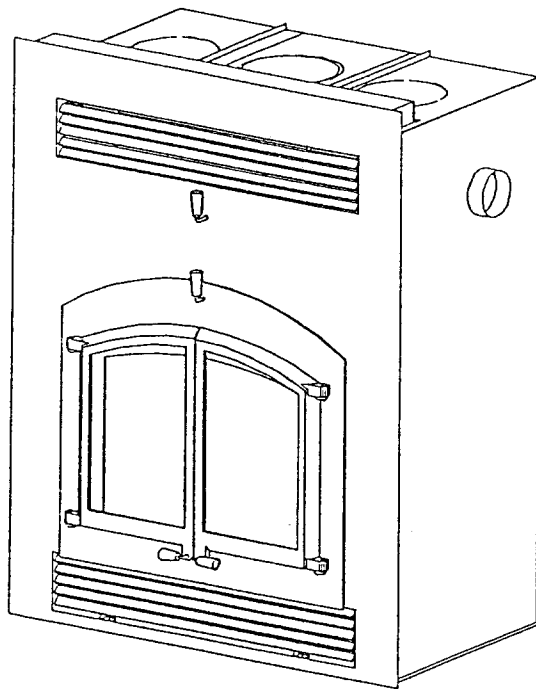




# KOZY HEAT™

## INSTALLATION & OPERATING MANUAL

MODEL 231 ZERO CLEARANCE  
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.

## ZC AVAILABLE OPTIONS

- |                           |                               |
|---------------------------|-------------------------------|
| 1. #753 Black Upper Grill | 2. #754 Black Lower Grill     |
| 3. #756 Brass Upper Grill | 4. #757 Brass Lower Grill     |
| 5. #9981 Arched Door Trim | 6. #628 Arched Face Trim      |
| 7. #617 44" Lintel Iron   | 8. #616 Arched Lintel Iron    |
| 9. #945 4" Vent           | 10. #940 4" Closure Vent      |
| 11. #669 Duct Kit         | 12. #670 Duct Kit (with pipe) |

NOTE: Unit is available with either black or gold plated doors.

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**IMPORTANT:**

**READ THIS MANUAL BEFORE INSTALLING  
AND USING THIS FIREPLACE**

**INSTALLATION CAUTIONS:**

**Heat Transfer:**

- A) The heat register outlet covers must not terminate below the hot air ductwork outlets to prevent a heat sink. See Figure 6.

**Chimney:**

- A) Use only a listed type HT Chimney per UL 103 or ULC S629
- B) Do not vent any other appliance through this chimney system.
- C) Follow manufacturer's instructions for proper installation of the chimney.
- D) Ensure that the chimney brand you purchase is equipped with the corresponding anchor plate for attachment to the fireplace.
- E) The chimney should be at least 10' tall (above the fireplace) and at least 2' higher than the peak of the house, or smoke back may occur when the doors are opened.

**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.

**Foundation:**

- A) Although no 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.

**INSTALLATION**

**NOTE:** Installation and/or repair of this unit should only be done by a qualified installer.

This appliance has been tested to and complies with U.L. Standard 127(7/90) and CAN/ULC-S610-M87. Installation must conform with local building codes, or in the absence of local building codes, with the NFPA 211 Standard for Chimney, Fireplaces, & Vents, CAN/CSA B365..

**A. SPECIFICATIONS. See Figure 1.**

Height	49-1/2"
Width	41"
Depth	22"
Flue Size	8"
Hot Air Ducts	8"

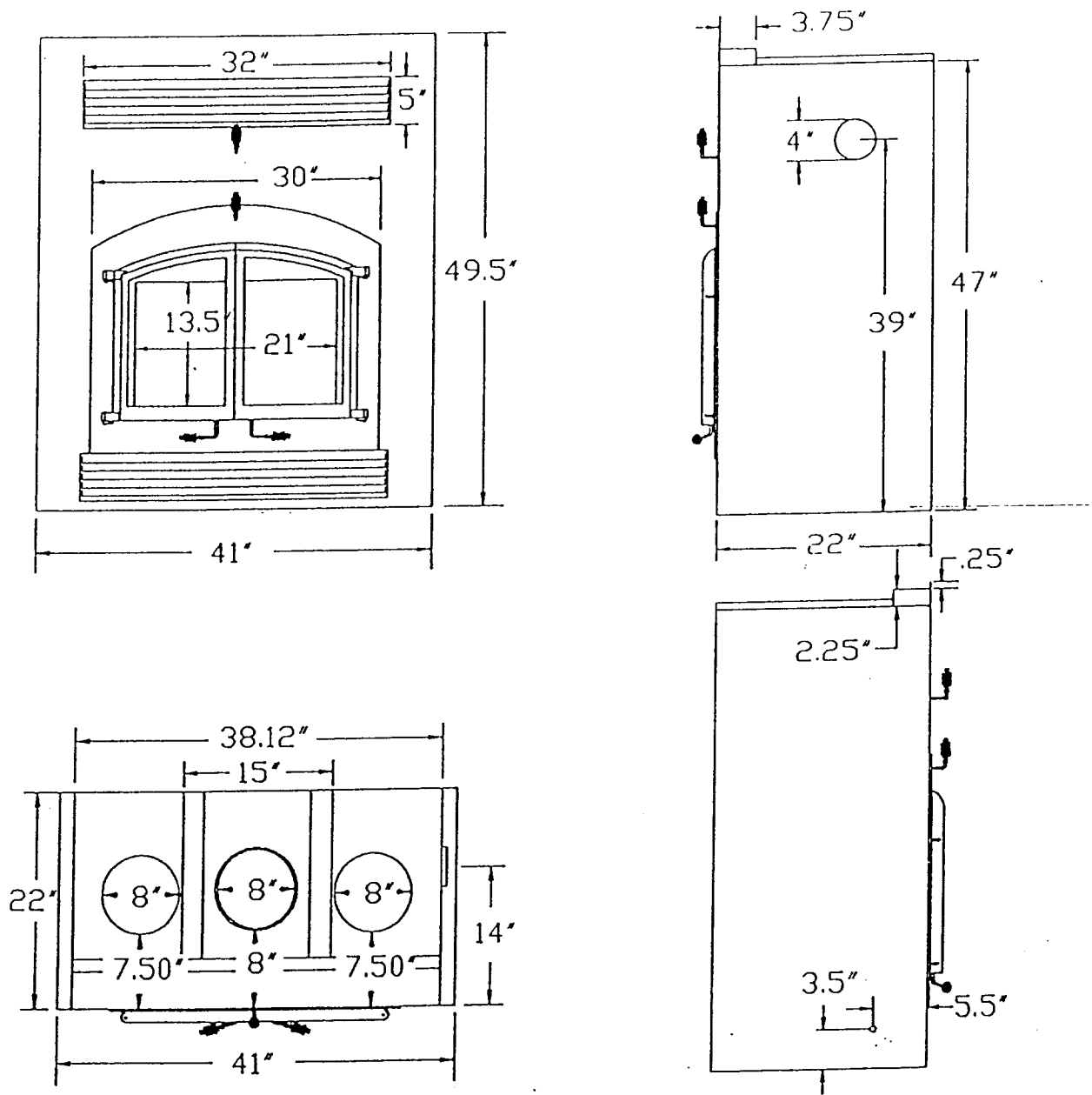


FIG. 1

**Minimum clearance to combustibles:**

- Unit back to wood enclosure - 1/2"
- Unit sides to wood enclosure - 1/2"
- Unit door to an adjacent wall - 16"
- Heat vents to ceiling - 10"
- Top of grill opening to a mantel (using both 8" heat ducts) - 6"
- Top of grill opening to a mantel (heat ducts not used) - 11"

**CAUTION: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.**

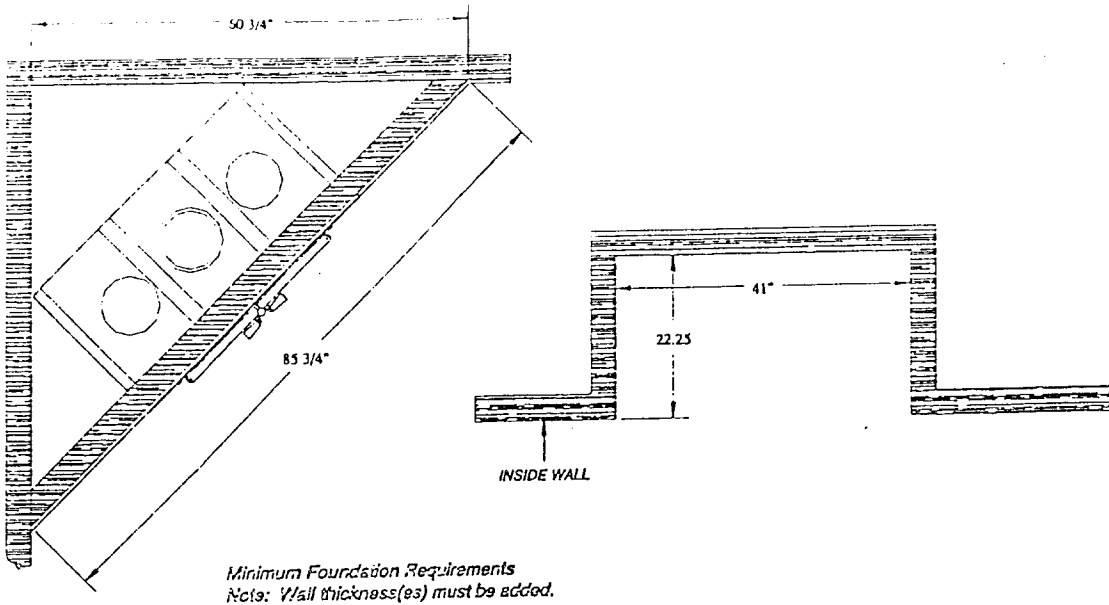


FIG. 2A

MINIMUM HEARTH AND HEARTH EXTENSION MEASUREMENTS

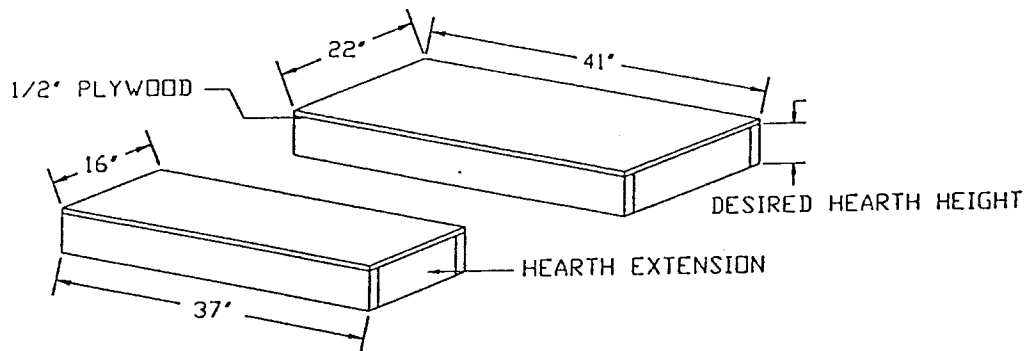


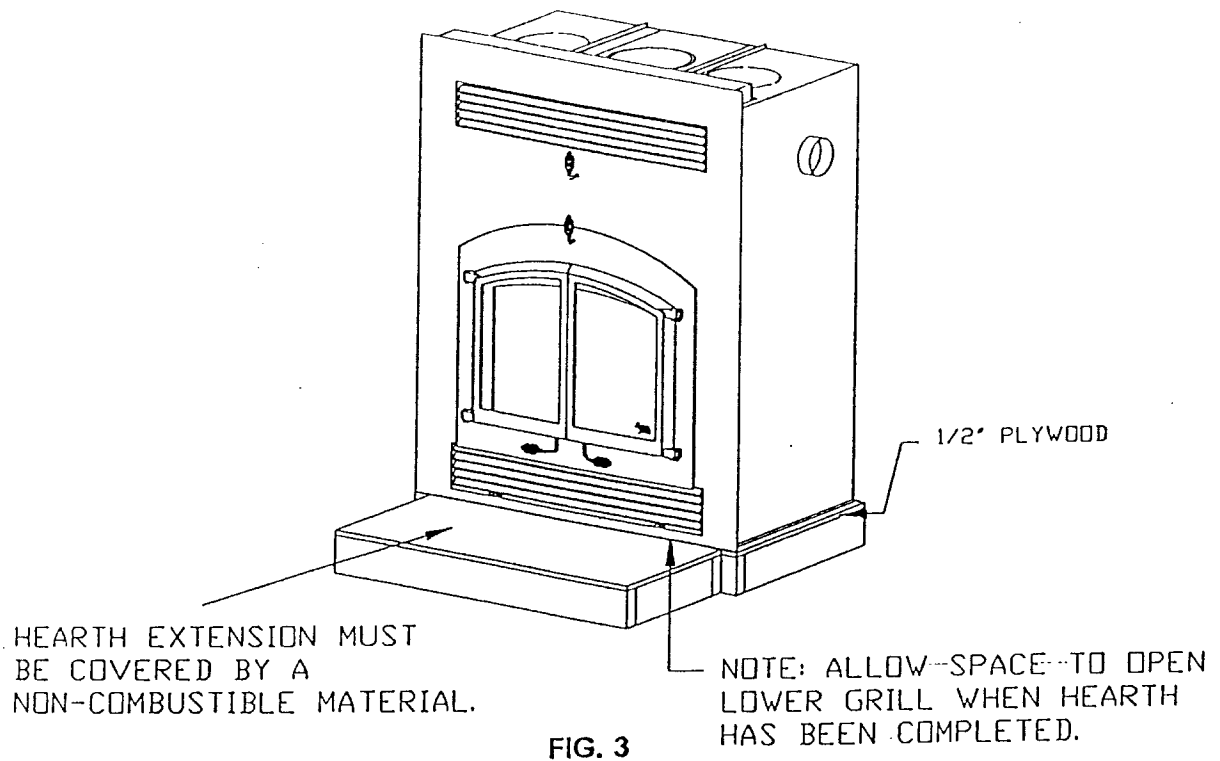
FIG. 2B

**B. PREPARE THE OPENING**

1. Place the unit in the desired location. This unit may be placed on any flat combustible or non-combustible floor surface without carpeting or linoleum. A minimum depth of 22-1/2", width of 41", and height of 49-1/2" plus the hearth height is required for installation. See Figure 2A.

**NOTE:** A non-combustible hearth extension equivalent to 3/8" millboard (R=.75, C=1.3, K= 0.5) must be used. If the unit is to be installed without a raised hearth, it must extend 24" in front of and 8" beyond the sides of the fuel opening. If the unit is to be installed with a raised hearth, it must extend 16" in front of and 8" beyond the sides of the fuel opening See. Figure 2B.

**NOTE:** If using the optional fan kit run 115V wiring into the lower left of the unit (a knockout is provided). The insulation must be cut away.



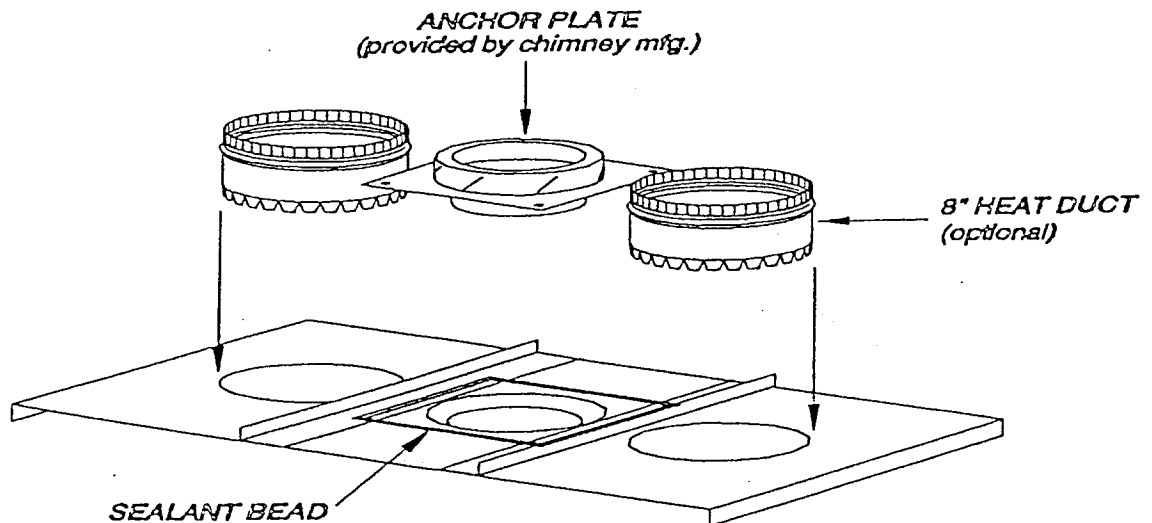
### C. CHIMNEY & VENTING INSTALLATION

**CAUTION:** The bottom grill must be allowed to open. Do not place the unit in a manner that would obstruct this grill. See Figure 3.

**NOTE:** Recommended chimney systems are 8" HT Double-wall insulated pipes, such as Dura-Vent, Metalbestos, Pro Jet, Security, Metal-Fab, Jakes Evan, or American Metal Products. Hussong Mfg Co Inc does not recommend the air-cooled chimney system.

**IMPORTANT:** Purchase the appropriate anchor plate with your chimney system. Sealant and screws for attaching the anchor plate to the fireplace are included. See Figure 4.

1. Place a bead of sealant under the chimney anchor plate and push the plate collar into the fireplace flue. See Figure 4. Secure with metal screws. Connect the first chimney section per the manufacturer's installation instructions.



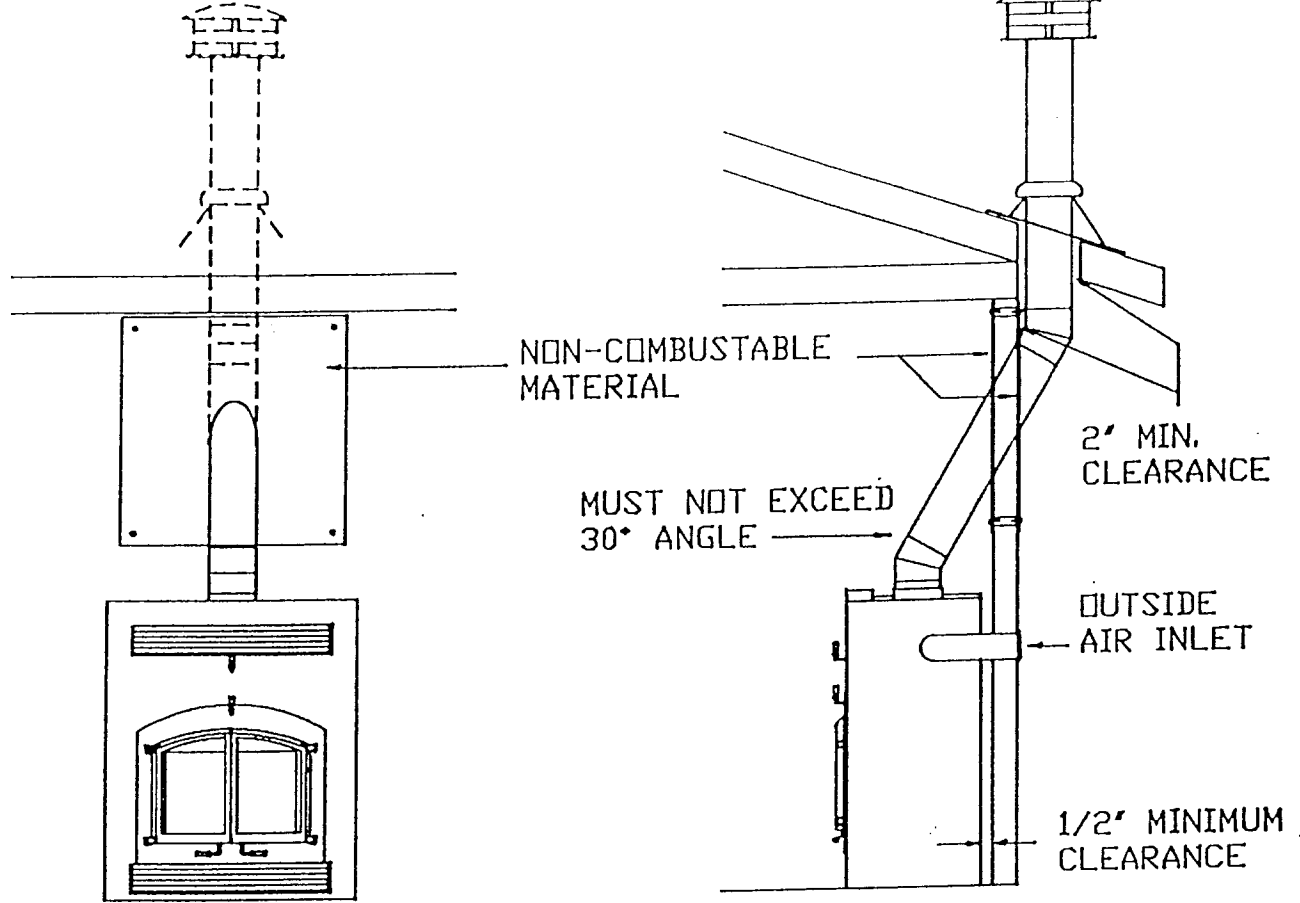


FIG. 5A

1. Install the chimney in accordance to the chimney manufacturer's installation instructions. The chimney needs to be a minimum of 10' overall, with a minimum of 3' above the roof line and 2' above the nearest peak. See Figure 5A & B.

**CAUTION:** A straight chimney system is the preferred method. A maximum of 30 degree elbows are approved for use with this units. Follow manufacturer's suggested clearances to combustibles.

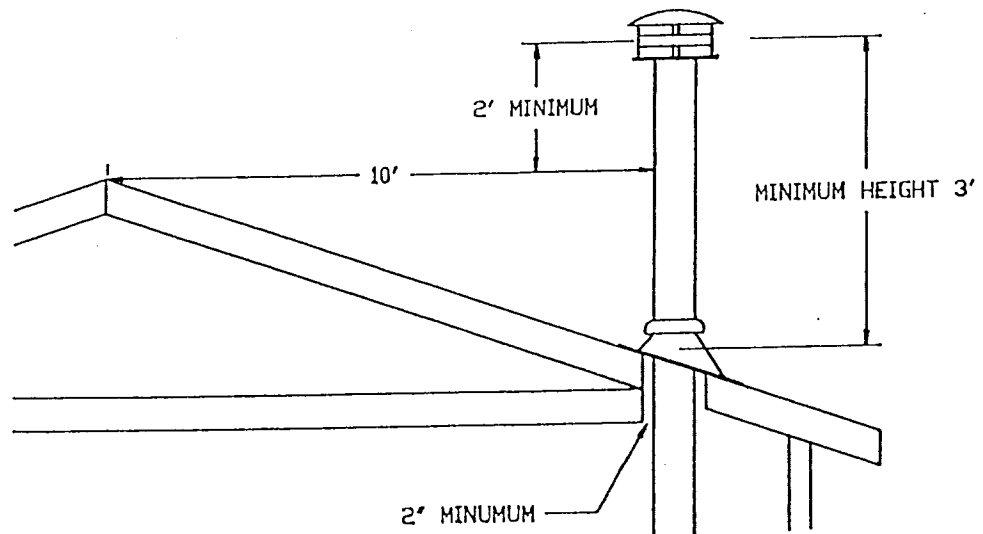


FIG. 5B

2. This unit requires an outside air source for combustion. This should be connected before framing the unit in.

a) Connect 4" 30 gauge, (or heavier), galvanized pipe to the adapter.

b) Run pipe to the nearest outside wall. Connect sections with metal screws. DO NOT use flex aluminum outside of the chamber.

**NOTE:** If the combustion air pipe runs for any length outside of the heat chamber, but inside the house, wrap it with insulation to eliminate condensation or frost build up.

c) If it is necessary to run the pipe for more than 10' it is recommended that you increase to a 6" pipe. The maximum length recommended to run the pipe is not more than 26' feet and not more than three elbows. Duct the shortest possible way. DO NOT terminate in the attic or into 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 can also be ducted below the floor level of the fireplace providing it is ducted to the outside.

**NOTE:** A closure vent (#940) is available to shut off the air at the outside termination of the intake pipe from inside the home. When the fireplace is not in use this eliminates any cold air transfer into the home. We recommend the use of this vent on all Kozy Heat installations.

3. 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. An optional duct kit is available from your dealer and includes the necessary adapters and vent grills. A maximum run of 10' is recommended.

**CAUTION:** Use ONLY Kozy Heat duct kits #669 or #670. Use ONLY 8" vent pipe, do not reduce the size. Leave a 2" clearance to combustibles.

**CAUTION:** Do not terminate the heat register outlet covers below the hot air ductwork outlets to prevent a heat sink. See Figure 6.

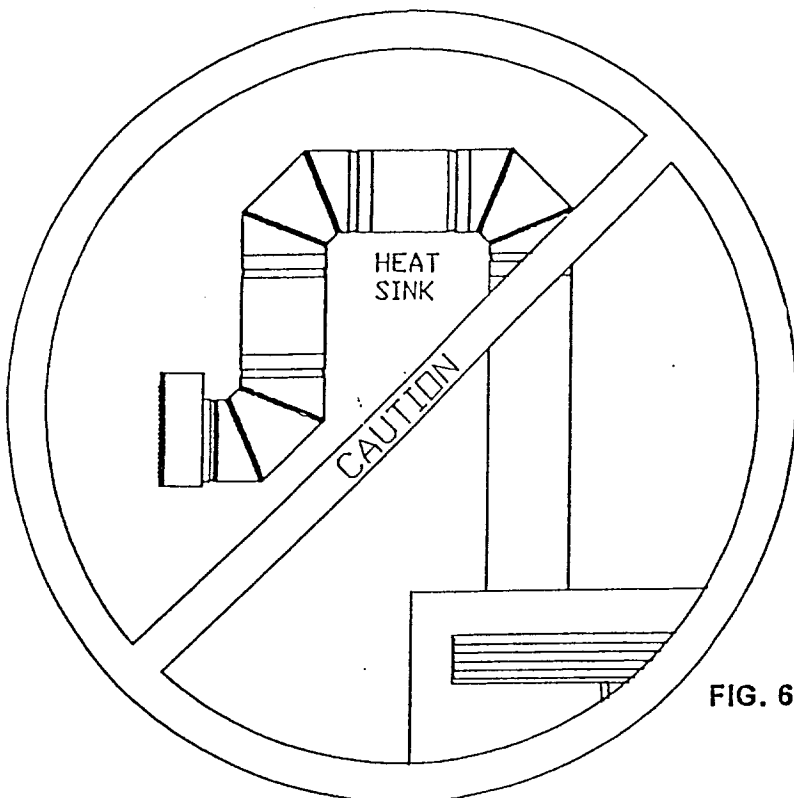


FIG. 6

**CAUTION:** Do not terminate the heat register outlet covers below the hot air ductwork to prevent a heat sink.



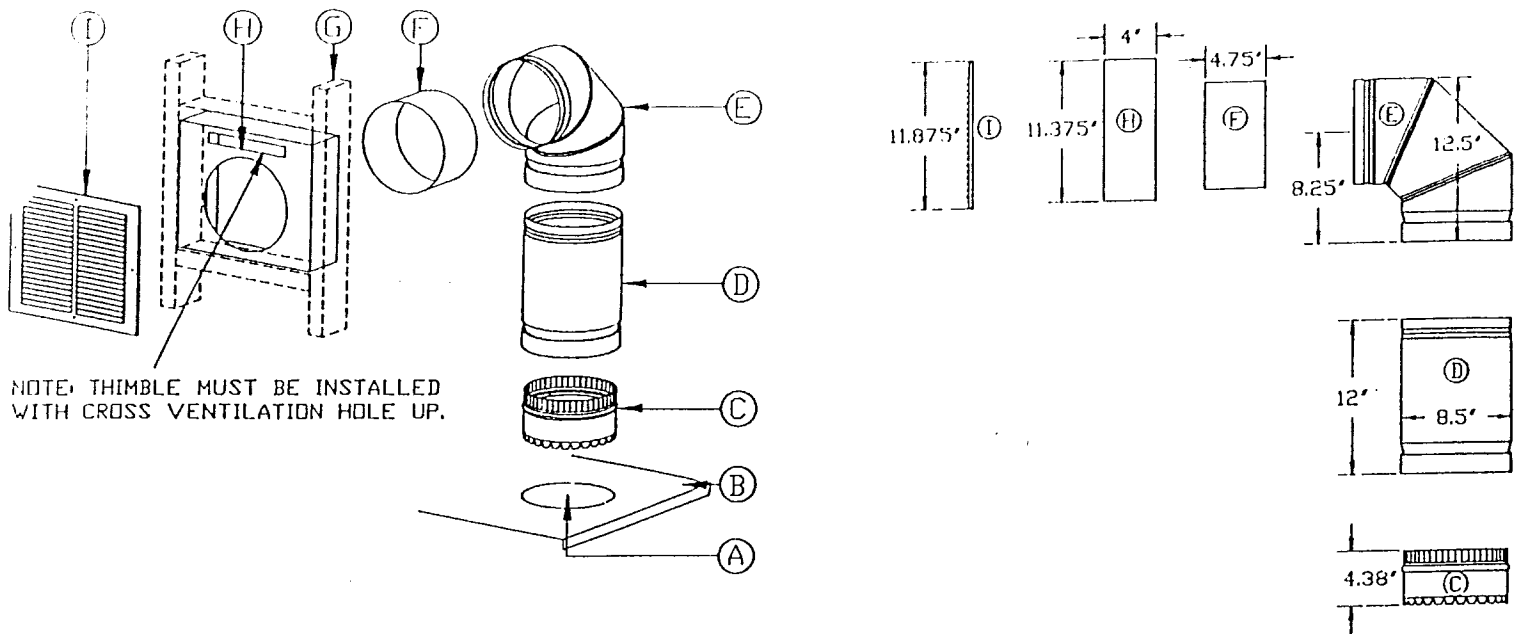


FIG. 7

#### D. HEAT DUCT KIT INSTALLATION

Your optional complete #670 heat duct kit includes 2 each of the following:

1. Adaptor Rings - (C)
2. 1' Section 'B' Vent Pipe - (D)
3. 'B' Vent Elbow - (E)
4. Extension Sleeve - (F)
5. Wall Thimble - (H)
6. Grill Cover - (I)

NOTE: Kit #669 does not include items D and E.

When running the pipe through a wall, the thimble shield must be used.

Using Figure 7 as a guide:

- a) Using a utility knife, cut the insulation (A) away from the 8" holes on top of the unit (B).
- b) Place an adaptor ring (C) into the hole and bend the tabs back to secure in place.
- c) Connect 8" 'B' vent pipe (D) to the adaptor ring and secure.
- d) Connect additional pipe sections, and/or elbows (E) to the desired length.
- e) When passing through the wall termination install the thimble (H), and extension sleeve (F) to prevent heat transfer.
- f) The grill covers (I) are attached upon completion of the wall.

NOTE: Thimbles should terminate 10" below ceiling level.

NOTE: The maximum length of the ducting run is not more than 10' in any direction. DO NOT run the ductwork downward, this will cause a heat sink.

## E. 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 (magnet attached) (4) on the bottom of the unit, approximately in the center.

NOTE: The lower grill may need to be removed in order for the fan to be installed.

1. Place fan (1) over mounting studs (2).
2. Place nuts on mounting studs and tighten.
3. Install electrical box and mount the on/off speed control on a wall, if desired.
4. Snap the receptacle into the cover.
5. Insert 115V wiring (with ground) through the romex connector installed in the electrical box in the side of the unit and wire to the receptacle.
6. Place the cover on the box and secure with screws.
7. Plug cord (3) into fan receptacle.
8. Turn on/off speed control clockwise until it clicks.

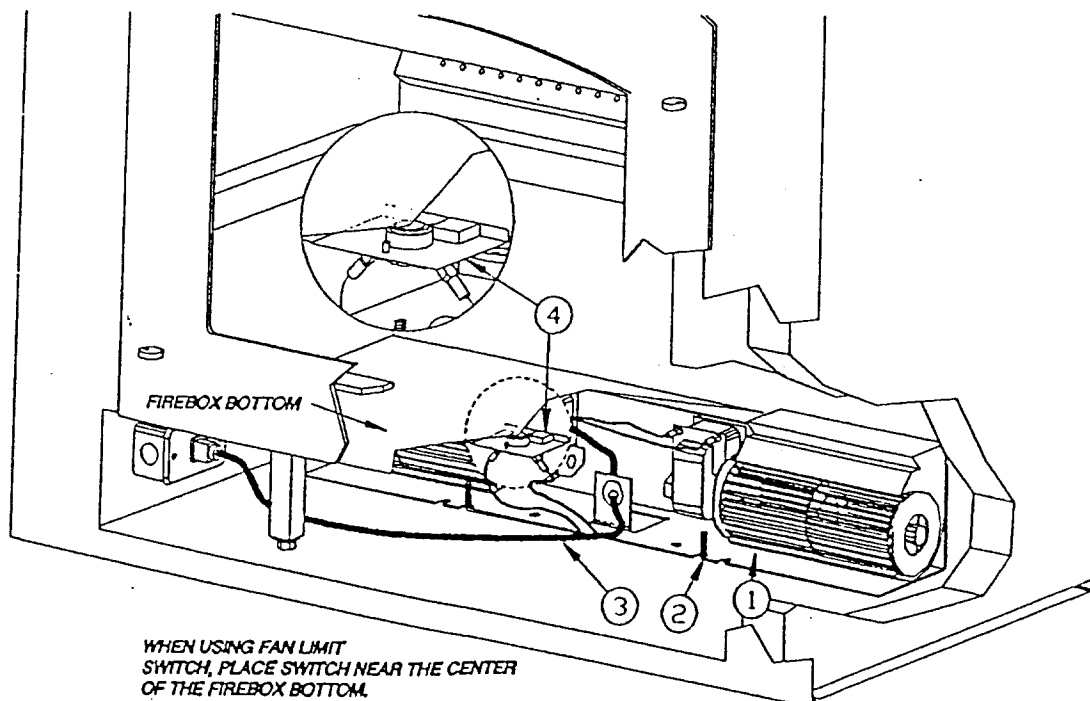


FIGURE 8

WHEN USING FAN LIMIT SWITCH, PLACE SWITCH NEAR THE CENTER OF THE FIREBOX BOTTOM.

**NOTE:** The fan will not operate unless the speed control has been turned on. The fan will not turn on until sufficient heat is applied to the thermostatic control switch (4). The fan will turn on and off automatically when the fireplace heats and cools. Adjust fan to desired speed while it is running.

**NOTE:** This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANS/NFPA 70-1990, or the Canadian Electrical Code, CSA C22.1.

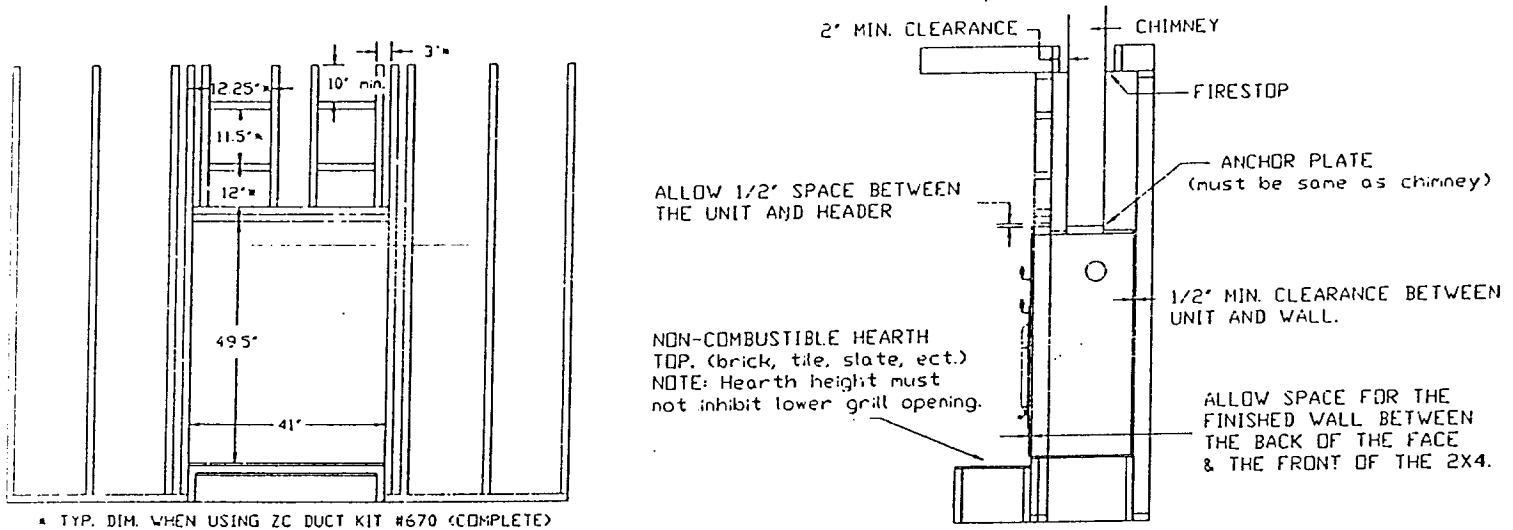


FIG. 9

## F. FIREPLACE FRAMING & FACING

1. Frame in the fireplace. See Figure 9. 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) maintain a 6" clearance to the upper grill if using both hot air ducts and 11" clearance when no hot air ducts are used. The mantel should be no more than 6" deep.

2. Complete the fireplace front.

**NOTE:** The fireplace may have an exposed face, or may be covered with a surface material. This material **MUST** be non-combustible in nature from the bottom of the unit to 6" above the upper grill. Brick, tile, marble, or stone may be used. This material **MUST NOT** come in direct contact with the unit or cracking of the face materials will occur.

Do not place the facing or other surface materials closer than 3" from the unit door, to allow adequate room for opening the doors. Allow adequate space from the chimney damper handle to the brick to easily turn the handle.

**CAUTION:** If using "thin" brick a non-combustible facing material such as rock board must be used in front of the unit face. This facing must not be attached to the unit. See Figure 10 for proper cutting diagrams.

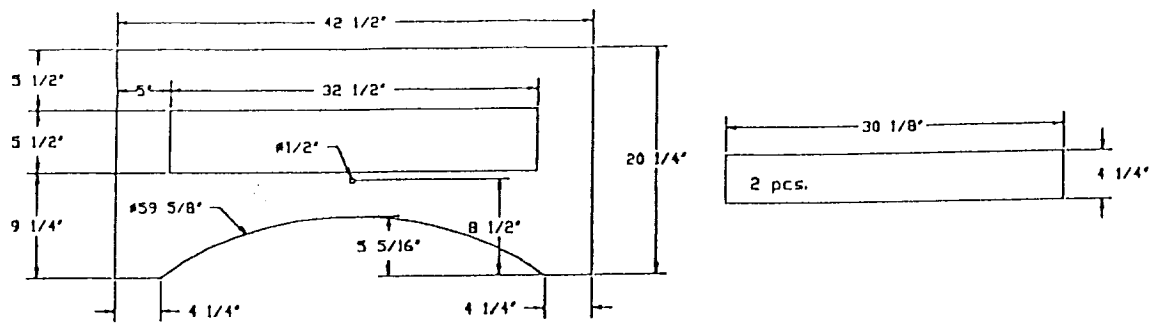


FIG. 10

If installing with an exposed face, or using "thin brick", place the facing material behind the fireplace face flange. See Figure 11 for proper clearances. Exposed face installations should now go to Section G.

**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 sheatings edge.

3. Lay the face brick in front of the fireplace (do not tie the brick to the unit).
4. At approximately 11 brick courses high (depending on the brick size) lay the optional arched lintel iron on the brick (do not tie to the fireplace). See Figure 12.

**CAUTION:** Do not lay the brick closer than 3" to the doors or it will hinder their opening.

**NOTE:** If using a straight lintel, the lintel would be placed approximately 13 courses high.

**NOTE:** A grill extension (part #749) must be used to extend the grill out even with your brickwork. This may be ordered through your local dealer.

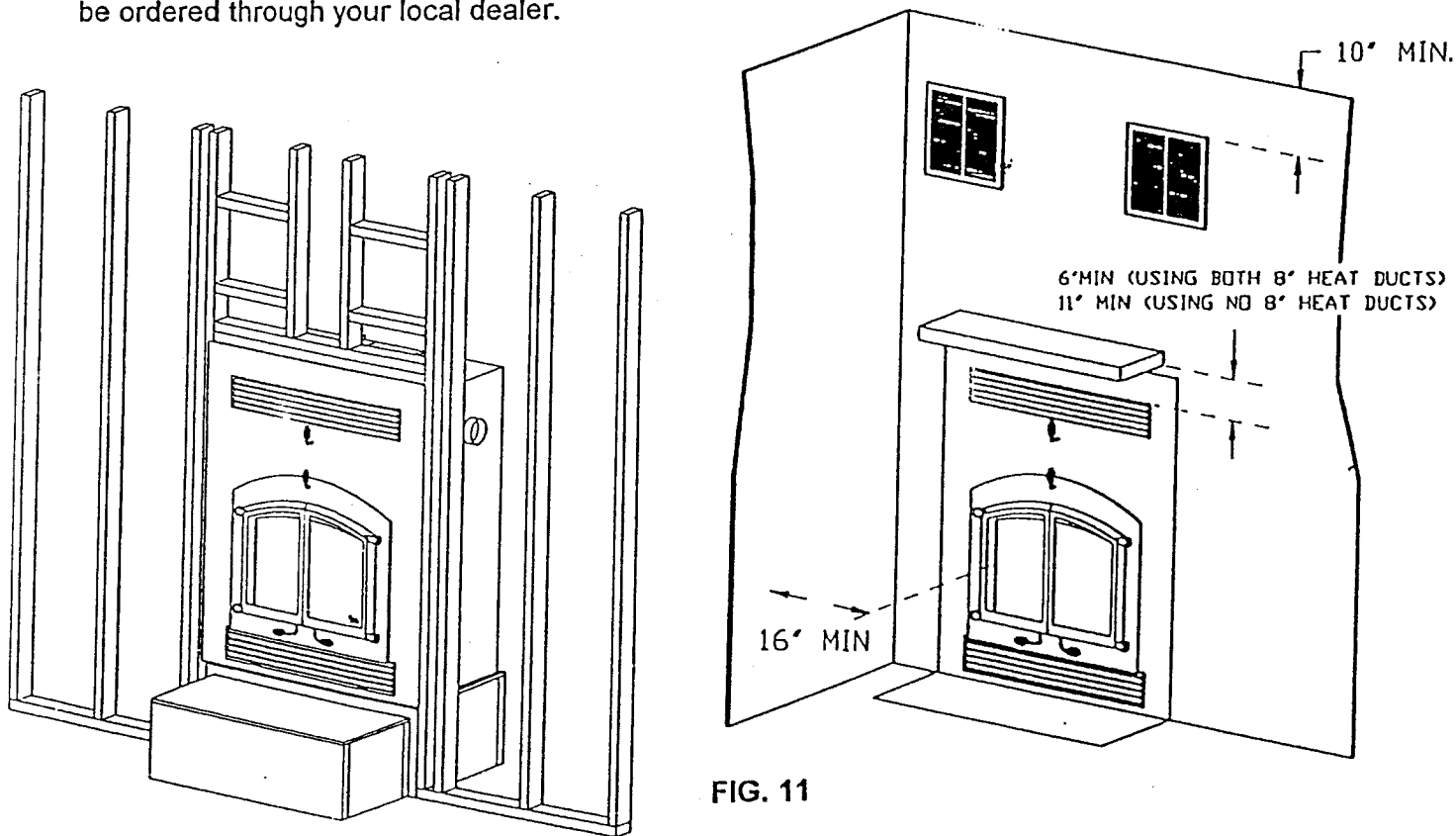
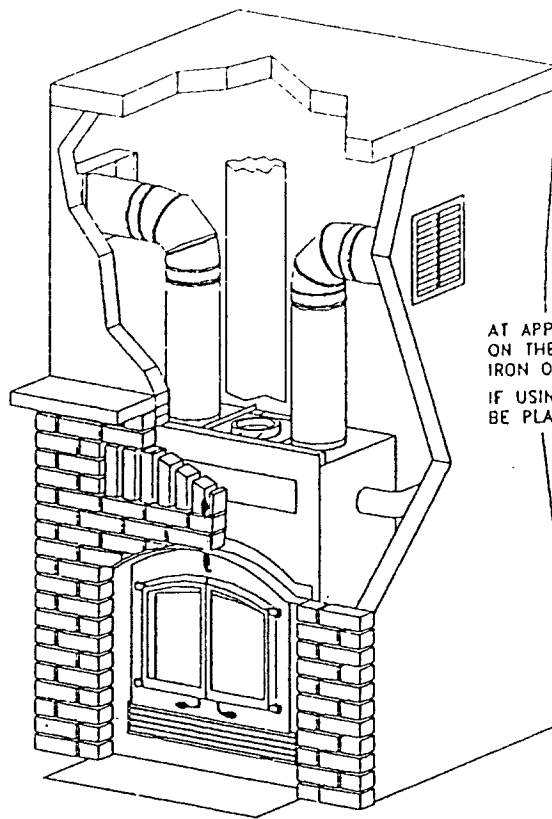


FIG. 11



AT APPROXIMATELY 11 BRICK COURSES HIGH (DEPENDING ON THE BRICK SIZE) LAY THE OPTIONAL ARCHED LINTEL IRON ON THE BRICK (DO NOT TIE TO THE FIREPLACE). IF USING A STRAIGHT LINTEL, THE LINTEL WOULD BE PLACED APPROXIMATELY 13 COURSES HIGH.

FIG. 12

5. If using brick facing, it will be necessary to lengthen the damper rod to allow for the extra depth of the brick facing. To lengthen: See Figure 13.

- a) Reaching into the opening of the upper grill area, loosen the wing bolt located near the face of the unit. Pull the square damper rod out to the necessary length. The rod should extend 1-1/2" beyond the facing material to allow for the damper handle and "finger room".
- b) Re-tighten the wing bolt.

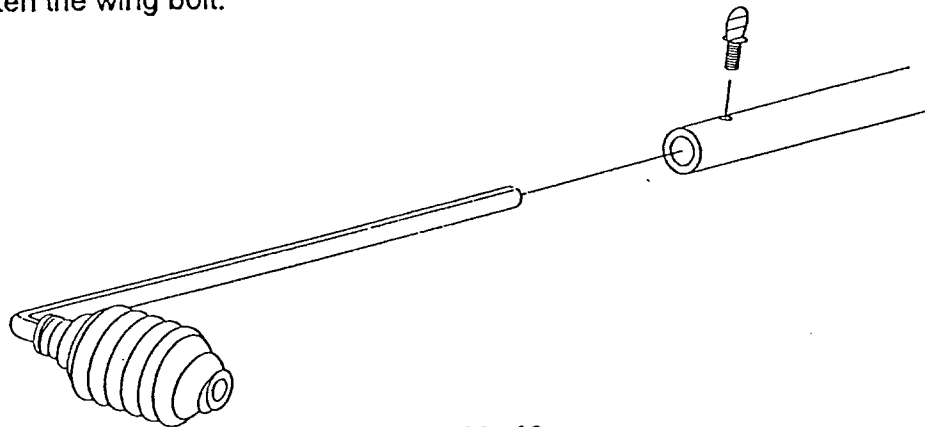


FIG. 13

6. Soldier brick may be used in place of the upper grill **ONLY** under the following conditions:
- A. The equivalent air flow of the upper grill must be maintained. Approximately 140 square inches.
  - B. To achieve the required air flow **BOTH** 8" heat ducts must be used as well as the soldier brick. See figure 12 above.

**CAUTION:** If the heat ducts are not used in conjunction with the soldier brick application, the unit will overheat and a fire could occur.

G. COMPLETE THE INSTALLATION

1. Install the grills.

**Upper Grill**

- 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 face.
- c) Place the bottom of the rod into the lower hole and release. The grill will set down into place.

**Lower Grill - see Figure 14**

- a) The lower grill is attached to the hinges (A) located at the bottom of your unit.
- b) Remove the 1/4" nuts (B) from the lower grill assembly.

**NOTE:** Do not remove the 1/4" spacer (C).

- c) Slip the bolt through the hinge (A).
- d) Re-attach the 1/4" nuts (B).
- e) Repeat "a" through "d" for the remaining hinge.

The grill is now in place. The grill may be lowered for lighting purposes, etc.

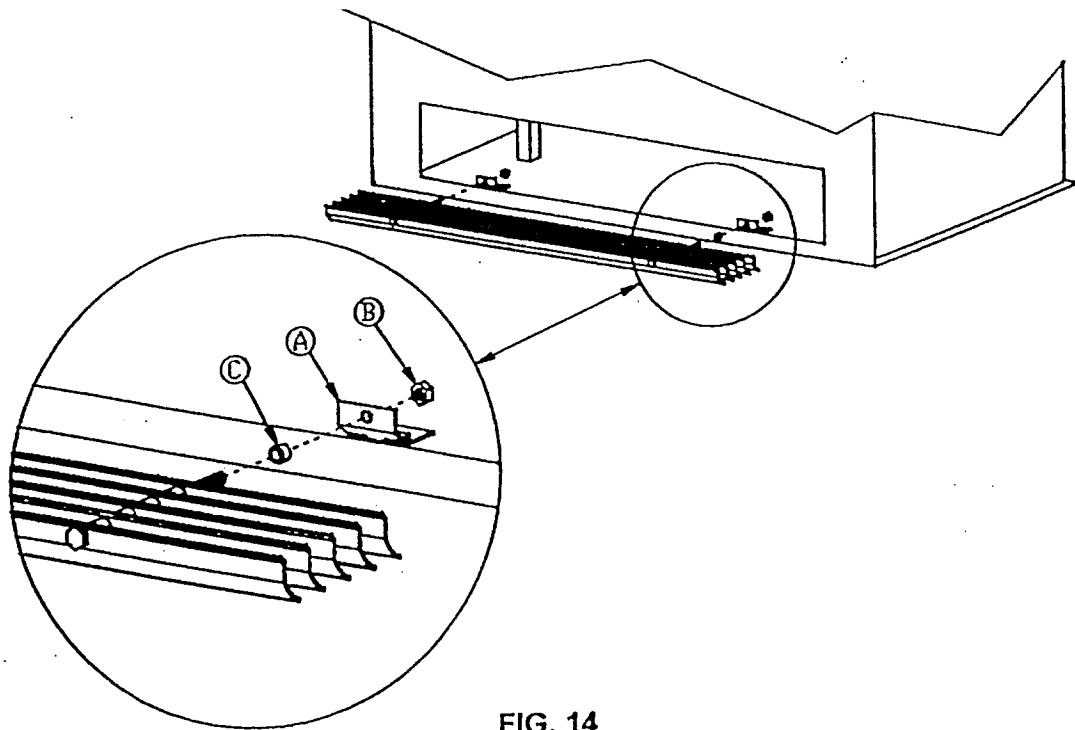


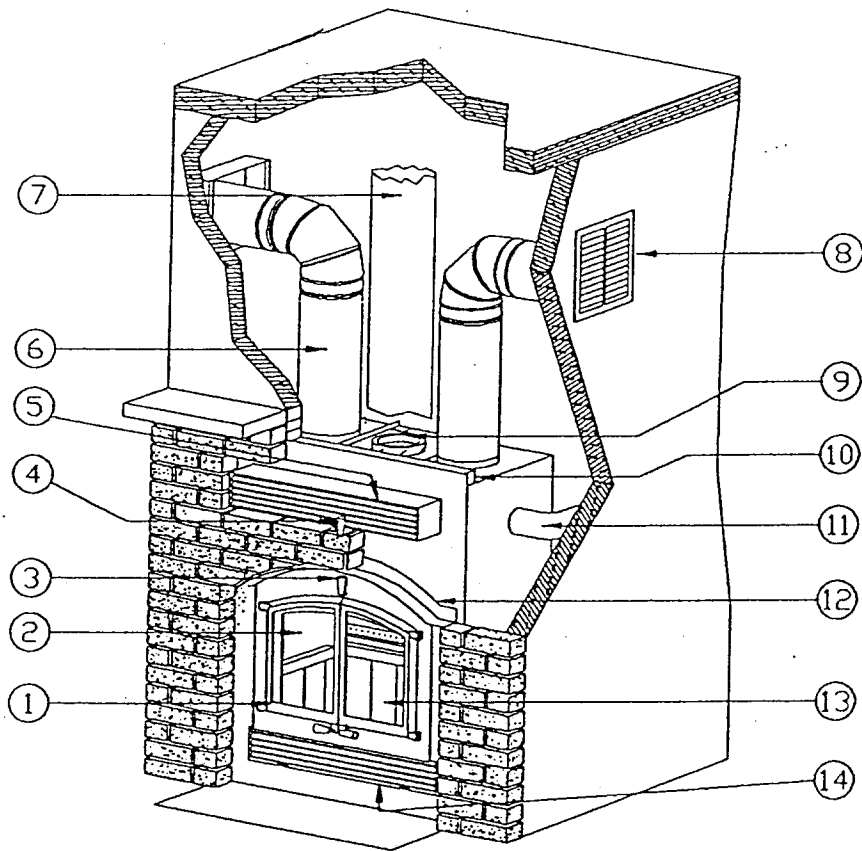
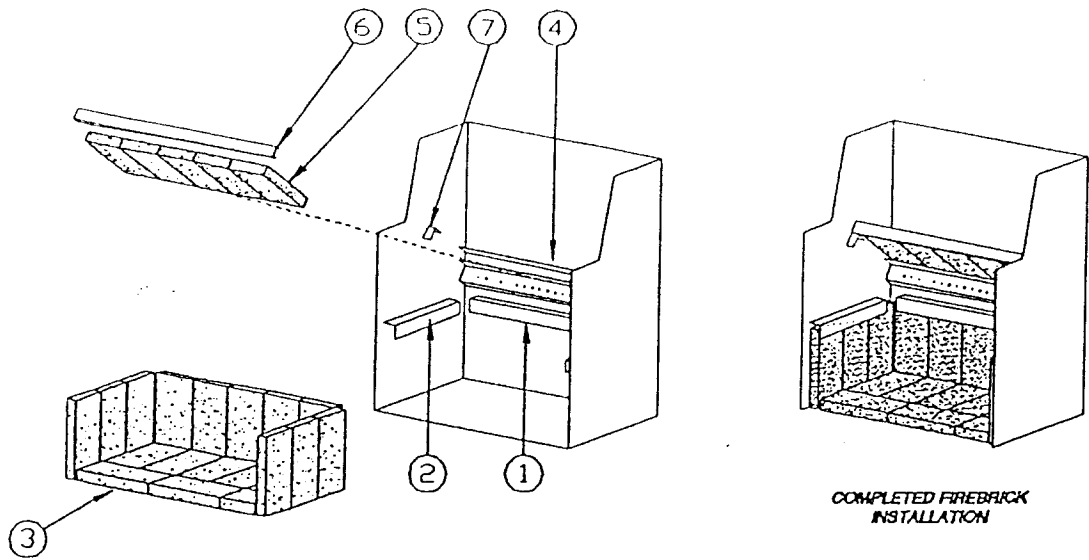
FIG. 14

2. Install the firebrick. See Figure 15.

- a) Starting in the back of the unit, place five firebrick under the firebrick brackets (1).
- b) Using the same method, place three firebrick on each side (2).
- c) Place the bottom firebrick in using the diagram as a pattern (3).
- d) Place five firebrick (5) into the angled brick bracket (4). These firebrick are positioned at a 45 degree angle. Leave a 1-1/2" space on each end.
- e) Place the stainless steel cap (6) over the top edge of the angled firebrick and rest the ends on the brackets (7).

3. Install damper and door handles.

Figure 15



**PARTS LIST**

- |    |                       |     |                    |
|----|-----------------------|-----|--------------------|
| 1. | Arched Door Frame     | 8.  | Hot Air Duct Cover |
| 2. | Pyroceram Glass       | 9.  | Anchor Plate       |
| 3. | Intake Damper Handle  | 10. | Header Stand-off   |
| 4. | Chimney Damper Handle | 11. | Outside Air Inlet  |
| 5. | Heat Outlet Grill     | 12. | Arched Lintel Iron |
| 6. | Hot Air Ductwork      | 13. | Firebrick Lining   |
| 7. | Type HT Chimney       | 14. | Lower Grill        |

## H. 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 and the damper 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 heat duct kit.

An optional blower increases the circulating air flow.

**FOR USE WITH SOLID FUEL ONLY.** Do not use a fireplace insert or other products not specified for use with this product.

### *How to use your Kozy Heat Zero Clearance Fireplace*

- 1) Open both dampers counter clockwise until they stop.

**NOTE:** The combustion air is controlled by the damper control closest to the door level and the exhaust damper is controlled by the damper control closest to the upper grill.

- 2) 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 wood (small) 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's in use.

- 5) Close doors against latch holding open about 1/2".
- 6) When the fire is burning well on kindling, add larger wood.

**NOTE:** Slowly load your firebox with average sized split wood. Approximately 40-60 pounds over a period of one-half hour. **DO NOT OVERFIRE**, this could damage the unit and void the warranty.

- 7) Close doors and latch.



**NOTE:** Fireplaces equipped with doors should be operated only with 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.

- 8) After large logs are burning, close draft and damper to create desired fire level.
  - a) The chimney damper (top knob) is used to hold heat with the firebox, providing more heat for your home. When completely closed it will allow a small amount of smoke and gas to escape. Adjust this knob to the desired setting first. The further closed the damper, the more heat produced per log.
  - b) The intake damper (bottom knob) is used to control the burn rate. Adjust this knob to the desired setting, usually allowing a flame level of about 4" maximum.
  - c) Each fireplace installation is different. You will need to experiment to determine the best setting for your fireplace and chimney to achieve the best fire and heat.

**NOTE:** Your zero clearance fireplace is equipped with a secondary burn chamber providing a cleaner, more efficient burn. As smoke and gases discharge from the logs, a second air chamber introduces combustion air and these gases are automatically burned again, reducing emissions and increasing efficiency.

- 9) When adding wood, first open the chimney damper, wait 2 or 3 minutes, then open the doors and add wood. This will prevent any smoke spillage from entering your home.
- 10) Always leave the intake damper slightly open. This will help keep the glass doors cleaner.
- 11) When disposing of ashes always place ashes 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 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 doors 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-10-1987.

## Maintenance Requirements

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. Inspection can be accomplished from the top of the chimney, or from inside the stove by removing the chimney baffle. The baffle may be removed by removing the 2 - 1/2" nuts holding it in place. 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. We recommend oven cleaner or a cleaner specifically designed for fireplace glass.

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 #150375.

To remove broken glass:

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

Follow the directions included with your replacement glass for proper installation.

## I. TROUBLE SHOOTING GUIDE

Problem	Cause
Smokes back through the doors when they are 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.	A. Chimney damper not opening. B. Chimney not high enough. C. Chimney diameter not large enough. D. Cold wind cooling poorly insulated chimney. E. Chimney cap too close to flue termination. F. Adjacent structures, trees, etc. too close to chimney, remove or raise chimney. G. Screen on chimney top plugged, or too fine. H. Restriction within chimney, creosote, mortar, leaves, bird nest, etc. I. 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. 40-60 lbs. of wood is necessary for optimum heat. C. Not enough grill opening for heat to come out or for air to get in.
There is a terrible odor coming from my stove.	A. New paint. The unit should preferably be burned prior to new installation. This odor should not last past the third burn at a moderate burn rate.

**Problem**

**Cause**

There is a terrible odor coming from by stove.

A. New paint. The unit should preferably be burned prior to new installation. This odor should not last past the third burn at a moderate burn rate.

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