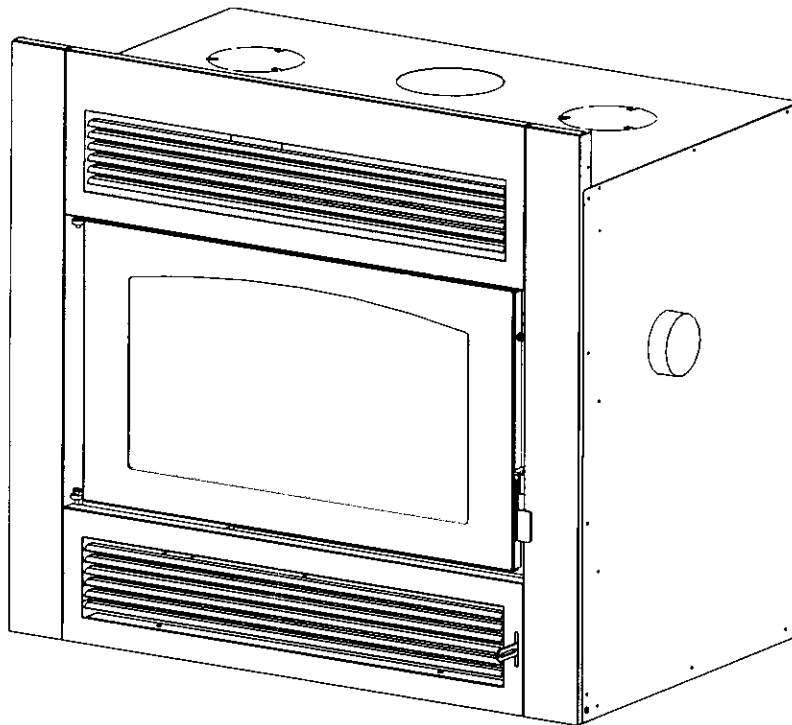

INSTALLATION & OPERATING MANUAL -

**KOZY HEAT**[™]

MODEL: Z-42
ZERO CLEARANCE
FACTORY BUILT FIREPLACE



IMPORTANT:
READ INSTRUCTIONS CAREFULLY BEFORE
INSTALLATION. FAILURE TO INSTALL THIS
FIREPLACE CORRECTLY CAN CAUSE SERIOUS
STRUCTURAL AND FIRE HAZARDS AND MAY
VOID YOUR WARRANTY.

INDEX

<u>DESCRIPTION</u>	<u>PAGE</u>
Safety Precautions	1
Specifications & Clearances	2
Minimum Enclosure Requirements	2-3
Determine Location	3-4
Prepare the Opening	5
Combustion Air Pipe Specifications	6-7
Chimney Installation	8-11
Fan Installation (Optional)	12-13
Fireplace Framing & Facing	14
Complete the Installation	14
Firebrick Installation	15
Fireplace Operation	16-17
Maintenance Requirements	18
Troubleshooting	19
Alternate Floor Protection Worksheet	20
Replacement Parts	21

INSTALLATION & OPERATING INSTRUCTIONS -



MODEL Z-42 ZERO CLEARANCE FACTORY BUILT FIREPLACE

This fireplace has been tested and listed by Intertek Testing Services (Warnock Hersey) to U.L. 127 Safety Standard for U.S. installations. This fireplace installation must conform with local building codes, or in the absence of local building codes, with the NFPA 211 Standard for Chimneys, Fireplaces, and Vents.

IMPORTANT: BEFORE INSTALLING THIS FIREPLACE, THE AUTHORITY HAVING JURISDICTION SHOULD BE CONSULTED TO DETERMINE THE NEED TO OBTAIN A PERMIT.

INSTALLATION AND REPAIR SHOULD ONLY BE DONE BY A QUALIFIED INSTALLER.

WARNING: THIS FIREPLACE HAS NOT BEEN TESTED WITH ANY GAS COMPONENT. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL ANY GAS COMPONENT, INCLUDING AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.

CHIMNEY REQUIREMENTS:

The following 6" chimney systems have been individually tested and approved for this fireplace:

Selkirk Metalbestos SSII	American Metal Products - Amer-Tech
Simpson Dura-Vent: Dura-Plus	SuperPro
Simpson Dura-Vent: Dura-Tech	ICC/Excel

Alternate listed 6" diameter HT-type (2100°) All-Fuel Chimney systems may be used. Contact the factory for additional information.

Do not connect this unit to a chimney flue serving another appliance.

Follow manufacturer's instructions for proper installation of the chimney.

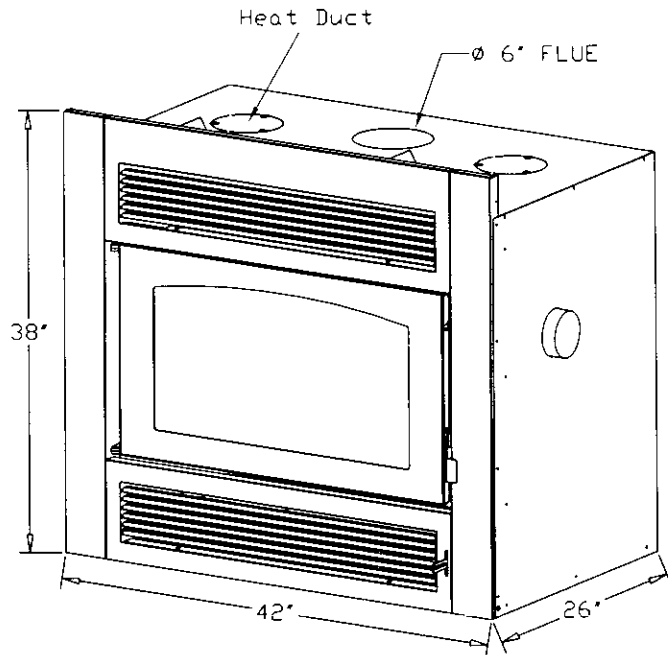
The chimney brand you purchase must also include the appropriate anchor plate for proper connection to the fireplace.

The chimney must be a minimum of 12' tall above the fireplace and must extend a minimum of 3 ft. above the highest point where it passes through the roof and at least 2 ft. higher than any portion of a building within 10 ft..

SPECIFICATIONS:

Height: 38"
 Width: 42"
 Depth: 26"

 Flue size: 6"
 Heat ducts: 6"



CLEARANCES TO COMBUSTIBLES:

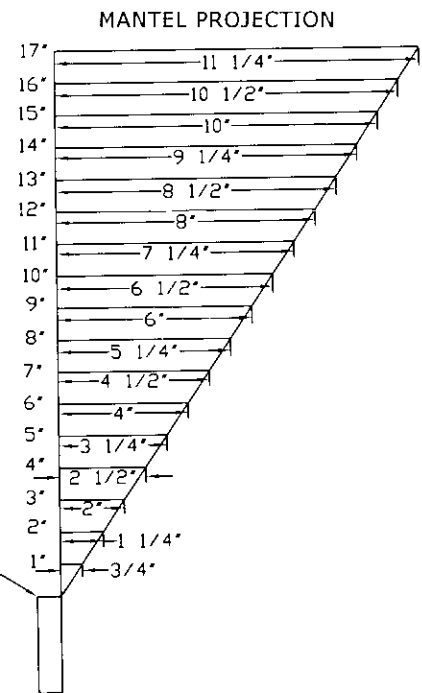
WITHIN ENCLOSURE AREA:

- Unit to back wall: 0"
- Unit to sidewalls: 0"
- Duct boots to framing: 0"
- Top Stand-off to header: 0"

EXPOSED AREA:

- Wallboard to faceplate top edge/sides: 0"
- Fuel door to sidewall: 8"
- Top of fireplace face to 8" mantel: 12"
 (refer to chart at right)
- Front of fireplace: 36"
- Remote outlet air grills to ceiling: 2"

NOTE: Even though the minimum clearance from the back and side wall is 0", we recommend that 1/4" expansion space is recommended to allow for heat expansion. We have included 1/4" expansion space at the back & sides in the minimum framing dimensions.



MINIMUM ENCLOSURE:

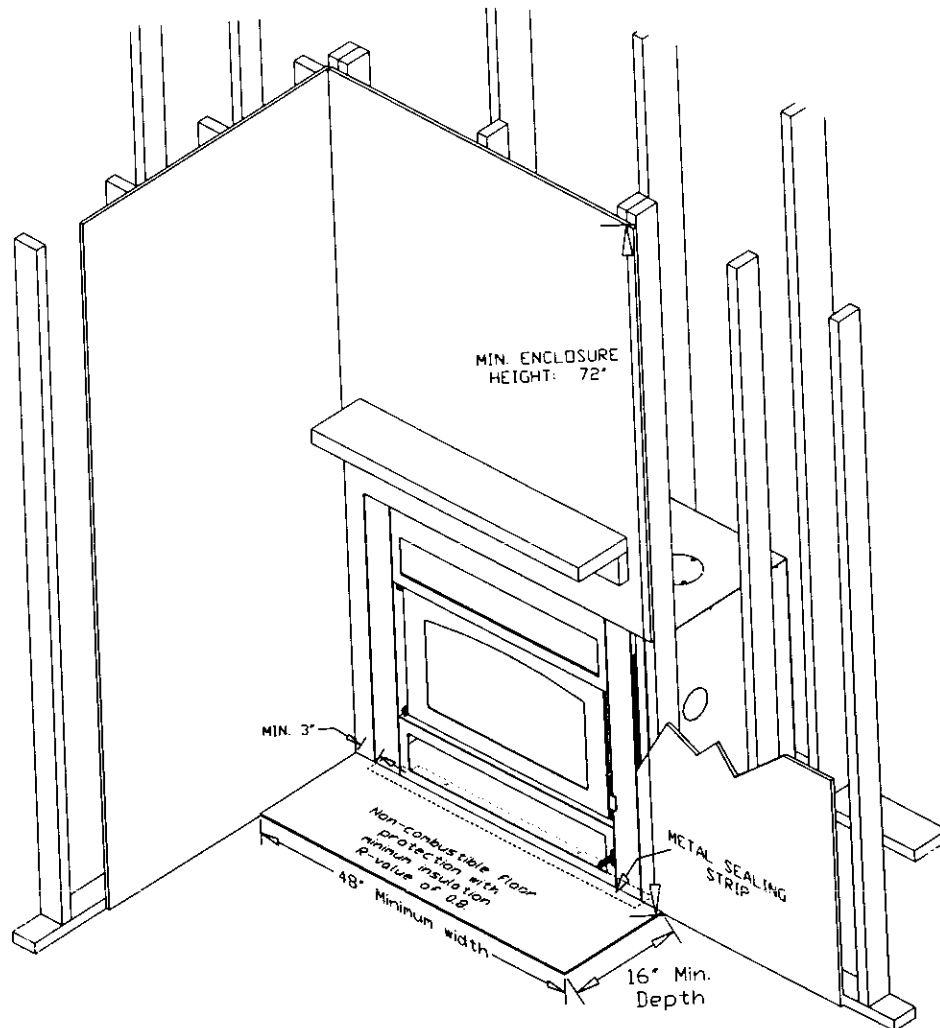
THE HEIGHT OF THE FIREPLACE ENCLOSURE MUST BE A MINIMUM OF 72". THIS IS MEASURED FROM THE BOTTOM OF THE FIREPLACE TO THE INSIDE TOP OF THE ENCLOSURE. Refer to figure 1, page 3.

IMPORTANT: Combustible flooring 16 inches in front of and 8 inches to each side of the fuel opening must be insulated with non-combustible floor protection with a minimum insulation R-value of 0.8.

HEARTH EXTENSION: The unit may be installed on combustible flooring with or without a raised hearth. Any combustible flooring 16 inches in front of and 8 inches to each side of the fuel opening must be insulated with non-combustible floor protection with a minimum insulation R-value of 0.8. Refer to page #20 to determine if material desired meets the minimum R-value requirements.

FOUNDATION: Although no special foundation is required for the unit and its metal chimney, the foundation must be sufficient to carry the weight of the face brick and/or rock front, if used.

Figure 1



DETERMINE LOCATION:

1. Determine desired location of the fireplace. All clearance to combustible requirements must be maintained and should be considered when determining the location of the fireplace and chimney. Refer to the 'room diagram' on page 4 for installation options.
2. Location of doors and windows on all floors of the home in relation to the fireplace and chimney must be considered and be in compliance with applicable building codes, if any.

3. HEAT DUCTS (OPTIONAL)

Optional heat outlet ducts may be vented into the same room as the fireplace or may be vented to other rooms. Venting should be completed before framing the unit in. Duct kit #970 is available from your dealer and the only duct system approved for this unit. A maximum run of 20' is recommended.

Follow installation instructions included with the #970 Heat Duct Kit.

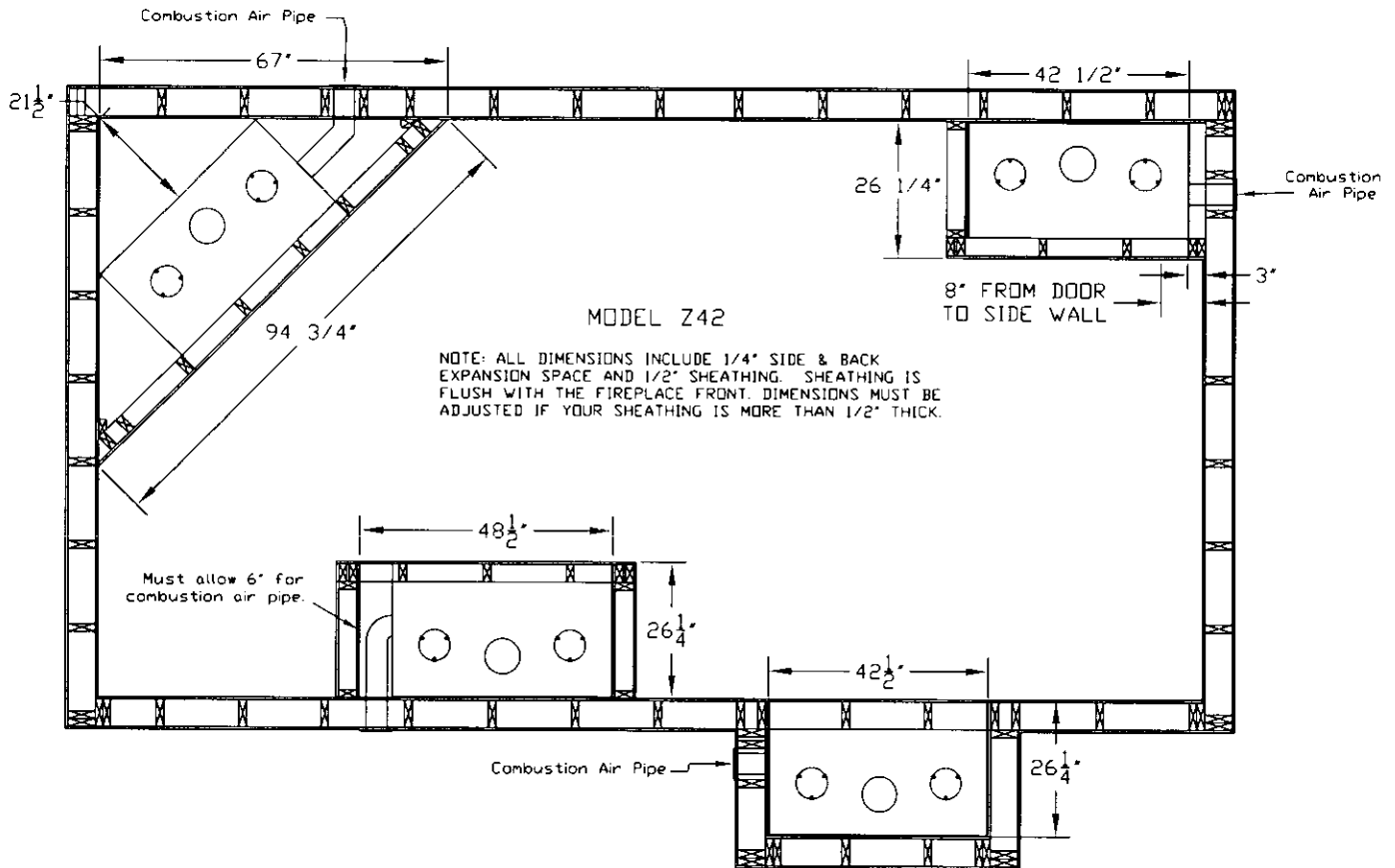
4. FAN INSTALLATION OPTION:

NOTE: If using the optional fan kit, 115V wiring should be run into the lower left of the unit by a qualified technician. A removable electrical box panel with romex connector is located on the left side of the fireplace. If a fan is going to be installed, the wiring should be run prior to enclosing the sides of the unit.

5. COLD AIR TRANSFER AREAS:

- A) If this fireplace is installed on an exterior wall it must be insulated just like any other wall in your home, if it is not, you will have a cold air transfer.
- B) Secure combustion air pipes together with screws to prevent them from coming apart and leaking cold air.

Figure 2



PREPARE THE OPENING

1. This unit may be placed on any flat combustible or non-combustible floor surface without carpeting or linoleum. A minimum depth of 26", width of 42" is required for installation.

IMPORTANT: Combustible flooring 16 inches in front of and 8 inches to each side of the fuel opening must be insulated with non-combustible floor protection with a minimum insulation R-value of 0.8.

HEARTH EXTENSION: Any combustible flooring 16 inches in front of and 8 inches to each side of the fuel opening must be insulated with non-combustible floor protection with a minimum insulation R-value of 0.8. This applies to non-raised and raised hearths. Refer to Figure 1, page 3.

IMPORTANT: A metal sealing strip (included with this fireplace) must be used. Install the sealing strip so that it is center under the fireplace and hearth extension the full width of the fireplace. **See Figure 1, page 3 and Figure 5, page 7.** A sand-cement grout may also be used between the hearth and an on-site-constructed hearth extension.

CAUTION: The lower grill must be allowed to open. Do not place the unit in a manner that would obstruct this grill.

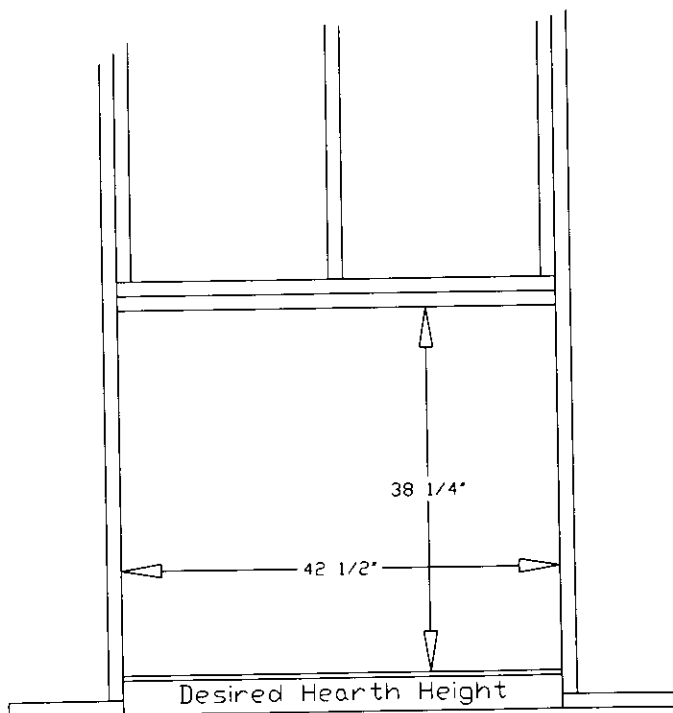
IMPORTANT: THE ENCLOSURE MUST BE A MINIMUM OF 72" HIGH, MEASURED FROM THE BOTTOM OF THE UNIT TO THE INSIDE TOP OF THE ENCLOSURE.

2. Frame an opening to fit the fireplace. All required clearances must be maintained.

The minimum framing dimensions are: 42 1/2" wide, 38 1/4" high and 26 1/4" deep. See figure 3 below.

IMPORTANT: Allow a minimum of 6" in the framing width dimension for combustion air pipe. Refer to figure 2, page 4 for various installation options and figure 5, page 7 for combustion air pipe configurations.

Figure 3



3. Place the unit into the framed opening.

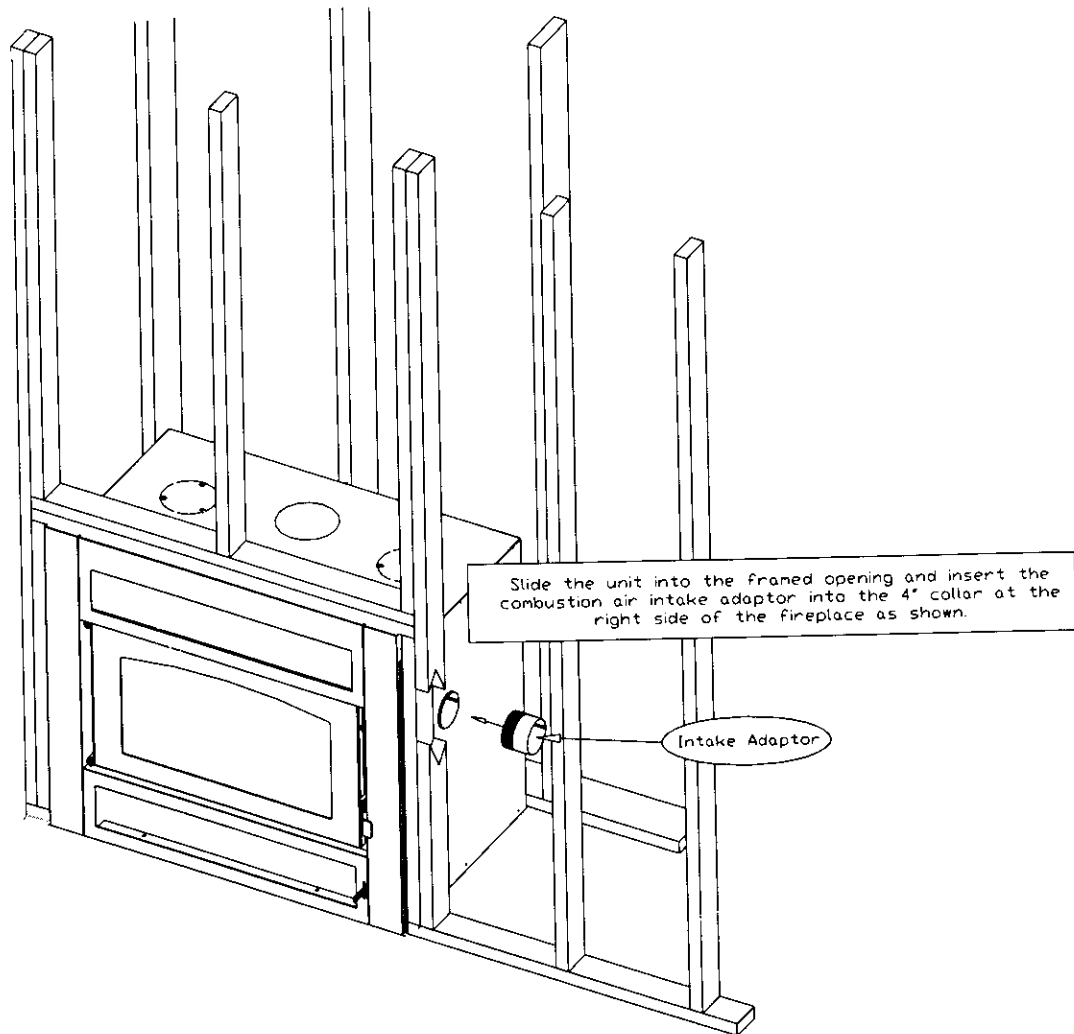
COMBUSTION AIR PIPE

This fireplace requires outside air for combustion and is manufactured with a collar protruding approximately 1/4" out from the right side. An outside air pipe adaptor, 4" diameter and 3" in length, is included with this fireplace to properly connect the outside air pipe to the fireplace.

1. Slide the combustion air intake adaptor into the collar on the right side of the fireplace. Secure with additional screws if desired. Refer to Figure 4, page 6.

IMPORTANT:
**DO NOT CONNECT THE ADAPTOR ONTO THE FIREPLACE UNTIL
THE FIREPLACE HAS BEEN SLID INTO THE FRAMED OPENING!**

Figure 4



2. Connect and screw 4" 30 ga. galvanized or heavier pipe to this adaptor and run to the nearest outside wall. Refer to Figure 5 below for various venting configurations.

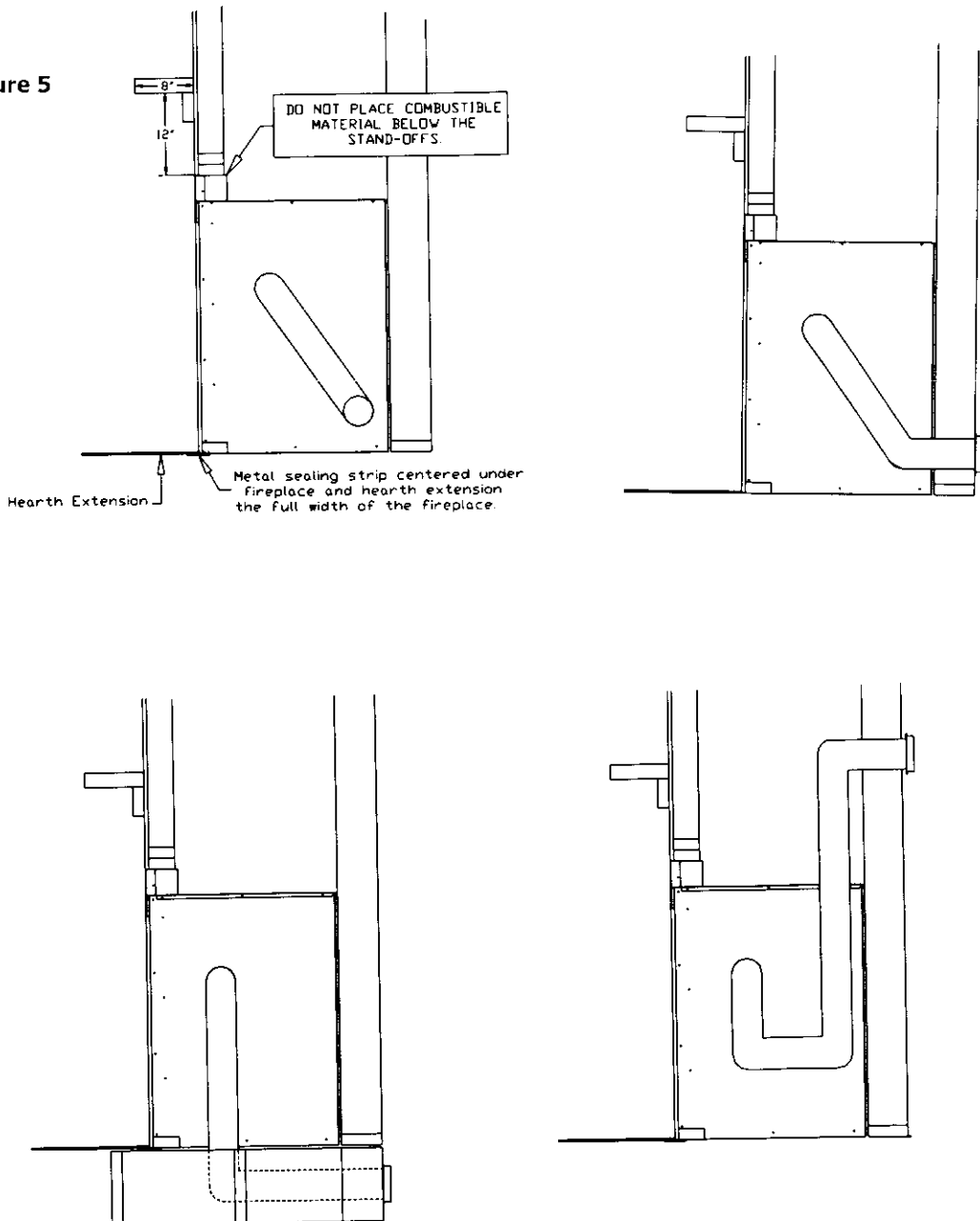
Avoid running the combustion air an excessive length and use the shortest distance possible to the outside. DO NOT terminate in the attic or in a garage.

If ducting beside the chimney chase, terminate the intake air at least three feet below the termination level of the chimney. The air pipe can also be ducted below the floor level of the fireplace providing it is ducted to the outside.

Note: If the combustion air pipe runs for any distance outside the enclosure, but inside the house, wrap it with insulation to eliminate condensation or frost build up.

3. Mount a standard metal vent cover designed for 4" pipe on the outside with the louvers pointing downward.

Figure 5



CHIMNEY INSTALLATION:

FOLLOW CHIMNEY MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDED WITH THE CHIMNEY SYSTEM YOU ARE INSTALLING. INSTALLATION OF THE CHIMNEY MUST BE IN COMPLIANCE WITH THE INSTRUCTIONS INCLUDED.

CAUTION: DO NOT FILL REQUIRED CLEARANCES BETWEEN THE CHIMNEY AND COMBUSTIBLES WITH INSULATION!

IMPORTANT: The appropriate anchor plate must be purchased with the chimney system you are installing. Sealant and screws for attaching the anchor plate to the fireplace are included. See Figure 6.

1. Place a bead of sealant under the chimney anchor plate and push the plate collar into the fireplace flue. **See Figure 6.** Secure with metal screws. Connect the first chimney section per the manufacturer's installation instructions.

IMPORTANT: The anchor plate flange must fit into the flue collar on the fireplace to prevent creosote leakage. See figure 6A.

Figure 6

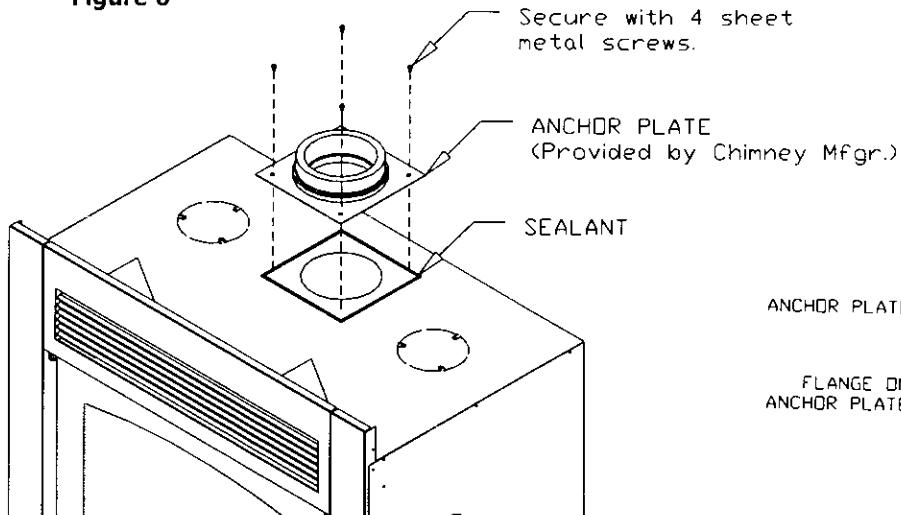
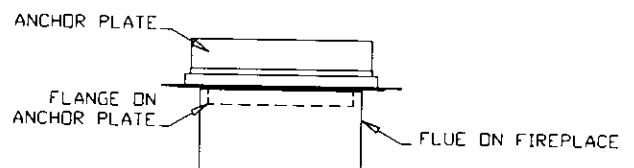


Figure 6A



MINIMUM CHIMNEY HEIGHT: The chimney must be a minimum of 12' high and must extend a minimum of 3 ft. above the highest point where it passes through the roof and at least 2 ft. higher than any portion of a building within 10 ft.

MAXIMUM CHIMNEY HEIGHT: 50 FT.

ELBOWS: A maximum of (4) 30° elbows may be used (2 sets offsets)

Maximum offset: 4 ft.

If (2) 30° elbows are being used, the chimney must be a minimum of 14' high.

When (4) 30° elbows are used, the chimney must be minimum of 25' high.

Follow chimney manufacturer's clearance to combustibles and support bracket requirements.

2. Cut and frame the required holes in the floor, ceiling, and roof where the chimney will be passing through.

REFER TO THE CHIMNEY MANUFACTURER'S INSTRUCTIONS FOR PROPER FRAMING SIZE, CLEARANCE TO COMBUSTIBLES AND SUPPORT BRACKET REQUIREMENTS.

The clearance between the chimney and combustibles should never be less than 2". DO NOT fill this air space with insulation.

FIRE STOP: A fire stop must be installed where the chimney passes through each floor level. Refer to the chimney manufacturer's instructions for proper part number and installation procedures.

ATTIC INSULATION SHIELD: An attic insulation shield is required by the chimney manufacturer for protection where the chimney passes into the attic space. This will prevent debris and insulation from coming in contact with the chimney. Refer to the chimney manufacturer's requirements.

3. Install chimney sections, fire stops, attic insulation shields, etc., following the manufacturer's installation requirements.

REMINDER: The chimney must extend at least 3 ft. above the highest point where it passes through the roof of a building, and at least 2 ft. higher than any portion of a building within 10 ft. See figure 7, page 10.

4. Install the flashing, storm collar & chimney cap following the chimney manufacturer's instructions.
5. Refer to the chimney manufacturer's requirements concerning supports, bracing, anchors, etc.

Examples of Chimney Installation - Figures 7 & 8

IMPORTANT: Follow the chimney manufacturer's installation manual for complete installation instructions and components required for installation.

Figure 7

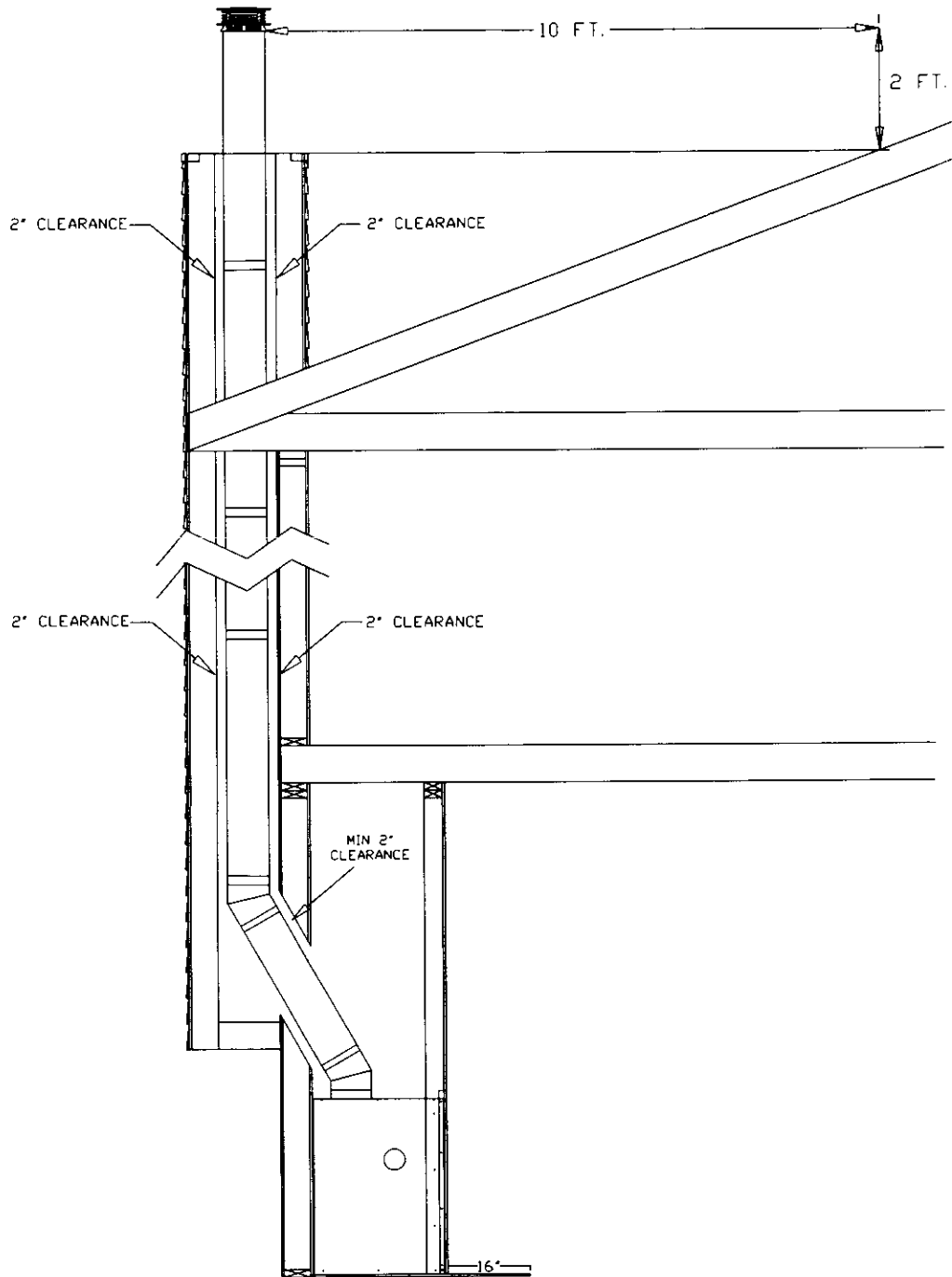
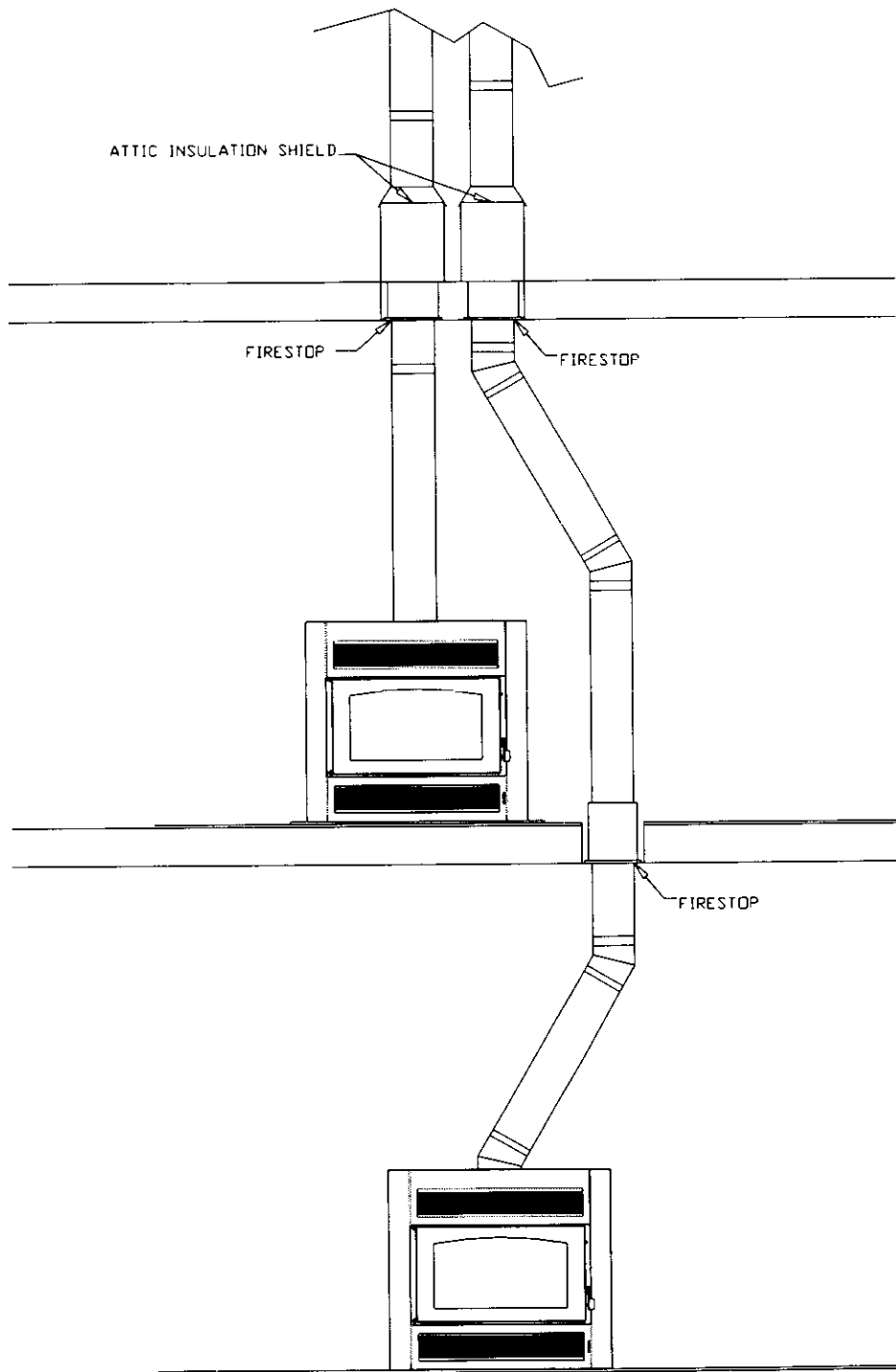


Figure 8



FAN KIT INSTALLATION

INSTALLATION OF THIS FAN SHOULD BE DONE ONLY BY A QUALIFIED INSTALLER

NOTE: If a fan is going to be installed, the wiring **must** be done prior to enclosing the sides of the unit.

Your optional fan kit includes:

1. Fan assembly with 2 -110 CFM fans and limit switch already mounted.
2. Components Package (Includes: Speed control with nut & knob*, Receptacle, 2" cover, (2) nuts.)

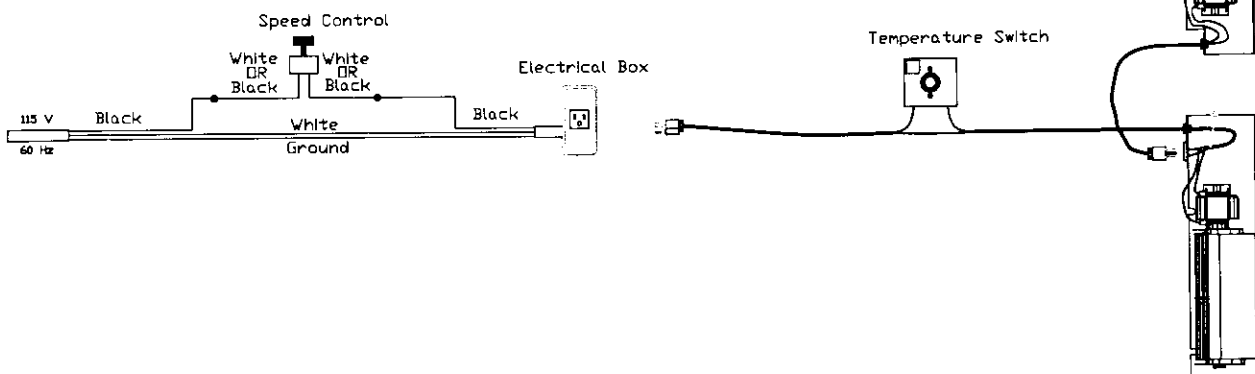
***NOTE:** To wall-mount the speed control, you will need to purchase: (1) Electrical box
(1) Cover / switch plate

NOTE: Code approved line voltage wiring 16 gauge or better must be used when wiring this system.

NOTE: Place the limit switch on the bottom of the unit, approximately in the center.

Fan Wiring Diagram

IMPORTANT: BLACK & WHITE SPEED CONTROL WIRES SHOULD BE CONNECTED TO THE INCOMING 'BLACK' ELECTRICAL WIRE. DO NOT CONNECT THE WHITE SPEED CONTROL WIRE TO THE 'NEUTRAL' ELECTRICAL WIRE. THIS WILL RESULT IN PERMANENT DAMAGE TO THE SPEED CONTROL AND IT WILL NEED REPLACING. See wiring diagram below.



INSTALLATION INSTRUCTIONS

NOTE: The lower grill must be removed to install this fan kit.

1. Slide the left fan (without receptacle) through the lower grill opening and place over the (2) left mounting studs located towards the back of the unit.
2. Slide the right fan (with receptacle) through the lower grill opening and place over the (2) right side mounting studs located towards the back of the unit.
3. Place nuts on mounting studs and tighten.
4. Plug fans together by inserting the three-prong fan cord on the left fan assembly into the receptacle in the right fan assembly.
5. Install an electrical box and mount the speed control on a wall, if desired.
6. Run 115V wiring (with ground) through the romex connector installed in the electrical box on the left side of the unit and wire to the receptacle.
7. Place the cover on the electrical box (in the side of the unit) and secure with screws.
8. Place the temperature control switch on the bottom of the unit, as close to the center as possible.
9. Plug cord into receptacle in the electrical box.
10. Turn on/off speed control clockwise until it clicks.

NOTE: The fan will not operate unless the speed control has been turned on. Adjust fan to desired speed while it is running.

NOTE: The fan will not turn 'on' until sufficient heat is applied to the temperature control switch. The fan will turn 'on' and 'off' automatically when the fireplace heats and cools.

NOTE: This system, when installed, must be electrically connected and grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-Current edition.

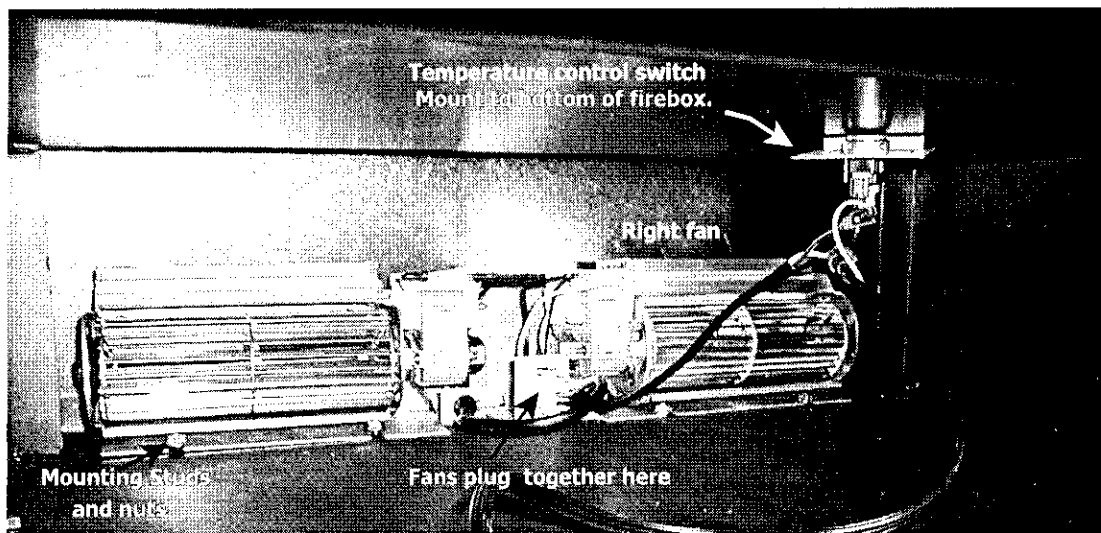
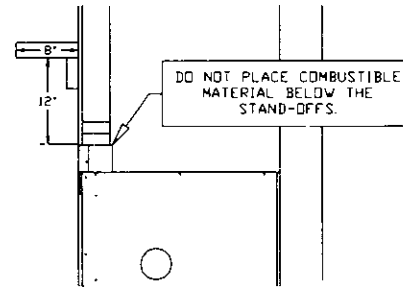


FIGURE 9

FIREPLACE FRAMING & FACING

1. Frame in the fireplace. Maintain the necessary clearances to combustibles. The framing materials should not come in actual contact with the fireplace. If installing a mantel, (a combustible mantel may be used) follow the mantel projection chart on page 2. The distance is measured from the bottom of the mantel to the top of the fireplace face.

Example: An 8" mantel would be installed 12" above the top of the fireplace face.



2. Complete the fireplace front.

NOTE: A non-combustible material such as brick, tile, marble, or stone may be placed over the top and side face pieces. This material **MUST NOT** come in direct contact with the unit or cracking of the face materials will occur.

CAUTION: If using "thin" brick a non-combustible facing material such as rock board or metal must be used in front of the unit face. This facing must not be attached to the unit.

Trim kits are available for this purpose and may be purchased from your dealer.

NOTE: The facing material should overlap the side framing studs approximately 1/4" -3/8" in order for the outer face of the unit to cover the sheetings edge.

COMPLETE THE INSTALLATION

1. *Upper Grill - Install:*

- A) Line the rods of the grill up with the upper holes.
- B) Place the rods in the holes and push up until the bottoms of the rods clear the glass frame.
- C) Place the bottom of the rods into the lower holes and release. The grill will set down into place.

Remove:

- A) Lift the upper grill up far enough to clear the bottom holes and pull bottom of grill out.

Remove:

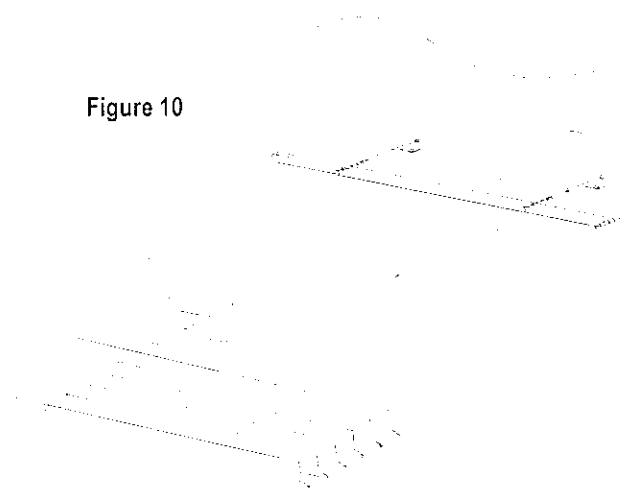
- A) Remove the 1/4" nuts (B) from the lower grill assembly.
- B) Pull the entire grill assembly out of the hinges.
- C) Re-attach the 1/4" nuts (B).

Figure 10

2. *Lower grill - See Figure 10*

Install:

- A) Remove the 1/4" nuts (B) from the lower grill assembly.
- B) Slip the bolt through the hinge (A).
- C) Re-attach the 1/4" nut (B).
- D) Repeat "A" through "C" for the remaining hinge.

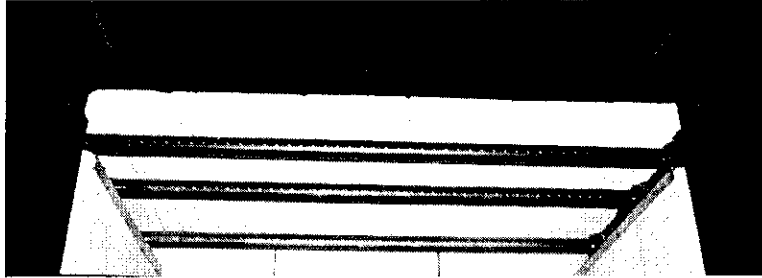


3. INSTALL THE FIREBRICK - Figures 11A - 11E

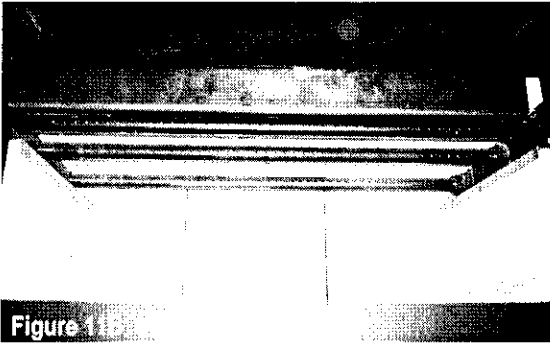
The following firebrick and refractory are included with this fireplace:

- | | |
|--------------------------------|---------------------------------|
| (7) 4 1/2" x 9" firebrick | (10) 4 1/2" x 13 1/4" firebrick |
| (6) 4 1/2" x 10 3/4" firebrick | (2) 2 3/4" x 13 1/4" firebrick |
| (1) 4 1/2" x 4 1/2" firebrick | (1) firebrick retainer |

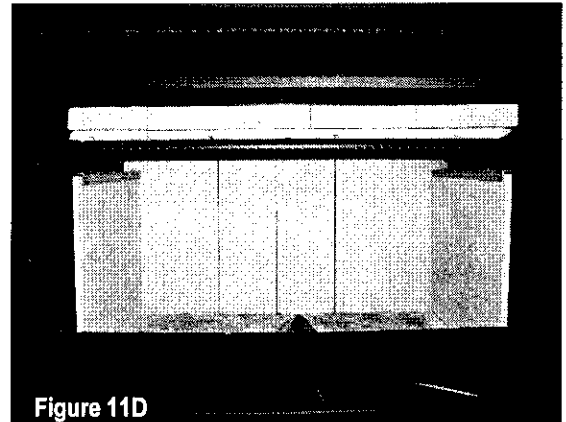
Figure 11A



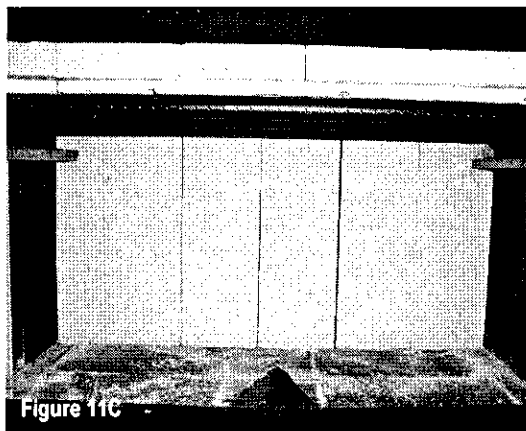
Step 1: Lay (5) 4 1/2" x 13 1/4" & (1) 2 3/4" x 13 1/4" firebrick over the refractory panel. **Figure 11A.**



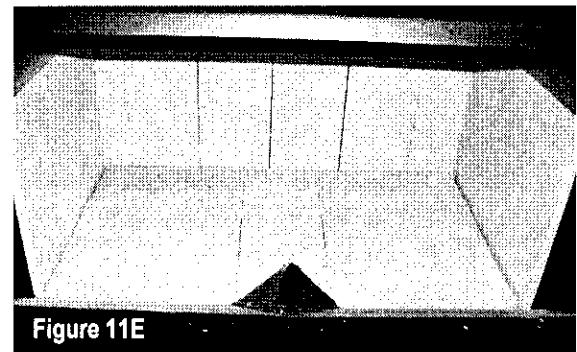
Step 2: Install the firebrick retainer over the firebrick & refractory panel by inserting the edge with the 90° bend between the bottom of the refractory panel and first pipe. Rotate the retainer up and over the refractory and firebrick. The flange should now be behind the first pipe. **Fig. 11B.**



Step 4: Starting at the back, position (3) 4 1/2" x 10 3/4" under the firebrick brackets at each side. (6 firebrick used). **Figure 11D.**



Step 3: Position (5) 4 1/2" x 13 1/4" & (1) 2 3/4" x 13 1/4" firebrick at the back of the firebox. **Figure 11C.**



Step 5: Place the remaining firebrick, (7) 4 1/2" x 9" & (1) 4 1/2" x 4 1/2", into the bottom of the firebox. **Figure 11E.**

NOTE: The 4 1/2" x 4 1/2" firebrick is at the center back.

FIREPLACE OPERATION

This fireplace system uses outside air for combustion. The air is drawn into the unit from outside your home to provide oxygen for the fire. This eliminates robbing valuable oxygen from your home and starving other fuel burning appliances of combustion, ventilation, and dilution air.

Kozy Heat's air-seal air tight door system seals the fireplace eliminating heat loss and allowing you to completely control your fire. This give you maximum heat potential. using a minimum of firewood to produce this heat. This is accomplished by controlling the burn rate with the inlet air control.

The Kozy Heat fireplace heating system creates heat for your home by a convective air flow through the heat chamber that is constructed around the fireplace. Room air is drawn in through the lower grill, the air then circulates upward around the fireplace as heat radiates off the fireplace. This heated air exits the chamber through the upper grill area back into the room. Air can also be ducted to another room through the use of the #970 heat duct kit.

The optional blower, part #600-1, increases the circulating air flow.

FOR USE WITH SOLID FUEL ONLY - Use solid wood, processed solid fuel firelogs fuel only. If processed solid fuel firelogs are used, do not poke or stir the logs while they are burning. Use only firelogs that have been evaluated for the application in fireplace and refer to firelog warnings and caution markings on packaging prior to use.

DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE WITH THIS PRODUCT.

WARNING: THIS UNIT HAS NOT BEEN TESTED WITH ANY GAS COMPONENT OR ACCESSORY. DO NOT INSTALL A GAS COMPONENT, INCLUDING A GAS LOG LIGHTER INTO THIS FIREPLACE.

How to use your Kozy Heat Zero Clearance Fireplace

- 1) Open intake damper by putting it in the 'down' position. The damper is closed when it is in the 'up' position.
- 2) Unlatch and open the door and place two logs (3" to 6" diameter) into the unit with the ends front to back and approximately 12" of space between them. Crumble a few pieces of newspaper (or use small kindling) and lay it between the logs. Now lay 2 to 4 pieces of larger kindling across the first two logs (bridging over the kindling.)

NOTE: Build the fire directly on the firebrick. Do not elevate the fire or use a grate.

- 3) Build the fire no closer than 6" from the front of the unit.
- 4) Light paper and kindling with matches.

CAUTION: Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire. Keep all such liquids well away from the fireplace while it is in use.

- 5) Close the intake damper to slow down the burn.
- 6) When the fire is burning well on kindling, open damper, wait 1 minute, then open the door and add larger wood.

NOTE: Slowly load your firebox with average sized split wood. Approximately 30-50 pounds over a period of one-half hour. **DO NOT OVERFIRE**, this could damage the unit and void the warranty.

- 7) Close door and latch.

NOTE: This fireplace is equipped with a door and should be operated only with the door fully closed and latched. If the door is left partly open, gas and flame may be drawn out of the fireplace opening due to the operation of other appliances in the home such as a clothes dryer, range fan, bathroom exhaust fan, etc., creating risks of both fire and smoke.

- 8) When adding wood, first open the intake damper, wait 1 minute, then open the door slowly and add wood. This will prevent any smoke spillage from entering your home.
- 9) Always leave the intake damper slightly open. This will help keep the glass doors cleaner.
- 10) **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 non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in the soil or otherwise locally dispersed, they must be retained in the closed container until all cinders have thoroughly cooled.

Precautions

- 1) **Do not burn waste paper.**
2. **Except when loading, the fireplace may not be operated with the door open.**
- 3) **Do not obstruct room air inlet and outlet air grills. This can cause the unit to overheat.**
- 4) **Do not store clothing, furniture or combustibles within 36" of the unit.**
- 5) **The chimney should be inspected monthly 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. We recommend a professional chimney cleaner inspect and clean the chimney at least once annually.**
- 6) **Burn only dry seasoned wood. Extremely hard woods, such as oak or ash can require up to two years of drying time to be adequately dried.**
- 7) **For further information on using your heater safely obtain a copy of the National Fire Protection Association publication "Using Coal & Wood Stoves Safely." NFPA No. HS-10.**

Maintenance Requirements

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 during the heating season to determine if a creosote buildup has occurred. If a significant layer of creosote has accumulated (1/8 inch or more) it should be removed to reduce the risk of a chimney fire.

Inspection can be accomplished from the top of the chimney by removing the chimney cap or from inside the stove by removing the upper firebrick. We recommend a professional chimney cleaner inspect and clean the chimney at least once annually.

Should the glass become discolored with creosote clean on a regular basis. The simplest way to clean this unit is to periodically burn it with the outside air damper completely open for 30 - 45 minutes. This will usually clean the glass and minimize the ashes.

Oven cleaner or a cleaner specifically designed for fireplace glass may be used. DO NOT use abrasive cleaners. Clean only when the glass is cooled.

In the event of glass breakage, due to overfiring or a log falling against the glass, let the unit cool completely. Do not use the fireplace with broken or cracked glass. Replace only with Kozy Heat part #150380.

To remove broken glass:

1. Open the door and lift off the hinges.
2. Place the door (right side down) on a flat protected surface.
3. Remove the glass clips and carefully remove the broken pane.
4. Properly discard the broken glass.

TROUBLE SHOOTING GUIDE

Problem

Smokes back through the door when it is opened, when first starting or when the fire dies down.

OR

Smokes out the doors or the intake pipe when the wind is blowing from a certain direction.

Cause

- A. Negative Pressure in the home.
 - B. Chimney not high enough.
 - C. Cold wind cooling poorly insulated chimney.
 - D. Chimney cap too close to flue termination.
 - E. Adjacent structures, trees, etc. too close to chimney, remove or raise chimney.
 - F. Screen on chimney top plugged, or too fine.
 - G. Restriction within chimney, creosote, mortar, leaves, bird nest, etc.
 - H. Ice build-up on chimney top.
-

The unit won't generate enough heat.

- A. Wood is not seasoned or it is wet from snow or rain.
 - B. Not enough wood being used. 30-50 lbs. of wood is necessary for optimum heat.
 - C. Obstructed grill openings.
-

There is a terrible odor coming from the fireplace.

- A. New paint. This odor should not last past the third burn at a moderate burn rate. Open doors & windows to ventilate during the initial burn period.
-

ALTERNATE FLOOR PROTECTION MATERIAL WORKSHEET

How to determine if alternate floor protection materials are acceptable.

All floor protection materials must be non-combustible (i.e., metals, brick, stone, mineral fiber boards, etc.). Any organic materials (i.e., plastics, wood, paper products, etc.) are combustible and must not be used. The floor protection specified may include some form of thermal designation such as R-value (thermal resistance), k-factor (thermal conductivity), or C-factor (thermal conductance).

PROCEDURE:

1. Convert specification to R-value:
 - i. R-value given - no conversion needed.
 - ii. k-factor is given with a required thickness (T) in inches: $R = 1/k \times T$
 - iii. C-factor is given: $R = 1/C$
2. Determine the R-value of the proposed alternate floor protector.
 - i. Use the formula in step (1) to convert values not expressed as "R".
 - ii. For multiple layers, add R-values of each layer to determine overall R-value.
3. If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

EXAMPLE: The specified floor protector should be 3/4 inch thick material with a k-factor of .84. The proposed alternate is 4" brick with a C-factor of 1.25 over 1/8" mineral board with a k-factor of .29.

Step (a): Use formula above to convert specification to R-value. $R = 1/k \times T = 1/.84 \times .75 = .893$.

Step (b): Calculate R of proposed system.

$$\begin{aligned} 4" \text{ brick of } C = 1.25, \text{ therefore } R_{\text{brick}} &= 1/C = 1/1.25 = .80 \\ 1/8" \text{ mineral board of } k = .29, \text{ therefore } R_{\text{min.bd.}} &= 1/.29 \times .125 = .431 \\ \text{Total } R = R_{\text{brick}} + R_{\text{mineral board}} &= .8 + .431 = 1.231 \end{aligned}$$

Step (c): Compare proposed system of R of 1.231 to specified R of .893. Since proposed system R is greater than required, the system is acceptable.

Definitions: Thermal conductance = $C = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{oF})} = \frac{W}{(\text{m}^2)(\text{oK})}$

$$\text{Thermal conductivity} = k = \frac{(\text{Btu})(\text{in})}{(\text{hr})(\text{ft}^2)(\text{oF})} = \frac{W}{(\text{m})(\text{oK})} = \frac{\text{Btu}}{(\text{hr})(\text{ft})(\text{oF})}$$

$$\text{Thermal resistance} = R = \frac{(\text{ft}^2)(\text{hr})(\text{oF})}{\text{Btu}} = \frac{(\text{m}^2)(\text{oK})}{W}$$

REPLACEMENT PARTS

The following replacement parts and options are available for Model Z42. Consult your dealer for availability and pricing.

#500-333	Brass Grill Set	#617	44" Lintel Iron
#500-334	Brass Accent Grill Set	#150-380	15 1/2" x 28" Glass
#936-200	Black Upper Grill	#200-180	Glass Clips
#936-201	Black Lower Grill	#810	Door / Glass Gasket Kit
#600-1	Fan Kit	# 300-600	Firebrick
#404-4	Limit Switch Assembly	#Z42100	3/8" Finish Material Trim Kit
#600085	Speed Control	#Z42101	1" Finish Material Trim Kit

Model Z42
Weight: 525 lbs.
U.S. Installations only
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Manufactured by:

Hussong Mfg. Co., Inc.
204 Industrial Park Drive
Lakefield, Minnesota 56150