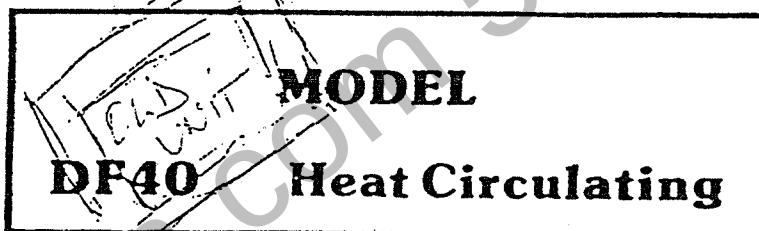


INSTALLING YOUR MARCO WOOD-BURNING FIREPLACE

WITH OUTSIDE COMBUSTION AIR,
HEAT EXCHANGER AND CIRCULATING FANS



CHECK LOCAL CODES PRIOR TO INSTALLATION

This manual provides all the instructions necessary for the builder or home owner to install the Model DF-40 Marco Zero-Clearance Fireplace safely and efficiently. It also provides information on how to order and install repair parts when needed.

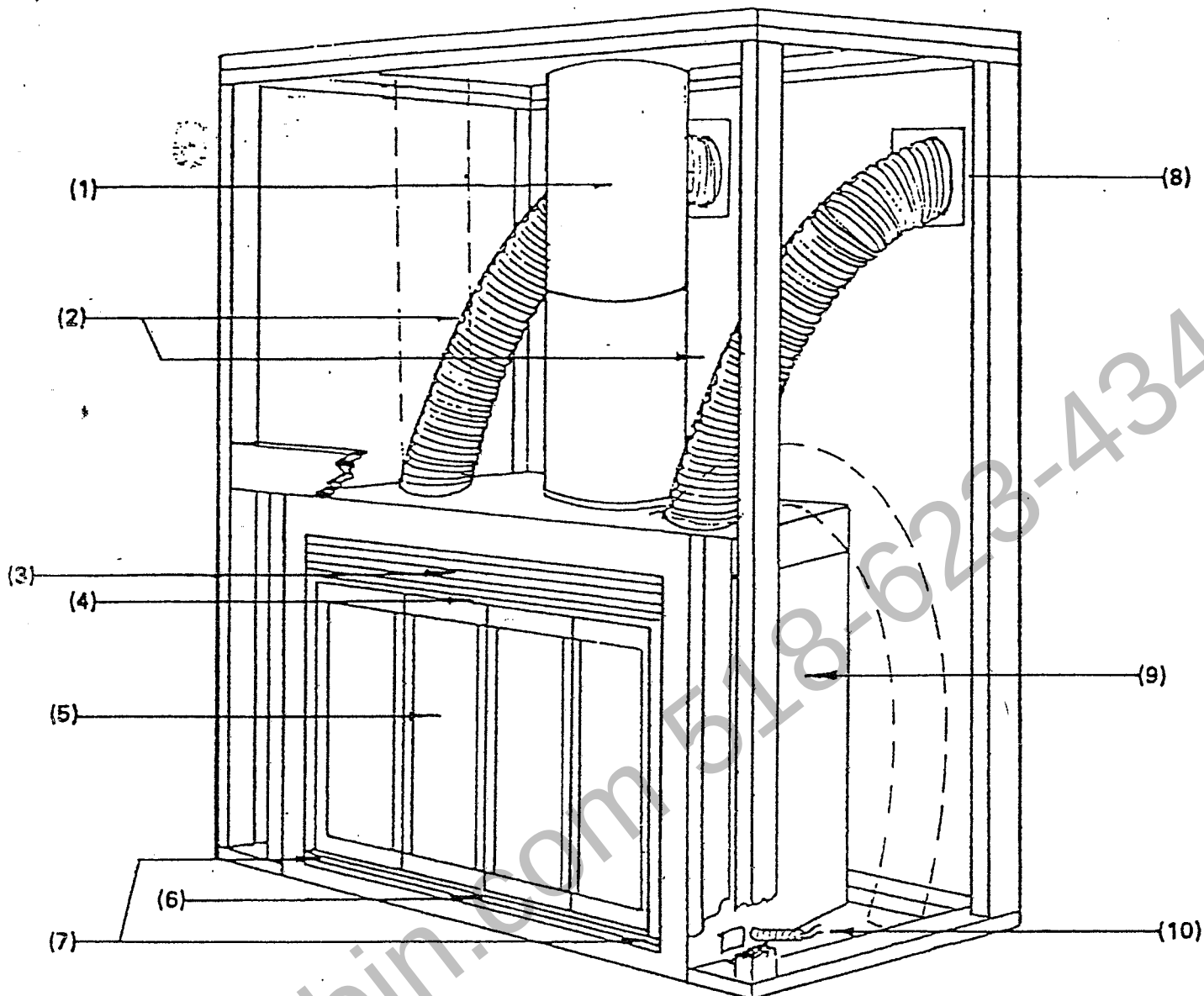


Marco Mfg., Inc. 2520 Industry Way, Lynwood, Ca. 90262(213) 564-3201

This symbol on the product's nameplate means it is listed by UNDERWRITERS' LABORATORIES, INC.



ICBO 2578
BOCA NO. 78-66
SBCC REPORT NO. 7539-76



(1) MARCO FACTORY-BUILT CHIMNEY.

48-10, 36-10, 24-10 and 18-10 lengths. Chimney Clearance is 1" to combustible surfaces.

(2) OUTSIDE COMBUSTION AIR FLEX TUBES.

7" Diameter and 72" length. May be installed 0" to combustible materials. Combustion air tubes may be installed out the back wall, directly into the attic or through the floor into a crawl space.

(3) WARM AIR DISCHARGE GRILLE.

(4) 5 POSITION DAMPER CONTROL.

(5) BI-FOLD GLASS DOORS.

(6) ROOM AIR COOLING AIR GRILLE INLET.

(7) FANS (2) LOCATED BEHIND GRILLE.

(8) COMBUSTION AIR INLET BOX.

(9) DF40 FIREPLACE.

(10) ELECTRICAL HOOKUP FOR FANS.

GENERAL

Remove all parts and check to be sure that your unit is complete and undamaged.

ONE CARTON CONTAINING

Completely assembled fireplace, outside combustion tubes, grills and hardware.

Any other cartons you have ordered to complete your chimney installation.

NOTE: To identify pieces, refer to parts illustration on page 11.

LOCAL CODES

Local building codes should be consulted in all cases as to the particular requirements concerned with the installation of factory-built fireplaces.

IMPORTANT—GROUNDING

Although grounding may not be required by code, it is recommended by the manufacturer. If you live in an area of high risk due to electrical storms, see your local building department for proper grounding procedure.

the front after unplugging the wire jack from the left side bottom of the fan housing.

Damper & Damper Control Rod:

To remove the damper and the damper control rod, it is necessary to remove the upper grille assembly. Both the right and left doors must be opened completely. Detach the door keepers from the lower and upper mounting frame track and swing both door panels to a full open position. Two screws holding the upper grille can then be removed and the grille can be taken out. With the damper in a full open position, the two screws holding the damper blade to the damper rod can be removed. The horizontal pushrods must be disengaged from the pushrod cam located at the front of the damper rod. The damper rod can then be removed from the fireplace by pulling straight out. Reverse this procedure to install new damper blade. Note: Install the two bushings prior to locating the damper rod in the flue collar.

Outside Air Damper Adjustment

The outside combustion air dampers have been adjusted at the factory. The outside air dampers have been designed to prevent outside air from entering the fireplace when the flue damper is completely closed. Should your fireplace not function as stated, the air dampers can be tightened by rotating both horizontal push rods (located behind the upper grille) in a counter clockwise rotation. This will apply more force on the damper blade, to insure a tighter fit.

Glass & Handle Replacement:

Should either the glass or door handles become broken or damaged, both can be replaced rather easily. The glass panels can be inserted between the door frame and the door trip by sliding into place from the open side. The door handles are secured to the door trim. The door trim can be removed by two screws on the back side of the door trim. Replacement parts are available for both the glass and handles.

IMPORTANT CHARCOAL FIRES

A charcoal fire may be built in the grate or fire basket, with the damper in the full open position to allow smoke and fumes to escape. Build fire by using paper, kindling or other conventional charcoal lighting means. CHARCOAL REQUIRES A CONSTANT SUPPLY OF FRESH AIR. Leave glass doors in closed position. Be sure all ashes are cold by testing them before closing damper.

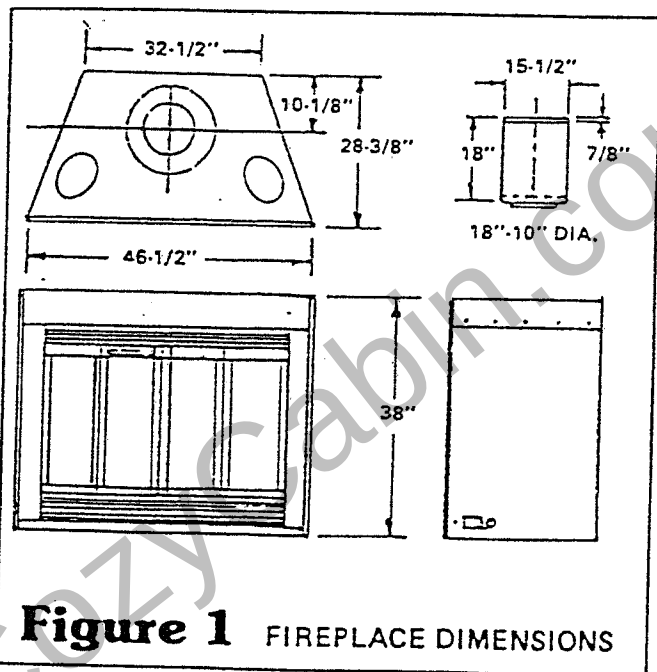


Figure 1 FIREPLACE DIMENSIONS

SERVICING FIREPLACE COMPONENTS

Blower Fans:

Your DF40 Fireplace employs two blower fans located behind each end of the lower air grille inlet. Removing two screws from the lower grille will allow the lower grille to be removed to gain access to both blowers. Should the blowers need service or replacement, unfasten two screws located on top of the fans at each corner. Fans will slip out

HOW TO ORDER YOUR FIREPLACE SYSTEM

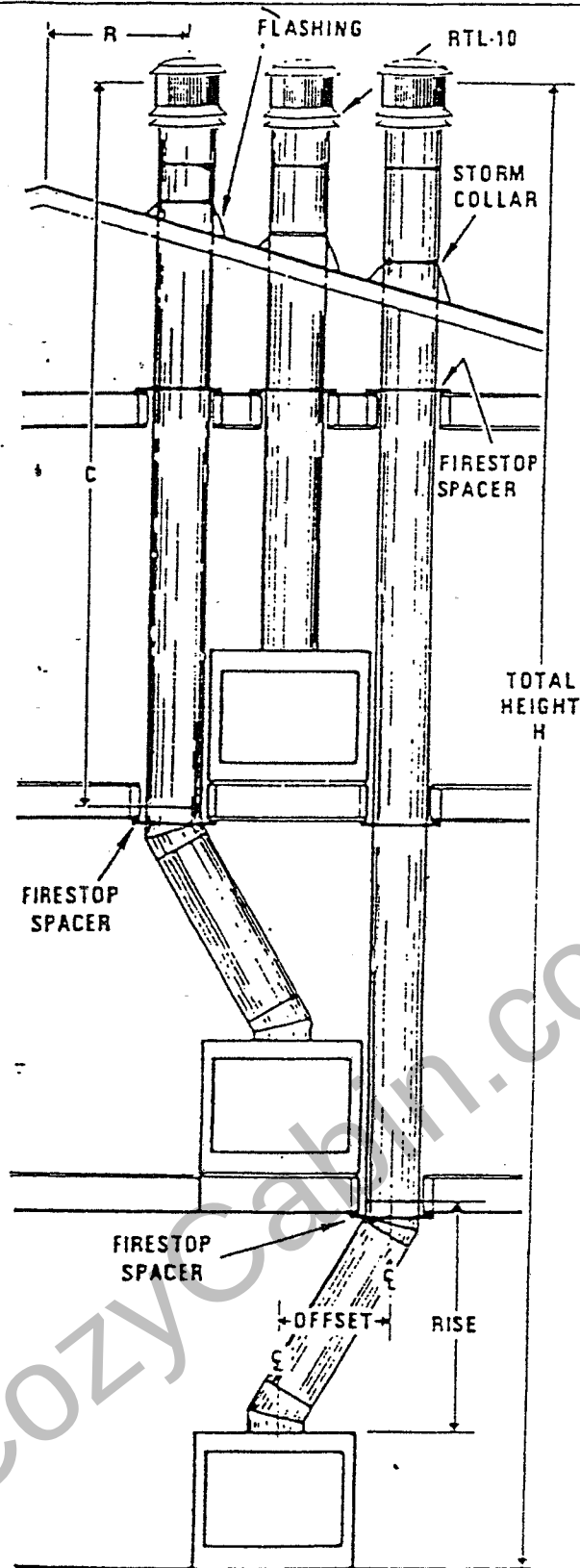


Figure 3 SAMPLE THREE STORY INSTALLATION

HOW TO ORDER:

1. FIGURE TOTAL HEIGHT IN INCHES (DIMENSION H)
If hearth is used subtract hearth ht. from Dim. H
 2. HEIGHT OF FIREPLACE 38"
 3. RISE OF ELBOWS INCLUDING PIPE _____
Use table of offsets (page 9)
 4. HEIGHT OF TERMINATION CAP 22"
 5. TOTAL OF LINES 2 THROUGH 4 _____
 6. SUBTRACT LINES 5 FROM LINE 1 _____
 7. LINE 6 IS DIMENSION C, THE LENGTH OF PIPE NEEDED TO COMPLETE INSTALLATION. See chimney height chart
- | | QUANTITY | TOTAL INCHES |
|---|----------|--------------|
| 8. 18" PIECES OF PIPE | | |
| 9. 24" PIECES OF PIPE | | |
| 10. 36" PIECES OF PIPE | | |
| 11. 48" PIECES OF PIPE | | |
| 12. SUB TOTAL | | |
| 13. TOTAL OF LINES 5 AND 12 SHOULD EQUAL LINE 1 | | |

CHIMNEY HEIGHT CHART (DIMENSION C).

MAXIMUM HEIGHT	18 8	24 8	36 8	48 8	MAXIMUM HEIGHT	18 8	24 8	36 8	48 8
92	0	0	0	2	235	1	0	1	4
97	1	0	1	1	241	0	1	1	4
103	0	0	3	0	247	1	0	0	5
109	1	0	0	2	253	0	1	0	5
115	0	0	2	1	258	1	1	1	4
119	1	1	1	1	265	0	0	1	5
127	0	0	1	2	269	1	1	0	5
131	1	0	2	1	277	0	0	0	6
139	0	0	0	3	281	1	0	1	5
143	1	0	1	2	287	0	1	1	5
149	0	1	1	2	293	1	0	0	6
155	1	0	0	3	299	0	1	0	6
161	0	1	0	3	304	1	1	1	5
165	1	1	1	2	311	0	0	1	6
173	0	0	1	3	315	1	1	0	6
177	1	1	0	3	324	0	0	0	7
185	0	0	0	4	327	1	0	1	6
189	1	0	1	3	333	0	1	1	6
195	0	1	1	3	340	1	0	0	7
201	1	0	0	4	346	0	1	0	7
207	0	1	0	4	358	0	0	1	7
212	1	1	1	3	362	1	1	0	7
219	0	0	1	4	370	0	0	0	8
223	1	1	0	4	386	1	0	0	8
231	0	0	0	5	392	0	1	0	8

LINEAL GAIN CHART (REFER TO PAGE 8 FOR OFFSET CHART).

PART NO.	DESCRIPTION	LINEAL GAIN
DF-40	Fireplace	38"
18-10	Triple Wall Pipe	16 1/2"
24-10	Triple Wall Pipe	22 1/2"
36-10	Triple Wall Pipe	34 1/2"
48-10	Triple Wall Pipe	46 1/2"
RTL-10	Round Top Assembly	12-22"

SELECTING YOUR FIREPLACE LOCATION

The safest and most efficient location for your fireplace should be determined by considering 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, and provides the necessary clearances.

A location that requires cutting the least number of joists or rafters will simplify and reduce installation time. The fireplace may be installed directly on the floor or elevated on a wooden or masonry platform, if desired.

The fireplace may be positioned and then the framing built around it or the framing may be constructed and the fireplace placed into the opening. A metal hearth strip (supplied with fireplace) should be placed 1" under the front of the fireplace, when installed on a combustible floor. Hearth strip will then project 3" under hearth extension and protect

combustible floor at crack between fireplace and hearth extension.

(See Figure 8). The dimensions shown on Page 5 may be used to construct the fireplace opening.

The fireplace may be installed so that face material is flush with, or projecting in front of, the finished wall. In flush installations, the fireplace is recessed back of the finished wall surface by the thickness of the face material. In projecting installations, the fireplace is flush with the finished wall at minimum and facing can project any distance into the room (Figure 5).

Corner Installation

This can be the most economical in rooms where space is at a premium. Because of the slanted sides, the fireplace takes less area of floor space than being projected into the room from a flat wall (See Figures 5 and 6).

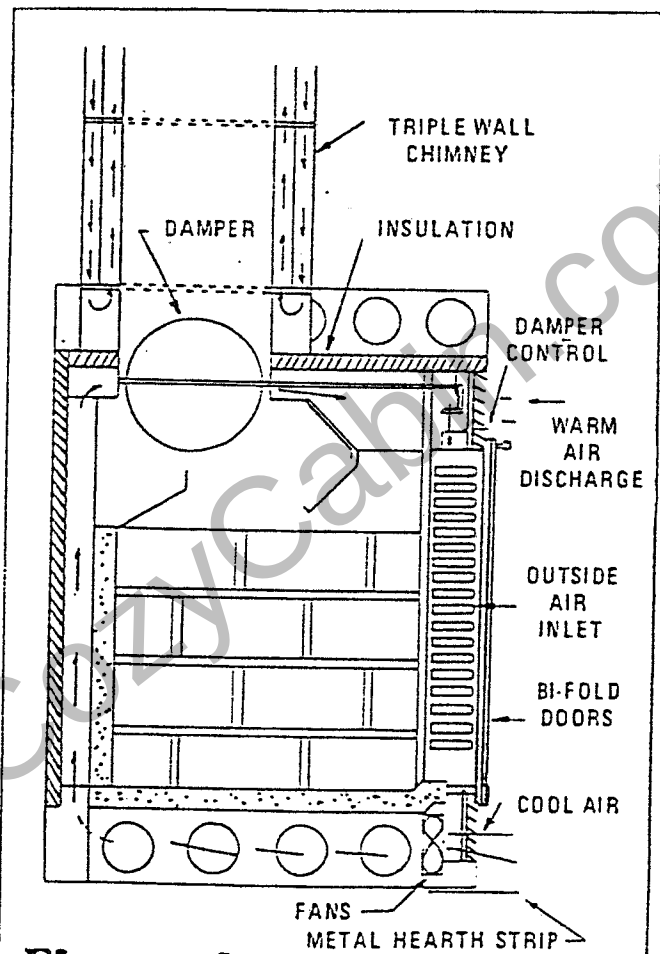


Figure 4 CROSS SECTION

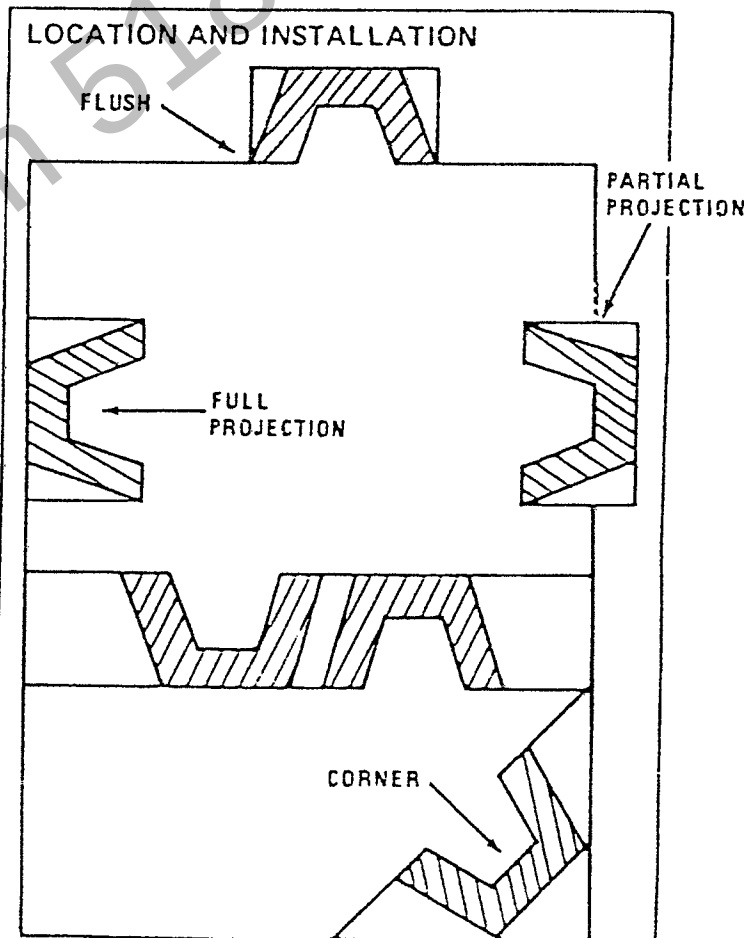


Figure 5

FRAMING INSTRUCTIONS

Framework around the fireplace — flush or projected — can be designed to incorporate book shelves, wood bins, closets, etc. Any mantle must be at least 12 inches from the fireplace opening. Fireplace framing will be governed by the face materials used and by how far above and to each side they will extend.

When a fireplace is installed on a combustible floor, a noncombustible hearth must be built to protect the floor in front of the opening. (See Figure 7 for proper dimensions.)

Clearances

When installed in accordance with these instructions, the basic unit may touch combustible materials at the bottom, sides and back of the unit. Chimney sections are approved for 1" clearance to combustible material.

The fireplace must not be installed closer than 24" to any unprotected combustible wall, perpendicular to the fireplace opening (See Figure 7).

Floor which supports fireplace does not have to be reinforced unless the material used for facing is very heavy: (i.e., Fieldstone — large areas of brick, etc.)

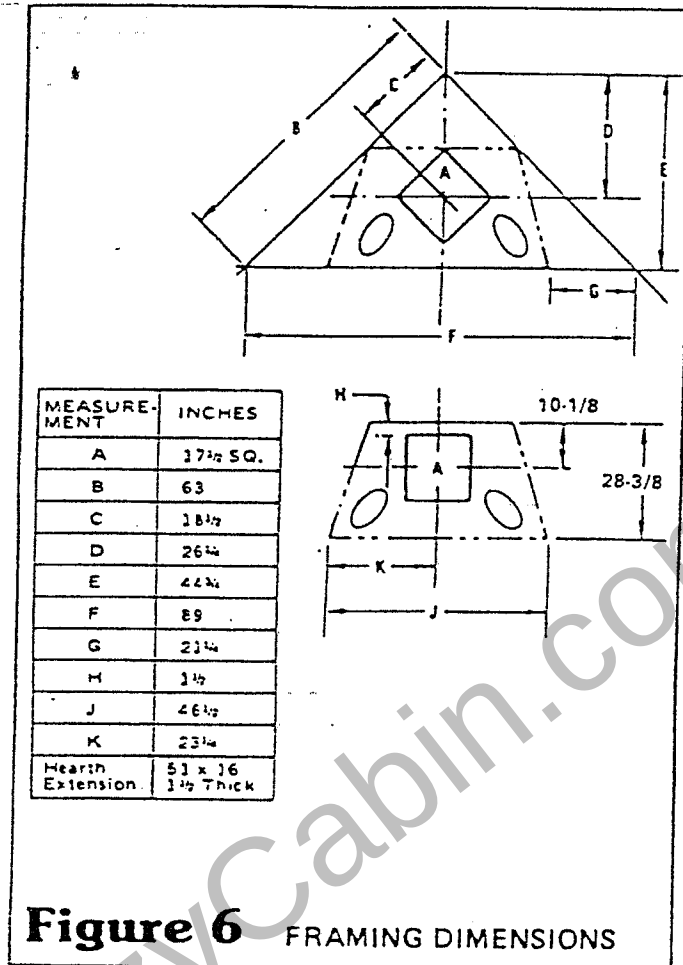


Figure 6 FRAMING DIMENSIONS

Materials used to construct hearth extension on combustible floor must be 1 1/2" thick asbestos mill-board or equivalent.

Decorative materials covering the hearth extension must be totally of non-combustible materials such as brick, marble, slate or tile.

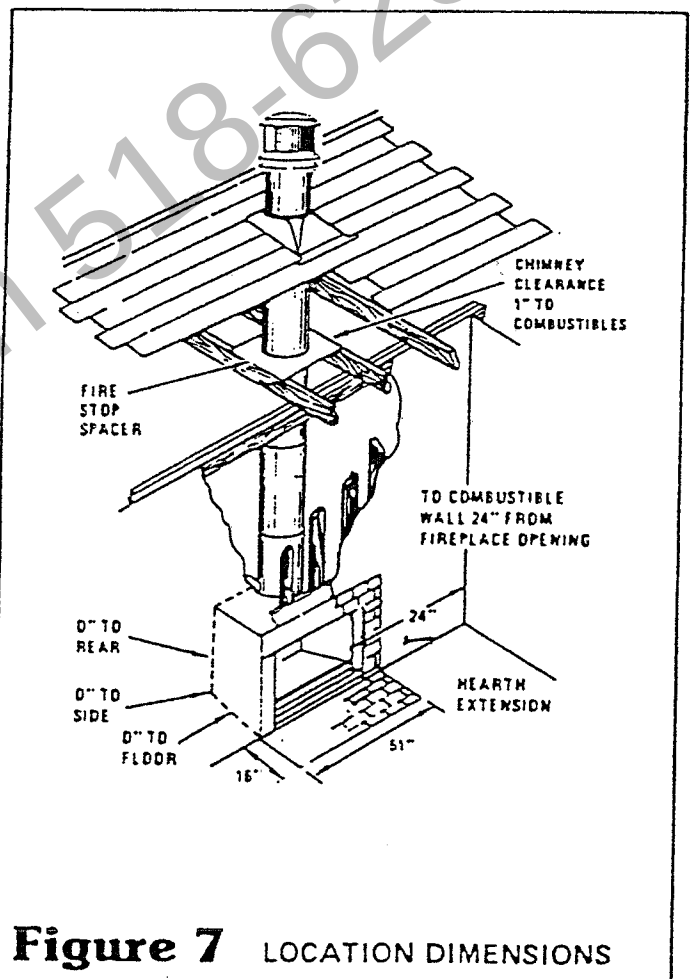


Figure 7 LOCATION DIMENSIONS

Minimum height of the chimney and fireplace may not be less than 13'6" inches to top of cap. The total height of the chimney section may not exceed 40 feet.

INSTALLING YOUR FIREPLACE

Only 16 easy-to-do steps are needed to install your fireplace and contemporary round chimney.

Step 1 Frame cavity (closet) or opening for fireplace at chosen location (Figure 8).

Step 2 Move fireplace into position. Place triple-wall thermal-siphoning pipe on collar and attach it with three screws provided.

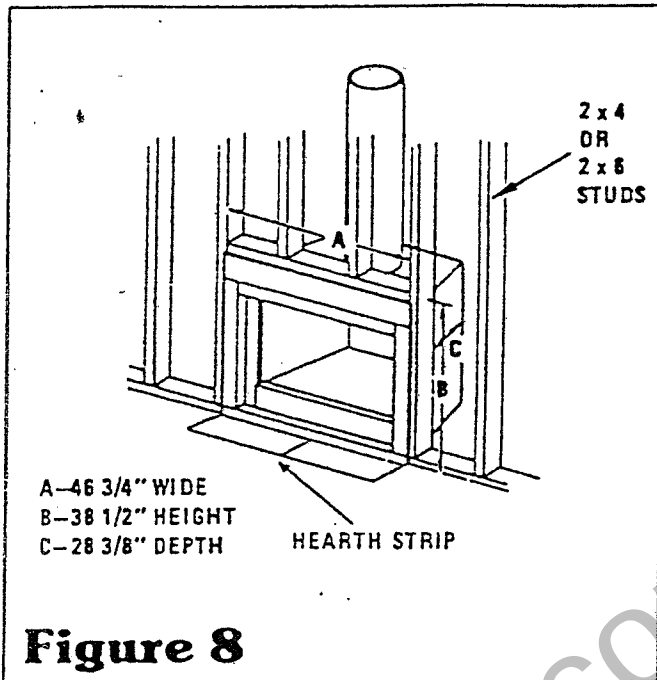


Figure 8

Step 3 Level fireplace and secure fireplace nailing tabs to front framing.

Step 4 Add sections of triple-wall pipe rotating each section until seams are aligned and key and notch are mated. Attach sections together with screws provided.

Step 5 Drill hole through ceiling directly above center of installed pipe. Lay out 17½ inch square opening on ceiling and cut out for flue exit and firestop spacer.

Step 6 If triple-wall pipe goes through framed opening in between floors, install firestop to stabilize chimney. You do this by wrapping firestop around the pipe section and nailing it to bottom of joists or trusses. (Figure 9). When triple-wall pipe goes through framed opening in ceiling to attic space, install firestop spacer on top of ceiling joists (Figure 10).

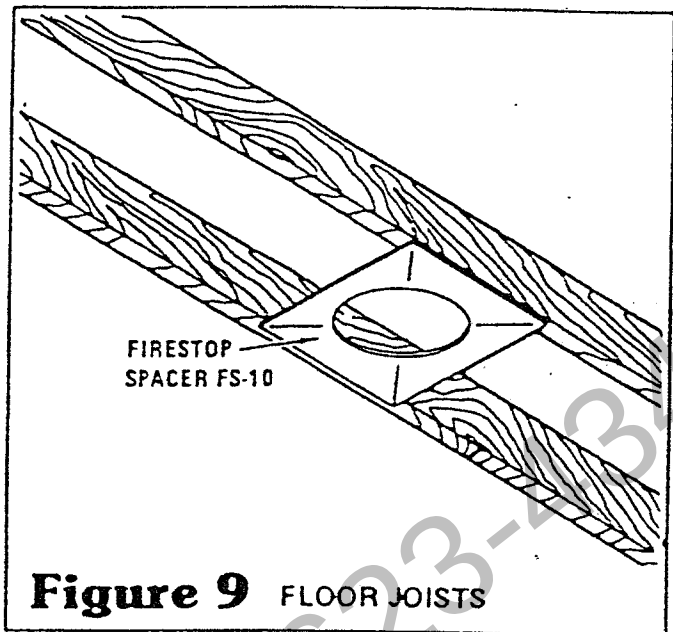


Figure 9 FLOOR JOISTS

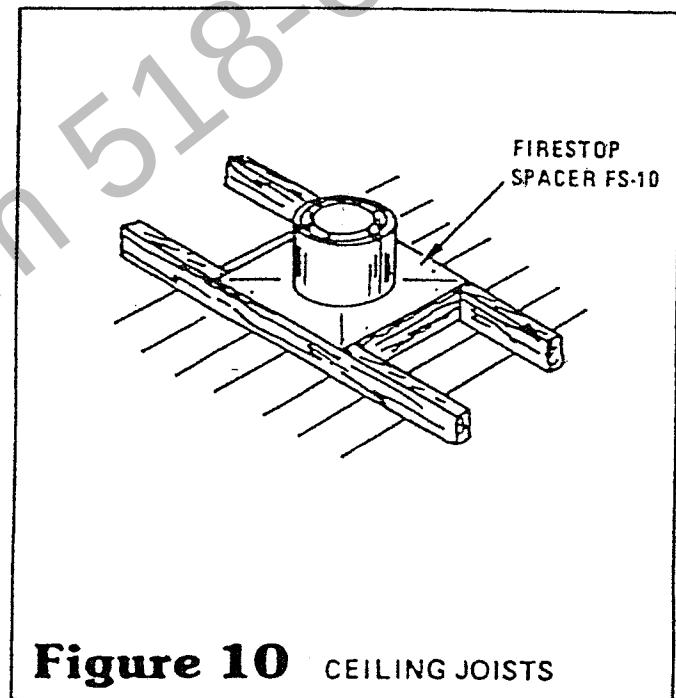


Figure 10 CEILING JOISTS

Step 7 Find location of hole to be cut into roof, using plumb bob or tape measure, and cut out roof opening maintaining 1 inch clearance to chimney. Save shingles for covering flashing. (See Figure 11).

Step 8 Place flashing over cut-out and mark flashing outline on roof. Remove nails from outline area to bottom edge of roof cut-out.

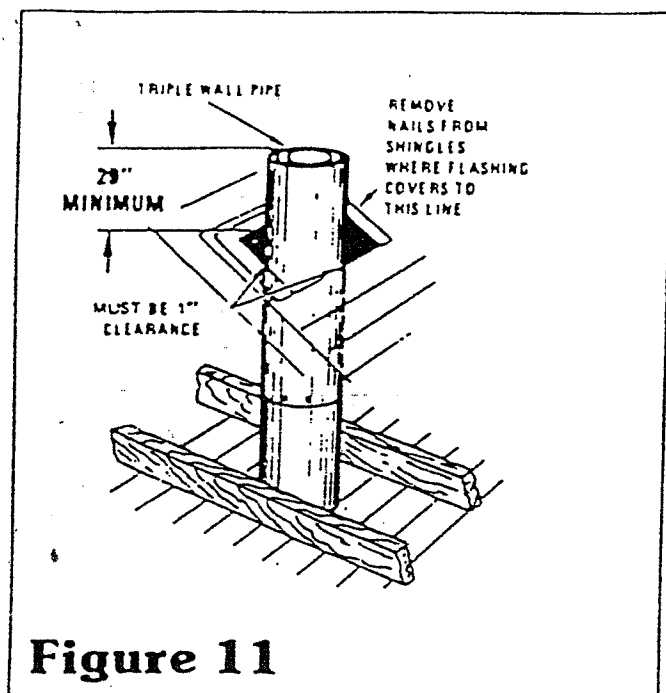


Figure 11

ROOF CUT-OUT TABLE

PITCH	HOLE SIZE
FLAT ROOF	17½" x 17½"
2/12	17½" x 17¼"
3/12	17½" x 18"
4/12	17½" x 18½"
6/12	17½" x 19½"
12/12	17½" x 25"

Step 9 Slide flashing under shingles into position and renail top and side shingles. DO NOT nail through lower flange of flashing. If desirable, cover sides and top of flashing with salvaged shingles (Figure 12).

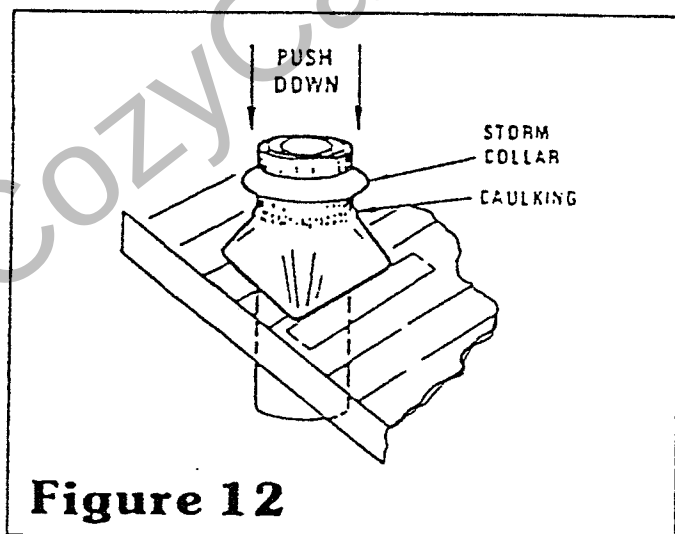


Figure 12

Step 10 Extend chimney by adding sections of triple-wall pipe, as in Step 3, until pipe is a minimum of 18" inches above highest point of roof cut-out (Figure 13). Rain cap and chimney must extend 39 inches above highest point where it passes through roof, and not less than 2 feet above highest point of roof within 10 feet horizontally (Figure 14).

Step 11 Install storm collar on triple-wall pipe. Apply waterproof caulking around flashing where collar will be seated, and push storm collar down securely on sealer and flashing (Figure 12).

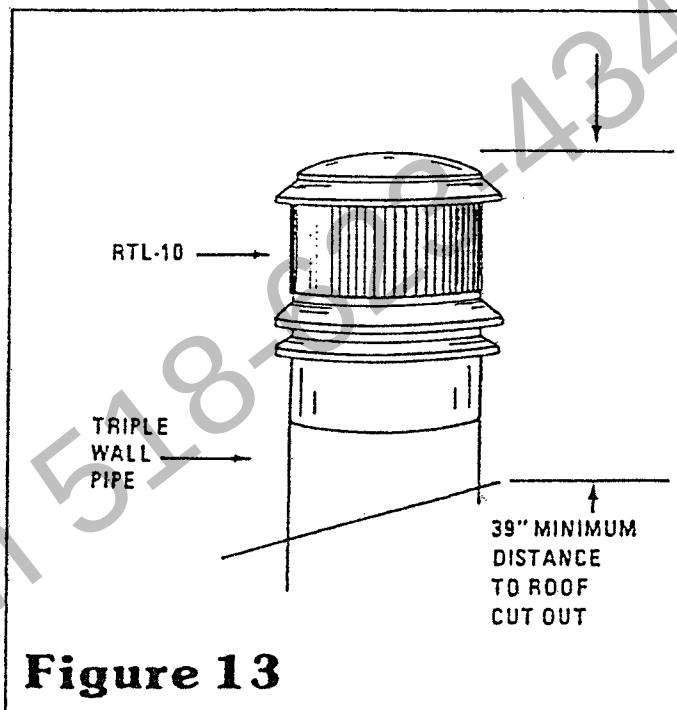


Figure 13

Step 12 Install round top by sliding over outside wall of triple-wall pipe and rotating until holes are lined up. Attach with three screws provided.

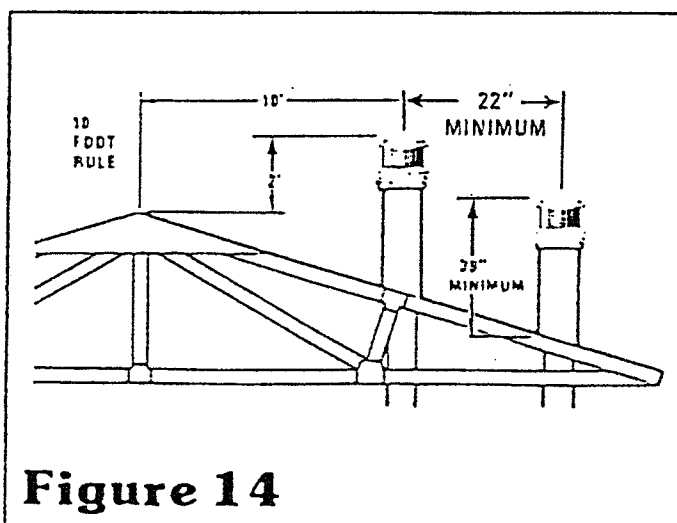


Figure 14

Step 13 Caulk seam notches on all joints above flashing and paint all exposed parts of chimney with galvanized primer paint. A coat of paint to match decor of home may then be applied.

Step 14 Determine desired combustion air inlet locations and cut 14" x 8" hole. Air inlet boxes are designed to fit between studs 16 inches on center.

Step 15 Fasten both ends of the combustion air tubes to the inlet collar on the fireplace and on the collar located on the inlet boxes. (See figure 15 and 16).

Step 16 Make electrical connection for fans. Only qualified person should perform this operation. (See Figure 19A)

Figure 15

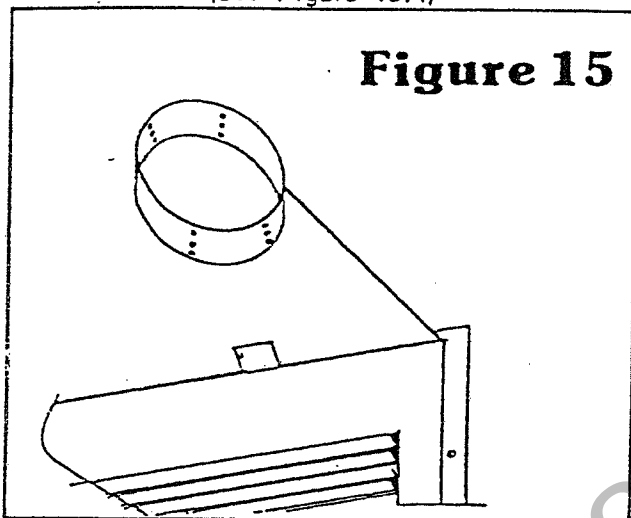
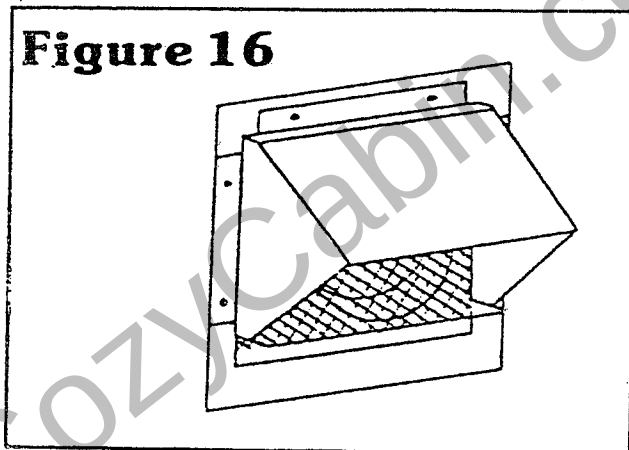


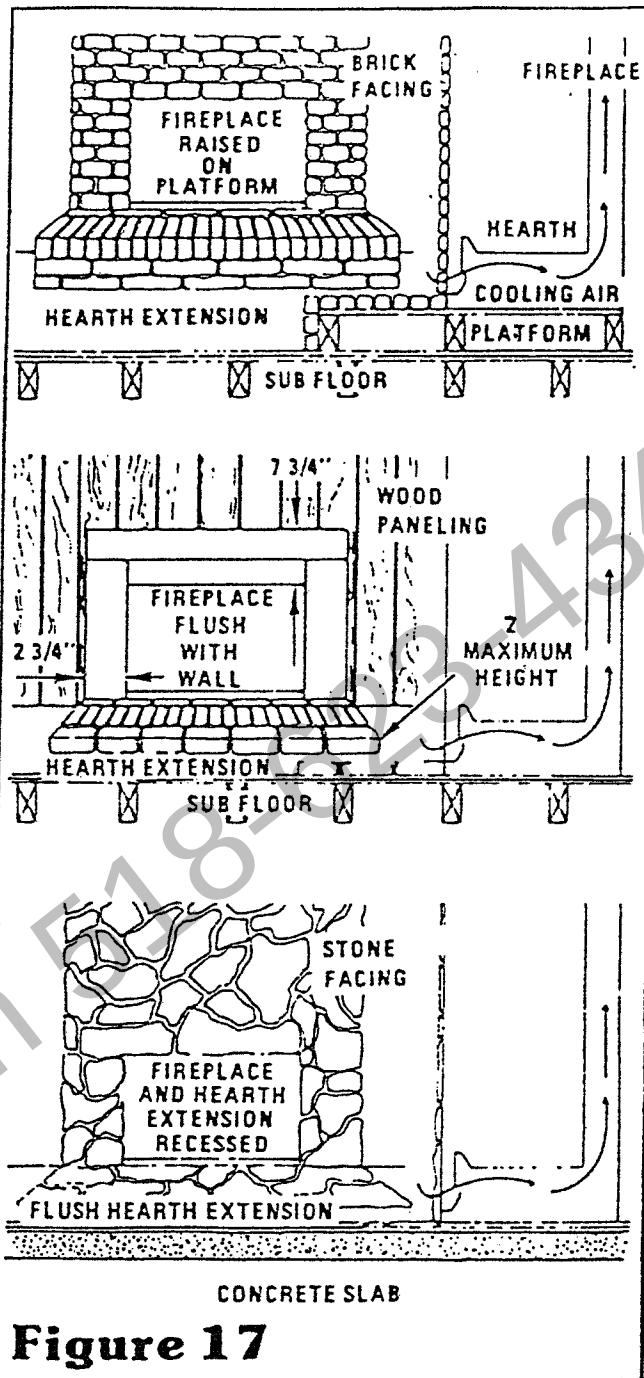
Figure 16



KEEP YOUR FIREPLACE SAFE

NEVER USE GASOLINE OR HIGHLY FLAMMABLE MATERIALS TO START A FIRE!

NEVER TOUCH HOT GLASS OR METAL CONTROL HANDLES WITH UNPROTECTED HANDS. ALWAYS USE PROTECTIVE MITTENS FOR SAFETY.



An easy finish can be obtained by painting the metal frame of the fireplace opening to match the color scheme of the room. If a facing of tile, marble, or glass is desired, it can be attached to the metal frame with a suitable heat-resistant (high-temperature adhesive. If brick is used as a facing, wall ties can be attached to the frame with sheet metal screws to secure the brick.

Noncombustible materials such as glass, marble, brick, tile, stone, etc., can be applied up to the opening of the fireplace. Combustible materials such as paneling may be used, observing the proper clearances. Combustible materials must not be closer than 2 1/4 inches to the side of the opening and 7 1/2 inches to the top of the opening.

NOTE: Do not block circulating air inlet or exhaust grills.

INSTRUCTIONS WHEN OFFSET OF CHIMNEY IS NEEDED

To Install Elbows

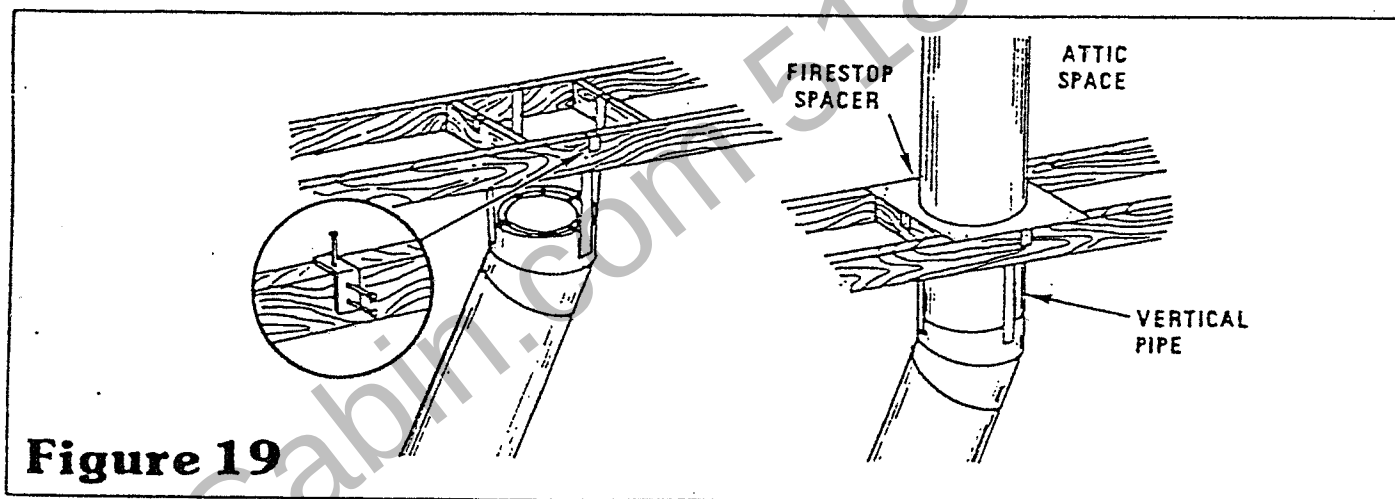
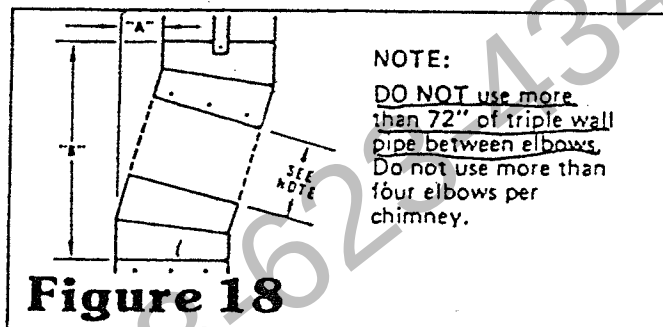
1. Place elbow (without straps) on verticle triple-wall pipe, pointed in the direction offset is required. Turn slightly until screw holes align and attach with three screws provided.
2. To achieve desired offset, you may install 18", 24", 36", or 48" lengths of triple-wall pipe between the elbows to a maximum length of 72 inches. (See Figure 18).

IMPORTANT: Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists. Three 8-penny nails in each strap is recommended as shown. (See Figure 19).

Horizontal and Vertical Dimensions

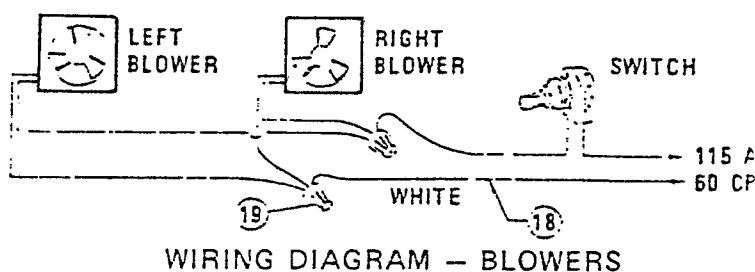
Two Elbows, with Triple Wall Pipe 10"

NUMBER AND LENGTH OF TRIPLE WALL PIPE				TWO 10" DIA. 30° ELBOWS		TWO 10" DIA. 15° ELBOWS	
18"	24"	36"	48"	OVERALL OFFSET "A"	OVERALL HEIGHT "B"	A	B
—	—	—	—	5	17	2	14
1	—	—	—	13	31	6	30
—	1	—	—	16	36	8	36
—	—	1	—	22	47	11	47
1	1	—	—	24	50	12	51
—	—	—	1	28	57	14	59
1	—	1	—	30	61	15	63
—	1	1	—	33	66	16	69
1	—	—	1	36	71	18	75
—	—	2	—	39	76	19	80



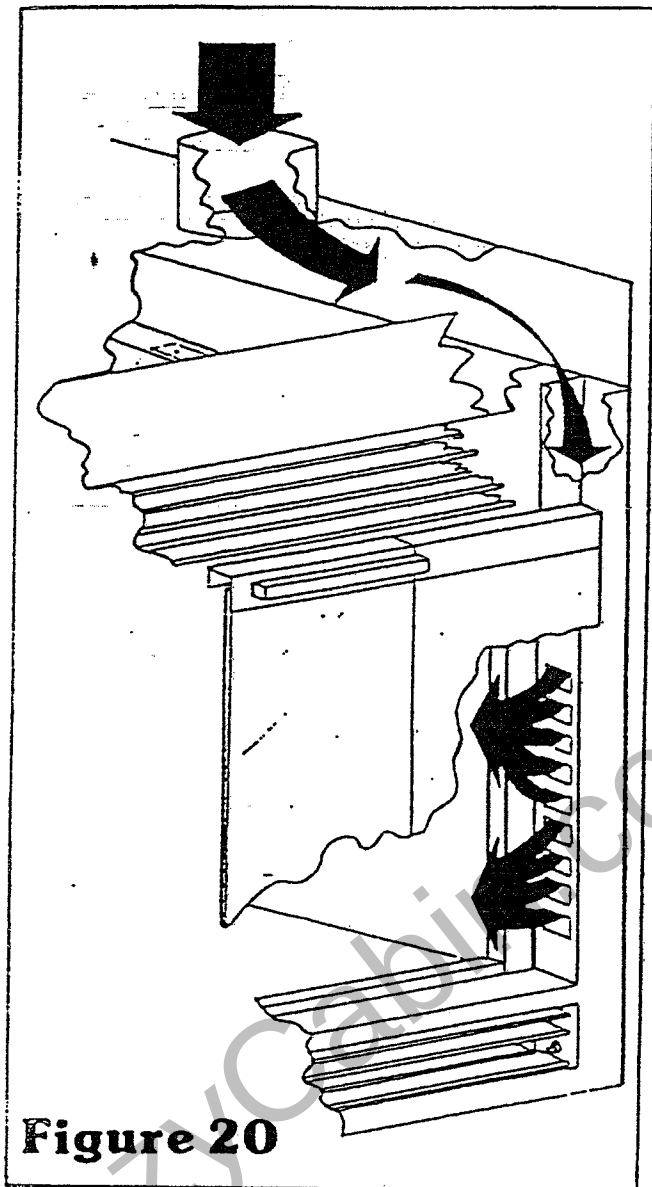
Access to Electrical Junction Box:

1. Remove Lower Grille (Two Screws).
 2. Remove Right Hand Fan Motor (Two Screws).
 3. Remove J Box Inspection Door (1 Screw).
- Replace all Components by Reversing Above Procedure.



OPERATION OF YOUR MARCO DF40 FIREPLACE

Your Marco DF40 Heat Circulating Fireplace is designed for the beauty of an open hearth with maximum heat efficiency. When desired, the glass doors may be left in the closed position, allowing the outside combustion air to enter the combustion chamber (See Figure 20).

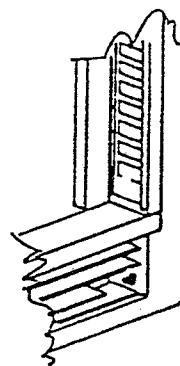


The outside combustion air supply damper is tied to and controlled by the flue damper control. When the flue damper is completely closed, the outside combustion air is completely shut off. When the flue damper is fully open, the maximum volume of outside air is available for combustion. The fire can be regulated by adjusting the flue damper control.



Marco Mfg., Inc. 2520 Industry Way, Lynwood, Ca. 90262 (213) 564-3201

Figure 21



Open flue damper to full open by moving control lever (above glass door) to extreme right hand adjustment. Do not damper down until fire has fully started.

Your Marco DF40 comes equipped with dual whisper fans that are manually controlled by an on/off switch located on the lower right hand corner (See Figure 21). The fans need not be on when the fireplace is in use. Their function is to increase air flow in the circulating system and internal heat exchanger.

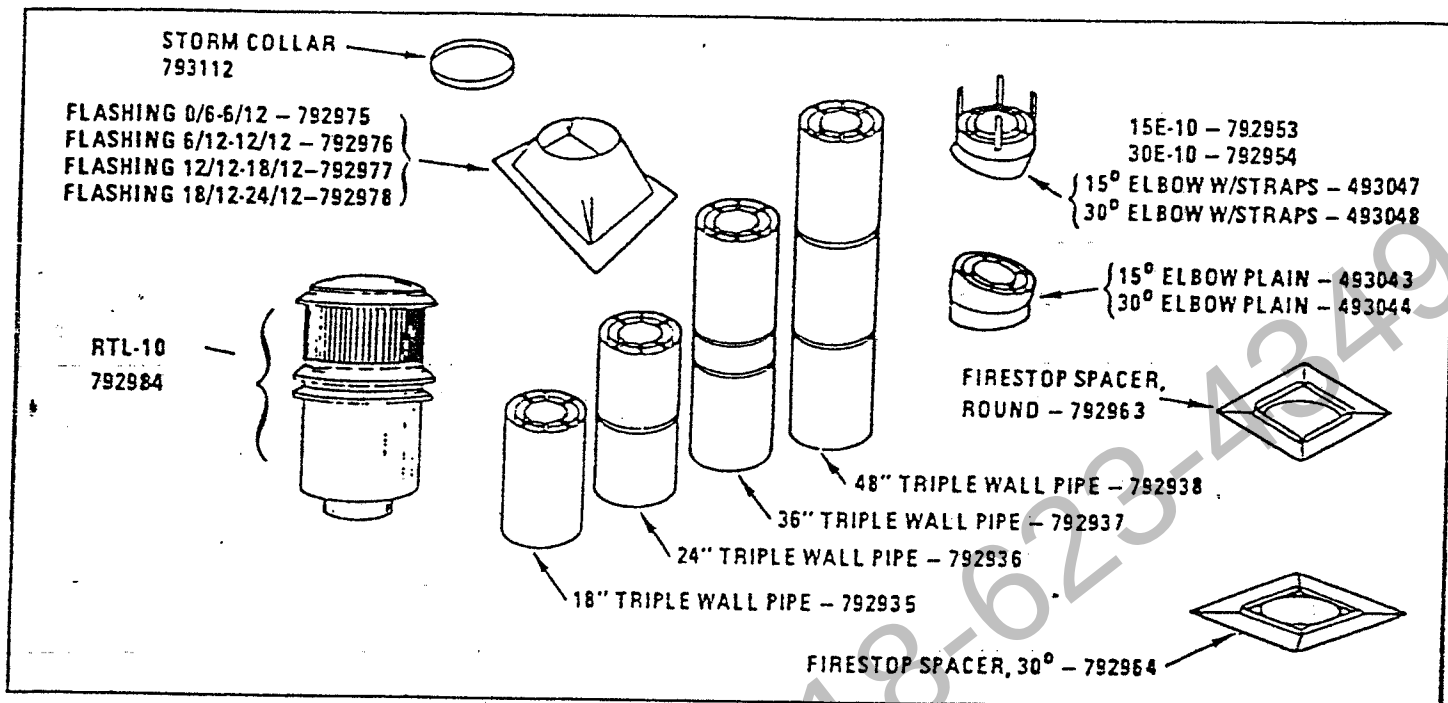
NOTE: To build a beautiful fire, follow your warranty manual.

SAFETY AND MAINTENANCE TIPS:

1. When the doors are in a closed position, the screen assembly should also be closed. Should the doors be kept open while the fire is burning, the screen assembly should be left in a fully closed position.
2. When fuel is to be added, open doors one at a time slowly to prevent flames from moving towards the front.
3. When stoking fire, open doors to maximum to avoid chipping glass with poker.
4. To extinguish fire, keep doors closed. When fire is completely out, flue damper may be closed. During cold weather, the damper should be closed when fireplace is not in use. This will prevent back draft.
5. Use WD-40 brand oil or equal to keep glass door tract, hinges and combustion air gates in good condition for smooth operation. Never oil fan switch or fans.
6. Glass doors may be cleaned with any good household glass cleaner. Never attempt to clean hot glass.
7. See your dealer for Marco black touch up paint to keep your fireplace beautiful.

Component Parts

Only labeled parts listed below shall be used with the DF40 Model Fireplace.



PARTS REPLACEMENT

How to Order Repair Parts

1. Order repair parts from the Dealer through whom you purchased the chimney, if possible.
2. Parts orders must be made out in accordance with the Parts List and Parts Pictures.
3. Be sure to give the Part Number, the Name of the Part and the Fireplace Model Number. The Model Number is on the inside right hand side of the fireplace.
4. When remittances are sent with the order, include enough for transportation.
5. There is a minimum invoice charge of \$10.00 plus postage for each order. To avoid this charge the parts ordered should total that amount or more.
6. All parts prices are subject to change without notice.

