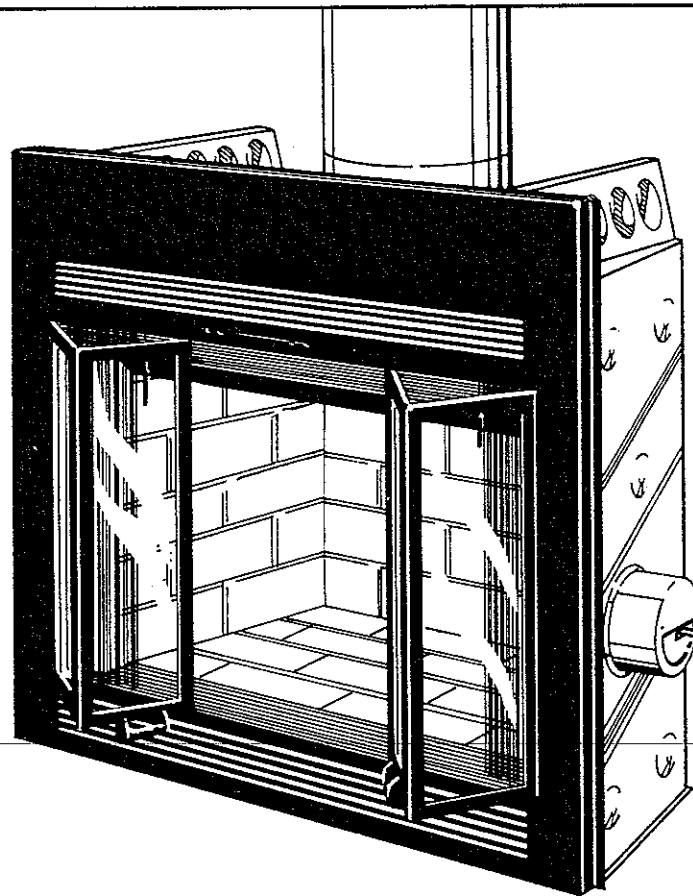


# INSTALLATION MANUAL AND WARRANTY

# TEMCO®



## The Energy Consaver Fireplace

MODEL TEC36-1  
MODEL TEC36-1AD

**Tem  
Tex**  
PRODUCTS

TEMTEX PRODUCTS, INC.  
P O BOX 1184 • NASHVILLE, TENNESSEE 37202  
TELEPHONE (615) 297-7551  
P O BOX 1148 • FERRIS, CALIFORNIA 92370  
TELEPHONE (714) 657-7311  
A SUBSIDIARY OF TEMTEX INDUSTRIES INC.

# CONTENTS

	Page No.
The Energy Conserver .....	2
Component Check List .....	3
Basic Rules .....	4
Grounding The Fireplace .....	4
Maximum and Minimum Heights .....	4
Choosing The Location For Your Fireplace .....	5
Fireplace Dimensions .....	6
Firebox and Chimney System Clearances .....	6-8
Planning Ahead .....	7
Framing In and Setting Firebox .....	9-10-11-12
Tools Required .....	10
Chimney Enclosures .....	12
Framing Ceiling and Roof Openings .....	13 14
Installing Firestop Spacer .....	14
Installing Chimney Flue Sections .....	15
Flue Support .....	15
Lineal Gain Chart .....	15
10 Foot Rule .....	16
Rules Governing Offset Installation .....	17
Firestop Spacer .....	14 17
To Install Elbows .....	18
Lineal Gain Offset Table .....	18
Installing Flashing .....	19
Installing Storm Collar .....	19
Installing the 802R Termination .....	20
Chase Installations .....	21
Installing a Gas Line .....	22
Finishing Your Fireplace .....	23-24
Using Your Fireplace—Some Do's & Don't's .....	25-26
Wood Fires and Wood Density Chart .....	27
OPTIONAL OUTSIDE AIR KIT .....	28
OPTIONAL GLASS DOOR PACKAGE .....	28
Replacement Parts List .....	29
Accessory Parts List .....	30
Warranty .....	back cover

# THE ENERGY CONSERVER

The TEMCO **ENERGY CONSERVER** has been carefully engineered to produce a fireplace that will be both a beautiful and practical addition to your home. This factory-built fireplace has the advantage of being laboratory and field tested by our engineers for performance and safety. In addition, it has been tested and listed by Underwriters Laboratories—a highly regarded independent testing agency that provides the insurance industry with product safety information.

The compact design of this fireplace allows it to be installed in a corner, on a wall, or as a room divider with minimal use of floor space. It is ideal for use in living rooms, family rooms, bedrooms and dens. The fireplace installation may be attractively finished by covering the wall with brick, stone, paneling or wallboard. The brick embossed refractory lining of the firebox creates the look of an all-masonry fireplace.

Best of all, the heat circulating feature of **THE ENERGY CONSERVER** was designed with today's rising fuel costs in mind. Cold air is drawn off the floor of the room and circulated around the firebox. Warm air is directed back into the room through the louvers in the top of the fireplace front. Glass doors (Model GD36-1) and Combustion air kit (AIR-1) may be installed to further add to the energy efficiency of this fireplace. **The glass doors may only be installed if the combustion air kit has already been installed on the fireplace.** If your fireplace was installed by your homebuilder, check to see whether the combustion air kit was installed by looking inside the fireplace behind the screens for the damper controls. The presence of these controls indicates that the combustion air kit has been installed. Only TEMCO Model GD36-1 glass doors may be installed with **THE ENERGY CONSERVER** fireplace (TEC36-1). These accessories are available from your local TEMCO dealer.

This book contains your installation instructions and warranty information and should be kept in a safe place. It will be a handy reference guide to operating your fireplace after installation. For you to realize all the advantages and use of the reliable service that has been engineered into your TEMCO fireplace, you must carefully follow all of the instructions contained in this book regarding installation and operation of the fireplace. **These instructions should be read carefully in their entirety before beginning installation of the fireplace.**

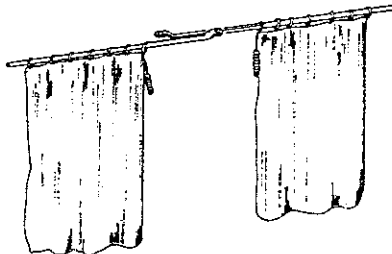
It is suggested that you wear work gloves and safety glasses to protect your hands and eyes when installing your fireplace.

# COMPONENT CHECK LIST

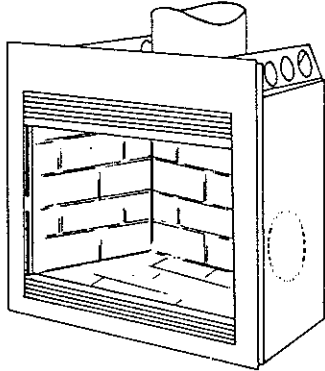
It is important that you check your fireplace for damage or shortages as soon as it is delivered. The shipping list will list all of the parts contained in the carton. Refer to the parts illustration below to identify individual parts.

As you locate each part, place a check mark in the box next to the drawing of the part below. Some of these parts are small and may be concealed by packing material. Do not throw away the packing material until you are sure you have located all of the items.

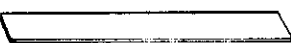
The model number and serial number of your fireplace are on a nameplate located in the upper front corner of the firebox. This information will be helpful in the event that you have to order replacement parts.



FIRESCREEN



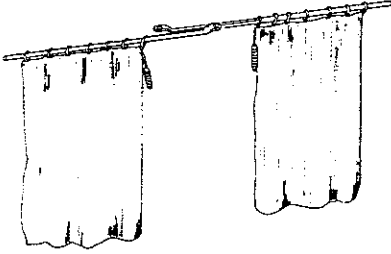
TEC36-1



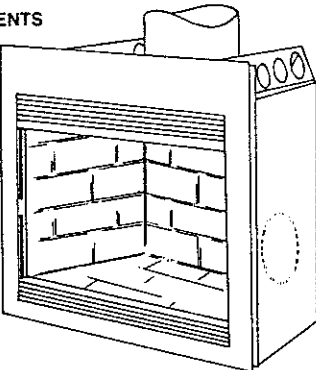
HEARTH SAFETY STRIP

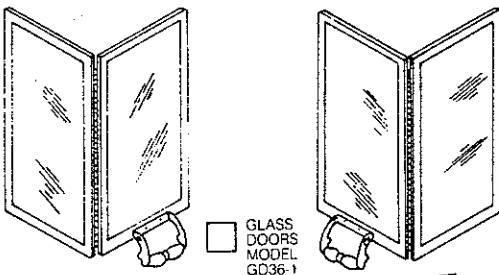
---

TEC36-1AD COMPONENTS

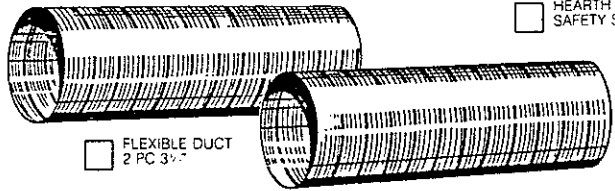


FIRESCREEN

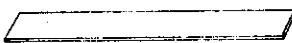




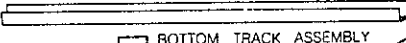
GLASS DOORS MODEL GD36-1



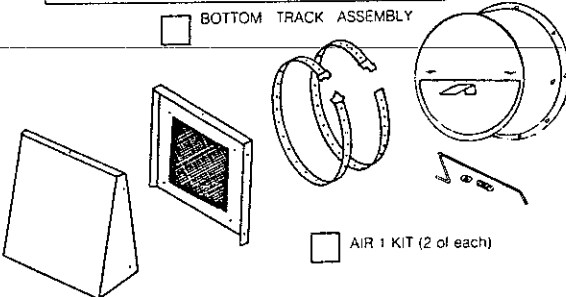
FLEXIBLE DUCT 2 PC 3 1/2"



HEARTH SAFETY STRIP




BOTTOM TRACK ASSEMBLY




AIR KIT (2 of each)

---

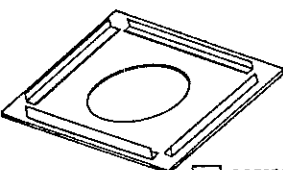
OTHER COMPONENTS REQUIRED TO COMPLETE INSTALLATION



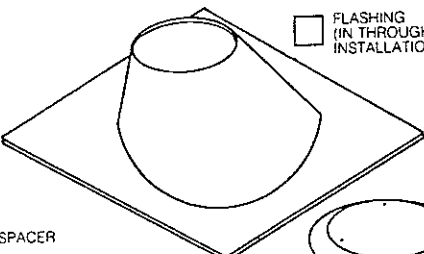
CHIMNEY SECTIONS



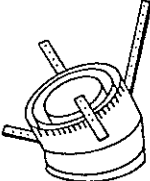
HEARTH EXTENSION



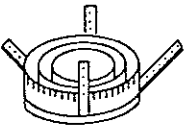
FIRESTOP SPACER



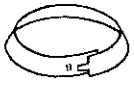
FLASHING (IN THROUGH THE ROOF INSTALLATION)




ELBOWS (MAY NOT BE REQUIRED)



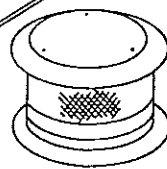
FLUE SUPPORT MODEL 804S



STORM COLLAR (PART OF 802R)



TERMINATION ADAPTER (PART OF 802R)



ROUND TERMINATION MODEL 802R

3

# BEFORE YOU BEGIN . . . .

## A FEW BASIC RULES

The instructions on the following pages were designed to make the installation of your TEMCO fireplace as quick and easy as possible. It is very important that they be followed exactly. This fireplace should be installed by a skilled craftsman.

The rules listed below will help you in planning your fireplace installation:

1. Use only TEMCO manufactured components when installing a TEMCO firebox. **Substituting another manufacturer's components for or altering TEMCO parts will void the U. L. Listing and TEMCO warranty.**
2. Check local building codes.
3. The fireplace design permits installation and framing adjacent to combustible materials. Do not set firebox on vinyl flooring or carpets. Combustible material may not be placed on the black face surrounding the firebox.
4. All chimney components require an absolute minimum of 1" clearance to all combustibles.
5. A firestop spacer is required at each ceiling level.
6. The minimum distance from the firebox edge to an adjacent wall without a wall shield is 24".
7. Required hearth extension measures 16" d. x 46" w. x 1½" h.
8. System height:
  - 12' minimum height
  - 13' minimum height with 2 elbows
  - 40' maximum height
  - Adhere to 10 foot rule—See page 16.
9. Chimney supports:
  - flue support required every 35' of vertical system height
  - flue support required every 6' of offset chimney
  - guywire stabilizers required for chimney extending more than 6' above roof line.
10. Two 30° Elbows maximum per system. They may be installed on top of the unit or back to back.
11. Maximum distance between elbows without support is 6'. Maximum run of inclined chimney is 20'.
12. **GLASS DOORS (GD36-1) MAY BE INSTALLED ONLY WHEN COMBUSTION AIR KIT (AIR-1) IS ALSO INSTALLED.**
13. Barometric dampers on combustion air kit allow air to be drawn from above, below or behind the firebox. Refer to AIR-1 installation manual for complete installation and use information.
14. **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. Check your local building code for proper grounding procedure.
15. **READ THIS COMPLETE MANUAL BEFORE BEGINNING THE INSTALLATION OF YOUR FIREPLACE. IT WILL SAVE YOU TIME AND EFFORT IF YOU UNDERSTAND THE COMPLETE PROCEDURE BEFORE BEGINNING.**

# PLANNING AHEAD

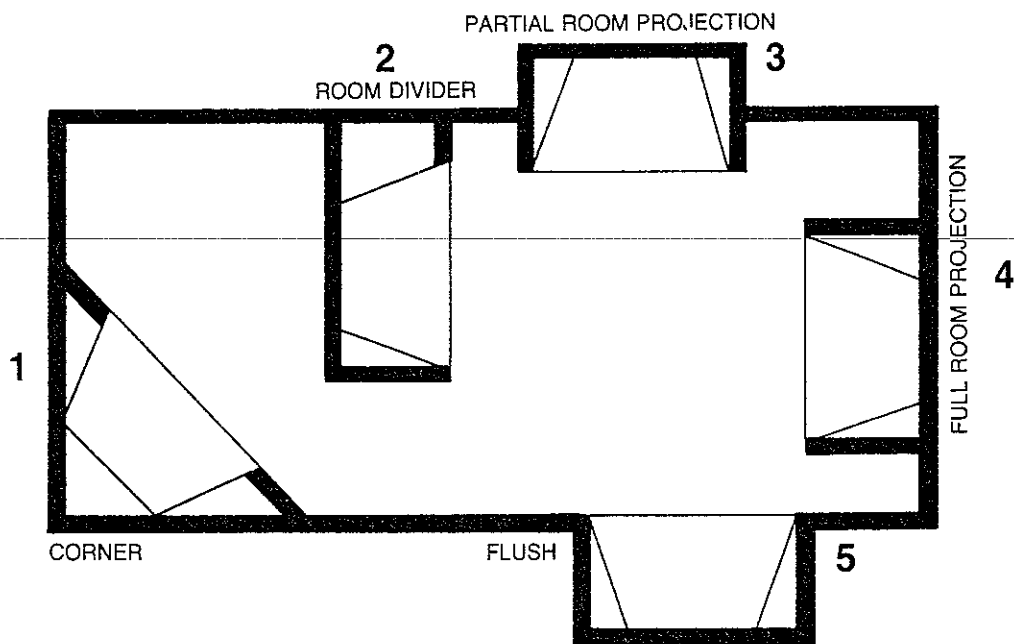
## CHOOSING THE LOCATION FOR YOUR FIREPLACE:

FIGURE 1 shows some of the many ways for your fireplace may be installed. Consider the traffic pattern in your room and the location of doors and windows. A corner location may be best where space is limited.

Your fireplace weighs no more than some of your fine furniture. If the fireplace is located near a load bearing wall, additional supports to the foundation will not be necessary. **HEAVY FACING SUCH AS MARBLE, BRICK, TILE, STONE, ETC., MAY REQUIRE ADDITIONAL FOUNDATION SUPPORT.**

**ALTHOUGH THIS UNIT MAY BE INSTALLED OVER COMBUSTIBLE SURFACES IT IS NOT RECOMMENDED FOR INSTALLATION ON CARPET OR VINYL.**

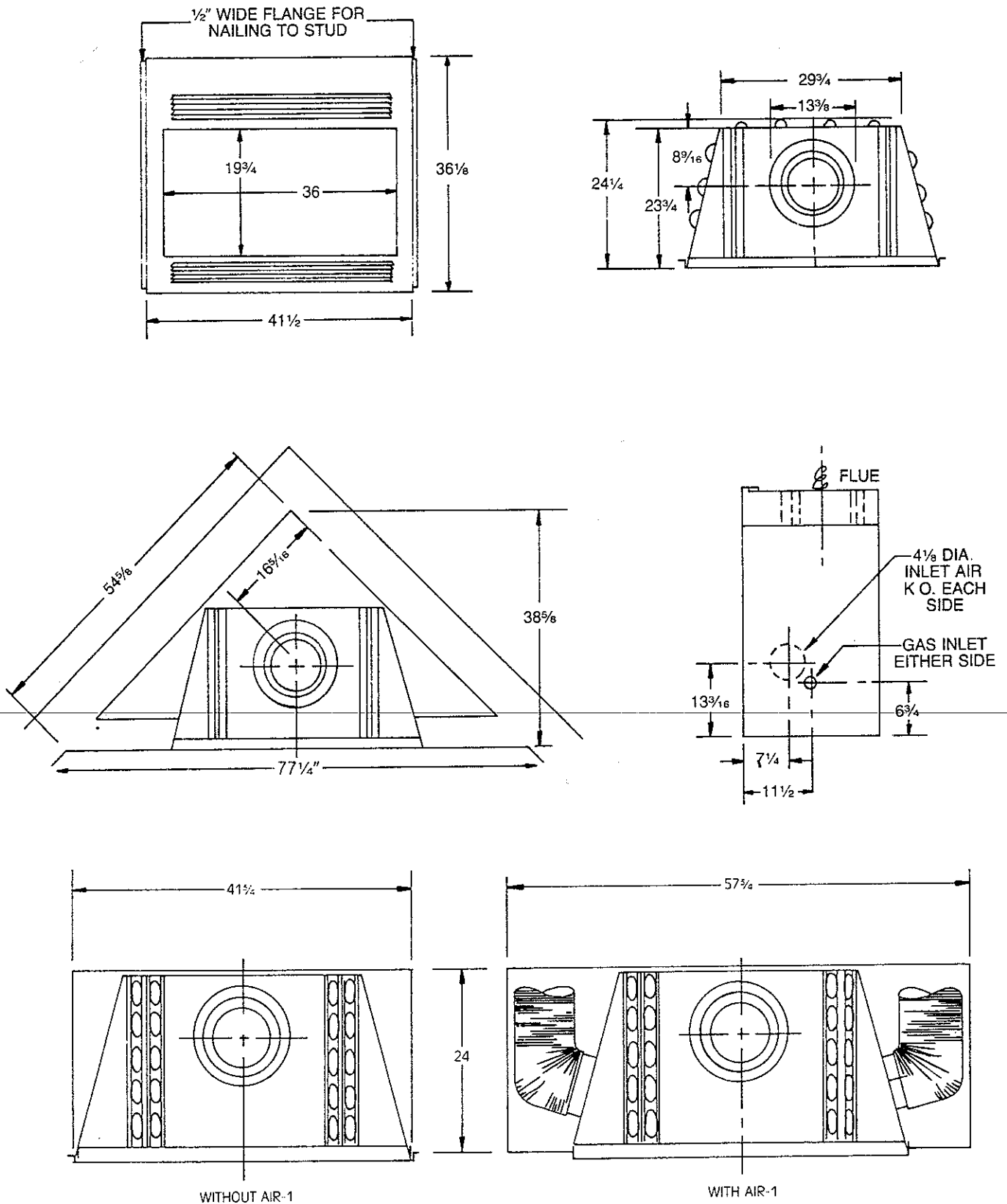
FIGURE 1



# PLANNING AHEAD

FIGURE 2 GIVES BASIC DIMENSIONS WHICH WILL AID YOU IN CHOOSING THE LOCATION FOR YOUR FIREPLACE.

FIGURE 2



# PLANNING AHEAD

## OUTSIDE AIR KIT AND GLASS DOOR ACCESSORIES

The combustion air kit accessory can only be installed at the time that your fireplace is installed. If you plan to install the glass door accessory, you must first install the combustion air kit. To simplify installation of the combustion air kit, the firebox is best installed on an outside wall.

## GAS LOG OR GAS LIGHTER

If you plan to install a gas log or gas lighter, the gas line must be installed before framing in the fireplace. **The gas line must be installed by a licensed gas line installer.** See FIGURE 24 on page 22.

## DRAFTS

The location for the fireplace should be away from objects that will create drafts and possibly hamper the normal flow of air into the fire. Such objects are frequently opened doors and central heat air outlets and inlets.

## LOCATING AREA WHERE FLUE PIPE WILL PASS THROUGH CEILING AND ROOF

It is very important that you determine where the flue (chimney) will go through the ceiling and roof. Check the structure of your home to see that the location you have chosen will make installation as easy as possible. Start by using a plumb bob. Hold the string from the ceiling and drop the plumb bob, moving the string until the plumb bob is in the center of the flue collar opening. See FIGURE 3. Mark the spot on the ceiling. You may wish to drive a nail through the ceiling at this spot. Then go into the attic and find the nail. Using the plumb bob (with the ceiling nail being the center point of the flue) to mark the center of the area on the roof through which the flue will pass. The purpose of doing this is to see if it is possible to cut your opening for the flue in both the ceiling and roof without cutting either roof rafters or ceiling joists. A location that requires cutting the least number of joists and rafters will simplify the installation and reduce the cost. See illustrations below.

## CHIMNEY OUTLET

Thought should be given to the proposed location of the chimney outlet on the roof. Objects such as trees, adjacent buildings or embankments that are too close to the chimney can create air circulation problems during windy weather that could affect the way the fireplace draws air.

After careful consideration, choose the location for your **ENERGY CONSERVER** Fireplace to achieve the simplest installation for maximum efficiency.

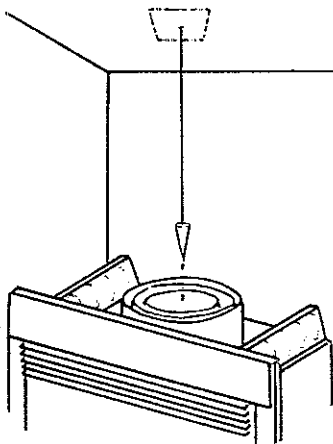


FIGURE 3

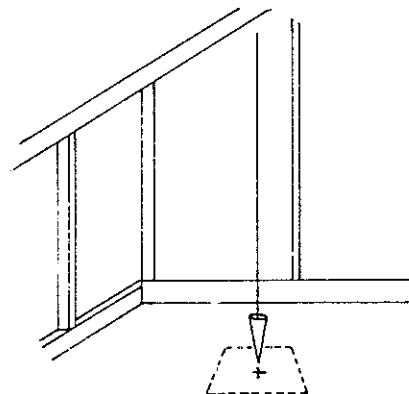


FIGURE 3A



## FIREBOX AND CHIMNEY SYSTEM CLEARANCES:

The fireplace may be placed directly on a combustible floor, against a combustible wall or on a raised wooden platform

If the fireplace is to be installed on a raised platform, the platform must be a continuous level surface.

The fireplace must be secured in place so it cannot shift positions. The nailing flanges on the sides of the firebox make securing the firebox to the frame quick and easy. The nailing flanges were designed to allow the installation of ½" wallboard or plywood flush with the face of the fireplace

Combustible materials may not cover any part of the black metal surrounding the firebox opening. See FIGURE 4 on page 9 and FIGURES 25-27 on page 23

Framing may be placed directly against the side and back clearance standoffs on the fireplace. Standoffs are the small pie plate shaped projections on the sides and back of the firebox

Do not install the firebox over vinyl floors or carpet

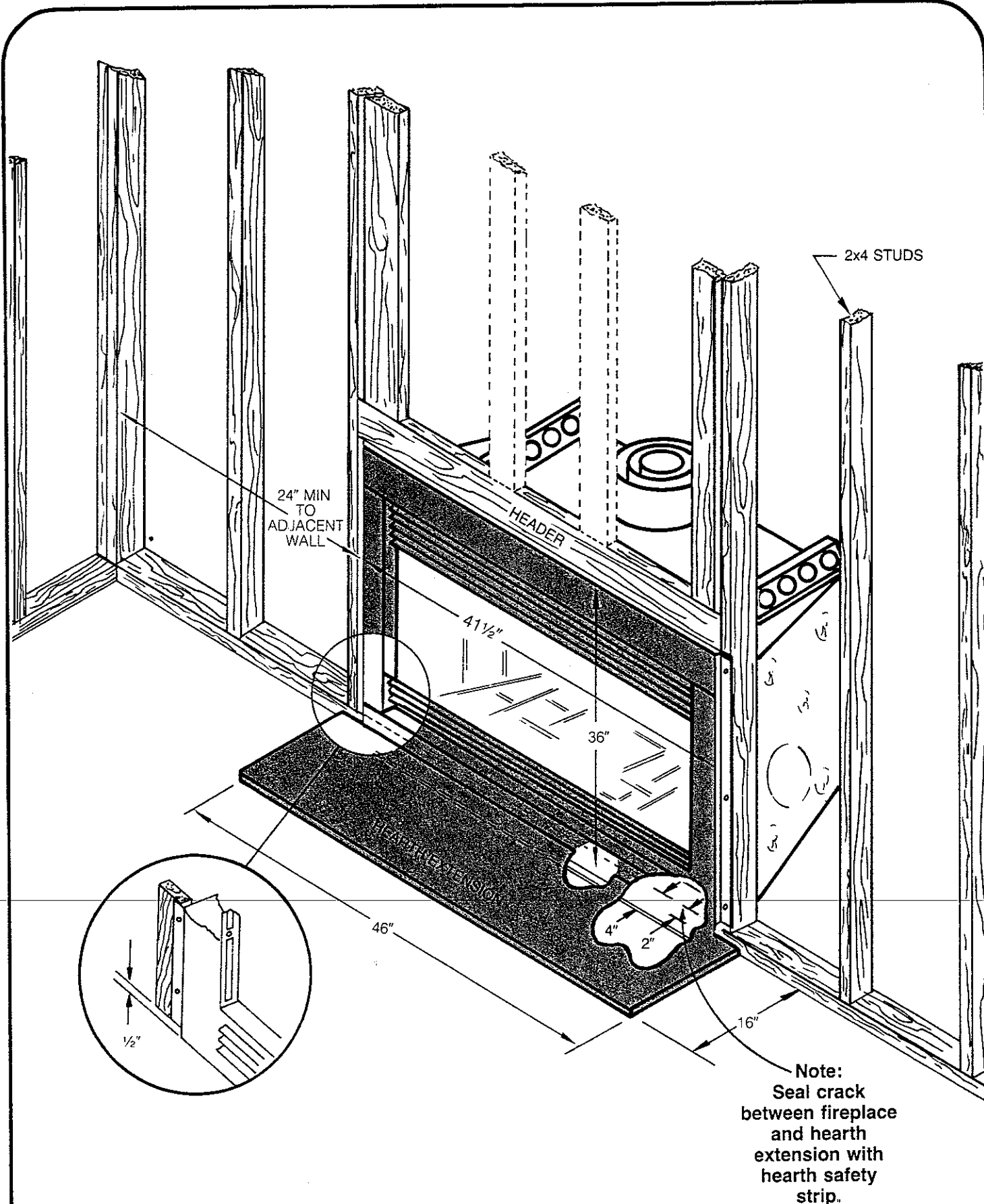
Combustible floors in front and to the sides of the firebox opening must be protected by a non-combustible hearth extension as shown in FIGURE 4 on page 9.

No combustible material within 12" of the firebox opening may project more than ⅛" for each 1" distance from the opening in accordance with the Uniform Building Code. For example, a mantel located 10" above the firebox opening may project no more than 1¼" from the wall.

The fireplace may be installed no closer than 24" to any unprotected combustible wall perpendicular to the firebox. See FIGURE 4. This does not apply to corner installations

**Chimney sections require an absolute minimum clearance of 1" to combustible materials.** Firestop spacers installed at each ceiling level provide the clearance at that point

**THE LOUVERED AREAS ACROSS THE TOP AND BOTTOM OF THIS FIREPLACE MUST NEVER BE BLOCKED IN ANY WAY. BLOCKING THE AIR FLOW INTO AND OUT OF THE LOUVERS COULD CAUSE A FIRE HAZARD.**



Note:  
Seal crack  
between fireplace  
and hearth  
extension with  
hearth safety  
strip.

**CAUTION**  
THE LOUVERED AREA ACROSS THE TOP AND  
BOTTOM OF THE FIREPLACE MUST NEVER BE  
BLOCKED. THIS COULD CAUSE A FIRE HAZARD.  
COMBUSTIBLE MATERIAL MUST NOT BE IN-  
STALLED OVER DARKENED AREAS.

Temco part #836H Hearth Extension is  
required to complete installation.

FIGURE 4

# INSTALLING THE FIREBOX

This list of specific instructions will help you make certain that every installation operation is done correctly. For your convenience a "check-off" box  has been placed in front of each installation step. Complete the installation steps in the sequence shown.

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

Select the location for the fireplace by taking into consideration the factors previously outlined in the **Planning Ahead** section of this manual.

#### TOOLS REQUIRED FOR INSTALLATION:

- Phillips Screwdrivers
- Slot style screwdrivers
- Hammer
- Saw and/or sabersaw
- Level
- Measuring tape
- Plumbline
- Electric drill and bits
- Pliers
- Square

## Step 1

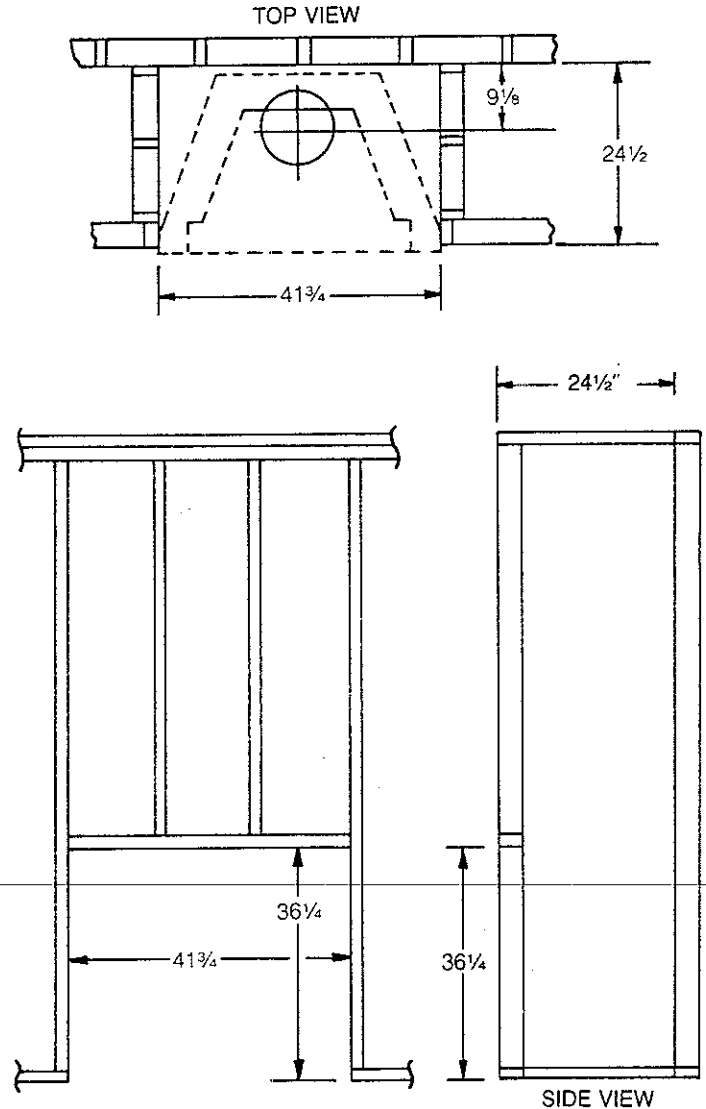
### FRAMING AND SETTING THE FIREBOX

When framing the opening for the fireplace, make certain that the header is  $36\frac{1}{4}$ " above the surface upon which the fireplace will set. Header must be level. The header and framing may be installed as shown in FIGURE 4 or FIGURE 7 according to the installers' preference. The width of the framed opening must be  $41\frac{3}{4}$ ". See FIGURES 5, 6 and 7.

The entire fireplace can be elevated above the floor to achieve a raised hearth affect. This can be done by adding a small platform to achieve the desired height.

The nailing flanges on the sides of the firebox were designed to allow the installation of  $\frac{1}{2}$ " wallboard or plywood flush with the face of the firebox.

FIGURE 5 FRAMING DIMENSIONS



# INSTALLING THE FIREBOX

FIGURE 6 CORNER INSTALLATION

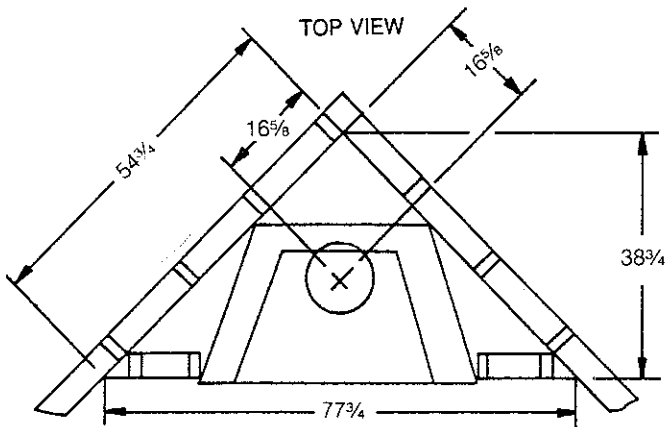
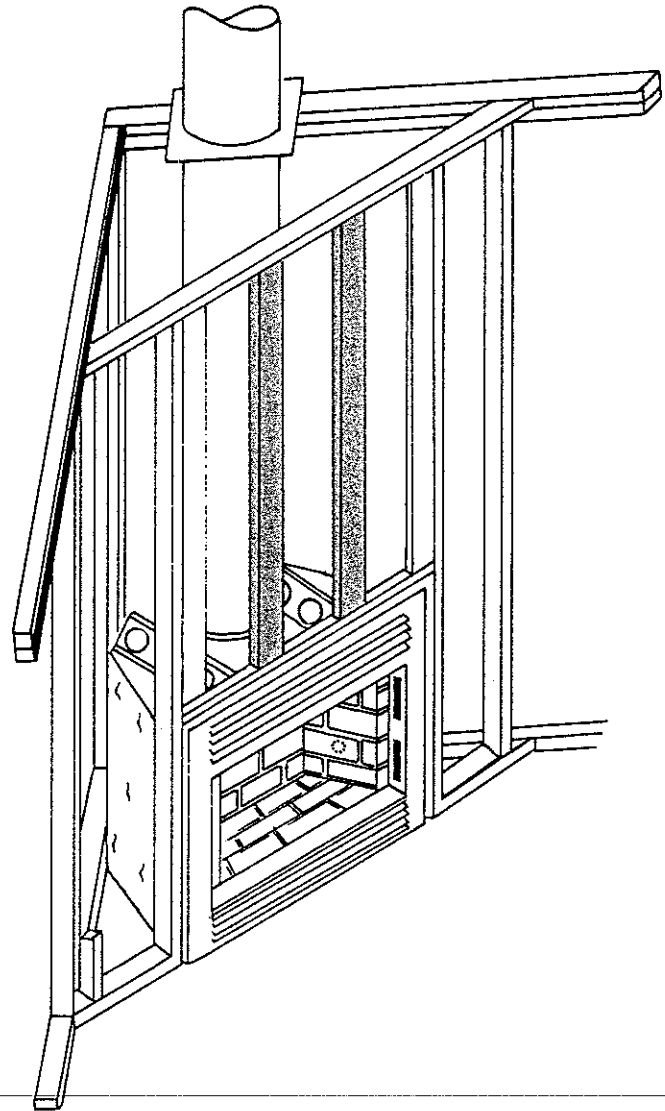


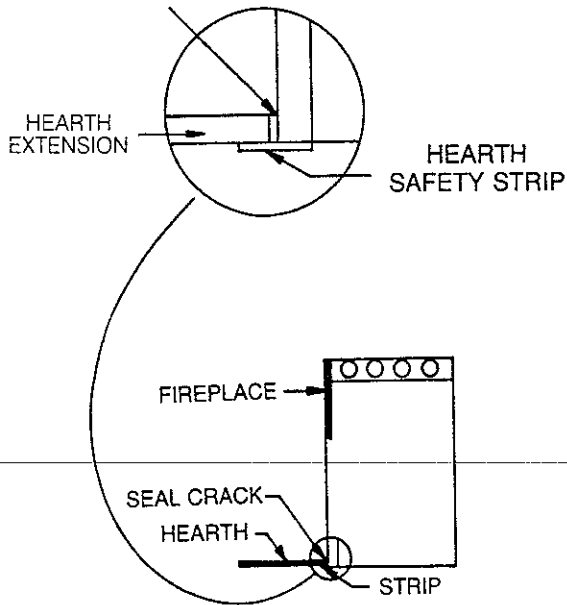
FIGURE 7



Note: Install shaded framing after chimney has been installed.

FIGURE 8

Seal crack with non combustibile material



Place 4" wide hearth safety strip so 2" of it is under the firebox and 2" of it is under the hearth extension.

## Step 2 HEARTH SAFETY STRIP

The Hearth Safety Strip must be installed under the fireplace. This strip must be positioned on the floor to extend 2 inches under the fireplace and 6 inches on either side of the fireplace opening at the point where the hearth extension meets the fireplace. See FIGURE 8 above and FIGURE 4 on page 9.

# INSTALLING THE FIREBOX

## Step 3 INSTALL FIREBOX

Install fireplace into the framed opening by setting unit directly in front of the opening and then sliding it into the proper position

## Step 4 LEVEL FIREBOX

Check the level of the fireplace by placing a level on the top edge of the fireplace face Shim with sheet metal if necessary

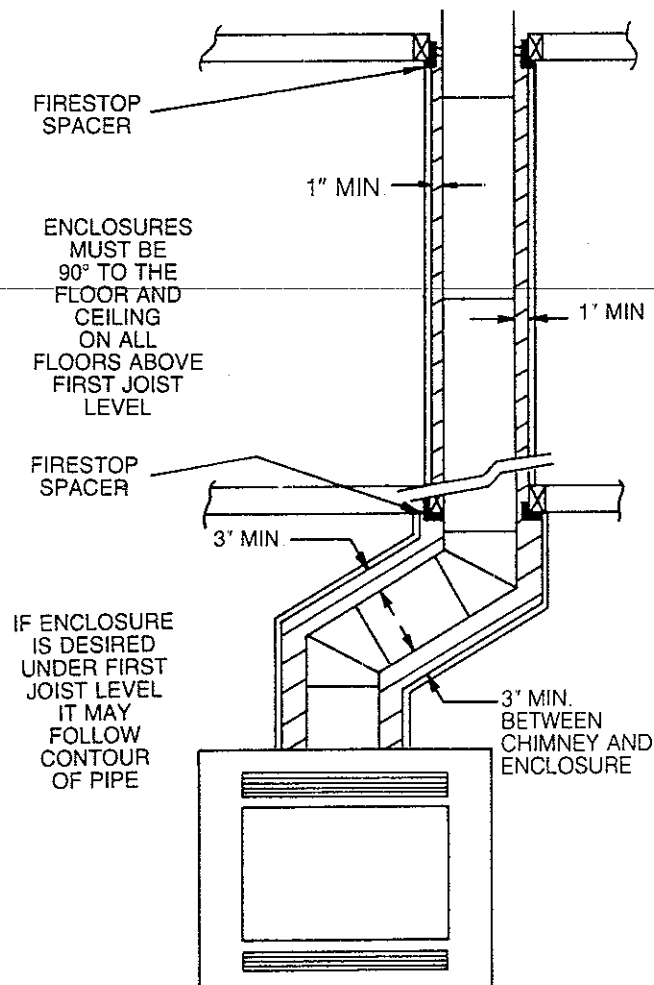
## Step 5 SECURE FIREBOX

Secure the fireplace to the framing The nailing flanges on the sides of the firebox will make securing the firebox to the frame quick and easy Use appropriate size nails or screws to secure the firebox.

## Step 6 HEARTH EXTENSION

TEMCO 836H Hearth Extension is required to complete the installation. This protects the floor in front of the firebox See FIGURE 4 on page 9.

FIGURE 9 CHIMNEY ENCLOSURES



## FRAMING THE CHIMNEY ENCLOSURE

If any portion of the chimney extends through any living or storage area, this portion must be enclosed to eliminate contact or damage to the chimney See FIGURE 9

If you plan on using a chase (a vertical box-like structure which encloses the fireplace and/or chimney on the outside of the house) overhead obstructions will be totally avoided. However, other conditions must be considered. Refer to page 21 for chase installation instructions.

**WARNING:** The holes in the outer collar on the top of the fireplace must not be obstructed Never use blown insulation in the chimney enclosure

# CEILING AND ROOF OPENINGS

## Step 7 FRAMING CEILING AND ROOF OPENING

SEE PAGE 17 FOR INSTRUCTIONS IF THE FLUE PIPE WILL BE OFFSET BELOW THE FIRST CEILING LEVEL.

If you are not using any elbows in this installation frame the ceiling and roof openings directly above one another in the locations you chose in the **Planning Ahead** section of this manual. The flue should go straight up to the chimney termination. Firestops must be used at each ceiling level. A firestop is not required at the roof line. The roof framing must be 2 x 6's or 2 x 4's and must be securely nailed because the chimney termination and flashing are anchored to this construction and must withstand heavy loads. The opening in the ceiling should be 16" x 16" square. Use the nail you previously put in the ceiling as the center of the square. **See page 14 for framing detail.** Repeat this procedure to cut and frame an opening in each ceiling level.

If the chimney flue penetrates the ceiling at a 30° angle in an offset installation, use the 830F firestop spacer. The opening in the ceiling for this installation should be 23½ x 15½.

Refer to Table A below to find the dimensions for the roof opening. The size of the opening depends on the pitch of the roof and the size of your framing lumber. It is recommended that you use framing lumber the same size as the lumber used to frame your home.

**COVER THE CHIMNEY OPENING BEFORE CUTTING THE CEILING OPENING OR ROOF OPENING TO KEEP CONSTRUCTION DEBRIS FROM FALLING INTO THE FIRE-BOX INTERIOR WALLS.**

**NOTE:** Refer to pages 17 and 18 for information about installations using elbows.

Roof Framing Dimensions

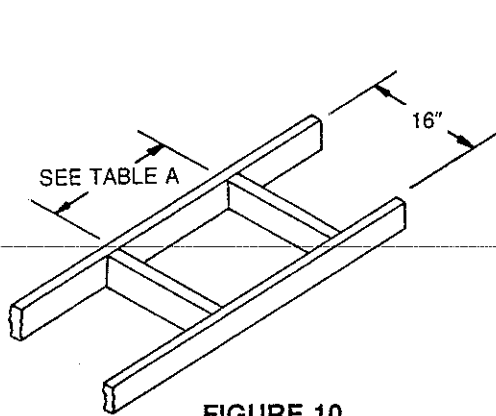


FIGURE 10

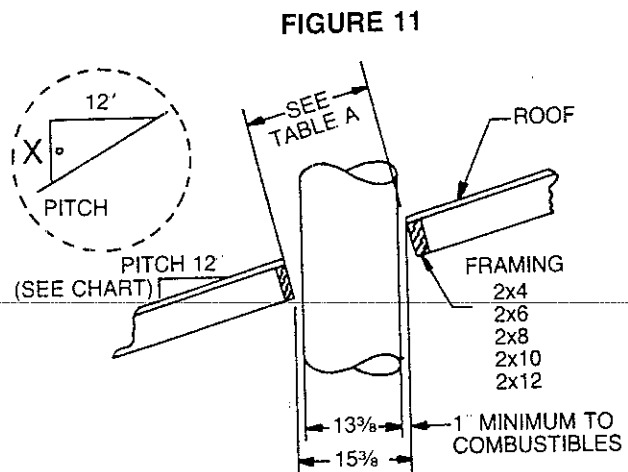


FIGURE 11

PITCH	TABLE A —MINIMUM OPENINGS/FRAMING MEMBERS				
	2x4	2x6	2x8	2x10	2x12
0/12	16x16	16x16	16x16	16x16	16x16
1/12	16x16 <sup>7</sup> / <sub>16</sub>	16x16 <sup>3</sup> / <sub>16</sub>	16x16 <sup>3</sup> / <sub>4</sub>	16x16 <sup>7</sup> / <sub>8</sub>	16x17 <sup>1</sup> / <sub>16</sub>
2/12	16x16 <sup>15</sup> / <sub>16</sub>	16x17 <sup>1</sup> / <sub>4</sub>	16x17 <sup>3</sup> / <sub>16</sub>	16x17 <sup>15</sup> / <sub>16</sub>	16x18 <sup>1</sup> / <sub>4</sub>
3/12	16x17 <sup>3</sup> / <sub>16</sub>	16x18 <sup>1</sup> / <sub>16</sub>	16x18 <sup>1</sup> / <sub>2</sub>	16x19	16x19 <sup>1</sup> / <sub>2</sub>
4/12	16x18 <sup>5</sup> / <sub>16</sub>	16x18 <sup>15</sup> / <sub>16</sub>	16x19 <sup>1</sup> / <sub>2</sub>	16x20 <sup>1</sup> / <sub>4</sub>	16x20 <sup>7</sup> / <sub>8</sub>
5/12	16x19 <sup>3</sup> / <sub>8</sub>	16x19 <sup>15</sup> / <sub>16</sub>	16x20 <sup>1</sup> / <sub>16</sub>	16x21 <sup>1</sup> / <sub>2</sub>	16x23 <sup>7</sup> / <sub>16</sub>
6/12	16x20 <sup>1</sup> / <sub>16</sub>	16x21	16x21 <sup>7</sup> / <sub>8</sub>	16x22 <sup>7</sup> / <sub>8</sub>	16x23 <sup>3</sup> / <sub>8</sub>
7/12	16x21	16x22 <sup>3</sup> / <sub>8</sub>	16x23 <sup>3</sup> / <sub>16</sub>	16x24 <sup>9</sup> / <sub>16</sub>	16x25 <sup>1</sup> / <sub>2</sub>
8/12	16x22 <sup>1</sup> / <sub>16</sub>	16x23 <sup>7</sup> / <sub>16</sub>	16x24 <sup>1</sup> / <sub>16</sub>	16x25 <sup>7</sup> / <sub>8</sub>	16x27 <sup>1</sup> / <sub>4</sub>
9/12	16x23 <sup>3</sup> / <sub>16</sub>	16x24 <sup>11</sup> / <sub>16</sub>	16x26	16x27 <sup>1</sup> / <sub>2</sub>	16x29
10/12	16x24 <sup>3</sup> / <sub>8</sub>	16x26 <sup>1</sup> / <sub>16</sub>	16x27 <sup>1</sup> / <sub>2</sub>	16x29 <sup>3</sup> / <sub>16</sub>	16x30 <sup>15</sup> / <sub>16</sub>
11/12	16x25 <sup>5</sup> / <sub>8</sub>	16x27 <sup>7</sup> / <sub>16</sub>	16x29 <sup>1</sup> / <sub>16</sub>	16x30 <sup>7</sup> / <sub>8</sub>	16x32 <sup>3</sup> / <sub>4</sub>
12/12	16x26 <sup>5</sup> / <sub>8</sub>	16x28 <sup>5</sup> / <sub>8</sub>	16x30 <sup>5</sup> / <sub>8</sub>	16x32 <sup>5</sup> / <sub>8</sub>	16x34 <sup>5</sup> / <sub>8</sub>

# INSTALLING THE CHIMNEY

## INSTALLING CHIMNEY FLUE SECTIONS

The three sections of flue pipe are Inner, Intermediate and Outer. **It is very important that all three sections of flue pipe are installed for each length of chimney used in the system.** On top of your fireplace there are three corresponding rings which are called the flue collars.

### Step 9

Insert the Inner (8") pipe with the crimped end pointing down into the Inner collar. The Inner flue section fits inside the Inner collar. Push the pipe until it bottoms and the snap locks engage.

### Step 10

Slip the Intermediate (11") pipe with the crimped end pointing down over the Inner pipe into the Intermediate collar. The Intermediate flue section fits on the inside of the Intermediate flue collar. Push the pipe until it bottoms and the snap locks engage.

### Step 11

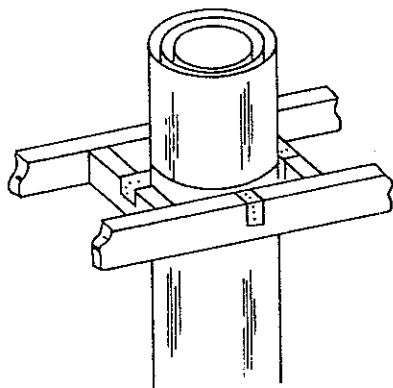
Slip the Outer (13<sup>3</sup>/<sub>8</sub>") pipe with the crimped end UP over the Intermediate pipe and over the Outer collar. The Outer flue section fits on the outside of the Outer flue collar. Push the pipe until it bottoms and the snap locks engage.

### Step 12

Continue this process of adding flue pipe sections on top of each other until the pipe penetrates the roof opening enough to allow you to install the flashing and storm collar.

Chimney sections must be supported by either guy wires or <sup>3</sup>/<sub>4</sub>" conduit flattened on the ends when the chimney extends 6' or more above the roof. The chimney may be extended to a maximum of 12' above the roof. A flue support must be used when the system is 35' high or higher.

FIGURE 14  
FOR SYSTEMS UP  
TO 40 FEET IN HEIGHT



A FLUE SUPPORT MODEL 804S MUST BE INSTALLED AT THE 35 FOOT LEVEL TO ADEQUATELY SUPPORT SYSTEM HEIGHTS OF 35 FEET OR MORE.

**MAINTAIN A 1" MINIMUM CLEARANCE FROM THE CHIMNEY SECTIONS TO ALL COMBUSTIBLES.**

Minimum system height is 12' without elbows.  
Maximum height is 40'.

### Lineal Gain Chart

#### Component

#### Lineal Gain

TEC36-1—Firebox	35"
812C—Chimney section	10 <sup>3</sup> / <sub>4</sub> "
824C—Chimney section	22 <sup>3</sup> / <sub>4</sub> "
836C—Chimney section	34 <sup>3</sup> / <sub>4</sub> "
848C—Chimney section	46 <sup>3</sup> / <sub>4</sub> "
830E—30° elbows, lineal gain per pair	14 <sup>5</sup> / <sub>8</sub> "
804S—Flue support	3"
802R—Round termination	6"

# 10 FOOT RULE

## CHIMNEY TERMINATION HEIGHT: 10 FOOT RULE

For a chimney flue to function properly and to prevent smoking, you must comply with the following rules:

1. If your chimney flue penetrates your roof within 10' of your roof's peak, it must extend at least 24" above your roof's peak and be 36" above the roof opening. The 36" is measured from the highest point of the roof opening. (See FIGURE 15.)
2. If your chimney flue enters your roof farther than 10' from your roof's peak, you must measure from the centerline of your flue to a point that is 10' away between the flue and the peak of your roof. (See FIGURE 16.) The top of the flue pipe must be at least 24" above this point on the roof and a minimum of 36" above the highest point on the roof opening.
3. When figuring your required height, the 802R termination counts as 6" of effective flue height. The balance of the required height will consist of chimney sections.

FIGURE 15 WITHIN 10 FEET OF ROOF'S PEAK

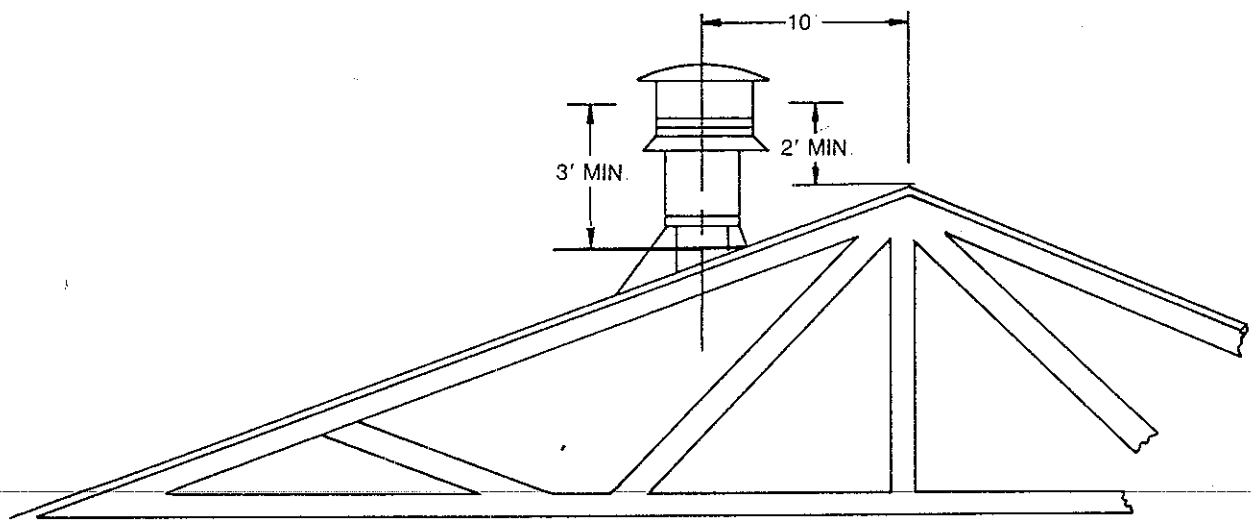
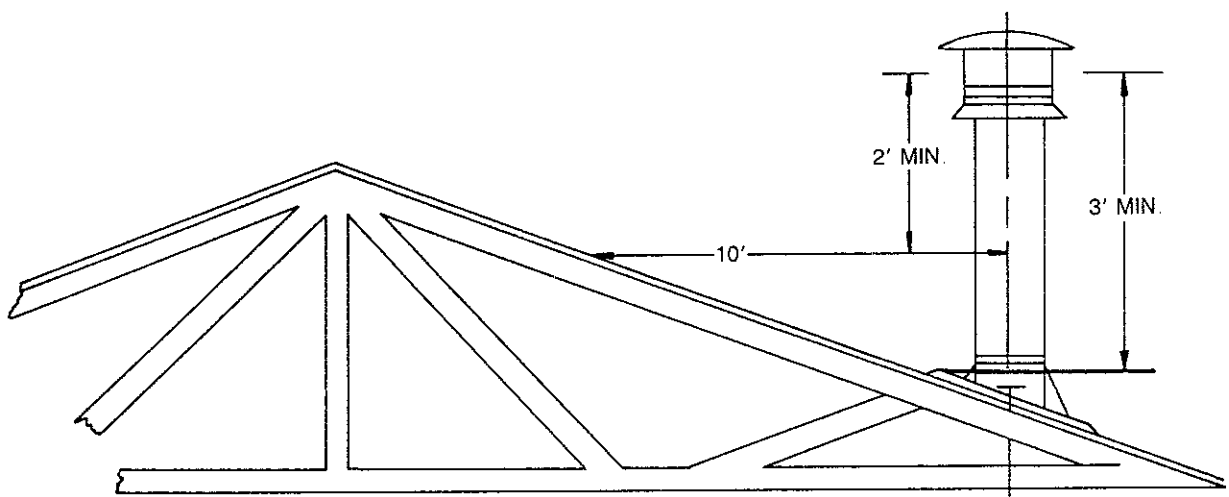


FIGURE 16 FARTHER THAN 10 FEET FROM ROOF'S PEAK



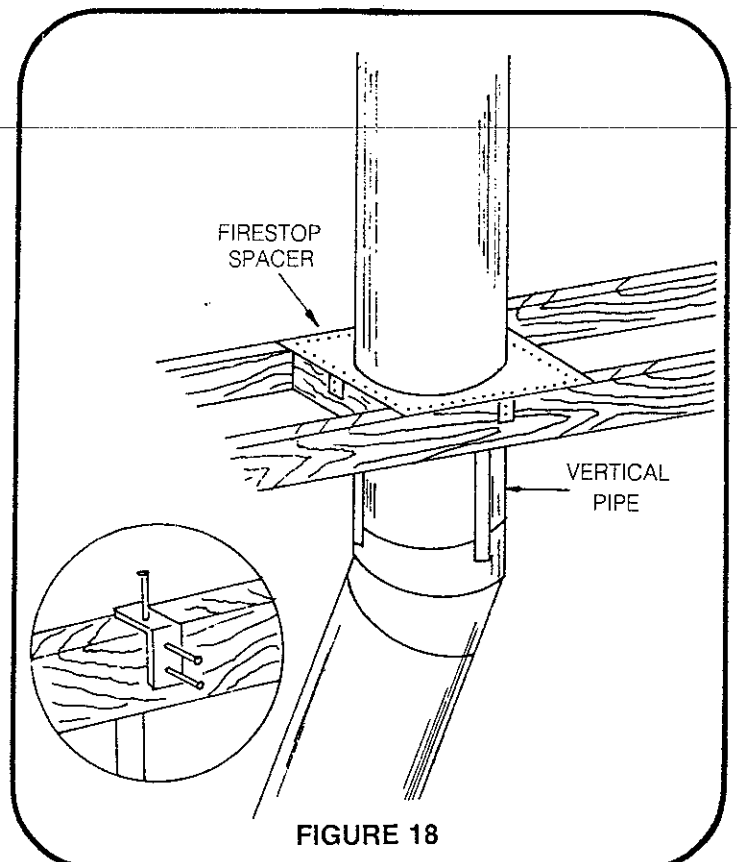
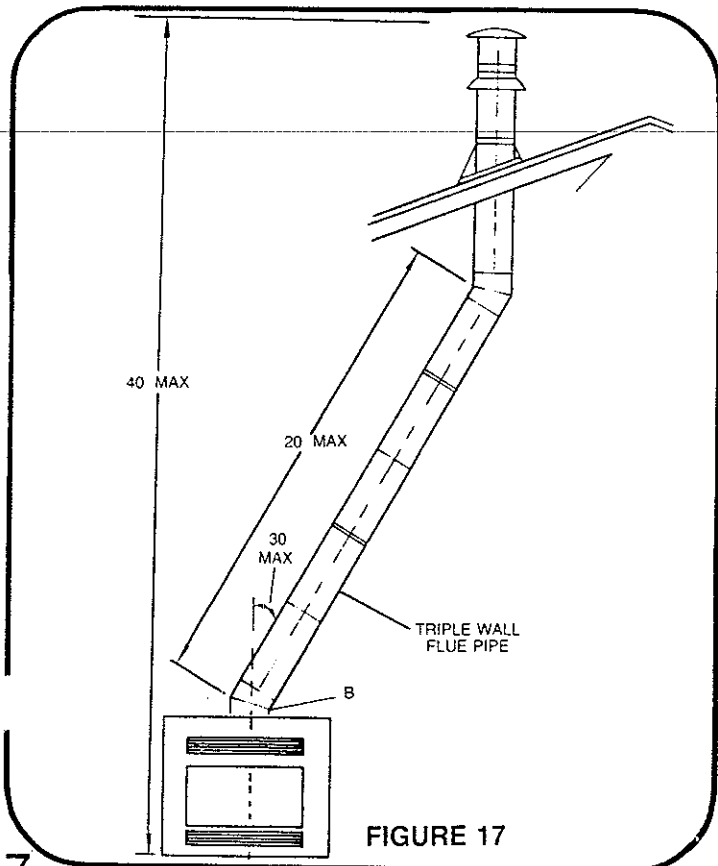


# OFFSET INSTALLATIONS

## RULES GOVERNING OFFSET INSTALLATIONS

Sometimes it is necessary to use elbows to create an inclined run of pipe (offset installation) that will make installation easier by avoiding plumbing, wiring or other obstructions. The following rules apply to offset installations:

- A. 40' maximum system height
- B. **Two 30° elbows maximum per system. Each offset elbow must be used with a return elbow. The chimney pipe must be vertical when it penetrates the roof.**
- C. The chimney offset is to be a maximum of 30° from vertical.
- D. Maximum inclined chimney run of 20'
- E. Additional support to be provided every 6' of inclined run of chimney. Use flue support 804S.
- F. **Minimum height of fireplace using two elbows is 13'.**
- G. Elbows may be used directly off of the top of the firebox and may be mounted with the return elbow directly on top of the offset elbow.
- H. The elbows have 18" support straps. The support straps should be nailed to the framing in the manner indicated in FIGURE 18 below. Support straps are not required when an elbow is mounted on top of the firebox. It may be necessary to add framing or lengthen the straps with hanger iron for support. Be sure to maintain a 1" clearance from chimney and elbows to all combustible material.
- I. Install firestop spacer 830F when the flue penetrates the ceiling at a 30° angle. Refer to page 14 for instructions.
- J. **A MINIMUM OF 1" CLEARANCE MUST BE MAINTAINED FROM THE FLUE PIPE TO ALL COMBUSTIBLES.**
- K. Local building codes must be followed in all cases as to the particular requirements concerning the installation of factory built fireplaces.
- L. Locate the center point of the flue on the ceiling with a plumb bob as shown on page 7. The center of the correct location for the ceiling opening will be the amount of the offset dimension away from the ceiling nail. See figure 19 on page 18. The "X" dimension in the drawing is the amount of the offset. Be sure to consider the direction that your offset will incline.



# OFFSET INSTALLATIONS

## TO INSTALL ELBOWS

- 1 Place the offset elbow on top of the firebox or chimney section and point the upper half in the direction you require the chimney to incline
- 2 Slide the inner section of the elbow into the inner collar of the firebox or the inner section of the chimney pipe you are attaching the elbow to.
- 3 Slide the intermediate section of the elbow into the intermediate section of the flue collar or intermediate section of the chimney pipe
- 4 Snap lock the outer section of the elbow over the flue collar or the outer section of the chimney pipe.
- 5 To achieve the minimum offset (see Table B) attach the return elbow to the first elbow. To achieve further offset, you may install various lengths of triple wall pipe (12", 24", 36" and/or 48") between the elbows to a maximum length of 72 inches. At this point a flue support must be provided if additional sections are to be added.

Typical Offset Installation

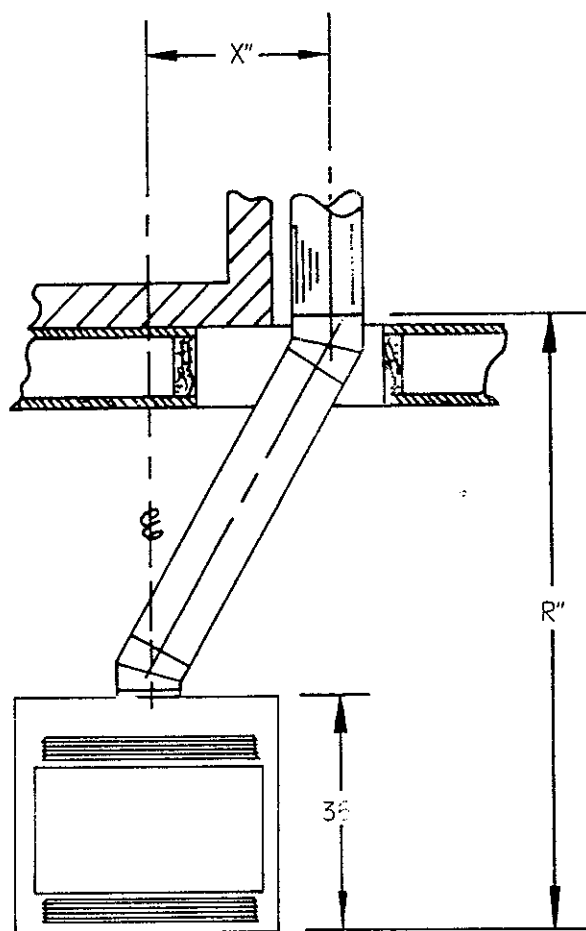


FIGURE 19

### Lineal Gain of Offset with Two Elbows

Fireplace Model TEC36-1

TABLE B

	Offset Dim. "X" (Inches)	Rise Dim. "R" (Inches)
Elbows Only—No intermediate sections mounted on top of firebox	3 <sup>7</sup> / <sub>8</sub>	49 <sup>5</sup> / <sub>8</sub>
Elbows Only—No intermediate section	3 <sup>7</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>
One 12" Section	9 <sup>1</sup> / <sub>4</sub>	58 <sup>7</sup> / <sub>8</sub>
Two 12" Sections	14 <sup>5</sup> / <sub>8</sub>	68 <sup>1</sup> / <sub>4</sub>
One 24" Section	15 <sup>1</sup> / <sub>4</sub>	69 <sup>1</sup> / <sub>4</sub>
One 36" Section	21 <sup>1</sup> / <sub>4</sub>	79 <sup>5</sup> / <sub>8</sub>
One 12" Section and One 36" Section. or Two 24" Sections	26 <sup>5</sup> / <sub>8</sub>	88 <sup>7</sup> / <sub>8</sub>
One 48" Section	27 <sup>1</sup> / <sub>4</sub>	90
One 12" Section and One 48" Section. or One 24" Section and One 36" Section	32 <sup>5</sup> / <sub>8</sub>	99 <sup>1</sup> / <sub>4</sub>
One 24" Section and One 48" Section or Two 36" Sections	38 <sup>5</sup> / <sub>8</sub>	109 <sup>5</sup> / <sub>8</sub>
One 36" Section and One 48" Section and One Flue Support (804S)	46 <sup>1</sup> / <sub>8</sub>	122 <sup>5</sup> / <sub>8</sub>

NOTE:

If required offset distance is not shown in the above table but is less than the maximum allowed (125") additional chimney sections can be added to any of the above combinations adding to the dimensions as follows:

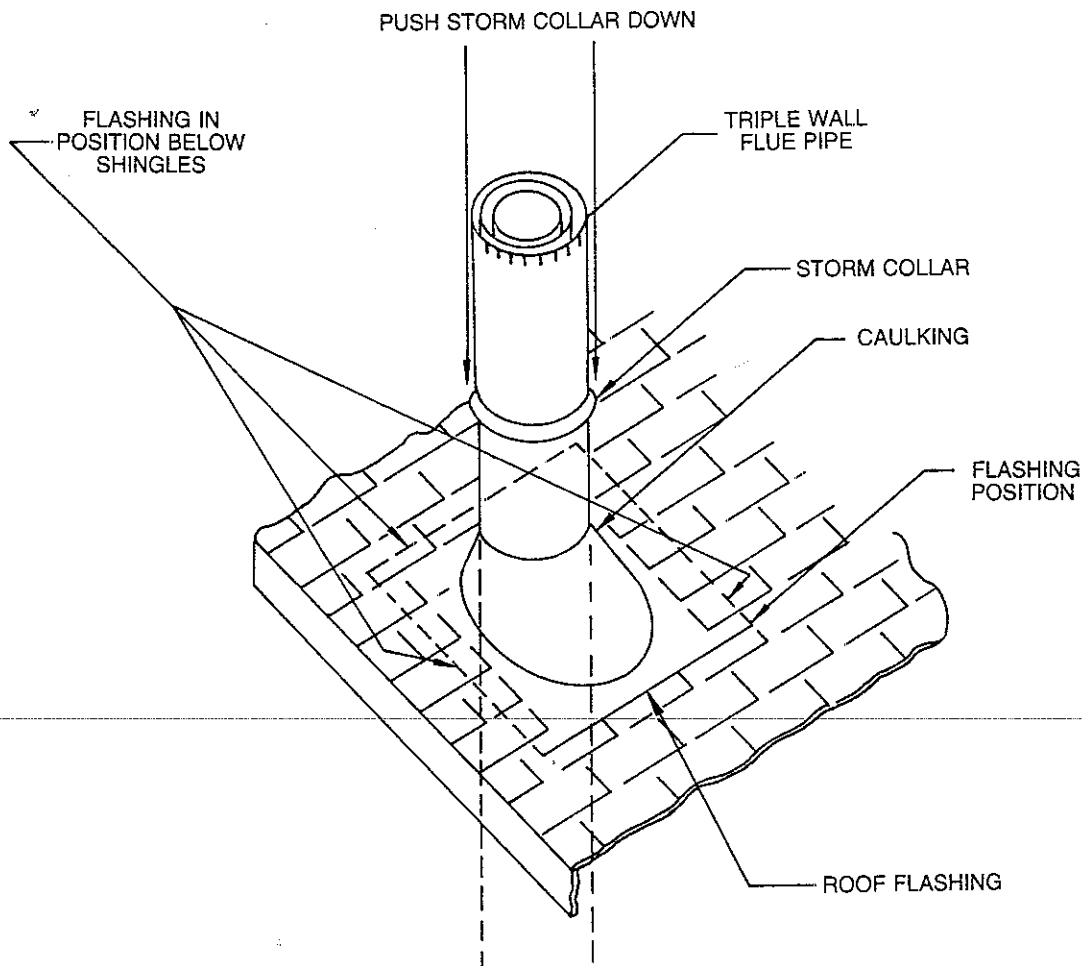
For each additional	Add to "X"	Add to "R"
12" Section	5 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>
24" Section	11 <sup>3</sup> / <sub>8</sub>	19 <sup>5</sup> / <sub>8</sub>
36" Section	17 <sup>3</sup> / <sub>8</sub>	30
48" Section	23 <sup>3</sup> / <sub>8</sub>	40 <sup>3</sup> / <sub>8</sub>
Flue Support (804S)	1 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>

# FLASHING AND STORM COLLAR

## Step 13 INSTALLING FLASHING

Place the flashing over the triple wall pipe where it penetrates the roof and mark the outline of the flashing on the roof. Remove the nails from the shingles inside this outline and to the bottom edge of the roof cutout. Coat the roof area under the shingles with roofing cement. Slide the flashing under the shingles on the sides of the flashing and re-nail the top and side shingles. **DO NOT nail through the lower portion of flashing.** If necessary, cover the side and top of the flashing with the salvaged shingles. **The flashing should cover the lowest side of the roof opening as pictured below.**

FIGURE 20 INSTALLING FLASHING & STORM COLLAR



## Step 14 INSTALLING THE STORM COLLAR

The storm collar is assembled to the chimney system next. It is packed with the chimney termination.

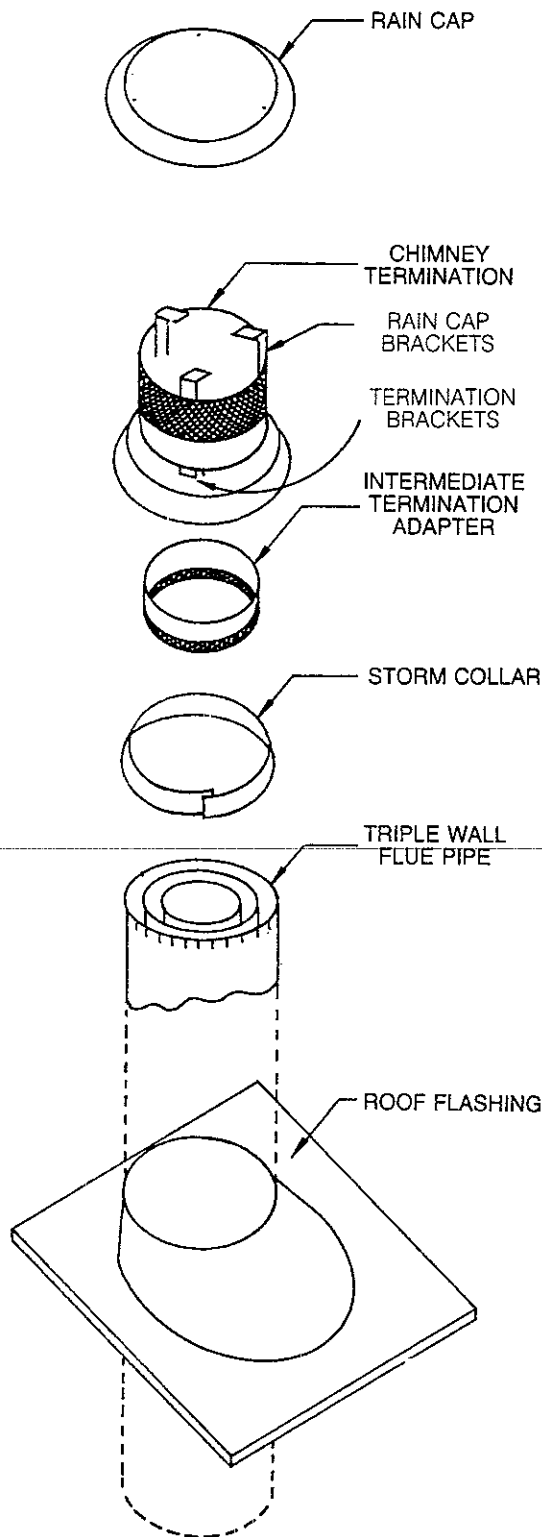
Holding the adjustable storm collar with the tab of the collar in your right hand, put the collar around the flue pipe. Push the tab on the collar through the slot provided. Pull the tab through and bend it just enough so that the collar may be raised upward. Apply waterproof caulking around the flashing where the collar fits around the top of the flashing. Push the storm collar down securely on the sealer and flashing. To secure the collar, pull the tab through the slot as far as possible and bend the tab over to hold it in place.

# INSTALLING TERMINATION

## Step 14 INSTALLING THE 802R TERMINATION

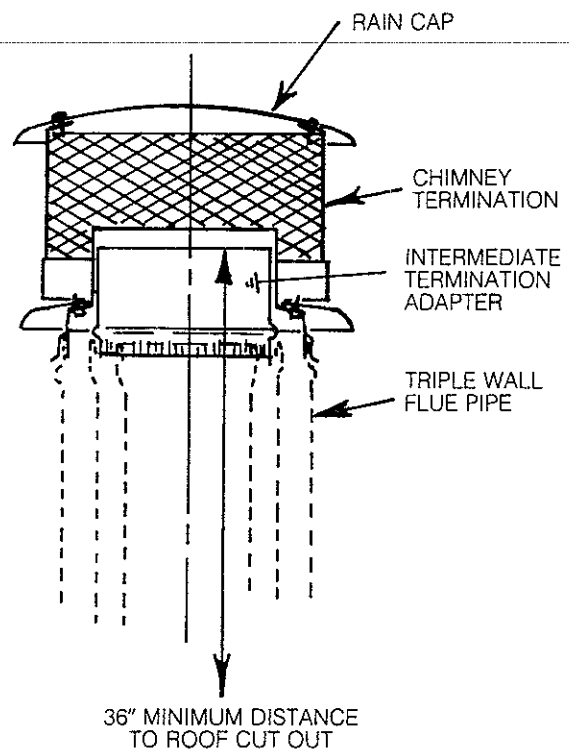
A chimney termination is required to finish the installation. The following instructions are for the 802R termination. Refer to the instructions packed with the termination for additional information.

FIGURE 21



- Place the chimney termination over the outer wall of the chimney pipe coming up through the roof. Mark the location of the holes in the termination brackets on the outer section of the chimney pipe.
- Remove the termination from the chimney pipe and drill three  $\frac{1}{8}$ " diameter holes in the outer section of the chimney pipe.
- Snaplock the intermediate termination adapter into the intermediate section of the flue pipe. The crimped end of the adapter goes into the flue pipe.
- Reposition the termination on the chimney pipe and align the termination brackets with the holes in the pipe. Securely attach the termination to the chimney pipe with the three #10A x  $\frac{1}{2}$ " hexhead sheet metal screws provided.
- Attach the rain cap by lining up the holes in the cap with the holes in the brackets on the top of the termination. Install the three #10 A x  $\frac{1}{2}$ " Hex Head screws provided.

Figure 22

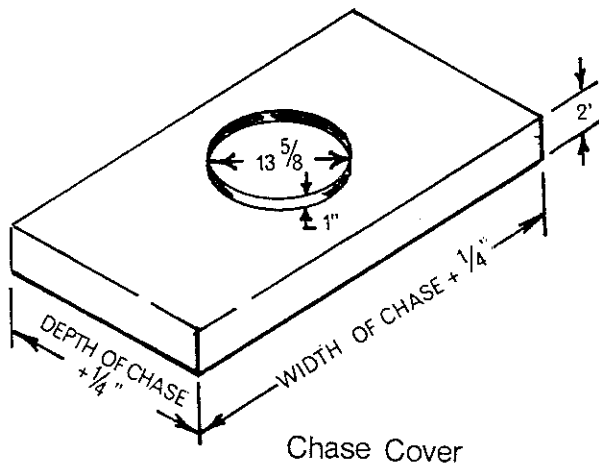


# CHASE INSTALLATIONS

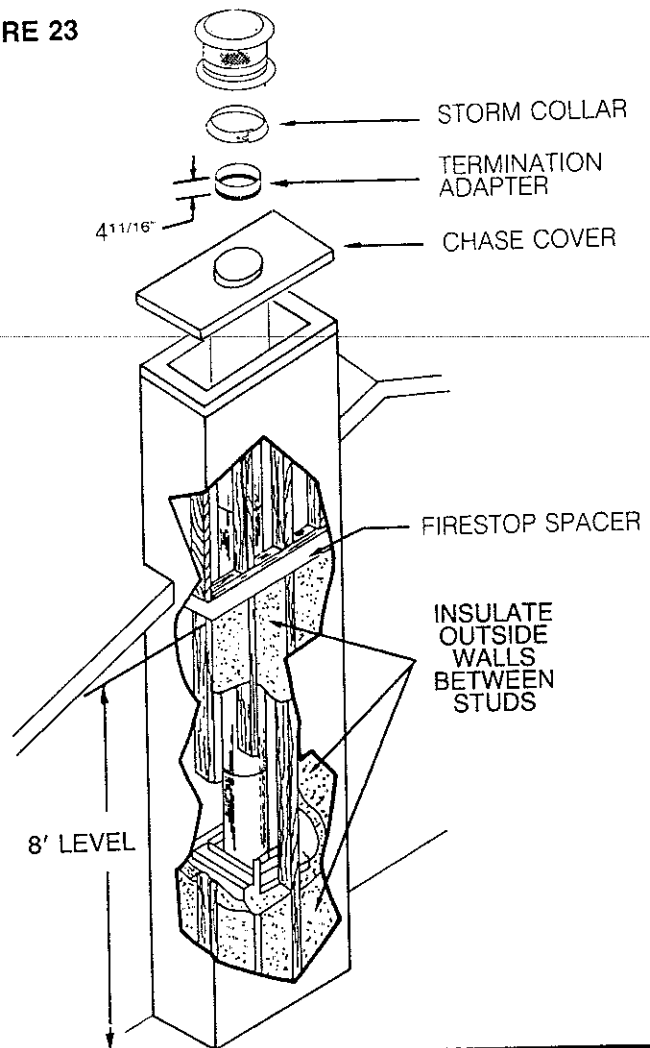
- 1 A chase is an enclosure for the fireplace and/or chimney that is attached to the outside of the house. It may start at the basement floor line, at the first floor level or part way up the side of the wall. A chase may also be used to enclose a chimney from the point where it penetrates the roof to slightly below the termination cap.
- 2 The floor under the fireplace must be a solid continuous level surface. Many local building codes also require a firestop spacer in the chase at each ceiling level in the house. Consult your local building codes to determine the requirements for chase installations in your area. Chimney components must be an absolute minimum of 1" from combustible materials. Plan the dimensions of your chase accordingly.
- 3 A chase should be constructed and insulated like any other exterior wall in your home. **THE HOLES IN THE OUTER RING OF THE FLUE COLLAR ON TOP OF THE FIREBOX MUST NOT BE OBSTRUCTED IN ANY WAY. DO NOT USE BLOWN IN TYPE INSULATION IN THE CHASE.**
- 4 A metal cover made by a local sheet metal shop is required to complete a chase installation. This cover becomes a flashing that prevents water from getting into the chase. The chase cover should extend 2" down over the sides of the chase and should be welded in the corners. A 1" high collar 13<sup>5</sup>/<sub>8</sub>" in diameter is required at the point where the chimney pipe will penetrate the chase cover. See the drawing below for construction details.
- 5 **All three sections of the chimney pipe must extend above the chase cover.** Caulk between the chimney pipe and the 1" high collar on the chase cover. Install the storm collar over the 1" collar on the chase cover. The termination is installed to the chimney pipe above the chase cover as described on page 20.

FIGURE 23

CONSTRUCTION NOTE: IF IT IS NECESSARY TO CUT A HOLE IN THE EXTERIOR LOAD-BEARING WALL TO INSTALL THE FIREBOX IN THE CHASE, BE SURE THAT YOU ADEQUATELY FRAME THE OPENING TO SUPPORT THE STRUCTURE. CONSULT YOUR LOCAL BUILDING CODE FOR DETAILED REQUIREMENTS.



Chase Cover



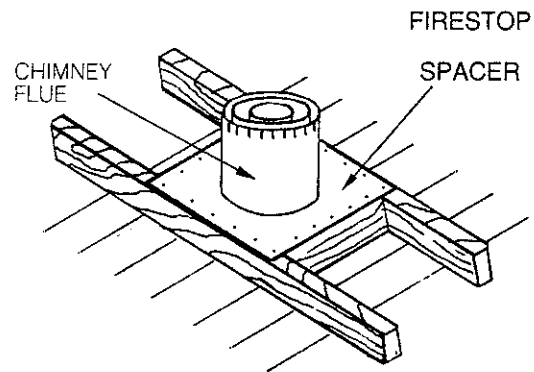
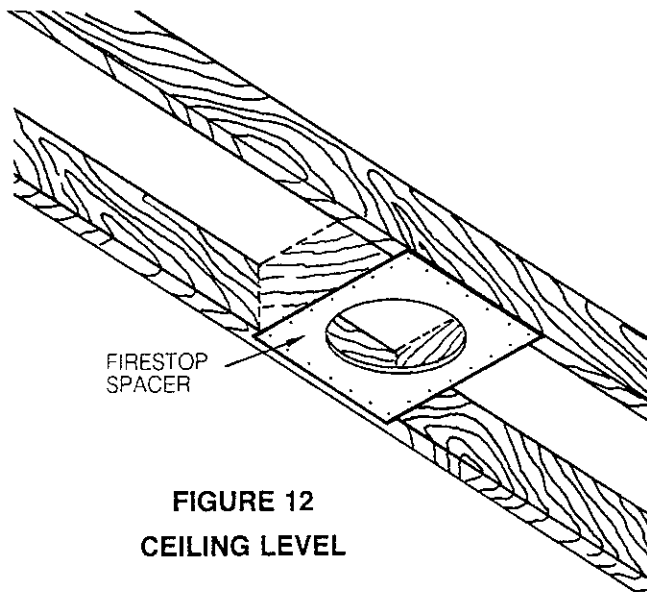
WARNING: THE HOLES IN THE OUTER COLLAR ON THE TOP OF THE FIREPLACE MUST NOT BE OBSTRUCTED. NEVER USE BLOWN IN TYPE OF INSULATION IN CHASE.

# FIRESTOP SPACER

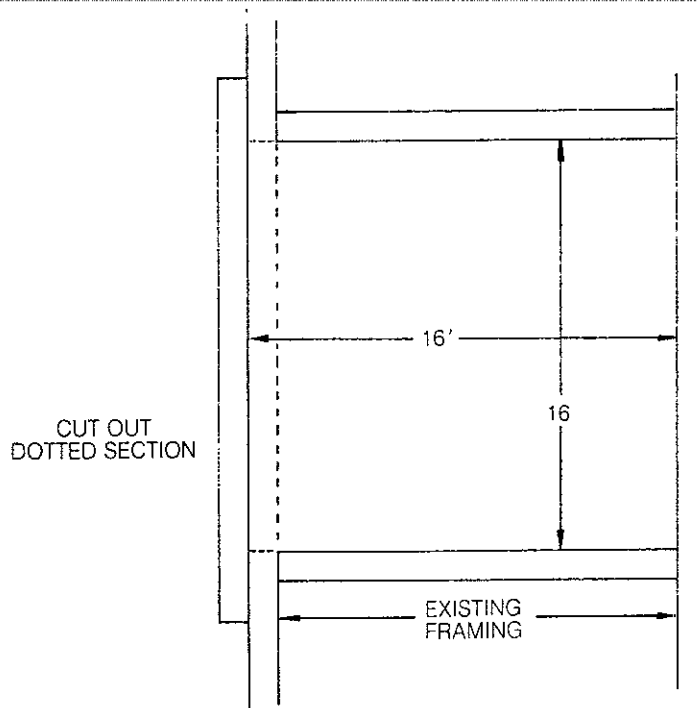
## Step 8 INSTALLING FIRESTOP SPACER

Install a firestop at each ceiling level. The angle should extend into the joist space (See FIGURE 12 ) Nail the firestop to the joist and headers around the ceiling opening. No firestop is to be used at the roof level. The firestop should be installed from the underside of the ceiling except at the attic level where it should be installed on top of the framing members. See FIGURE 13. **A MINIMUM OF 1" CLEARANCE MUST BE MAINTAINED FROM THE FLUE PIPE TO ALL COMBUSTIBLES.**

Install firestop spacer 804F when the flue penetrates the ceiling at a 90° angle. Install firestop spacer 830F when the flue penetrates the ceiling at a 30° angle.



### CEILING FRAMING DETAIL



# INSTALLING A GAS LINE

**GAS LINE MUST BE INSTALLED BY LICENSED GAS LINE INSTALLER.**

If desired, a gas log lighter or gas log set may be installed with this fireplace

**IMPORTANT: The gas line must be installed before framing the fireplace.**

When installing a gas line, a shut off valve designed for installation outside the fireplace is recommended. Use only 1/2" black iron pipe and appropriate iron fittings.

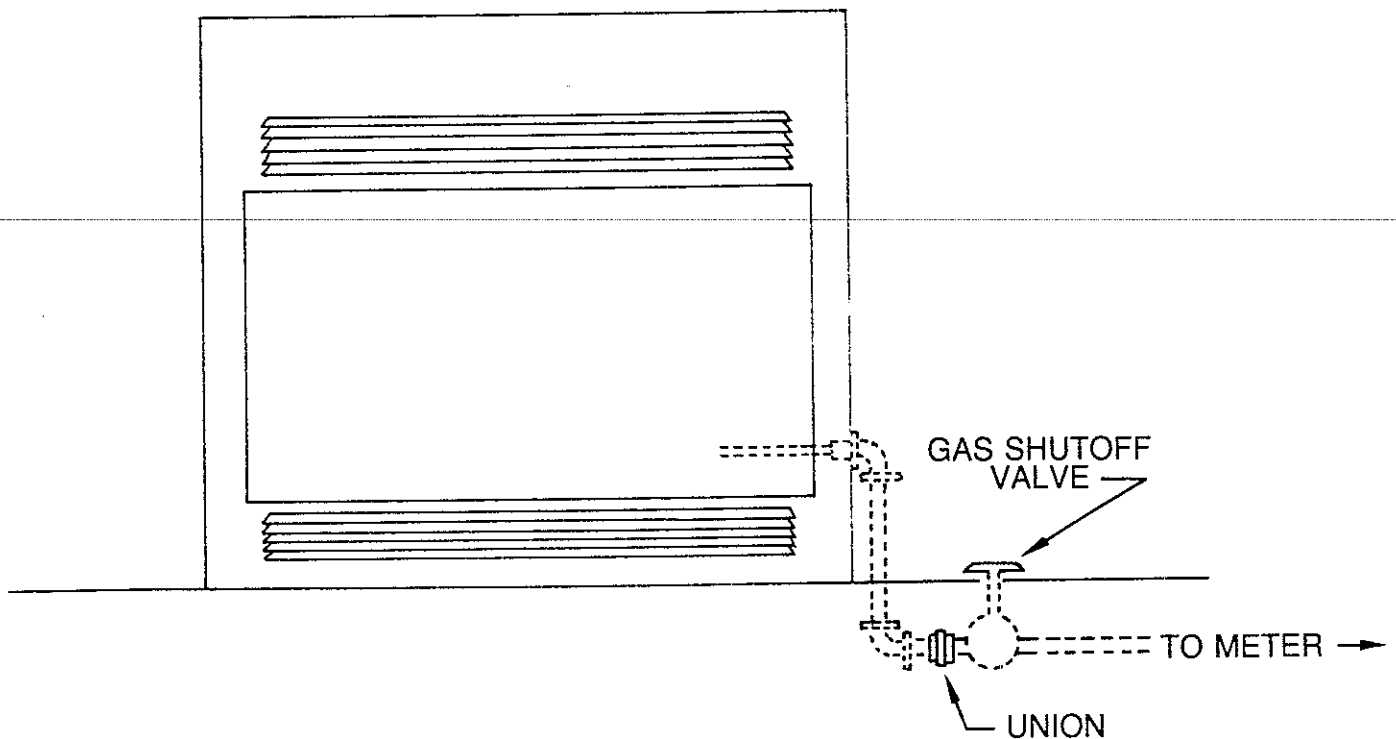
The gas line can enter the fireplace from either side. Refer to page 6 for location of gas line knockouts. On the side that the gas line is to enter, you must remove the knockout from the outer wall. You then pierce the insulation and remove the knockout from the inner wall. Remove the brick patterned refractory side. The location on the refractory to be drilled has been premarked with black paint. Drill a hole through the refractory side with either a masonry or spade bit. Replace the refractory, aligning the drilled hole with the knockouts.

Run the gas line to just outside the entrance hold of the fireplace. Install a 7" (minimum) nipple to reach inside the fireplace (See FIGURE 24).

Finish the installation by attaching the gas log or lighter to the nipple inside the fireplace.

**NOTE:** If gas logs are to be used, dampers **MUST** be locked **OPEN**.

FIGURE 24



# FINISHING TECHNIQUES

## Step 15 FINISHING YOUR FIREPLACE

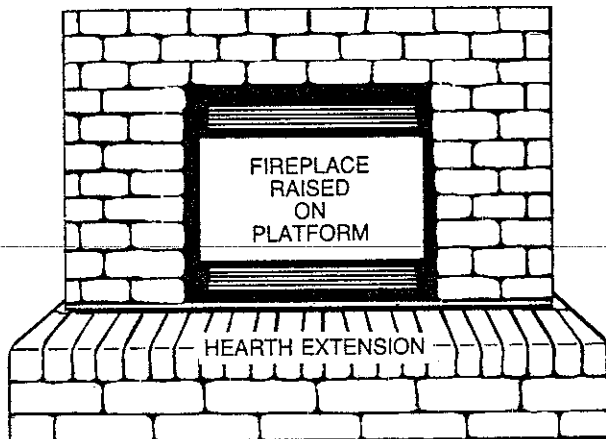
There are a wide variety of finishing materials available to finish your **ENERGY CONSERVING** fireplace—from formal wall treatments with mantels to rustic wood paneling, stone or brick.

It is important that the black face of the fireplace not be covered with any type of combustible material. **The louvers on the face of the fireplace must not be obstructed in any way.**

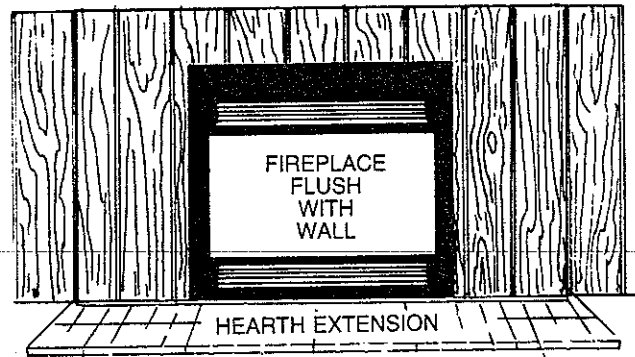
**Non-combustible facing materials** such as brick or ceramic tile may overlap the black face of the fireplace up to within 1/2" of the opening on either side of the fireplace. The louvers on the face of the fireplace must not be obstructed in any way. Seal all joints between the black fireplace facing and the wall covering with a non-combustible material such as rock wool insulation or mastic. Be sure to use non-combustible heat resistant adhesive or mortar when attaching brick, stone or tile to the face of the fireplace. Check to see whether man-made brick and stone are made of non-combustible materials before using them on the face of the fireplace. Some of these products contain combustible materials.

**Combustible wall coverings**, such as paneling or wallboard, may not overlap the black face of the fireplace. The space between the wall covering and the fireplace should be sealed with a non-combustible material such as rock wool insulation or mastic. The area between the fireplace face and the wall covering may be concealed with a piece of painted decorative metal trim.

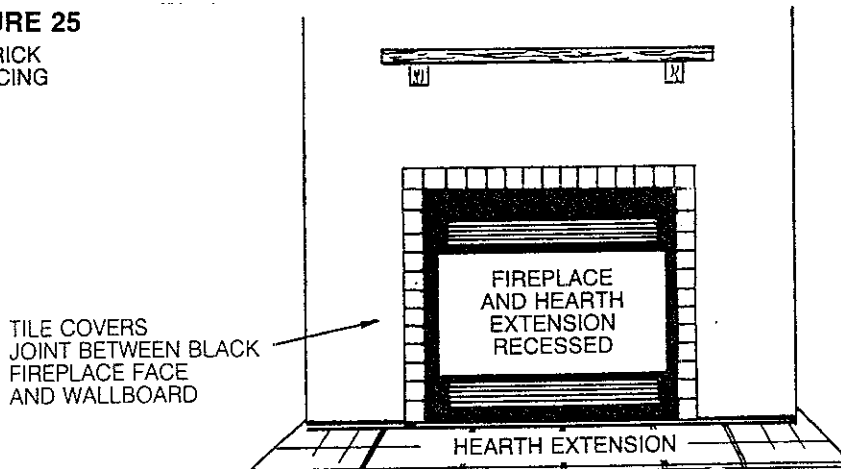
The black metal face of your fireplace may be painted to match the decor in your room. Consult your local paint supplier to determine which heat resistant paint is best suited for this purpose.



**FIGURE 25**  
BRICK FACING



**FIGURE 26**  
WOOD PANELING



**FIGURE 27** WALLBOARD





# USING YOUR FIREPLACE

- 1 Open the firescreens by grasping handles and pushing them back to each sides
- 2 **Open the flue damper** by lifting the damper lever upward and out of the retaining slots and sliding it to your right as far as possible. Press the damper lever down into the slots. To close the damper, lift the lever upward and slide it to the left as far as possible. Push the damper lever down into the retaining slots.
- 3 **If Combustion Air Kit AIR-1 has been installed, both inlet air dampers must be in a full open position before you start a fire.** Reach inside the firebox and release these control rods on the front of the left and right sides of the firebox. Pull each spring-loaded control rod out slightly and turn it toward the back wall of the firebox until it is in the full upright position. To close the dampers, pull each control rod out slightly and turn it toward the back wall of the firebox. Continue turning the control rod toward you until it stops.
- 4 **A grate must be used in this fireplace.** Be sure the grate is placed as far back in the fireplace as possible. Place several crumpled pieces of paper on the grate.
- 5 Light a piece of crumpled paper and hold it high inside the fireplace. This will warm the flue and start the chimney "drawing."
- 6 Light the paper in the grate and add kindling. As the kindling catches, add more or heavier wood until the fire is well established. Be careful not to "smother" the fire.
- 7 **WARNING: NEVER USE FLAMMABLE LIQUIDS INDOORS TO LIGHT YOUR FIRE.**

---

- 8 Close the right firescreen first and then the left firescreen, being sure that they overlap. Keep the firescreens closed at all times except when adding fuel.
- 9 Ashes that build up from burning logs must be removed periodically to allow space for the air to move under and up through the fuel for combustion. If these ashes are allowed to accumulate until the air flow is blocked the grate may become badly warped from excessive heat.
- 10 Ventilating fans, exhaust hoods, or central heating systems often cause fireplaces to smoke by stealing the fireplace's combustion air. If the volume is enough, it can reverse the flow of air in the fireplace and cause smoke.

# SOME DO'S AND DON'TS

11. **Fuels:** dry and well seasoned hardwoods and coal are recommended. Soft woods tend to burn away too quickly. Refer to the Wood Chart on page 27. Do not burn scrap construction lumber; it produces excessive sparks. Never use woods dipped in tar, pitch, creosote, etc., as this produces sputtering, smoking fires with toxic fumes. Do not use wood products with synthetic binders like plywood or artificial logs as these produce abnormally high temperatures.
12. Unseasoned wood or wood that is sappy should not be burned in this fireplace. When this type of wood is burned it creates a residue that will condense and adhere to the inner surface of the chimney. This accumulation could ignite during a hot fire. This will result in a roaring noise in the flue, sparks and possible flames out of the chimney top that could create a fire hazard. To prevent this condition check your chimney at the beginning of each heating season and clean it if necessary.
13. Charcoal and coal may be burned in this fireplace. All dampers must be in full open position before building a charcoal fire. Open the flue damper to allow smoke and fumes to escape. If Outside Air Kit AIR-1 has been installed open both of these dampers. Charcoal requires a constant supply of fresh air. The charcoal fire must be built in a grate or fire basket.
14. **NEVER CLOSE ANY DAMPERS UNTIL YOU ARE CERTAIN THAT THERE ARE NO WARM EMBERS OR COALS.**
15. When the fire has gone completely out, close all dampers. If inlet air dampers are installed close both of these dampers. This will prevent excessive heat loss up the chimney. It will also prevent condensation in the chimney and excessive water on the hearth.
16. The brick-like refractory on the floor, back and sides is reinforced with steel, but can be cracked and broken. Don't drop logs or build fires directly against refractories. A careful "burn-in" of your fireplace is recommended during initial use. For the first few fires, build modest fires—not roaring infernos. This will cure the refractories properly. Hairline cracks may appear in the refractories but do no harm to its performance.
17. It is important that the chimney is high enough to draw properly. The chimney should extend 3 feet above the highest point where it passes through the roof and should be at least 2 feet higher than any portion of any building horizontally within 10 feet.

**NOTE: FOR YOU TO UTILIZE THE FEATURES ENGINEERED INTO THE ENERGY CONSERVER FIREPLACE, IT IS NECESSARY THAT YOU CAREFULLY READ AND FOLLOW THE INSTRUCTIONS CONTAINED IN THIS MANUAL.**

# WOOD FIRES

Different types of wood have different heat values. The heat that a fireplace log produces depends on the concentration of woody material, resin, water and ash. When wood is compared to fossil fuels, a full cord of dry hickory wood weighs about two tons and is approximately equal in heating value to a ton of hard coal or 200 gallons of fuel oil. On a gallons-for-pound basis, heavy hardwoods have about half the heating value of coal and a third of the heating value of oil.

Since woods differ in composition, the relative ranking of a number of common woods should prove helpful to the firewood buyer and fire builder. The following tabulation shows the relative densities and heat values of a dry wood. The range of actual densities, as compared to water, and the heat values are simplified to rank the woods (with hickory's value set at 100). Those toward the top of the list burn longer. Those toward the bottom ignite and burn quicker; therefore, it is beneficial to mix light and heavy wood to achieve the ideal fire.

Species	Density	Heat Value
Osage orange	0.78- 83	112
Dogwood	70- 79	100-107
Hophornbeam	70- 75	100-101
Hickory	70- 74	100
Oak	60- 73	86- 99
Black locust	69- 70	95- 98
Blue beech	65- 71	93- 96
Beech	64- 66	89- 91
Hard maple	58- 65	83- 88
Birch	55- 64	79- 86
Mulberry	59- 63	84- 85
Apple	58- 62	83- 84
Ash	57- 61	81- 82
Southern pine	51- 60	73- 81
Elm	50- 59	71- 80
Walnut	52- 55	74
Soft maple	47- 54	67- 73
Tamarack	49- 53	70- 72
Cherry	50- 52	70- 71
Sycamore	49- 52	70
Gum	48- 52	69- 70
Douglas fir	45- 51	64- 69
Sassafras	44- 46	62- 63
Chestnut	42- 44	59- 60
Spruce	41- 44	59
Tulip or yellow-poplar	40- 42	57
Hemlock	40- 42	57
Cottonwood	38- 41	54- 55
Balsam fir	36- 40	51- 54
Redwood	33- 40	47- 54
Aspen	37- 39	53
Basswood	37- 39	53
White pine	35- 37	50

# OPTIONAL OUTSIDE AIR KIT AND GLASS DOOR PACKAGE

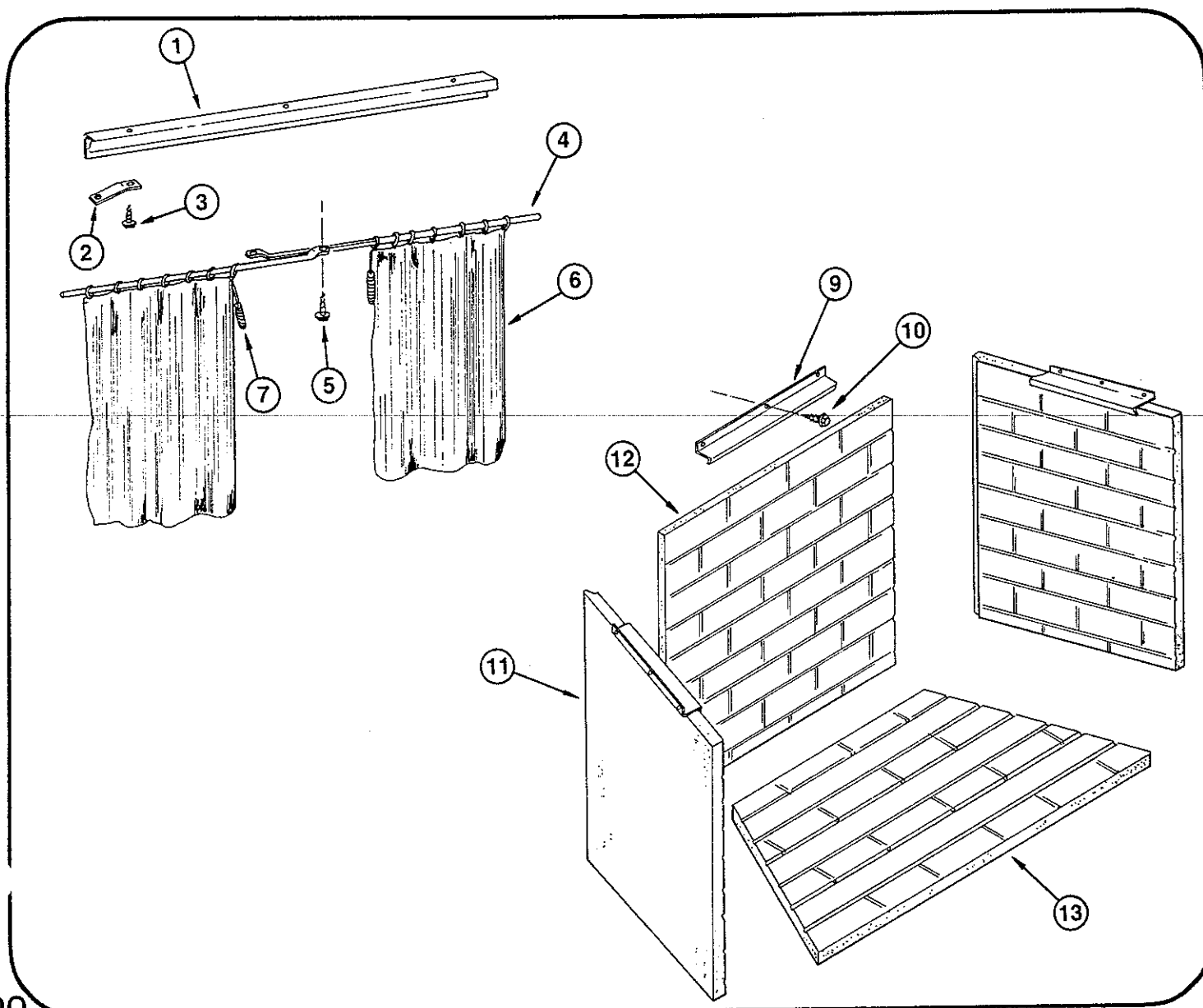
A fireplace needs a source of air for combustion. If your home has been constructed weather tight it may be necessary to open a window slightly to provide this air for combustion or your fireplace will use your heated room air. To prevent this condition TEMCO engineers have designed the TEMCO Combustion Air Kit. This kit will attach to your Model TEC36-1 Fireplace. With this combustion air kit installed, your fireplace will draw outside air for combustion instead of your heated home air. The TEMCO Glass Door Package Model GD36-1 and the TEMCO Combustion Air Kit Model AIR-1 and other accessories are available from your local TEMCO dealer. **IF YOU PLAN TO INSTALL THE GLASS DOOR PACKAGE, IT IS REQUIRED THAT THE COMBUSTION AIR KIT BE INSTALLED AT THE TIME OF THE INSTALLATION OF YOUR MODEL TEC36-1 FIREPLACE. FOR INSTALLATION INSTRUCTIONS REFER TO THE INSTALLATION MANUALS FOR THESE MODELS.** Refer to page 30 for TEMCO accessories

## NOTES

# REPLACEMENT PARTS FOR MODELS TEC36-1 AND TEC36-1 AD

The following replacement parts are available from your **TEMCO** Dealer.

DESCRIPTION	QTY.	PART NO.
1 Upper Door Track	1	2C62206
2 Spring Clip	2	1B62216
3 Screws (for upper door track)	3	1A49007
4 Firescreen Rod	2	1B62646
5 Screw (for screen rod)	2	1A49007
6 Firescreen W/Rings	2	1B62834
7 Tassel, for firescreen	2	1A61366
8 Screen Retainer (not shown)	4	1A60464
9 Refractory Retainer	3	2B61657
10 Screws (for refractory retainer)	9	1A62044
11 Side Refractory	2	2B62655
12 Back Refractory	1	2B62656
13 Bottom Refractory	1	2B62654



# ACCESSORY PARTS LIST FOR MODEL TEC36-1

No.	Description	Model No. or Part No.
1	Outside Air Kit (2 Air Vent Covers, 2 Boxes with Screens 4 Clamps and Hdw.)	AIR-1
2	Flex Duct Pipe (5-7' Lengths) Singular Lengths may be obtained from dealer	FD-6
3	Chimney Termination (1 Intermediate Term Adapter 1 Storm Collar)	802R
4	Intermediate Termination Adapter	2C62710
5	Storm Collar	2D62711
6	12" Triple Wall Pipe	812C
7	24" Triple Wall Pipe	824C
8	36" Triple Wall Pipe	836C
9	48" Triple Wall Pipe	848C
10	30° Triple Wall Elbow (2 Elbows)	830E
11	Flue Support	804S
12	Hearth Extension	836H
13	Firestop-Spacer-90° Penetration	804F
14	Firestop-Spacer-30° Penetration	830F
15	Flashing 0/12 to 6/12	806F
16	Flashing 7/12 to 12/12	812F
17	Glass Door Package (NOT SHOWN) FOR MODEL TEC36-1 ONLY	GD36-1

