PLEASE READ AND SAVE THESE INSTRUCTIONS

PARTS LIST

YOUR NEW-AIRE FIREPLACE UNIT (MODELS #42, 44, & 48) COMES COMPLETE WITH THE FOLLOWING PARTS:

(2) 525 CFM, 2 Speed Blowers
(1) Limit Switch
Insulation to wrap unit
(1) Adjustable Heat Discharge Grill & Frame
(2) Angle Seals (on some models, these may be welded on)
(1) Wall Thermostat
(1) Ash Dump Door
Built-in Log Grates
(1) Two Speed Switch
(1) Clean Out Door
(2) Motor Boots
(2) Return Air Grills & Frames

Please check and make sure ALL of the parts listed are included with your unit. Your fireplace will not function properly if any of the parts are not attached and/or used.

The New-Aire Fireplace is a **FULL MASONRY** unit and must be installed in accordance with **Chapter 37 of the Uniform Building Code** complying with applicable local building codes.

NEW-AIRE UNITS are to be installed by qualified installation personnel only, knowledgeable in fireplace construction, ductwork, and heating systems.

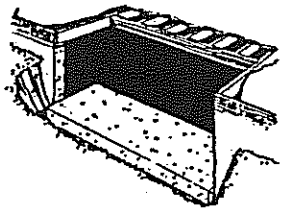
ALSO REFER TO NFPA 211 FOR CHIMNEYS, FIREPLACES, AND VENTS, OR ARTICLE 14 OF THE BASIC MECHANICAL CODE.

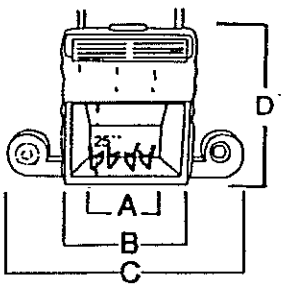
STAGE NO. 1 – FOOTINGS

The depth of your concrete footing will depend on the height/weight of your chimney. Select the site for your fireplace and mark or stake out your footing area. The depth of the footing should be at least 36" for most fireplaces, with heights up to 17'. When your chimney height increases, the depth of your footing should also increase.

PLEASE NOTE: For sandy or loose soil, or areas with fill, these footing depths and sizes should be adjusted. Please contact your local building inspector. **THE FOUNDATION MUST BE SOLID.**

1. Prepare Footing





All units are 26" deep

	MODEL 42		MODEL 44		MODEL 48
A	Firebox Opening ..... 33"	A	Firebox Opening ..... 38"	A	Firebox Opening ..... 42"
B	Width of Unit ..... 38"	B	Width of Unit ..... 42½"	B	Width of Unit ..... 46½"
C	Width of Unit with Motors ..... 70"	C	Width of Unit with Motors ..... 75"	C	Width of Unit with Motors ..... 80"
D	Height of Unit ..... 48"	D	Height of Unit ..... 48"	D	Height of Unit ..... 48"
E	Width of Concrete Base ..... 84"	E	Width of Concrete Base ..... 88"	E	Width of Concrete Base ..... 92"
F	Unit Weighs ..... 525 Lbs.	F	Unit Weighs ..... 625 Lbs.	F	Unit Weighs ..... 725 Lbs.

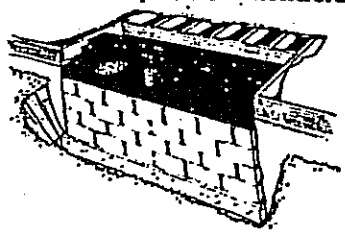
NOTE: Concrete pad dimensions given above are based upon 4" brick installation. If any wider material is used, extend your concrete pad accordingly.

STAGE NO. 2 – INSTALLATION / OUTSIDE WALL

When your New-Aire is installed, maintain the following rough openings:

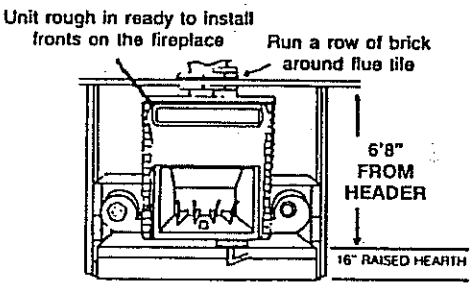
SIZE OF OPENING		
Model	**Width**	**Height**
42	84"	96"
44	88"	96"
48	92"	96"

2. Prepare Foundation



STAGE NO. 3 – FOUNDATION

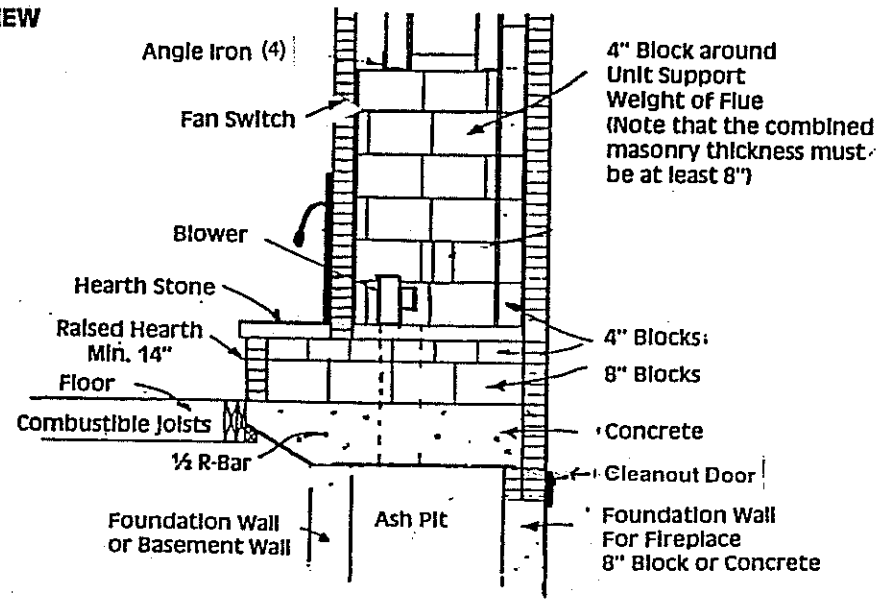
Your New-Aire Fireplace Unit must sit upon a masonry surface. The height of the foundation for your New-Aire Fireplace Unit will be determined by the distance from your footing to floor level or to the level of your hearth. The figure below shows your New-Aire Fireplace sitting on an 8" concrete block foundation with a 4" (ledge) of concrete block extending past the outside edge of the fireplace. This ledge provides the strong foundation to support the vertical weight of your chimney and flue. The space left between the concrete block foundation is your ash pit. The cleanout door provided with the unit should be installed when your foundation is built. Please note that your New-Aire Fireplace Unit must be enclosed with a minimum of 8" of masonry material, top, sides, and back. The masonry enclosure must be sealed to the back of the masonry face wall at the top and sides to avoid heat and/or smoke migration from the enclosure. This may be a combination of standard or common brick and (4") concrete block and/or (8") concrete block. In some areas, local code requires a (6") solid block or brick. New-Aire Manufacturing requires a minimum masonry clearance to combustible material of 8"). Check your building inspector for local requirements.



IMPORTANT!

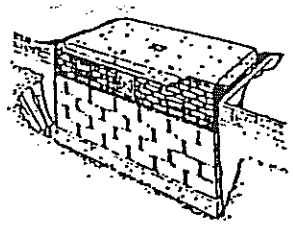
It is very important that the fanboxes be sealed tightly in order that they may return the air from the room in which your fireplace is located.

SIDE VIEW



STAGE NO. 4 – HEARTH SLAB

The concrete block foundation should end level with the basement wall and slightly lower than the floor joist. Removable forms need to be positioned to pour a concrete slab as indicated below. This concrete slab should have rebar for stress. An opening for the ash dump should be left in the concrete slab.

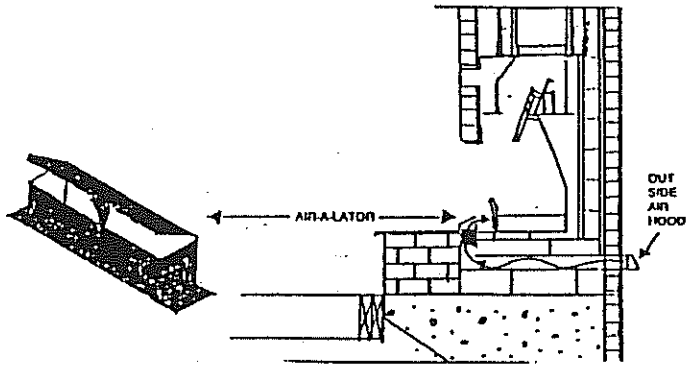


4. Prepare foundation hearth slab

OPTIONAL OUTSIDE AIR CONTROL:

Outside Combustion Air Damper

1) Increase your net heat gain
2) Improve your draft



STAGE NO. 5 – POSITION THE HEARTH SLAB

1. Set the unit on the hearth slab so the ash dump hole lines up and the fresh air vent is flush, parallel and at least 1½" higher than the firebox floor. The leading edge of the firebox should be placed so the rear edge of your masonry will be ½" short of making contact with the unit.

2. Wrap the unit completely (sides, back, and top) with the 1" thick high density mineral insulation provided. Secure the insulation with tape to hold it in position.

3. Fasten both the motor boots and the angle seals to your unit. Make sure that the angle of the angle seal faces away from the firebox. Angle seals factory welded on most units.

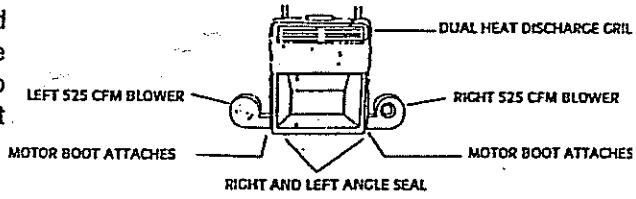
4. Position the snap disc "limit switch" behind the 4x30 discharge grill on the right hand side in the bracket that is provided with the unit.

5. Place your 525CFM blowers on their motor boots and cover them with their boxes so that mortar does not damage them. Make sure blower intakes face the grills.

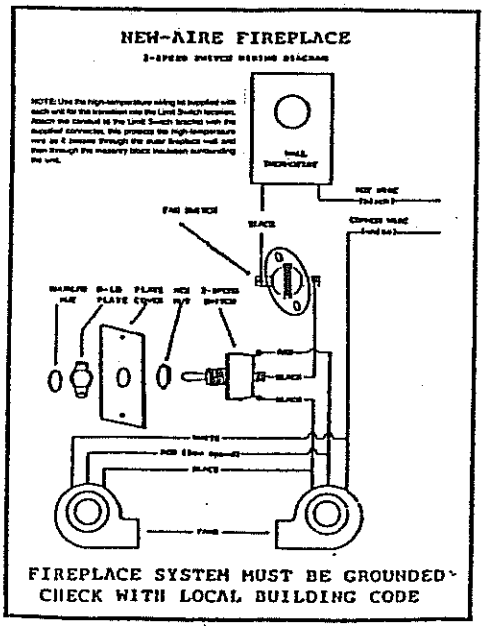
CAUTION: DISCONNECT ALL ELECTRICAL CURRENT BEFORE SERVICING THE UNIT'S ELECTRICAL COMPONENTS.

STAGE NO. 6 – WIRING

6. Follow the wiring diagram as illustrated. Please note your wall thermostat and two speed switch should be in electrical junction boxes as approved by local building code...PLEASE CHECK. Also note wiring may not pass through masonry by strict building code interpretation. Conduit of some type should be used.



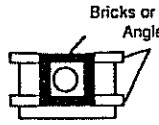
NOTE: Use the high-temperature wiring kit supplied with each unit for the transition into the Limit Switch location. Attach the conduit to the Limit Switch bracket with the supplied connector this protects the high-temperature wire as it passes through the outer fireplace wall and then through the masonry block insulation surrounding the unit.



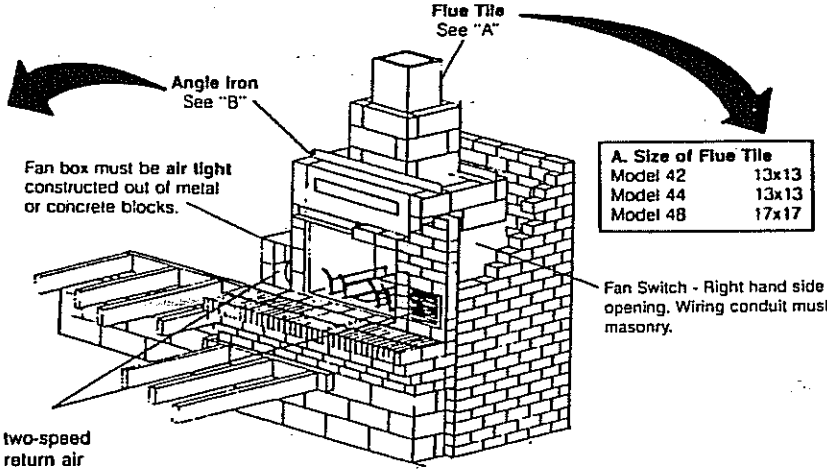
STAGE NO. 7 – MASONRY

Flue tile **MUST** extend through ridge of roof at least 30".

B. Top View of Angle Iron & Flue



IMPORTANT!
Do not place flue tile directly on unit. Run a row of bricks around the angle iron, then place the flue tile on the brick.



A. Size of Flue Tile	
Model 42	13x13
Model 44	13x13
Model 48	17x17

ANGLE IRON SIZES

Installing the Angle iron on your New-Aire Unit

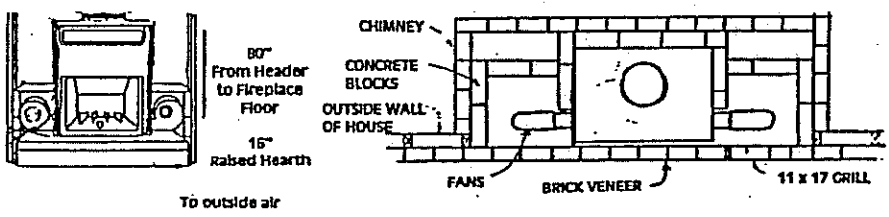
Model #42 –	3 pieces 48" long 2 pieces 16" long 1 piece 42" long	**Model #44 –**	3 pieces 48" long 2 pieces 16" long 1 piece 42" long	**Model #48 –**	3 pieces 54" long 2 pieces 19" long 1 piece 48" long

All boxes require angle iron to support the masonry face and the enclosure. Masons may use any length necessary for their own structure, but must support above the door, above the face grill, around the top and the flue area.

Now box in your fans. The inside measurement of the fan box should be approximately 20" x 20" x 20". It is very important the fan box be air tight. It should only draw air through the 11" x 17" grills provided. Make sure that the fans and the thermostat can be serviced. This is done by removing the grills. Don't mortar them in.

MUST BE A FULL MASONRY FACE WALL, FLOOR TO CEILING

MANTLE MUST BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL.

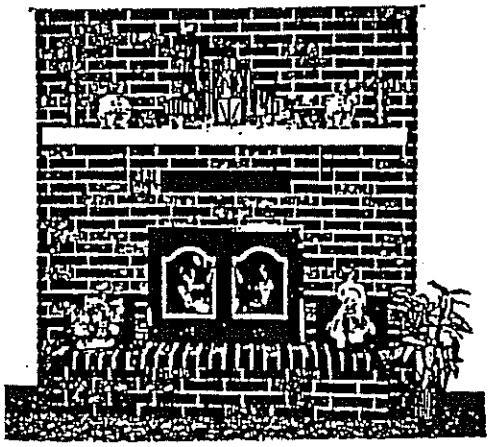


FRONT VIEW TOP VIEW

Your Fireplace as shown above has the base extended to the top of the firebox and the fan boxes enclosed. Place your angle iron as shown above, Diagrama A, and then start your flue tile as shown at the top of the page with sizes indicated in Schedule A

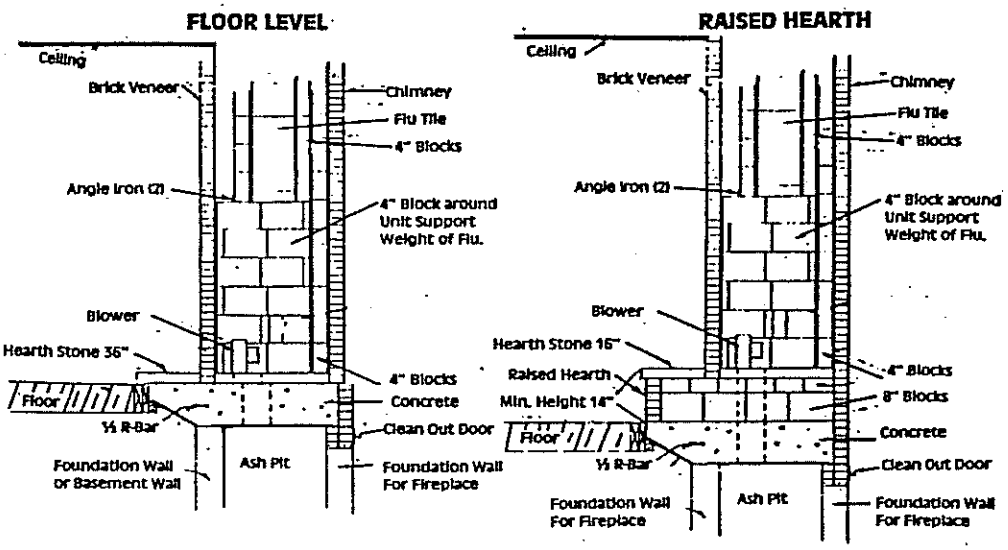
STAGE NO. 7 — MASONRY continued

Your New-Aire Fireplace Unit is now ready to finish in accordance with local building code and full masonry unit as shown below.



A. 36" minimum sidewall clearance to combustibles (Distance from firebox opening to combustibles)

UNIT INSTALLED AGAINST AN OUTSIDE WALL



STAGE NO. 8 – DUCTING (IF APPLICABLE)

PLEASE NOTE: Due to the many ducting applications, ducting is at the discretion of the homeowner, builder, and/or architect. Local building codes, the U.M.C. and N.F.P.A. standards for ducting heating equipment must be adhered to for your area.

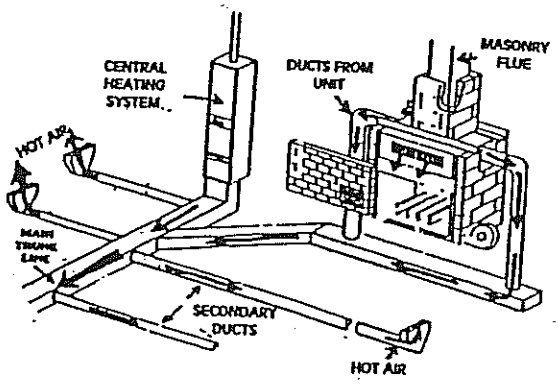
SOME COMMON CODE REQUIREMENTS ARE:

1. Ducting can be one or two 8" I.D., 26-28 gauge galvanized pipes, transitioning to 6" I.D. for extended runs. Double or triple wall insulated pipe may be used where space is prohibitive.
2. All ductwork must be wrapped with a minimum of 2" thick, high density, heat resistant insulation from the point the ducting exits the masonry enclosure (per table 10.D of the U.M.C.)
3. When ducted overhead, all ductwork must be suspended per N.F.P.A. standards, maintaining a minimum distance of 2" from all combustible materials.
4. Duct outlets in a room immediately above the fireplace must be terminated in a non-combustible enclosure. i.e. Another fireplace front, hearth, stone or masonry surface.
5. When inducing heat into any H.V.A.C. system, utilize a "Y" venturi type configuration. Avoid "T" connections.
6. Please contact the application engineering department for any specific application questions.

The New-Aire Fireplace is approved to be installed in the following methods.

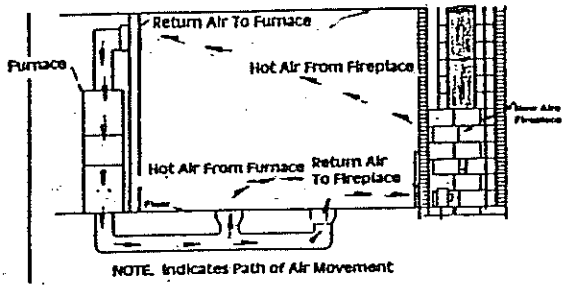
A. The New-Aire Fireplace installed without ducts.

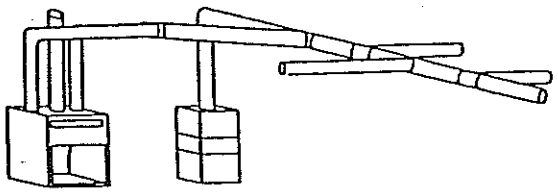
The New-Aire Fireplace produces over 200,000 B.T.U.'s enough to heat a 2,000 or more square foot home. By using the automatic fans on your central heating system the hot air from your fireplace will be drawn into your central heating system and then distributed through your existing duct work throughout your home.



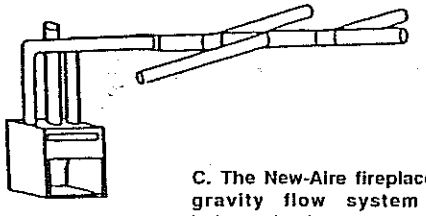
B. The New-Aire fireplace installed in a counterflow installation with both the furnace and the fireplace sharing the same ducts.

A.





D. The New-Aire fireplace system installed in a gravity flow system with both the furnace and the fireplace sharing the same ducts.



C. The New-Aire fireplace installed in a gravity flow system and ducted independently.

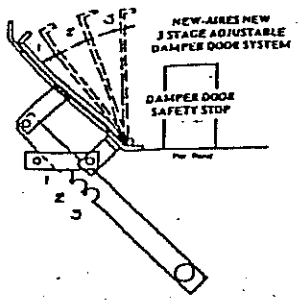
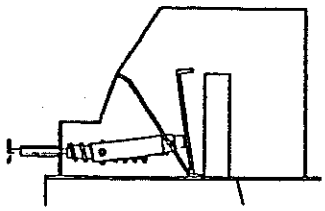


Diagram shows different stages that the New-Aire damper door may be adjusted to by lifting handle and dropping hinge plate into 3 different slots.



STANDARD DAMPER

OPTIONAL ROTARY CONTROL DAMPER

YOU ARE NOW READY TO PUT YOUR NEW-AIRE UNIT INTO OPERATION:

Please read the following tips to operate your New-Aire Unit at its maximum efficiency.

1. Your motors have two oil holes. Your motors should be oiled at least once each heating season. Two or three drops of 20W oil is sufficient.

2. While you are operating your fireplace keep at least (1") one inch layer of ashes in the bottom of your firebox. This serves two purposes: first, it helps to protect the grates and floor of your firebox by insulating them; secondly, this bed of ashes will help your fire last longer.

3. When an excessive amount of ashes have built up in the firebox (ashes higher than the grates) remove them through the tilt ash dump in the firebox floor, leaving approximately 1" - 2" layer of ashes.

4. The damper door and handle system of your New-Aire Fireplace System is designed to be adjustable. The three stage slot system allows you to adjust the damper door in any desired position. See diagram above. **Note:**When a fire is started, it should have all the air possible, your fireplace doors should be opened and your damper should also be all the way open.

5. **NEVER:** Use gasoline, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire. Keep all such liquids away from the fireplace. Keep all combustibles away from the fireplace opening. Store your kindling and wood at least three (3') feet away.

6. Your New-Aire Fireplace burns **WOOD ONLY. DO NOT** use any other combustibles.

7. **DO NOT OVERFIRE.** The unit requires much less wood than typical fireplaces to reach operating temperatures. To reduce the heat output:
   a. Turn the wall thermostat to the highest setting
   b. Turn the blowers to high speed to afford more cooling air movement through the fireplace
   c. Reduce the draft/air into the firebox
   d. Spread the wood out in the firebox
   e. Open some doors and windows if the house is uncomfortable
   f. The next time - don't put as much wood in the fireplace - your supply will last longer.

8. The flue or chimney on a wood burning appliance needs to be periodically cleaned by a professional chimney sweep. Plan to do this seasonally.

9. Flue fires are the result of a dirty flue. The primary cause of a dirty flue is CREOSOTE. When wood is burned slowly, it produces tar and other organic vapors which will combine with expelled moisture to form creosote. These creosote vapors can and will condense on the relatively cool chimney flue of a slow burning fire and accumulate. If/when ignited, this creosote makes an extremely hot fire. Examine your flue monthly for creosote build up and remove as necessary.

10. **REMEMBER:** A fire will not burn without oxygen. By metering the amount of air to your fire, you control the "burn-rate" of your wood. Air-tight doors are specifically designed for increased efficiency. When the doors are closed and latched, some smoke accumulation on the glass is normal. If you want the glass to stay cleaner, longer, do not completely close the doors. This will allow more air to be drawn across the glass, keeping them cleaner, but will accelerate wood consumption. New glass cleaners on the market make cleaning the glass more cost effective than burning more wood.

11. **IMPORTANT:** Installer must make sure the furnace and the New-Aire blowers are compatible in size. Neither of the blowers may be so large that the other is overpowered and unable to move air.

12. New-Aire is effective with a maximum static pressure of 0.3" W.C. in the ductwork. If the static pressure is higher, air movement will be restricted.

13. **WARNING:** Your New-Aire Fireplace should not be installed with a flue which serves another appliance. Down drafts may occur, causing the flue to draw improperly

14. Additional information on using wood-fired units safely may be obtained from the National Fire Proection Association Publicaion, *"Using Coal & Woodstoves Safely"*, NFPA NO HS-10-1978. The address of NFPA is 470 Atlantic Ave., Boston, Massachusetts 02210.

15. **POWER FAILURE INSTRUCTIONS:** Avoid overfiring the unit. Build only **SMALL** fires during power failures. The blowers circulate air through the heat exchanger during normal operation, without this relatively cooler room air, the unit can be overfired by too much wood. Opening the doors will allow more radiant heat into the room, but the fireplace should **NEVER** be left unattended during a power outage.

16. HEATED AIR MAY ONLY BE DUCTED THROUGH APPROVED PLENUM'S MANUFACTURED FOR THAT PURPOSE.

SEE: BOCA RESEARCH REPORT NO. 86-18 for conditions and use concerning this document.

NER-OA 251

SEE: PFS CORPORATION INSPECTION AGENCY AND TESTING LABORATORY, NER-OA 251 for questions on the criteria used to prepare the information in this document.

INSTALLATION INSTRUCTIONS 7-30-84

REVISED INSTALLATION INSTRUCTIONS 3-17-89

Dear Customer:

The New-Aire Manufacturing Company of Carl Junction, Missouri, because of its unique design and its heavy steel construction, will guarantee the firebox, including the grates, for a period of fifteen (15) years. The electrical components, including motors, are guaranteed for one (1) year.

The guarantee excludes any cost of labor in replacing any defective parts.

New-Aire Fireplace Manufacturing Co., Inc.
P.O. Box 22
806 S. Joplin Street
Carl Junction, Missouri 64834

FIREPLACE GUARANTEE REGISTRATION CARD

OWNER'S NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____

GUARANTEE VALID ONLY IF COMPLETED AND RETURNED WITHIN (90) DAYS AFTER UNIT IS INSTALLED.

DATE OF INSTALLATION:

MONTH _____ DAY _____ YEAR _____

SERIAL # _____

MY NEW-AIRE IS LOCATED IN:

LIVING ROOM ❑ FAMILY ROOM ❑ OTHER ❑

MY NEW-AIRE WAS PURCHASED FROM:

CONTRACTOR ❑ MASON ❑ DEALER ❑

NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____