUR LIVING AREA. IF YOU SMELL GAS, OPEN WINDOWS, EXTINGUISH ANY OPEN FLAME AND IMMEDIATELY CALL YOUR LOCAL GAS SUPPLIER. NEVER LEAVE CHILDREN ALONE NEAR THE APPLIANCE WHEN IN USE. REFER TO INSTRUCTION MANUAL FOR OTHER INSTRUCTION DETAILS.

KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE.

### 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 louvres at the bottom of the heat circulating models may not be obstructed in any way. Figures 34 and 35 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.

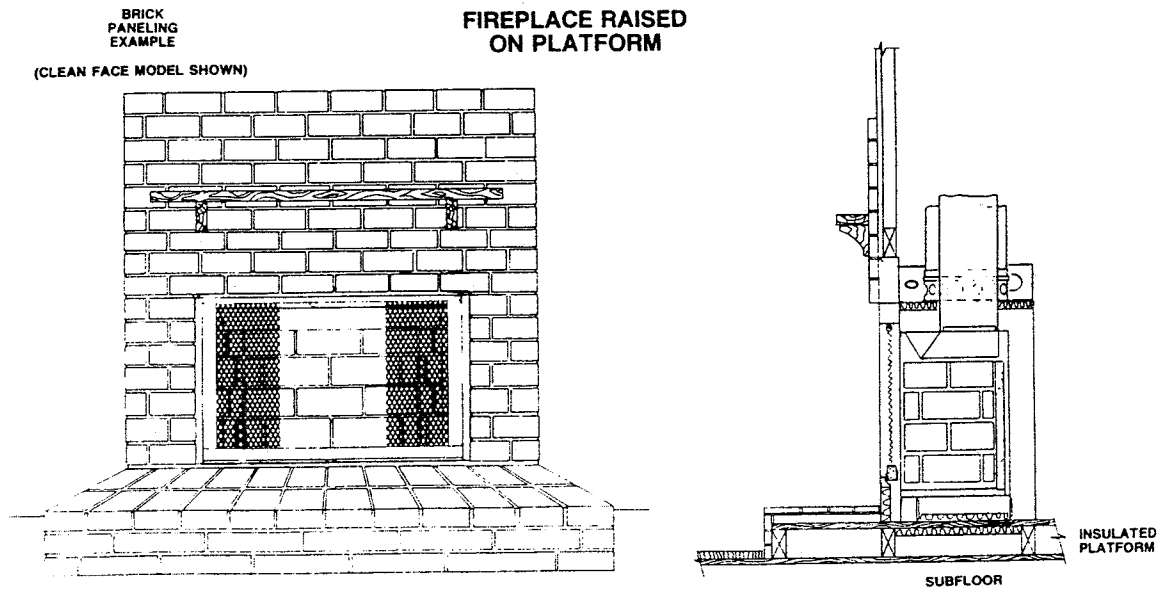
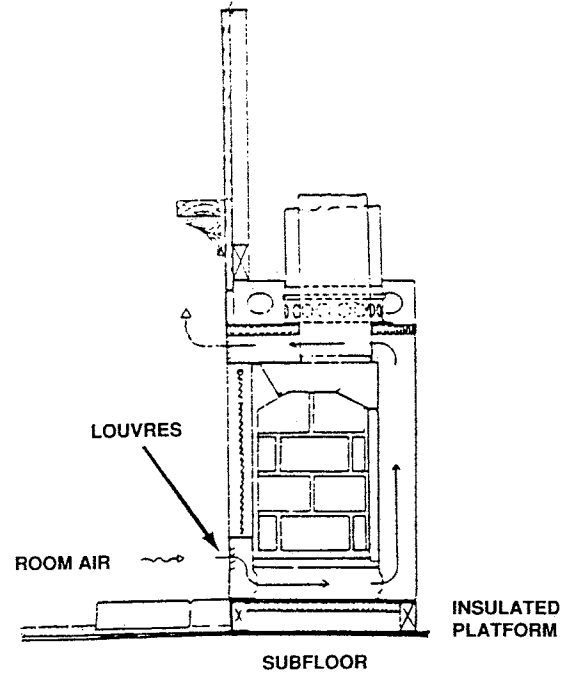
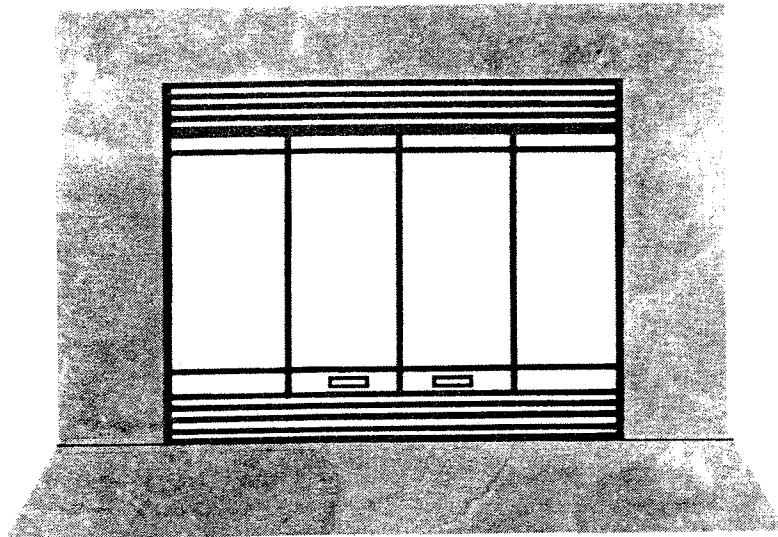


FIGURE 34

HEARTH EXTENSION

## FIREPLACE FLUSH WITH WALL WITH WALL

(HEAT CIRCULATING MODEL SHOWN)

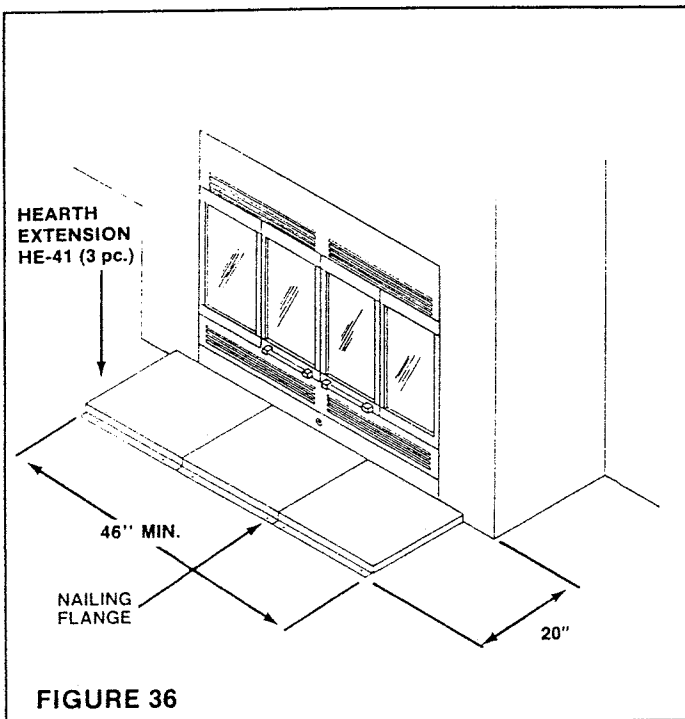


**FIGURE 35**

HEARTH EXTENSION

### HEARTH EXTENSION:

If there is a combustible floor construction in front of the fireplace, a hearth extension is required to protect it. The hearth extension, as shown in Figure 36 must be a minimum of 20" deep by 51" wide and extend a minimum of 8" beyond each side of the fireplace opening.



**FIGURE 36**

The hearth extension must be made from a non-combustible inorganic material with a thermal conductivity, K of .84 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 37.

Type of Insulation	K*	Minimum Thickness Required
Johns Manville CERAFORM 126	.27	.32"
U.S. Gypsum Corp. MICORE CV230	.43	.51"
Insulating Board (K-FAC 19)	.77	.91"
Lydall, Inc. LYTHERM 1401	.64	.76"
Standard Oil DURABOARD LDandHD	.60	.71"
Common Brick	4.92	5.85"

\*Units of K are BTU/In, Hr, Sq. Ft, °F

**FIGURE 37 — COMMON MATERIALS AND THEIR FACTORS**

## EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT

To determine the thickness required for any material :  

$$\frac{K \text{ (new material)} \times 1''}{.84} = \text{Thickness Required}$$

.84

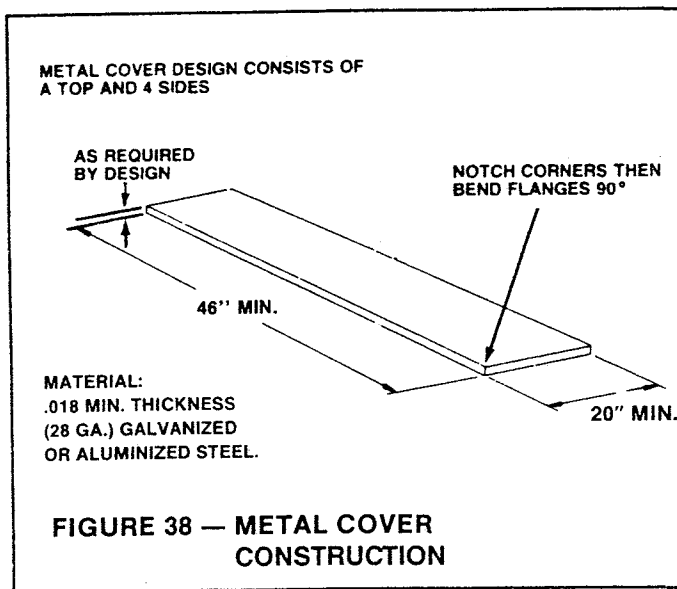
Example for insulating Board-K-FAC 19 (K from Figure 37)

$$\frac{.77 \times 1''}{.84} = .91''$$

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 low density insulating material a supporting metal cover such as shown in Figure 38 should be fabricated and installed. NOTE: Some noncombustible 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 43).



### NON-COMBUSTIBLE DECORATIVE COVERING:

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

## 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 39.

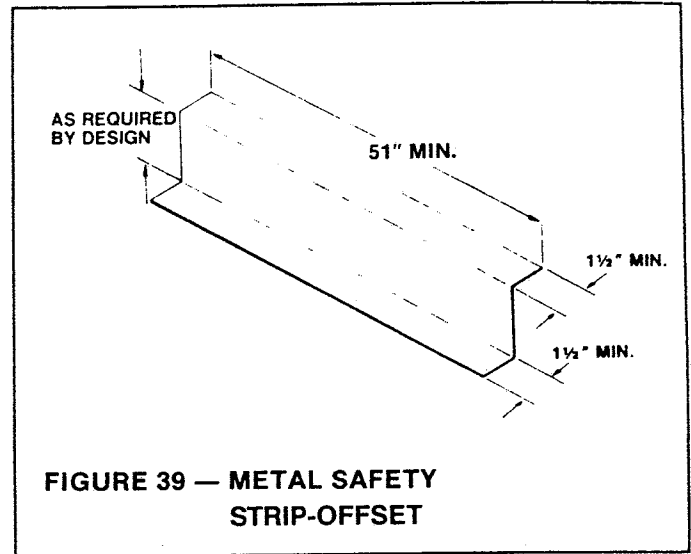
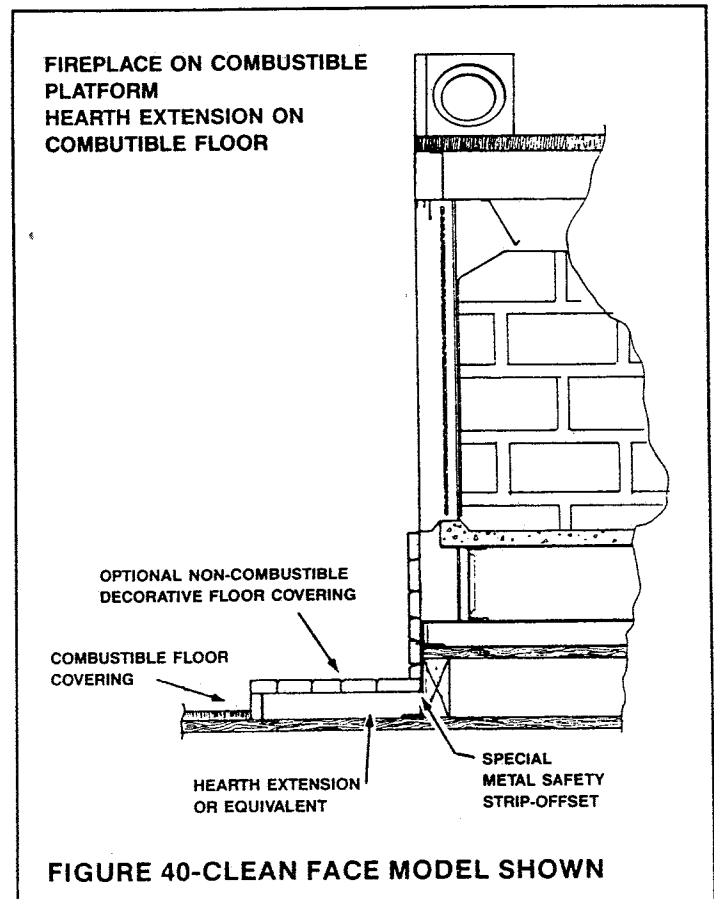
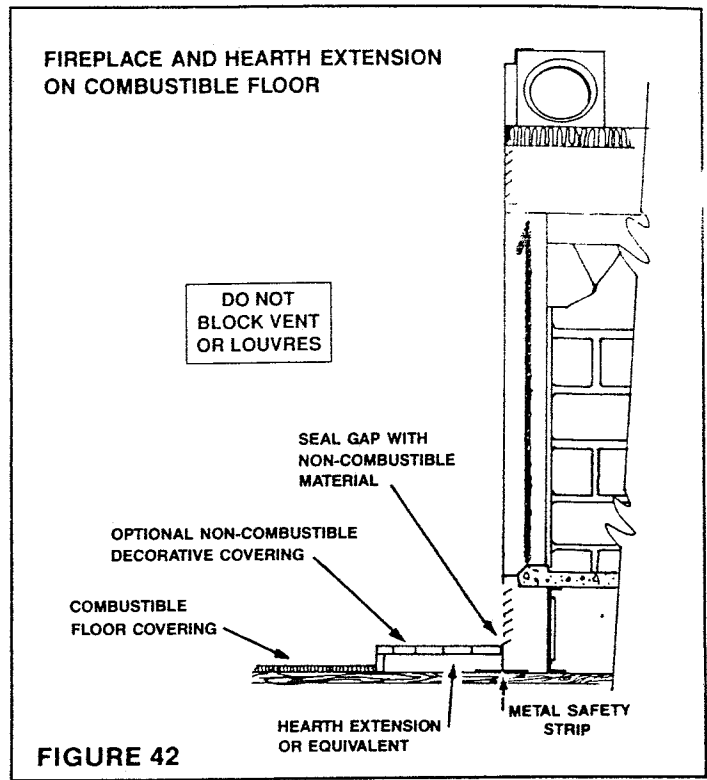
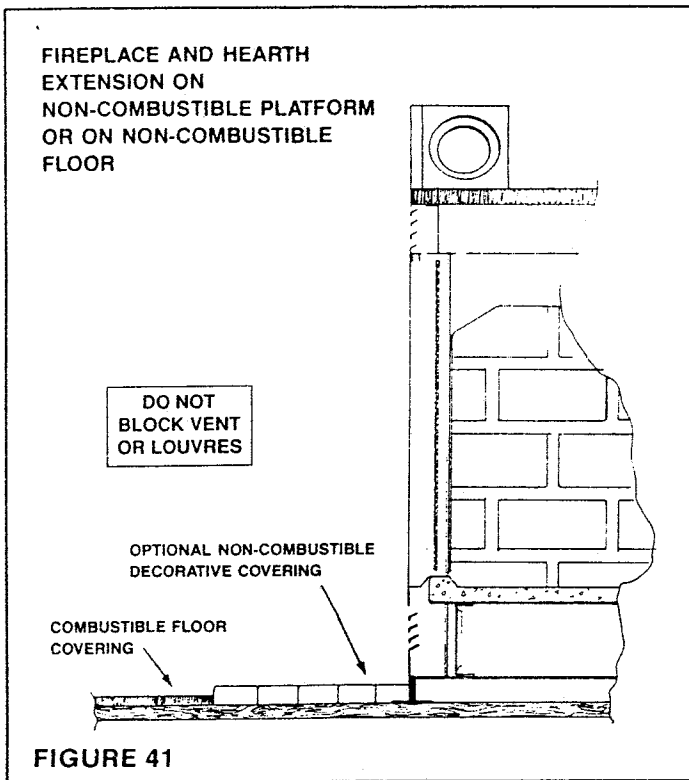


Figure 40 shows a sample of this type of installation.

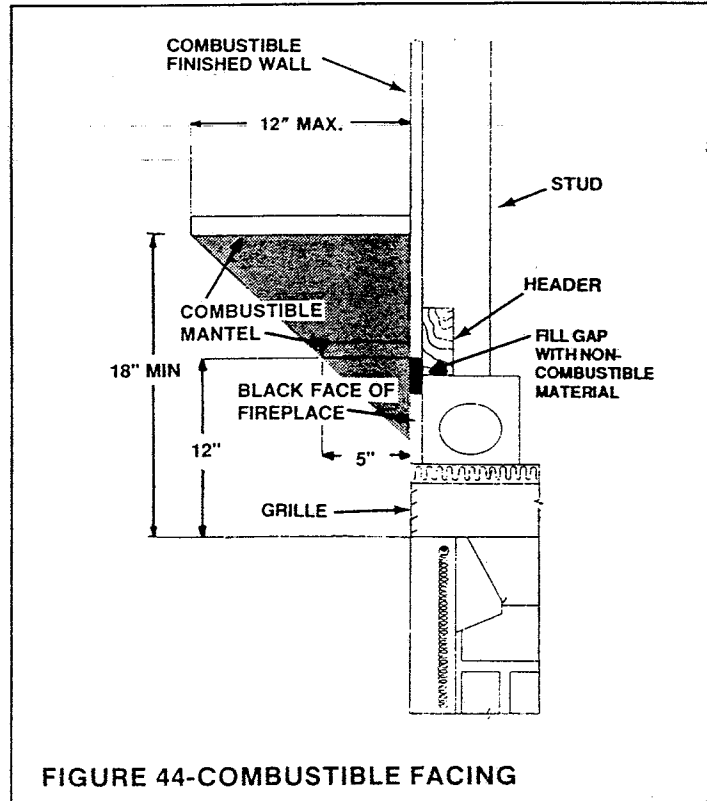
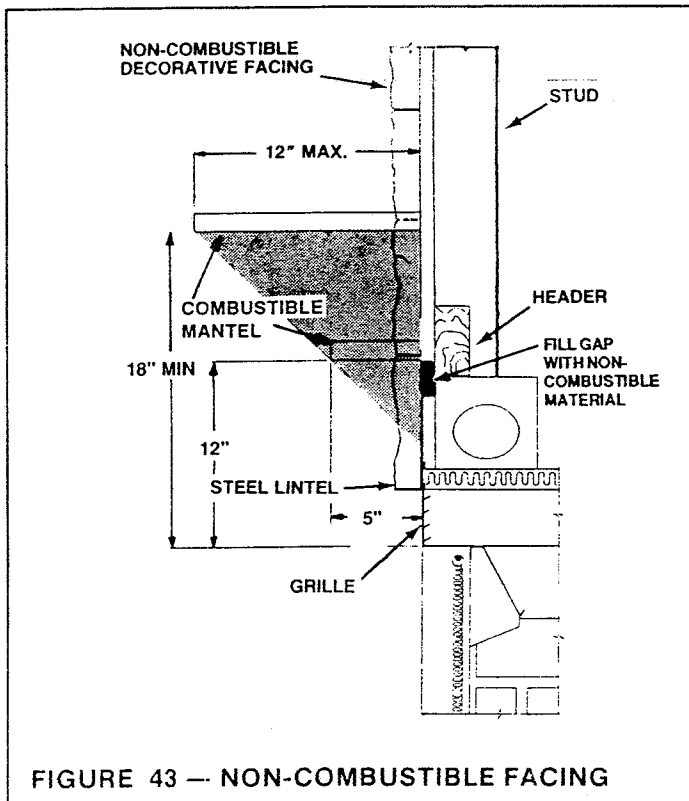


### WARNING:

HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED. FIGURES 39 THRU 42 SHOW OPTIONAL INSTALLATIONS.



## MANTLES



Combustible mantles may be safely installed provided they do not project beyond safe zone as illustrated in Figures 43 and 44.

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 43)

## MANTLE SURROUNDS

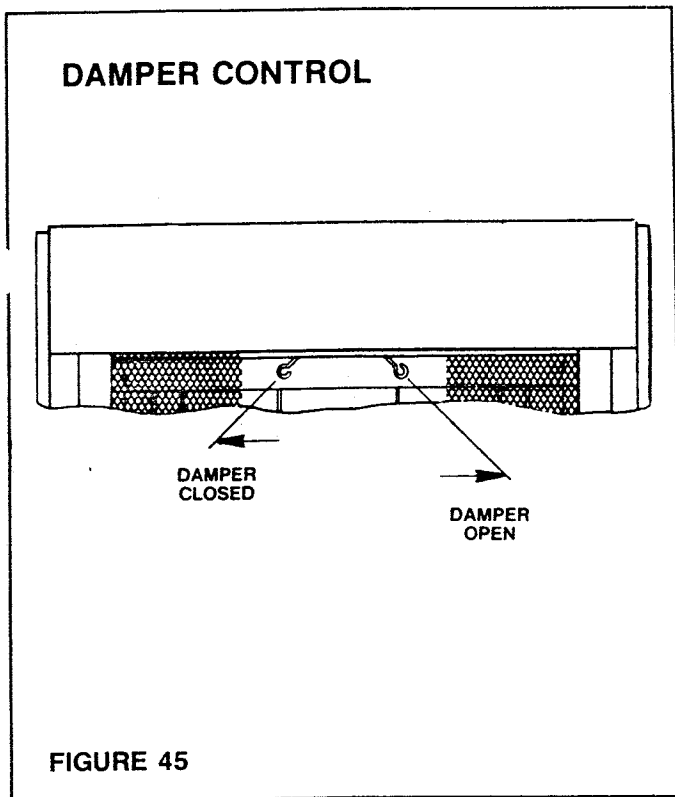
Often a decorative surround or vertical portion of the mantle is desired. If this is constructed of any combustible material it must be within the safe zone indicated in Figure 43 & 44.

## IV. OPERATING INSTRUCTIONS

### DAMPER CONTROL LEVER

The damper control lever located inside the top front of the firebox has been engineered to provide 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 45).

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.

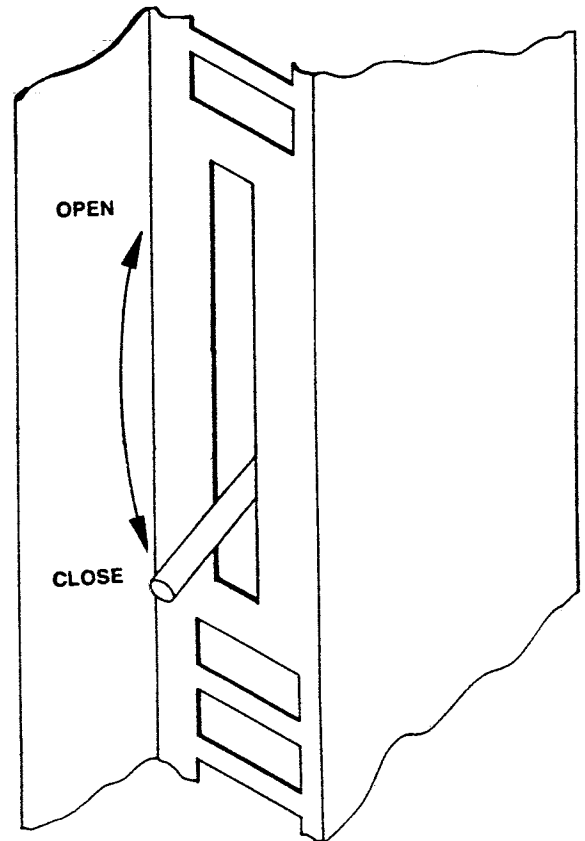


### FIREPLACE GRATE:

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 CONTROL

The outside combustion air kit is an optional accessory installed at the time of fireplace installation. It aids greatly in the efficient operation of your fireplace. It should be opened during operation as shown in Figure 46.



Read operation and warranty manuals thoroughly before installing and using this fireplace.

## DO'S AND DON'TS

- This fireplace is intended for use with solid wood fuel only.
  - 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.
- 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 they're no warm embers.
  - Disposal of Ashes: Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

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".

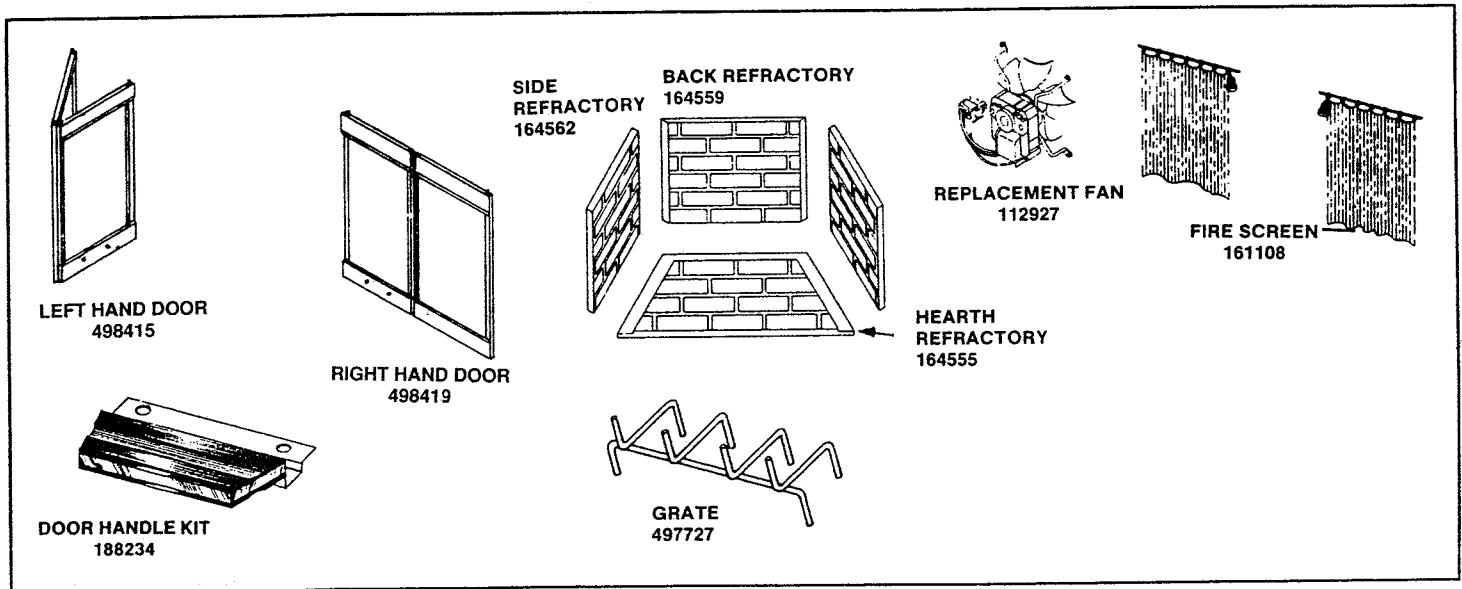
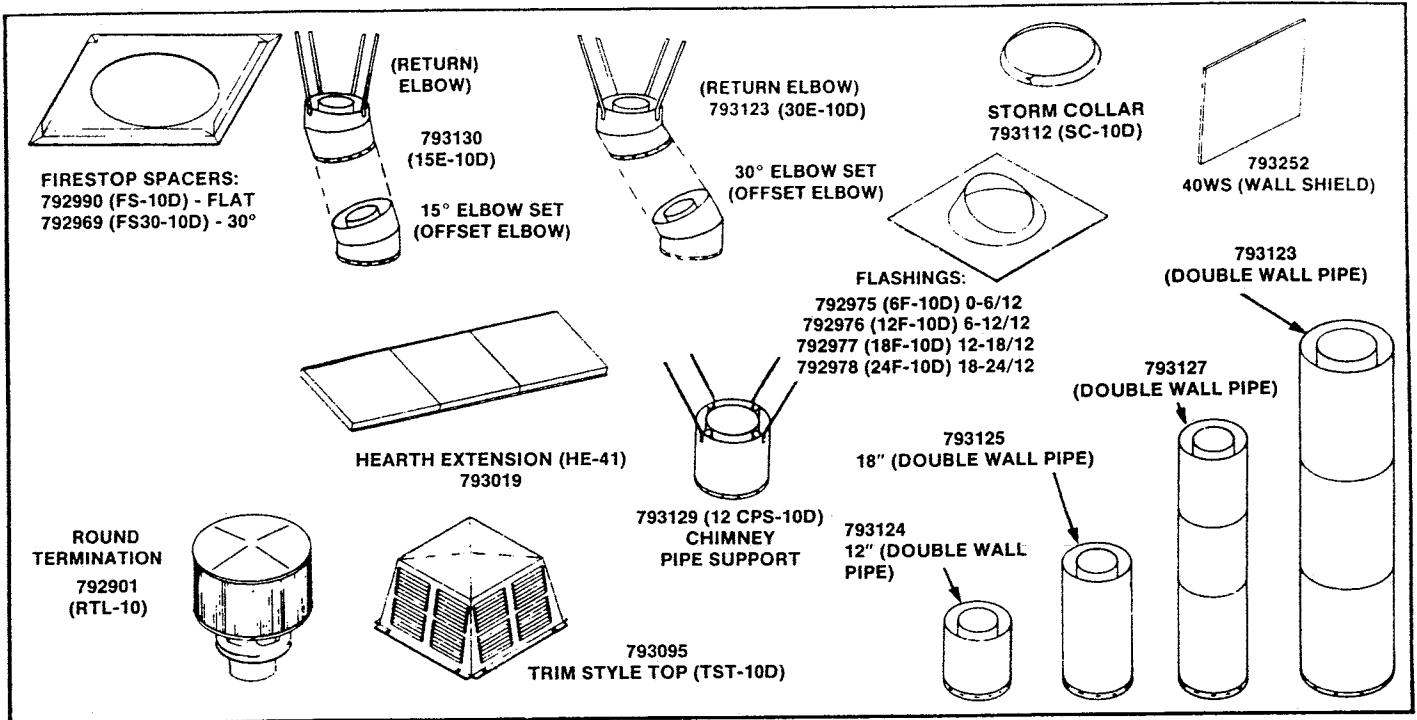
## REFERENCE DOCUMENTS:

1. MARCO Woodburning Fireplace Warranty and Operation Manual, P/N 181536.
2. Glass Door Kit Installation Instructions, P/N 181587.
3. 10" Classic Adjustable Round Termination Installation Instructions, P/N 181672.
4. 10" Trim Style Termination Instructions, P/N 181632.
5. CFK 41" Fan Kit, P/N 181605.

# 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 10' DOUBLE WALL FLUE SYSTEM



# 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 Stock Number. The Stock Number is printed on UL Rating Plate, located in the upper right hand corner behind the screen.
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.



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2520 Industry Way, Lynwood, CA 90262 (213) 564-3201

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