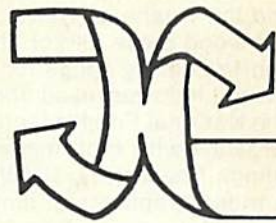


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TRUEHEAT®

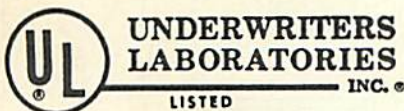
## INSTALLATION MANUAL OPERATING AND MAINTENANCE INSTRUCTIONS

# TH28 / TH36 / TH42

For the Trueheat® UL Listed Factory-Built Fireplace Models TH36, TH36G, TH36MG, TH36MGF, TH36D, TH36DG, TH36DF, TH36DGF, TH28, TH28G, TH28MG, TH28MGF, TH28D, TH28DG, TH28DGF, TH42, TH42G, TH42F, and TH42GF.\*

Congratulations! You have just purchased a quality, UL Listed Trueheat® Fireplace engineered for safety and durability. Correct and proper installation of all Trueheat® fireplaces is the most important step in ensuring years of safe and continuous use. You should read these instructions from front to back prior to installing your fireplace. Failure to install your Trueheat® fireplace in accordance with these instructions will void your Trueheat® Warranty and may cause a possible fire hazard. Use only UL Listed Trueheat® fireplace parts marked with the UL Listing Mark and the Trueheat® name. Use of other manufacturer's fireplace parts with your Trueheat® fireplace system will void the Trueheat® Warranty and may cause a possible fire hazard. For proper operation of your Trueheat® fireplace system refer to the Trueheat® Operation Manual provided in the plastic bag around your fireplace firescreens. If you have any question concerning the installation of your Trueheat® fireplace system call 512-474-1378.

\*Note reference to TH28, TH36 or TH42 in the text of these instructions refers to all 28, 36 or 42 Models unless otherwise specified.



ICBO RESEARCH REPORT NO. 3780  
LOS ANGELES RESEARCH REPORT NO. 24321

### HOWARD SYSTEMS CORPORATION

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440-0101

TRUEHEAT® IS A REGISTERED TRADEMARK OF HOWARD SYSTEMS CORPORATION



# INSTALLATION INSTRUCTIONS

## Introduction:

Your TRUEHEAT® Zero Clearance Fireplace System has been designed and tested to provide a safe and energy-efficient heat circulating fireplace when installed in accordance with these installation instructions. Incorrect installations, modifying Trueheat® components, or using parts made by another manufacturer will void the Trueheat® Warranty and may cause a fire hazard. Never use fireplace inserts or retrofit your Trueheat® fireplace with a wood stove and/or stove pipe.

Before you start your installation, consult your state and local building and fire safety codes for factory-built fireplaces. Your local building inspector may not approve your installation if these codes are not followed. In addition, the National Building Code requires that all fireplaces be installed in accordance with NFPA-211. The National Fire Protection Association publication NFPA-211 requires that all Factory-Built fireplaces be installed in accordance with their installation instructions.

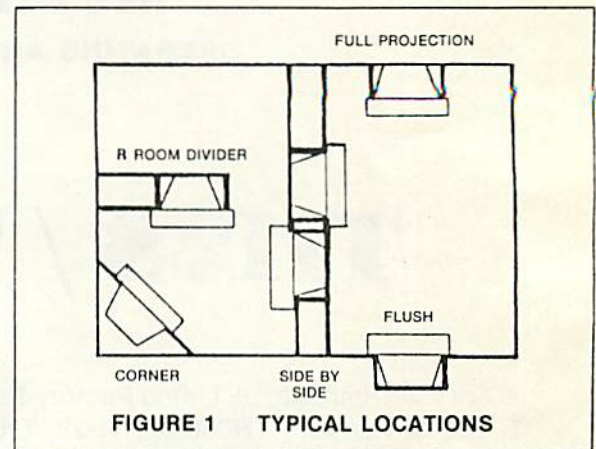
All Trueheat® fireplaces are UL Listed for use in single and multi-family dwellings. The models TH28MG, TH28MGF, TH36MG and TH36MGF are also UL Listed for use in mobile homes. When installing those fireplaces in mobile homes, refer to the section, "Additional Requirements For Mobile Home Installations."

## IMPORTANT CONSIDERATIONS

### The Fireplace:

The fireplace should be installed on a solid continuous surface. Do not install your fireplace on a floor covered with carpeting, vinyl or similar soft combustible material. However, the fireplace may be installed directly on plywood, particle or other solid combustible material.

The fireplace may be located practically anywhere in the room. You should consider ceiling and roof rafters that may require cutting and plumbing and wiring that may have to be moved when deciding where to locate the fireplace. The opening of the fireplace must not be located closer than 24 inches to any perpendicular wall. FIG. 1 shows some typical installations.



Combustible materials may be installed at zero-clearance to the top, side and rear spacers on the fireplace as shown in FIG. 2. The dimensions of the fireplaces are shown in FIG. 3.

**WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION.**

**WARNING: BE SURE TO USE THE FOUR TIE STRAPS PROVIDED ON ALL UNITS. WITHOUT TIE STRAPS SECURED, THE UNIT MAY SHIFT AROUND CREATING GAPS BETWEEN THE MASONRY AND FIREPLACE.**

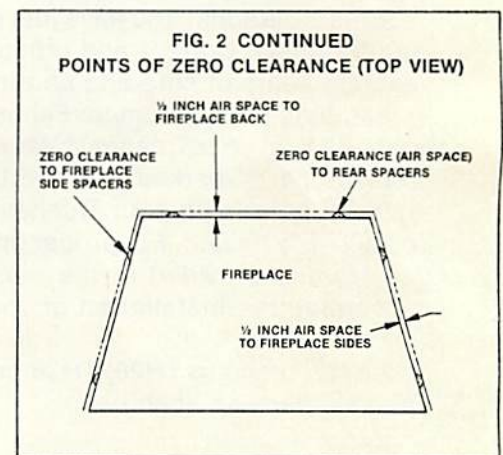
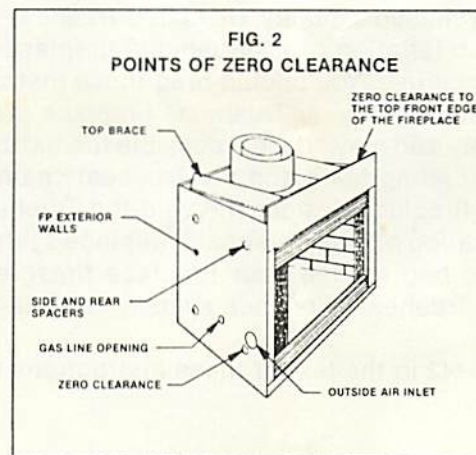
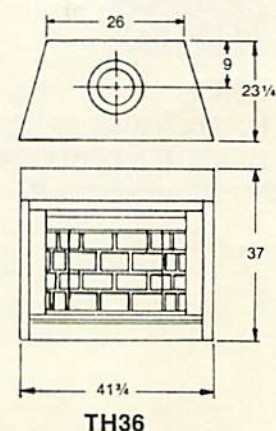
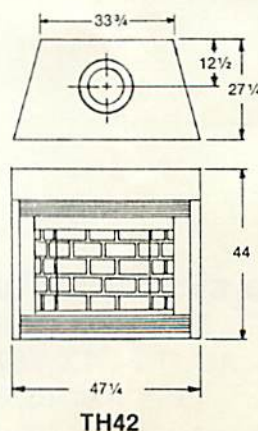
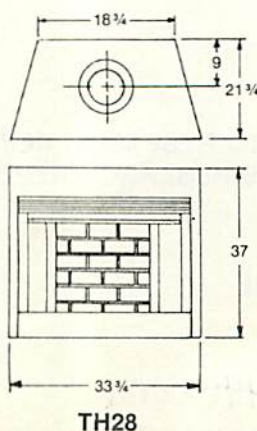


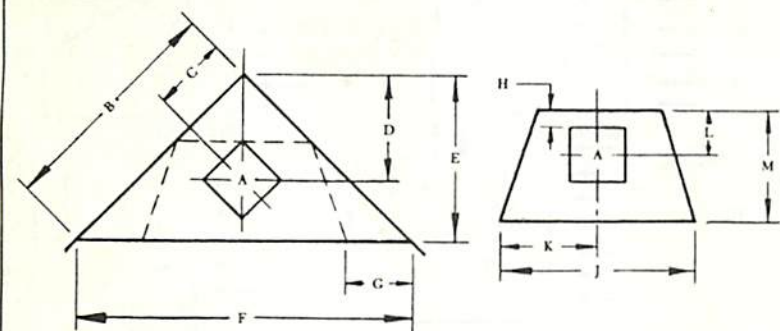
FIG. 3 FIREPLACE DIMENSIONS





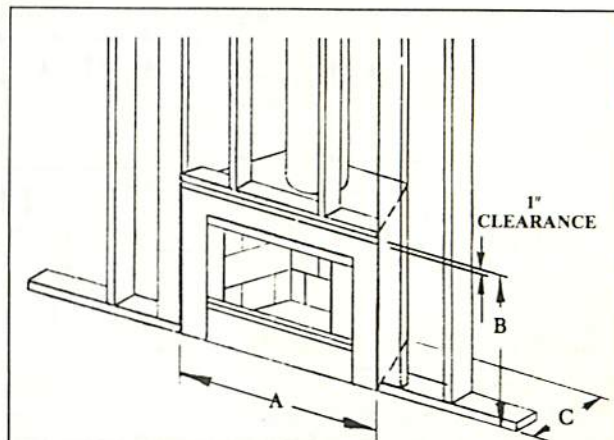
Framing members may be constructed to touch all points of zero clearance. The minimum dimensions required for framing for the various models are shown in FIG. 4 & 5. Remember, these dimensions are minimums, so if you desire, you may make the framed fireplace opening larger to slide the fireplace into the opening after the framing is complete.

FIGURE 4



MEASUREMENT IN INCHES

MODEL	A	B	C	D	E	F	G	H	J	K	L	M
TH28	18	45 1/4	13	18 1/2	31	62	13 1/2	2	33 3/4	17	9	21 3/4
TH36	18	51	15 1/2	22	36	72	15	2	41 1/2	21	9	23 3/4
TH42	19	62 1/2	18 1/4	25 1/8	44 1/8	88 1/2	19 1/4	3	47 1/2	25	12 1/2	27 1/4



	A	B	C
TH28	33 3/4	38	21 3/4
TH36	41 1/2	38	23 3/4
TH42	47 1/2	45	27 1/4

FIGURE 5

Three additional optional items that must be considered are; 1) gas appliance accessories, 2) outside combustion air and 3) electrical connections for blower assembly. In order to allow for easy installation of any of these items, it will be necessary for you to locate the fireplace near the appropriate utility outlet. Refer to the section in these instructions concerning the accessory you intend to use.

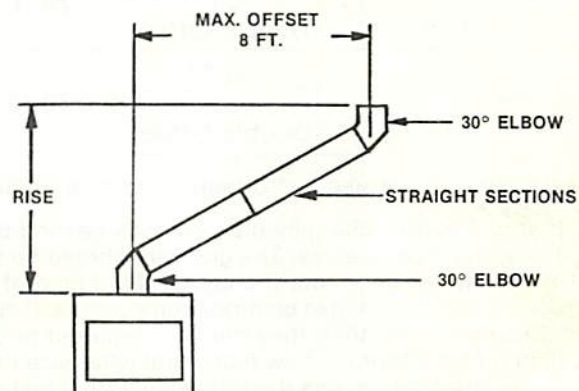
## The Chimney System:

The Trueheat® Trueflow double wall chimney system has been specially designed and UL Listed for use with all Trueheat® fireplaces. The Trueheat® 28 and 36 inch models employ the 8 inch Trueflow chimney while the 42 inch models use the 10 inch Trueflow chimney. The Trueheat® Trueflow chimneys must be installed at a minimum two inch clearance or "air space" from combustible material. Combustible material is defined as any material that will burn such as wood, paper, plastics, etc.

Trueflow chimneys may be installed with one or two 30° offsets (pair of elbows) per fireplace-chimney system. Offsets may be desired to avoid plumbing, wiring, roof joists, etc. Never use more than two 30° offsets per system and never connect 2 or 3 elbows together to make a 60° or 90° offset. Always secure the 4 elbow support straps to framing members of the structure. The maximum offset distance is 8 ft. (To achieve an 8 ft. offset you must use 4 - 4 ft. sections of pipe. The rise for an 8 ft. offset is 14 1/4 ft.) See FIG. 6. Always terminate the fireplace chimney to the exterior of the structure. All chimneys should be terminated a minimum of three feet above the point closest to roof of the structure and use the 10 ft. rule. See FIG. 7. The 3ft. height helps create the proper draft in the chimney system and is necessary to keep the fireplace system safe.

The minimum height of the fireplace and chimney systems are given in Table 1.

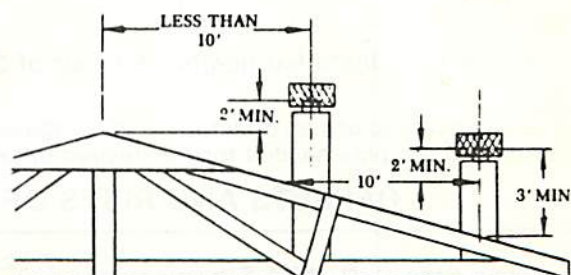
Trueheat® Trueflow 8 and 10 inch chimney systems may employ two 30° offsets also. See page 9, Double Offsets, for installation of more than one chimney offset.



USE THE INFORMATION IN TABLE 3 TO DETERMINE PIPE REQUIRED FOR DESIRED OFFSET

FIG. 6 OFFSET INSTALLATIONS

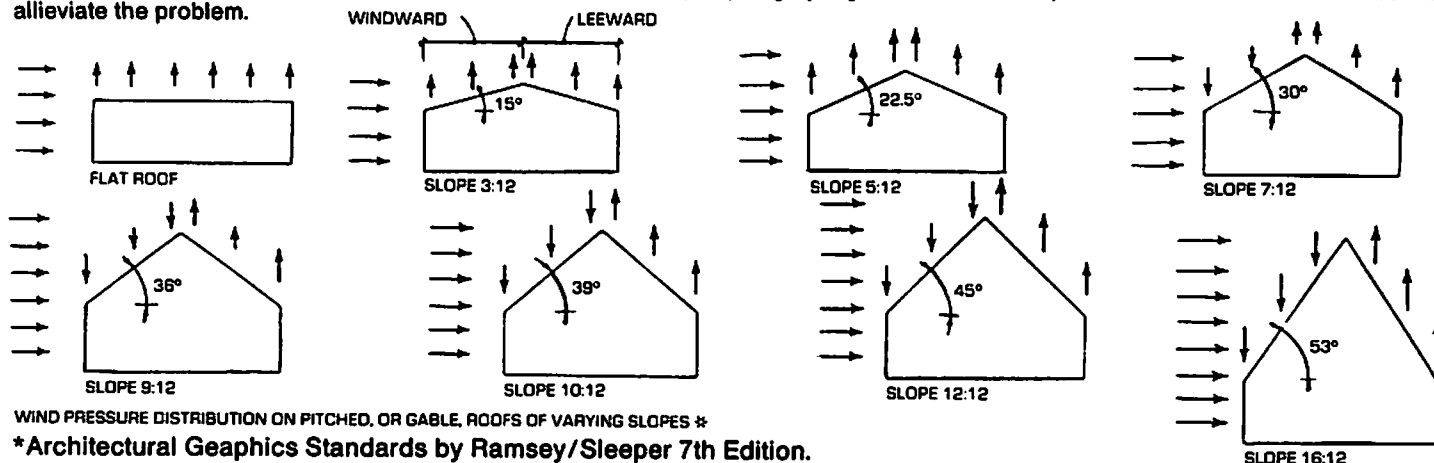
FIG. 7



## 10 FOOT RULE

If chimney is within 10' of roof peak the top should extend a minimum of 24" above the roof peak. When more than 10' from roof peak the top of chimney should be positioned so that it is 10' or more from the closest point on roof in a horizontal direction, and a minimum of 24" above the point, but never less than 3 ft. in height above the roof at the centerline of the chimney.

**NOTE:** The 10 foot rule may not be an adequate rule when the roof exceeds a 6:12 pitch. Below illustrates the pressures encountered with various roof pitches. Because the downward air pressures on the steep pitched roofs, problems with backdrafting and/or poor drawing of smoke may result. It may be necessary to raise the chimney cap slightly higher than the roof peak under these circumstances to alleviate the problem.



**TABLE 1**

Model	Min. Ht.	Max. Ht.	Flue Dia.	Outer Dia.	Max Offset	Chimney Cap	Min. Air Space
TH28 and TH36 (All Models)	13'	79 ft.	8 in.	14 in.	2 - 30°	CHC-8 CA-8 CTA-8	2
	21' Double Offset						
All TH42	14'2"	79 ft.	10 in.	15 in.	2 - 30°	CA-10 CTA-10	2
	21' Double Offset						

**WARNING:** Do not use 30° offsets in mobile home installations, models TH36MG, TH36MGF, TH28MG, TH28MGF.

If your Trueflow chimney pipe extends beyond 6 ft. above the roof of the structure, guy wire should be used to support the chimney from 3 sides. The guy wire should be secured to the chimney using sheet metal screws. Note, the sheet metal screw must not penetrate the center (flue) pipe of the chimney.

Do not install damaged chimney components. If spacer clips on outer pipe have become dislodged from the chimney straight or elbow sections, then they must be repaired prior to installation.

In order to determine how many and what size of chimney sections that are required to get to the desired height for your chimney installation, use the following actual installed height for each part of the fireplace-chimney system and Table 2 for actual heights of the various combinations of chimney pipe shown. See Example A.

System	TH28	TH36	TH42	F12-8 F12-10	F18-8 F18-10	F36-8 F36-10	F48-8 F48-10	CA-8	CA-10	F30-8* F30-10*	PS-10 PS-8
Installed Ht. (In.)	37	37	42	10½	16½	34½	46½	2	5	15	12

\*Represents total installed height of 1 pair of 30° elbows for each size pipe

If it is necessary to use an offset to avoid an obstruction such as wiring etc., then use the following information and Table 3 to determine the pipe needed for the desired offset. See Example B.

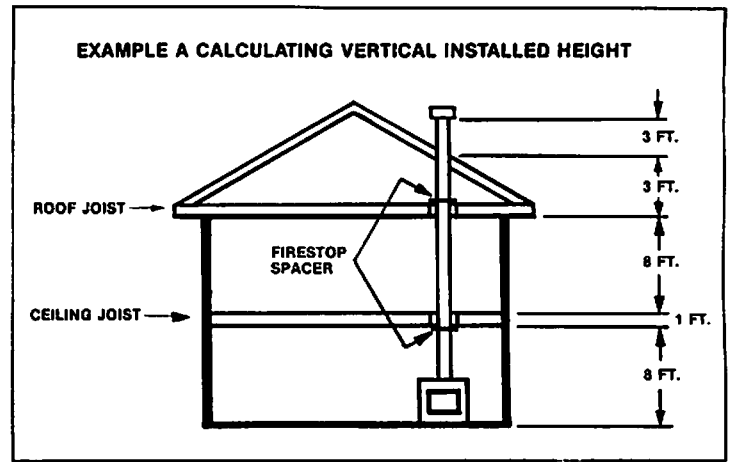
### OFFSETS AND RISES OF INDIVIDUAL CHIMNEY COMPONENTS

For Pipe Size	2-30° Elbows	F12-8 F12-10	F18-8 F18-10	F36-8 F36-10	F48-8 F48-10
The Offset will be	4½ In.	5¼	8¼	17¼	22
The rise developed is	15 in.	9	14¼	29¾	39

\*For combined offsets and rises of various pipe installations, see Table 3 offset chart.

**EXAMPLE A:** Suppose you are installing a fireplace in a 2 story house. To determine the actual chimney sections required for the installation, determine the height of the chimney using the 10 ft. rule to calculate the chimney required above the roof. Let's suppose it's a low pitch roof so 3 ft. is needed above the roof. Calculate the total height required as follows:

Chimney above the roof	3 ft.
Attic space and rafters	3 ft.
2nd floor	8 ft.
Ceiling joist between 1st and 2nd floor	1 ft.
1st floor	8 ft.
<b>Total height desired</b>	<b>23 ft.</b>



**TABLE 2**  
**VERTICAL INSTALLATION CHART**

To get a total installed chimney height, use the number of chimney sections shown in the column with a TH28 or TH36 inch fireplace and cap.\*

\*For TH42 Fireplace add ½ ft. to the height shown.

\*Heights given indicate the total height of fireplace and chimney.

CHIMNEY HEIGHT	CHIMNEY SECTIONS			
	F12-10 F12-8	F18-10 F18-8	F36-10 F36-8	F48-10 F48-8
10' 6"			1	1
11' 6"		1	1	1
12' 0"		1		2
12' 6"		1		2
13' 0"	2			2
13' 6"	1	1		2
14' 0"			1	2
14' 6"	2	1		2
15' 0"				3
15' 6"		1	1	2
16' 0"	1			3
16' 6"		1		3
17' 0"	2			3
17' 6"	1	1		3
18' 0"			1	3
18' 6"	2	1		3
19' 0"				4
19' 6"		1	1	3
20' 0"	1			4
20' 6"		1		4
21' 0"	2			4
21' 6"	1	1		4
22' 0"			1	4
22' 6"	2	1	0	4
23' 0"				5
23' 6"		1	1	4
24' 0"	1			5
24' 6"		1		5
25' 0"	2			5
25' 6"	1	1		5
26' 0"			1	5
26' 6"	2	1		5
27' 0"				6
27' 6"		1	1	5
28' 0"	1			6
28' 6"		1		6
29' 0"	2			6
29' 6"	1	1		6
30' 0"			1	6

Chimney Height	Chimney Sections			
	F12-10 F12-8	F18-10 F18-8	F36-10 F36-8	F48-10 F48-8
30' 6"	2	1		6
31' 0"				7
31' 6"		1	1	6
32' 0"	1			7
32' 6"		1		7
33' 0"	2			7
33' 6"	1	1		7
34' 0"			1	7
34' 6"	2	1		7
35' 0"				8
35' 6"		1	1	7
36' 0"	1			8
36' 6"		1		8
37' 0"	2			8
37' 6"	1	1		8
38' 0"			1	8
38' 6"	2	1		8
39' 0"				9
39' 6"		1	1	8
40' 0"	1			9
40' 6"		1		9
41' 0"	2			9
41' 6"	1	1		9
42' 0"			1	9
42' 6"	2	1		9
43' 0"				10
43' 6"		1	1	9
44' 0"	1			10
44' 6"		1		10
45' 0"	2			10
45' 6"	1	1		10
46' 0"			1	10
46' 6"	2	1		10
47' 0"				11
47' 6"		1	1	10
48' 0"	1			11
48' 6"		1		11
49' 0"	2			11
49' 6"	1	1		11



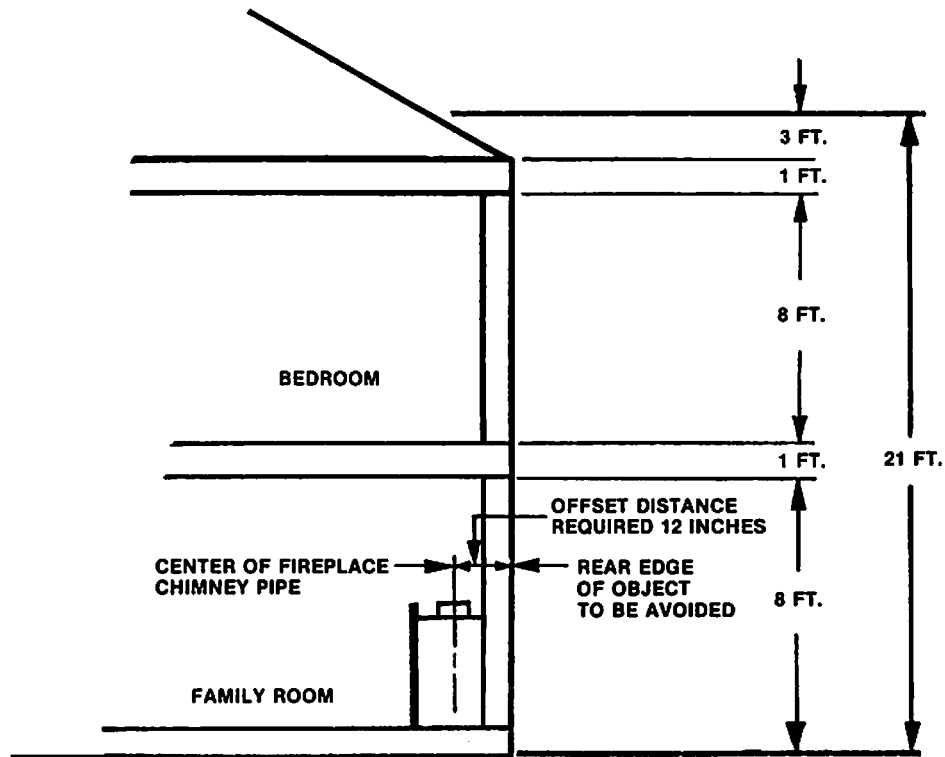
**TABLE 3  
OFFSET CHART**

CHIMNEY SECTIONS REQUIRED						
Offset Desired (In.)	2-30° Elbows	F12-8 F12-10	F18-8 F18-10	F36-8 F36-10	F48-8 F48-10	Rise Developed
4½	1 pair					15
9¾	1 pair	1				24
12¾	1 pair		1			29¼
15	1 pair	2				33
18	1 pair	1	1			38¼
21¾	1 pair			1		39
23¾	1 pair	2	1			47¼
26½	1 pair				1	54
30	1 pair		1	1		59
31¾	1 pair	1			1	63
34¾	1 pair		1		1	68¼
37	1 pair	2			1	72
40	1 pair	1	1		1	77¼
43¾	1 pair			1	1	83¾
45¾	1 pair	2	1		1	86¼
48½	1 pair				2	93
52	1 pair		1	1	1	98
53¾	1 pair	1			2	102
56¾	1 pair		1		2	107¼
59	1 pair	2			2	111
62	1 pair	1	1		2	116¼
65¾	1 pair			1	2	122¾
67¾	1 pair	2	1		2	125¼
70½	1 pair				3	132
74	1 pair		1	1	2	136½
75¾	1 pair	1			3	141
78¾	1 pair		1		3	146¼

Next look on the Vertical Installation Chart Table 2 to determine the pieces of pipe required for the desired height. A 23 ft. installation requires 5 sections of F48-8 chimney pipe, as shown on Table 2, a fireplace and chimney cap. If you were installing a TH42 fireplace, you would only need the pipe required for a 22 ft. 6 inch installation because TH42 is 6 inches taller than a TH36 or TH28 so you subtract 6 inches from the desired height. From the Vertical Installation Chart, a 22 ft. 6 in. installation requires two F12-8, one F18-8 and four F48-8 chimney sections.

**EXAMPLE B:** Let's say you are installing the fireplace in your family room. Directly above the place where you would like to install the fireplace is a bedroom. Therefore you want to offset the chimney to avoid the room. In order to calculate the distance required, measure from the center of the fireplace to the back edge of the obstruction. Add to that distance 9 in. The number you have calculated is the center-to-center offset desired. SEE EXAMPLE B FIG. The measurement from the center of the fireplace chimney opening to the rear of the house is 12 in. The calculated center-to-center offset would be 21 in. To determine the chimney components required to obtain a 21 in. offset refer to Table 3. From Table 3 you can see the closest offset TO 21 is 21¾. So the chimney sections required are one pair of 30° elbows (offsets), and one F36-8 chimney section. The rise developed over a 21¾ in. offset is 39 in. Therefore, to determine what other chimney sections are required to obtain the desired installed height, you simply subtract 39 in. from the height desired and refer to Table 2 for the necessary chimney components.

### EXAMPLE B CALCULATING OFFSETS



Chimney components required to complete installation:

Calculated offset  $12 + 9 = 21$

Closest possible offset  $21\frac{3}{4}$

Chimney components required for offset:

1-pair 30° elbows (offsets)

1-F36-8

Total overall chimney height required — 21 ft.

Chimney components required to complete installation:

Total height — offset rise = chimney components needed.

21 ft. — 39 in. (3'3" or 3') = 18 ft. height.

From the Vertical Installation Chart Table 2 the sections required are:

1—F12-8 1—F18-8 and 3—F48-8.

## Hearth Extensions:

When a TRUEHEAT® Fireplace is installed on a combustible floor, then a hearth extension constructed of 4 sheets of ¼" thick Johns-Manville Cera Form 106R Board or listed floor protector.

If Cera-Form Board is used, it must be protected with a minimum of 26 gage galvanized steel and may be covered with a non-combustible veneer, such as stone, brick, tile, etc.

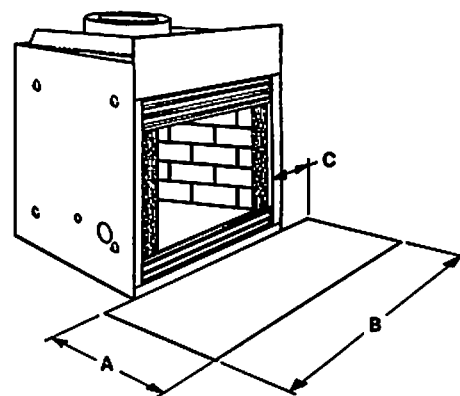
The appropriate size for the hearth extensions for the TH28, TH36, and TH42 models are given in Table 4 and are shown in Fig. 8.

**TABLE 4**

MODEL	A	B	C
TH28	16	44	8
TH36	20	60	12
TH42	20	66	12

**WARNING: THE CRACK BETWEEN THE BACK OF THE HEARTH EXTENSION AND THE FRONT OF THE FIREPLACE MUST BE SEALED WITH A NON-COMBUSTIBLE MATERIAL SUCH AS GROUT, MORTAR, ETC. ALSO PROVIDED WITH YOUR FIREPLACE ARE TWO METAL SAFETY STRIPS THAT MUST BE INSTALLED IN THE CRACK BETWEEN THE FIREPLACE AND THE HEARTH EXTENSION. THE SAFETY STRIP SHOULD BE OVERLAPPED TO FORM ONE LONG PIECE AND SHOULD BE LOCATED HALF UNDER THE FIREPLACE, HALF UNDER THE HEARTH EXTENSION. THIS SAFETY STRIP IS VERY IMPORTANT BECAUSE IT KEEPS ANY HOT EMBERS THAT MAY FALL INTO THE CRACK FROM COMING INTO CONTACT WITH THE COMBUSTIBLE FLOOR. SEE FIG. 9.**

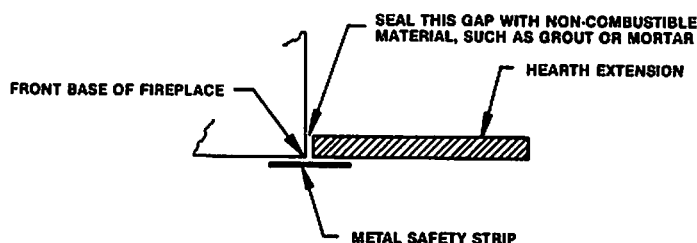
**FIG. 8**  
HEARTH EXTENSION SIZES  
FOR TRUEHEAT® FIREPLACES



## GAS APPLIANCE ACCESSORIES

If you intend to add a gas appliance accessory to your fireplace you must install the gas line into the fireplace when you install the fireplace. The gas line should be constructed of ½ in. iron pipe and the appropriate iron fittings. The gas line can enter the fireplace from either side. With a screwdriver and hammer, remove the knockout from the outside wall of the fireplace. If the fireplace is equipped with metal side panels in the firebox then remove the knockout in the side panel the same way. If the fireplace has refractory side panels, then chisel a hole as shown in FIG. 10. After removing the knockout in the refractory or metal side panel, remove one last knockout in the fire chamber sidewalls. Next, install gas line through the knockouts into the firechamber of the fireplace. A minimum 7 in long nipple should be used to reach the inside of the fireplace. Either cap off or install gas log or lighter and check for leaks.

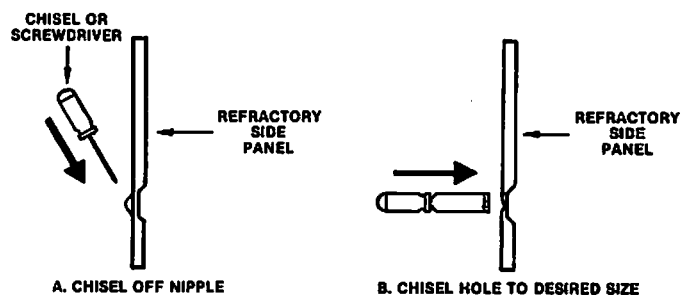
The gas line provision is intended to be connected to a decorative gas appliance only, in accordance with the National Fuel Gas Code, ANSI Z 223.1 - 1980.



**FIG. 9**  
INSTALLING THE FIREPLACE SAFETY STRIP

**FIG. 10**

### REMOVING KNOCKOUT IN REFRACTORY SIDE PANELS



**WARNING: IF YOU ATTEMPT TO CHISEL STRAIGHT THROUGH THE REFRACTORY SIDE PANEL BEFORE REMOVING THE NIPPLE YOU MAY CRACK AND BREAK THE PANEL. NEVER OPERATE FIREPLACE IF REFRACTORY SIDE PANELS ARE NOT INSTALLED.**



**WARNING: NEVER USE MATCHES OR LIGHTERS TO CHECK FOR GAS LEAKS. USE SOAPY WATER ON ALL JOINTS AND CHECK FOR BUBBLES.**

**CAUTION: ALWAYS FOLLOW THE MANUFACTURERS INSTRUCTIONS PROVIDED WITH THE GAS APPLIANCE ACCESSORY. DO NOT MODIFY THE GAS APPLIANCE IN ANY MANNER.**

**CAUTION: DO NOT USE A GAS APPLIANCE IN A MOBILE HOME.**

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

## OPTIONAL OUTSIDE AIR

All Trueheat® fireplaces are equipped to accept outside combustion air if desired. By using outside combustion air you will increase the efficiency of the fireplace by reducing the amount of room air that will be used for combustion. Therefore, it is recommended that the outside air system be used whenever practical. The outside air system consists of one house vent, one section of flexhose, two plastic ties, and one starting collar.

The outside air flexhose should be installed to bring outside air from the exterior of the structure to the fireplace. The house vent should be installed on the exterior of the structure and located so that the vent will not be blocked by snow, leaves or other debris. The house vent should never be installed to take air from an attic space, garage, or any other area that may contain combustible fumes.

See Fig. 11 and 12 for installation of outside air duct. The flex air duct may be installed in any direction and has no minimum or maximum length requirements.

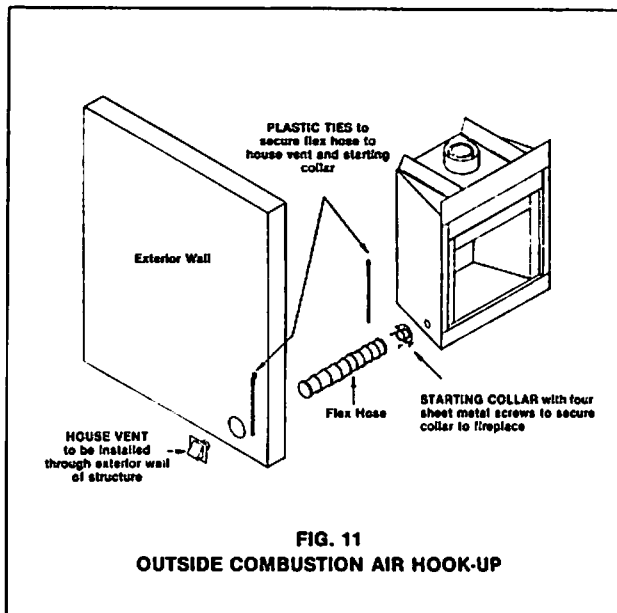
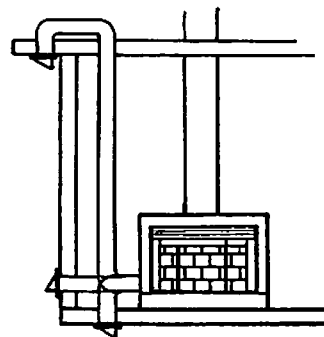


FIG. 12  
OUTSIDE COMBUSTION  
AIR INSTALLATION METHODS



Flex Duct can be installed in any direction.

## Installation of Outside Air for All Units

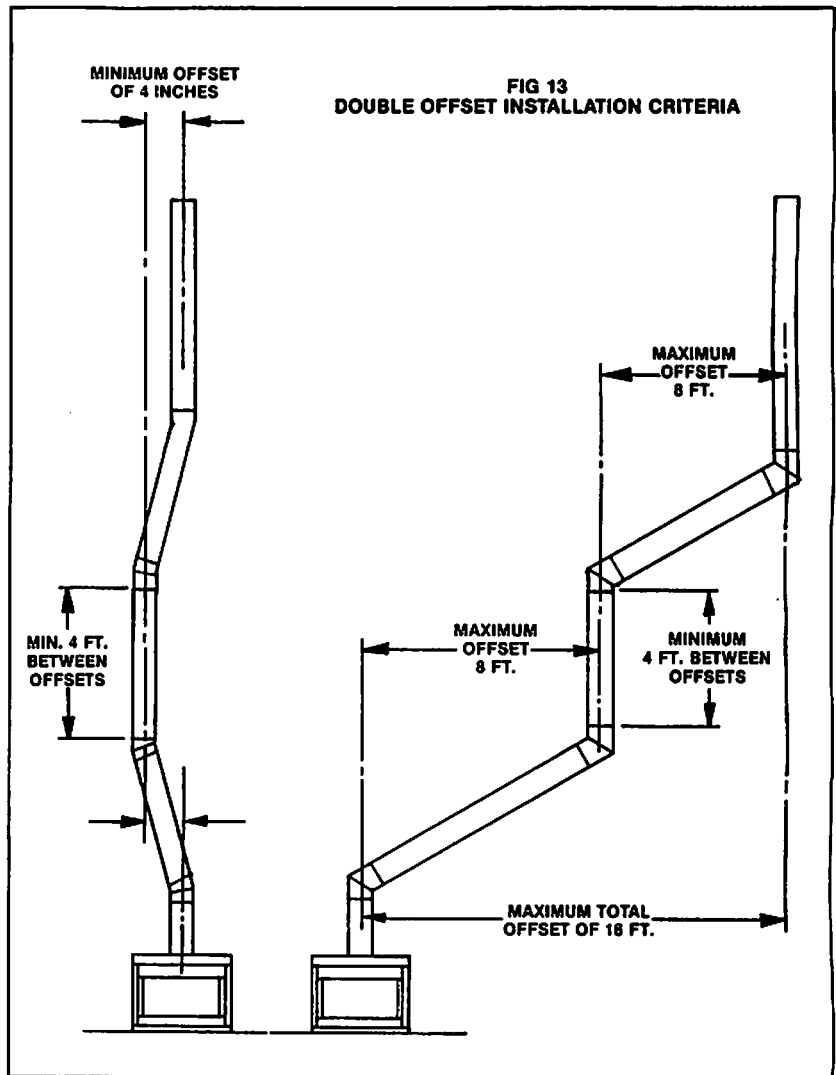
- 1.) Locate the nearest outside air source and cut a 5" diameter hole for the house vent. It must extend completely thru an exterior wall or ceiling to obtain air from outside the home or from within the attic space.
- 2.) Remove outside air cover from firebox and install outside air starter on side of unit using four screws provided.
- 3.) Attach 4" diameter UL Class 1 flexible air duct securely onto air starter collar with plastic tie provided and run duct through 5" exterior opening.
- 4.) Pull flex through 5" opening and attach to outside house vent with plastic tie provided. Mount house vent flush with outside wall or mount to top of joists in attic space.
- 5.) To regulate the amount of combustion air into the unit the damper may be adjusted by regulating the damper handle in an up (open) and down (closed) motion. See your Trueheat® Owners Manual for the complete explanation of the operation of the outside air.
- 6.) For Mobile Home installations follow the same methods of installation as previously described using the black flexduct and accessories. All holes should be cut a minimum of 6½ inches diameter. See special considerations for Mobile Home installations.

## ROOF JOIST SHIELDS FOR TH42 FIREPLACES AND ALL TRUEHEAT® DOUBLE OFFSET INSTALLATIONS

Whenever two-30° offsets (4-30° elbows) are employed, the following installation criteria must be followed.

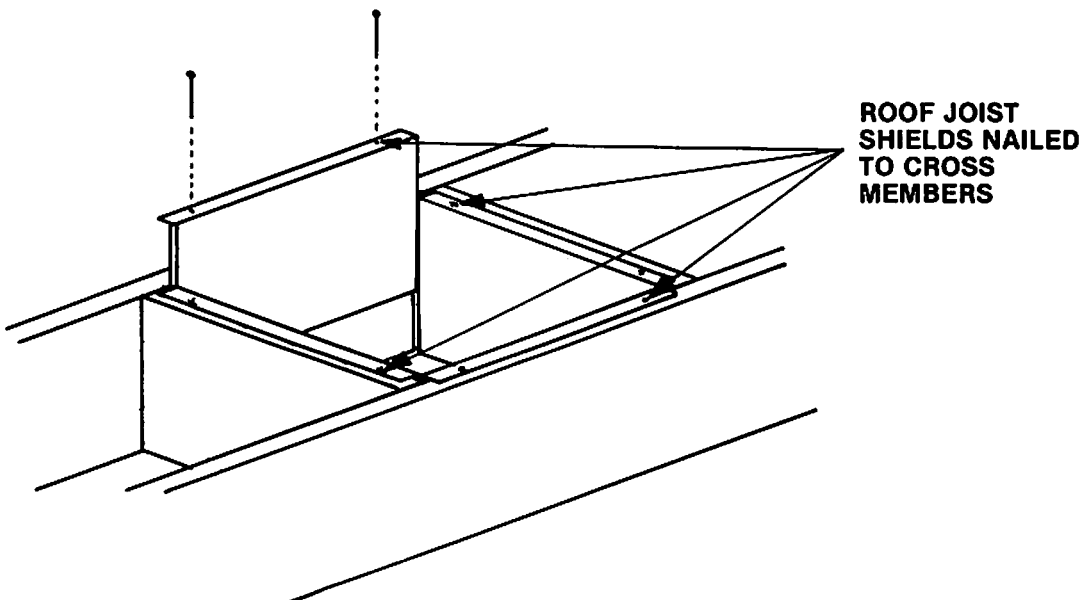
1. The minimum installation height (fireplace and chimney) must be 21 ft. The maximum overall height must not exceed 79 ft. (fireplace and chimney).
2. The maximum offset distance for each offset is 8 ft. Therefore the total offset distance for 2 offsets is 16 ft. Two elbows may be connected to one another in order to create a 4 inch offset. See FIG. 13.
3. A minimum of 4 ft. of vertical chimney must be installed between each offset. See FIG. 13.
4. For TH36 and TH28, whenever two-30° OFFSETS ARE EMPLOYED, TRUEHEAT® MODEL RJ8 ROOF JOIST SHIELDS MUST BE INSTALLED. The model RJ roof joist shields must be installed at the roof joist level as shown in FIG. 14. For TH42 models, the model RJ roof joist shields must be used for all installations. Roof joist shields must be installed in accordance with FIG. 14.

If these installation guidelines are not followed, you will void your TRUEHEAT® warranty and may create a fire hazard.



**FIG. 14**

Nail roof joist shields to each side of the roof with two nails on each of the four sides.



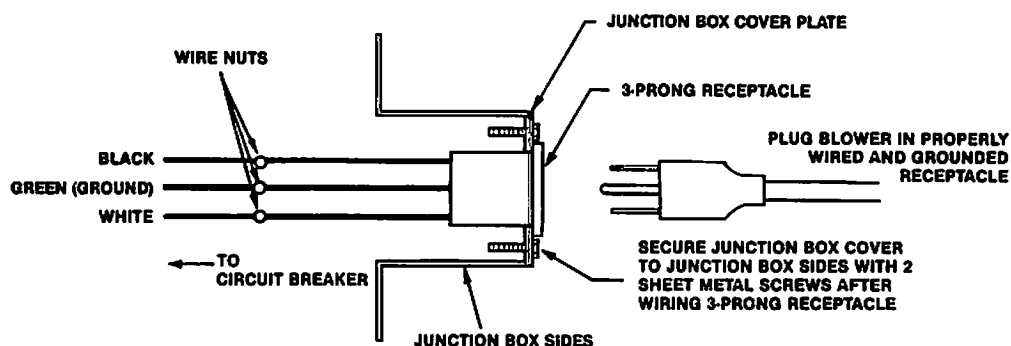
**NOTE:** Roof joist shields are required for all TH42 installations.

**NOTE:** When installing the chimney in a chase or steep pitch roof, the roof joist shields must still be used. Center each shield in the roof joist directly perpendicular to the chimney center.



## PREWIRING FOR OPTIONAL BLOWER

All Trueheat models except the TH28, TH28G, TH36 and TH36G are designed to use the Trueheat optional blower assemblies. If you ever intend to install the optional blower assembly in your Trueheat® fireplace then you must wire the three-prong receptacle in the junction box on the side of the fireplace at the time of installation of the fireplace. The wiring must be completed as shown in wiring diagram 1 by a qualified electrician or electrical technician. All wiring and wiring connections must be completed in accordance with the National Electrical Code and all local codes. The connections must be completed in accordance with the National Electrical Code and all local codes. The connections must be completed to a properly fused 120 V, 15 amp grounded circuit. All wiring must be rated a minimum 60°C.



WIRING DIAGRAM 1

## ADDITIONAL REQUIREMENTS FOR MOBILE HOME INSTALLATIONS

Trueheat® Models TH28MG, TH28MGF, TH36MG and TH36MGF are UL Listed for use in Mobile Homes. Mobile home installations should be identical to permanent structure installations with the following exceptions and additional precautions.

### WARNING:

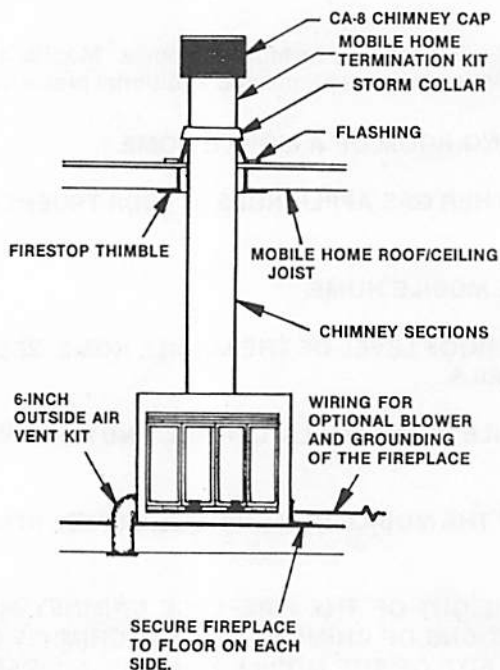
- 1.) NEVER INSTALL A FIREPLACE IN A SLEEPING ROOM OF A MOBILE HOME.
- 2.) NEVER INSTALL GAS LOG LIGHTERS OR OTHER GAS APPLIANCES IN YOUR TRUEHEAT® FIREPLACE IN A MOBILE HOME.
- 3.) ALWAYS GROUND THE FIREPLACE TO THE MOBILE HOME.
- 4.) ALWAYS USE A FIRESTOP THIMBLE AT THE ROOF LEVEL OF THE MOBILE HOME. SEE FIG 15 FOR MOBILE HOME INSTALLATION DETAILS.

### CAUTION:

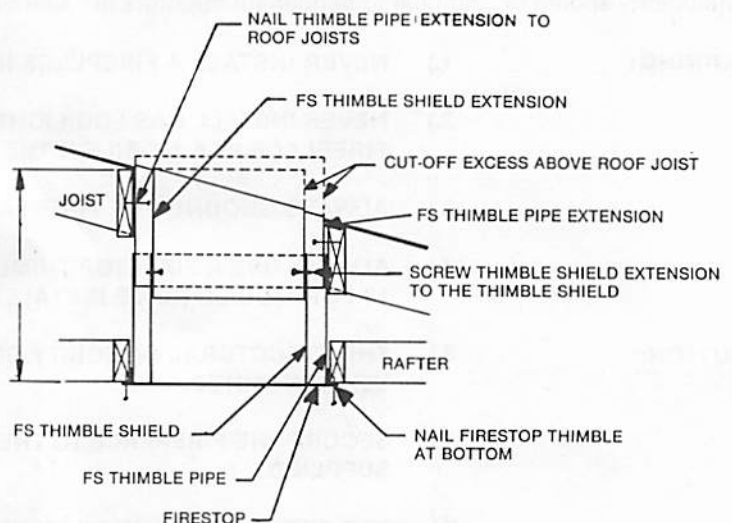
- 5.) THE STRUCTURAL INTEGRITY OF THE MOBILE HOME, WALLS, CEILING, AND ROOF MUST BE MAINTAINED.
- 6.) SECURE THE FIREPLACE TO THE FLOOR OF THE MOBILE HOME WITH THE STEEL STRAPS SUPPLIED.
- 7.) THE TOTAL OVER-THE-ROAD INSTALLED HEIGHT OF THE FIREPLACE CHIMNEY MUST NOT EXCEED 13 FT. 6 IN. ADDITIONAL SECTIONS OF CHIMNEY AND THE CHIMNEY CAP MUST BE INSTALLED AT THE PERMANENT SITE OF THE MOBILE HOME. IN ALL CASES, THE MINIMUM HEIGHT OF THE CHIMNEY ABOVE THE ROOF OF THE MOBILE HOME MUST BE 3 FT., INCLUDING THE CAP. ALWAYS FOLLOW THE 10 FT. RULE. SEE FIG. 7.

- 7A.) THE FINAL INSTALLED CHIMNEY HEIGHT IS 13 FT.
- 8.) ALL MOBILE HOME INSTALLATIONS REQUIRE THAT THE FIREPLACE BE INSTALLED WITH OUTSIDE AIR AND GLASS DOORS. THE OUTSIDE AIR MUST BE THE TRUEHEAT® OA-6 MOBILE HOME OUTSIDE AIR KIT.
- 9.) THE TRUEHEAT® MODELS TH28MG, TH28MGF, TH36MG and TH36MGF MEET ALL HUD REQUIREMENTS AND ARE UL LISTED FOR MOBILE HOME INSTALLATIONS.
- 10.) IF THE MOBILE HOME ROOF/CEILING JOIST IS LARGER THAN 6 IN., THE THIMBLE EXTENSION MUST BE USED. THE THIMBLE EXTENSION SHOULD BE INSTALLED INSIDE THE FIRESTOP THIMBLE TUBE AND CUT TO THE DESIRED LENGTH SO THAT IT EXTENDS THROUGH THE ENTIRE CEILING JOIST, ATTIC AND ROOF JOIST AREA.
- 10A.) THE MOBILE HOME CHIMNEY TERMINATION KIT MUST BE SECURED WITH 3 SHEET METAL SCREWS BECAUSE THEY DO NOT HAVE THE BUTTON LOCK. THIS SECTION OF CHIMNEY AND THE CHIMNEY CAP MUST BE REMOVED SO THAT THE TOTAL TRUCKABLE HEIGHT OF THE CHIMNEY DOES NOT EXCEED 13 FT. 6 IN. WHEN THE MOBILE HOME IS BEING TRANSPORTED.
- 11.) IF THE FIREPLACE IS INSTALLED IN A MOBILE HOME WITH A CATHEDRAL CEILING, THE THIMBLE EXTENSION MUST BE EMPLOYED. FIG 16 ILLUSTRATES THE PROPER FIRESTOP THIMBLE INSTALLATION FOR CATHEDRAL CEILINGS. BE SURE TO USE THE THIMBLE SHIELD EXTENSION AS WELL AS THE THIMBLE TUBE EXTENSION.
- 12.) ALWAYS COVER THE TOP OF THE CHIMNEY WITH PLASTIC BEFORE INSTALLATION OF THE CHIMNEY CAP AND FINAL PERMANENT INSTALLATION TO PREVENT RAIN AND DEBRIS FROM BLOWING IN THE CHIMNEY PRIOR TO THE INSTALLATION OF THE FINAL CHIMNEY SECTIONS AND CAP. THE PLASTIC MUST BE ATTACHED SECURELY TO PREVENT IT FROM BLOWING OFF DURING TRANSIT.

**FIG. 15  
MOBILE HOME INSTALLATIONS**



**FIG. 16  
INSTALLATION OF  
FIRESTOP THIMBLE**



\*THIMBLE EXTENSIONS ARE TO BE USED WHEN THE TOTAL HEIGHT FROM THE BOTTOM OF THE RAFTERS TO THE TOP OF THE JOIST EXCEEDS 12 INCHES.



## Optional Glass Doors

All Trueheat® fireplaces are listed for use with optional glass door enclosures. Trueheat® models with the suffix letter G are equipped with glass doors factory installed. (Example: TH28G)

**WARNING: INSTALLATION AND USE OF ANY OTHER MANUFACTURERS GLASS DOORS ON YOUR TRUEHEAT® FIREPLACE MAY CAUSE A FIRE HAZARD AND WILL VOID THE TRUEHEAT® WARRANTY. DO NOT USE TRUEHEAT® GLASS DOORS ON ANY OTHER FIREPLACE.**

When installing glass doors in your Trueheat® fireplace follow the instructions provided with the glass doors. If your Trueheat® fireplace is equipped with glass doors use the following instructions prior to operation of the fireplace.

- 1.) Remove all packaging material from glass enclosure including wood supports in bottom of the frame.
- 2.) Move doors to the partially open position and mount handles onto doors with appropriate screws and nuts (two per handle). **CAUTION: DO NOT OVERTIGHTEN.** See FIG 17.

Note: When removing glass doors from the glass door frame, depress spring clips at the top outside corners (See FIG 18) and allow guide pins on doors to pop out of clips. Pull top of doors to the center of the fireplace and lift out of clips on the bottom outside corners of the doors.

When replacing doors, place bottom door guide pin into hole of door clip and then slide top door guide pin outward and upwards into upper door clip hole.

For proper glass door operation see your Trueheat® Owner's Manual.

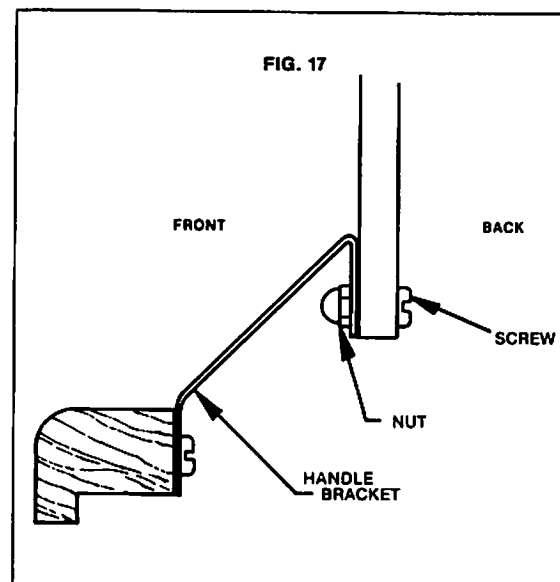
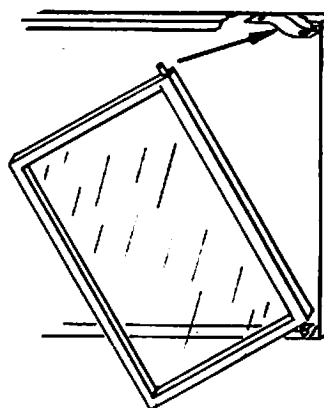
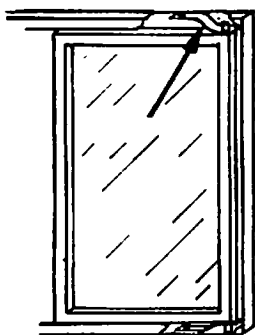


FIG. 18  
REMOVING AND INSTALLING GLASS DOORS



## STEP BY STEP INSTALLATION:

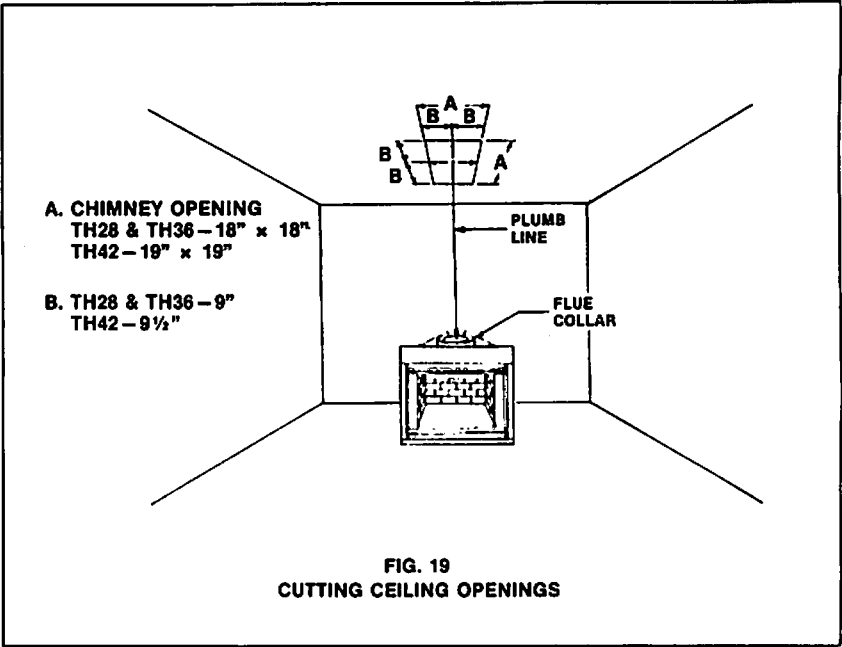
Use the step by step instructions as a guide for installing your Trueheat® fireplace. It may be necessary to alter from the exact order of these instructions depending on your particular installation.

**Step 1: Choose a Location** for the fireplace. When selecting the location remember to take into consideration the nearest available power source, outside air source and gas source if you intend to use any of the optional features available. Also check the ceiling above the desired location for furnace ducts, wiring or plumbing. SEE FIREPLACE LOCATION AND FIG. 1.

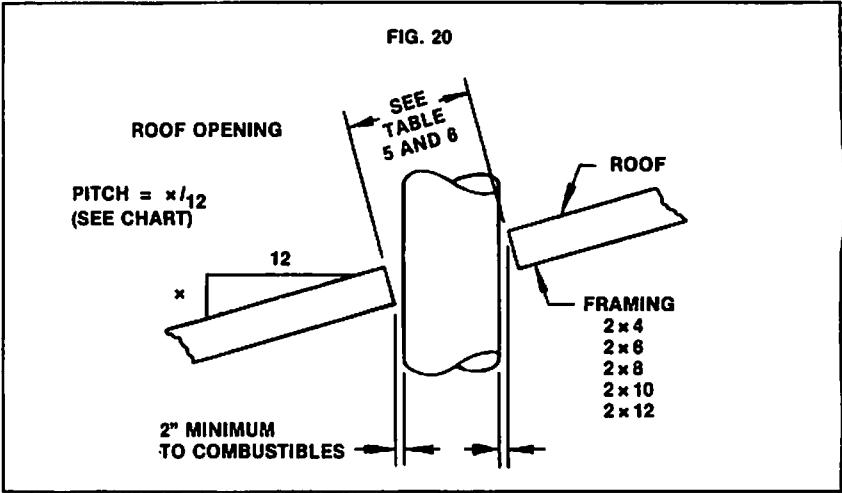
**Step 2. Place the fireplace** in the desired location. If you are installing the fireplace in an existing structure, remove any carpeting or other soft combustible covering from the floor where the fireplace is to be installed. If the fireplace is being installed

on a combustible surface, install the metal safety strip under the front edge of the fireplace as shown in FIG. 9. If you desire the fireplace on a raised hearth, then make sure that the fireplace rests on a solid continuous platform. If the platform is on an exterior wall of the home then it should be insulated with insulation with the same R factor as the exterior walls of the structure. Level the fireplace using shims if necessary. If the fireplace is not level it could move after installation.

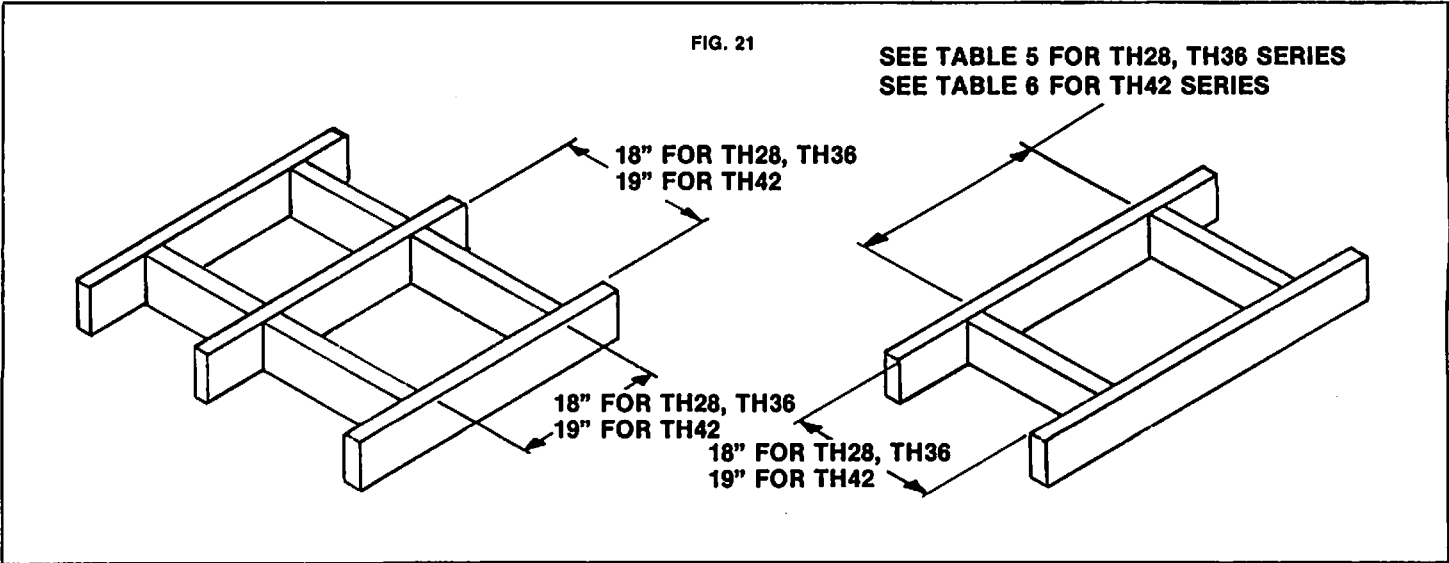
Step 3. Now you are ready to cut the holes in the ceiling for the chimney. Drop a plumb line from the ceiling directly above the fireplace and locate the point directly above the flue outlet on the top of the fireplace. This point is the center of the chimney. Mark this point and measure over 9 inches in each direction. The 18 inch by 18 inch square formed is the opening required for the chimney. For installation of the TH42 use 9½ inches in each direction and a 19 by 19 hole. See FIG. 19. This same procedure should be followed for each level that is to be penetrated.



Step 4: After cutting a hole in the last ceiling, you are now ready to locate and cut the hole in the roof of the structure. The roof hole can be located using a plumb line as shown in Step 3. However, the length of the hole through the roof will depend on the pitch of the roof and the size of the roof joist members. Tables 5 and 6 give the various roof opening sizes. FIG. 20 shows how the minimum size is measured.



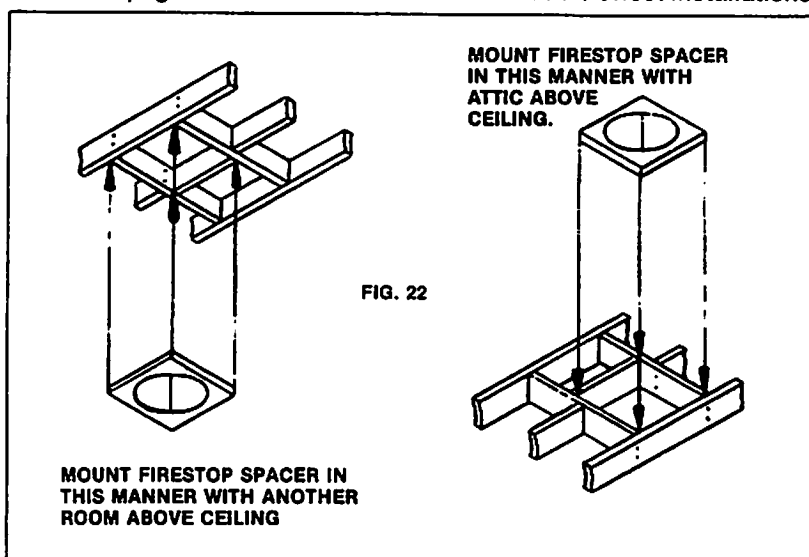
Step 5. Framing the ceiling and roof joist openings is next. Framing is necessary to maintain the structural integrity of the joist area. Crossmembers should be nailed as shown in FIG. 21.





Step 6. Firestop spacers should now be installed at every joist level except the roof. The firestop spacers should be nailed up to the bottom of the joist between living spaces and nailed down to the top of the joist in the attic space. See FIG. 22. Please note that roof joist shields must be installed as outlined on page 9 for the TH42 series and all double offset installations.

Step 7: You are now ready to install the fireplace chimney system. Determine the number of chimney sections required to reach the desired height and install the shortest chimney section first to the top of the fireplace. The reason for installing the shortest sections first is so there are fewer joints of pipe above the roof. To install a section of pipe, firmly push the inner (stainless steel) pipe down into the 8 or 10 inch starting flue on the fireplace. The pipe *must* lock securely into position. To check the fit, pull up on pipe section. If properly installed the pipe will not pull out of the flue on the fireplace. If the pipe pulls out push it back down inside the pipe until it locks. Next, install the outer pipe. Push the outer pipe down over the starting collar on the fireplace. Again, pull up on the pipe to make sure it is properly locked. Install the remaining pipe in the same way always inserting the flue (center) pipe inside the previous section and installing the outer section over the outside of the previous section. Check each section to make sure it is properly locked to the previous section. To ensure that the pipe does not come apart, the installer, at his option, may attach the outer walls of the chimney pipe with 2 sheet metal screws. Drill two holes 180° apart using  $\frac{1}{8}$  drill bit less than 2 inches long and screw sections together. **WARNING: BE VERY CAREFUL, WHEN DRILLING HOLES IN THE OUTER PIPE, NOT TO DRILL THROUGH THE STAINLESS STEEL FLUE.**



**TABLE 5**

PITCH	MINIMUM ROOF OPENINGS/ FRAMING MEMBERS TH28, TH36				
x/12	2x4	2x6	2x8	2x10	2x12
0/12	18x18	18x18	18x18	18x18	18x18
1/12	18x18½	18x18¾	18x18¾	18x19¾	18x19¾
2/12	18x19	18x19½	18x19¾	18x20	18x20¾
3/12	18x19¾	18x20¾	18x20¾	18x21¾	18x21¾
4/12	18x20¾	18x21	18x21¾	18x22¾	18x23
5/12	18x21¾	18x22	18x22¾	18x23¾	18x24½
6/12	18x22¾	18x23¾	18x24¾	18x25¾	18x26¾
7/12	18x23	18x24¾	18x25½	18x26½	18x27¾
8/12	18x24¾	18x25¾	18x26¾	18x28¾	18x29½
9/12	18x25¾	18x27	18x28½	18x30	18¼x31½
10/12	18x26¾	18x28½	18x30	18x31¾	18x33½
11/12	18x27¾	18x29½	18x31½	18x33¾	18x35¾
12/12	18x29¾	18x31¾	18x33¾	18x35¾	18x37¾

**TABLE 6**

PITCH	MINIMUM ROOF OPENINGS/ FRAMING MEMBERS TH42				
x/12	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10
0/12	19 x 19	19 x 19	19 x 19	19 x 19	19 x 19
1/12	19 x 20¾	19 x 19½	19 x 19¾	19 x 19¾	19 x 20¾
2/12	19 x 21¾	19 x 20	19 x 20¾	19 x 20¾	19 x 21
3/12	19 x 22¾	19 x 20¾	19 x 21¾	19 x 21¾	19 x 22¾
4/12	19 x 24	19 x 21¾	19 x 22	19 x 22¾	19 x 23¾
5/12	19 x 25½	19 x 22¾	19 x 23	19 x 23¾	19 x 24¾
6/12	19 x 27¾	19 x 23¾	19 x 24¾	19 x 25¾	19 x 26¾
7/12	19 x 28¾	19 x 24	19 x 25¾	19 x 26¾	19 x 27¾
8/12	19 x 30¾	19 x 25¾	19 x 26¾	19 x 27¾	19 x 29¾
9/12	19 x 32¾	19 x 26¾	19 x 28	19 x 29¾	19 x 31
10/12	19 x 34¾	19 x 27¾	19 x 29¾	19 x 31	19 x 32¾
11/12	19 x 36¾	19 x 28¾	19 x 30¾	19 x 32¾	19 x 34¾
12/12	19 x 38¾	19 x 30¾	19 x 32¾	19 x 34¾	19 x 36¾

Note: Some local building codes require that the chimney sections be secured with sheet metal screws. Check your local building codes for details.

Note: When the fireplace chimney height exceeds 30 ft. a chimney support piece must be used. The support section should be secured to the framing members as shown in FIG 27, page 17.

**WARNING: ALWAYS MAINTAIN A MINIMUM 2 INCH "AIR SPACE" TO COMBUSTIBLES.**

Step 7A: If offsets are required to clear an obstruction in the pathway of the chimney or if elbows are required in a multifamily dwelling, use Trueheat® 30° offsets. First determine the offset required by the method described in Offset Installations and the Offset Tables. Install straight chimney sections to the desired height and then install the offset elbow. (The offset elbow is the elbow without support straps). You will notice that the elbow's inner and outer pipes are unitized (one piece) and that only the outer pipe will lock into the previous section of pipe. Next install the required sections of straight chimney pipe to get the desired offset distance and install the return elbow. (Return elbow has four support straps). Securely nail each of the four support straps under tension to framing members of the structure. Offsets may angle in any direction, forward, backward or sideways.

- WARNINGS:**
- 1.) NEVER INSTALL TWO ELBOWS TOGETHER TO MAKE A 60° OFFSET.
  - 2.) THE MAXIMUM OFFSET DISTANCE IS 8 FT.
  - 3.) ONLY USE 2 PAIRS OF 30° ELBOWS PER SYSTEM.
  - 4.) ALWAYS ATTACH ALL FOUR ELBOW SUPPORT STRAPS.
  - 5.) ALWAYS MAINTAIN A MINIMUM 2 INCH "AIR SPACE" TO COMBUSTIBLES.
  - 6.) ALWAYS SECURE OFFSET SECTIONS WITH A MINIMUM OF TWO SHEET METAL SCREWS.

It is recommended each offset elbow and straight section of pipe to attach securely with two sheet metal screws to help support the chimney offset. Once the sections are securely attached, drill two holes 180° apart with a 1/8 inch drill bit that is less than 2 inches long. Secure with a sheet metal screw in each of the two places. For easier installation, attach elbows to straight offset sections or sections of pipe on the floor. Securing the offset sections will help provide better alignment of chimney sections and a safe installation. See FIG. 23.

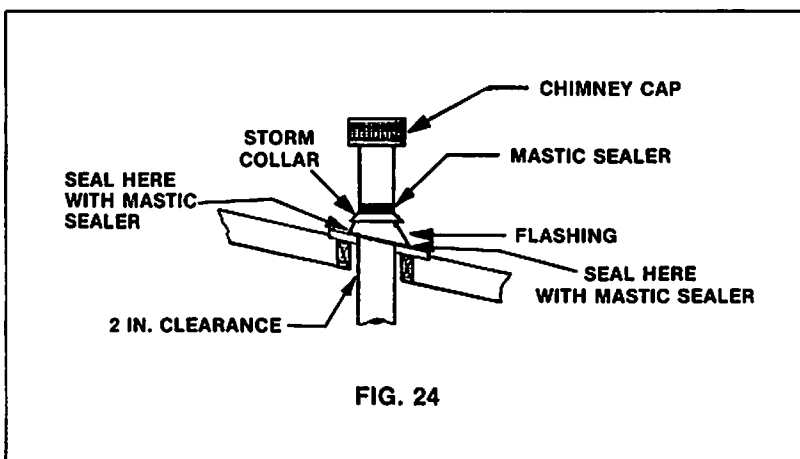
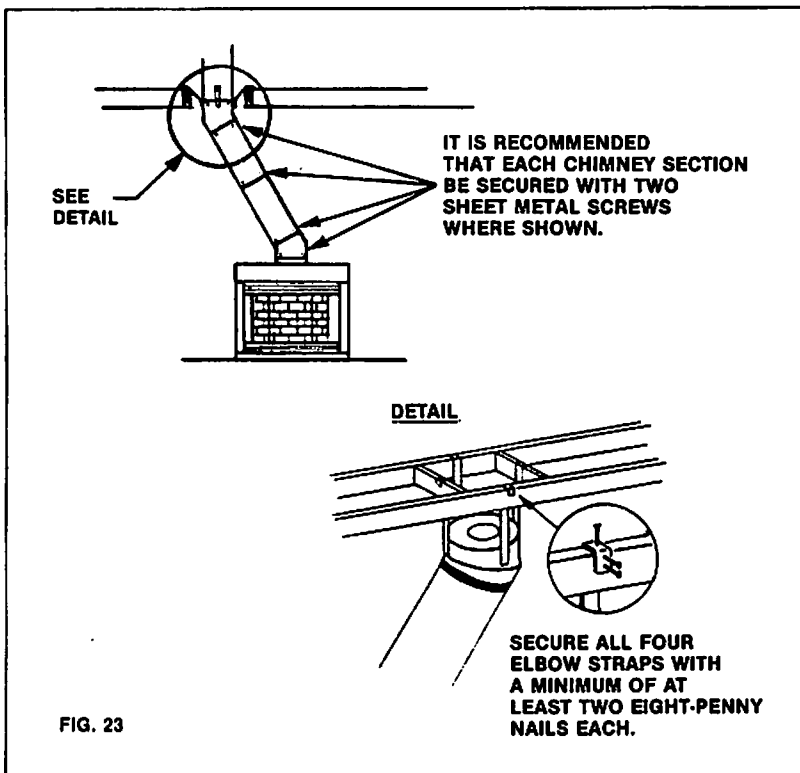
Step 8: You are now ready to start the exterior of the installation. Install the remaining chimney sections to the exterior of the structure. Make sure the chimney extends a min. of 3 ft. above the roof and 2 ft. above any portion of the roof within 10 ft. Pull the flashing down over the chimney till it rests on the roof and mark the spot where the flashing overlaps the roof. Remove the roofing in the area marked and slide the flashing under the roofing above the hole and over the roofing below the hole. Renail all shingles into position. NOTE: Before nailing flashing into position check to make sure that a minimum 2 inch "air space" has been maintained. Then nail into position.

Next slide the storm collar over the end of the pipe and slip tab into slot on opposite end of storm collar. For 8 inch pipe use the 2nd slot on the collar while for 10 inch use first slot. Pull the tab tight in the slot and bend back over slot. Seal the entire seam around the chimney pipe and storm collar and the seam around the roof flashing and roof with a waterproof mastic. This area must be treated as any portion of the roof and must be sealed to prevent leaks. See FIG. 24.

Step 9: To complete the exterior portion of the installation, install the chimney cap desired. All caps must be screwed to the last section of chimney pipe, with the inner flue installed inside the last section of pipe a minimum of 2 inches. For telescoping caps Model CTA-8 and CHC-8, the inner pipe will slide into the inner flue of the chimney and the outer flue pipe will slide down over the outside of the outer chimney pipe.

The outer wall of the cap must overlap the outer wall of the chimney a minimum of 3 inches and must be secured with a minimum of three sheet metal screws.

With the completion of the cap installation the exterior installation is finished.



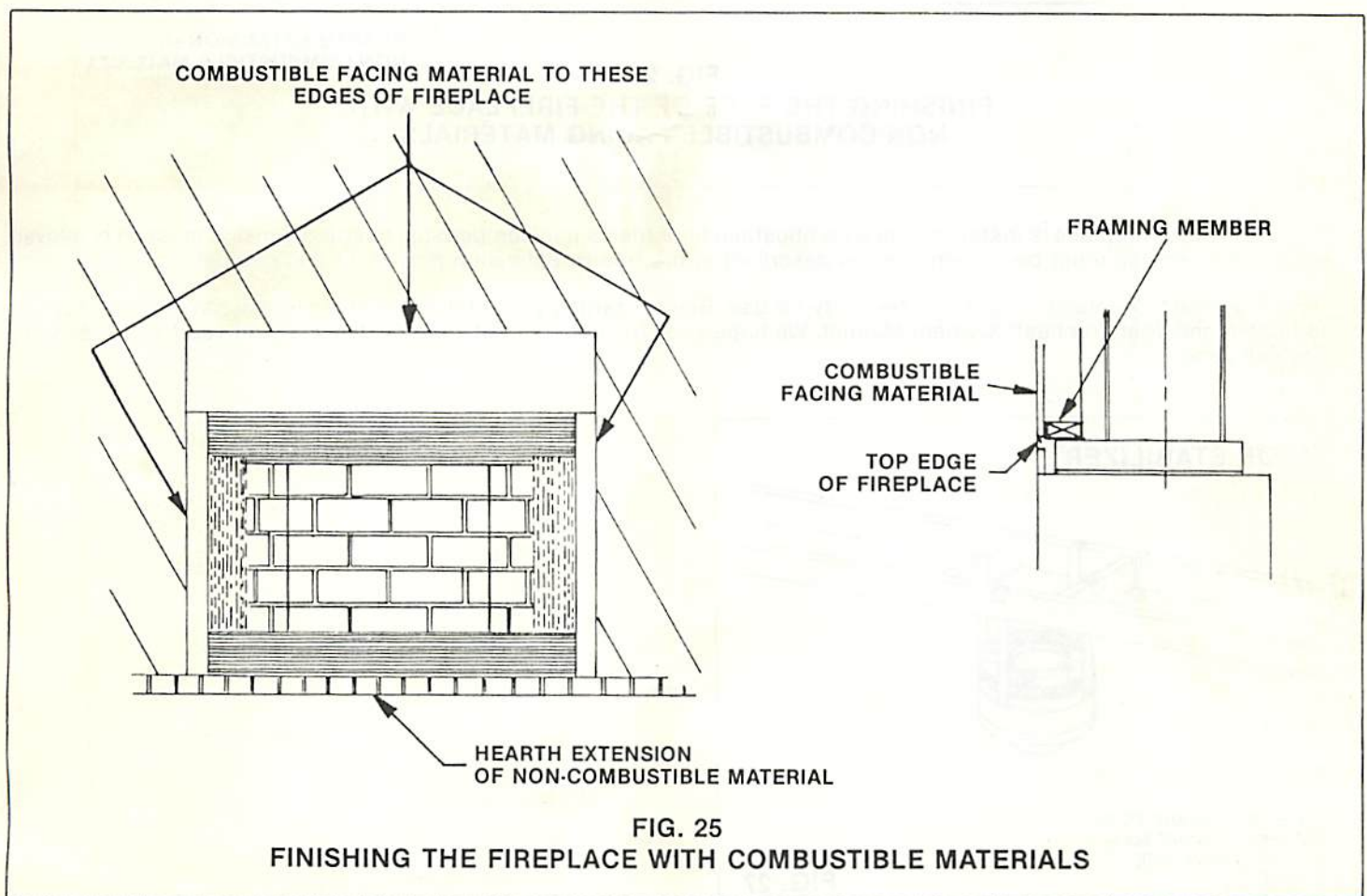


Step 10: Frame in the fireplace and chimney using the minimum clearances and dimensions shown in FIGS 3 and 4. The fireplace and chimney must be enclosed in the living areas of the structure where accidental, unintentional contact with the fireplace or its chimney is possible. The chimney does not have to be enclosed in unused or unfinished areas of the structure such as the attic etc. Always maintain a minimum 2 inch air space to combustibles from the chimney. Only bring combustibles in contact with the fireplace at points of zero clearance. See FIG. 2.

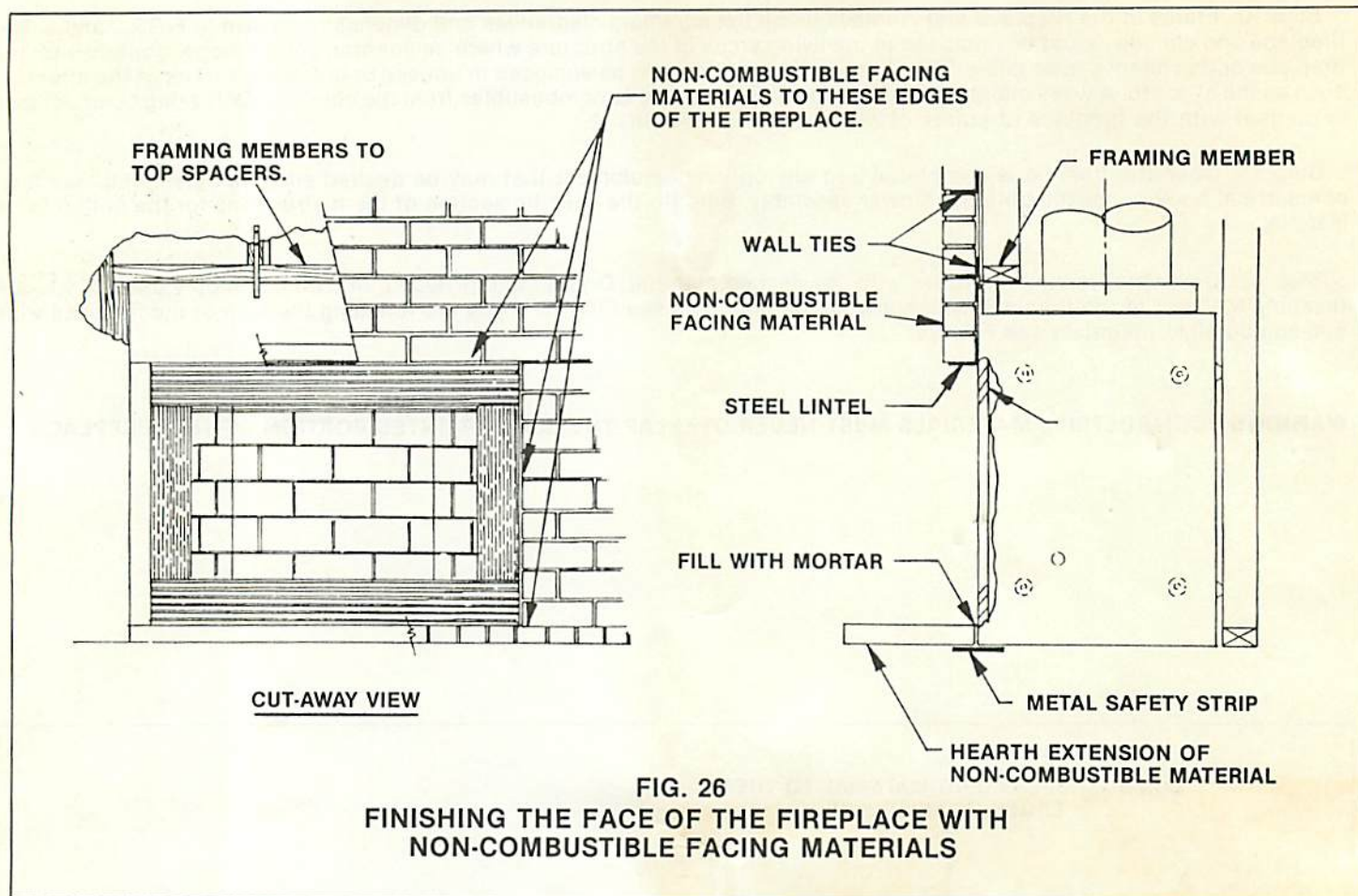
Step 11: Once the framing is completed add any optional equipment that may be desired such as outside air, gas line, or electrical hook-up for the optional blower assembly. Refer to the specific section of the instructions for the option to be installed.

Step 12: Cover the framing members with the desired material. Drywall and plywood are two commonly used. If you are finishing the face of the fireplace with combustible materials see FIG. 25. If you are finishing the face of the fireplace with non-combustible materials see FIG. 26.

**WARNING: COMBUSTIBLE MATERIALS MUST NEVER OVERLAP THE BLACK PAINTED PORTION OF THE FIREPLACE.**

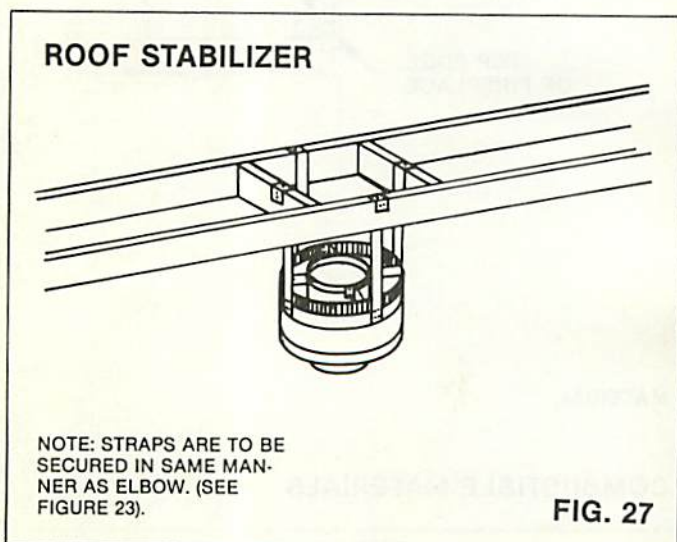


The bottom edge along the front face of the fireplace formed by non-combustible facing materials must be filled and sealed with a non-combustible material such as grout or mortar. Also, wall ties should be fastened with sheet metal screws to the front face of the fireplace and secured in the mortar joints of the facing material. Never block or alter any cooling opening on the fireplace. Cooling openings are any louvered opening or any hole on the front face of the fireplace.



Step 13: If your fireplace is installed over a combustible floor then a non-combustible hearth extension must be employed. The hearth extension must be constructed as described in the Hearth Extension portion of this manual.

Your Trueheat® Fireplace should now be ready for use. Before starting your first fire make sure you have thoroughly read and understand your Trueheat® Owners Manual. We hope your Trueheat® Fireplace provides you with years of dependable, enjoyable service.





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