

MASTER

INSTALLING YOUR MARCO WOOD-BURNING FIREPLACE



MODEL

DWF36GO-3 DWF36F-3
DWF36GOI-3 DWF36FI-3

CHECK LOCAL CODES PRIOR TO INSTALLATION

OPTIONAL FEATURES: BI-FOLD GLASS DOORS
OUTSIDE AIR KIT
FAN KIT
GRATE

THIS MANUAL PROVIDES ALL THE INSTRUCTIONS NECESSARY FOR THE BUILDER OR HOMEOWNER TO INSTALL MODELS **DWF36GO-3**, **DWF36GOI-3**, **DWF36F-3**, **DWF36FI-3** 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.

181637 2/86



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NOTE:

Models DWF36G0-3 and DWF36F-3 are standard installation.
 Models DWF36G0I-3 and DWF36FI-3 are insulated for
 cold climate installation.

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 impor-
 tant papers.

Kerosene

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.

ACCESSORIES

FIREPLACE GRATE

A grate is available for use with this fireplace as an optional accessory. By keeping the logs within a grate rather than on the hearth, you will prevent the chance of a log rolling out of the fireplace and thus avoid a possible fire hazard. **DO NOT OVERLOAD THE FIREPLACE.** Piling excessive wood on the grate will not increase efficiency and could cause smoke to enter the room. The hearth area under the grate should be kept free of excessive ash buildup in order to allow an unobstructed flow of air for the fire.

GLASS DOORS:

Bi-fold glass doors are available for use with these model fireplaces as an optional accessory.

Use MARCO model BD36G0-3 Door Accessory Kit for models DWF36G0-3 and DWF36G0I-3 and model BD36F Door Kit for models DWF36G0-3, DWF36G0I-3, DWF36F-3 and DWF36FI-3. **NOTE:** (Use of glass doors other than those manufactured by MARCO Mfg., Inc. voids the warranty and may create a potentially hazardous condition.)

Refer to the installation instructions that come with the kit for installation details. The glass door kits can be installed before, during or after your fireplace has been installed.

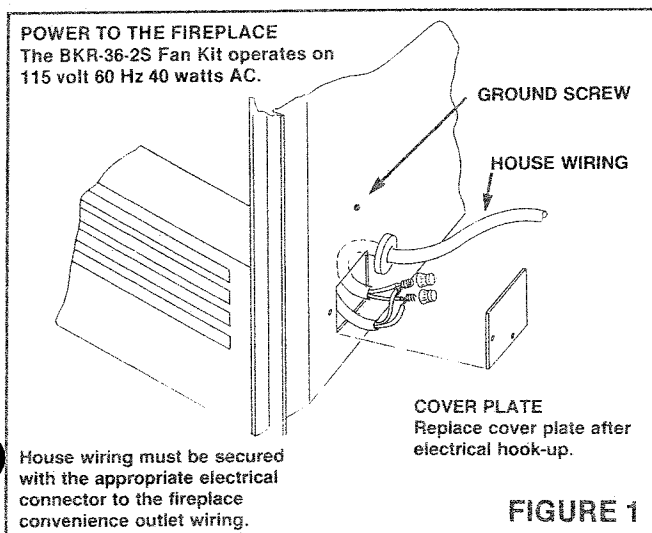
OUTSIDE AIR:

These fireplaces have an optional outside air kit available for installation. The OAK-4 (outside air kit) must be installed *during* the installation of the fireplace (see Page 5).

FAN KIT

A fan kit is also available for use with these fireplaces as an optional accessory. It is designed to be installed in MARCO fireplaces only, which are prewired at the factory.

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)



Use of fans other than those manufactured by Marco Mfg., Inc. will void the U.L. listing.

The BKR-36-2S fan kit can be installed prior to or after installation of the fireplace. Refer to the BKR-36-2S Fan Kit Installation Instructions for installation details.

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

INSTALLATION INSTRUCTIONS

INTRODUCTION

- **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.
- Before beginning the installation of your fireplace, completely read through these instructions and the instructions contained in the separate Operation Manual.
- The MARCO DWF36G0-3, DWF36G0I-3, DWF36F-3 and DWF36FI-3 fireplaces may be installed in a conventional home or a modular manufactured home.

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

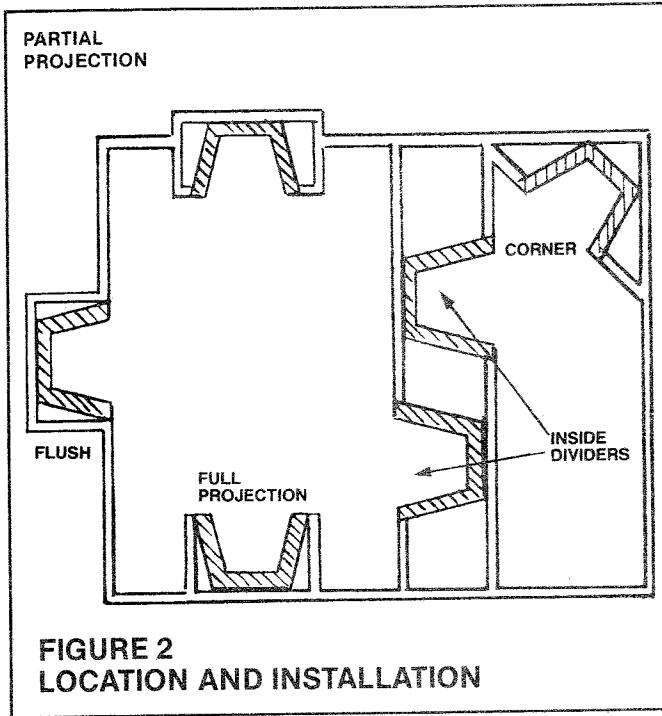
- These MARCO fireplaces and components are safe when installed according to this Installation Manual. Unless you use MARCO components which have been designed and tested for the fireplace system, you may cause a fire hazard.
- The MARCO warranty will be voided by, and MARCO disclaims any responsibility for, the following actions:
 - a) Modification of the fireplace and/or components, including assembly of chimney, glass doors, fans, 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.

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 6, 7 & 9.
- Do not place the fireplace on soft-surfaced floor coverings such as carpeting. The mounting surface must be flat and hard (such as plywood, wood flooring, particle board or any other hard-surfaced material), and 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 12, 13 & 14).

CLEARANCES

- A fireplace must not be installed closer than 24 inches to any unprotected combustible wall perpendicular to the fireplace opening (Figure 3). When a MARCO 40WS insulated wall shield (or equivalent protection) is used, clearance may be reduced to 12 inches (Figure 4).
- 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.

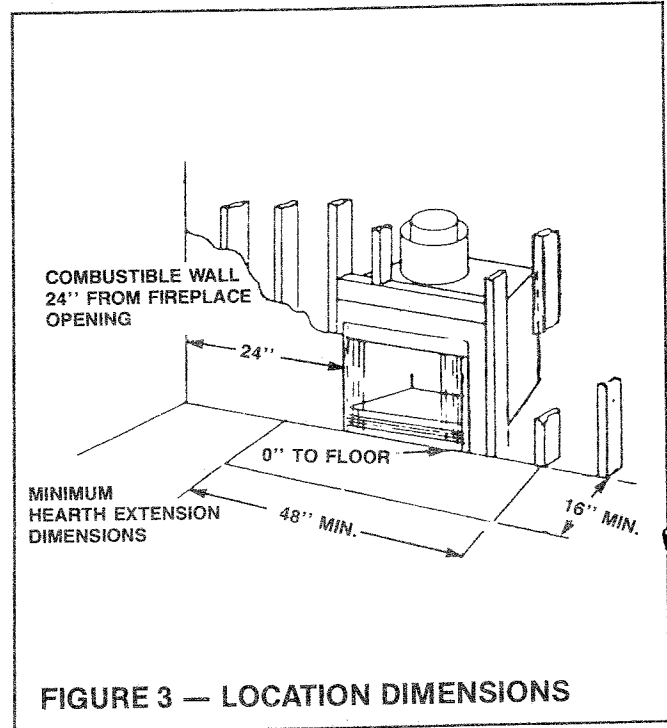


FIGURE 3 — LOCATION DIMENSIONS

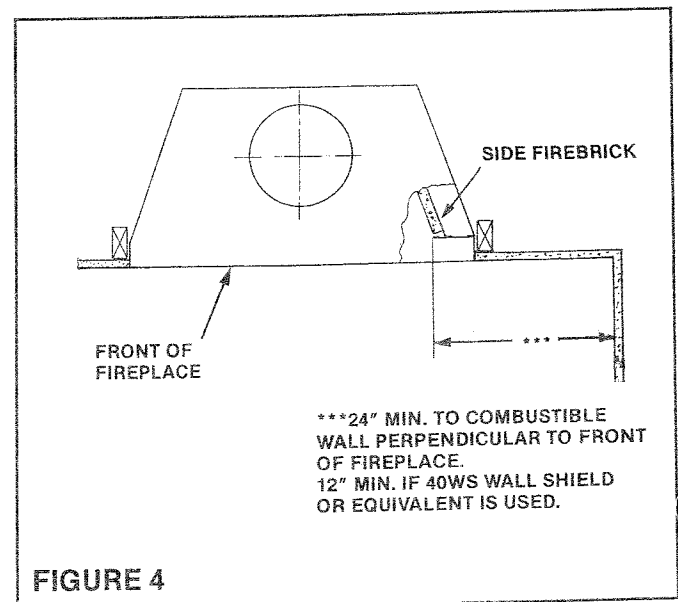


FIGURE 4

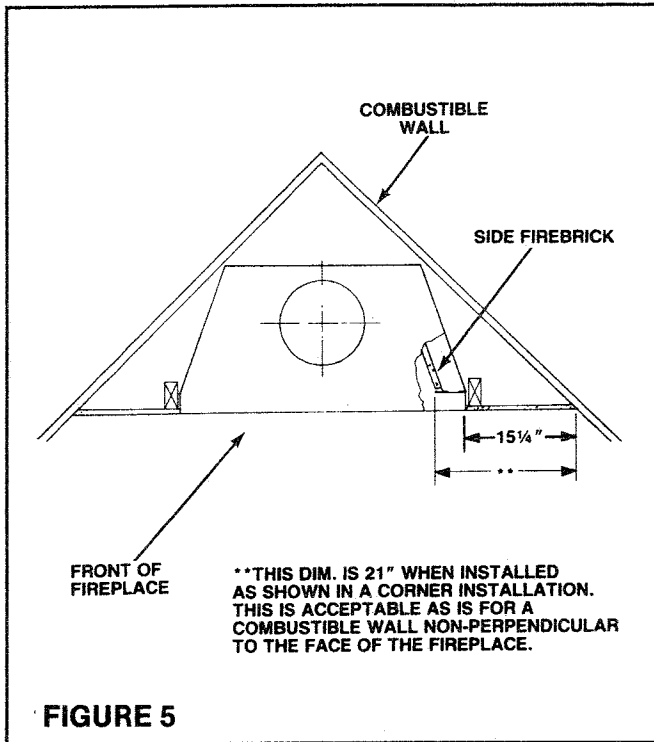


FIGURE 5

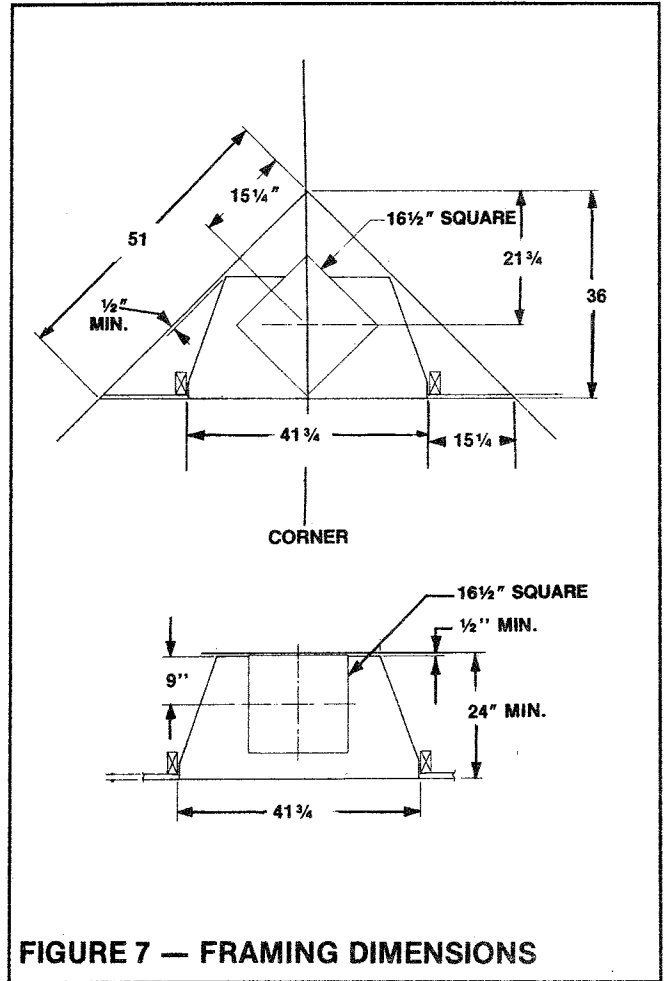


FIGURE 7 — FRAMING DIMENSIONS

FRAMING INSTRUCTIONS

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

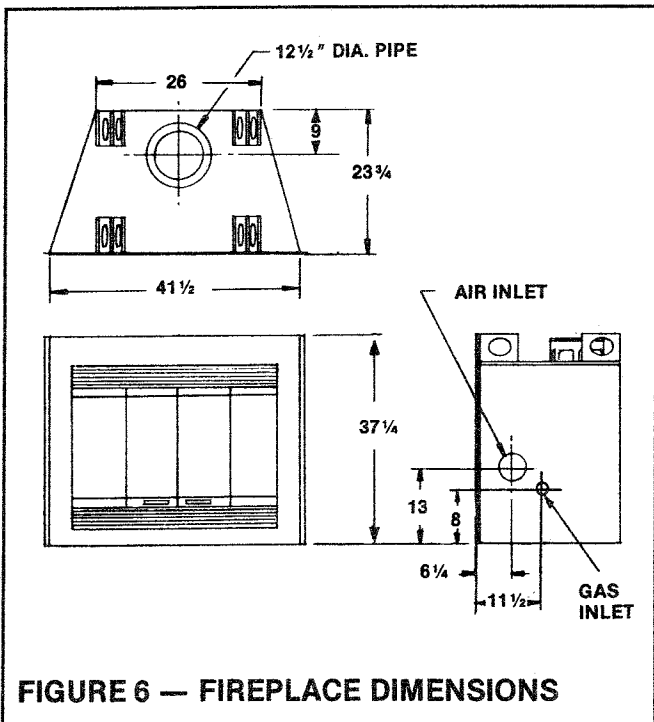
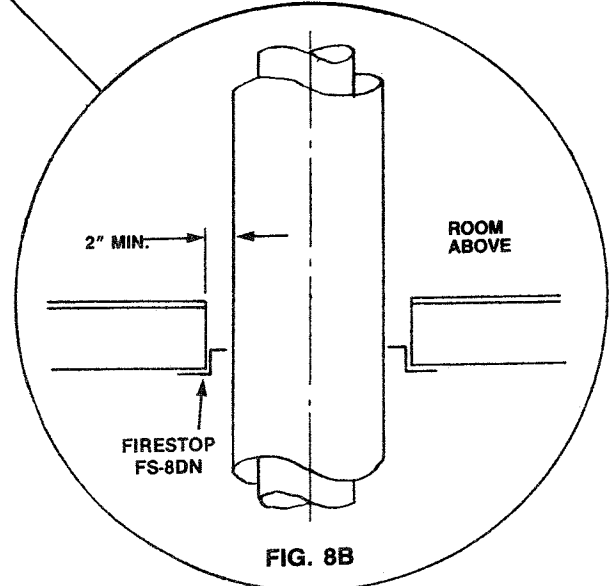
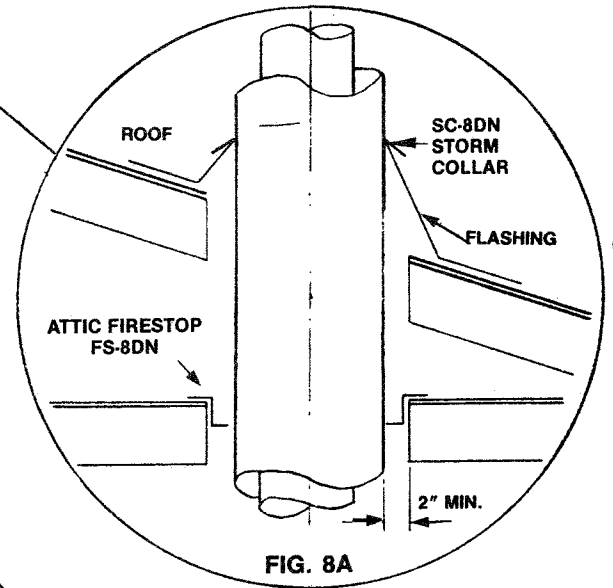
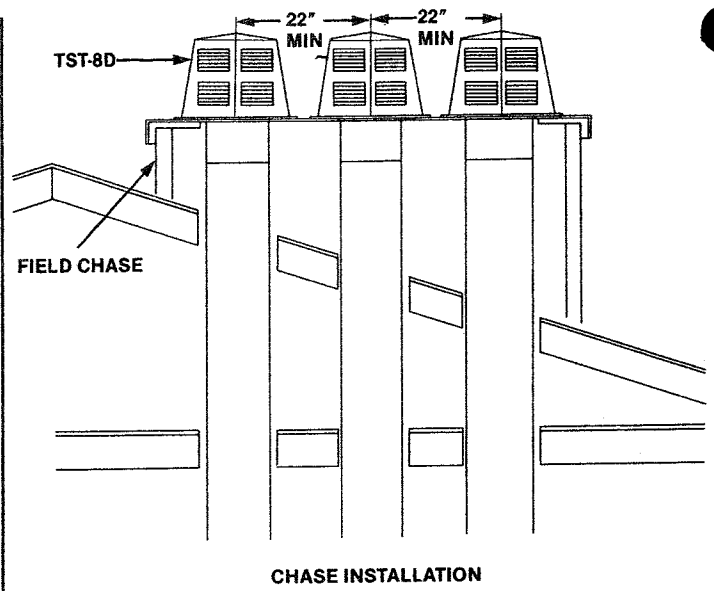
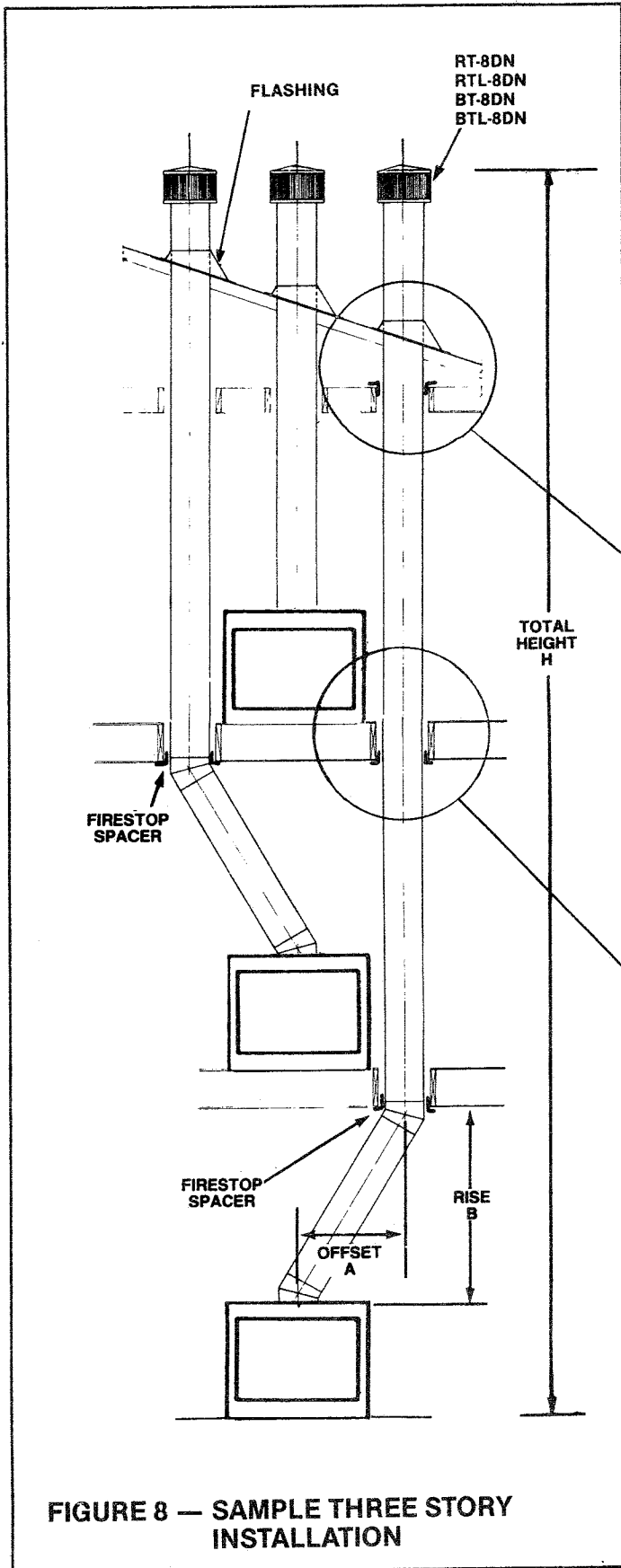


FIGURE 6 — FIREPLACE DIMENSIONS

EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS



WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATING OR OTHER MATERIALS.

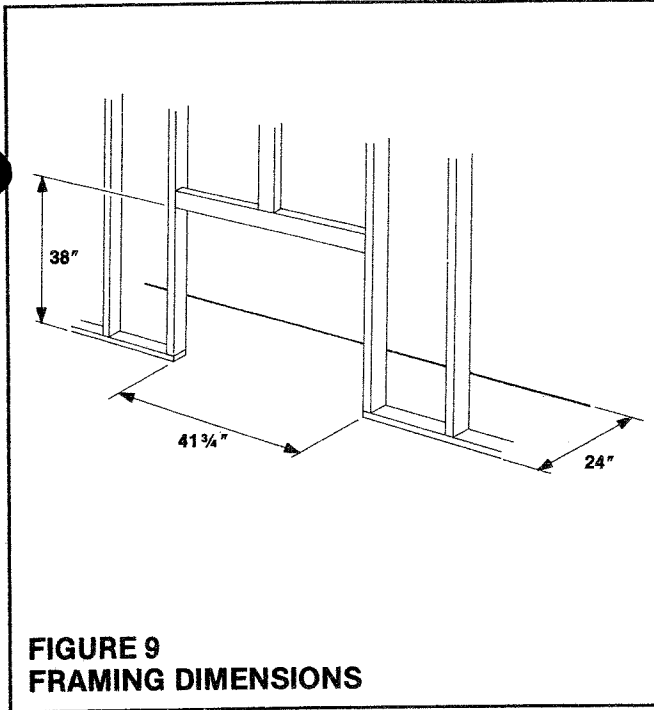
NOTE: If the Outside Air Kit (OAK-4) is not used, proceed to Step 2. Otherwise, the OAK-4 should be installed at this point.

THE NEXT SECTION AND CONTINUE WITH INSTALLATION

INSTALLATION OF OUTSIDE AIR KIT ASSEMBLY

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

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



**FIGURE 9
FRAMING DIMENSIONS**

- The fireplace may be positioned and then the framing built around it, or the framing may be constructed and the fireplace pushed into the opening. The dimensions shown in Figure 9 may be used to construct the fireplace opening.

INSTALLING YOUR FIREPLACE

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

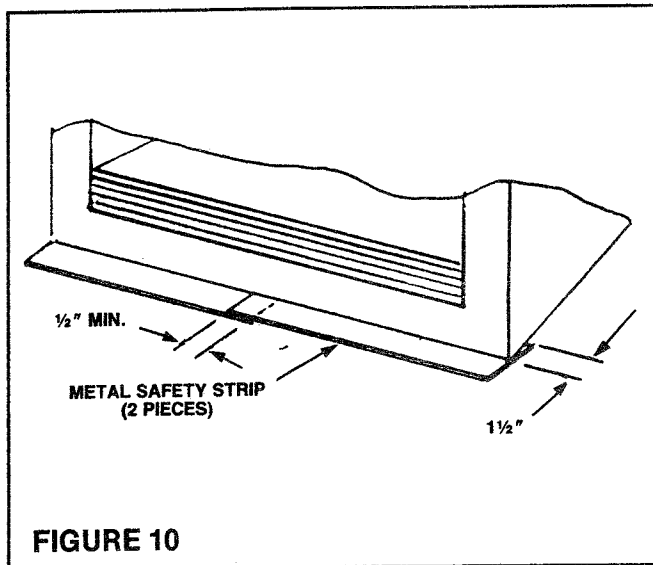


FIGURE 10

COMBUSTION AIR INTAKE

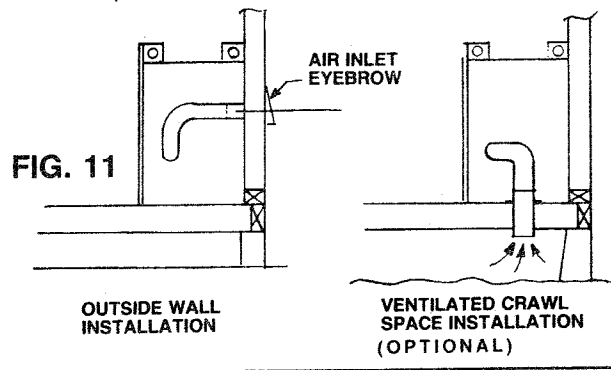
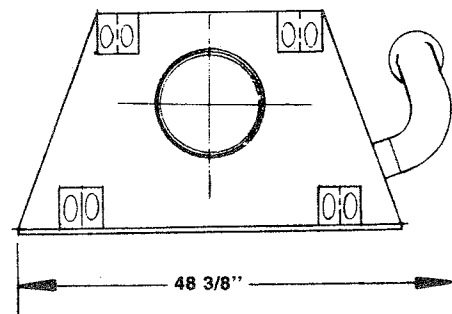


FIG. 11

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

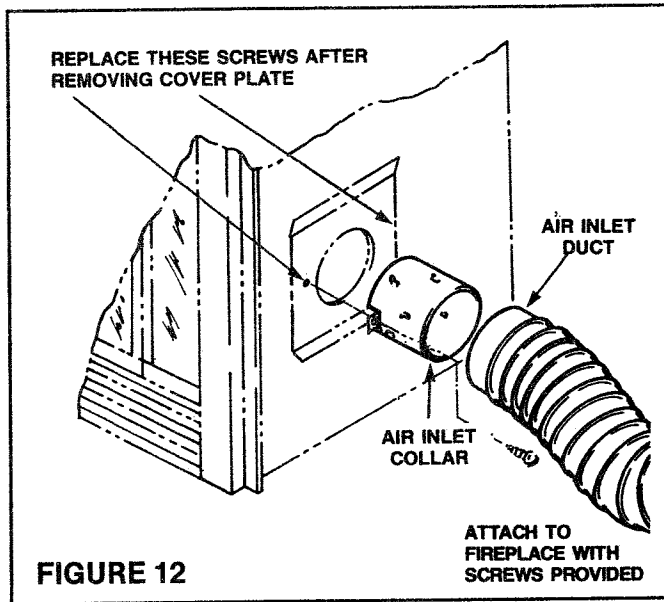
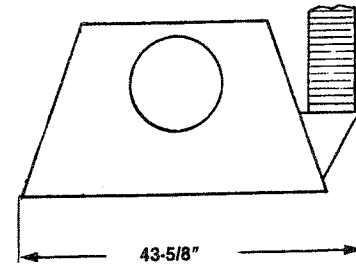


FIGURE 12

STEP 1C: Connect the opposite end of the air duct to the eyebrow. (Figure 14)

INSTALLATION OF AIA-36 (Optional)

BY INSTALLING THE OPTIONAL AIR INTAKE AIA-36, IT IS POSSIBLE TO REDUCE THE DIMENSION ACROSS THE FIREPLACE FROM 48-3/8" TO 43-5/8". (SEE FIGURE 11)



1. Remove screws at air inlet opening on side of fireplace.
2. Position air inlet adapter as shown.
3. Replace the screws through the clearance holes in the air inlet adapter and secure to fireplace.

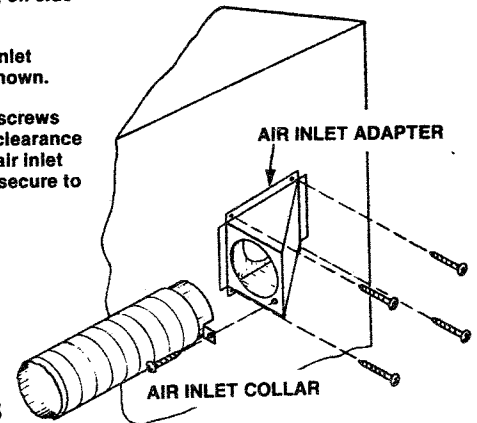


FIGURE 13

**OUTSIDE AIR KIT
OAK-4 (793270)**

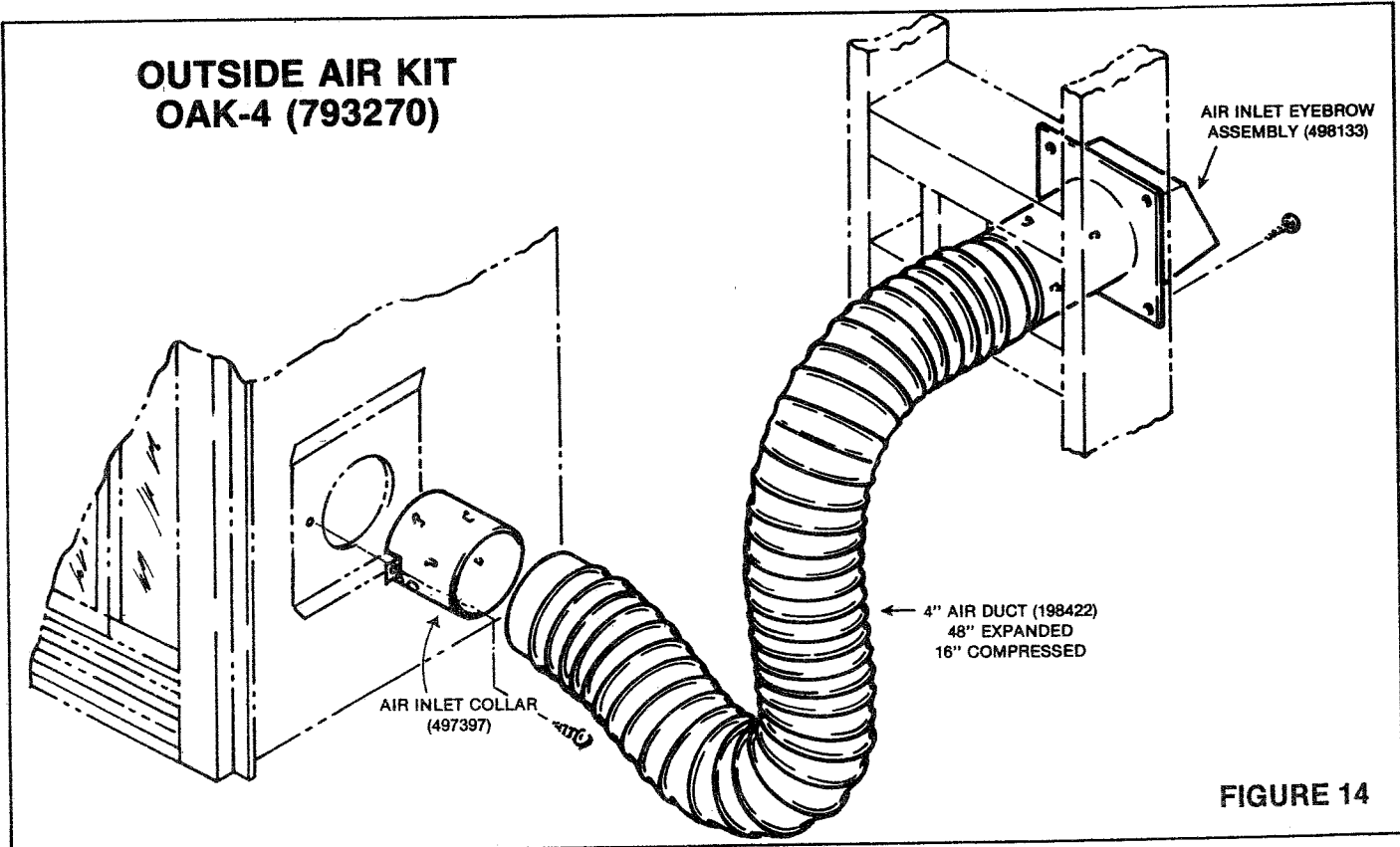


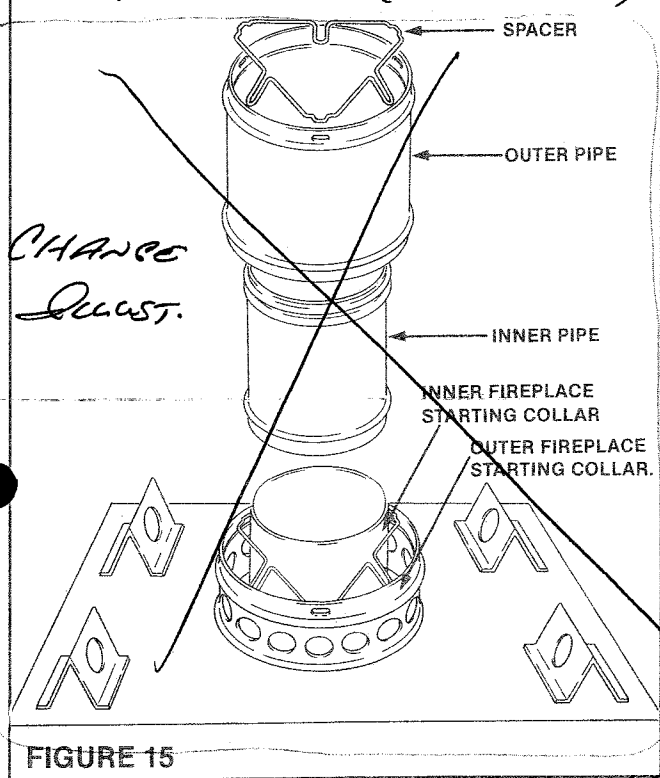
FIGURE 14

INSTALLING YOUR DOUBLE-WALL CHIMNEY SYSTEM

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

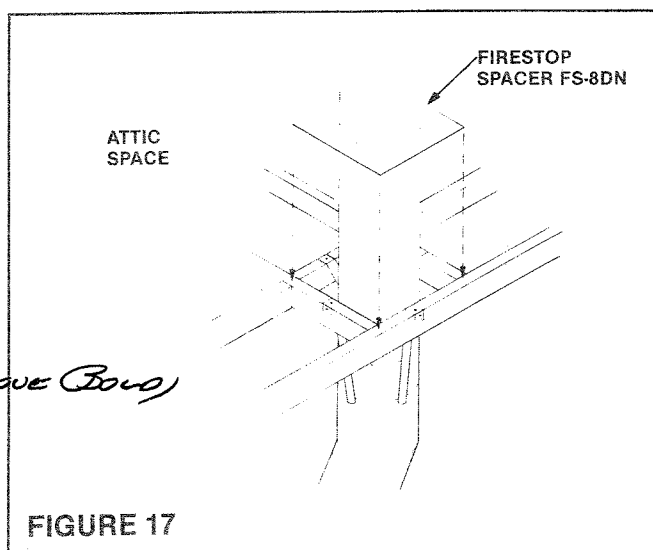
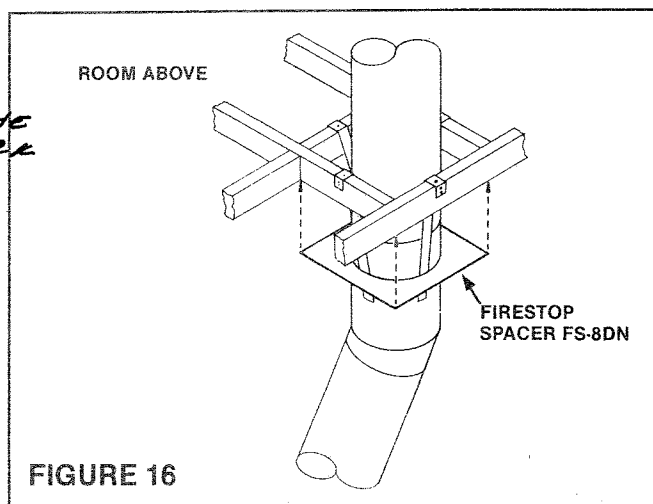
Step 1: Disassemble the pipe section by pulling the inner pipe straight up and through the wire spacer. NOTE: TAKE CARE TO LEAVE THE SPACER IN PLACE.

Step 2: When starting the chimney directly on the fireplace, install the inner pipe section by fitting the male end into the inner fireplace starting collar. (Figure 15) *MAKE SURE THE MALE END IS FULLY INSERTED TO LOCK INTO THE LANCES. (FIGURE 15)*



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.



STEP 3: Fit the outer galvanized pipe with (SPACER IN PLACE) over the outer fireplace starting collar located at the top-center of the fireplace unit.

NOTE: Guide the inner pipe through the center of the spacer and press down on the outer pipe until the bottom of the outer pipe LOCKS into the spacer parts on the outside of the previous pipe section, AND the spacer snaps into the bead at the top of the inner pipe.

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

** ROTATE THE OUTER PIPE TO ALIGN THE SLOTS TO THE WIRE SPACER LOCKS. THE WIRE SPACER MUST PROTRUDE THROUGH THE OUTER PIPE*

If the pipe passes through a framed opening *between floors*, install a firestop spacer to the *bottom* of the joists (Figure 16). When pipe passes *into the attic space*, install the firestop spacer on the *top* of the joists (Figure 17).

STEP 5: Determine the location of the hole to be cut in the roof. The roof hole cut-out varies with the type of chimney termination that will be installed, so refer to the chart on page 10, Figure 20.

STEP 6: After cutting the hole in the roof, uncover the pipe and add sections until the chimney extends a minimum of 14 inches above the highest point of the roof cutout (Figure 18).

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 18).

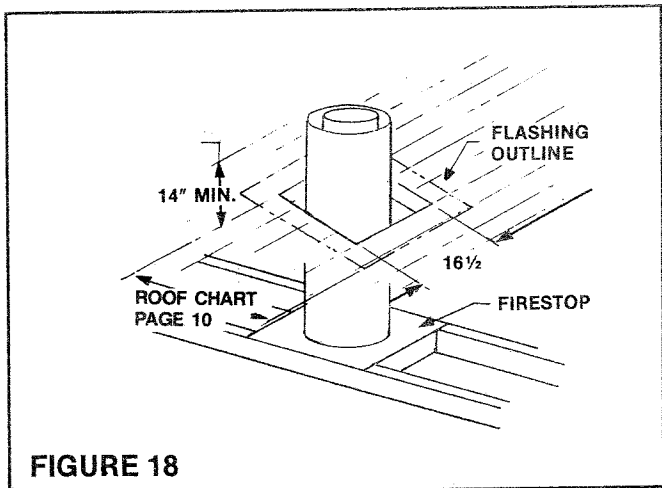


FIGURE 18

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

STEP 9: Install storm collar on the chimney and push down securely to the top of the flashing. Apply waterproof caulking around the top of the storm collar. (Figure 19)

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

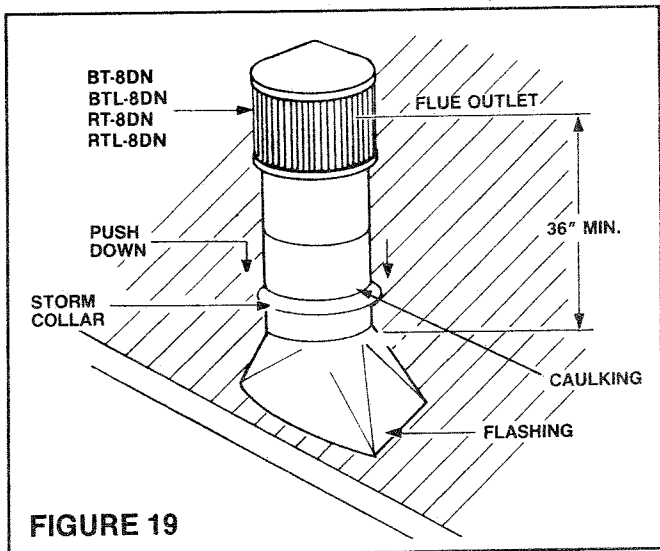


FIGURE 19

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 21).

STEP 10: Install termination on last section of pipe. There are 5 different terminations approved for this chimney system. **BTL-8DN** and **RTL-8DN** can be used on an exposed chimney or chase installation. The **BTL-8DN** and **RTL-8DN** are adjustable to compensate for height variations on the chase top. **BT-8DN** and **RT-8DN** can be used on either exposed chimney or chase installation, but are not adjustable. **TST-8DN** 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) If raised hearth extension is used subtract hearth extension height from Dim H	_____
2. HEIGHT OF FIREPLACE	37"
3. RISE OF ELBOWS INCLUDING PIPE Use table of contents offsets (page 11)	_____
4. HEIGHT OF BT-8DN/BTL-8DN, RT-8DN, RTL-8DN	_____
4a. HEIGHT OF TST-8D TOP	_____
5. TOTAL OF LINES 2 THROUGH 4a	_____
6. SUBTRACT LINE 5 FROM LINE 1	_____
7. LINE 6 IS DIMENSION C. THE LENGTH OF PIPE NEEDED TO COM- PLETE INSTALLATION (Refer to Chimney Height Chart)	_____

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

12. TOTAL OF LINES 5 AND 11 (SHOULD EQUAL LINE 1)	_____
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LINEAL GAIN CHART
(REFER TO PAGE 11 FOR OFFSET CHART)

MODEL	DESCRIPTION	LINEAL GAIN
	DWF-36G0-3/GOI-3/FI-3	37"
12-8DN	DOUBLE-WALL PIPE	10 3/4"
18-8DN	DOUBLE-WALL PIPE	16 3/4"
36-8DN	DOUBLE-WALL PIPE	34 3/4"
48-8DN	DOUBLE-WALL PIPE	46 3/4"
CPS12-8DN	CHIMNEY SUPPORT	10 3/4"
BT-8DN	ROUND TOP	6"
BTL-8DN	ROUND TOP ASSEMBLY	5"-14"
TST-8D	TRIM STYLE TOP ASSEMBLY	6"-17"
RT-8DN	ROUND TOP	6"
RTL-8DN	ROUND TOP LONG	11"-17"

MARCO's Double-Wall Chimney System, when used on the DWF-36-3 series 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 ft. including the fireplace, chimney sections, and termination assembly. The minimum height when utilizing two sets of offsets is 24 feet.

CHIMNEY MAINTENANCE:

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

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

TYPE FLUE	CEILING OPENING	
	A	B
8DN-VERTICAL	16½	16½
8DN 30° OFFSET	23¼*	16½
8DN 15° OFFSET	20*	16½

ROOF OPENING			
TERMINATION	PITCH	C	D
BT-8DN	FLAT	16½	16½
	9/12	16½	18½
BTL-8DN	12/12	16½	22½
RT-8DN	18/12	16½	28
RTL-8DN	24/12	16½	34½
TST-8D	FLAT	16½	16½

*NOTE CONSTRUCT CHIMNEY OPENING IN SAME DIRECTION AS OFFSET

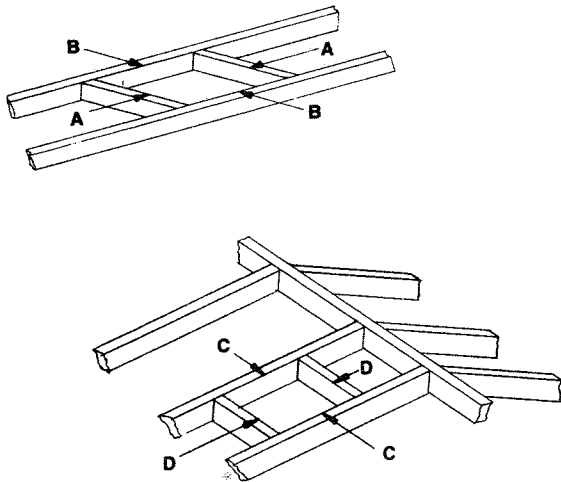


FIGURE 20

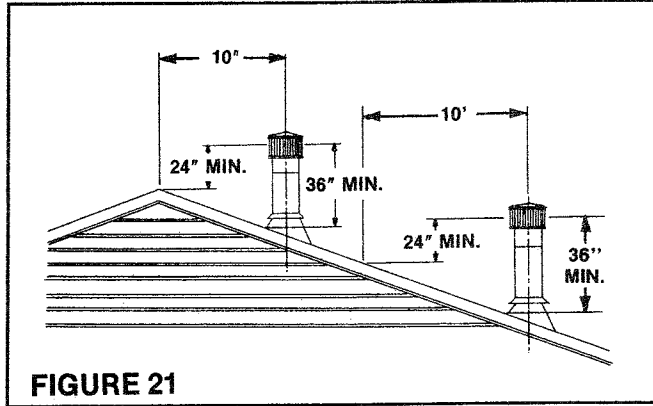


FIGURE 21

10' Rule — If chimney is within 10' of the roof peak, 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 21).

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 (CPS12-8DN) is a double-wall, un-tilted 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 22).

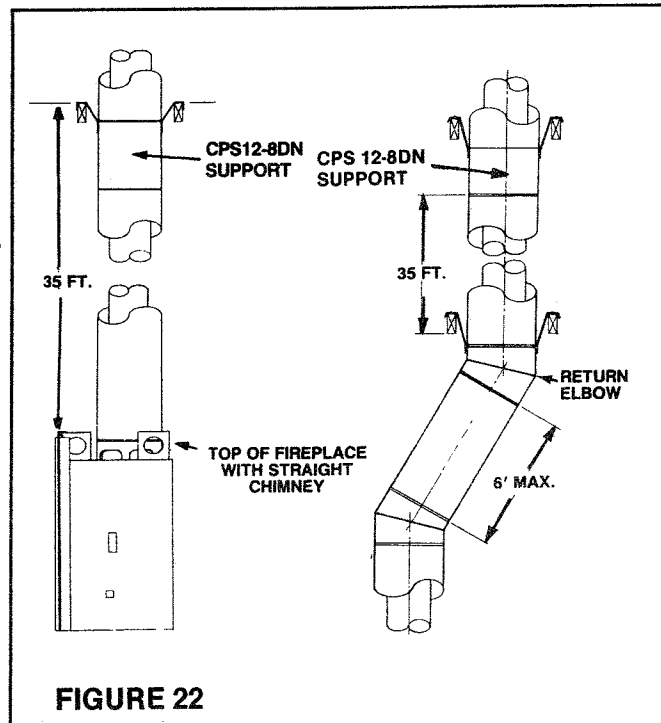


FIGURE 22

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 23 and 25).

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 CPS 12-8DN) is 6' of angled run. Maximum of two 6' angled run sections per chimney system (Figure 25).

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-DRILL SCREWS PROVIDED.

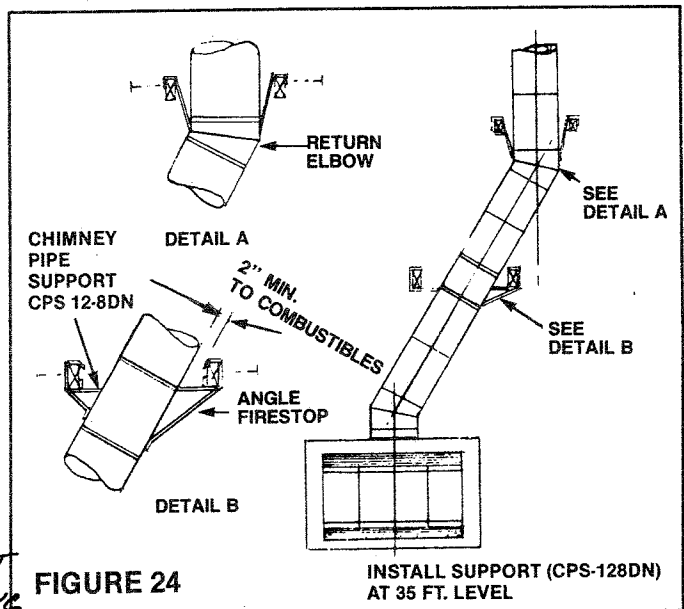


FIGURE 24

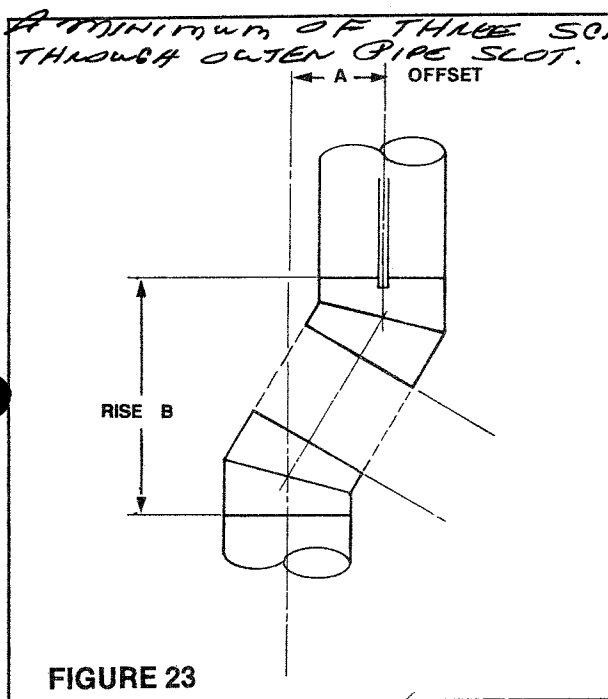
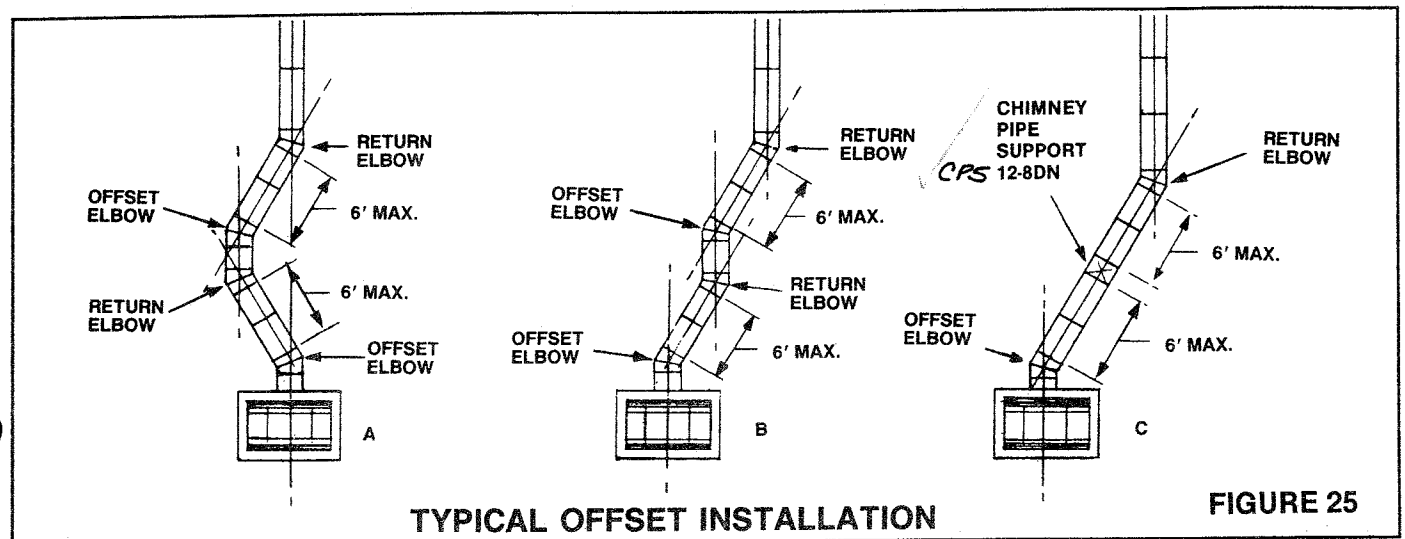


FIGURE 23

NUMBER AND LENGTH OF DOUBLE WALL PIPE					1-30° Offset Elbow		1-15° Offset Elbow	
					1-30° Return Elbow		1-15° Return Elbow	
12"	18"	36"	CPS12-8DN	48"	A	B	A	B
—	—	—	—	—	5 1/4	8 1/4	3	10
1	—	—	—	—	10 1/2	28 1/2	5 1/2	30 3/4
—	1	—	—	—	13 1/2	33 1/4	7	36 1/2
2	—	—	—	—	16	37 1/4	8 1/4	41
1	1	—	—	—	19	43	9 3/4	46 3/4
—	2	—	—	—	22	48 1/4	11 1/4	52 1/2
—	—	1	—	—	22 1/2	49 1/4	11 3/4	53 3/4
2	1	—	—	—	24 1/4	52 1/4	12 1/2	57 1/4
1	2	—	—	—	27 1/2	57 1/2	14 1/4	63
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	62 1/2	15 1/2	68 1/4
—	1	1	—	—	31	63 3/4	16	70
2	—	1	—	—	33 1/4	68	17 1/4	74 1/2
1	—	—	1	—	34	69	17 1/2	75 1/4
1	1	1	—	—	37	74 1/4	19	81 1/2
2	—	—	1	—	39 1/4	78 1/4	20 1/4	86 1/4
—	—	2	—	—	40	79 1/2	20 3/4	87 1/2
—	—	2	1	—	45 1/4	88 1/4	23 1/2	97 3/4

Handwritten scribble



TYPICAL OFFSET INSTALLATION

FIGURE 25

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.

NOTE: In areas of high wind, it is possible for "down draft" to occur. An "Anti-Downdraft Shield" (ADS) accessory has been designed to reduce this condition.

FINISHING YOUR FIREPLACE

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 a gas line, a valve designed for installation outside the fireplace is recommended (Figure 26).

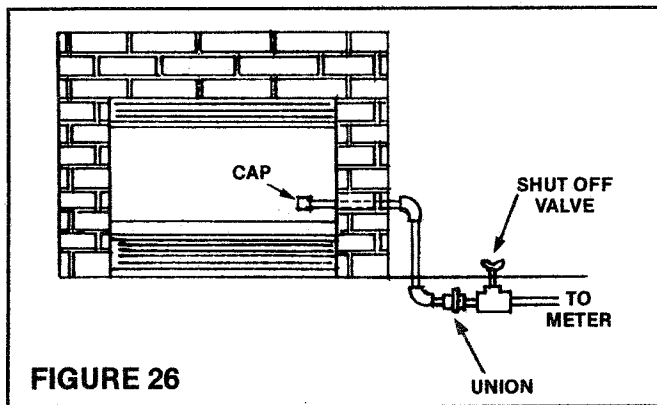


FIGURE 26

The gas line may enter the fireplace from either side. Refer to Figure 6 for hole location. To remove knock-out plug from refractory side, first remove 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 located 2 1/2 inches from floor in the center of the side panel. Knock the plug through from inside the firebox to the outside. Reinsert the conduit sleeve.

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 decorative gas appliance.

The gas pipe is intended for use with a decorative gas appliance only, in accordance with the National Fuel Gas Code, ANSI Z223.1-1980.

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 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.

HEARTH EXTENSION: If there is combustible floor construction in front of the fireplace, a hearth extension is required to protect it. The hearth extension, as shown in Figure 27 must be a minimum of 16" deep by 48" wide, centered on the fireplace opening. Use Marco hearth extension HE-36 or an equivalent layer of non-combustible inorganic material.

To be equivalent, the substitute material must have a thermal conductivity, K, of .07 or less. The thermal conductivity, K, or thermal resistance, R, of materials can usually be obtained from the manufacturer. The factors are related by the formula $K = \frac{1}{R}$. The thickness required for various common materials and their factors are shown in Figure 28.

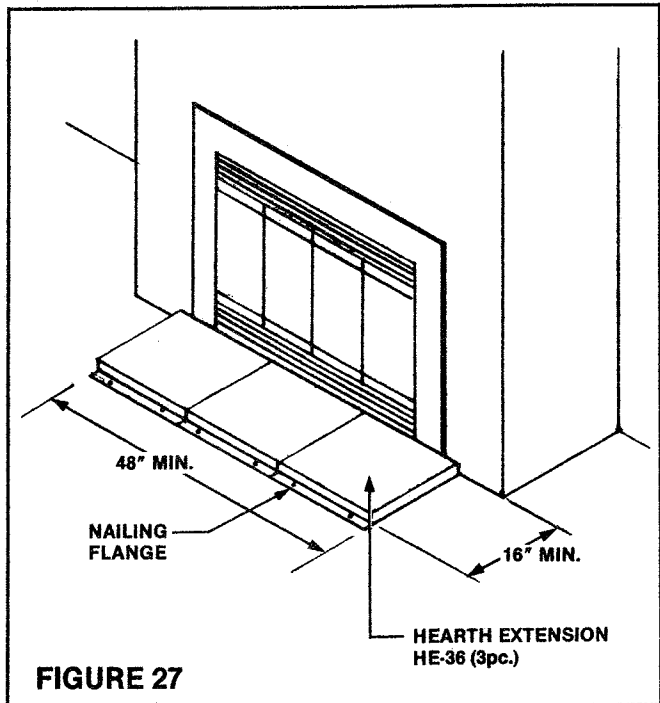


FIGURE 27

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. **NOTE:** Some non-combustible coverings such as metal, slate, sandstone and marble are relatively good conductors of heat and must be used in combination with the more thermally resistant materials.

Material	K*	R	Minimum Thickness
Millboard	.07	14.3	1.0"
Mineral Wool-Resin Binder	.024	41.6	.34"
Gypsum Board	.090	11.1	1.28"
Cement	.17	5.8	2.42"
Common Brick	.41	2.4	5.85"

*UNITS OF K ARE BTU / SQ. FT. / HR. / °F / FT.

INSULATING BOARD .064 15.6 .91"
(K-FAC 19) **

Note: If K is expressed as BTU / sq. ft. / Hr. / °F / IN. above values are multiplied by 12.

*** PRODUCT OF U.S. Gypsum*

FIGURE 28 — COMMON MATERIALS AND THEIR FACTORS

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 Figures 30-35).

EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT

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

.07

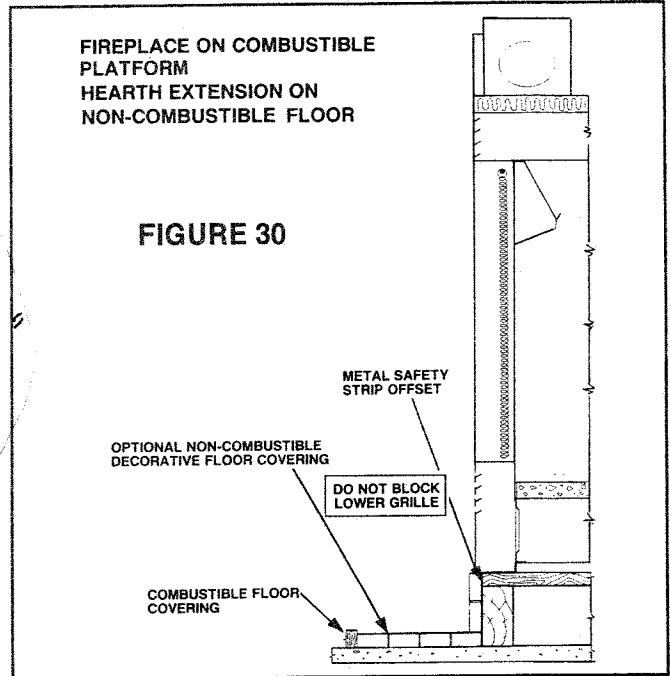
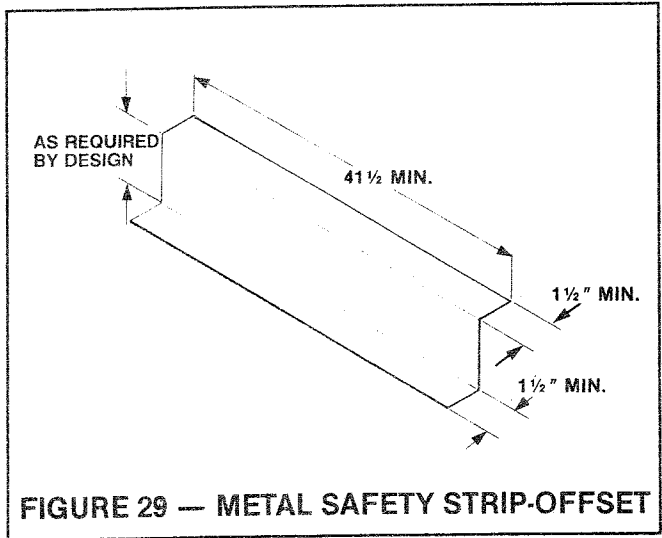
**Per ft. INSULATING BOARD (K-FAC 19)*

Example for cement: (K from Figure 28)

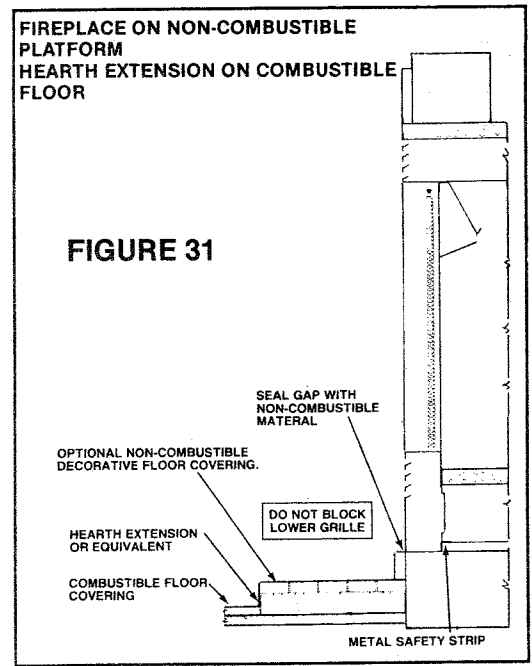
.064
 $\frac{.17}{.07} \times 1 = 2.4 .91"$

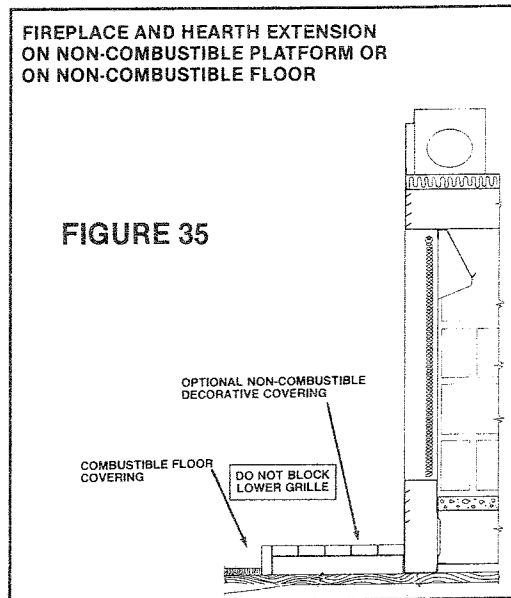
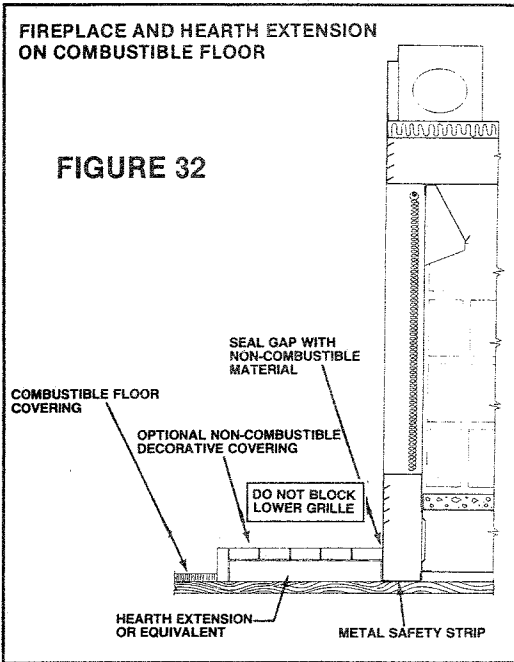
METAL SAFETY STRIP-OFFSET (SUPPLIED BY OTHERS)

Shall be constructed of a minimum thickness of 28 gauge galvanized steel and should be shaped as shown in Figure 29.



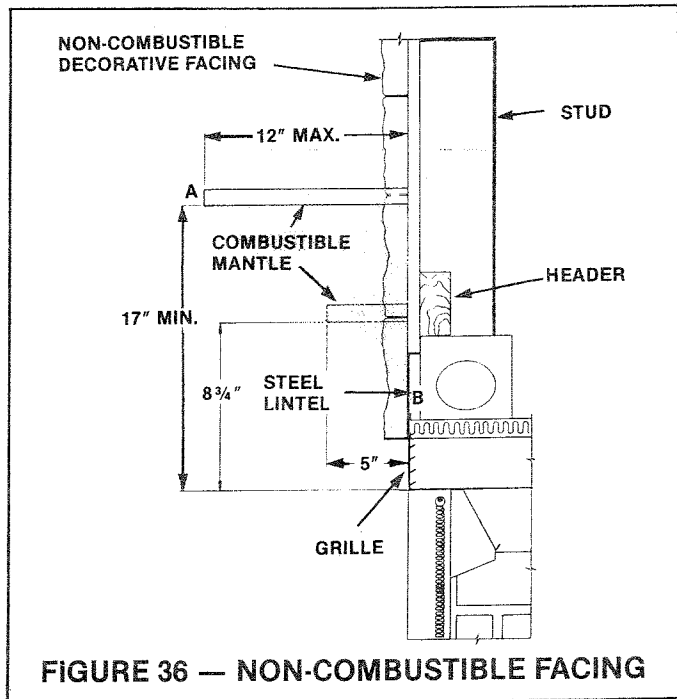
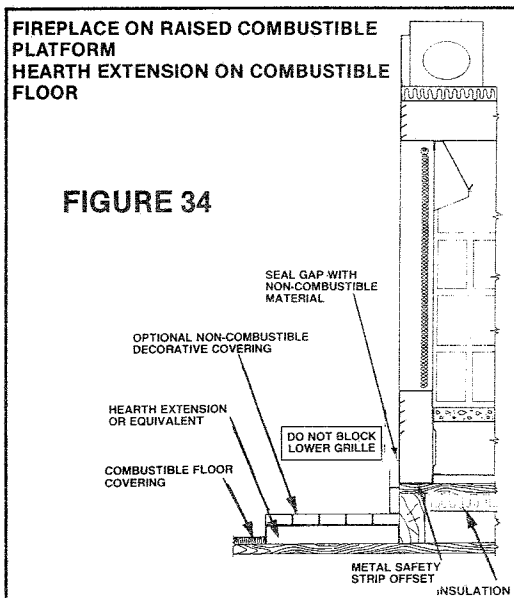
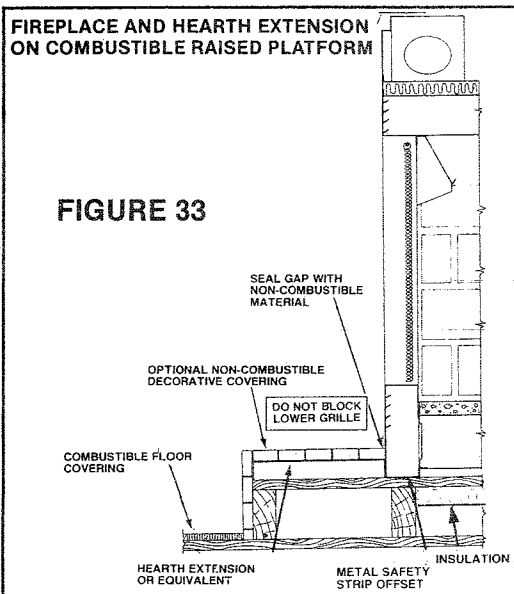
WARNING:
 HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED. FIGURES 30 THRU 35 SHOW OPTIONAL INSTALLATIONS





***NON-COMBUSTIBLE DECORATIVE COVERING:**

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



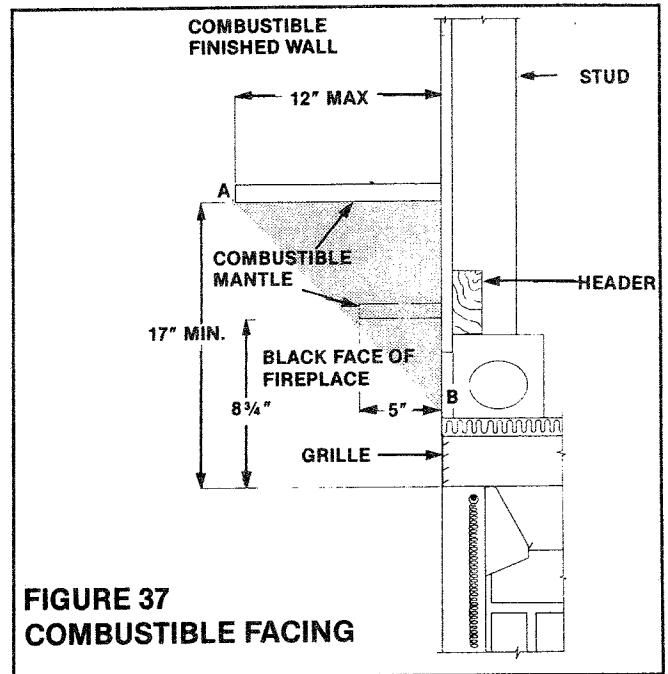
FIREPLACE FACING

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 GRILLES ON THE FIREPLACE, TOP AND BOTTOM, MUST NOT BE OBSTRUCTED IN ANY WAY.

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.

Combustible mantles may be safely installed provided they do not project beyond a line from point A to point B, as illustrated in Figures 36 and 37.

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 36).



**FIGURE 37
COMBUSTIBLE FACING**

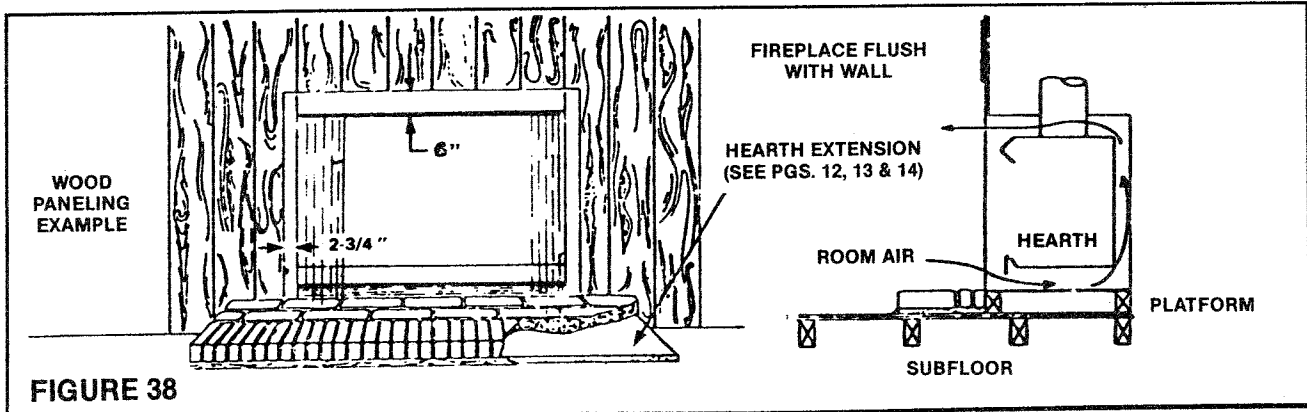


FIGURE 38

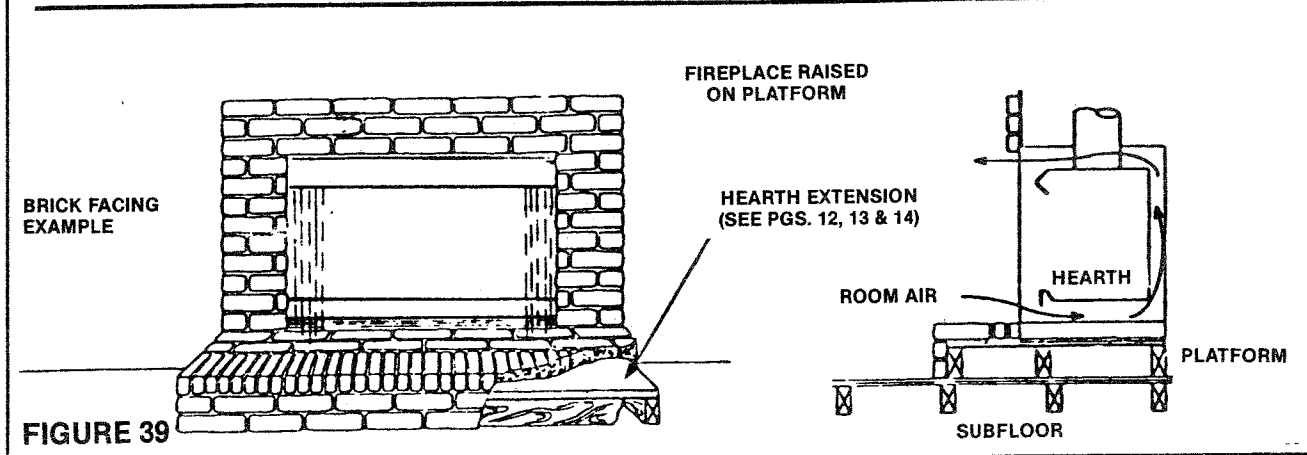
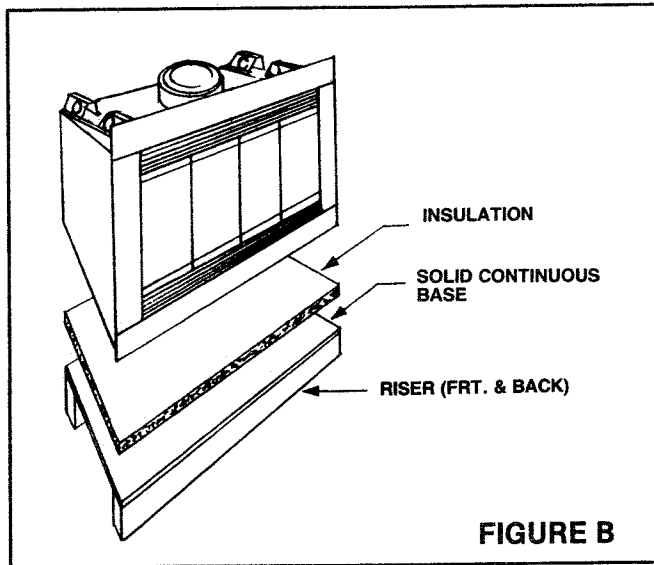
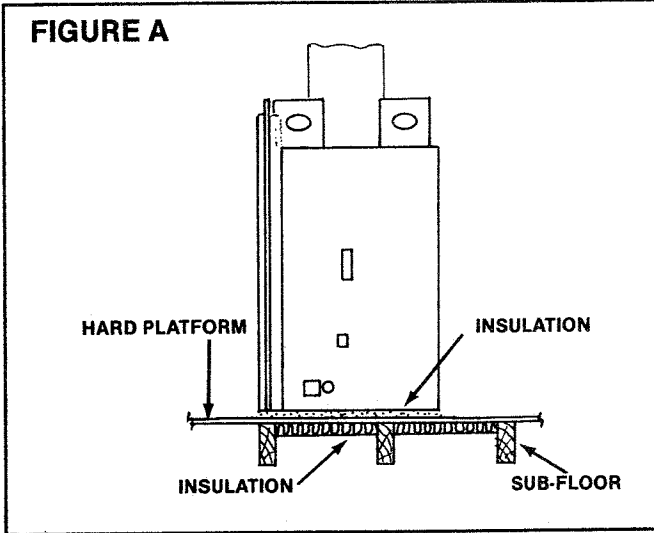


FIGURE 39

COLD CLIMATE INSTALLATION

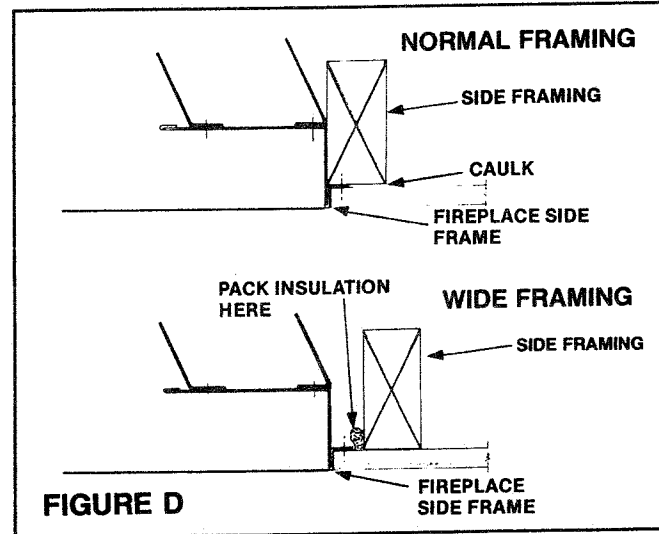
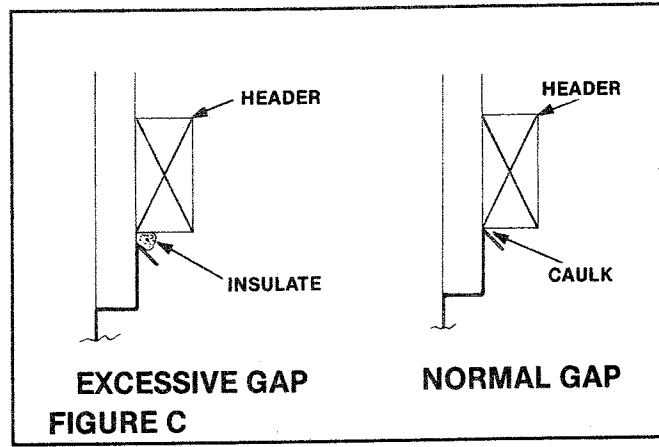
When installing a fireplace in an area where outside temperature reaches 32° F or lower, it is important to protect the metal bottom from the cold air by setting the fireplace on a non-combustible, insulated, solid surface. The insulation must be rated to withstand a temperature of 300° F.



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 C).

Inspect to be sure access plate to "J" box (on models wired for fans) is replaced after wiring is completed.



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

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

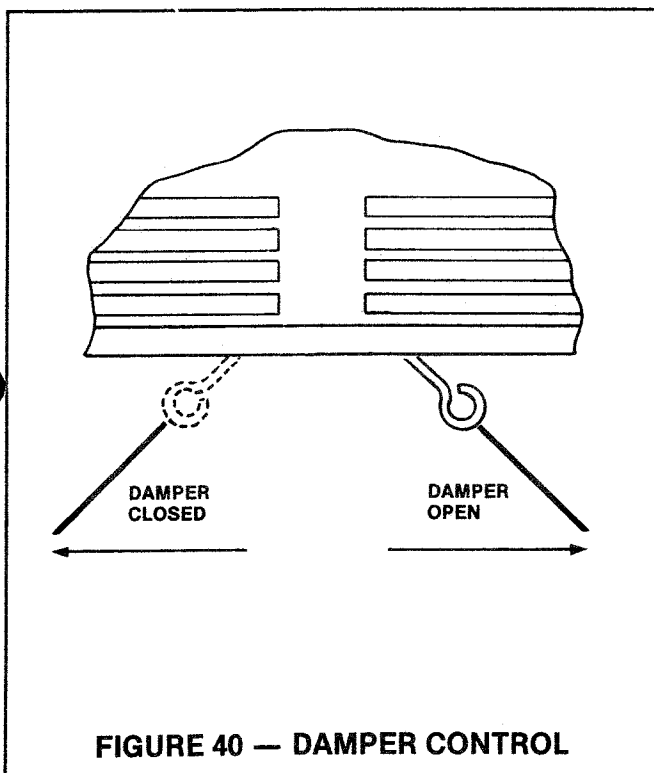
In areas of extreme cold, it is recommended that the outer walls of the chase be insulated. This will reduce the possibility of cold air convection currents on the fireplace. **NEVER** use blown-in type of insulation as this could plug the holes at the base of the chimney and interfere with the thermal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

OPERATING INSTRUCTIONS

DAMPER CONTROL LEVER

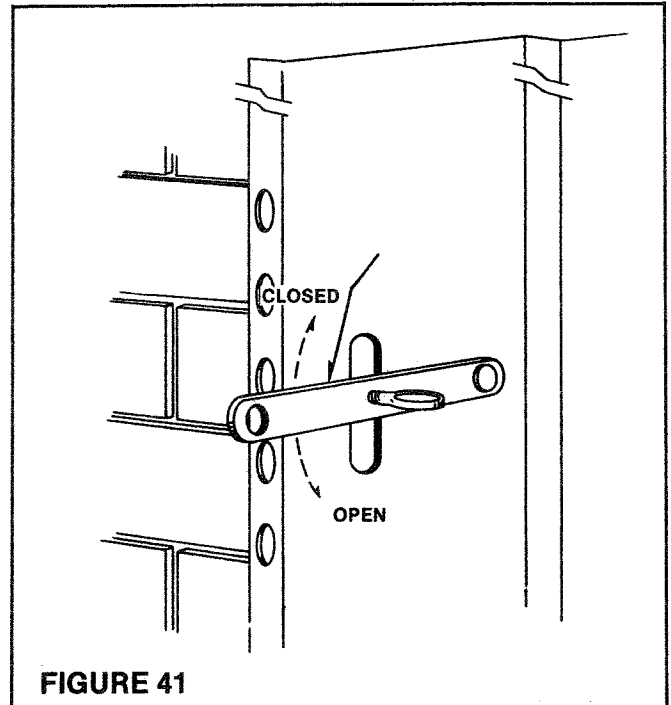
The damper control lever located inside the top front of the firebox has been engineered to provide for safe operation of your fireplace. Do not close the damper in an attempt to reduce a large fire. To do so may cause a potential smoke hazard, just as any fuel-burning appliance would do if not properly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

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



OUTSIDE COMBUSTION AIR

For outside combustion air, open the airgate before starting a fire. (Figure 41)



Outside air drawn into the fireplace supplies air to the fire for combustion. When the fireplace is not in use, close the airgate to prevent cold air from entering your home. Check the air inlet eyebrow screen periodically to be sure it is clear of debris.

DO'S AND DON'TS

- Read operation and warranty manuals thoroughly before installing and using this fireplace.
- 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 fireplace to smoke by stealing the available combustion air needed for burning the wood in your fireplace.
- Keep base of fireplace clean of excess ash accumulation to prevent grate "burnout."
- Keep the fire screen closed at all times when burning, except when adding fuel.
- Keep area in front of fireplace clear of combustible materials such as drapes, paper products, wood storage, etc.
- Keep all flammable liquids away from fireplace.
- To prevent excessive creosote build-up, use only dry, seasoned wood.

- “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.
- 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.
- 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 installing this fireplace in cold climate areas be sure to follow the cold climate installation instructions outlined in this booklet.
- Have repairs done by a qualified service technician.
- **WARNING: THE OPENINGS IN 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 upper or lower grille openings.
- 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 such as artificial logs or plywood, as these produce abnormally high temperatures.
- **NEVER USE GASOLINE, KEROSENE, OR LIGHTER FLUID TO LIGHT OR “FRESHEN” A FIRE.**
- Never close the damper until you are certain that there are no warm embers.

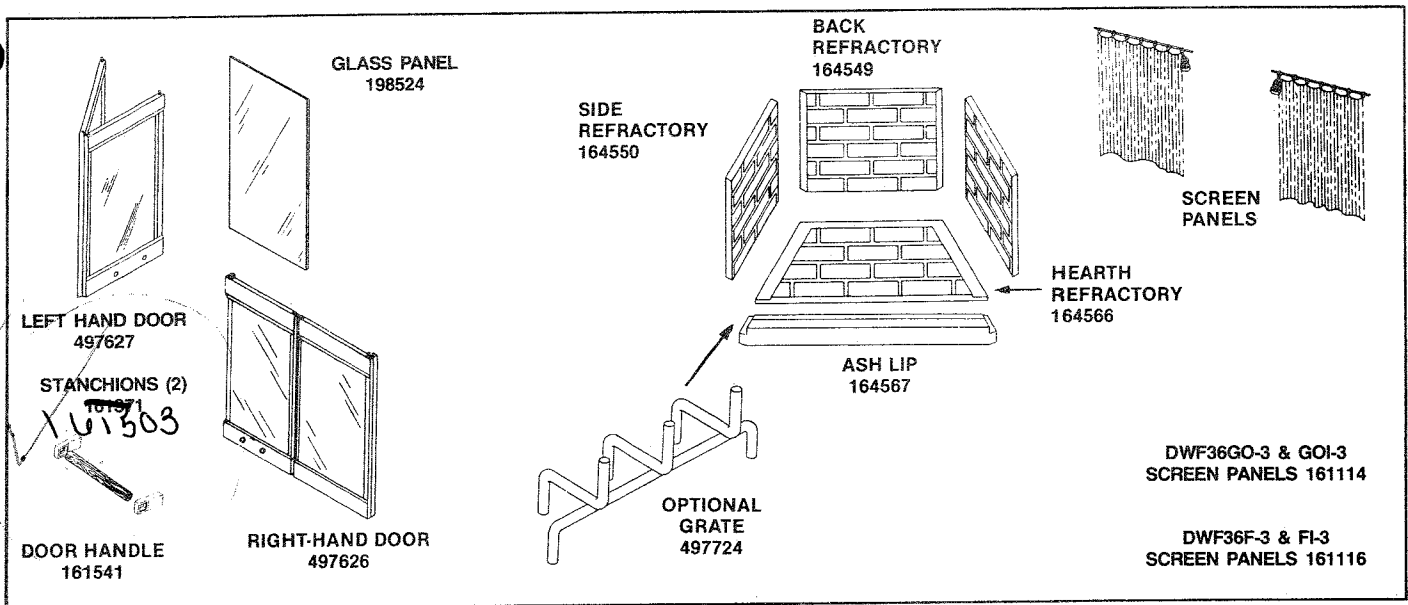
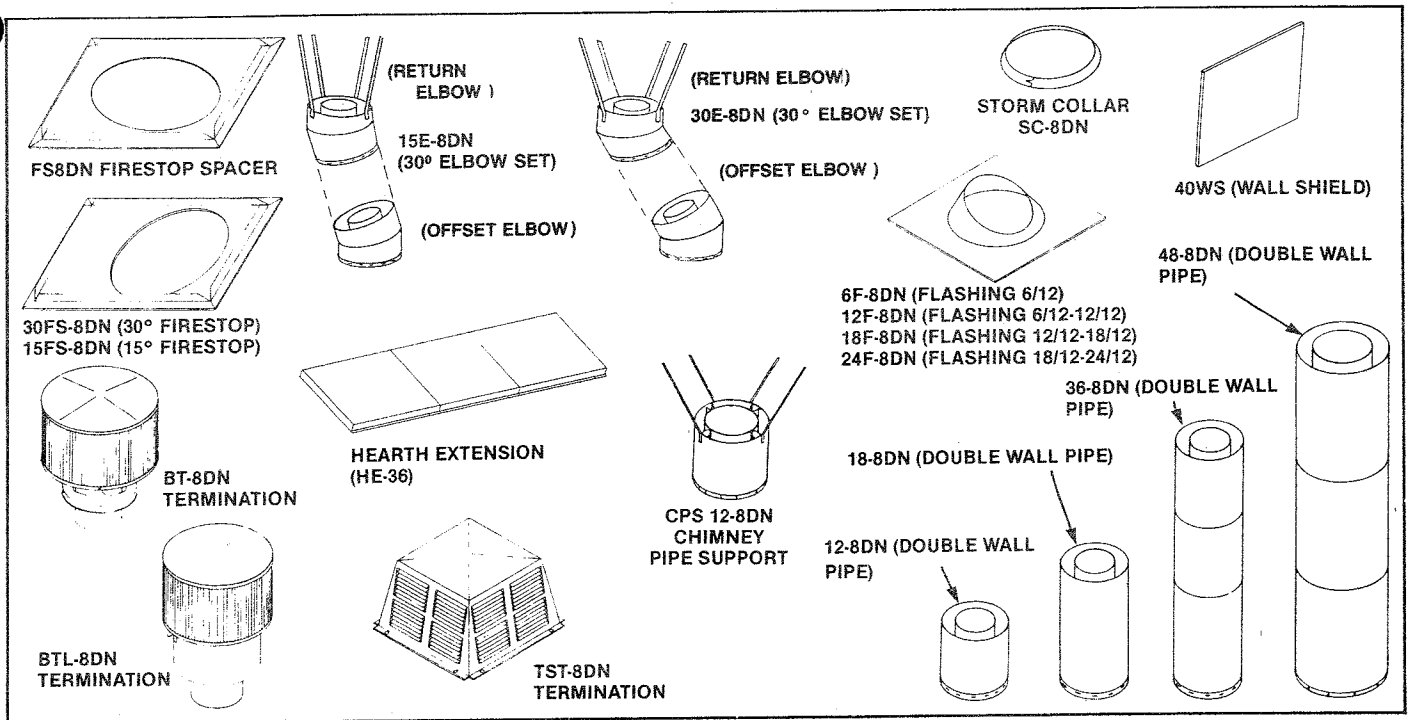
REFERENCE DOCUMENTS:

1. MARCO Woodburning Fireplace Warranty and Operation Manual, P/N 181536.
2. BKR-36-2S Fan Kit, P/N 181603
3. DWF-36G0-3 Accessory Kit Installation Instructions P/N 181647.
4. DWF-36F Door Kit Installation Instruction P/N 181587
5. OAK-4 Outside Air Kit, P/N 181559
6. BT-8DN Termination Installation Instructions, P/N 181621.
7. BTL-8DN Termination Instructions, P/N 181633.
8. RT-8DN Termination Instructions, P/N 181597.
9. RTL-8DN Termination Instructions, P/N 181582.
10. TST-8D Termination Instructions, P/N 181583.
11. HE-36 Hearth Extension Installation Instructions, P/N 181618.

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

COMPONENT PARTS

U.L. LISTED FIREPLACE PARTS LISTED BELOW SHALL BE USED WITH THE DWF36-3 SERIES FIREPLACES



REPLACEMENT PARTS

HOW TO ORDER REPAIR PARTS

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



MARCO

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

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