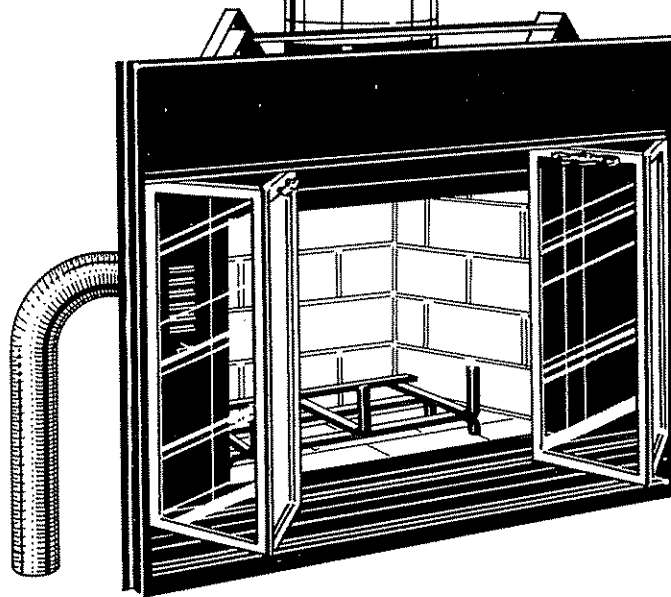


INSTALLATION MANUAL AND WARRANTY

TEMCO®



The Temco Heat Circulator Fireplace

MODEL THC36-2
MODEL THC36-2AD

**Tem
Tex**
PRODUCTS

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THE TEMCO HEAT CIRCULATOR FIREPLACE

THC36-2

- U.L. listed for use in residential construction in the United States with TEMCO double-wall 7" diameter, air-cooled chimney and chimney components.
- Warnock-Hersey listed for use in residential construction in United States and Canada with TEMCO double-wall 7" diameter, air-cooled chimney and chimney components.
- Optional Combustion Air Kit (AIR-5) and Glass Doors (HD-2) are available. TX21 - CL2

THC36-2AD

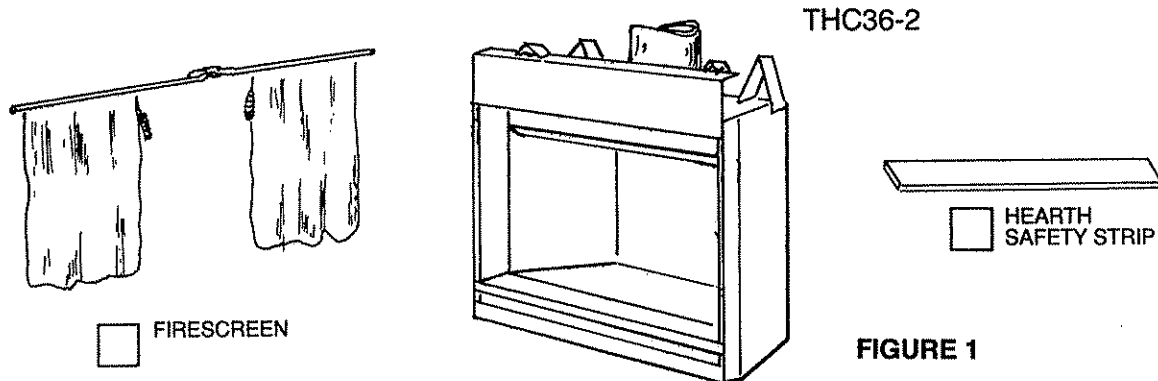
- U.L. listed for use in Mobile Homes with TEMCO double-wall 7" diameter, air-cooled chimney and chimney components.
- Warnock-Hersey listed for use in Mobile Homes in the United States and Canada with TEMCO double-wall 7" diameter, air-cooled chimney and chimney components.
- Combustion Air Kit (AIR-3) and Glass Doors (HD-2) are standard with this model.

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.

NOTE: Authorities having jurisdiction (i.e. Building Inspectors, Fire Marshals, etc.), should be consulted before installation to determine the need to obtain a permit.

FIREBOX COMPONENTS



THE TEMCO HEAT CIRCULATOR CHIMNEY SYSTEM COMPONENTS

- | | |
|-------|---|
| 7" | Diameter Double Wall Chimney System |
| 712D | 7" Diameter Double Wall Chimney—12" Section |
| 718D | 7" Diameter Double Wall Chimney—18" Section |
| 724D | 7" Diameter Double Wall Chimney—24" Section |
| 736D | 7" Diameter Double Wall Chimney—36" Section |
| 748D | 7" Diameter Double Wall Chimney—48" Section |
| 704S | Flue Support |
| 730E | Elbow |
| 704F1 | Round Firestop Spacer |
| 730F1 | 30° Firestop Spacer |
| 706F | 0-6/12 Roof Flashing |
| 712F | 7/12-12/12 Roof Flashing |
| 703D | Round Chimney Cap |
| STH-1 | Slip Termination Cap |

BEFORE YOU BEGIN . . .

A FEW BASIC RULES

RULES APPLYING TO THC INSTALLATIONS

1. The instructions on the following pages were designed to make the installation of your TEMCO fireplace as quick as possible. It is important that they be followed exactly. This fireplace should be installed by a skilled craftsman.
2. Use only TEMCO manufactured components when installing a TEMCO fireplace. **Substituting other manufacturers' components for or altering TEMCO parts will void the UL listing and TEMCO warranty.**
3. Check local building codes for restrictions which may not be contained in this manual.
4. The fireplace design permits installation and framing adjacent to combustible materials. Do not set the fireplace directly on vinyl flooring or carpets. **Combustible materials may not be placed on the black face surrounding the fireplace.**
5. All chimney sections, elbows and flue supports require an absolute minimum of 1" air space clearance to all combustibles.
6. The minimum distance from the firebox opening to an adjacent combustible wall is 18". See Figure 5 on Page 7. The minimum distance to an adjacent combustible wall may be reduced to 12" when an approved wall shield is used on the wall. A listed wall shield must be 40" x 40" square and constructed of a non-combustible, inorganic material equivalent to a one-inch layer of material equal to or better than millboard having a thermal conductivity of $K = 0.84$ B.T.U./SQ.FT. per inch and a thermal resistance of ($R = 1.19$) B.T.U./SQ.FT.
7. If the floor construction in front of the fireplace is combustible, a protective hearth extension of the minimum size shown must be installed in front of the fireplace opening. Use TEMCO hearth extension model 736H or 836H, or Design-Tex hearth extension models SH37, SH52, SH61, BH37 or BH45, or a non-combustible, inorganic material equivalent to a one-inch layer of material having a thermal conductivity of $K = 0.84$ B.T.U./SQ. FT. per inch and a thermal resistance of ($R = 1.19$) B.T.U./SQ.FT.* The hearth extension may then be covered by any non-combustible material such as tile, slate, brick, glass, marble, stone, etc. The hearth extension must be fastened to the floor to prevent shifting and the gap between the fireplace and the hearth extension sealed with a non-combustible material.
8. Adhere to the 10' rule of thumb.
9. Chimney supports:
 - a. Flue support required every 35' of vertical system height.
 - b. Flue support required every 6' of offset chimney.
 - c. Guy wire stabilizer is required for chimney extending more than 6' above roof line.
10. The Minimum system heights are as follows:
 - a) Straight run without elbows = 12'
 - b) Two elbows (1 pair) = 12'
 - c) Four elbows (2 pair) = 21' The maximum system height is 60'.
11. A maximum of four (2 pair) 30° elbows may be used per system. Offset must not exceed 30° from true vertical. The maximum distance between elbows without support is 6'. Maximum run of inclined chimney is 20'.
12. Barometric damper on the Combustion Air Kit allows air to be drawn from above, below or behind the fireplace. The combustion air inlet ducts may not terminate in attic space. Refer to AIR-5 installation manual for complete installation and use information.
13. The THC fireplace may be installed with model number HD-2 glass doors.
14. Check your local building code to determine if grounding is required and what procedure should be followed. Grounding is recommended by the manufacturer if you live in an area of high risk due to electrical storms.
15. Coal and charcoal may not be burned in this fireplace.
16. **Read the complete manual before beginning the installation of your fireplace. It will save time and effort if you understand the complete procedure before beginning.**

*These materials meet or exceed this specification:

- 3
 - a) Micore MC-180 manufactured by U.S. Gypsum Corporation.
 - b) Conwed Spec 300 manufactured by Conwed Corporation.
 - c) Cera Form Type 106R board, manufactured by Johns-Manville.

PLANNING AHEAD

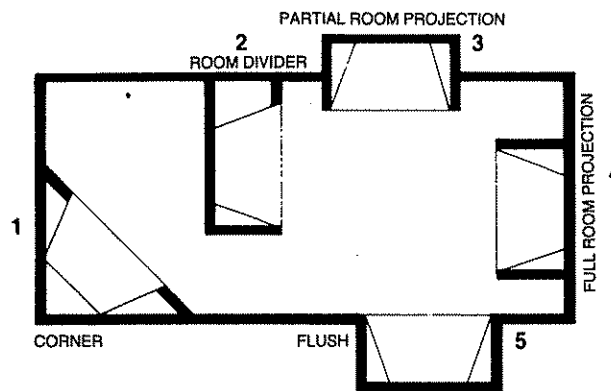
CHOOSING THE LOCATION FOR YOUR FIREPLACE

Figure 2 shows some of the many ways 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 MAY NOT BE INSTALLED DIRECTLY ON CARPET OR VINYL.

FIGURE 2



OUTSIDE AIR KIT AND GLASS DOOR ACCESSORIES

A fireplace needs a steady supply of air in order to draw properly. Many houses and apartments which are well sealed lack sufficient air for normal operation. **IN SUCH HOUSES IT IS RECOMMENDED THAT A COMBUSTION AIR KIT BE INSTALLED.** A combustion air kit will improve the efficiency of any fireplace, especially if used in conjunction with a glass door accessory, because it allows you to use outside air for combustion instead of heated room air.

Installing the fireplace on an outside wall will simplify the installation of the combustion air kit and reduce the amount of necessary duct work. The duct work may be run above or below the firebox to access outside air. If an air kit is to be installed, it **MUST BE INSTALLED AT THE TIME THE FIREPLACE IS INSTALLED**, before its enclosure is finished. See the AIR-5 or AIR-3 installation manual for complete instructions.

You may install TEMCO HD-2 glass doors at any time using the instructions packed with your HD-2 glass doors.

GAS LOG

If you plan to install a gas log, 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 25 on page 18.

DRAFTS

The location of 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.

FIGURE 3

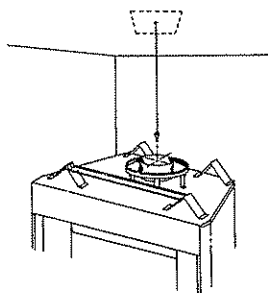
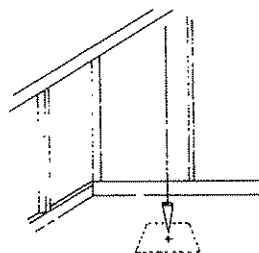


FIGURE 3A



CHIMNEY OUTLET

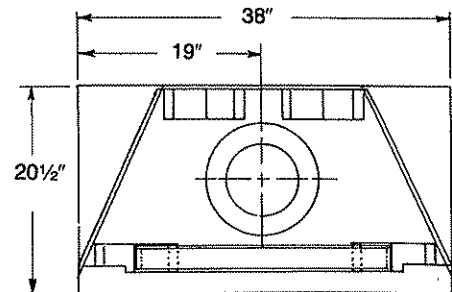
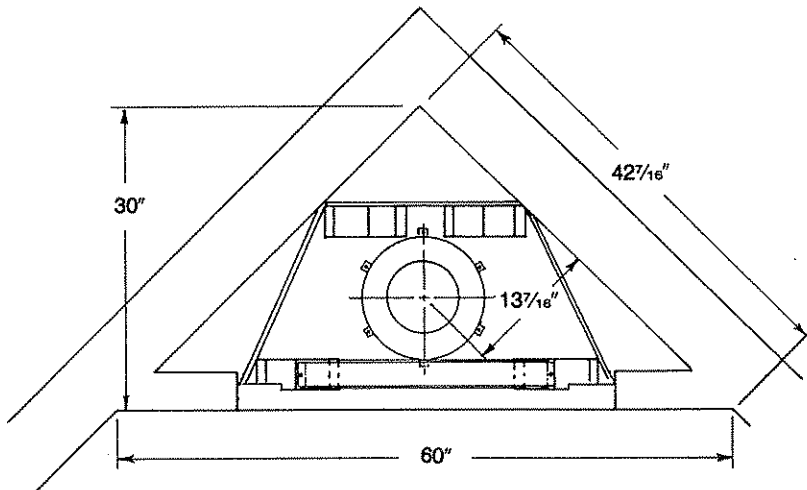
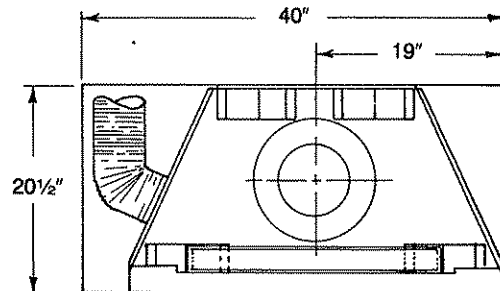
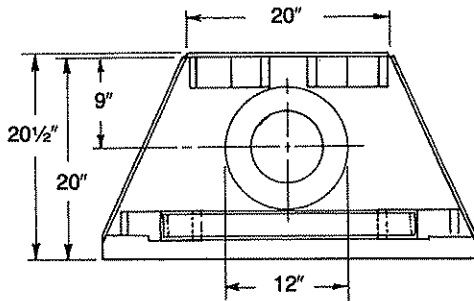
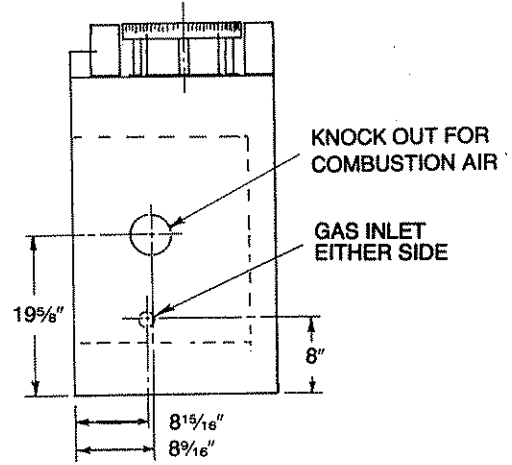
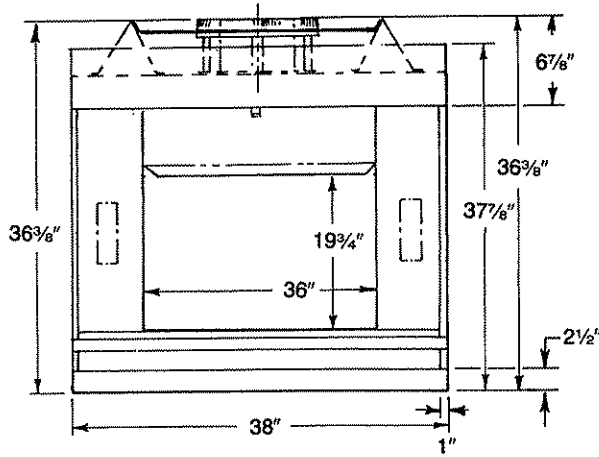
Thought should be given to the proposed location of the chimney outlet on the roof. Objects such as trees, adjacent buildings or embankments that are too close to the chimney can create air circulation problems during windy weather that could affect the way the fireplace draws air.

After careful consideration, choose the location for your TEMCO HEAT CIRCULATOR fireplace to achieve the simplest installation for maximum efficiency.

PLANNING AHEAD

FIGURE 4 GIVES BASIC DIMENSIONS WHICH WILL AID YOU IN CHOOSING THE LOCATION FOR YOUR FIREPLACE

FIGURE 4



PLANNING AHEAD

FIREBOX AND CHIMNEY SYSTEM CLEARANCES

The fireplace may be placed directly on a combustible floor, against a combustible wall or on a continuous level surface such as a raised wooden platform.

The fireplace must be secured in place so it cannot shift positions. The nailing tabs on the sides of the firebox make securing the firebox to the floor quick and easy.

Framing may be placed directly against the side and back standoffs. Only the header (see pages 7 and 8) may rest on the standoffs on top of the firebox.

COMBUSTIBLE MATERIALS MAY NOT COVER ANY PART OF THE BLACK METAL SURROUNDING THE FIREBOX OPENING. SEE FIGURE 5 ON PAGE 7.

Do not install the firebox directly 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 5 on page 7.

The minimum distance from the firebox opening to an adjacent combustible wall is 18". See Figure 5 on Page 7. The minimum distance to an adjacent combustible wall may be reduced to 12" when an approved wall shield is used on the wall. A listed wall shield must be 40" x 40" square and constructed of a non-combustible, inorganic material equivalent to a one-inch layer of material equal to or better than millboard having a thermal conductivity of $K = 0.84$ B.T.U./SQ.FT. per inch and a thermal resistance of $(R = 1.19)$ B.T.U./SQ.FT.

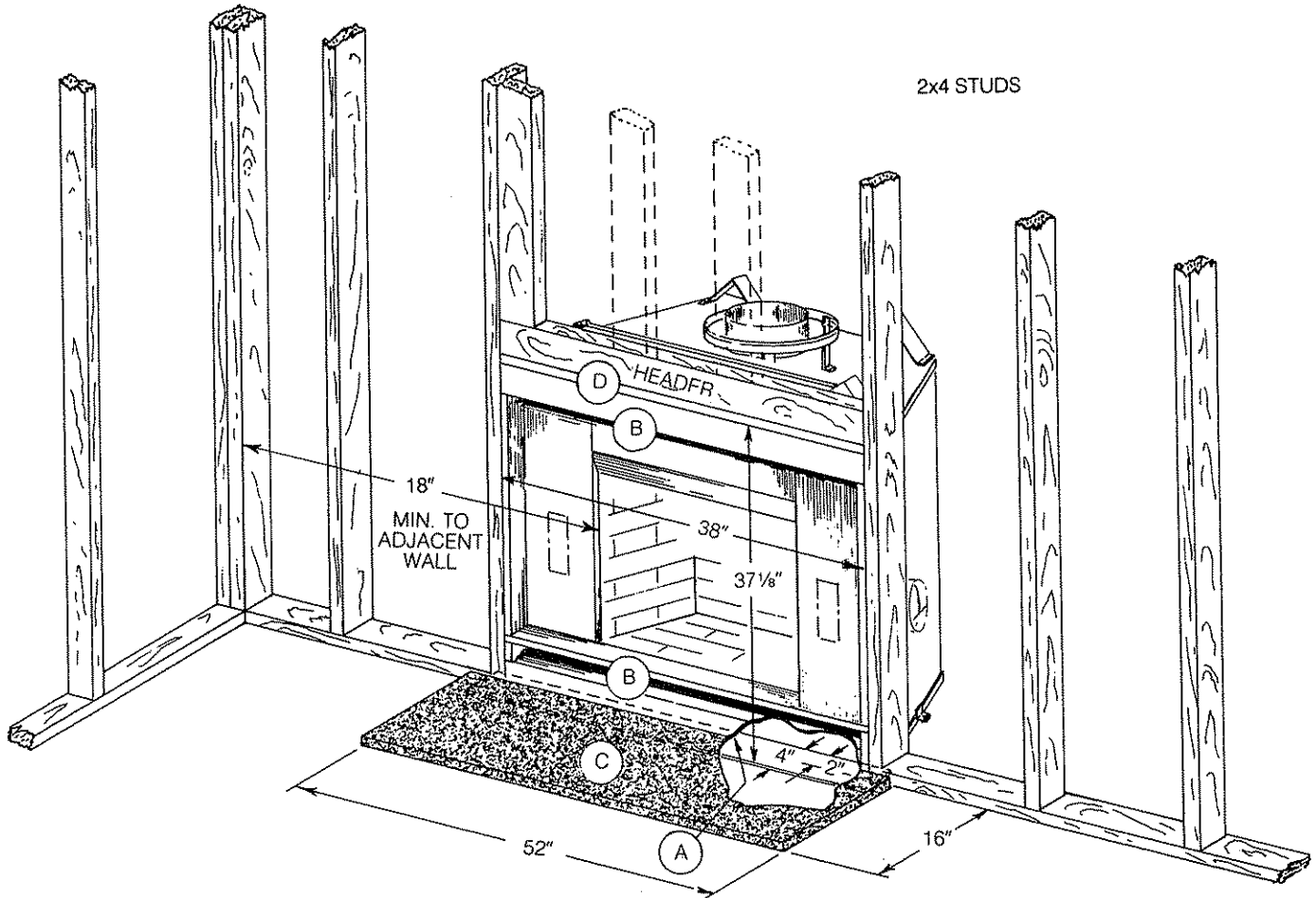
Chimney sections require an absolute minimum of 1" air space clearance to combustible materials. Firestop spacers installed at each ceiling level provide the clearance at that point.

THE SLOT OPENINGS ACROSS THE TOP AND BOTTOM OF THIS FIREPLACE MUST NEVER BE BLOCKED IN ANY WAY. BLOCKING THE AIR FLOW INTO AND OUT OF THE OPENINGS/ SLOTS COULD CAUSE A FIRE HAZARD.

Lineal Gain Chart

	Lineal Gain
THC36 Firebox	35"
712D Chimney Section	10 $\frac{3}{4}$ "
718D Chimney Section	16 $\frac{3}{4}$ "
724D Chimney Section	22 $\frac{3}{4}$ "
736D Chimney Section	34 $\frac{3}{4}$ "
748D Chimney Section	46 $\frac{3}{4}$ "
730E 30° elbows (per pair)	14 $\frac{5}{8}$ "
704S Flue support	3"
703D Round termination	6"
STH-1 Slip termination for chase installations	

FIGURE 5



CAUTION

- A. The hearth safety strip must be used under the crack between the fireplace and the hearth extension when the firebox is installed on a combustible surface. Seal the crack with a non-combustible material such as mortar, grout, etc.
- B. THE SLOT OPENINGS ACROSS THE BOTTOM OF THE FIREPLACE MUST NEVER BE BLOCKED. THIS COULD CAUSE A FIRE HAZARD. COMBUSTIBLE MATERIAL MUST NOT BE INSTALLED OVER DARKENED AREAS.
- C. If the floor construction in front of the fireplace is combustible, a protective hearth extension of the minimum size shown must be installed in front of the fireplace opening. Use TEMCO hearth extension model 736H or 836H, or Design-Tex hearth extension model SH37, SH52, SH61, BH37 or BH45, or a non-combustible, inorganic material equivalent to a one-inch layer of material equal to or better than millboard having a thermal conductivity of $K = 0.84$ B.T.U./SQ.FT. per inch and a thermal resistance of $(R = 1.19)$ B.T.U./SQ. FT.
- D. **WARNING: THE HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED** in Figure 5 and Figure 26.
- E. The header or any other combustible material may not touch any fireplace surface painted black.
- F. The minimum distance from the firebox opening to an adjacent combustible wall is 18". The minimum distance to an adjacent combustible wall may be reduced to 12" when an approved wall shield is used on the wall. A listed wall shield must be 40" x 40" square and constructed of a non-combustible, inorganic material equivalent to a one-inch layer of material equal to or better than millboard having a thermal conductivity of $K = 0.84$ B.T.U./SQ.FT. per inch and a thermal resistance of $(R = 1.19)$ B.T.U./SQ.FT.

FRAMING DIMENSIONS

FIGURE 6 FRAMING DIMENSIONS

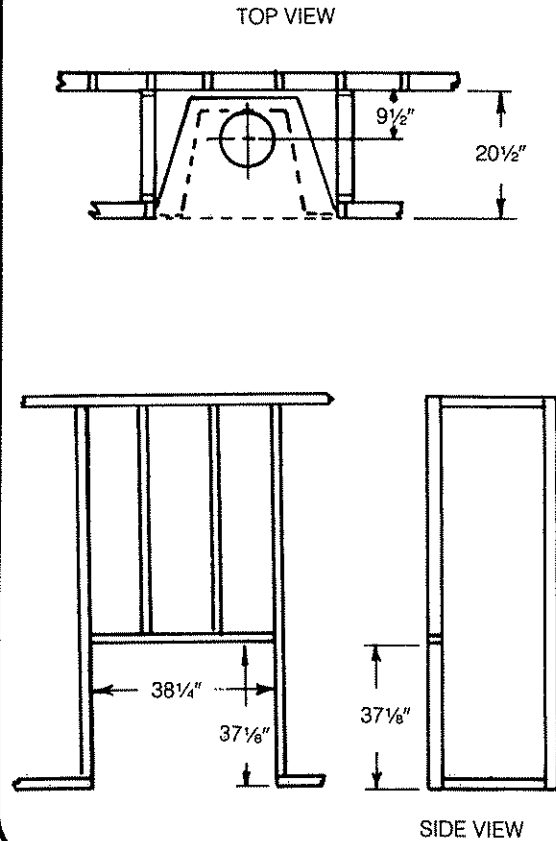
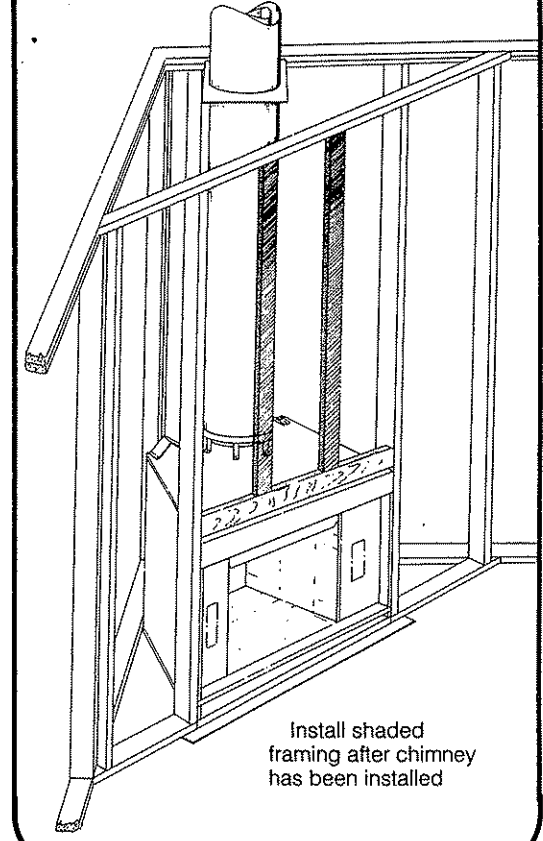
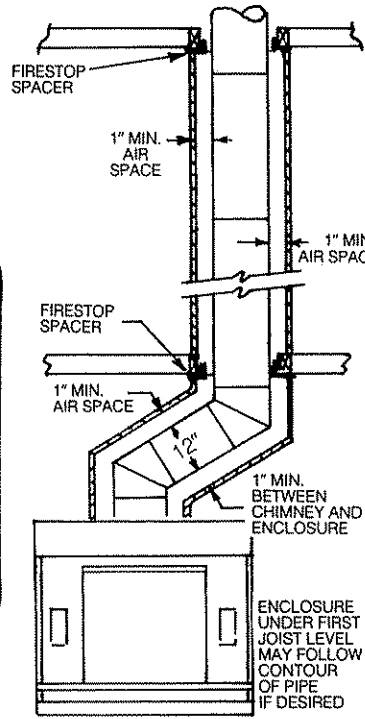
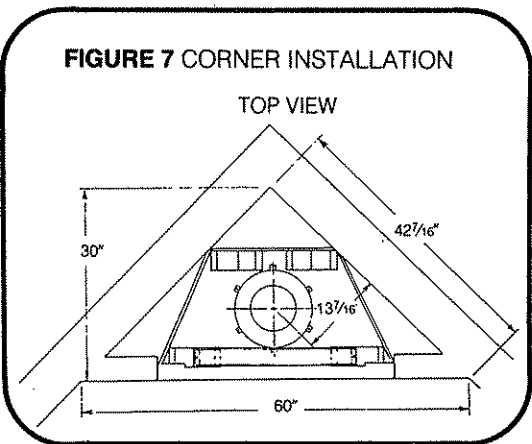


FIGURE 8



NOTE: Header height of 37 1/8" does not include height of platform when the firebox is installed on a raised platform. Plan accordingly.

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 17 for chase installation instructions.

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

INSTALLING THE FIREBOX

This list of specific instructions will help you make certain that every installation operation is done correctly.

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 Screwdriver
- Slot style screwdriver
- Hammer
- Saw and/or sabersaw
- Level
- Measuring tape
- Plumbline
- Electric drill and bits
- Pliers
- Square
- 5/16" Hex head nut driver

Step 1

Position firebox and install hearth safety strip.

Step 2

The hearth safety strip must be installed under the fireplace when the firebox is installed on a combustible surface. This strip must be positioned on the floor to extend 2" under the fireplace and 6" on either side of the fireplace opening at the point where the hearth extension meets the fireplace. See Figure 10 above and Figure 5 on page 7.

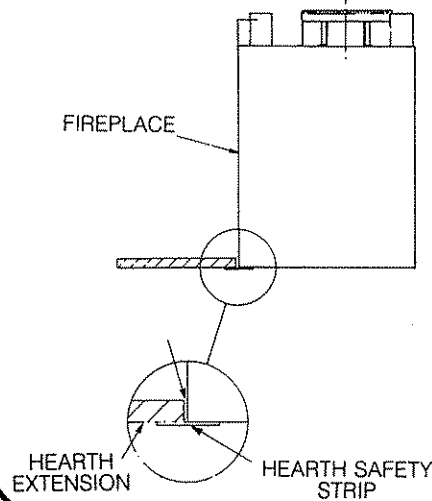
Step 3

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 4

Secure the fireplace to the floor at the nailing tabs with appropriate size nails and screws.

FIGURE 10
Seal Crack with Noncombustible 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 5

If the outside air accessory AIR-5 is to be installed, it is easiest to install this before the framing is installed. See the AIR-5 installation manual for details.

Step 6

Install framing as shown on page 8.

Step 7

If the floor construction in front of the fireplace is combustible, a protective hearth extension of the minimum size shown must be installed in front of the fireplace opening. Use TEMCO hearth extension model 736H or 836H, or Design-Tex hearth extension model SH37, SH52, SH61, BH37 or BH45, or a non-combustible, inorganic material equivalent to a one-inch layer of material equal to or better than millboard having a thermal conductivity of $K = 0.84$ B.T.U./SQ.FT. per inch and a thermal resistance of $(R = 1.19)$ B.T.U./SQ.FT.

CEILING AND ROOF OPENINGS

Step 8

FRAMING CEILING AND ROOF OPENING

SEE PAGES 13 AND 14 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 choose 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 14½ x 14½ square. Use the nail you previously put in the ceiling as the center of the square. **See page 11 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 730F1 firestop spacer. The opening in the ceiling for this installation should be 21⅞ x 14½.

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.

NOTE: Refer to pages 13 and 14 for information about installations using elbows.

Roof Framing Dimensions

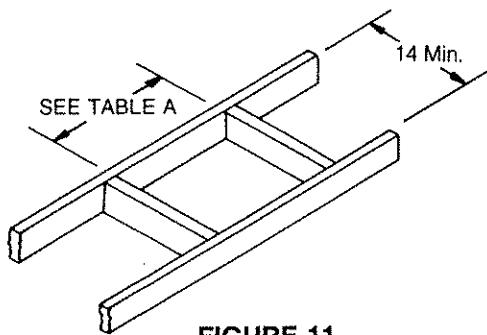


FIGURE 11

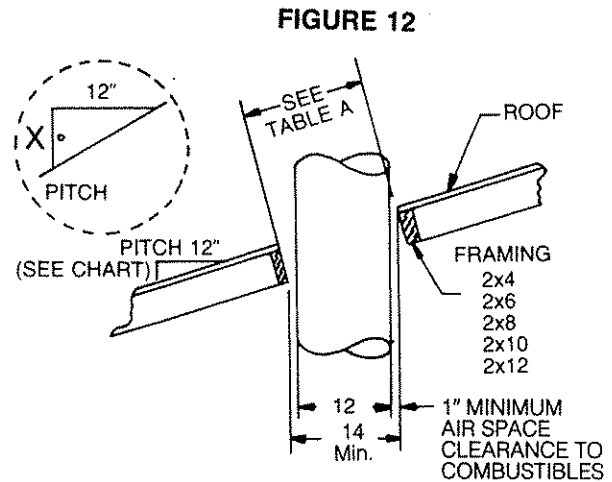


FIGURE 12

TABLE A—MINIMUM OPENINGS/FRAMING MEMBERS

Roof Pitch 0/12 (Flat)	ROOF CUT OUT TO NEAREST 1/8" ABOVE				
	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
0/12	14 x 14	14 x 14	14 x 14	14 x 14	14 x 14
1/12	14 x 14½	14 x 14⅝	14 x 14¾	14 x 14⅞	14 x 15⅞
2/12	14 x 15	14 x 15¼	14 x 15½	14 x 15¾	14 x 16¼
3/12	14 x 15½	14 x 16	14 x 16¼	14 x 16¾	14 x 17½
4/12	14 x 16¼	14 x 16⅝	14 x 17¼	14 x 17⅞	14 x 18¾
5/12	14 x 17	14 x 17¼	14 x 17⅝	14 x 18¼	14 x 19¼
6/12	14 x 17⅝	14 x 18⅝	14 x 19⅝	14 x 20⅝	14 x 21¾
7/12	14 x 18¾	14 x 19⅝	14 x 20½	14 x 21⅝	14 x 23¼
8/12	14 x 19¾	14 x 21	14 x 21¾	14 x 23	14 x 24⅞
9/12	14 x 20¾	14 x 22¼	14 x 23	14 x 24½	14 x 26½
10/12	14 x 21¾	14 x 23½	14 x 24⅝	14 x 26	14 x 28¼
11/12	14 x 23	14 x 24¾	14 x 25¾	14 x 27½	14 x 30
12/12	14 x 24⅝	14 x 26⅝	14 x 27⅝	14 x 28⅝	14 x 31⅞

FIRESTOP SPACER

Step 9

Install a firestop at each ceiling level. The angle should extend into the joist space. (See Figure 13.) 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 14. **A MINIMUM OF 1" AIR SPACE CLEARANCE MUST BE MAINTAINED FROM THE CHIMNEY PIPE TO ALL COMBUSTIBLES.**

Install firestop spacer 704F1 when the chimney penetrates the ceiling at a 90° angle. Install firestop spacer 730F1 when the chimney penetrates the ceiling at a 30° angle.

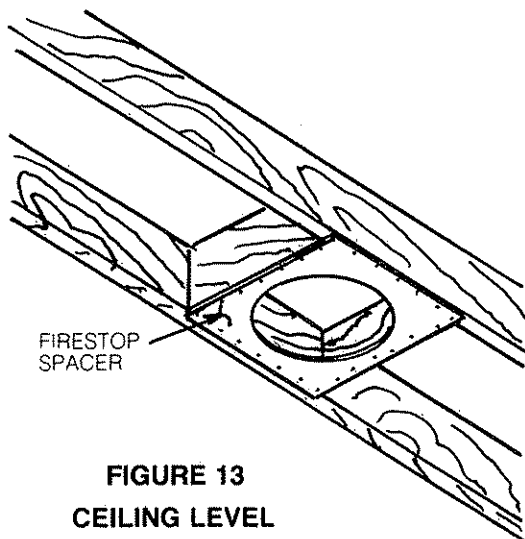


FIGURE 13
CEILING LEVEL

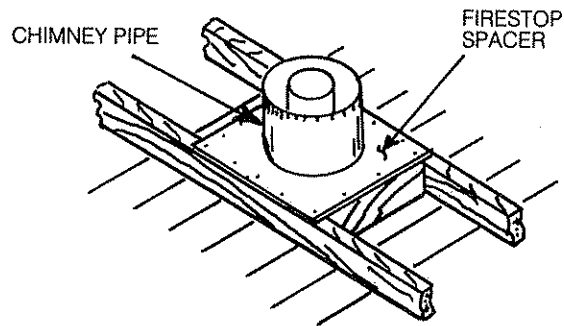
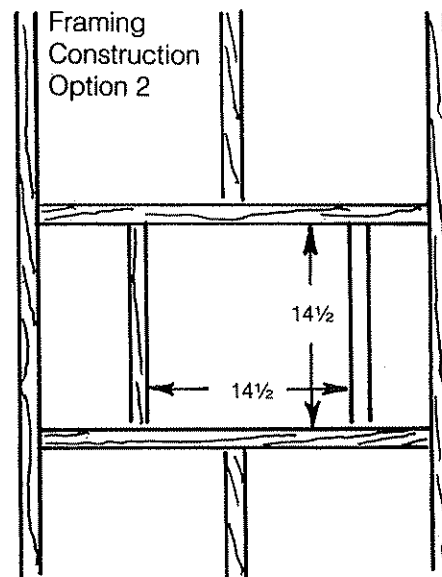
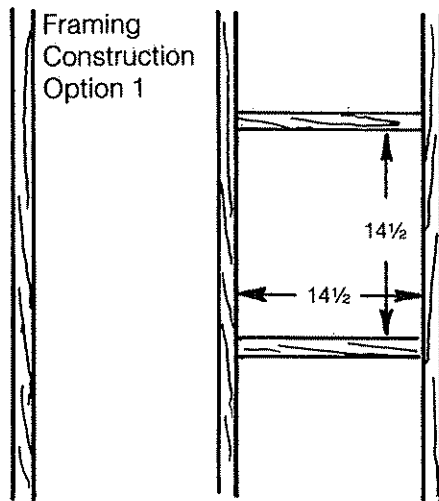


FIGURE 14
ATTIC LEVEL



Framing Option 1 and Option 2 dimensions apply only when 704F1 Firestop is used. Dimensions are 22" x 14 1/2" when the 730F1 is used. The position that the chimney pipe is inclined will determine the long dimension.

INSTALLING THE CHIMNEY

TEMCO Double Wall Chimney has two sections—the Inner and Outer. **It is very important** that both sections of double wall chimney are installed for each length of chimney used in the system. On top of your fireplace there are two corresponding rings which are called the flue collars.

Step 10

Insert the Inner (7") pipe with the crimped end pointing down into the Inner collar. The Inner pipe section fits inside the Inner collar. Push the pipe until it bottoms and the snap locks engage. Check each joint to ensure that the sections are securely locked together.

Step 11

Slip the Outer (12") pipe with the crimped end UP over the other 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 chimney 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 3/4" 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. See figure 15.

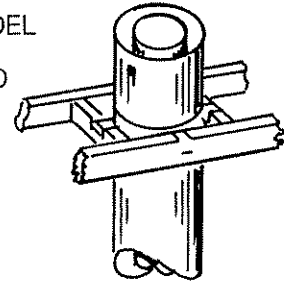
MAINTAIN A 1" MINIMUM AIR SPACE CLEARANCE FROM THE CHIMNEY SECTIONS TO ALL COMBUSTIBLES.

Minimum system height:
 Straight run w/o elbows = 12'
 Two elbows (1 pair) = 12'
 Four elbows (2 pair) = 21'
 Maximum system height is 60'

FIGURE 15

For systems of 35 feet in height

A FLUE SUPPORT MODEL 704S MUST BE INSTALLED AT THE 35 FOOT LEVEL TO ADEQUATELY SYSTEM HEIGHTS OF 35 FEET OR MORE.



CHIMNEY TERMINATION HEIGHT

10 FOOT RULE OF THUMB

Under most conditions, the fireplace system will draw properly if the chimney height is determined in accordance with the following guidelines:

1. If your chimney penetrates the roof within 10' of its peak, it must extend at least 24" above your roof's peak and be at least 36" above the highest point of the roof opening (See Figure 16 below).
2. If the chimney penetrates the roof farther than 10' from its peak, measure from the center line of the chimney to a point 10' away, between the chimney and the peak of the roof. The top of the chimney must be at least 24" above this point and at least 36" above the highest point of the roof opening.
3. When figuring required chimney height, the 703D termination counts as 6" of effective chimney height. The balance of the required height will consist of chimney sections and the effective height of the firebox.
4. The 10' Rule of Thumb is a guide for calculating chimney height that works under most conditions. However, many factors can cause the need for additional chimney height beyond what the 10' Rule of Thumb would indicate.

Topographical factors can cause high pressure zones which prevent a chimney from drawing. This can occur if the house is located in a low lying area, in a valley, or near the base of a cliff or hillside. The same situation can occur if the chimney is near other steep roof lines or tall buildings. Area with high winds also frequently require higher than normal chimneys.

Certain styles of architecture tend to interfere with a fireplace's proper draw. If the room in which the fireplace is located has a very high ceiling, smoke may enter the room unless the chimney is terminated at a level higher than that of the ceiling, even if the 10' Rule of Thumb indicates a shorter chimney height.

FIGURE 16 WITHIN 10 FEET OF ROOF'S PEAK

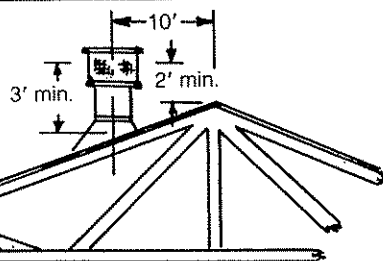
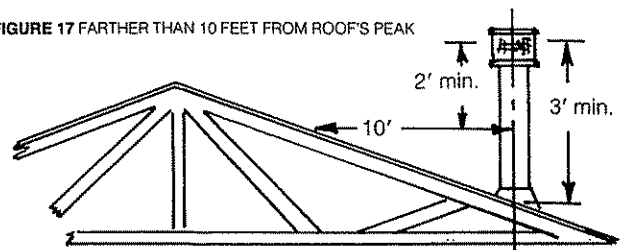


FIGURE 17 FARTHER THAN 10 FEET FROM ROOF'S PEAK

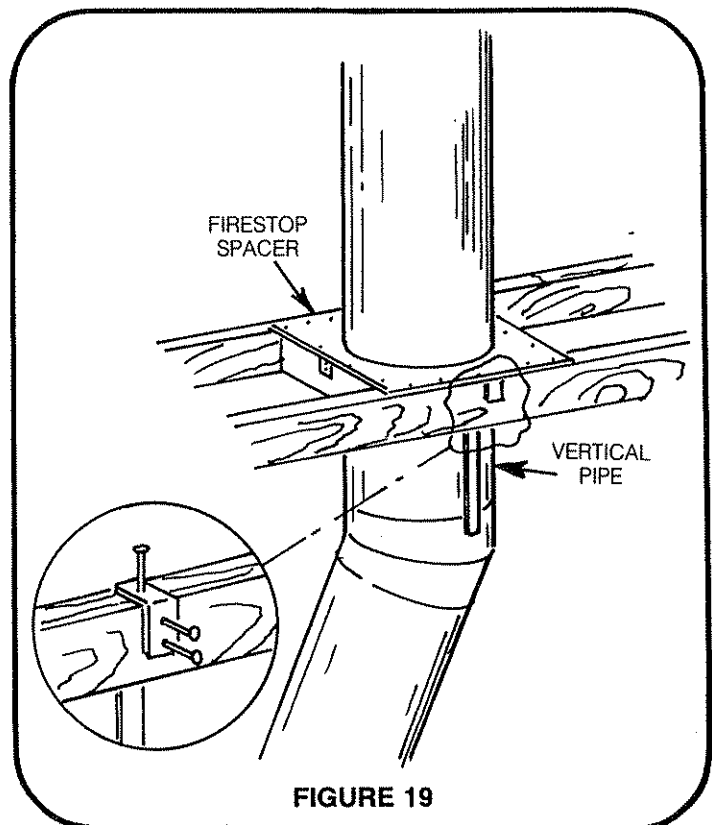
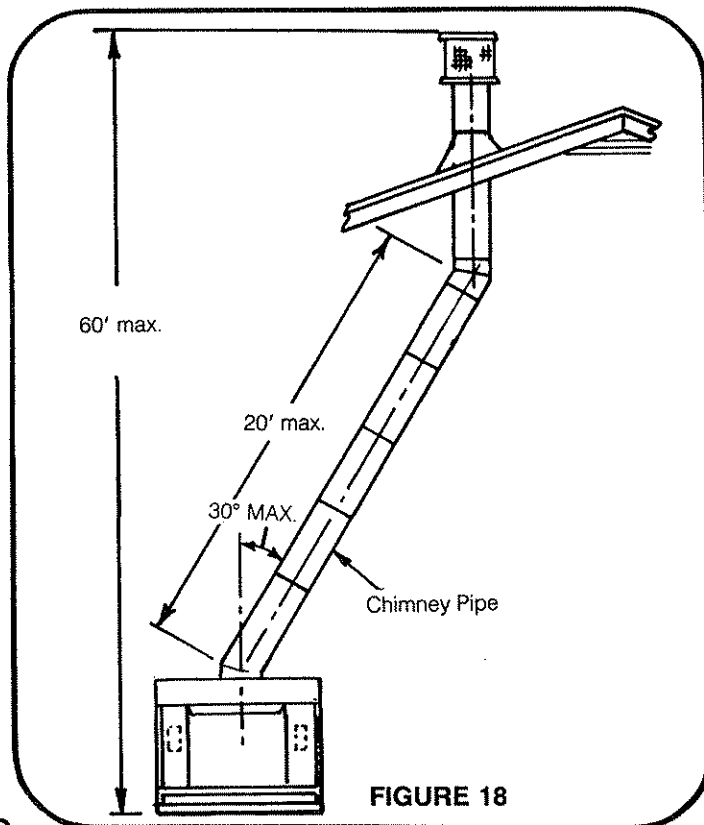


OFFSET INSTALLATIONS

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. **Minimum height of fireplace using elbows:** Two elbows (1 pair) = 12'
Four elbows (2 pair) = 21'
- B. 60' maximum system height.
- C. Four 30° elbows (2 pair) maximum per system. Each offset elbow must be used with a return elbow. The chimney pipe must be vertical when it penetrates the roof.
- D. The chimney offset is to be a maximum of 30° from vertical.
- E. Maximum inclined chimney run of 20'.
- F. Additional support to be provided every 6' of inclined run of chimney. Use flue support 704S.
- 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 19 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" air space clearance from chimney and elbows to all combustible material.
- I. Install firestop spacer 703F1 when the flue penetrates the ceiling at a 30° angle. Refer to page 11 for instructions.
- J. **A MINIMUM OF 1" AIR SPACE CLEARANCE MUST BE MAINTAINED FROM THE CHIMNEY PIPE AND ELBOWS 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 4. 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 20 page 14. The "X" dimension in the drawing is the amount of the offset. Be sure to consider the direction of 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. Adjust the inner section of the elbow into the inside of the inner collar of the firebox or the inner section of the chimney pipe.
3. Adjust the outer section of the elbow over the outer section of the chimney collar or the outer section of the chimney pipe. Simultaneously snap lock the sections permanently into place.
4. 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 7" diameter, double wall pipe (12", 18", 24", 36" and/or 48") between the elbows to a maximum length of 72 inches without a flue support.

TYPICAL OFFSET INSTALLATION

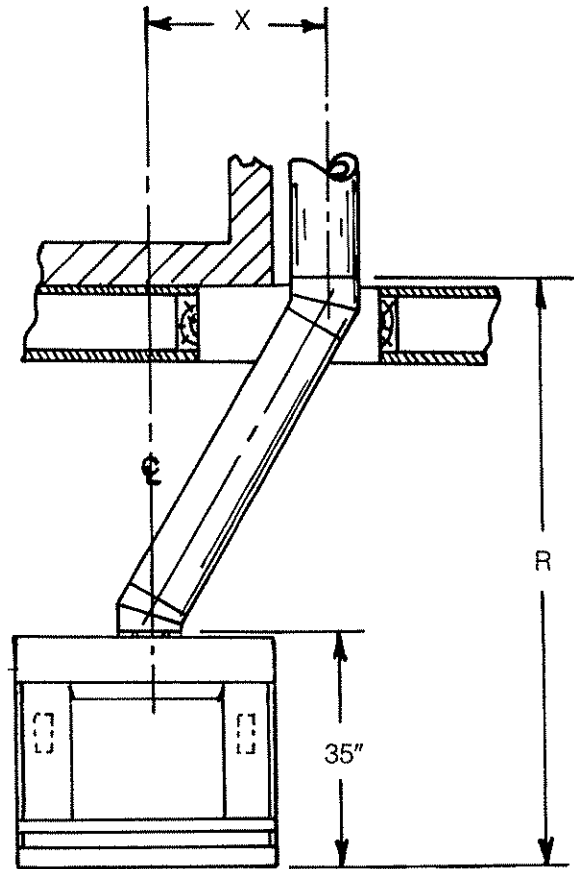


FIGURE 20

TABLE B

**Lineal Gain of Offset with Two Elbows
Fireplace Model THC36-2**

	Offset Dim. "X" (Inches)	Rise Dim. "R" (Inches)
Elbows Only	3 ⁷ / ₈	14 ⁵ / ₈
Elbows Only Mounted on Top of Firebox	3 ⁷ / ₈	49 ³ / ₈
One 12" Section	9 ¹ / ₄	58 ⁷ / ₈
One 18" Section	12 ¹ / ₄	64
Two 12" Sections	14 ⁵ / ₈	68 ¹ / ₄
One 24" Section	15 ¹ / ₄	69 ¹ / ₄
One 12" and One 18" Section	17 ⁵ / ₈	73 ¹ / ₄
One 12" and One 24" Section or Two 18" Sections	20 ⁵ / ₈	78 ³ / ₈
One 36" Section	21 ¹ / ₄	79 ⁵ / ₈
One 18" and One 24" Section	23 ³ / ₈	83 ³ / ₈
One 12" and One 36" Section or Two 24" Sections	26 ⁵ / ₈	88 ⁷ / ₈
One 48" Section	27 ¹ / ₄	90
One 18" and One 36" Section	29 ⁵ / ₈	94
One 12" and One 48" Section or One 24" and One 36" Section	32 ⁵ / ₈	99 ¹ / ₄
One 18" and One 48" Section	35 ⁵ / ₈	104 ³ / ₈
One 24" and One 48" Section or Two 36" Sections	38 ⁵ / ₈	109 ⁵ / ₈
One 36" and One 48" Section With One Flue Support (704S)	46 ¹ / ₈	122 ⁵ / ₈

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 ⁵ / ₈	9 ¹ / ₄
18" Section	8 ³ / ₈	14 ¹ / ₂ "
24" Section	11 ³ / ₈	19 ⁵ / ₈
36" Section	17 ⁵ / ₈	30
48" Section	23 ³ / ₈	40 ⁵ / ₈
Flue Support (704S)	1 ¹ / ₂	2 ⁵ / ₈

NOTE:

Rise dimension "R" includes 35" for height of the firebox (except for line one—elbows only). If one of the elbows is not mounted onto the firebox as pictured above, subtract 35" from the "R" dimension in the chart to get the actual rise when elbows are mounted anywhere else in the system.

FLASHING AND STORM COLLAR

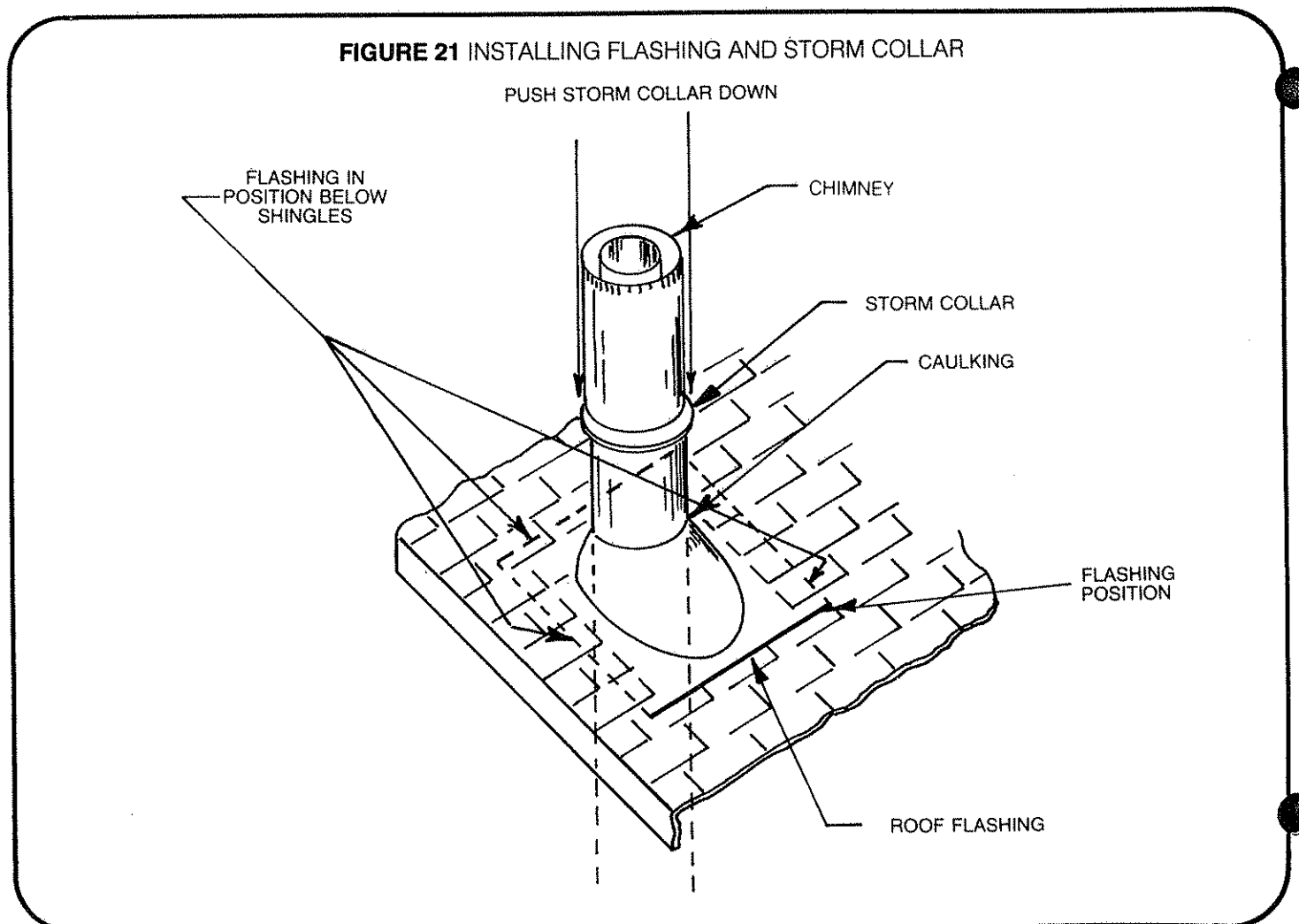
Step 13 INSTALLING FLASHING

Place the flashing over the chimney 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.**

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 to hold it in place.

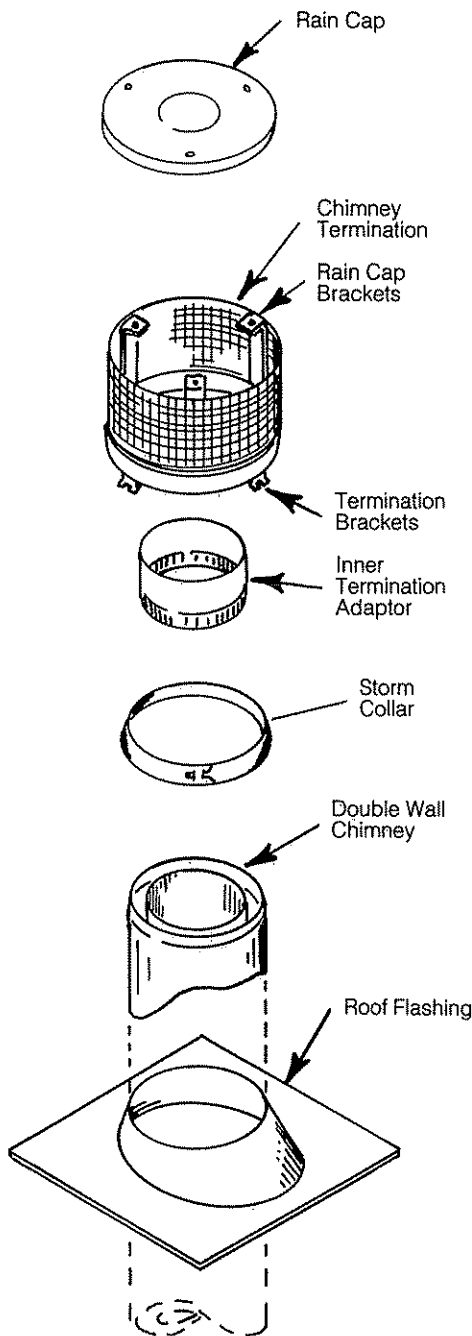


INSTALLING TERMINATION

Step 15

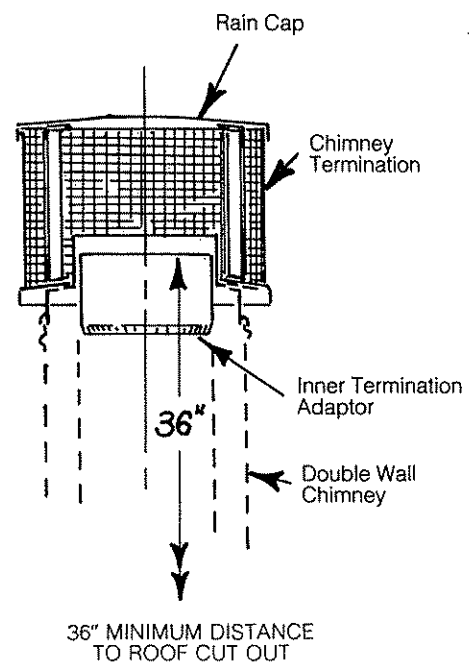
A chimney termination is required to finish the installation. The following instructions are for the 703D termination. Refer to the instructions packed with the termination for additional information.

FIGURE 22



- 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 1/8" diameter holes in the outer section of the chimney pipe.
- Snaplock the inner termination adaptor into the inner section of the chimney pipe. The crimped end of the adaptor goes into the chimney 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 1/2" hex head sheet metal screws provided.
- Attach the rain cap by lining up the holes in the cap with the holes in the bracket on the top of the termination. Install the three #10 A x 1/2" Hex Head screws provided.

FIGURE 23



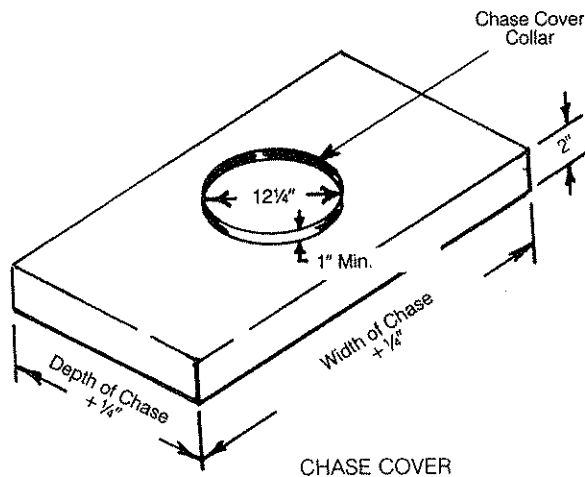
CHASE INSTALLATIONS

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. Remember that chimney components must be an absolute minimum of 1" air space clearance from combustible materials. Plan the dimensions of your chase accordingly.
3. **THE OPENINGS BETWEEN THE BRACKETS OF THE OUTER RING OF THE CHIMNEY COLLARS 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 entering the chase. The chase cover should be welded in the corners. A minimum 1" high collar 12¼" in diameter is required at the point where the chimney pipe will penetrate the chase cover. The seam at the base of the collar must be watertight. It may be necessary to support the chase cover with framing members if the cover is large or has multiple caps. Required clearances to combustibles must be maintained. See the drawing below for construction details.
5. **Both sections of the chimney pipe must extend above the chase cover when the 703D termination is used. Use roofing cement between the chimney pipe and the 1" high collar on the chase cover. Install the storm collar packed with the 703D over the 1" collar on the chase cover. The termination is installed to the chimney pipe above the chase cover as described below.**
6. It is recommended, but not required, that you insulate underneath the fireplace and between the studs on the outside wall of the chase to reduce cold air transfer in cold climates. Be sure to use non-combustible insulation without paper or plastic backing. Never use blown-in type insulation in a chase of a THC fireplace. Insulation should never cover the top or sides of the fireplace or any part of the chimney system. To further reduce cold air transfer, it is recommended that 1/2" gypsum wallboard be installed over the insulation on the inside of the chase. Plan chase dimensions accordingly.
7. **MAINTAIN 1" AIR SPACE CLEARANCE FROM THE CHIMNEY SECTIONS TO THE INSULATION MATERIAL.**
8. Chases with two or more chimneys should be constructed wide enough to allow chimneys to be spaced at least 24" on center from each other. When chimneys are closer than this, smoke from one may be drawn down the flue of the adjacent chimney. When chimneys must be installed closer than this, smoke transfer may be prevented by vertically off-setting adjacent terminations by 12" to 18", or by installing 12" to 18" high sheet metal shields between terminations.

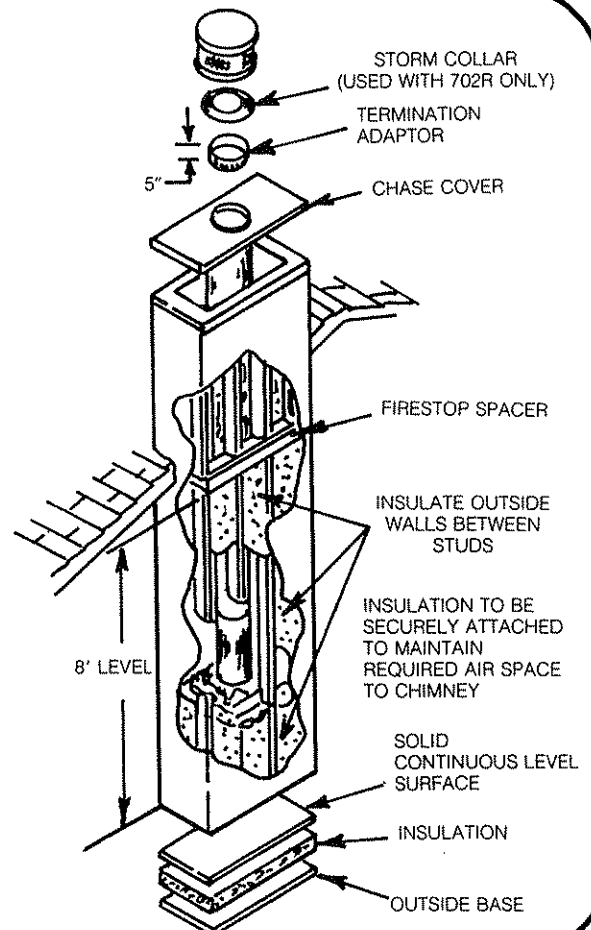
WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATING OR OTHER MATERIALS.

FIGURE 24

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 Collar dimension: If the 703D termination is used, the chase cover collar should be 12¼" in diameter. If a slip termination is used, measure the diameter of the outer slip section and plan accordingly.



INSTALLING A GAS LINE

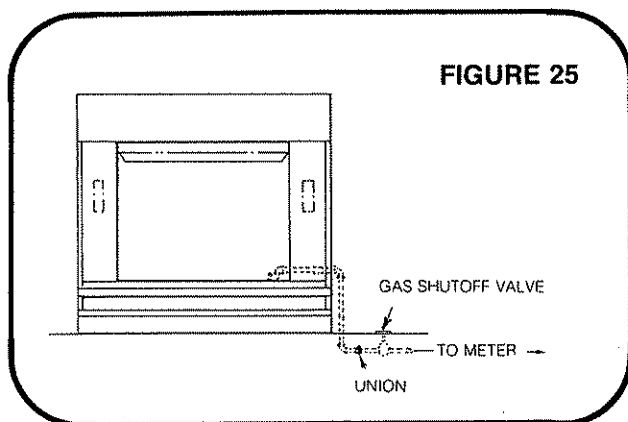
GAS LINE MUST BE INSTALLED BY LICENSED GAS LINE INSTALLER.

IMPORTANT: THE GAS LINE MUST BE INSTALLED BEFORE FRAMING THE FIREPLACE.

If desired, a gas log may be installed with this fireplace. Gas logs, however, are considered as a decorative addition to the fireplace. The gas line must be connected to a decorative gas log in accordance with the National Fuel Gas Code ANSI Z223.1-1980.

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 enters the fireplace from either side. Refer to page 5 for location of gas line knockouts. Remove the cover plate from the outer wall and remove the insulation from the tube on the side you are going to use.



Remove the brick patterned refractory side. The location on the refractory to be drilled has been pre-marked with black paint. Gently tap a hole in the refractory at the paint mark with a punch and hammer. Enlarge the hole to accommodate 1/2" black iron pipe. Replace the refractory.

Run the gas line to just outside the entrance hole of the fireplace. Install a 7" (minimum) nipple to reach inside the fireplace. Seal around the nipple with insulation. Should the gas pipe not be at the desired height, a 90° elbow and street elbow may be used to obtain the correct height. See Figure 25.

Finish the installation by attaching the gas log inside the fireplace.

CAUTION: IF GAS LOGS ARE TO BE USED, THE FIREPLACE FLUE DAMPER MUST BE LOCKED OPEN OR REMOVED.

Step 16 FINISHING YOUR FIREPLACE

There are a wide variety of finishing materials available to finish your **TEMCO HEAT CIRCULATOR** 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 slots in 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 the opening on either side of the fireplace. The slots in the face of the fireplace must not be obstructed in any way. Seal all joints between the back fireplace face and the wall covering with a non-combustible material such as rock wool insulation or mortar. 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. Seal the space between the wall covering and the fireplace with a non-combustible material such as rock wool insulation or mortar. The area between the fireplace face and the wall covering may be concealed with a piece of painted decorative metal trim.

FINISHING TECHNIQUES

FINISHING YOUR FIREPLACE

NOTE: An "L" shaped steel lintel must be installed across the top of the firebox opening where facing material such as brick, stone or tile is used on the face of the firebox. It acts

as a firestop. It should be attached to the face of the fireplace with screws and imbedded in a mortar joint.

FIGURE 26
Brick, stone or tile facing

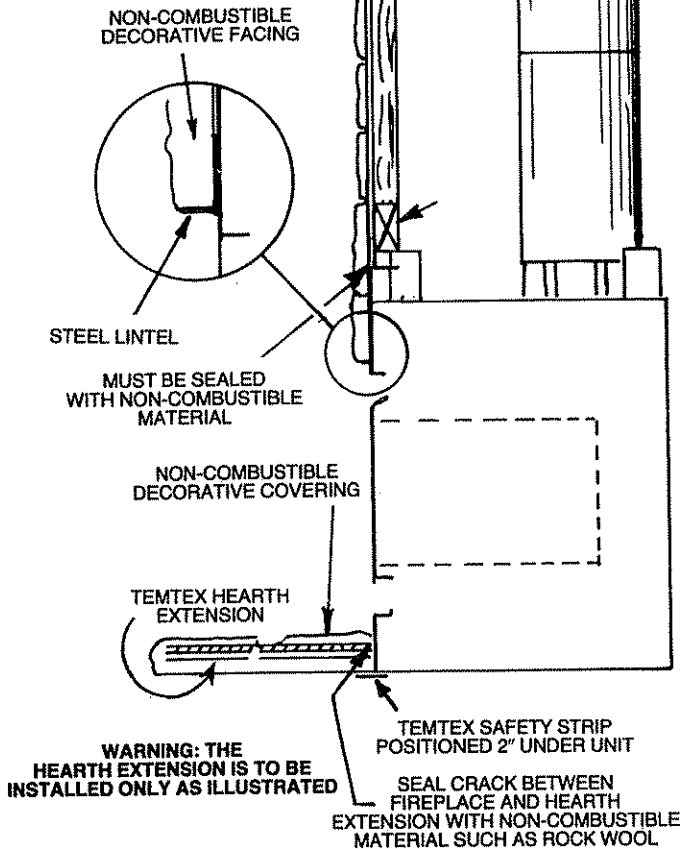
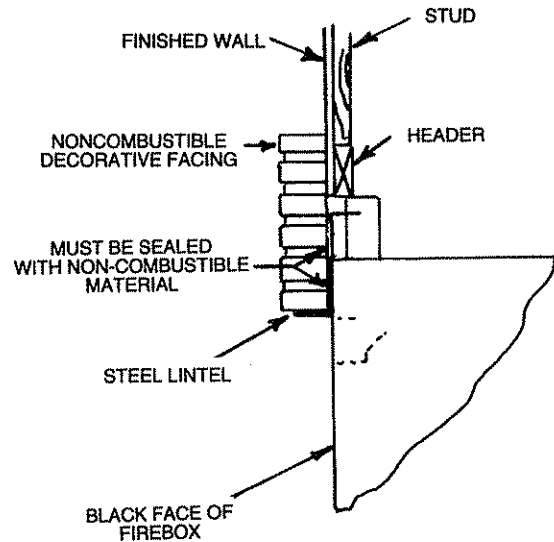


FIGURE 28
Wall and facing are not flush



THE AIR INLET AT THE BOTTOM AND THE AIR OUTLET AT THE TOP OF THE FACE OF THE FIREPLACE MUST NEVER BE COVERED BY THE FINISHING MATERIAL.

FIGURE 27
Wall and facing are flush

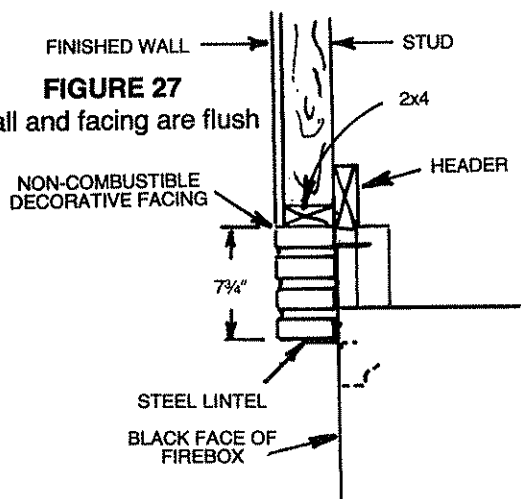
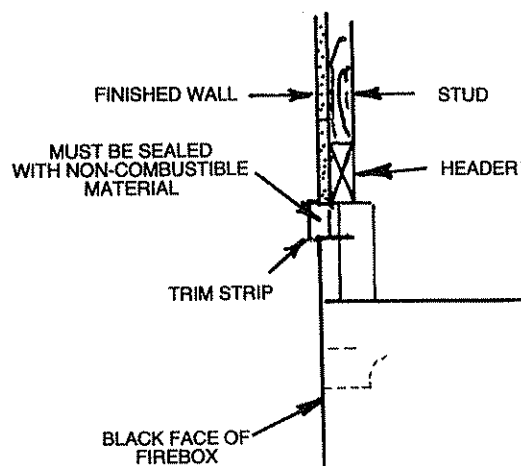


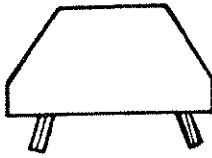
FIGURE 29
Wallboard or paneling facing



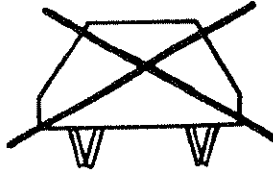
USING YOUR FIREPLACE

1. Open the firescreens by grasping handles and pushing them back to each side.
2. Open the flue damper by lifting the damper lever upward and sliding it to the right as far as possible. Press the damper lever down into the slot. 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 slot.
3. If Combustion Air Kit AIR-5 has been installed, the inlet air damper must be in a full open position before you start a fire. Reach inside the firebox and release the control rod on the louvers inside the fireplace. Pull the spring-loaded control rod out slightly and turn it until it is at either a 3 o'clock or 9 o'clock position. To close the damper pull out the handle slightly and turn it to the 6 o'clock position.
4. The integral grate supplied with the fireplace must be used. The grate will lift up to allow for ash removal. Replacement grates are available from your local Temco dealer.
5. Light a piece of crumpled paper and hold it high inside the firebox. 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 GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE WHILE IT IS IN USE.**
8. Close the firescreens, 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. A fireplace needs a steady supply of air in order to draw properly. Many houses or apartments which are well sealed lack sufficient air for normal fireplace operation. Ventilating fans, exhaust hoods, central heating systems and other appliances which use air can compete with the fireplace for air and interfere with its draw. Be certain that the fireplace has an adequate supply of air for combustion and draw before operating it. It is recommended that fireplaces in environments with a less than adequate air supply be equipped with a combustion air kit which will provide outside air to support combustion and draw.
11. Fuels: dry and well-seasoned hardwoods are recommended. Soft woods tend to burn away too quickly. 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. Do not overfire with excessive fuel loads. Items such as wrapping paper, Christmas trees, etc., should not be burned in this fireplace.
12. **Creosote—Formation and Need for Removal—When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.**
The chimney should be inspected at least twice a year during the heating season to determine if a creosote buildup has occurred.
If creosote has accumulated it should be removed to reduce the risk of a chimney fire.
13. **CHARCOAL AND COAL MAY NOT BE BURNED IN THIS FIREPLACE.**
14. **NEVER CLOSE ANY DAMPERS UNTIL YOU ARE CERTAIN THAT THERE ARE NO WARM EMBERS.**
15. When the fire has gone completely out, close all dampers. This will prevent excessive heat loss up the chimney. It will also prevent condensation in the chimney and excessive water on the hearth. If inlet air damper is installed close damper.
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. 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.
18. **Disposal of Ashes—Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.**
19. **NOTE: FOR YOU TO UTILIZE THE FEATURES ENGINEERED INTO THE TEMCO HEAT CIRCULATOR FIREPLACE, IT IS NECESSARY THAT YOU CAREFULLY READ AND FOLLOW INSTRUCTIONS CONTAINED IN THIS MANUAL.**

20. **WARNING: THIS FIREPLACE IS NOT INTENDED TO BE USED WITH ANY COMPONENTS OTHER THAN THAT SPECIFIED IN THIS MANUAL (i.e., FIREPLACE INSERTS, BLOWERS, GLASS DOORS EXTENSIONS, HEAT CIRCULATORS). USE OF THESE ITEMS COULD RESULT IN A SERIOUS FIRE HAZARD.**
21. Access to chimney for cleaning—To remove the termination cap remove the three #10A x 1/2" hex head screws from the termination brackets. Grasp the skirt with one hand on each side and pull up.
To replace the cap—reposition the termination cap on the chimney pipe and align the termination brackets with the holes in the pipe. Securely attach the termination cap to the chimney with the three screws removed earlier.
22. **WARNING: FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH DOORS FULLY OPEN OR DOORS FULLY CLOSED. IF DOORS ARE LEFT PARTLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE FIREPLACE OPENING, CREATING RISKS OF BOTH FIRE AND SMOKE.**



RIGHT



WRONG



RIGHT

23. Keep all combustibles, such as furniture, draperies, papers and stored wood away from the front of the fireplace.

OPTIONAL OUTSIDE AIR KIT AND GLASS DOOR PACKAGE

A fireplace needs a steady supply of air for combustion and for proper draw. If your home is constructed weather tight, it may not provide the fireplace with sufficient air for normal operation. IN SUCH HOUSES IT IS RECOMMENDED THAT A TEMCO COMBUSTION AIR KIT BE INSTALLED ON THE FIREPLACE. An air kit will also allow you to use outside air for combustion instead of heated room air especially when used in conjunction with a TEMCO glass door accessory.

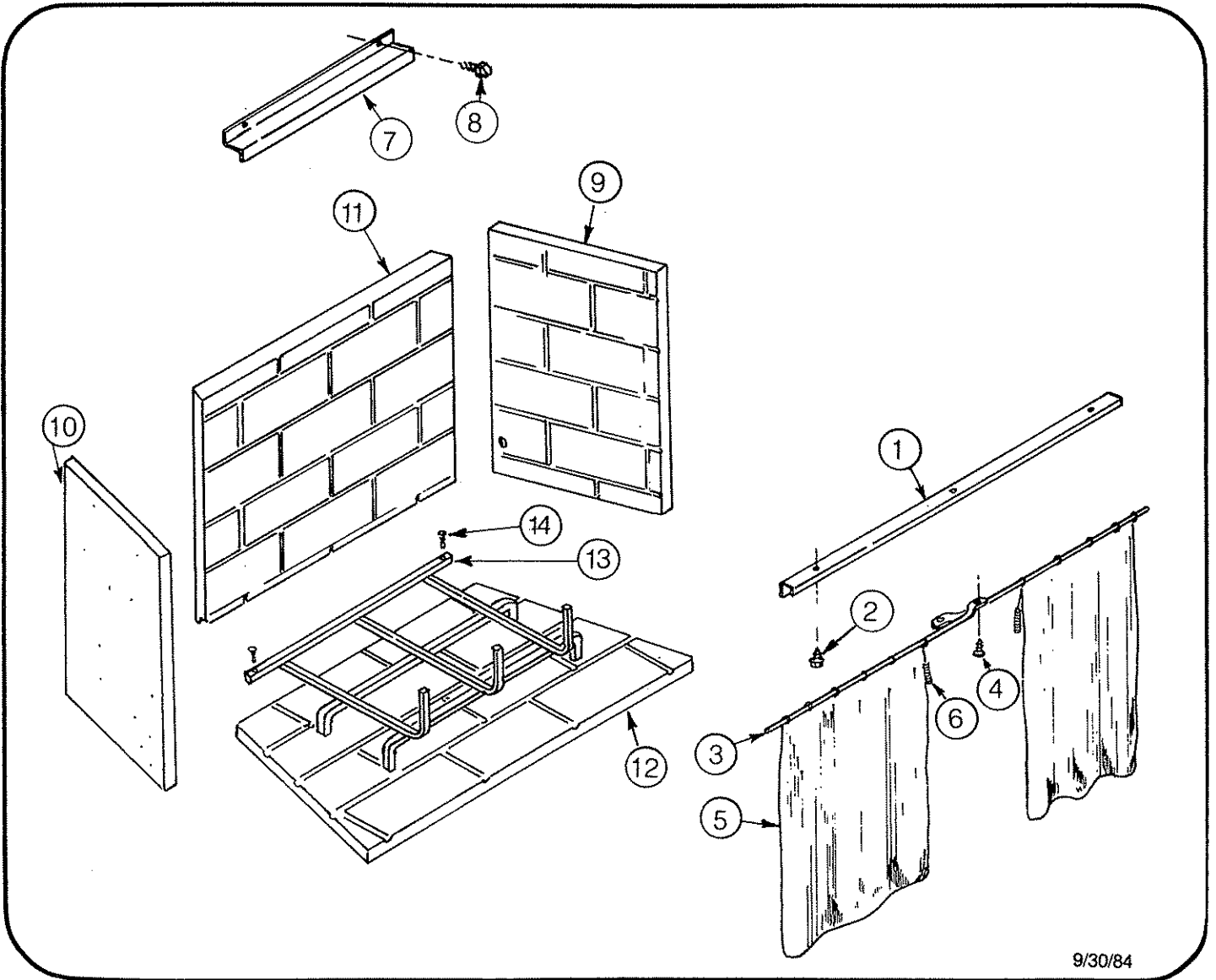
The combustion air kit must be installed at the time your fireplace is installed. The TEMCO Glass Door Package HD-2 and Combustion Air-Kit AIR-5 are available from your local TEMCO dealer.

NOTES

REPLACEMENT PARTS FOR MODEL THC36-2, THC36-2AD

The following replacement parts are available from your TEMCO Dealer.

DESCRIPTION	QTY.	PART NO.
1. Upper Door Track	1	.2T62206
2. Screws (for upper door track)	3	.1A49007
3. Firescreen Rod	2	.3T62646
4. Screws (for screen rod)	2	.1A08613
5. Firescreen	2	.1T64719
6. Tassel for firescreen	2	.1A61366
7. Refractory Retainer	3	.2B64775
8. Screws (for refractory retainer)	6	.1A62044
9. Right Side Refractory	1	.2C64711
10. Left Side Refractory	1	.2C64710
11. Back Refractory	1	.2B64038
12. Bottom Refractory	1	.2B64037
13. Integral Grate	1	.1C64692
14. Drive Pin	2	.1A56062



9/30/84