INSTALLING YOUR MARCO WOOD-BURNING FIREPLACE

MARCO

MODEL DWF-36CF

CHECK LOCAL CODES PRIOR TO INSTALLATION

OPTIONAL FEATURES: BI-FOLD GLASS DOORS
OUTSIDE AIR KIT

THIS MANUAL PROVIDES ALL THE INSTRUCTIONS NECESSARY FOR THE BUILDER OR HOMEOWNER TO INSTALL THE MODEL **DWF-36CF** MARCO FIREPLACE SAFELY AND EFFICIENTLY. IT ALSO PROVIDES INFORMATION ON HOW TO ORDER REPAIR PARTS WHEN NEEDED.

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

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

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.

ACCESSORIES

FIREPLACE GRATE

A grate is available for use with this fireplace as an optional accessory. It was designed to keep the operation of your fireplace safe and efficient. The size of the grate was engineered to give the ideal combustion characteristics for the fire. By keeping the logs within the 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:

Bifold glass doors can be installed on the DWF-36CF as an optional accessory. Use MARCO door kit BD36CF and refer to the Installation Instructions in that kit for installation details. The glass doors can be installed before, during or after the installation of the fireplace. NOTE: Use of glass doors other than those manufactured by Marco Mfg., Inc. could create a potentially hazardous condition and will void the MARCO warranty.

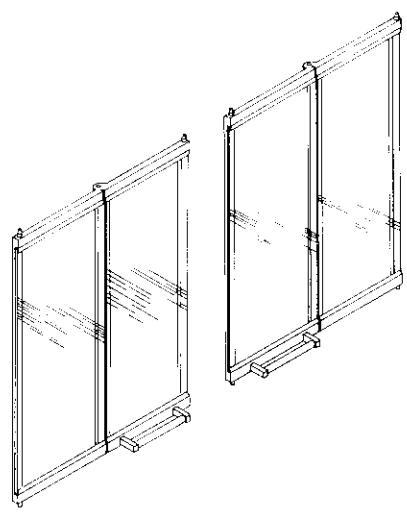


FIG. 1

OUTSIDE AIR:

The DWF-36CF has an optional outside air kit available for installation. The Basic OAK (outside air kit) must be installed *during* the installation of the fireplace (see Page 5).

INSTALLATION INSTRUCTIONS

INTRODUCTION

- Before beginning the installation of your fireplace, read through these instructions and the instructions contained in the separate Operation Manual.

- This MARCO fireplace and components are safe when installed according to this Installation Manual. Unless you use MARCO components which have been designed and tested for the fireplace system, you may cause a fire hazard.

- The MARCO DWF-36CF fireplace may be installed in a conventional home or a modular manufactured home.

- 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, 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.

- PROPER INSTALLATION is the most important step in ensuring safe, long-term operation of this fireplace. Consult the local building codes as to the particular requirements concerning installation of all factory-built fireplaces. Although grounding may not be required by code, it is recommended by the manufacturer.

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

SELECTING YOUR FIREPLACE LOCATION

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

CLEARANCES

• A fireplace must not be installed closer than 24 inches to any unprotected combustible wall perpendicular to the fireplace opening (Fig. 2).

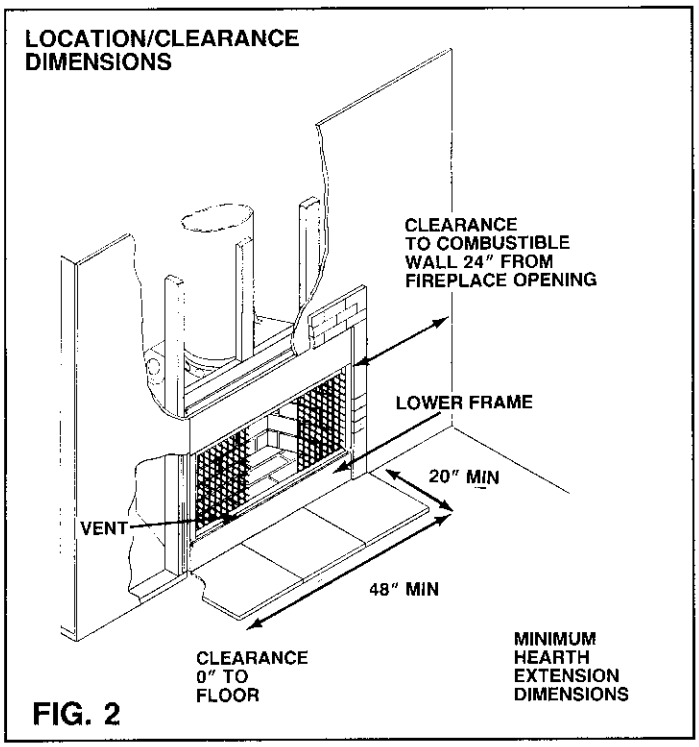


FIG. 2

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

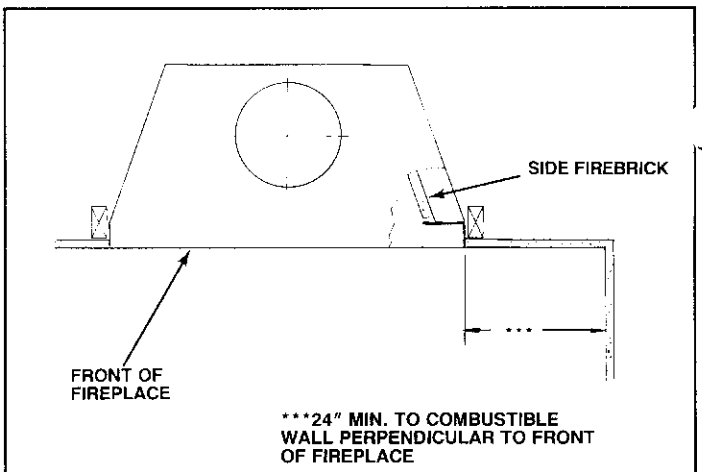


FIG. 3

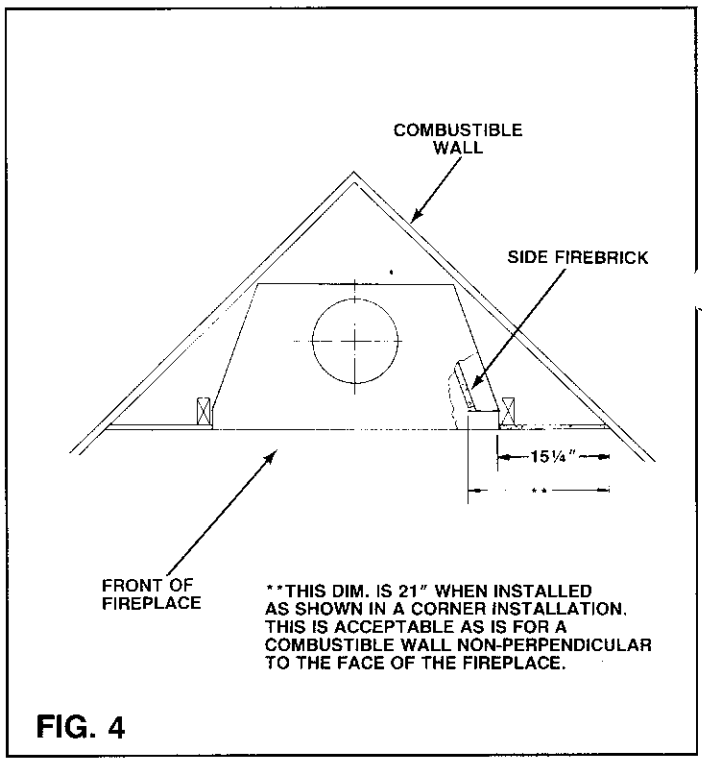


FIG. 4

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 Fig. 4).

WARNING:

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

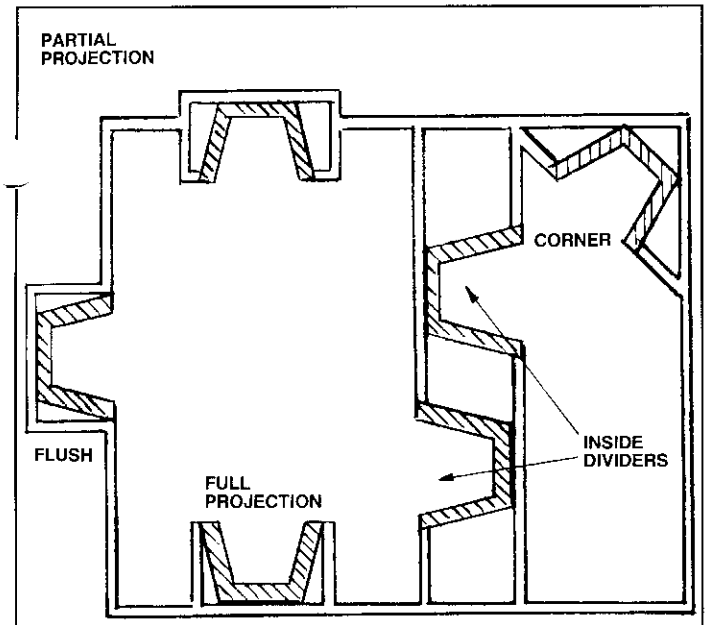


FIG. 5
LOCATION AND INSTALLATION

- 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 (Fig. 5).

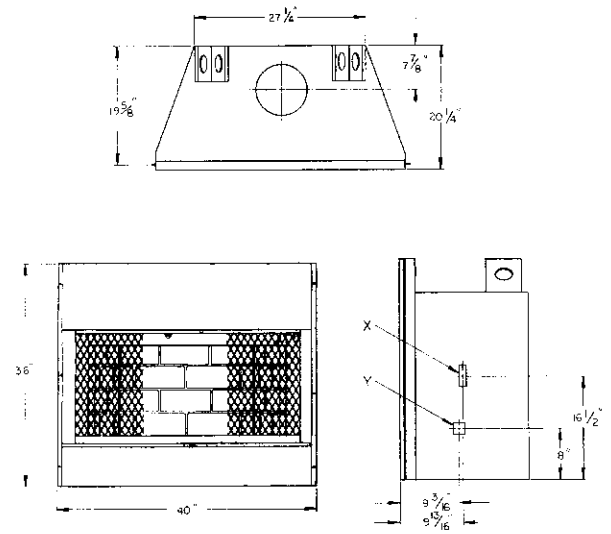
- A location that requires cutting the least number of joists, roof rafters, and floor joists will reduce costs and make installation easier. This may mean moving only one or two inches from the selected ideal location. Any location selected must allow adequate room to accommodate the fireplace and framing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

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

- When a fireplace is installed on a combustible floor, a non-combustible hearth extension must be provided to protect the floor in front of the opening. (Refer to Hearth Extension, Pages 11, 12, & 13).

FRAMING INSTRUCTIONS

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



X = AIR INLET
Y = GAS INLET

FIG. 6—FIREPLACE DIMENSIONS

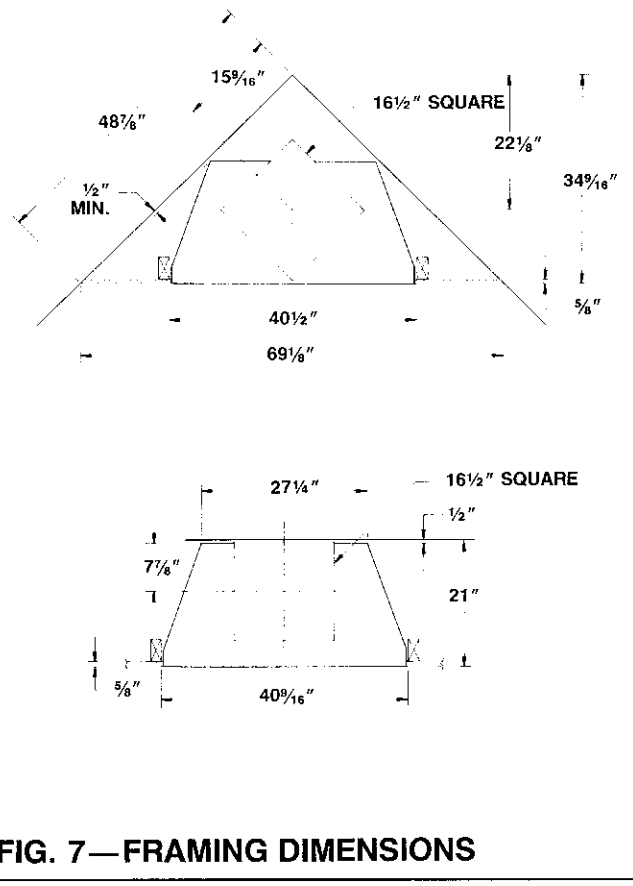


FIG. 7—FRAMING DIMENSIONS

EXAMPLES OF FIREPLACE AND CHIMNEY DESIGNS

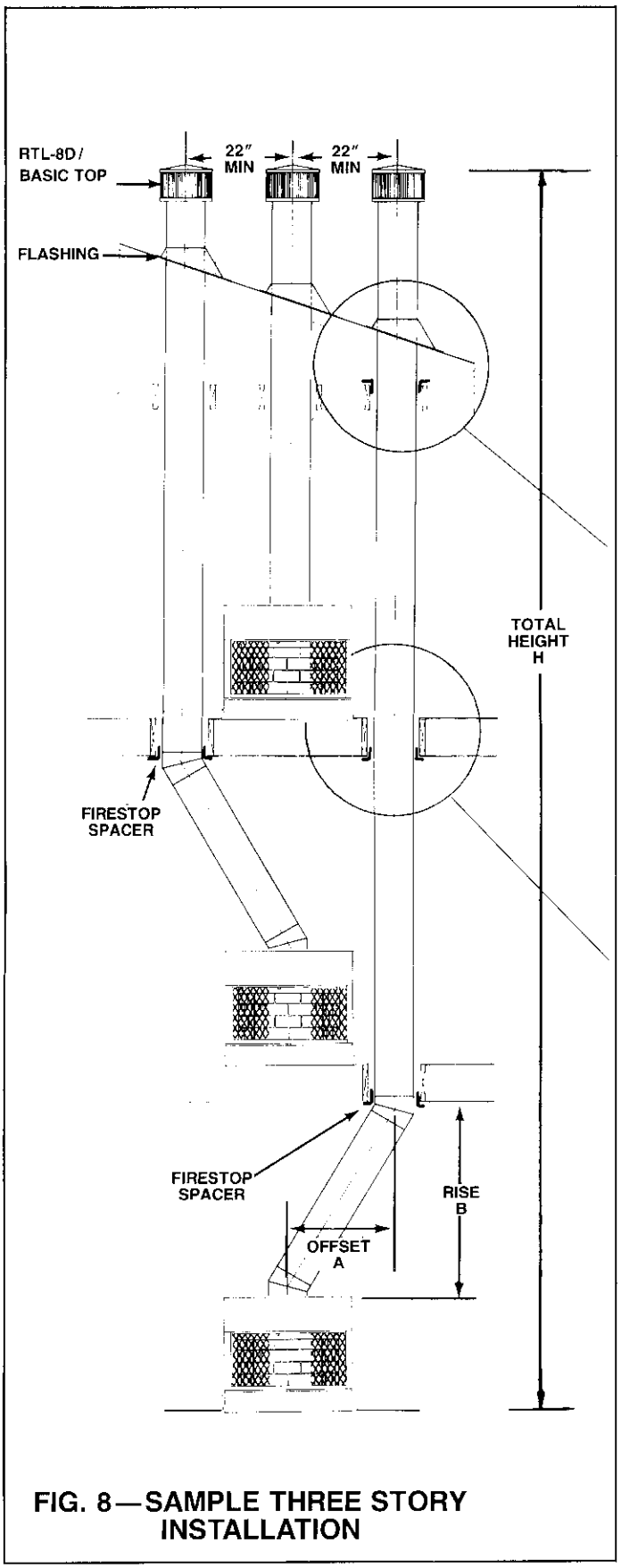
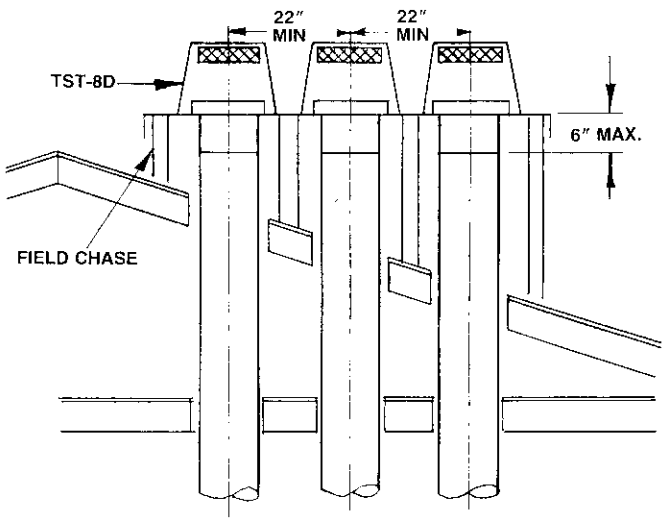


FIG. 8—SAMPLE THREE STORY INSTALLATION



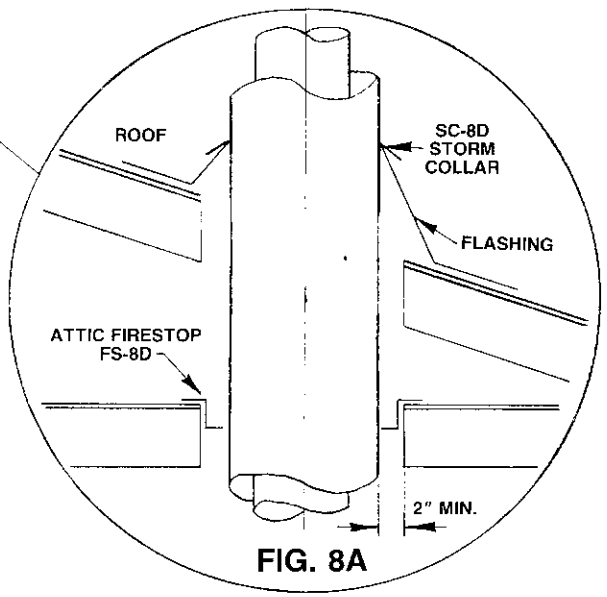


FIG. 8A

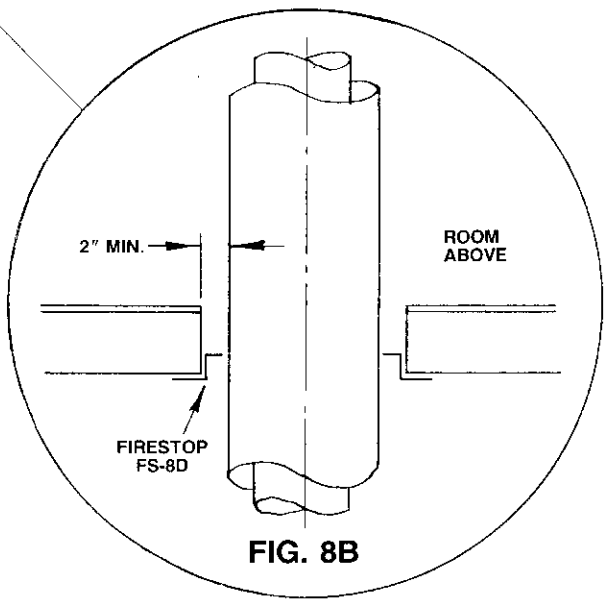


FIG. 8B

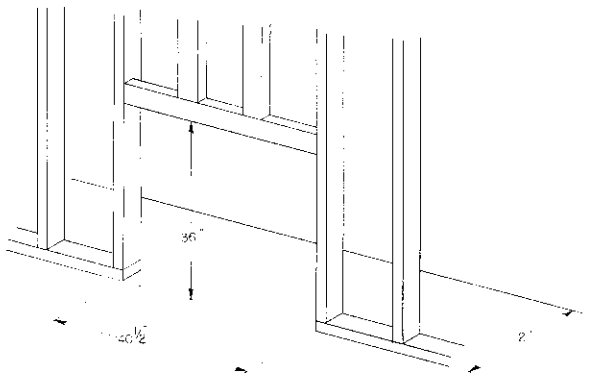


FIG. 9—FRAMING DIMENSIONS

- 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 Fig. 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 (Fig. 9). Move the fireplace into position and install the metal safety strips (provided) under the fireplace as shown in Figure 10.

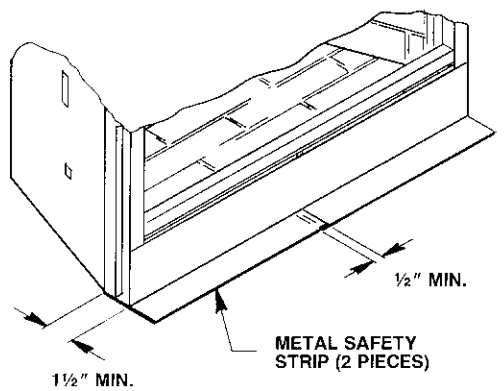


FIG. 10

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

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

INSTALLATION OF AIR INLET ASSEMBLY

STEP 1A: Determine the source for outside air, which can be installed through an outside wall or into a ventilated crawl space (Fig. 11). In either case, a 4½" 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. Maximum distance of the air inlet from the fireplace is 20'.

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

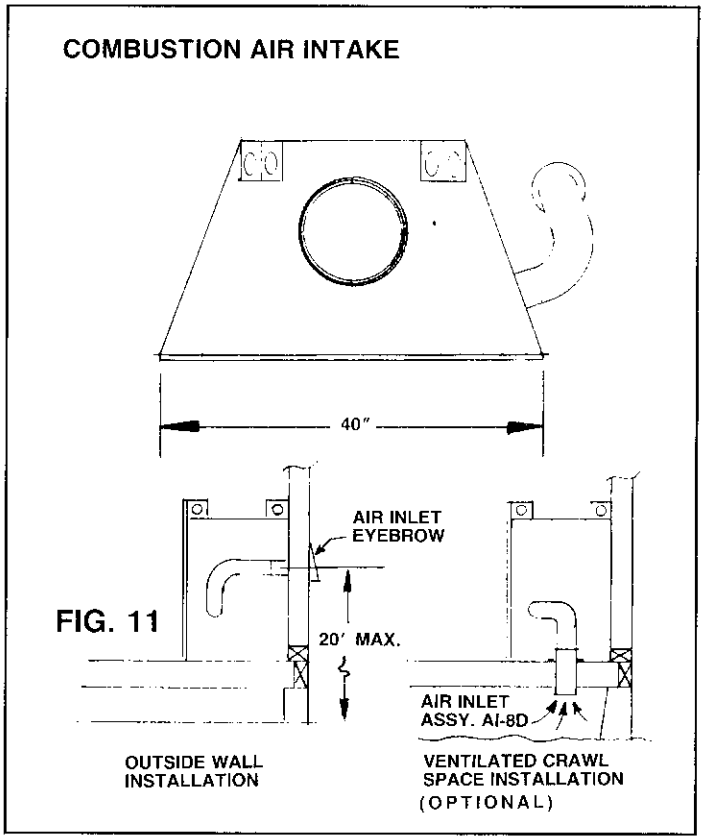


FIG. 11

STEP 1B: Remove the cover plate from the air inlet (Fig. 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.

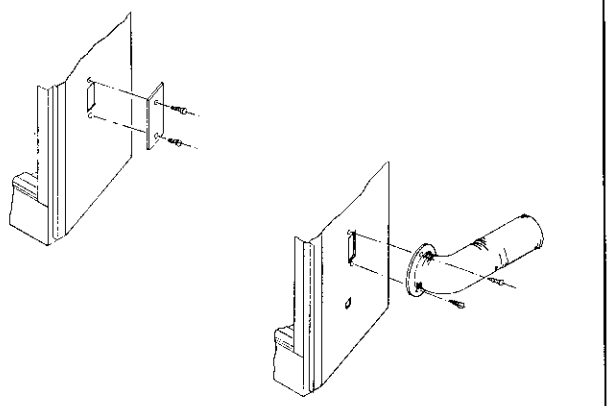


FIG. 12

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

OUTSIDE COMBUSTION AIR

For outside combustion air, open the airgate before starting a fire.

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 intake screen periodically to be sure it is clear of debris.

INSTALLING YOUR DOUBLE-WALL CHIMNEY SYSTEM

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

STEP 1: When starting the chimney directly on the fireplace, the flue pipe section must be installed first, with the hemmed end down. The outer pipe section can then be installed over the flue pipe section with the hemmed end up (see Fig. 13).

Step 2: Press down on the outer pipe section until the lances on the lower end securely engage the hem on the fireplace starting collar. The spacer will assure the proper spacing between the inner and outer pipe sections as well as strengthen the upper joint in preparation for other chimney sections. 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.

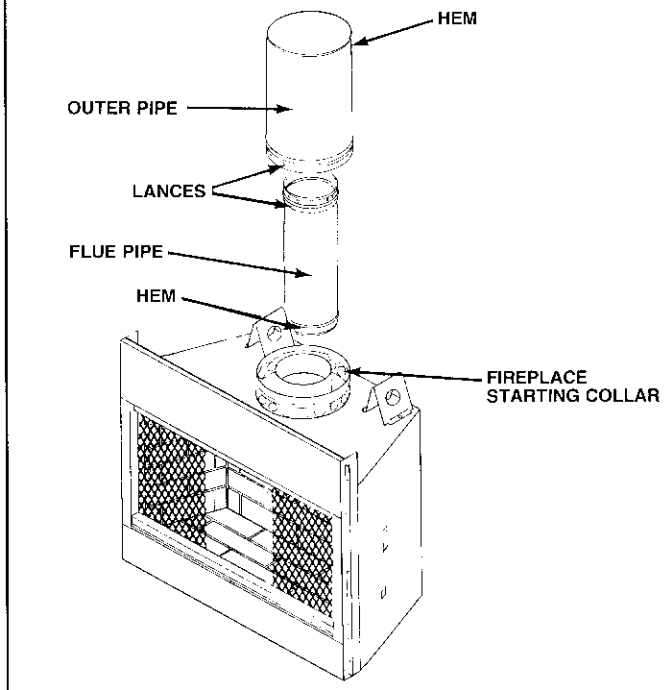


FIG. 13

STEP 3: 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 (Page 3, Fig. 7).

FIRESTOP SPACERS:

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

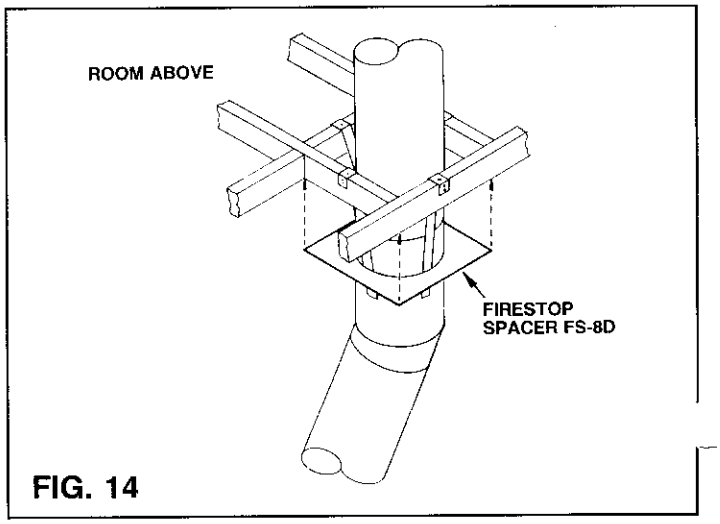


FIG. 14

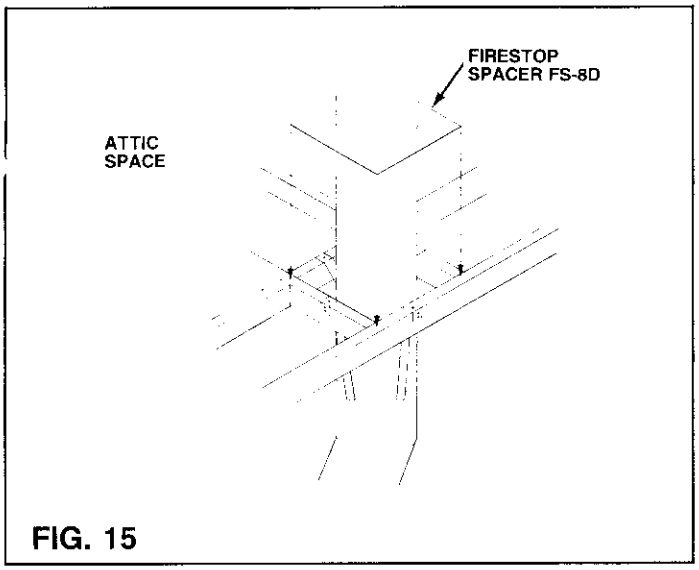


FIG. 15

If the pipe passes through a framed opening *between floors*, install a firestop spacer to the *bottom* of the joists (Fig. 14). When pipe passes through *into attic space,* install the firestop spacer on the *top* of the joists (Fig. 15).

STEP 4: Determine the location of the hole to be cut in the roof. The roof hole cut-out varies with the type of chimney termination that will be installed, so refer to the chart on page 9, Fig. 18.

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 (Fig. 16).

STEP 6: Position the flashing over the chimney and flat on the roof. Mark an outline of the flashing on the roof and remove the flashing. Remove all nails within the outlined area (Fig. 16).

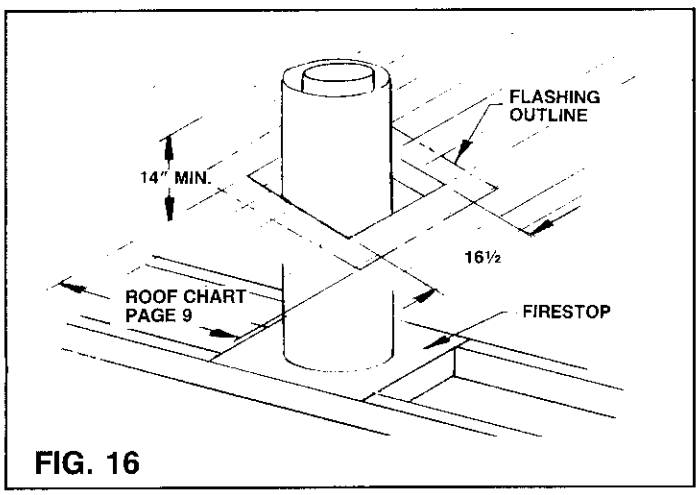


FIG. 16

STEP 7: Place flashing into position on unshingled roof. Hold in position by nailing shingles in place over the flashing edges. DO NOT nail through the flashing.

STEP 8: Install storm collar on the chimney and push down securely to the top of the flashing. Apply waterproof caulking around the top of the storm collar.

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

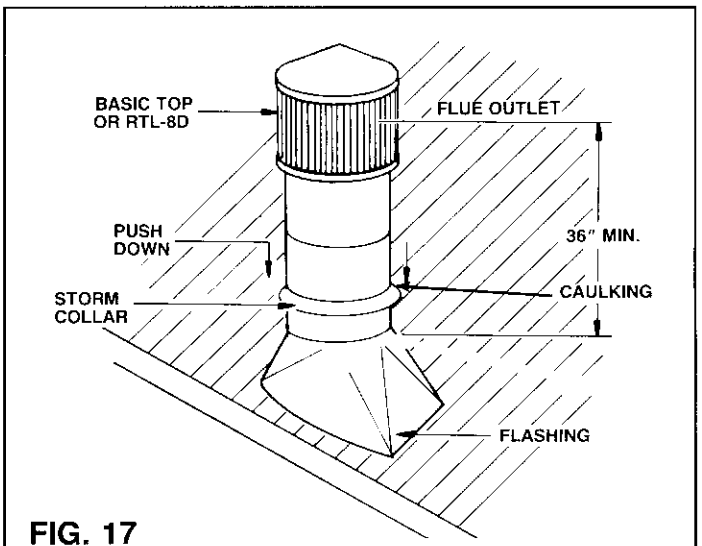


FIG. 17

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 contemporary or chase termination.

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 (Fig. 19).

STEP 9: Install termination on last section of pipe. There are four (4) different terminations approved for this chimney system. **1. RTL-8D** can be used on an exposed chimney or chase installation. The RTL-8D is adjustable to compensate for height variations on the chase top. **2. BASIC TOP** can be used on either exposed chimney or chase installation, but is not adjustable. **3. RT-8D** can be used on either exposed chimney or chase installation but is not adjustable. **4. TST-8D** 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 36″
3. RISE OF ELBOWS INCLUDING PIPE _____
   Use table of contents offsets (page 13)
4. HEIGHT OF RTL-8D TOP / BASIC TOP _____
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 COMPLETE INSTALLATION (Refer to Chimney Height Chart)

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

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

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

MODEL	DESCRIPTION	LINEAL GAIN
DWF-36CF FIREPLACE		36″
12-8D	DOUBLE-WALL PIPE	11¼″
18-8D	DOUBLE-WALL PIPE	17¼″
36-8D	DOUBLE-WALL PIPE	35¼″
48-8D	DOUBLE-WALL PIPE	47¼″
CPS12-8D	CHIMNEY SUPPORT	11¼″
RTL-8D	ROUND TOP ASSEMBLY	11″-17″
TST-8D	TRIM STYLE TOP ASSEMBLY	11″-17″
RT-8D	ROUND TOP	6″
BASIC TOP	ROUND TOP	6″

MARCO's Double-Wall Chimney System, when used on the DWF-36CF 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.

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	12-8D	18-8D	36-8D	48-8D	MAXIMUM HEIGHT	12-8D	18-8D	36-8D	48-8D
8′9½″	1	—	—	2	32′11″	—	1	—	8
9′3½″	—	1	—	2	33′4½″	2	—	—	8
9′9″	2	—	—	2	33′10½″	1	1	—	8
10′3″	1	1	—	2	34′5″	—	—	1	8
10′9½″	—	—	1	2	34′10½″	—	1	2	7
11′2″	2	1	—	2	35′5″	—	—	—	9
11′9½″	—	—	—	3	35′10½″	—	1	1	8
12′3″	—	1	1	2	36′4½″	1	—	—	9
12′9″	1	—	—	3	36′10½″	—	1	—	9
13′3″	—	1	—	3	37′3½″	2	—	—	9
13′8″	2	—	—	3	37′9½″	1	1	0	9
14′2″	1	1	—	3	38′4½″	—	—	1	9
14′9″	—	—	1	3	38′9½″	—	1	2	8
15′2″	—	1	2	2	39′4″	—	—	—	10
15′9″	—	—	—	4	39′9½″	—	1	1	9
16′2″	—	1	1	3	40′3½″	1	—	—	10
16′8″	1	—	—	4	40′9½″	—	1	—	10
17′2″	—	1	—	4	41′3″	2	—	—	10
17′7½″	2	—	—	4	41′9″	1	1	—	10
18′1½″	1	1	—	4	42′3½″	—	—	1	10
18′8″	—	—	1	4	42′9″	—	1	2	9
19′1½″	—	1	2	3	43′3½″	—	—	—	11
19′8″	—	—	—	5	43′9″	—	1	1	10
20′1½″	—	1	1	4	44′3″	1	—	—	11
20′6½″	2	—	1	4	44′9″	—	1	—	11
21′½″	1	1	1	4	45′2″	2	—	—	11
21″7½″	—	—	2	4	45′8″	1	1	—	11
22′½″	1	1	—	5	46′3″	—	—	1	11
22′7½″	—	—	1	5	46′8″	—	1	2	10
23′½″	—	1	2	4	47′3″	—	—	—	12
23′7½″	—	—	—	6	47′8″	—	1	1	11
24′½″	—	1	1	5	48′2″	1	—	—	12
24′6″	2	—	1	5	48′8″	—	1	—	12
25′0″	1	1	1	5	49′1½″	2	—	—	12
25′6½″	—	—	2	5	49′7½″	1	1	—	12
26′0″	1	1	—	6	50′2″	—	—	1	12
26′6½″	—	—	1	6	50′7½″	—	1	2	11
27′0″	—	1	2	5	51′1″	—	—	—	13
27′6½″	—	—	—	7	51′7½″	—	1	1	12
28′0″	—	1	1	6	52′1½″	1	—	—	13
28′6″	1	—	—	7	52′7½″	—	1	—	13
29′0″	—	1	—	7	53′½″	2	—	—	13
29′5″	2	—	—	7	53′6½″	1	1	—	13
29′11″	1	1	—	7	54′1½″	—	—	1	13
30′6″	—	—	1	7	54′6½″	—	1	2	12
30′11″	—	1	2	6	55′1½″	—	—	—	14
31′6″	—	—	—	8	55′6½″	—	1	1	13
31′11″	—	1	1	7	56′½″	1	—	—	14
32′5″	1	—	—	8					

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

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

ROOF OPENING			
TERMINATION	PITCH	C	D
BASIC TOP RTL-8D RT-8D	FLAT	16½	16½
	6/12	16½	18½
	12/12	16½	22½
	18/12	16½	28
	24/12	16½	34½
TST-8D	FLAT	16½	16½

*NOTE: CONSTRUCT CHIMNEY OPENING IN SAME DIRECTION AS OFFSET

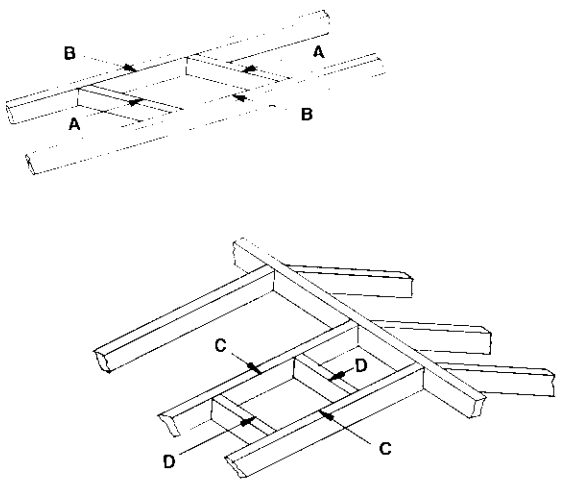


FIG. 18

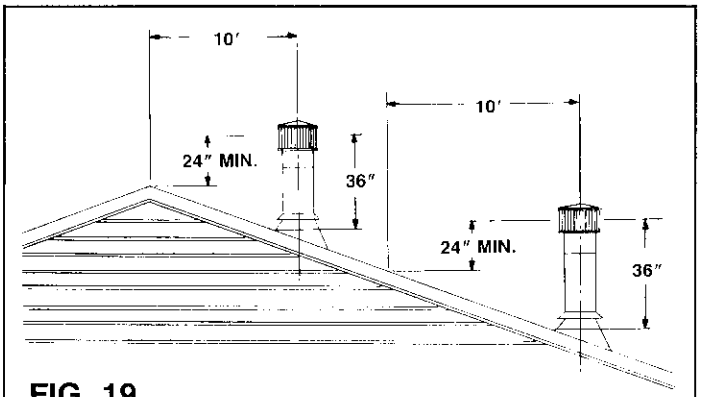


FIG. 19

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 Fig. 19.)

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

CHIMNEY SUPPORTS:

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

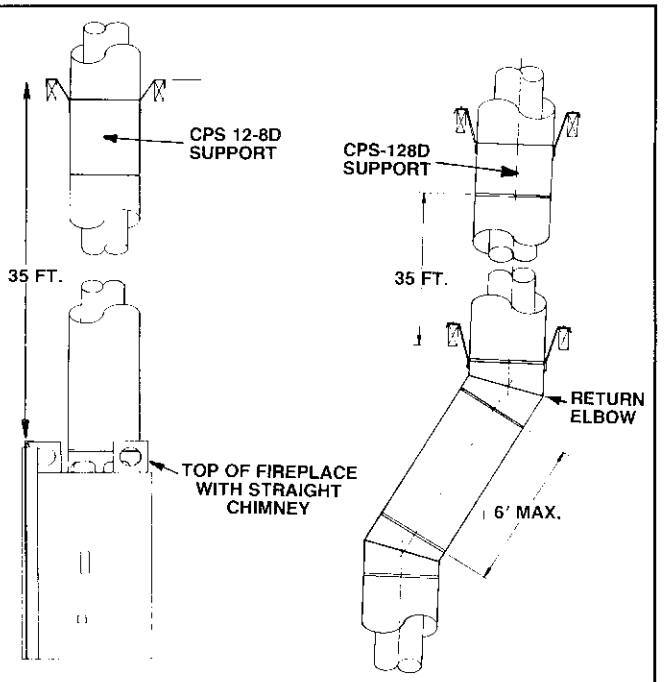


FIG. 20 FIG. 20A

Chimney Support CPS 12-8D is designed to relieve the extra weight load on the fireplace and elbows when high chimneys are installed.

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 Figs. 21 & 21B).

2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists. (See Fig. 21A details A & B).

3. Maximum length of pipe between supports (return elbow or CPS 12-8D) is 6′ of angled run. There can be no more than two 6′ angled run sections per chimney system. (Fig. 21B)

SINGLE OFFSET CHART

NUMBER AND LENGTH OF DOUBLE WALL PIPE					1-30° Offset Elbow 1-30° Return Elbow		1-15° Offset Elbow 1-15° Return Elbow	
12″	18″	36″	CPS 12	48″	A	B	A	B
—	—	—	—	—	4¾	17¾	2	15½
1	—	—	—	—	10¼	27½	5	26¼
—	1	—	—	—	13¼	32¾	6½	32¼
2	—	—	—	—	16	37¼	7¾	37¼
1	1	—	—	—	19	42½	9½	43
—	2	—	—	—	22	47½	11	48¾
—	—	1	—	—	22¼	48¼	11¼	49½
2	1	—	—	—	24½	52	12¼	54
1	2	—	—	—	27½	57¼	13¾	59¾
1	—	1	—	—	28	58	14	60½
—	—	—	1	—	28¼	58½	14¼	61¼
—	3	—	—	—	30½	62½	15¼	65½
—	1	1	—	—	31	63¼	15½	66¼
2	—	1	—	—	33½	67¾	17	71¼
1	—	—	1	—	34	68¼	17¼	72
1	1	1	—	—	36½	72¾	18½	77
—	1	—	1	—	37	73½	18¾	77¾
2	—	—	1	—	39½	78	20	82¾
—	—	2	—	—	40	78¾	20¼	83½
—	—	2	—	1	45½	88½	23¼	94½

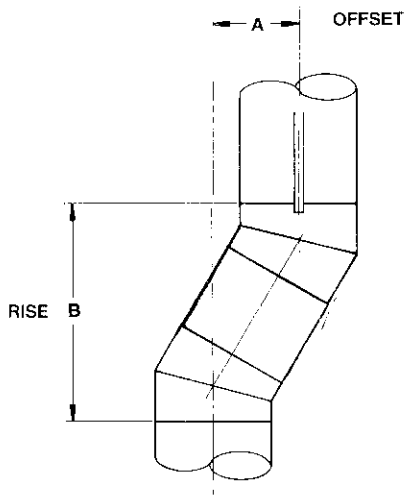


FIG. 21

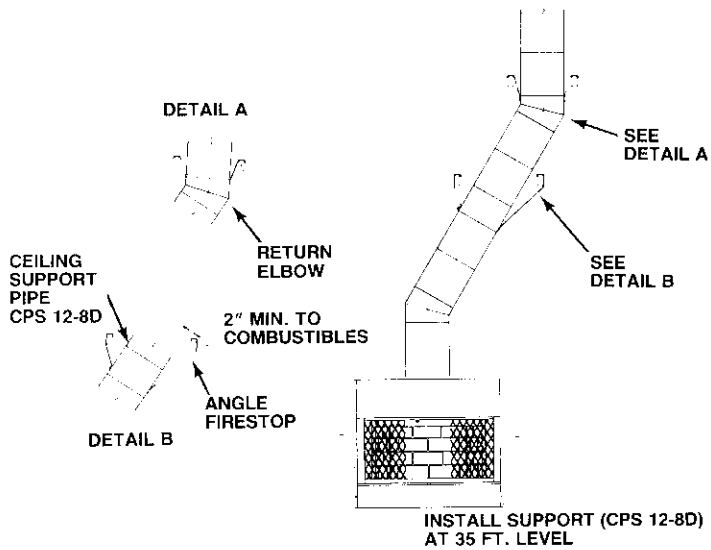


FIG. 21A

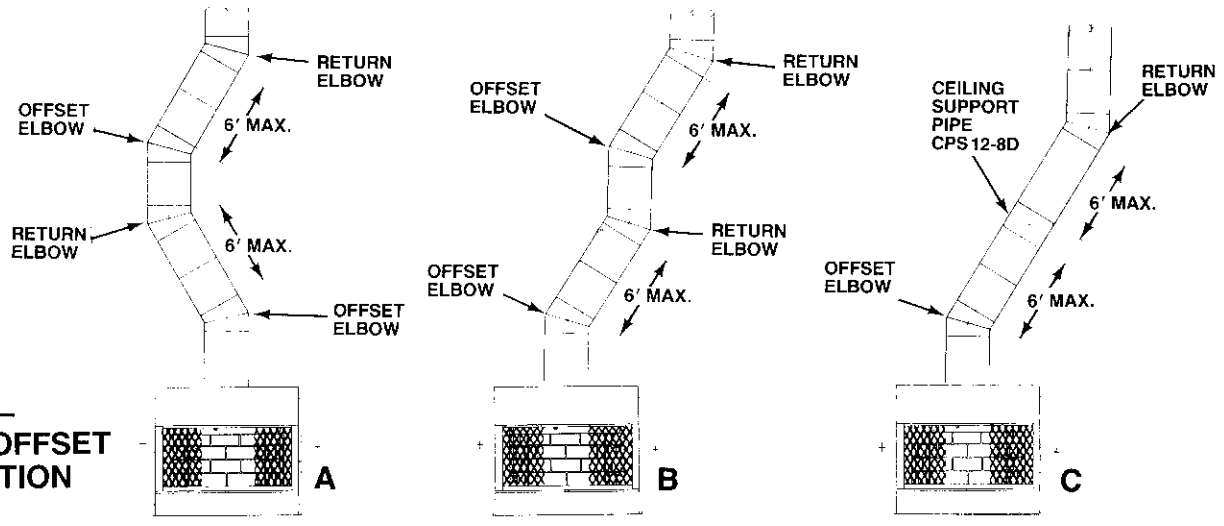


FIG. 21B — TYPICAL OFFSET INSTALLATION

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 through outer cell of double-wall chimney. An "Anti-Downdraft Shield" (ADS) has been designed to alleviate 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, ½" size, and appropriate fittings. When installing a gas line, a valve designed for installation outside the fireplace is required. (Fig. 22).

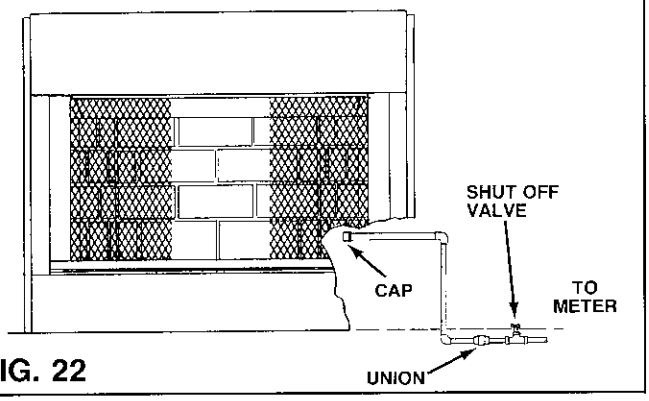


FIG. 22

The gas line may enter the fireplace from either side. Refer to Fig. 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 1½ inches from floor in the center of the side panel. Knock the plug through from inside the firebox to the outside. Reinsert the conduit sleeve.

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

TEST FOR GAS LEAKS

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

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

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

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

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 Fig. 23, must be a minimum of 20" deep by 48" wide, centered on the fireplace opening. The hearth extension must be made from a non-combustible inorganic material with a thermal conductivity, K, of .07 or less. The thermal conductivity, K, or thermal resistance, R, of materials can usually be obtained from the manufacturer. The factors are related by the formula $K = \frac{1}{R}$. The thickness required for various common materials and their factors are shown in Fig. 24.

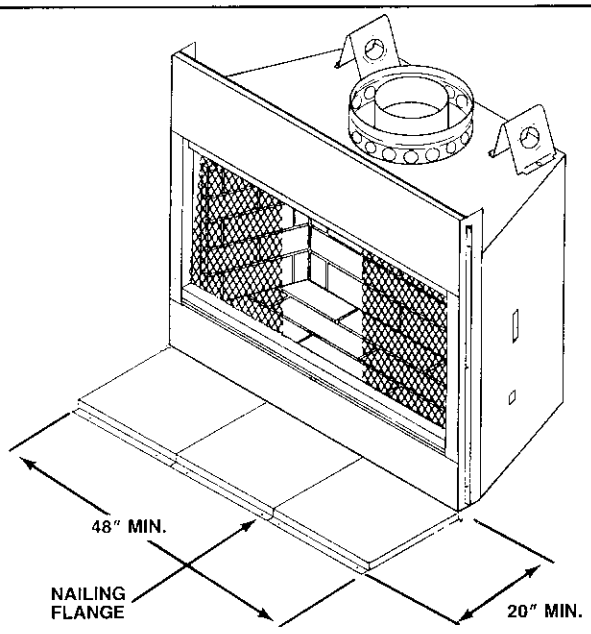


FIG. 23

Material	K*	R	Minimum Thickness
Asbestos 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.

FIG. 24—Common Materials and Their Factors

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.

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 Fig. 28-31).

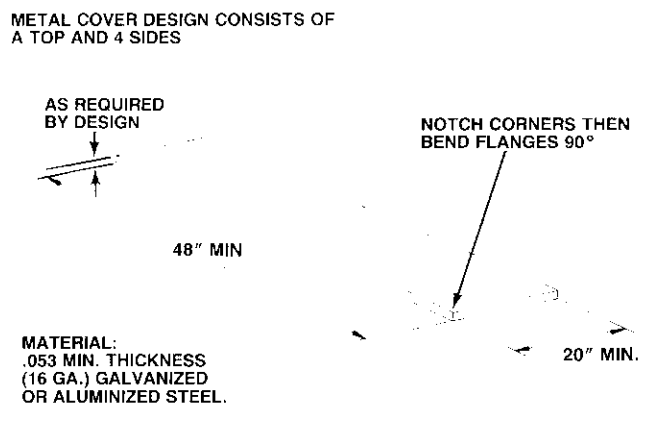


FIG. 25—METAL COVER CONSTRUCTION

EXAMPLE OF DETERMINING HEARTH EXTENSION EQUIVALENT

To determine the thickness required for any material:

$$\frac{\text{K new material}}{.07} \times 1'' = \text{Thickness Required}$$

Example for cement: (K from Fig. 24)

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

METAL SAFETY STRIP-OFFSET (SUPPLIED BY OTHERS)

Shall be constructed of a minimum thickness of .018 galvanized steel and should be shaped as shown in Fig. 26.

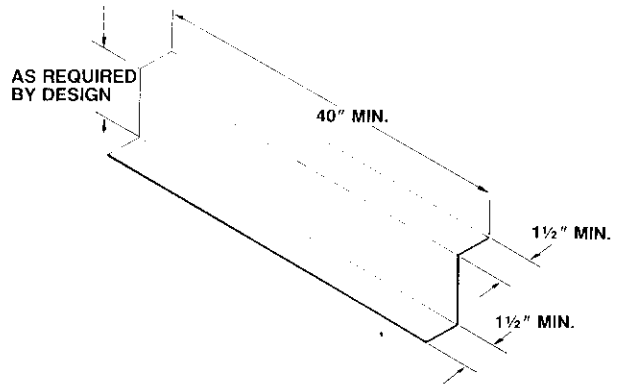


FIG. 26—METAL SAFETY STRIP-OFFSET

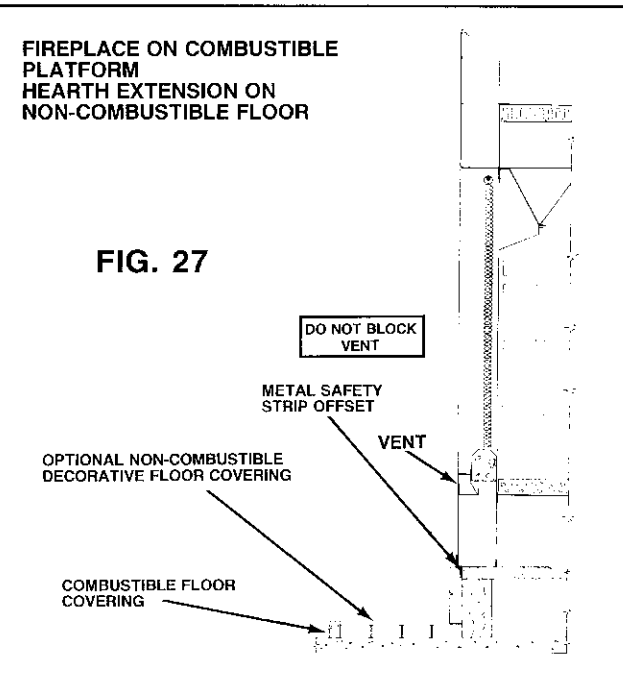
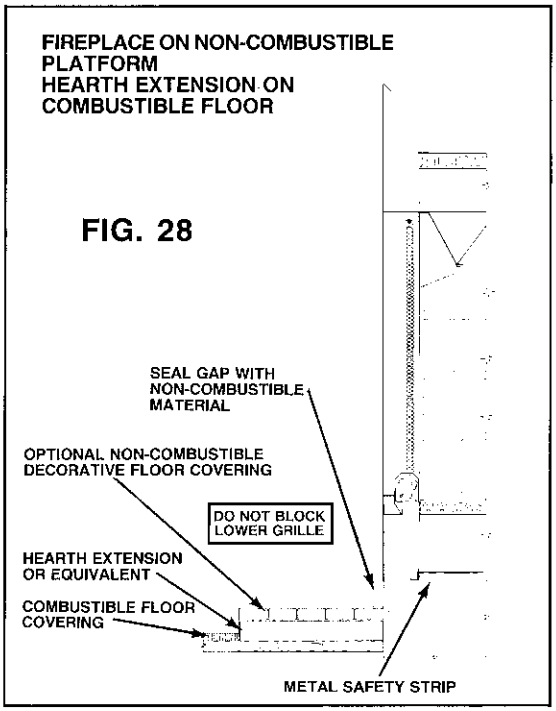


FIG. 27

WARNING:
HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED. FIGURES 27 THRU 32 SHOW OPTIONAL INSTALLATIONS

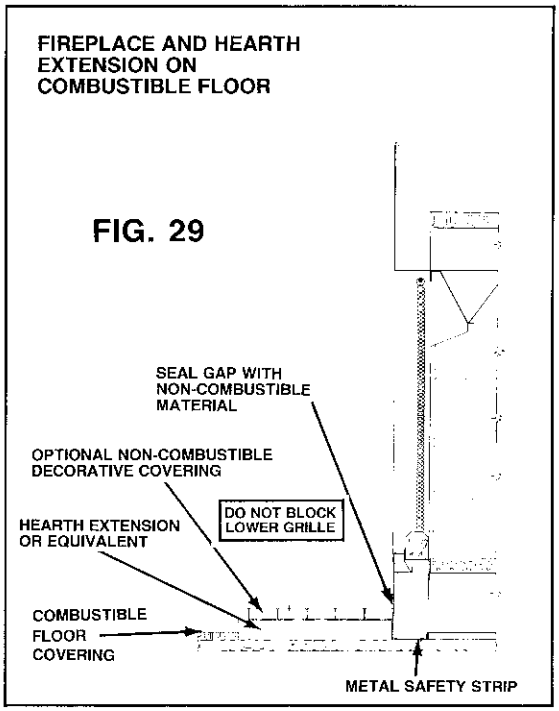
FIREPLACE ON NON-COMBUSTIBLE PLATFORM
HEARTH EXTENSION ON COMBUSTIBLE FLOOR

FIG. 28



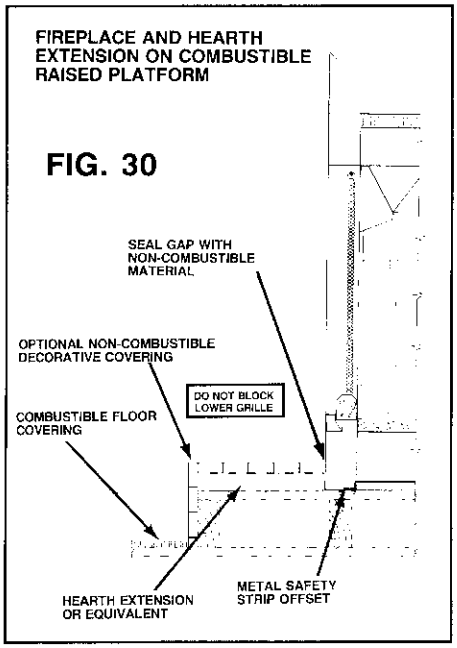
FIREPLACE AND HEARTH EXTENSION ON COMBUSTIBLE FLOOR

FIG. 29



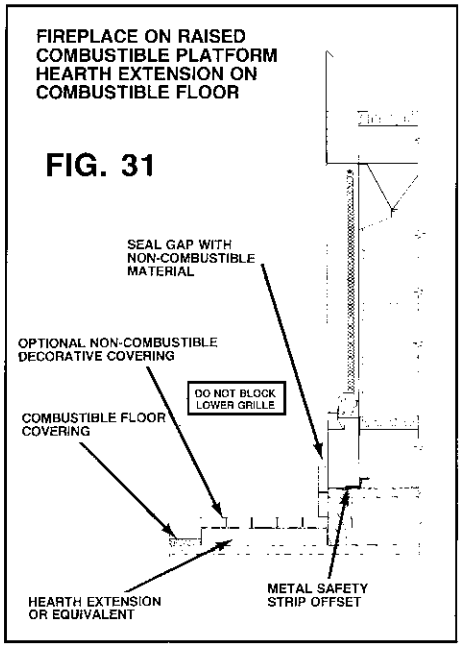
FIREPLACE AND HEARTH EXTENSION ON COMBUSTIBLE RAISED PLATFORM

FIG. 30



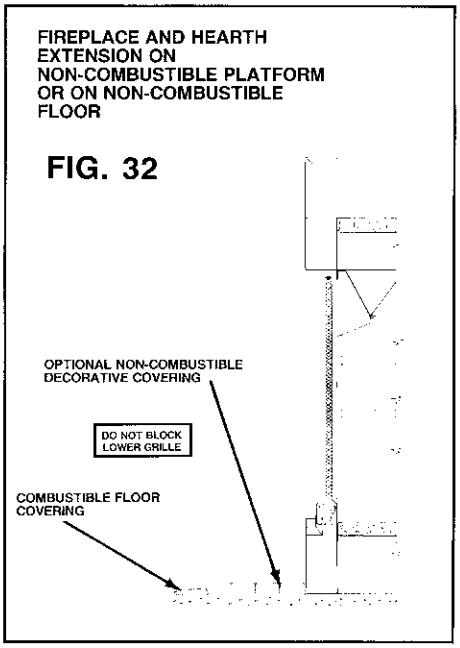
FIREPLACE ON RAISED COMBUSTIBLE PLATFORM HEARTH EXTENSION ON COMBUSTIBLE FLOOR

FIG. 31



FIREPLACE AND HEARTH EXTENSION ON NON-COMBUSTIBLE PLATFORM OR ON NON-COMBUSTIBLE FLOOR

FIG. 32



*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.

DAMPER CONTROL LEVER

The damper control lever located inside the top front of the firebox has been engineered to provide for safe operation of your fireplace. Do not close the damper in an attempt to reduce a large fire. To do so may cause a potential smoke hazard, just as any fuel-burning appliance would do if not properly exhausted. If you forget to open the damper before you start your fire (you will know immediately by the smoke entering your home) simply move the damper lever from its closed position notch to the open position (Fig. 33).

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.

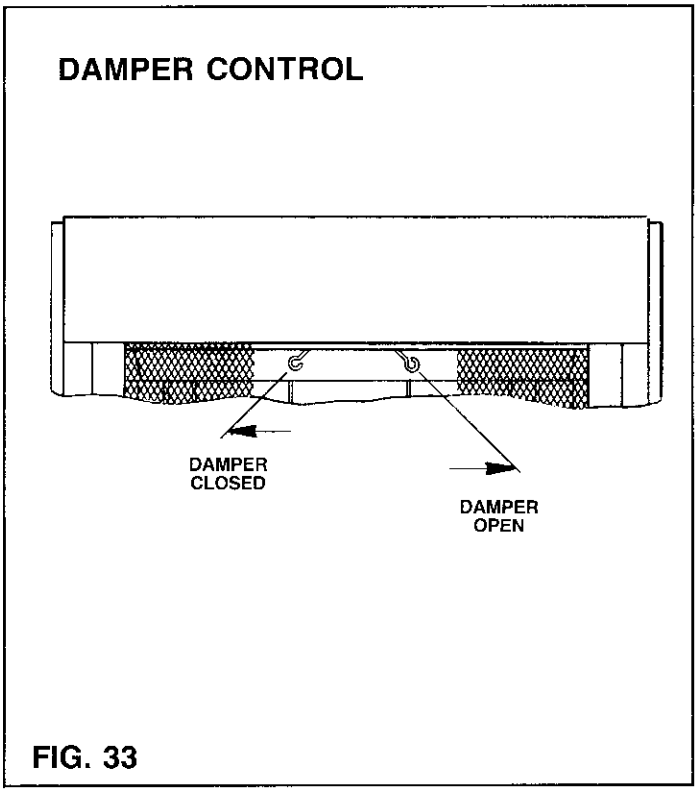


FIG. 33

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 GRILLE AT THE 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 34 and 35.

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 Fig. 34).

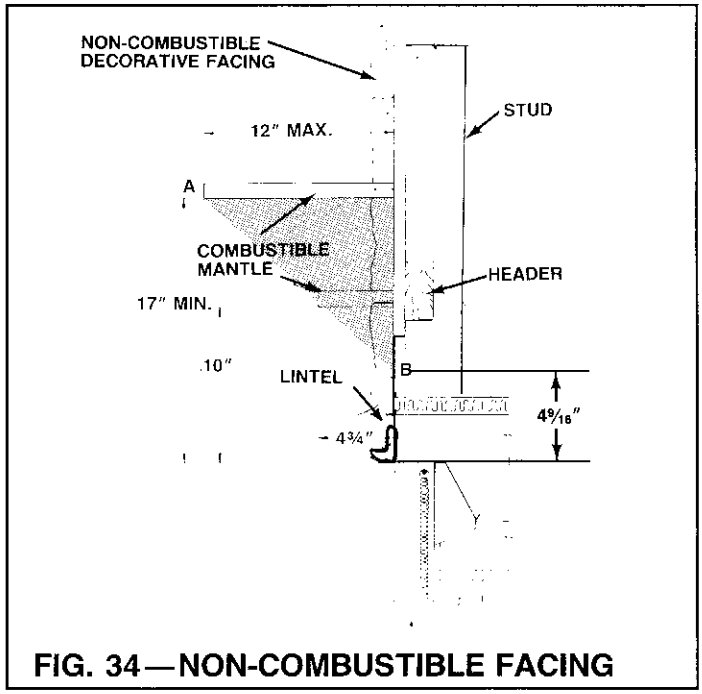


FIG. 34—NON-COMBUSTIBLE FACING

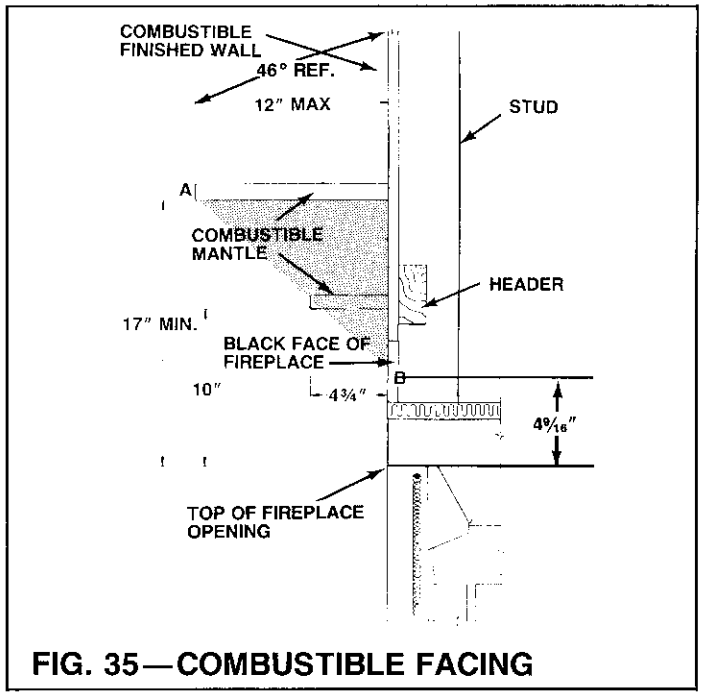
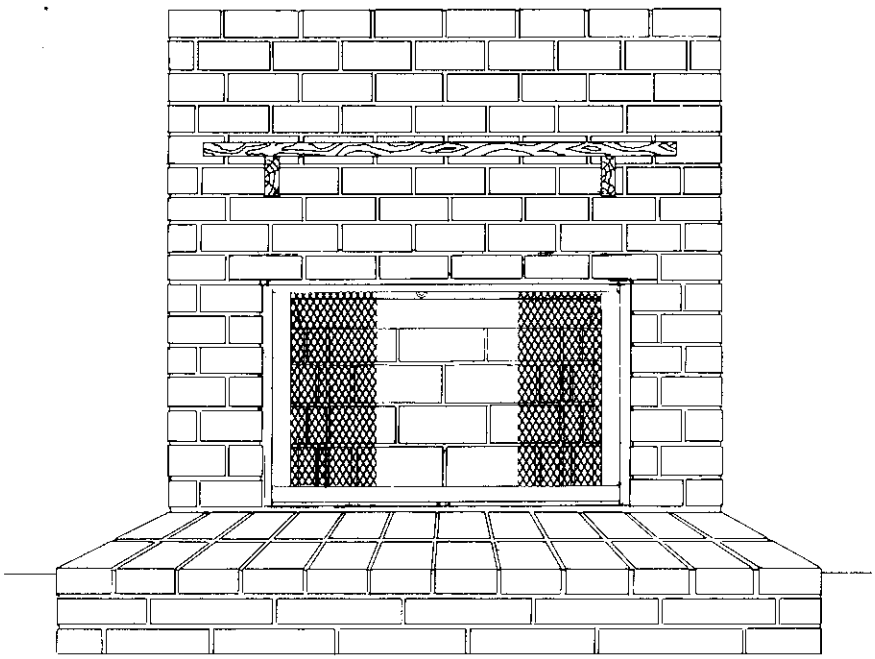


FIG. 35—COMBUSTIBLE FACING

BRICK
PANELING
EXAMPLE

FIREPLACE RAISED ON PLATFORM



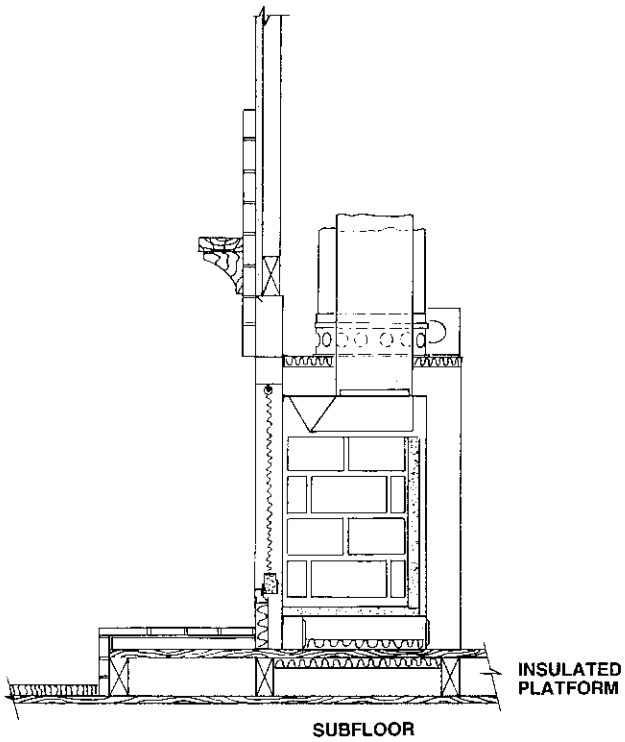
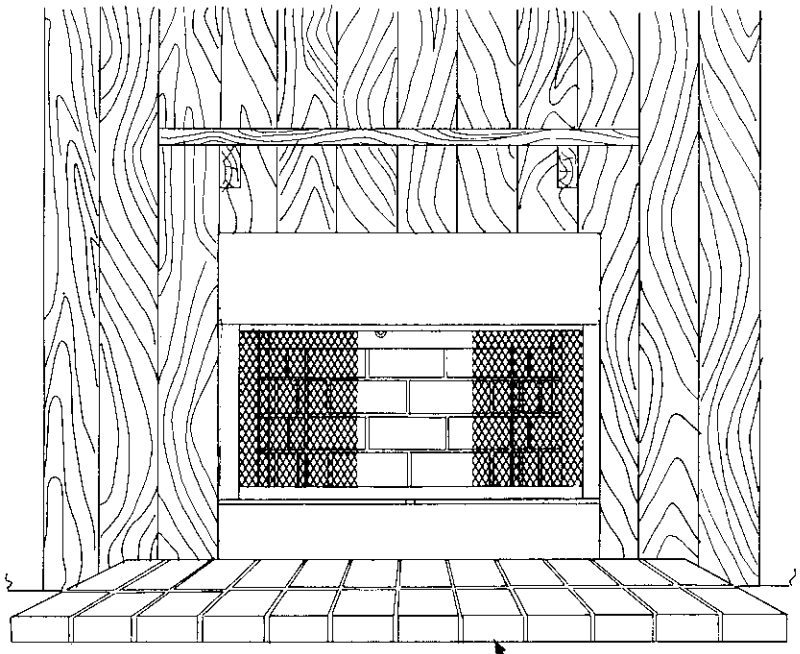


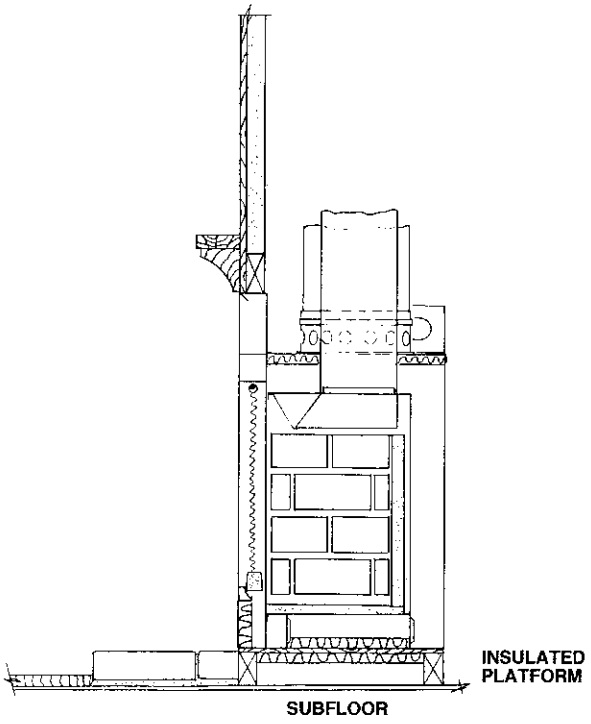
FIG. 36

HEARTH EXTENSION

WOOD
PANELING
EXAMPLE

FIREPLACE FLUSH WITH WALL





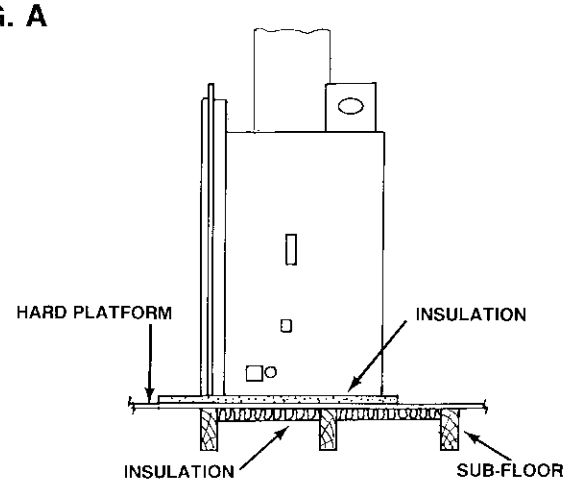
HEARTH EXTENSION

FIG. 37

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.

FIG. A



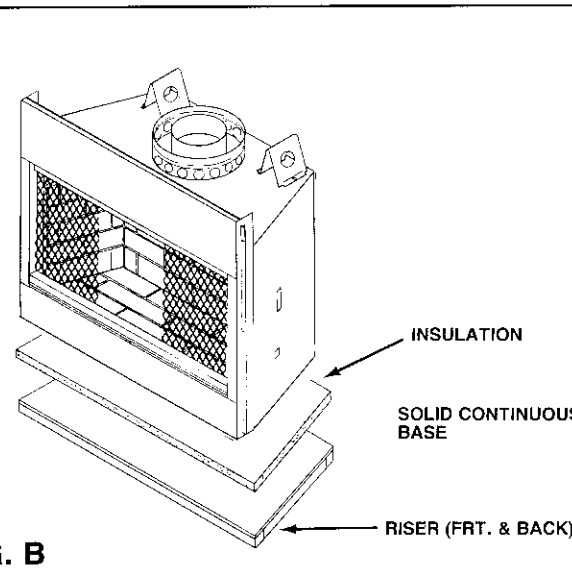
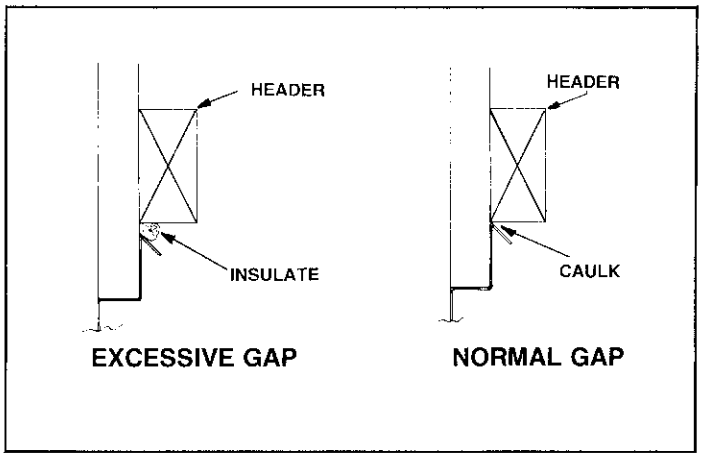


FIG. B

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 Fig. C).



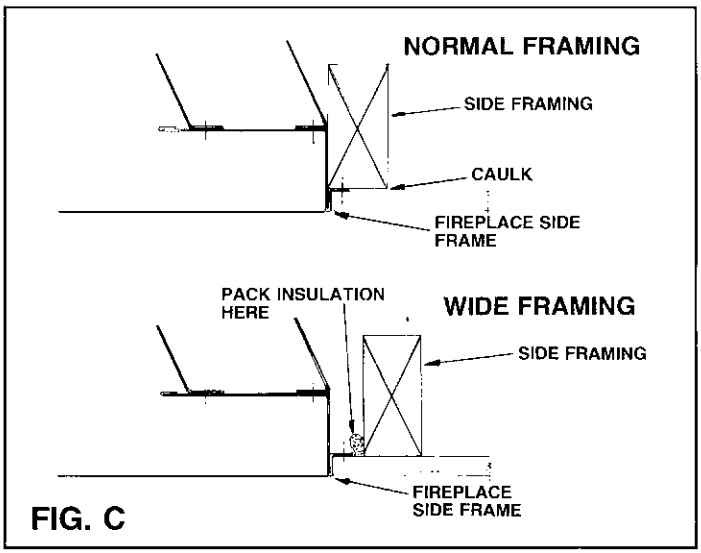


FIG. C

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.

NOTE: In areas of high wind, it is possible for "down draft" to occur through outer cell of double wall chimney. An "Anti-Downdraft Shield" (ADS) has been designed to alleviate this condition.

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 fireplaces 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 bottom vent.
- Do not burn large amounts of waste paper or cardboard in your fireplace.
- Do not burn scrap construction lumber; it produces excessive sparks.
- Do not burn wood products with synthetic binders like artificial logs or plywood, as these produce abnormally high temperatures.
- NEVER USE GASOLINE, KEROSENE, OR LIGHTER FLUID TO LIGHT OR "FRESHEN" A FIRE.
- Never close the damper until you are certain that there are no warm embers.

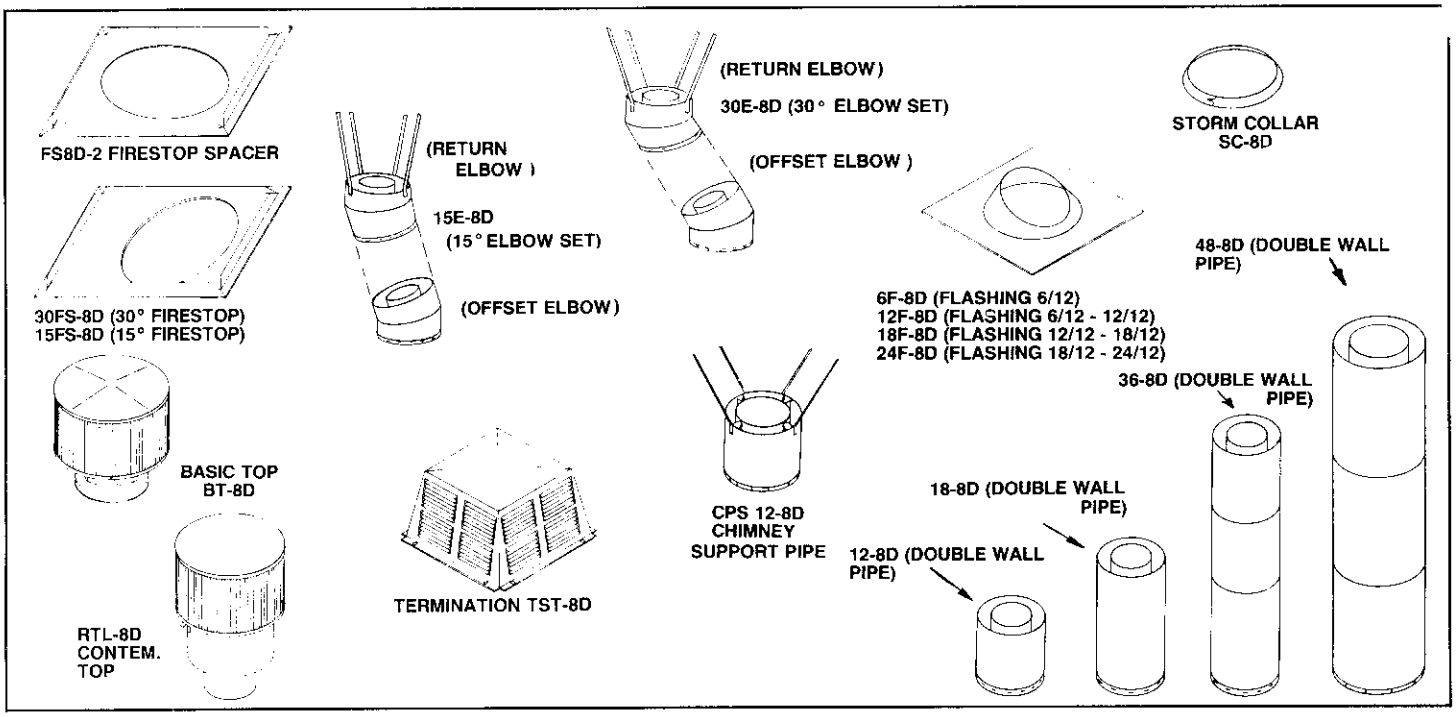
REFERENCE DOCUMENTS:

1. MARCO Woodburning Fireplace Warranty and Operation Manual, P/N 181536.
2. BD-36CF Door Kit Installation Instructions P/N 181635.
3. Basic OAK Outside Air Kit Installation Instructions, P/N 181620.
4. RTL-8D Termination Installation Instructions, P/N 181582.
5. BT-8D Termination Installation Instructions, P/N 181621.
6. Trim Style Termination Instructions, P/N 181583.

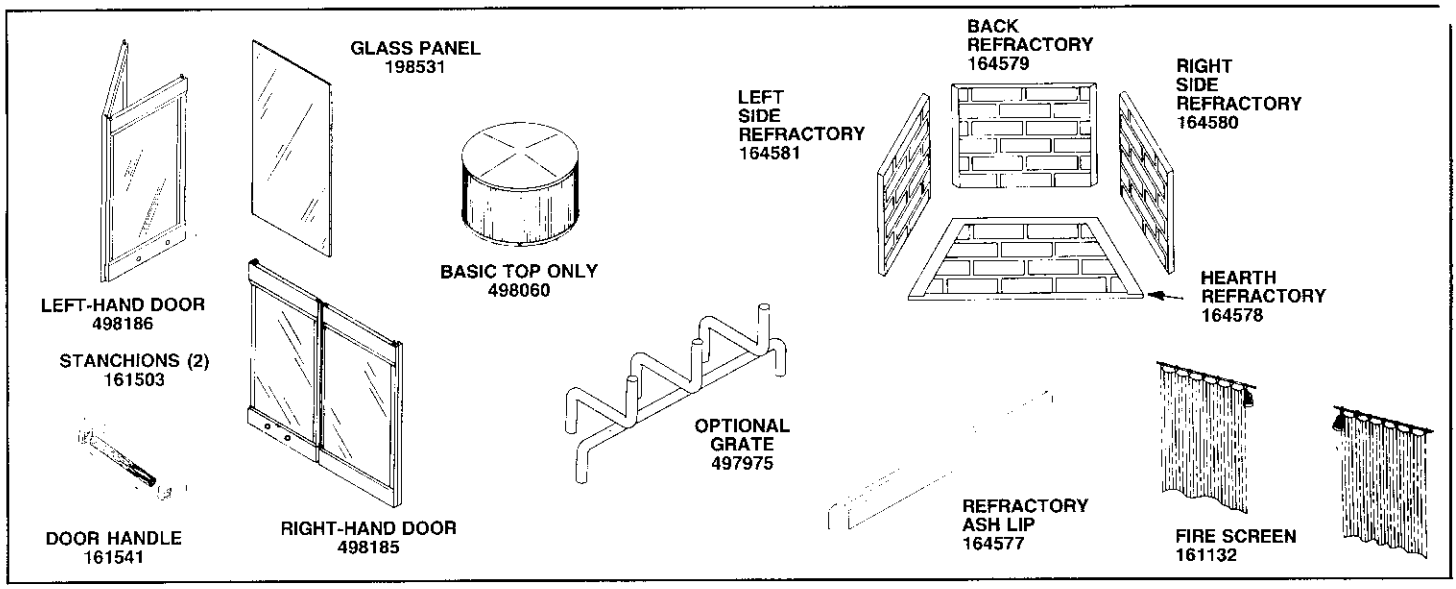
THIS FIREPLACE IS NOT INTENDED TO BE USED WITH ANY COMPONENTS OTHER THAN THOSE SPECIFIED IN THIS MANUAL

COMPONENT PARTS

U.L. LISTED FIREPLACE PARTS LISTED BELOW SHALL BE USED WITH THE DWF-36CF FIREPLACE



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.