INSTALLING AND OPERATING YOUR MARCO WOOD-BURNING FIREPLACE

MARCO

BUILDER'S 36" FIREPLACES		
STOCK #	MODEL REFERENCE	DESCRIPTION
792774D	B36CF	BUILDER'S 36" CLEAN FACE
792775D	B36HC	BUILDER'S 36" HEAT CIRCULATING
792776D	B36HCI	BUILDER'S 36" HEAT CIRCULATING, INSULATED
792779D	B36CFI	BUILDER'S 36" CLEAN FACE, 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 36" MARCO FIREPLACES SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPAIR PARTS WHEN NEEDED.

LISTED

THIS SYMBOL ON THE PRODUCT MEANS IT IS LISTED BY WARNOCK HERSEY AND TESTED TO U.L. 127.

MARCO MFG., INC.
2520 Industry Way, Lynwood, CA 90262 • (213)564-3201 • (800)232-1221

TABLE OF CONTENTS

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:

Use of the grate is required. It has been designed to keep the operation of your fireplace efficient and safe.

GLASS DOORS:

Bifold glass doors can be installed as an optional accessory. Use Marco door kit #793410 and refer to the installation instructions in that kit. 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. The outside air kit (Marco part #793250), if desired, must be installed *during* the installation of the fireplace (see page 4).

FAN KIT (For Heat Circulating Models Only):

A fan kit (Marco part #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 installation instructions included within the kit 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 Figures 1 and 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.

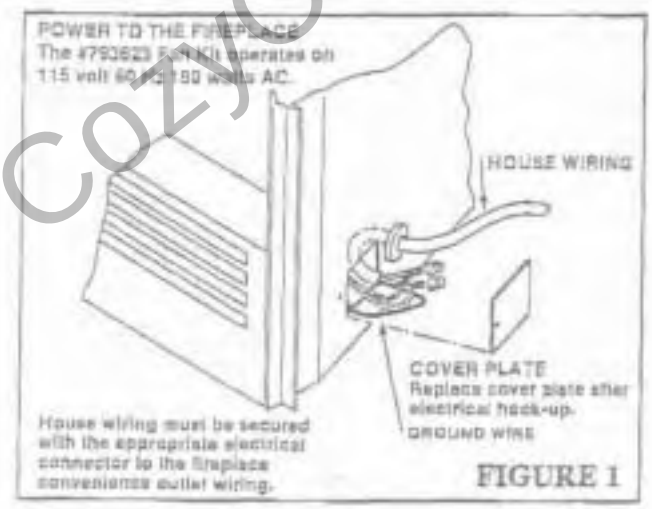


FIGURE 1

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

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 its 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's Builder 36 fireplace may be installed in a conventional or a prefabricated home.

The Marco warranty will be voided by, and Marco disclaims any responsibility for, the following actions:

1) Modifications of the fireplace and/or its components, including the assembly of chimney, glass doors, air inlet system and damper control.

2) The use of any component part not manufactured or approved by Marco in combination with a Marco fireplace system.

3) Installation other than as instructed in this manual.

4) The use of 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 the installation of all factory-built fireplaces. Although grounding may not be required by code, it is recommended by the manufacturer.

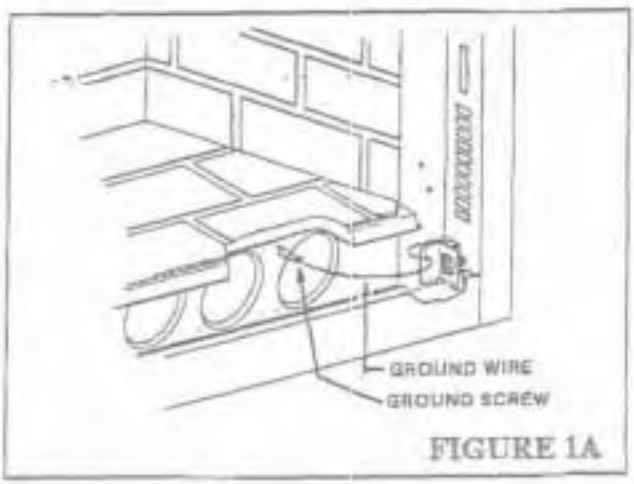


FIGURE 1A

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 allow for 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).

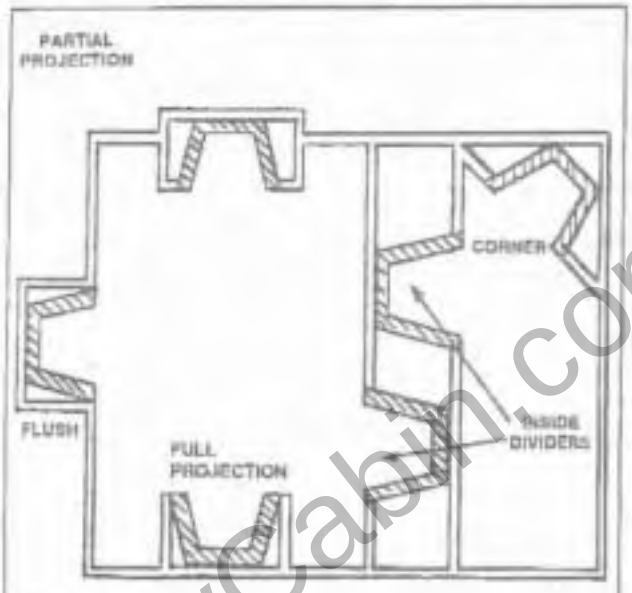


FIGURE 2
LOCATION AND INSTALLATION

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 4, 5, 6 and 7.

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 and 17).

CLEARANCES

A fireplace may not be installed closer than 12 1/2 inches to any unprotected combustible wall perpendicular to the door opening (Figure 4).

When a 24" W x 30" H wall shield made from a non-combustible inorganic material with thermal conductivity K of .54 or less is used, clearance may be reduced to 7 inches. See table (Figure 37, Page 16) for common materials which can be used as wall shield.

When installed in accordance with the instructions given in this manual, the fireplace system may touch combustible materials at the bottom. 1" clearance is required on sides and back of the fireplace, except at the nailing flange, where clearance is 0". (Figure 3).

The chimney system requires 1" minimum air space.

Combustible materials should not be in contact with mounting flange of the upper frame.

WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS (except as shown in Figure 29, page 13).

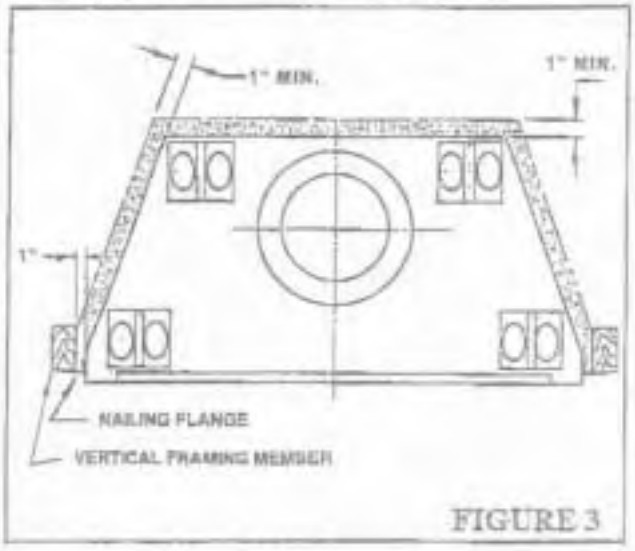


FIGURE 3

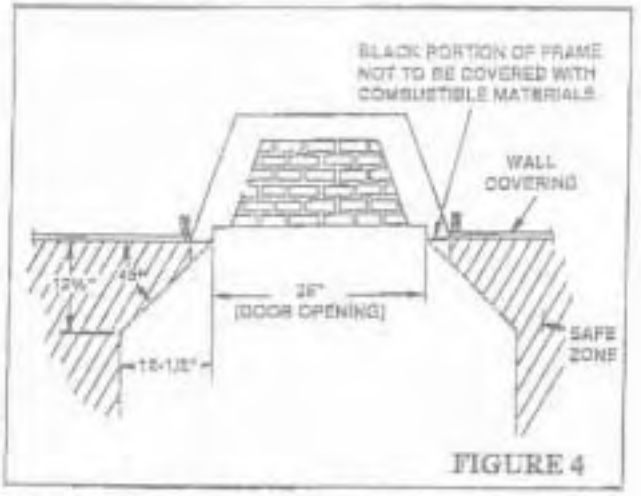


FIGURE 4

FRAMING INSTRUCTIONS

If framing around the fireplace is designed to incorporate bookshelves, wood bins, closets, etc., these should not project beyond the safety zone (Figure 4).

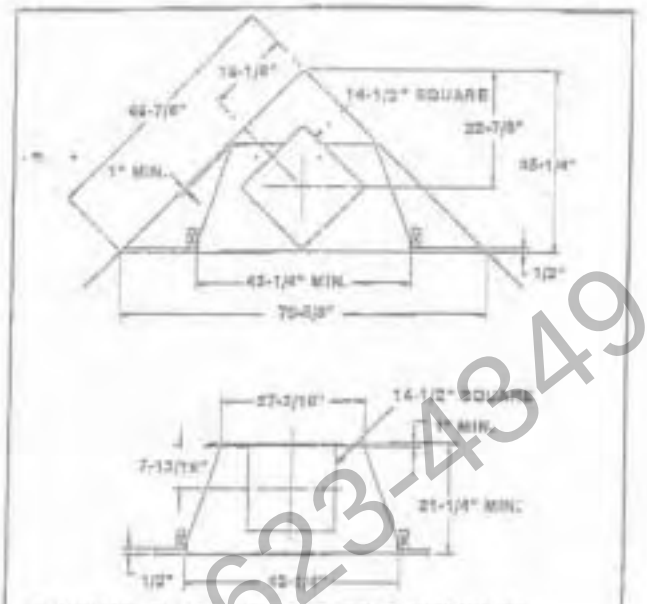


FIGURE 5 - FRAMING DIMENSIONS

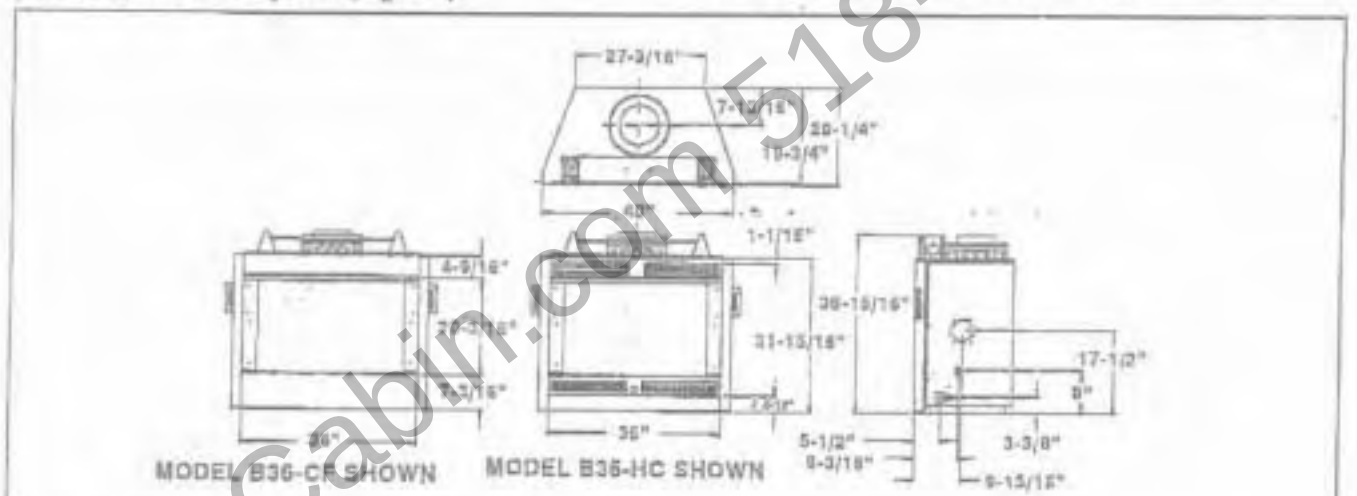


FIGURE 6 - FIREPLACE DIMENSIONS

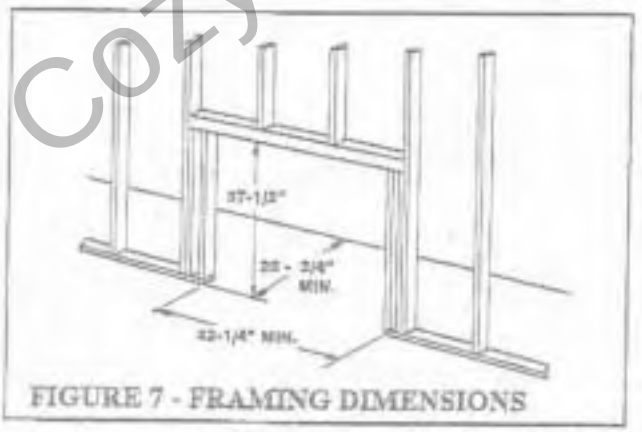


FIGURE 7 - FRAMING DIMENSIONS

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 7 may be used to construct the fireplace opening.

Install nailing flanges as shown in Figure 8A on page 4 and move fireplace into position. Install the provided metal safety strips beneath the fireplace as shown in Figure 8.

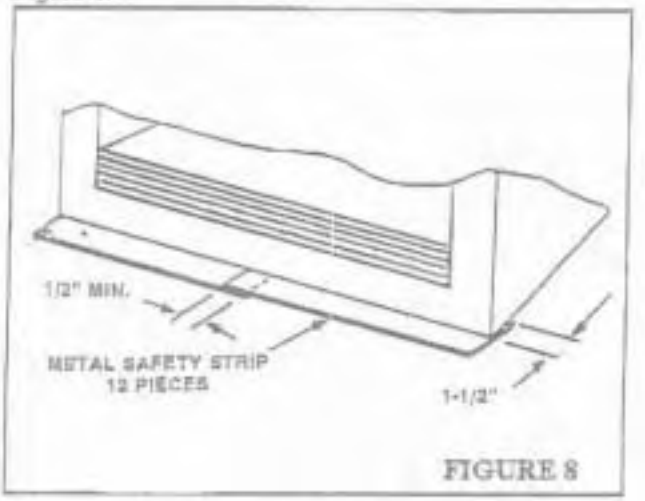


FIGURE 8

INSTALLATION OF AIR INLET ASSEMBLY

OUTSIDE COMBUSTION AIR

The installation of an outside accessory kit is highly recommended. It is very important to ensure 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 9). 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 a minimum of three (3) feet below the chimney cap level.

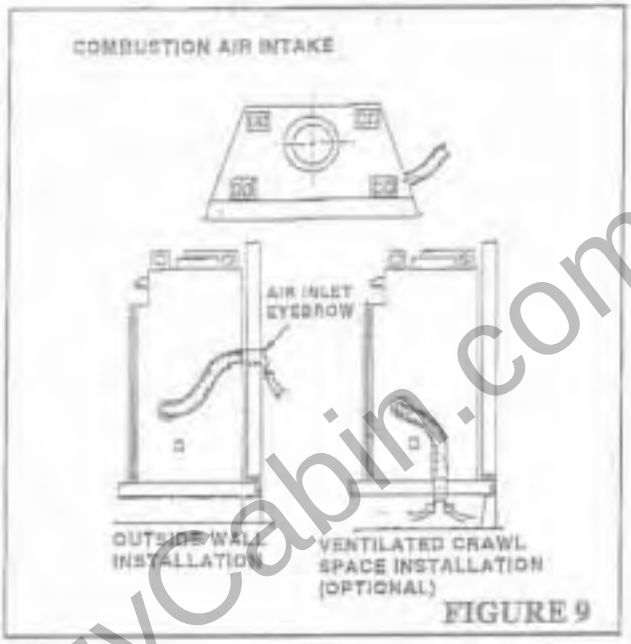


FIGURE 9

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 12). 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 10. To thread it properly into the case, the handle must be turned beyond its normal operating position. 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 11.

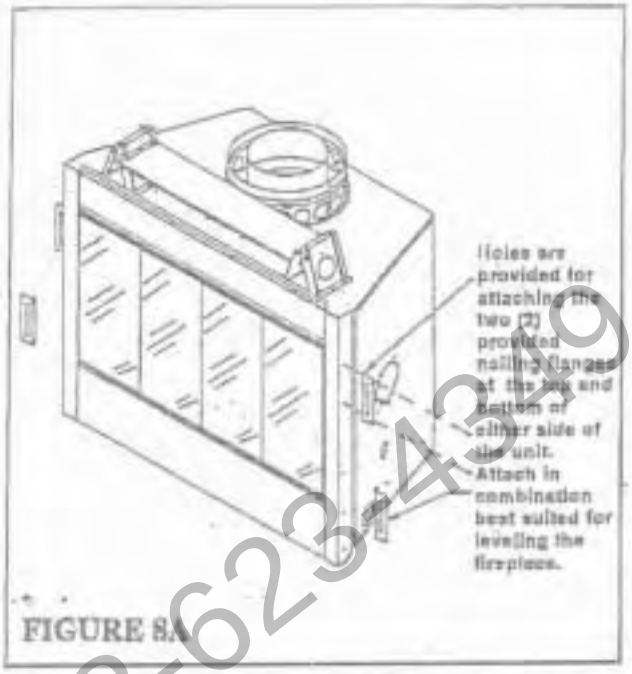


FIGURE 8A

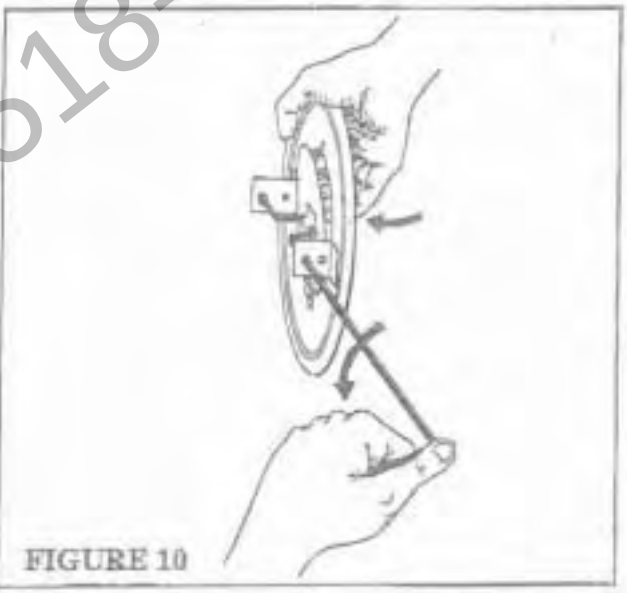


FIGURE 10

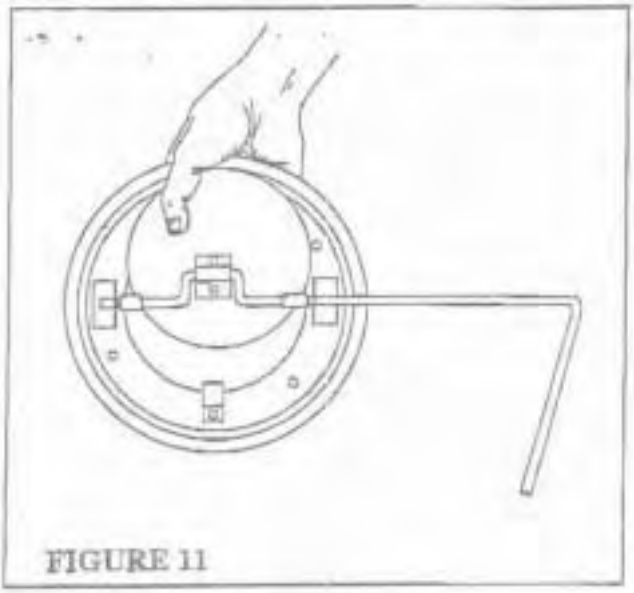


FIGURE 11

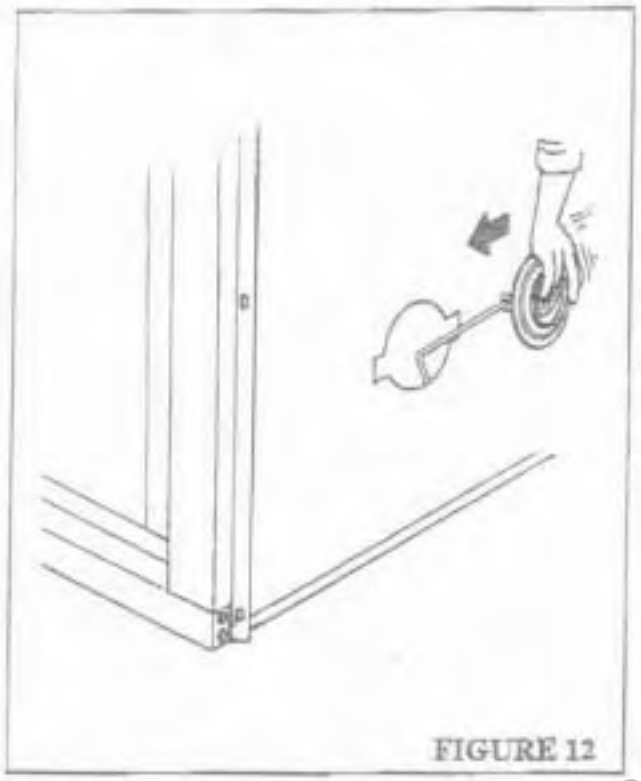


FIGURE 12

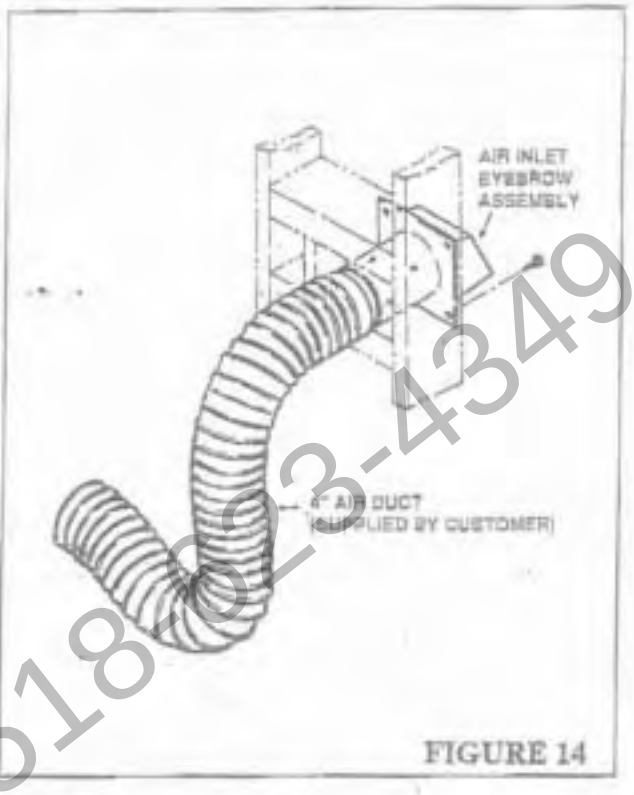


FIGURE 14

STEP 5: Insert the handle into the case as shown in Figure 12. 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, Page 19).

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 13.

STEP 7: Install the air inlet eyebrow through the wall opening (Figure 14). Push a 4" diameter NON-COMBUSTIBLE Class 0 or Class 1 flexible duct onto the eyebrow.

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 15.

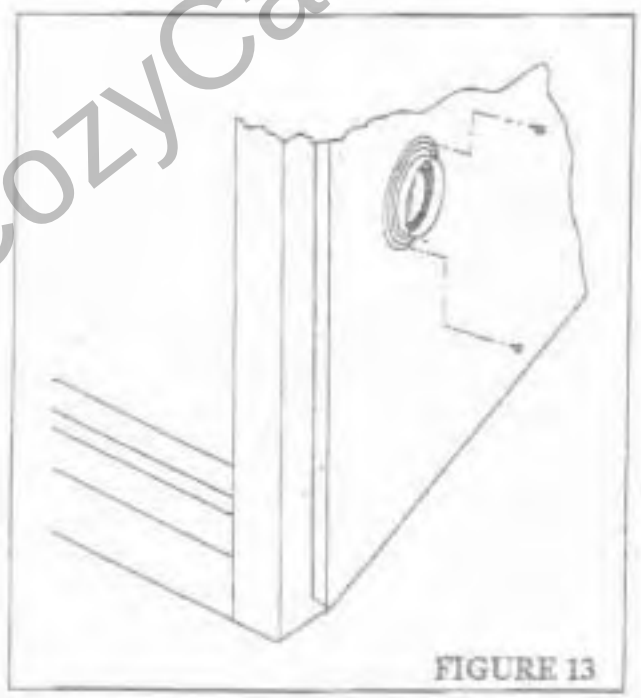


FIGURE 13

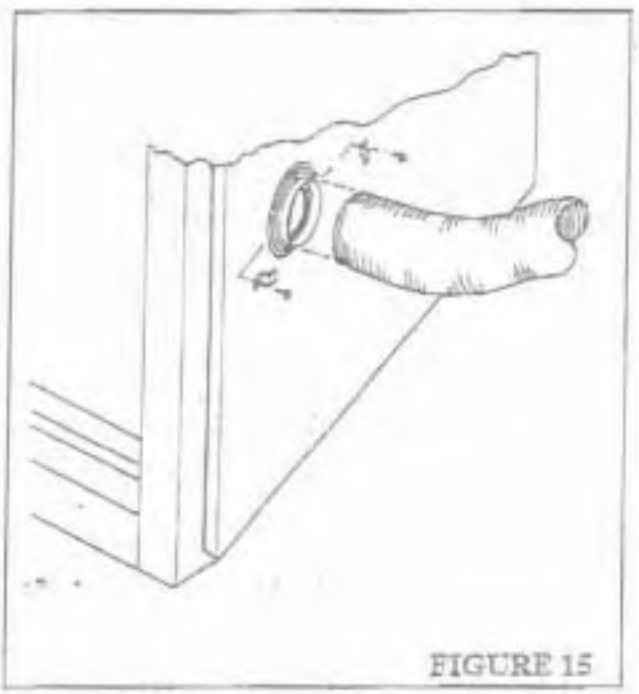


FIGURE 15

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 unlitized 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 16).

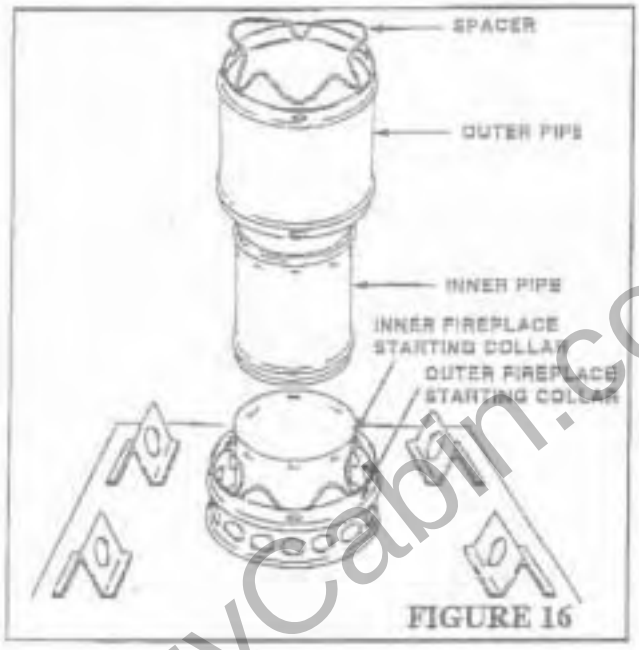


FIGURE 16

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 the exposed pipe end.

STEP 3: On the ceiling directly above the center of the double-wall pipe, lay out a 14 1/2 inch square hole (use plumb bob) and cut out for chimney exit (see Figure 5, page 3 for dimensions.)

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 degree firestop must be used.

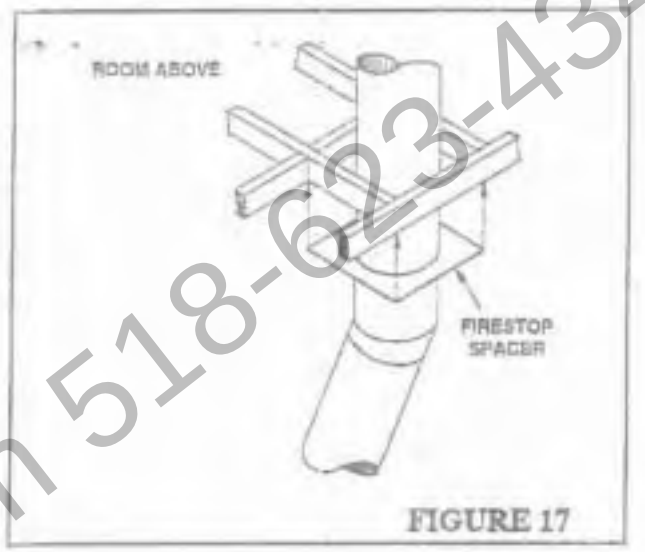


FIGURE 17

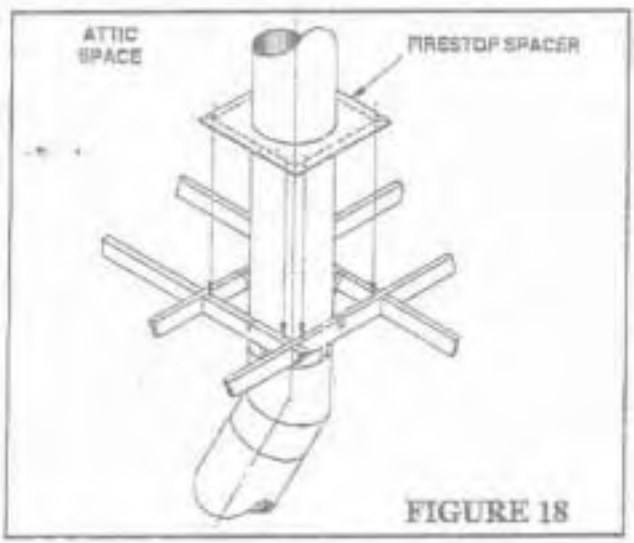


FIGURE 18

If the pipe passes through a framed opening between floors, install a firestop spacer to the bottom of the joists (Figure 17). When pipe passes into the attic space, install the firestop spacer on top of the joists (Figure 18) 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 cutout depends on the pitch of the roof, so refer to the chart on Figure 21, Page 9.

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 19).

STEP 6: When the clearance between outer pipe and roof joist is less than 2", a roof joist shield (RJS-8D) is required. Slide the roof joist shield over the outer pipe. It must be positioned to cover the joist at all points around the chimney pipe. If necessary, trim the shield slightly to match the slope of the roof. Attach the shield to the joists using the straps provided (See Figure 19).

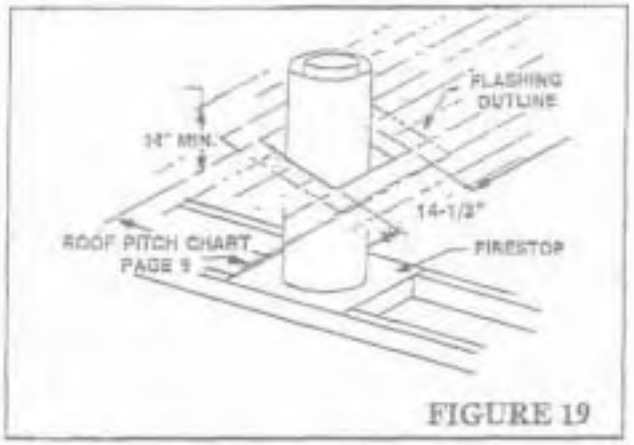


FIGURE 19

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 19).

STEP 8: Place flashing into position on unshingled roof. Hold in position by nailing shingles in place over the flashing edges.

STEP 9: 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 20).

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

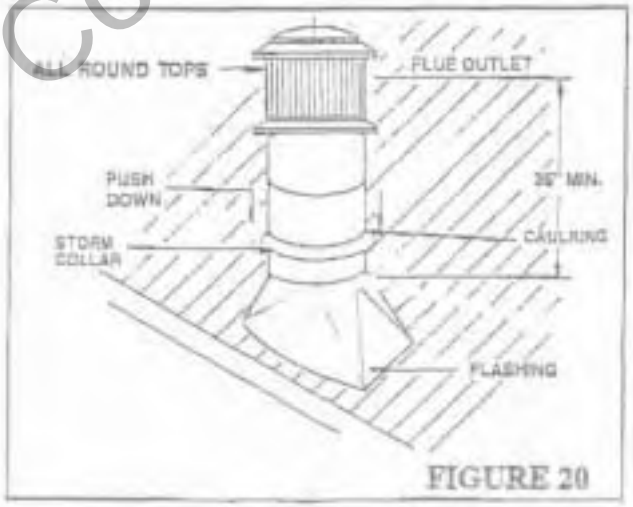


FIGURE 20

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 outside of the dwelling 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 within 10 feet horizontally (Figure 22.)

STEP 10: Install termination on last section of pipe. There are 5 round terminations and a "Trim Style Top" (TST) approved for the 8" chimney system. The "Trim Style Top" is designed to be used on a chase installation or decorative chimney enclosure only.

Optional Shroud P/N 499272 can be installed on a chase installation only if used with RTLC-8D P/N 793103 (See page 12).

Round terminations can be used on either exposed chimney or chase installations. The Builder's Round Top Long is adjustable to compensate for height variations.

For details, see Figures 27, 27C & D and consult installation instructions of the termination being used.

HOW TO DETERMINE YOUR FIREPLACE SYSTEM

1. DETERMINE TOTAL HEIGHT (DIMENSION H, FIG. 27)
   If roof platform is used, subtract its height from DIM. H. _____
2. HEIGHT OF FIREPLACE 37"
3. RISE OF ELBOWS INCLUDING PIPE
   Use Single Offset Chart (Page 10) _____
4. LINEAL GAIN OF TERMINATION
   (See Chart on page 8) _____
5. HEIGHT OF TST-8D TOP _____
6. TOTAL OF LINES 2 THROUGH 5 _____
7. SUBTRACT LINE 1 FROM 6 _____

LINE 7 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.	30" PIECES OF PIPE		
11.	48" PIECES OF PIPE		
12.	SUBTOTAL		

13. TOTAL OF LINES 8 AND 12 (SHOULD EQUAL LINE 7) _____

LINEAL GAIN CHART

NUMBER	DESCRIPTION	LINEAL GAIN
	B36 FIREPLACE	37"
793116	12" PIPE LENGTH	10 3/4"
793117	18" PIPE LENGTH	16 3/4"
793119	36" PIPE LENGTH	34 3/4"
793120	48" PIPE LENGTH	46 3/4"
793121	CHIMNEY SUPPORT	10 3/4"
793073	BUILDER'S ROUND TOP	6"
793077	BUILDER'S ROUND TOP MEDIUM	8"
793072	BUILDER'S ROUND TOP LONG	9" - 14"
793103	BUILDER'S ROUND TOP LONG W/ CONE	9" - 14"
793107	BUILDER'S ROUND TOP W/ CONE	6"
793059	TRIM STYLE TOP	6" - 17"

Marco's Double-Wall Chimney System, when used on the Builder 36 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 two (2) elbows (1 set) is 15 feet. The minimum height with four (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.

8" DIAMETER CHIMNEY HEIGHT CHART (DIMENSION C ROUNDED)

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"	-	1	-	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					

CEILING OPENING CHART			
CHIMNEY SETUP	OPENING		FIRESTOP PART NO.
	A	B	
VERTICAL	14 1/2	14 1/2	792996
15° OFFSET	14 1/2	22 1/2	792997
30° OFFSET	14 1/2	33 1/2	792998

ROOF OPENING CHART		
PITCH	OPENING	
	C	D
FLAT	14 1/2	14 1/2
4/12	14 1/2	18 1/2
12/12	14 1/2	33 1/2
18/12	14 1/2	39 3/4
24/12	14 1/2	37

RECOMMENDED FLASHING	
ROOF PITCH	FLASHING PART NO.
0 - 6/12	793035
6 - 12/12	793078
12 - 18/12	793045
18 - 24/12	793046

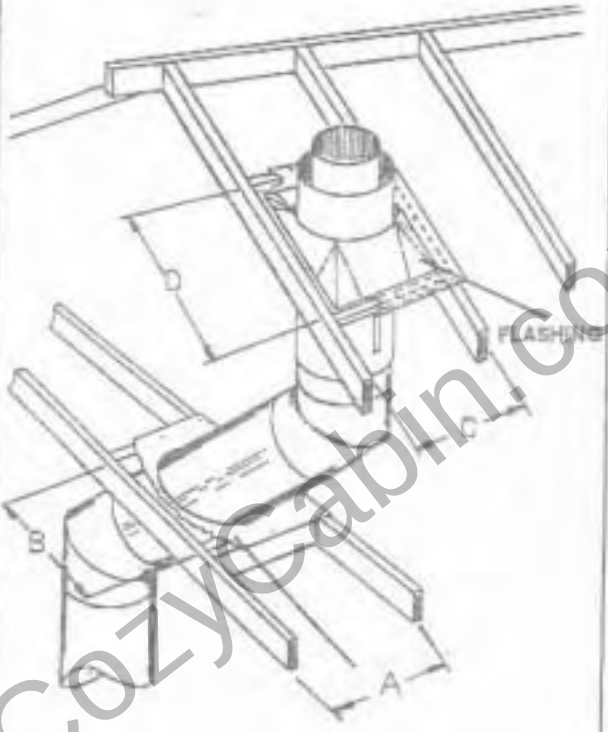


FIGURE 21

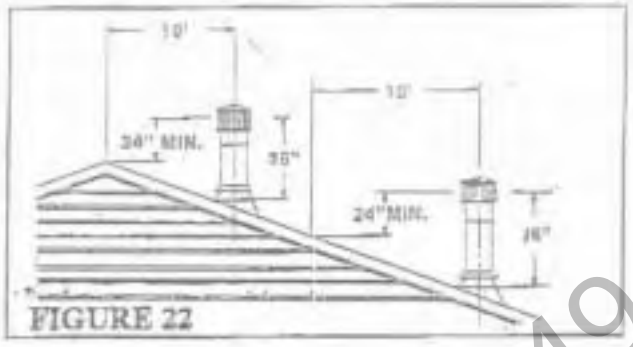


FIGURE 22

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 top should extend 2' higher than the closest point 10' away horizontally (See Figure 22).

IMPORTANT: If an exposed portion of chimney is greater than five (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 23).

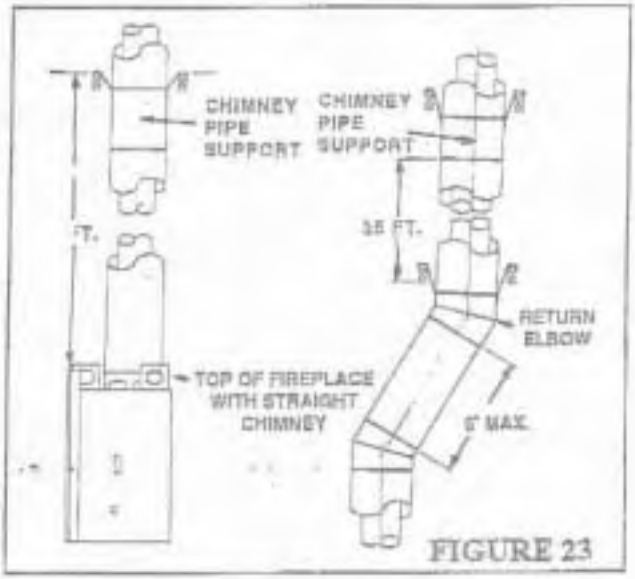


FIGURE 23

INSTRUCTIONS FOR OFF-SET OF CHIMNEY USING ELBOWS

TO INSTALL ELBOWS

1. To achieve desired offset, you may install combinations of 12", 18", 36" and 48" lengths of double wall pipe (see single offset chart and Figures 24 and 26).

2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists (See Figures 25 & 26).

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 26).

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.

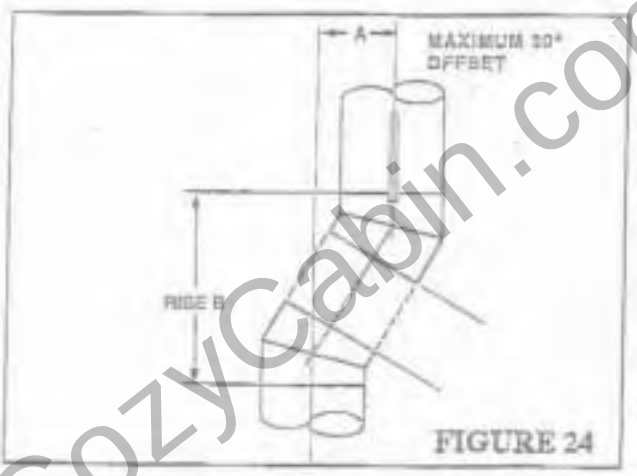


FIGURE 24

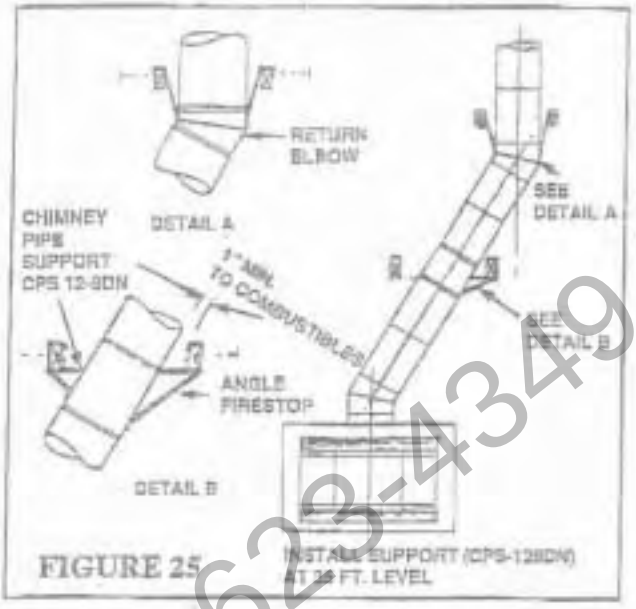
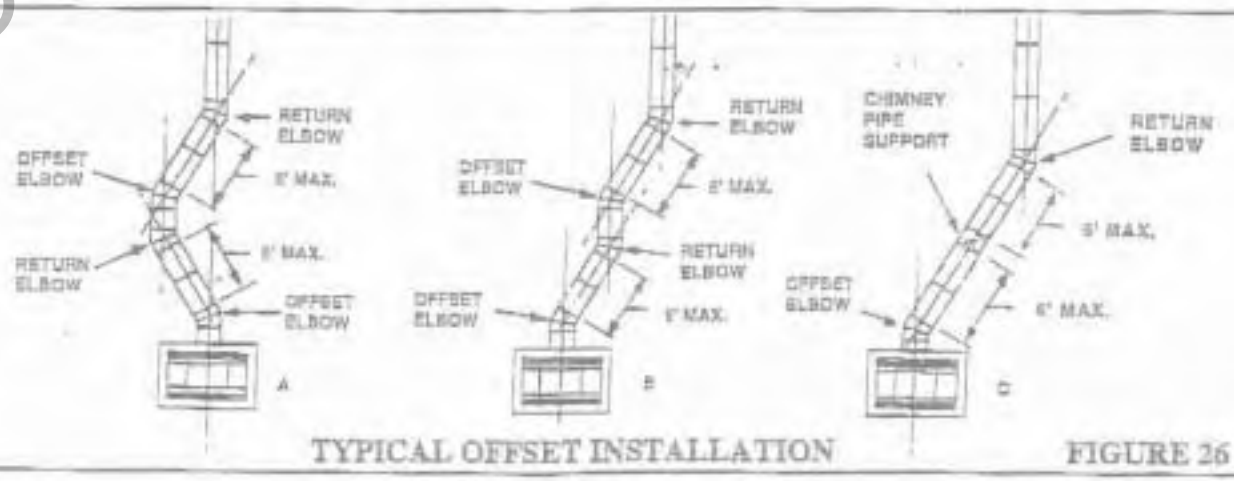


FIGURE 25

SINGLE OFFSET CHART

NUMBER AND LENGTH OF DOUBLE WALL PIPE					6-INCH OFFSET ELBOW 6-INCH RETURN ELBOW		8-INCH OFFSET ELBOW 8-INCH RETURN ELBOW	
12"	18"	36"	CHIMNEY SUPT.	48"	A	B	A	B
-	-	-	-	-	5 1/4	19 1/4	2 3/4	20 1/2
1	-	-	-	-	10 1/2	28 3/4	5 1/2	30 3/4
-	1	-	-	-	13 1/2	33 3/4	7	36 1/2
2	-	-	-	-	16	38	8 1/4	41 1/4
1	1	-	-	-	19	43 1/4	9 3/4	47
-	2	-	-	-	22	48 1/2	11 1/4	52 3/4
-	-	1	-	-	22 1/2	49 1/2	11 3/4	54
2	1	-	-	-	24 1/4	53 1/2	12 1/2	57 3/4
1	2	-	-	-	27 1/4	57 3/4	14 1/4	63 1/4
1	-	1	-	-	28	58 3/4	14 1/2	64 1/4
-	-	-	-	1	28 1/2	59 3/4	14 3/4	65 1/2
-	3	-	-	-	30 1/4	63 3/4	15 3/4	69
-	1	1	-	-	31	64	16	70 1/4
2	-	1	-	-	33 1/4	68	17 1/4	74 3/4
1	-	-	-	1	34	69 1/4	17 1/2	76
1	1	1	-	-	36 1/4	73 1/4	18 3/4	80 1/2
3	-	-	-	1	39 1/4	78 1/2	20 1/4	86 1/4
-	-	3	-	-	40	79 1/2	20 3/4	87 1/2
-	-	2	1	-	45 1/4	88 3/4	23 1/2	98



TYPICAL OFFSET INSTALLATION FIGURE 26

EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS

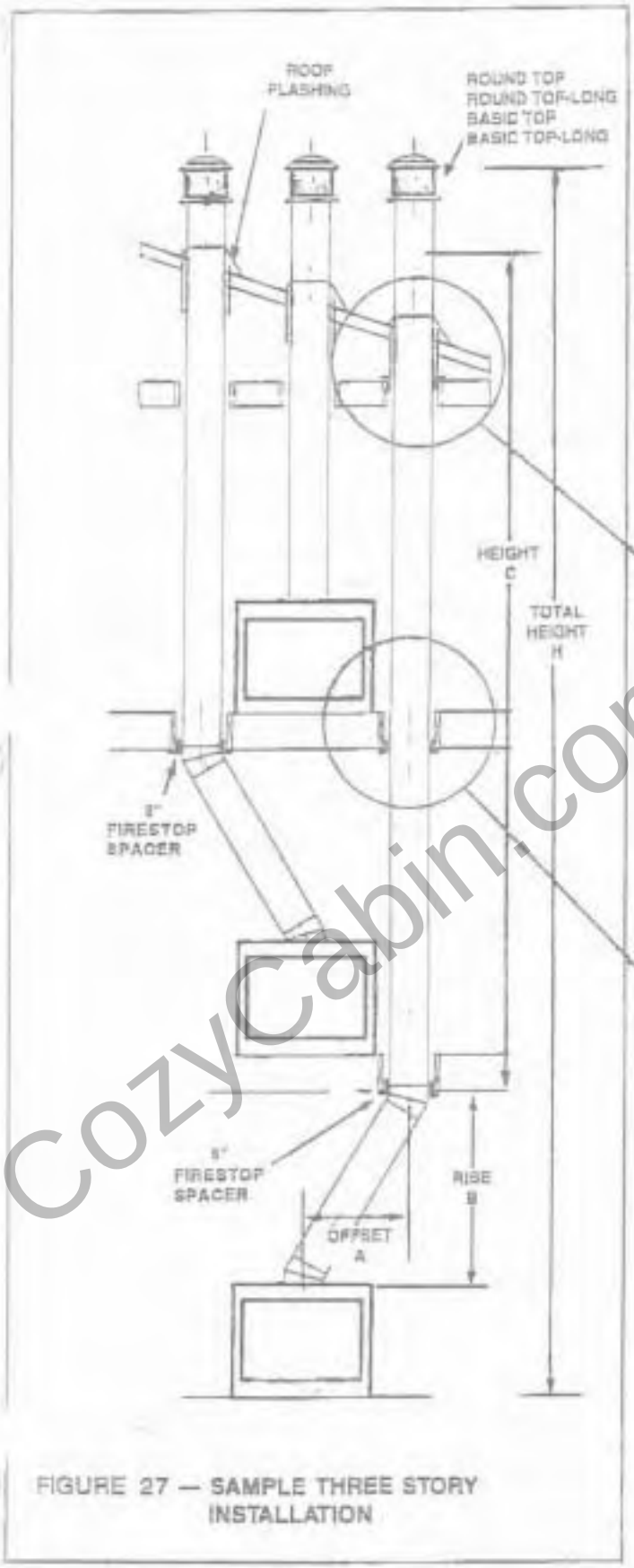
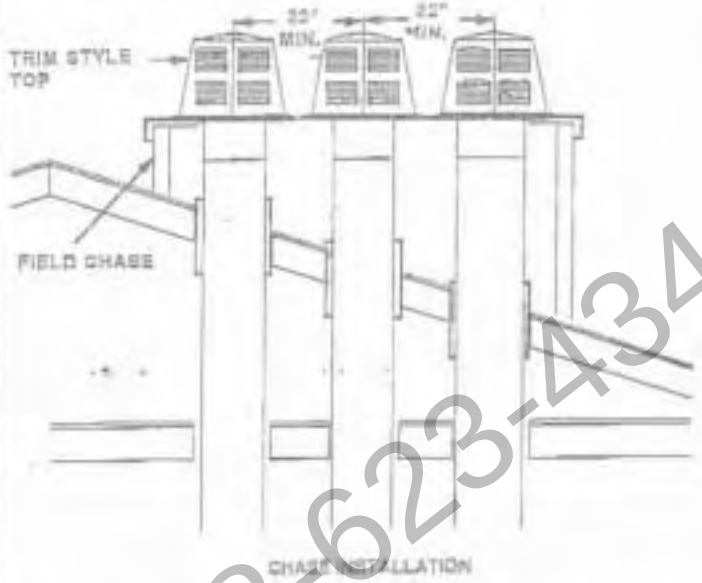


FIGURE 27 — SAMPLE THREE STORY INSTALLATION



CHASE INSTALLATION

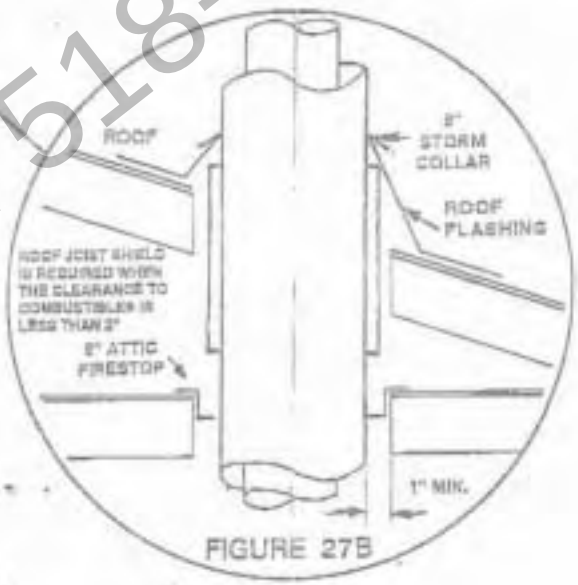


FIGURE 27B

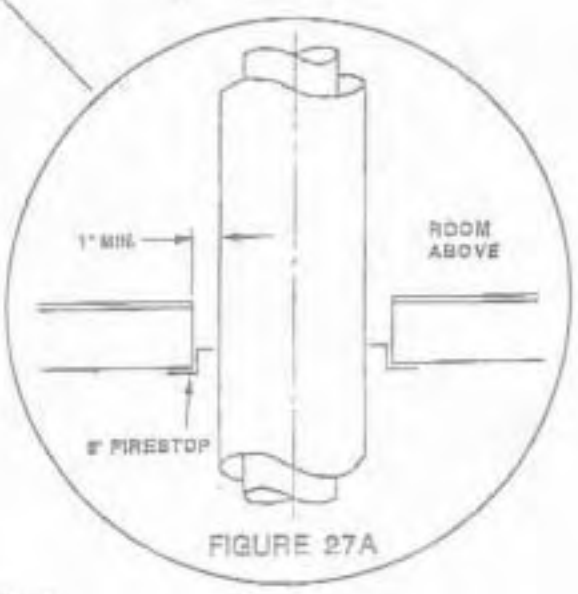


FIGURE 27A

INSTALLATION ON FIELD CONSTRUCTED CHASE

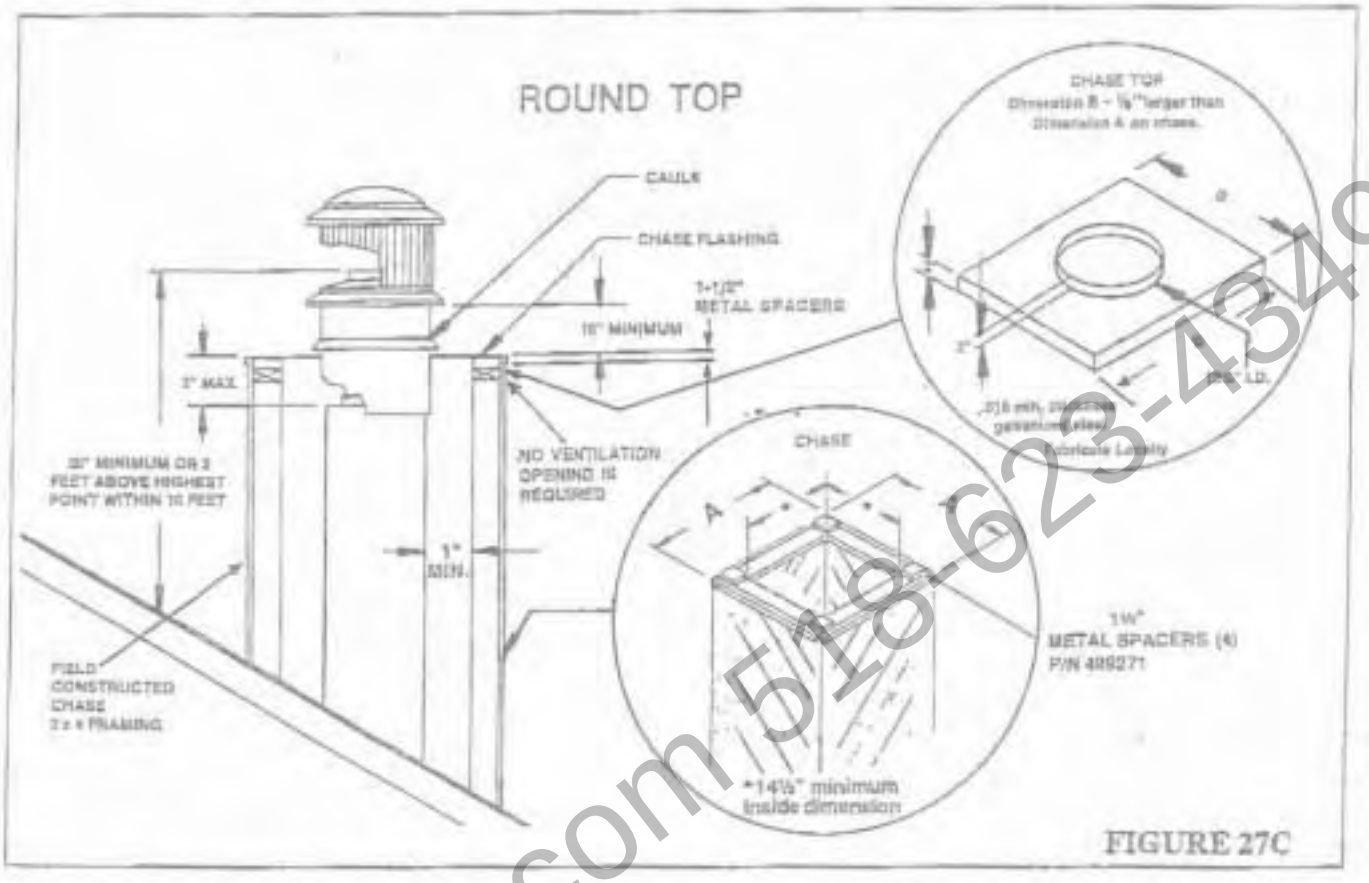


FIGURE 27C

TRIM STYLE TOP

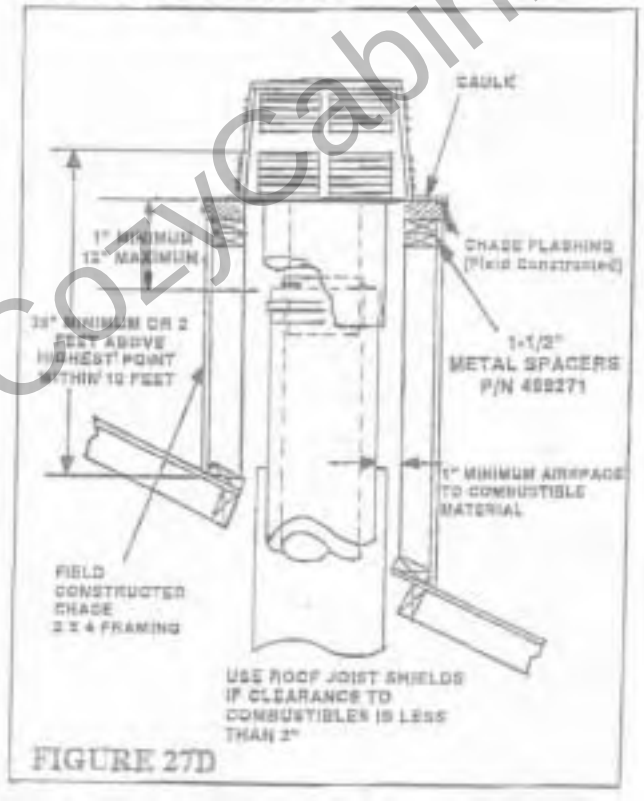


FIGURE 27D

SHROUD INSTALLATION (OPTIONAL)

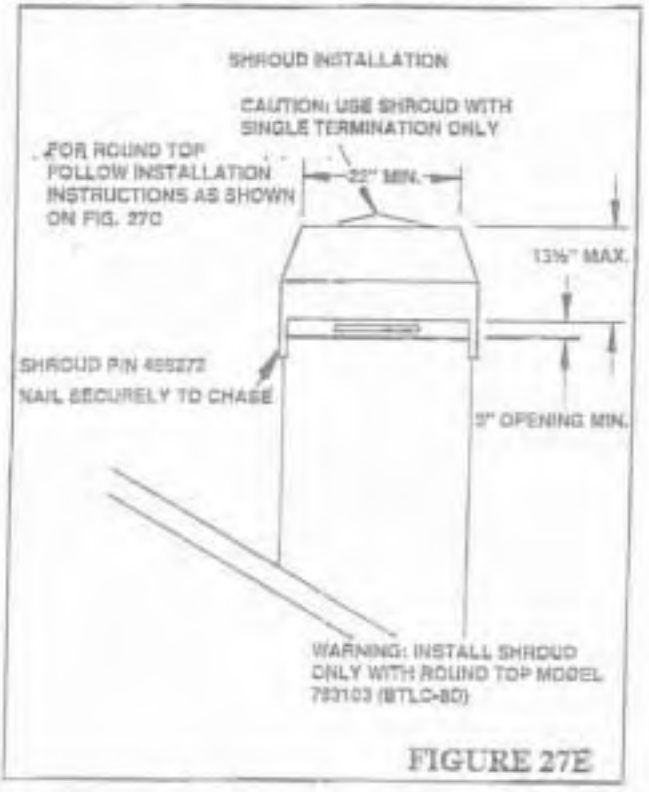


FIGURE 27E

OPTIONAL COLD CLIMATE INSTALLATION INSTRUCTIONS

When installing a fireplace in an area where the outside temperature falls below 32 degrees Fahrenheit, it is essential that you protect the fireplace's metal bottom from cold air by following one of the following procedures:

Set the fireplace on a 1/4" or larger plywood as shown in Figure 28; or

Using a silicone caulking material, rated to temperatures exceeding 350°, caulk the bottom seams of the fireplace between the base pan and outer casing as shown in Figure 28.

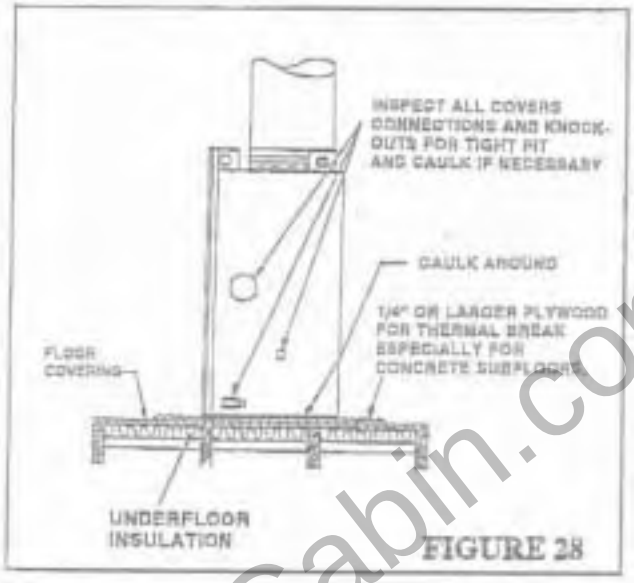


FIGURE 28

NOTE: DO NOT SET THE FIREPLACE ON A CONCRETE SUBFLOOR WITHOUT THERMAL PROTECTION. USE A 1/4" PLYWOOD OR EQUIVALENT.

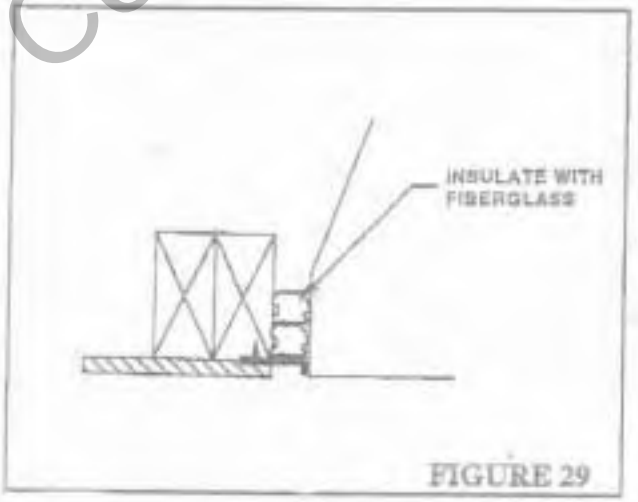


FIGURE 29

Carefully inspect the Outside Air; Gas line; and on units wired for fans, the "J" Box Cover to ensure a tight fit. Use the caulking material to carefully seal around each of them to ensure that no cold air will leak into the firebox.

Insulate the gap left between the sides of the fireplace (see Figure 29). If the gap is too small to effectively insulate, it may be caulked with the high temperature silicone or equivalent caulking material.

WARNING: BE CAREFUL NOT TO LET THE INSULATION MATERIAL COME IN CONTACT WITH THE FIREPLACE IN THE REQUIRED AIR SPACES.

Carefully check and caulk all cracks around the fireplace where cold air could enter the room as illustrated in Figure 30.

As a final caution, the finish trim around the front of the fireplace should be carefully caulked between the trim and the fireplace to prevent the entry of cold air and/or the escape of warm air.

WARNING: DO NOT USE A BLOWN-IN TYPE OF INSULATION. THIS TYPE OF INSULATION COULD PLUG THE HOLES AT THE BASE OF THE CHIMNEY AND INTERFERE WITH THERMAL SIPHONING.

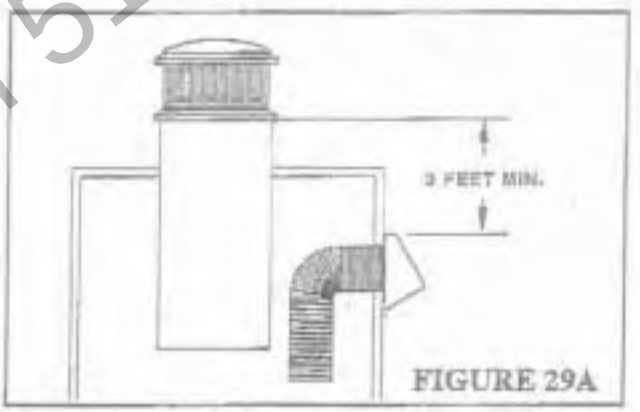


FIGURE 29A

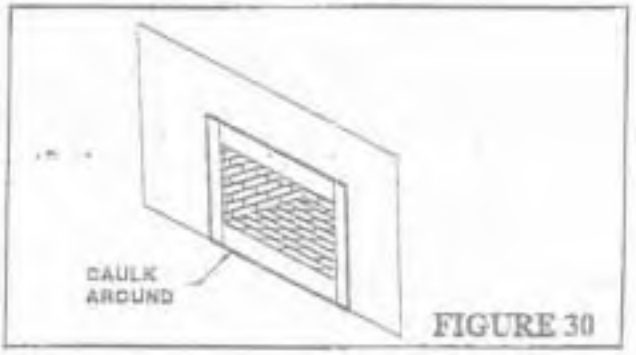


FIGURE 30

For areas with sub-zero temperatures, Marco recommends that the outer walls and the ceiling of the chase be insulated.

In colder climates, utilization of Marco's Cold Climate Kit will help prevent outside air from entering the room through the flue liner (Figure 31). Please follow the installation instructions provided with the kit.

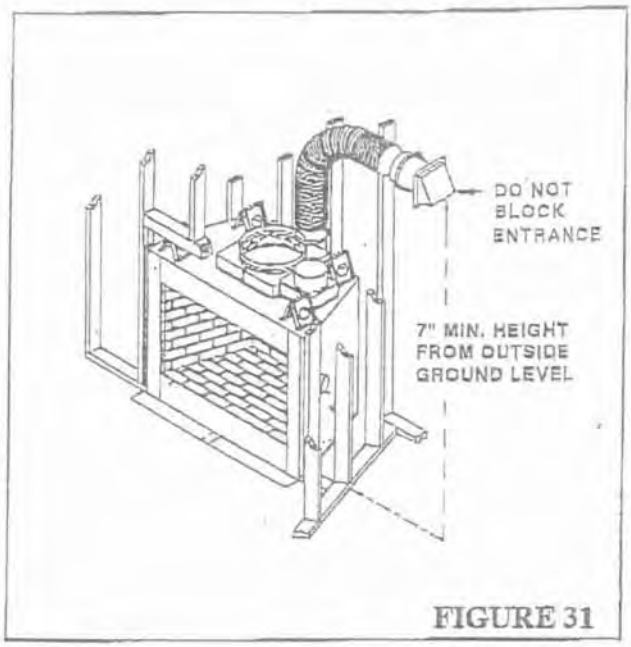


FIGURE 31

To utilize the Cold Climate Kit, the following restrictions must be met:

A) The Cold Climate Kit is for residential use only. It may not be used in mobile home installations.

B) The fireplace must be installed with a minimum 1" clearance to combustibles and the chimney must be installed with a 2" minimum clearance.

C) The air inlet must be installed a minimum of 7' above the outside ground level (Figure 31).

D) The following chimney height limits must be observed:

1) For the BTL-8D, BTLC-8D and BT-8D:
Without elbows: 15' minimum, 60' maximum.
Up to four (4) elbows: 24' minimum, 60' maximum.

2) For the TST-8D: 24' minimum, 60' maximum with up to four (4) elbows. Installation less than 24' is not allowed.

E) When the air inlet runs alongside the chimney, it must not end closer than three (3) feet to the chimney termination as shown in Figure 29A.

F) When installation requires penetrating fire-resistant floors or ceilings, contact your local building officials for installation requirements in your area.

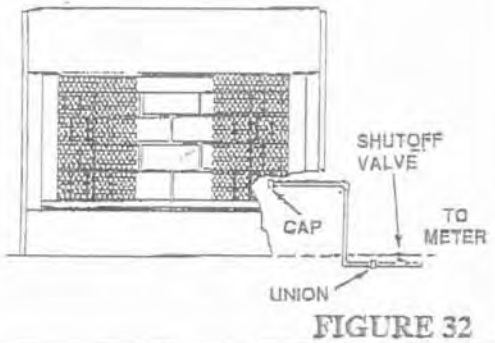


FIGURE 32

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 32).

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 the outside of the fireplace casing with a 5/16" socket wrench and remove conduit sleeve. Take insulation material out of the gas line conduit and save for reuse. Locate the mark on the side panel of the inside wall of the firebox. It is approximately 1 1/2" from the bottom of the fireplace. Using a light punch, knock the plug through the inside of the firebox. Reinsert the conduit sleeve.

If a left-hand installation is desired, knock out the plug in the fireplace case on the left-hand side. Proceed as for a right-hand installation; however, make sure to move the conduit from the right-hand side to the left-hand side. Then replace the cover on the right-hand side.

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

The gas line is intended for connection to a decorative gas appliance that incorporates an automatic shutoff device and complies with the Standard for Decorative Gas Appliances for installation in Vented Fireplaces, ANSI Z21.60. The Decorative Gas Appliance must have been 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 POSITION.

TEST FOR GAS LEAKS

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

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 a clean face and heat circulating installation.

Non-combustible facing material such as tile, brick, glass, etc. may overlap the black face of the fireplace. You must use a non-combustible heat-resistant mortar or adhesive to attach facing material to the fireplace. 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.**

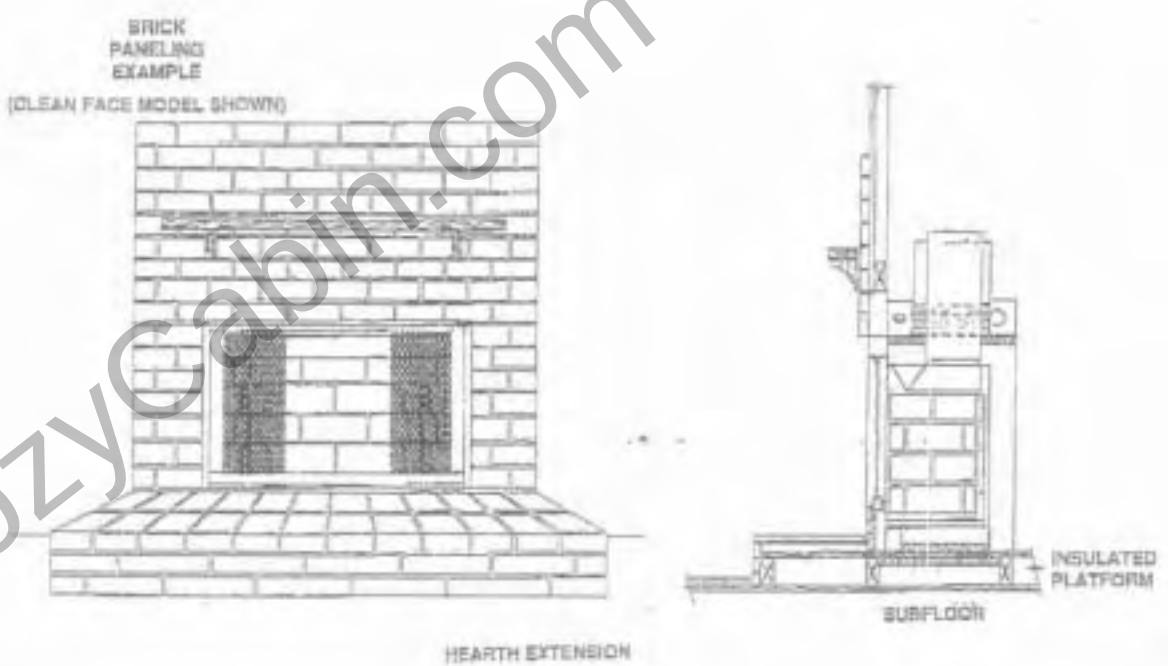


FIGURE 34

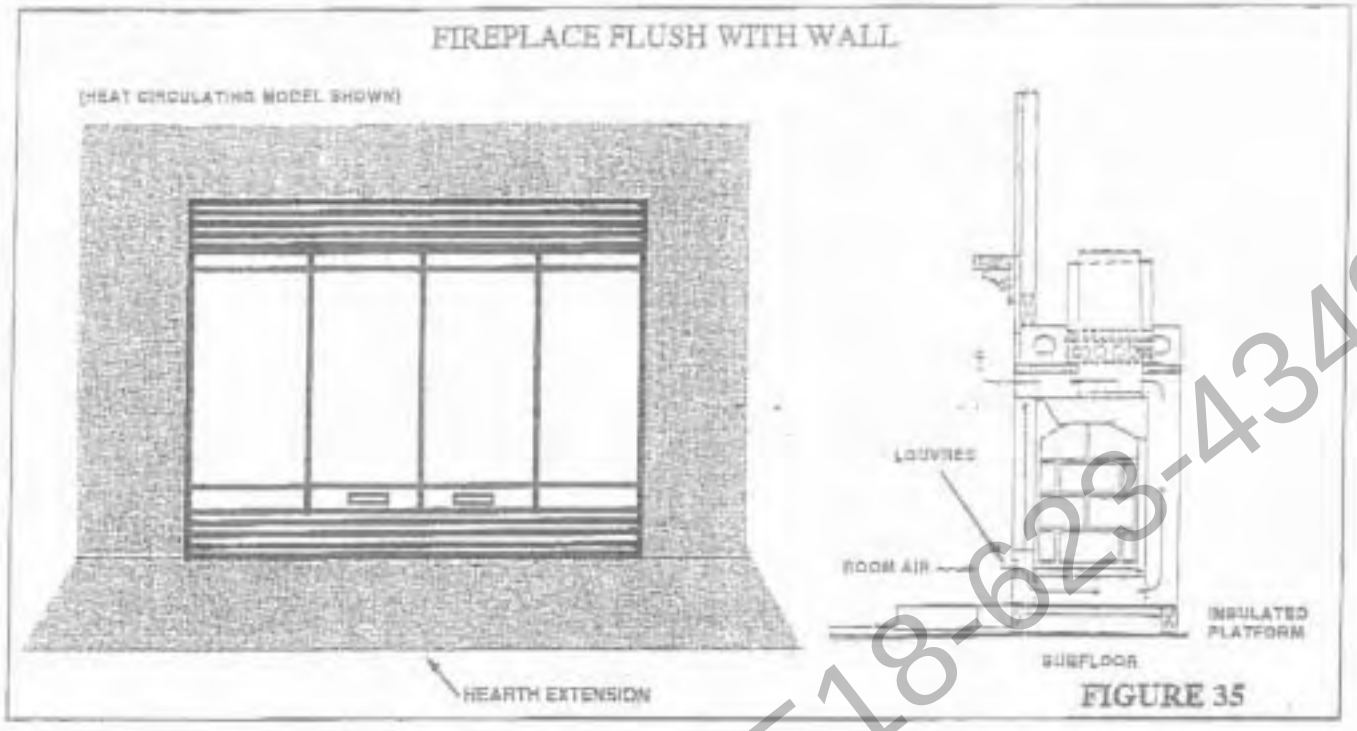


FIGURE 35

HEARTH EXTENSION:

If there is a combustible floor construction in front of the fireplace, you are required to protect it with a hearth extension. The hearth extension, as shown in Figure 36, must be a minimum of 16" deep by 46" 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 .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 = 1/8. The thickness required for various common materials and their factors are shown in Figure 37.

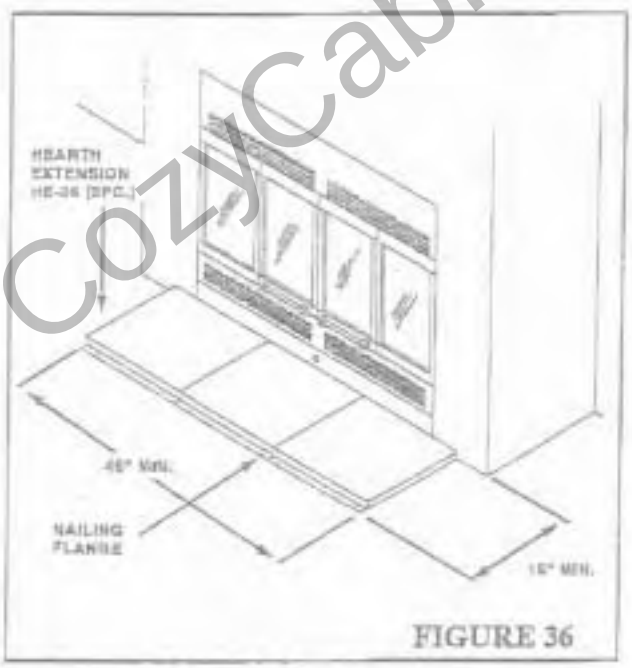


FIGURE 36

Type of Insulation	K*	Minimum Thickness Required
Johns Manville CERAFORM 126	.27	.32"
U.S. Gypsum Corp. MICORE CV130	.43	.51"
Insulating Board (K-FAC 10)	.77	.91"
Lydall, Inc. LYTHERM 1401	.64	.76"
Standard Oil DURABOARD LDensiHD	.60	.71"
Common Brick	4.92	5.85"

*Units of K are BTU/HR FT° F

FIGURE 37 -- COMMON MATERIALS AND THEIR FACTORS

EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT

To determine the thickness required for any material:

K (New Material) X 1" = Thickness Required
.84

Example for Insulating Board - KPAC 19 (K from Figure 37)

.77 X 1 = .91"
.84

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 42).

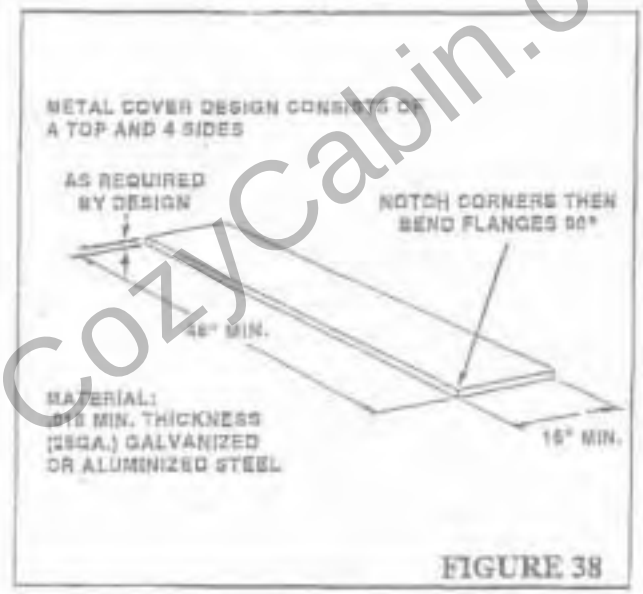


FIGURE 38

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 is required. The safety strip must be constructed of galvanized steel with a minimum thickness of .018. It should be shaped as shown in Figure 39.

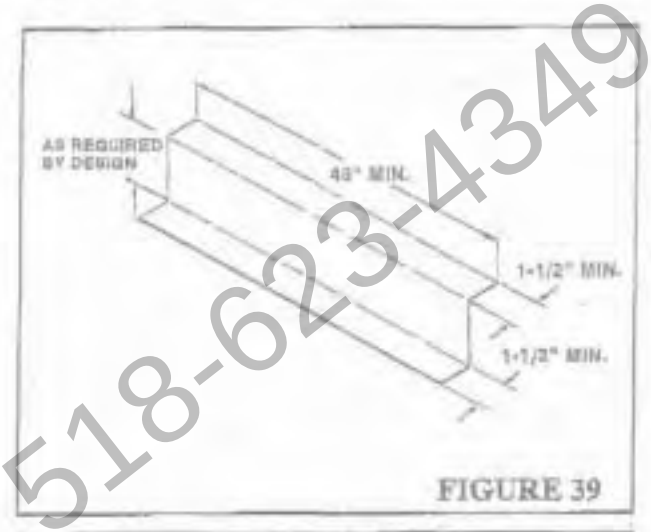


FIGURE 39

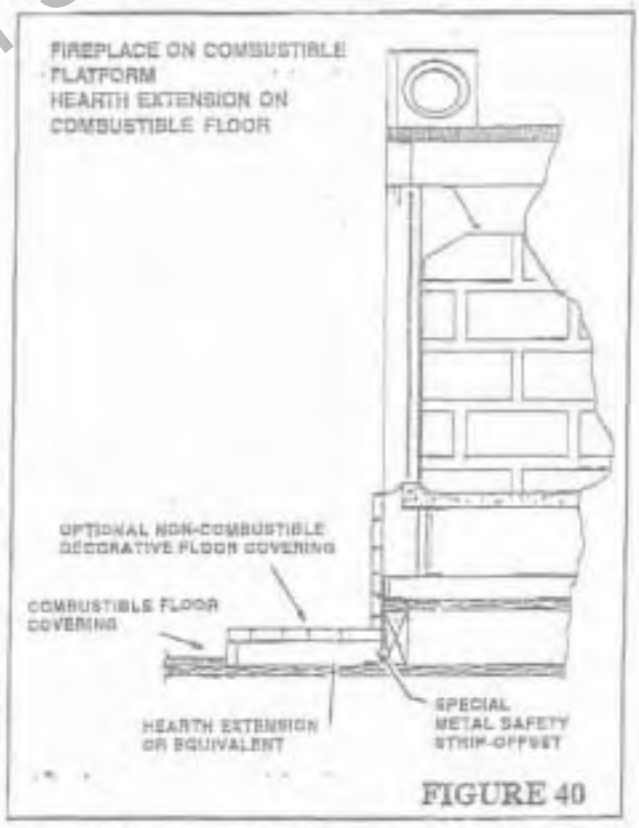


FIGURE 40

Figure 40 shows a sample of this type of installation.

WARNING: HEARTH EXTENSION MAY BE INSTALLED ONLY AS ILLUSTRATED. FIGURES 39 THROUGH 42 SHOW OPTIONAL INSTALLATIONS.

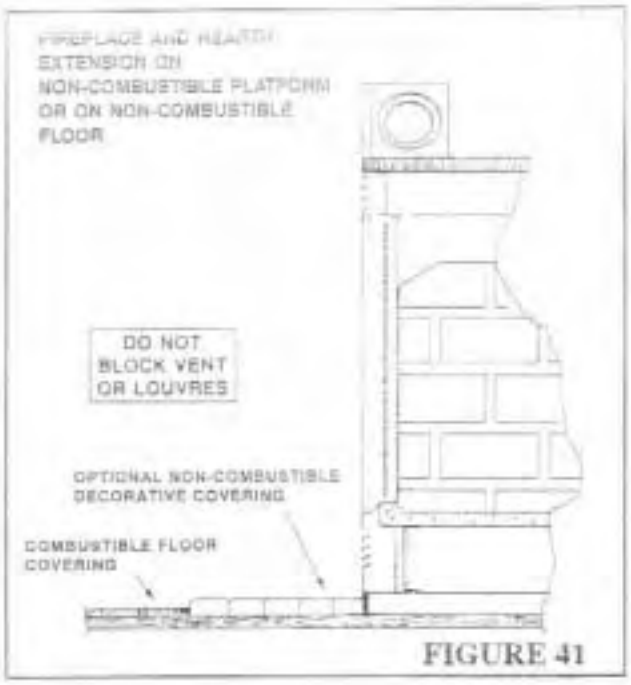


FIGURE 41

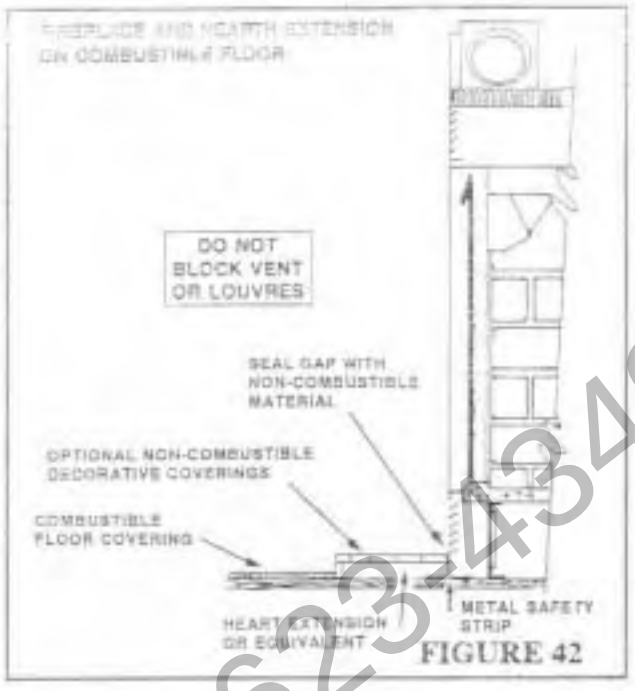


FIGURE 42

MANTELS

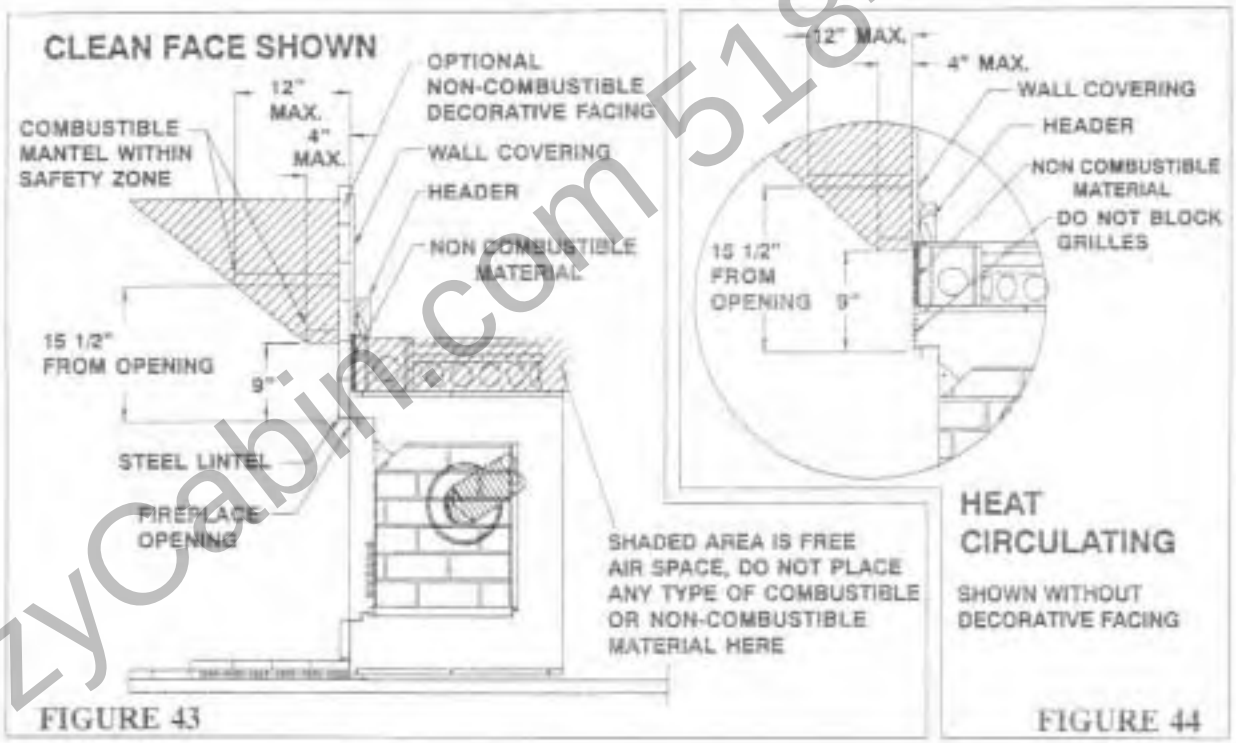


FIGURE 43

FIGURE 44

Combustible mantels may be safely installed provided they do not project beyond the safety zone illustrated in Figures 43 and 44.

NOTE: When attaching a non-combustible material to the face of the fireplace, use an "L" shaped piece of metal (lintel) across the top of the fireplace opening. It can be attached to the face of the fireplace with screws as shown in Figure 43.

MANTEL SURROUNDS

Combustible decorative surrounds or vertical portions of the mantel may be installed only if they are within the safety zone indicated in Figures 43 and 44.

IV. OPERATING INSTRUCTIONS

DAMPER CONTROL LEVER

The damper control lever is centrally located inside the top, front of the firebox. It is engineered to assist in the safe operation of the fireplace. DO NOT CLOSE THE DAMPER IN AN ATTEMPT TO REDUCE A LARGE FIRE. Closing the damper will interfere with the fireplace's exhaustion system and may become a potential smoke hazard. To operate the damper, simply move the lever from the closed to open position as illustrated in Figure 45. If you should find smoke entering your home, check to make sure the damper has been opened.

NOTE: The fireplace damper must remain open until the fire is totally extinguished. 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.

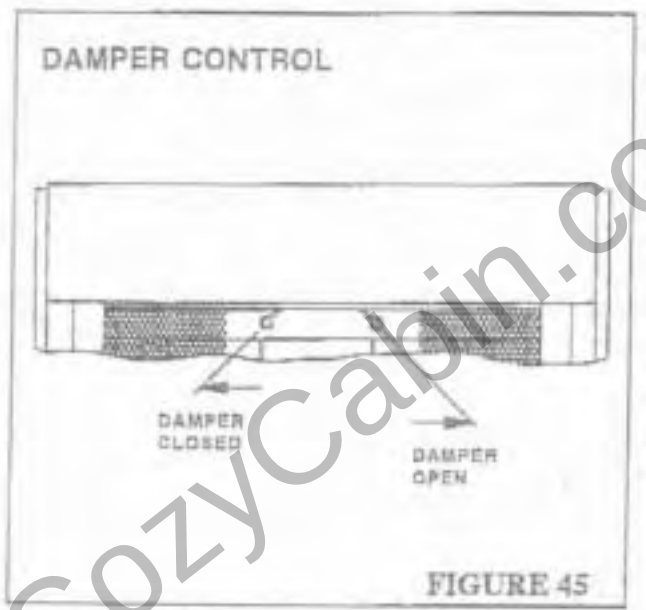


FIGURE 45

FIREPLACE GRATE:

This fireplace is standardly equipped with a grate. Utilizing the grate properly will help keep the fireplace's operation efficient and safe. The size and position of the grate is engineered to provide the ideal combustion characteristics for the fireplace. Keeping the logs within the grate and off the floor of the hearth will prevent the chance of logs rolling out of the fireplace. DO NOT OVERLOAD THE FIREPLACE. Piling excessive wood on the grate will not increase the fireplace's heat efficiency and could cause smoke to enter the room. Additionally, make sure to the keep the hearth area underneath the grate free of excessive ash buildup. This will allow a free flow of air for the fire.

OUTSIDE AIR CONTROL

The outside combustion kit is an optional accessory that may have been installed at the time of installation in the side frame of the fireplace. Its use provides combustion air from outside the dwelling and improves the efficiency of the fireplace. Open it before operating the fireplace as shown in Figure 46.

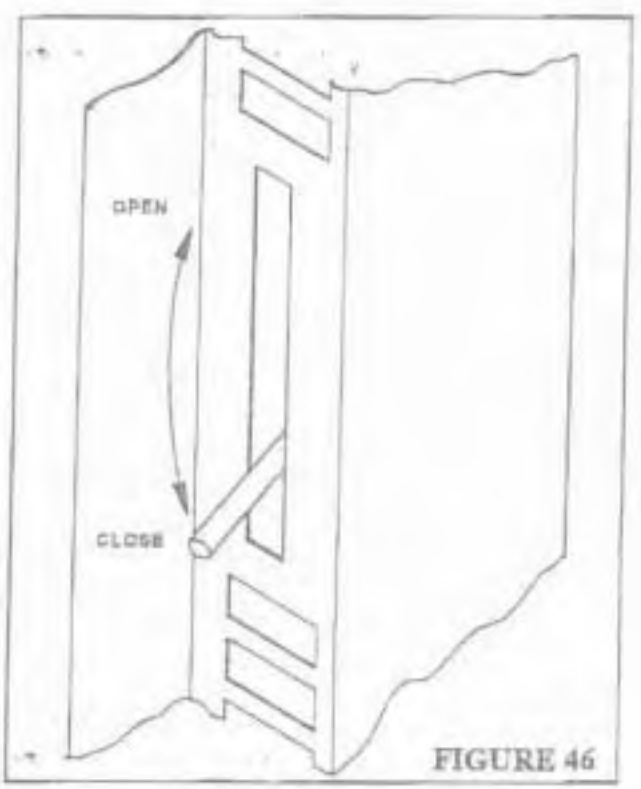


FIGURE 46

REFERENCE DOCUMENTS:

1) Marco Woodburning Fireplace Warranty and Operation Manual, P/N 181536
2) Glass Door Kit Installation Instructions, P/N 181691
3) 8" Round Terminations Installation Instructions P/N 181688
4) 8" Trim Style Termination (TST-8D) P/N 181689.
5) BFK 36/41 Fan Kit, P/N 181624
6) Outside Air Kit, Installation Instructions P/N 181682.
7) Shroud Installation Instructions P/N 181707

DO'S AND DON'TS

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

This fireplace is intended for use with solid wood fuel only.

If installing fireplace in cold climates, follow the cold climate instructions listed on page 13.

Check the hearth periodically for cracks and damage. Hairline cracks are a normal result of repeatedly heating and cooling the firebrick refractory and will not damage the fireplace. However, if a crack should become larger than 1/16" (approx. the width of a dime), then replace the refractory.

Have repairs done by a qualified service technician.

Open the damper to ensure proper operation.

Open the outside air gate 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 fuel wood in your fireplace.

"Cure" the refractory lining by building only small fires the first three times you use the fireplace. The refractory firebrick is made from a combination of materials, including cement and water. A large roaring fire, built on "uncured" refractory, may cause cracks by generating steam within the refractory.

Keep the area in front of the fireplace clear of combustible materials such as drapes, paper products, wood storage, furniture, etc.

CREOSOTE FORMATION AND NEED FOR REMOVAL - Slowly burning wood produces tar and other organic vapors that combine with expelled moisture to form creosote. This creosote residue will condense in the relatively cool chimney flue of a slow-burning fire and accumulate on the flue lining. When ignited, this creosote makes an extremely hot fire. Inspect the chimney at least twice a year during the heating season to determine if creosote buildup has occurred. If creosote has accumulated, remove it to reduce the risk of a chimney fire. Using only dry, seasoned wood will help prevent excessive creosote buildup. Consult your warranty manual for cleaning instructions.

When the fire is actively burning, keep the doors open for maximum heat output.

To help prevent grate "burnout," keep the base of the fireplace clean of excess ash buildup.

Except when adding fuel, keep the fireplace screens closed at all times.

WARNING: DO NOT OBSTRUCT THE COLLAR OPENINGS AROUND THE BASE OF THE CHIMNEY AT THE TOP OF THE FIREPLACE. NEVER USE BLOWN INSULATION TO FILL THE CHIMNEY ENCLOSURE.

Do not use a fireplace insert or other products not specified for use with this fireplace.

Do not overload the grate; it could cause smoke to enter the room.

Do not allow ash under the burning logs to build to a point where it hinders the air flow.

Do not block the bottom vent or louvre grille.

Do not burn large amounts of wastepaper 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. Keep all such liquids well away from the fireplace.

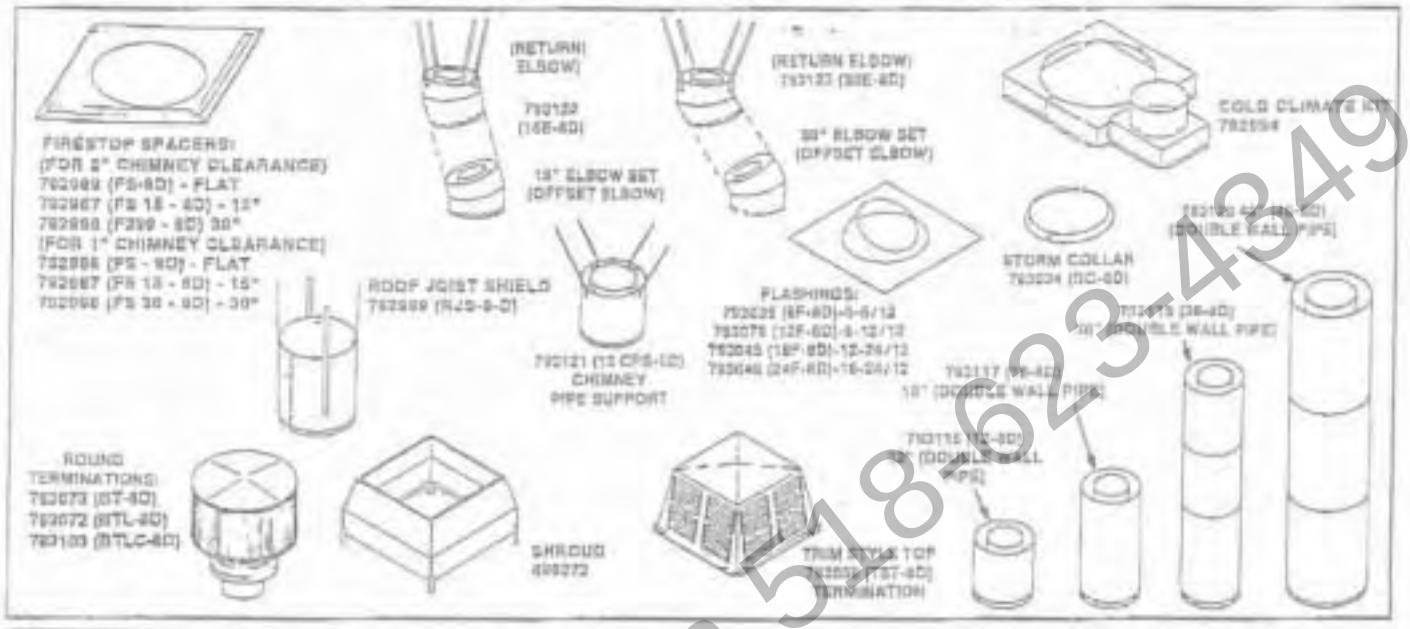
Never close the damper until you are certain that there are no warm embers.

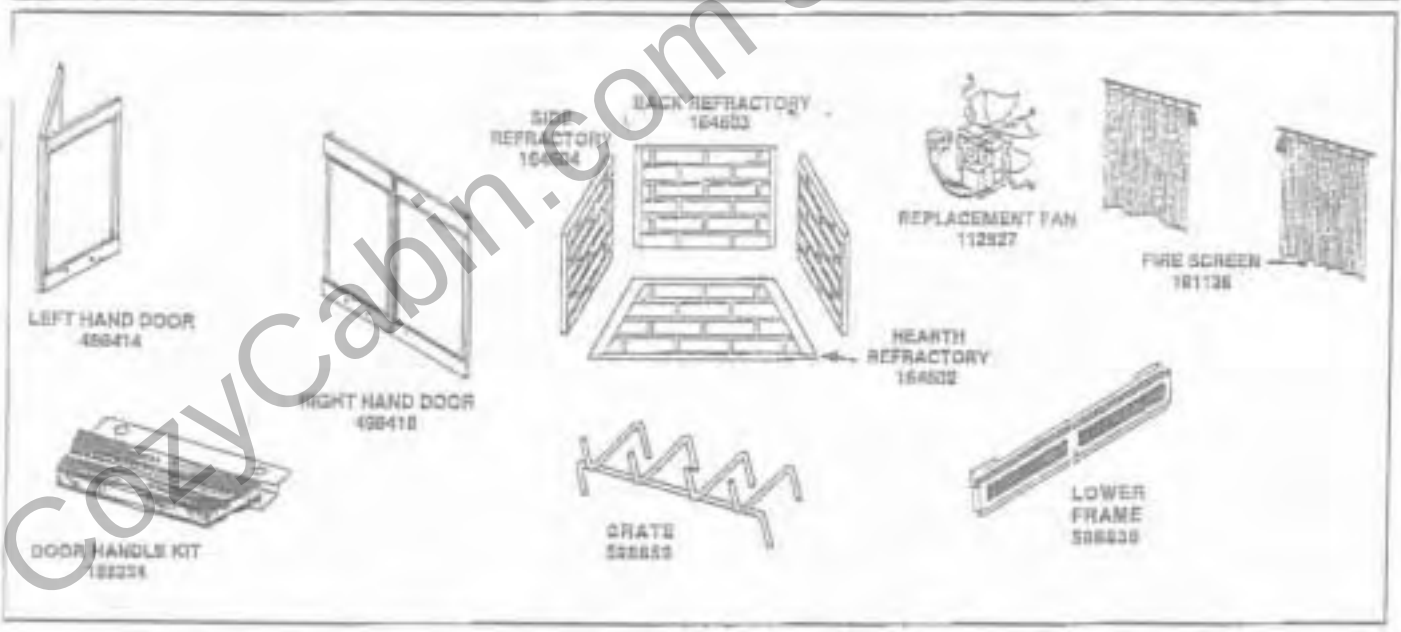
Disposal of Ash: Place ash in a metal container with a tight-fitting lid. Keep the closed container on a non-combustible floor, or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

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 5" DOUBLE WALL FLUE SYSTEM





REPLACEMENT PARTS

How To Order Repair Parts

1. If possible, order repair parts from the Dealer through whom you purchased the fireplace.

2. When ordering, give the Part Number, the Name of the Part and the Fireplace Stock Number. The Stock Number is printed on the Rating Plate, located in the upper right-hand corner behind the screen.

3. Freight charges must be included in any payment sent with the order.

4. There is a minimum invoice charge per order of $10.00 plus postage.

5. All parts are subject to change without notice.

MARCO MFG., INC.
2520 Industry Way, Lynwood, CA 90262 • (213)564-3201 • (800)232-1221