
* PRELIMINARY DOCUMENT *

BLAZE KING ROYAL HEJR OWNER'S MANUAL
RHT 2100 and RHT 2200

SAVE THESE INSTRUCTIONS!

WARNING!

IMPROPER ASSEMBLY, INSTALLATION, MAINTENANCE OR OPERATION OF THIS APPLIANCE CAN CAUSE DAMAGE TO PROPERTY, SERIOUS INJURY OR DEATH. READ THESE INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Dear Blaze King Customer:

This document has been carefully written and edited. But since it is new, we have chosen to distribute it in this preliminary form until all "bugs" have been eliminated.

If you have any questions or comments concerning these instructions, call our Blaze King Marketing Dept. at 1-800-541-0391.

Thank you!

OM-10B

10-15-86

Dear Customer:

Thank you for purchasing the Royal Heir, a catalytic wood-burning stove by BLAZE KING. The innovative design of the Royal Heir, which includes a catalytic combustor, makes this wood-burner one of the cleanest and most efficient stoves on the market. The Royal Heir's contemporary elegance, complementary trim and decorator colors make it the first choice for improving your life style and enhancing the decor of your home.

This owner's manual explains the steps required to safely assemble, install, operate, and maintain your new woodstove. Be a responsible woodstove owner; carefully read these requirements for safe installation and proper operation BEFORE installing and using your stove.

Obtain permits from the building inspector or fire department, if local laws require. Check local building and fire codes before installing your stove. When you have completed the installation, have it checked by your local inspector. Disregarding inspection and code requirements may jeopardize your homeowner's insurance. Since some insurance carriers require notification of a woodstove installation, contact your insurance agent. We want your Royal Heir to give you a lifetime of trouble-free operation.

Please complete and mail the stove warranty card and combustor warranty card. Doing so will make processing a warranty claim easier. Though Royal Heirs are thoroughly inspected before they leave the factory, mistakes occasionally occur.

While we have made every effort to make these instructions as complete as possible, some installation or operating conditions may not be covered. If you have any questions that are not answered here, contact your BLAZE KING dealer, local building inspector, fire department or our customer service department (509-529-9820).

The Management and Employees of
BLAZE KING

KEEP THIS MANUAL FOR FUTURE REFERENCE.

INSTALLATION INSTRUCTIONS
FOR THE
BLAZE KING, ROYAL HEIR, CATALYTIC WOODSTOVE
MOBILE HOME KIT

To make your Blaze King, Royal Heir, Catalytic woodstove acceptable for installation in Mobile Homes, this kit must be installed in addition to the installation instructions contained in Addendum 2 of the Installation and Operations Book, OM10A.

PRODUCT INSPECTION

First, remove all packaged parts from the box and inspect them. Examine the pieces to see that there is no damage caused by shipping. Should any part be missing or damaged, contact your dealer. See CHECK LIST on the back of this page.

INSTALLATION

REFER TO ADDENDUM 2 OF OWNER'S INSTALLATION AND OPERATION INSTRUCTION BOOK (OM-10A) and the figures of this instruction, before proceeding further.

1. Set the Floor Protector and Stove in position according to the dimensions listed on the label and the instructions in Addendum 2 of OM10A. Check that the intended location will not interfere with floor joists, electrical wiring, or plumbing before proceeding further.
2. With masking tape, mark the back corners of the stove base on the Floor Protector. Note: The positioning information which follows, presumes a minimum size Floor Protector with 2" behind, and on each side of, the base. If a larger Floor Protector is used, appropriate adjustment to the dimensions noted, must be made.
3. Move the stove and mark the positions for the two tie down bolts and the Outside Air Pipe. On the centerline of the Floor Protector, mark two 5/16" dia. holes at 4-1/4" and 15-1/2" from the BACK. Drill these holes through the Floor Protector with a suitable masonry drill. DO NOT drill these holes into the floor.
4. On the centerline of the Floor Protector, mark a point at 10" from the BACK of the Floor Protector for the Outside Air Pipe. Some horizontal adjustment is possible if required to clear floor joists or plumbing. Refer to the enclosed drawing - the center of this hole may be located anywhere in the 7-1/2" x 3-1/2" crosshatched areas or on the line joining them. Using a saber saw with a suitable blade, cut a 3" dia. hole for the Outside Air Pipe. This hole MUST penetrate the Floor Protector and the floor.

Note: The Outside Air Pipe is shown centered between the securing bolts on the centerline of the Floor Protector.

5. Install the Outside Air Pipe to the Outside Air Flange and Collar with three #10 x 3/8" Sheet Metal Screws.
6. Install the Outside Air Pipe Assembly through the floor. Drill pilot holes and attach the Outside Air Flange to the floor and the Floor Protector with four 1/4" x 3/4" screws.
7. Position the stove in its Intended location on the Floor Protector. Remove and retain the following parts.
 - a. Unplug the Power Cord.
 - b. Remove the Rheostat Knob by pulling straight out from the Pedestal.
 - c. Remove the two #10 x 1/2" Square Drive screws holding the Pedestal Front Cover in place. Remove the cover.
 - d. Remove the two 10-24 x 3/4" bolts and nuts holding the Pedestal Intake Screen on the top-front of the Pedestal. Remove the Screen.
 - e. Remove the two #10 x 1/2" Square Drive screws holding the Air Intake Screen to the back of the Pedestal.
8. Secure the Stove Base to the floor and the Floor Protector with the two 1/4" x 3" Lag Screws.
9. Install the solid Pedestal Intake Cover in the area previously covered by the Pedestal Intake Screen with the 10-24 x 3/4" bolts removed in step 7-d.
10. Install the Pedestal-Front Cover to the front of the Pedestal. The extension shaft for the Rheostat will need to be guided through the cover while it is being installed. Insert a small tube, such as a soda straw, through the hole in the Pedestal Front Cover and over the end of the Rheostat Shaft. As the cover is brought into position, this tube will guide the shaft through the hole. Secure the Pedestal Front Cover with the #10 x 1/2" screws removed in step 7-c.
11. Install the Rheostat Knob by aligning the retainer in the Knob with the flat spot on the shaft and pressing the Knob onto the shaft.
12. Install the Air Intake Screen to the back of the Pedestal with the screws removed in step 7-e.
13. Use the remaining two #10 x 3/8" Sheet Metal Screws to secure the chimney to the smoke collar.

----- Check List -----

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	5	0104	#10 x 3/8" Sheet Metal Screw
2	4	0106	1/4" x 3/4" Sheet Metal Screw
3	2	0513AA	1/4" x 3" Lag Screw
4	1	0649AA	Outside Air Pipe
5	1	1718BB	Outside Air Flange and Collar
6	1	6345AA *	Pedestal Intake Cover (for 2100)
	1	6545AA *	Pedestal Intake Cover (for 2200)

* = Color Option. Advise supplier of your stove color.

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DISCLAIMER OF WARRANTIES
AND LIMITATION OF LIABILITY

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OTHER THAN THOSE SPECIFICALLY SET OUT BY THE "BLAZE KING LIMITED WARRANTY" AND THE "LIMITED CATALYTIC COMBUSTOR WARRANTY". COPIES OF THESE WARRANTIES ARE INCLUDED WITH THIS APPLIANCE. THESE WARRANTIES STATE THE ENTIRE OBLIGATION OF THE MANUFACTURER AND SELLER. THE CONTENTS OF THIS DOCUMENT SHALL NOT BECOME PART OF OR MODIFY THESE WARRANTIES.

The information, recommendations, descriptions and safety notations in this document are based on Woodcutters Mfg., Inc.'s judgment and experience regarding woodstoves. THIS INFORMATION SHOULD NOT BE CONSIDERED TO BE ALL-INCLUSIVE OR COVERING ALL CONTINGENCIES. If further information is required, consult your local building or fire officials, your Blaze King dealer or Woodcutters Mfg., Inc.

NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING THE INFORMATION, RECOMMENDATIONS, DESCRIPTIONS AND SAFETY NOTATIONS CONTAINED HEREIN. In no event will Woodcutters Mfg., Inc. be responsible to the user in contract, in tort (including negligence), strict liability or otherwise for any special, indirect, incidental or consequential damage or loss whatsoever resulting from the use of the information, recommendations, descriptions and safety notations contained herein.

SECTION 1*****
SAFETY

SMOKE DETECTORS

Install at least one smoke detector on each floor of your home to ensure your safety. It should be located away from the stove or fireplace and close to the sleeping areas. Locating a smoke detector too close to a stove can cause the smoke detector alarm to sound if a puff of smoke is emitted while the stove's door is open during reloading. Follow the smoke detector manufacturer's placement, installation and maintenance instructions. Your local fire department may provide assistance in selecting smoke detectors, or contact the Consumer Product Safety Commission, Washington, D.C. 20207.

FIRE EXTINGUISHERS

Every home should have at least one fire extinguisher. An approved "Class A-B-C" extinguisher should be mounted on the wall, near an exit and close to the hazard areas -- but not so close that accessibility to the extinguisher could be blocked by a fire. Your local fire department can advise you concerning the most appropriate location.

CHIMNEY FIRE

In the event of a fire in the chimney and/or chimney connector, turn the thermostat to its lowest setting and be sure the loading door and bypass door are closed. Call the fire department immediately.

After the fire is out, have your chimney connector and chimney inspected by a certified chimney sweep. Any damaged chimney connector or prefabricated chimney components should be replaced before the stove is used again. A masonry chimney that is damaged should be repaired or rebuilt.

Contact your fire department for further advice. Your family should have a prearranged plan so that each person will know what to do and will act immediately if such an emergency arises.

FUEL

Never use gasoline, gasoline-type lantern fuel, kerosene, oil, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use. Their use will cause an explosion or an excessively hot fire.

Do not burn materials soaked in flammable liquids, trash, garbage, artificial or paper logs, plastics, gift wrappings, coal, charcoal, naphtha, chemical cleaners, chemical fire starters, treated or painted wood, driftwood, railroad ties, plywood, particle board, metal foil or foil-backed paper such as gum wrappers or cigarette packages. Burning materials other than natural wood may considerably shorten the life of the catalytic

combustor and will void the six-year limited catalytic combustor warranty.

Do not burn sawdust, wood shavings or chips in this stove. Such materials can cause an excessively hot fire and will also impair catalytic combustor operation.

When selecting wood for a catalytic stove, do not use extremely dry wood or small pieces. Dry or small pieces of fuel will release too many volatiles early in the burn and flood the catalyst, keeping it from reaching the clean burn stage. In extreme cases, the catalyst may not reach clean burn for up to three hours.

DISPOSAL OF ASHES

Ashes should be placed in a steel container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Do not store other waste in the ash container.

CLEARANCES TO COMBUSTIBLE MATERIALS

For a safe installation, proper clearances to combustible materials must be observed (see p. 10). Failure to follow these guidelines is illegal and can result in a fire causing property damage, injury or death. Keep combustible (burnable) materials at least as far away from the stove as the table on p. 10 indicates. Combustible materials include items such as plasterboard or wood-paneled walls, furniture, wooden mantels, bookshelves, carpets and drapes. Also, firewood should not be stored within the specified clearances, with the exception of the wood-storage bins below the firebox.

BUILDING AND FIRE CODES, PERMITS AND INSPECTIONS

The installation of this stove must comply with your local building and fire codes. Always contact your local building inspector and/or fire department before beginning the installation process. If required by law, obtain a permit before installation and have the completed installation inspected. Remember that noncompliance with building and/or fire codes may jeopardize your homeowner's insurance.

CHIMNEYS

Never vent your wood-burning stove into a "Class B" (gas vent) chimney. Check with local authorities to make sure that you are not accidentally using a Class B chimney.

Before connecting any wood-burning unit to an existing chimney, inspect the chimney to be sure it is in good condition. There should be no cracks or holes. Often it is impossible to see

these from the outside. A chimney sweep should inspect your chimney and give you an accurate assessment of its condition. The cross-sectional area must not be less than that of the flue collar. Relining or rebuilding may be necessary to make the chimney safe. A proper chimney is most important for safe, satisfactory operation of any wood heating system.

Never use a chimney or chimney connector smaller than the stove's flue collar. The RHT 2100 is equipped with an 8" diameter flue collar, the RHT 2200 is equipped with a 6" diameter flue collar.

Vent the stove only to the outside, not to other rooms or buildings. In other words, the chimney should exhaust to the atmosphere (outdoors) only.

Inspect your chimney and chimney connector at least twice each month during the heating season. Any leak must be repaired. A chimney fire or deterioration can enlarge the hole. This will admit more air and cause exhaust gases to condense and form creosote. Patches of creosote in your chimney or chimney connector indicate that such leaks are present.

If a significant amount of creosote has accumulated, it should be removed to reduce the risk of a chimney fire. (Refer to "Creosote Formation and Removal" on page 60.)

Never intentionally start a chimney fire to clean the flue.

Since water is a major component of stove exhaust, ice may also form in your chimney during cold weather. Large, exterior masonry chimneys are particularly susceptible to this problem. If your stove begins to perform poorly during cold weather, check your chimney.

STOVE DOOR

Do not operate the stove with the door open. This stove is not designed nor intended to be operated with the door open. Leaving the loading door open AFTER the fire is well started can cause premature failure of the catalytic combustor and/or overheating of the stove. Such overheating can cause stove warpage.

Do not leave your BLAZE KING Royal Heir catalytic stove unattended (when starting a fire) when the door is not tightly closed.

Check the loading door gasket for deterioration at least twice each heating season.

CHILDREN

Do not allow children to play near the stove or with the operating knobs. Severe burns will be inflicted by touching some parts of the stove and can be inflicted by opening the

loading door. Train children to stay away from the stove and never leave children unattended in the room when the stove is in operation.

SECTION 2*****
 ROYAL HEIR SPECIFICATIONS

	RHT 2100	RHT 2200
Heat Output, (approx.)	52,000 Btu/hr	31,000 Btu/hr
Wood Capacity (approx.)		
White Oak	80 lbs.	45 lbs.
Fir	50 lbs.	30 lbs.
Recommended Wood Length	19 in.	18 in.
Stove Weight (approx.)	418 lbs.	354 lbs.
Width	28"	25 5/8 in.
Depth	24"	23 in.
Height	37"	32 1/2 in.
Door Opening Width	16 1/2 in.	8 3/4 in.
Door Opening Height	10 1/2 in.	14 in.
Cooktop Width	19 in.	18 in.
Cooktop Depth	8 1/2 in.	8 in.
Base Width	28 in.	25 5/8 in.
Base Depth	24 in.	23 in.
Flue Size	8 in.	6 in.
Fans	Twin variable speed, 105 cfm each	
Firebox	1/4" steel, lined with firebrick	
Glass	Clear ceramic, tested for continuous use above 1200 degrees Fahrenheit	

Tested to U.L. 1482. Listed by Underwriters Laboratories, Inc.

Section 3*****
 CLEARANCES TO COMBUSTIBLE MATERIALS
 FLOOR PROTECTION
 CHIMNEY CONNECTOR AND CHIMNEY SYSTEM REQUIREMENTS

 | WARNING |
 | FAILURE TO ALLOW THE REQUIRED CLEARANCES TO COMBUSTIBLE |
 | MATERIALS OR TO PROVIDE ADEQUATE FLOOR PROTECTION CAN CAUSE A |
 | HOUSE FIRE. SUCH A FIRE CAN RESULT IN DAMAGE TO PROPERTY AND |
SERIOUS INJURY OR DEATH.

ROYAL HEIR 2100 and 2200

Minimum Clearances to Combustible (Burnable) Materials
 (See Fig. A)

All dimensions in inches		A	B	C	D	E	F	G	H	I	J	K	L	M	N
RHT-2100	Residential ¹	16	15	26	16	8	17.5	32	44	18	16	15	--	--	84
	Residential Close Clearance	13	8.5	23	9	6	15.5	32	44	--	--	--	--	--	84
	Alcove	RHT-2100 NOT LISTED FOR ALCOVE INSTALLATION													
	Mobile Home ^{5,2}	13	8.5	23	9	6	15.5	32	44	--	--	--	--	--	84
RHT-2200	Residential ¹	14	12	24	14	6.5	16	30.5	41	18	14	12	--	--	84
	Alcove ^{4,3}	15	11.5	25	13.5	--	--	30.5	41	--	--	--	15	25	84
	Mobile Home ^{5,3}	15	11.5	25	13.5	7	16	30.5	41	--	--	--	--	--	84

Floor Protection Material: Any noncombustible material or Listed Floor Protector

1. For residential installations, use (8" dia. for 2100 or 6" dia. for 2200) 22-26 gauge black/blue steel chimney connector with listed Residential Type and Building Heating Appliance Type chimney system or masonry residential type chimney.
2. For RHT-2100 Residential Close Clearance and Mobile Home installations, use Blaze King Flue Collar Adapter Part No. 3225 with 8" Simpson Dura-Vent DVL chimney connector and 8" Simpson Dura-Vent Dura-chimney or Dura-Plus Residential Type and Building Heating Appliance Type chimney systems.
3. For RHT-2200 Alcove and Mobile Home installations, use Blaze King Flue Collar Adapter Part No. 3255 with 6" Simpson Dura-Vent DVL chimney connector and 6" Simpson Dura-Vent Dura-chimney or Dura-Plus Residential Type and Building Heating Appliance Type chimney systems.
4. For definition of alcove, see local building or fire officials.
5. For Mobile Home installations, use Blaze King Mobile Home Kit P/N 8040 on RHT-2100, P/N 8140 on RHT-2200.

RHT 2100

RHT 2200

Minimum Floor Protection

32 in. X 44 in. 30 1/2 in. X 41 in.
 Must extend a minimum of 16" in front of door and base. Center the stove on the width of the protection. For an installation where the chimney connector exits through the wall, the protection must extend to that wall, under the horizontal chimney section. The protection should be at least 12" wide and should be centered under the horizontal section.

Floor Protection Material

Any noncombustible material.

Required Chimney Connector and Chimney Systems

Standard Residential

Installation Diagrams, Fig. D, E, and F, pages 19, 25 and 26.

	RHT 2100	RHT 2200
Required Chimney Connector	8 in. A	6 in. A
Required Chimney System	8 in. E,F	6 in. E,F

Residential Close Clearance

Installation Diagram, Fig. G, p. 31.

RHT 2100 only. For a complete list of components for residential close clearance installations, see p. 38.

	RHT 2100	
Required Chimney Connector	8 in. B	
Required Chimney System	8 in. C,D	

Residential and Mobile Home Alcove

Installation Diagram, Fig. G and H, p. 31 and 36.

RHT 2200 ONLY. RHT 2100 not listed for alcove installations. For definition of "alcove", consult your local building inspector. For a complete list of components for mobile home installations, see p. 39.

	RHT 2200	
Required Chimney Connector	6 in. B	
Required Chimney System	6 in. C,D	

Mobile Home

Installation Diagram, Fig. H, p. 36.

For a complete list of components for mobile home installations, see p. 38 and 39.

	RHT 2100	RHT 2200
Required Chimney Connector	8 in. B	6 in. B
Required Chimney System	8 in. C,D	6 in. C,D

- A Single wall, blue or black steel chimney connector, 24 gauge minimum thickness, or Blaze King Porcelain Chimney Connector.
- B Simpson Dura-Vent DVL Close Clearance Connector (Blaze King flue collar adapter required, part no. 3225 for the RHT 2100, part no. 3255 for the 2200)
- C Simpson Dura-Vent Dura-Plus Chimney System
- D Simpson Dura-Vent Dura-Chimney Chimney System
- E Any Listed Residential Type and Building Heating Appliance Type Chimney System
- F Masonry chimney

SECTION 4*****
WARRANTY

Blaze King offers a five-year limited stove warranty and a six-year limited combustor warranty. Copies of these warranties are packaged with this stove. Your specific rights may vary according to your state's laws. Check with your BLAZE KING dealer for details.

To register your warranties, fill out and return the warranty registration cards included with this stove. You will find the model number and serial number on a tag on the back of the stove. If the warranty cards are missing, you can obtain them from your local dealer.

SECTION 5*****
INSTALLATION PREPARATION

| WARNING! |
| IMPROPER ASSEMBLY AND/OR INSTALLATION OF YOUR BLAZE KING ROYAL |
| HEIR CATALYTIC WOODSTOVE, OR FAILURE TO OPERATE IT ACCORDING |
| TO THE GUIDELINES DETAILED IN THESE INSTRUCTIONS, CAN VOID THE |
| STOVE AND COMBUSTOR WARRANTIES, CAUSE A HOUSE OR CHIMNEY FIRE |
| AND ENDANGER YOUR FAMILY. FOR YOUR SAFETY, FOLLOW THE |
| ASSEMBLY AND INSTALLATION INSTRUCTIONS CAREFULLY. CONTACT |
| LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND |
INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

TOOLS NEEDED FOR INSTALLATION

If you are planning to install this woodstove yourself, you will need the tools listed below. Other tools may be needed to install a prefabricated chimney system. Consult the chimney manufacturer's instructions.

- #2 square drive bit
(included with the stove)
- 1/4" wrench, nutdriver or socket and handle
- tape measure
- medium flat blade screwdriver
(approx. 1/4" tip)
- carpenter's level
- drill motor and bit
(mobile home installations only)
- saw (outside air kit installation only)
- 3/8" wrench or socket and handle
(outside air kit installation only)

PARTS NEEDED FOR INSTALLATION USING EXISTING CHIMNEY

The following parts are needed to install this stove and connect it to an existing masonry or prefabricated chimney (see Fig. D, E and F, p. 19, 25 and 26):

- Chimney Connector
(If installed to existing prefabricated chimney, must be compatible with the existing chimney.)
- Listed Wall Pass-Through
(If chimney connector must pass through wall.)
- Thimble
(If chimney connector connects directly to masonry chimney.)
- Floor Protection

PARTS NEEDED FOR INSTALLATION USING PREFABRICATED CHIMNEY

If you do not have an existing chimney and are installing a prefabricated chimney, the items listed below are needed to completely install your woodstove. (See Fig. E, F, G and H, p. 25, 26, 31 and 36.) See Section 3, p. 10, for chimney connector and chimney system requirements for specific applications. A list of the required chimney connector and chimney system components, including specific part numbers, for residential close clearance, mobile home and alcove applications is included on pages 38 and 39. Some of the items listed below will not be required in all installations, so be sure to check local codes, Section 3 and the note below.

Storm Collar	Chimney Connector
Listed Chimney	Cap with Spark Arrester
(check local codes	Flashing
for type of chimney	Insulation Shield
and chimney connector	Ceiling Trim Plate
needed for your	Floor Protection
installation)	Finish Support
Firestop Assembly	Wall Pass Through
Attic Insulation Shield	(If chimney connector
	must pass through wall)

NOTE: RHT 2100 and RHT 2200 mobile home installations and RHT 2200 mobile home alcove installations using Simpson Dura-Vent chimney and chimney connector also require a mobile home kit (part no. 8040 for the RHT 2100, part no. 8140 for the RHT 2200) which includes an outside air kit, tie-down screws and a chimney connector adapter. RHT 2100 residential close clearance and RHT 2200 residential alcove installations require a chimney connector adapter (part no. 3225 for RHT 2100, part no. 3255 for RHT 2200) and two #10 x 3/8" sheet metal screws (part no. 0104, also available at most hardware stores).

STOVE PLACEMENT

Consider the role of your new Royal Heir catalytic woodstove in the total heating plan for your home. If your goal is to provide 70% to 100% of your home's heat, place the Royal Heir in an open, central location (Figure B, p. 16).

When the stove is used as a secondary heater or as a supplement to the central heating system, a more remote placement is acceptable (Fig. C, p. 17).

If you have a forced-air heating system, you can use the existing ducts and furnace fan to circulate air through the house, but DO NOT connect the stove's duct directly to the heating-system ducts or any other air-distribution ducts. Place the stove near a cold air return duct.

DO NOT ASSEMBLE YOUR STOVE NOW. It is much easier to assemble the stove in place than to move an assembled stove into position. Proceed to Section 6.

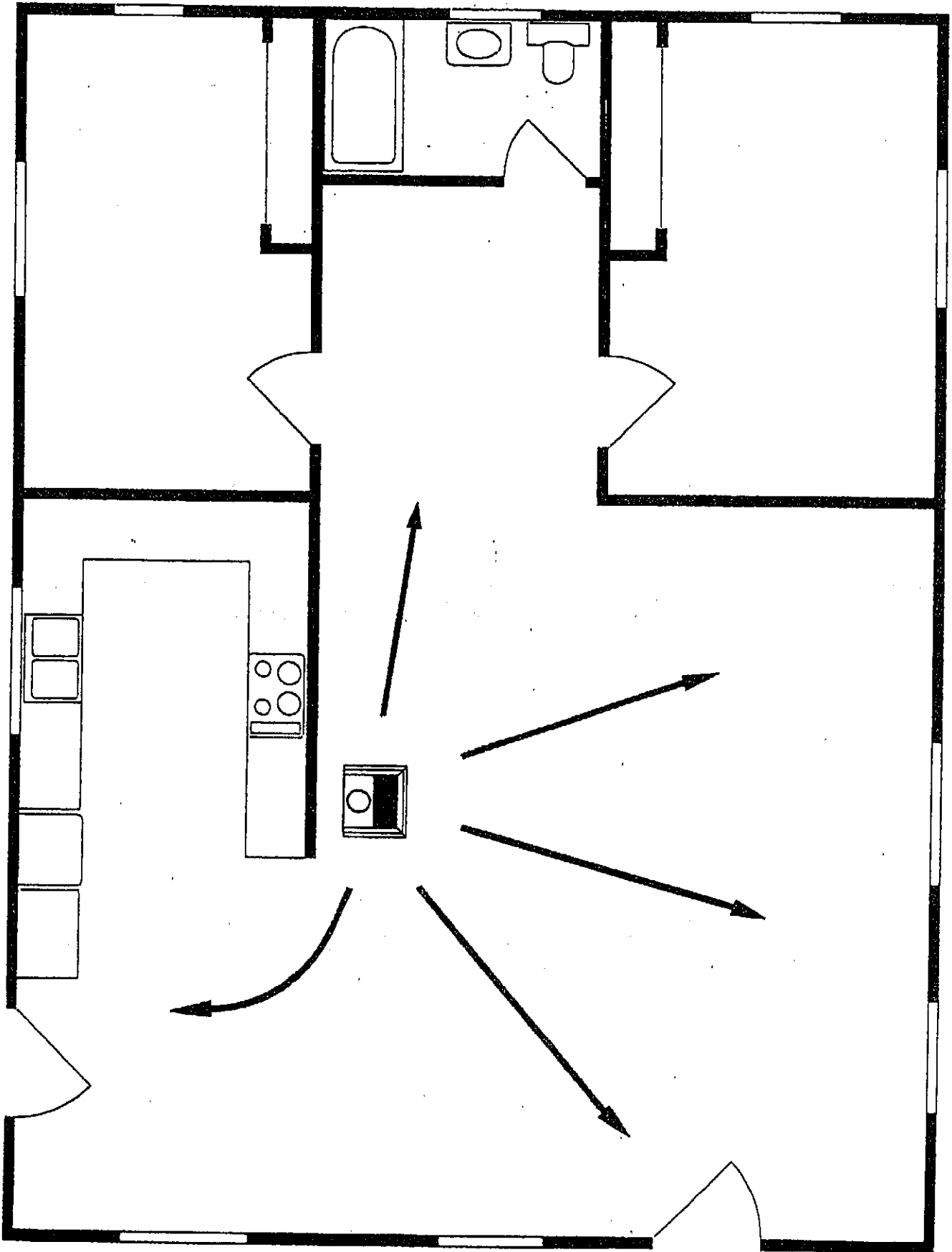


Figure B. Stove Placement: Primary Heat Source.

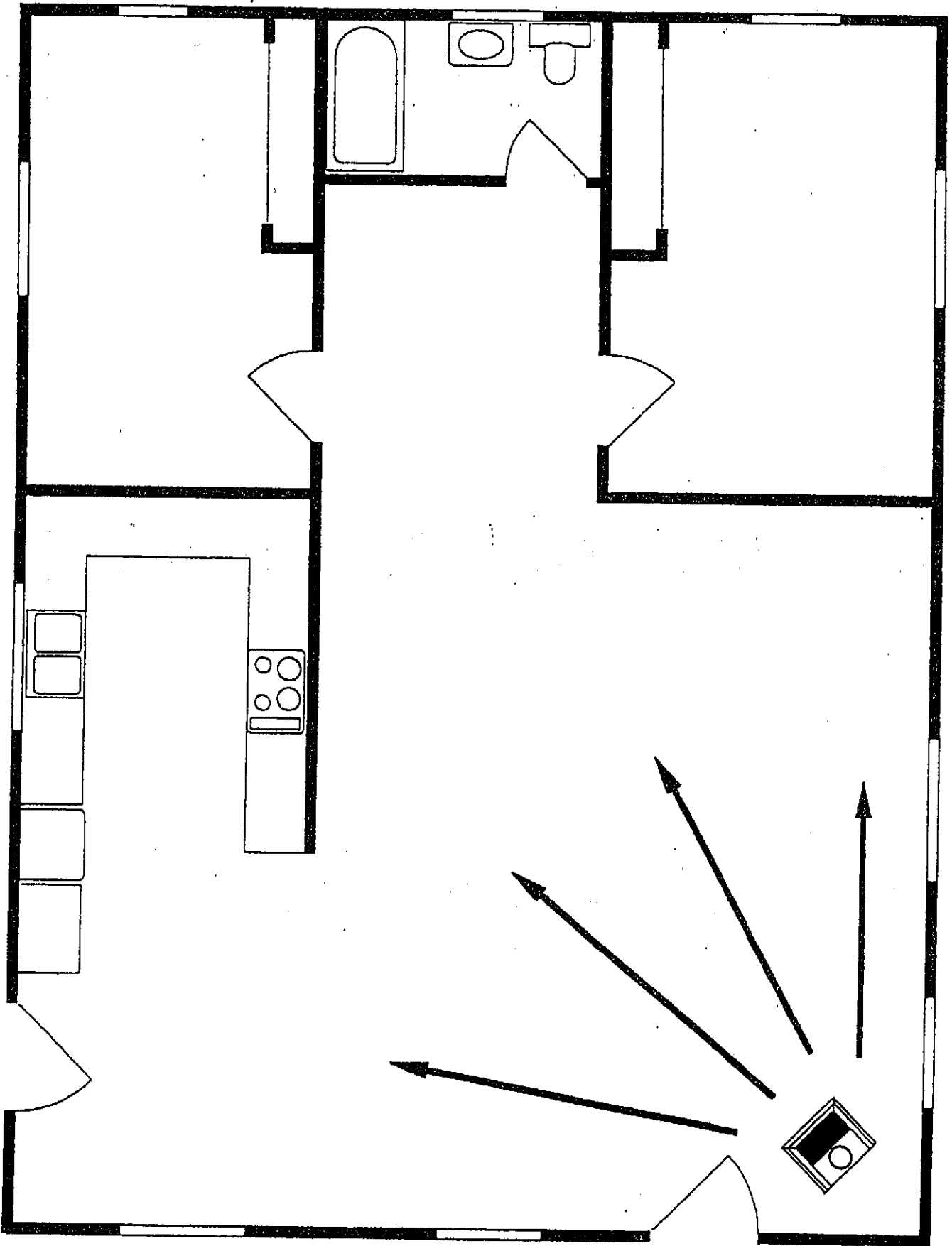


Figure C. Stove Placement: Secondary Heat Source.

SECTION 6*****
INSTALLATION INSTRUCTIONS

If you have a --

- residential standard clearance installation using a masonry chimney, go to Section 6A, p. 18.
- residential standard clearance installation using a prefabricated chimney, go to Section 6B, p. 24.
- residential close clearance installation using a prefabricated chimney, RHT 2100 only, go to Section 6C, p. 30.
- residential alcove installation using a prefabricated chimney, RHT 2200 only, go to Section 6C, p. 30.
- mobile home installation using prefabricated chimney, go to Section 6D, p. 35.
- mobile home alcove installation using a prefabricated chimney, RHT 2200 only, go to Section 6D, p. 35.

6A. RESIDENTIAL STANDARD CLEARANCE INSTALLATION, USING EXISTING MASONRY CHIMNEY

BEFORE PROCEEDING FURTHER, REVIEW THE FOLLOWING:

- Safety, Section 1, pages 5 through 8
- Clearances to Combustible Materials, Section 3, p. 10
- Installation Diagram, Fig. D, p. 19

CLOSE CLEARANCE INSTALLATIONS ARE NOT ALLOWED WHEN USING AN EXISTING MASONRY CHIMNEY.

This freestanding stove is listed by Underwriters Laboratories, Inc. ONLY if : (a.) it is connected to a suitable masonry chimney or a Listed Residential Type and Building Heating Appliance Type Chimney System* (8" for RHT 2100, 6" RHT 2200) and (b.) minimum clearances to combustible (burnable) materials are observed.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

*Referred to as "prefabricated chimney" in this section (6A).

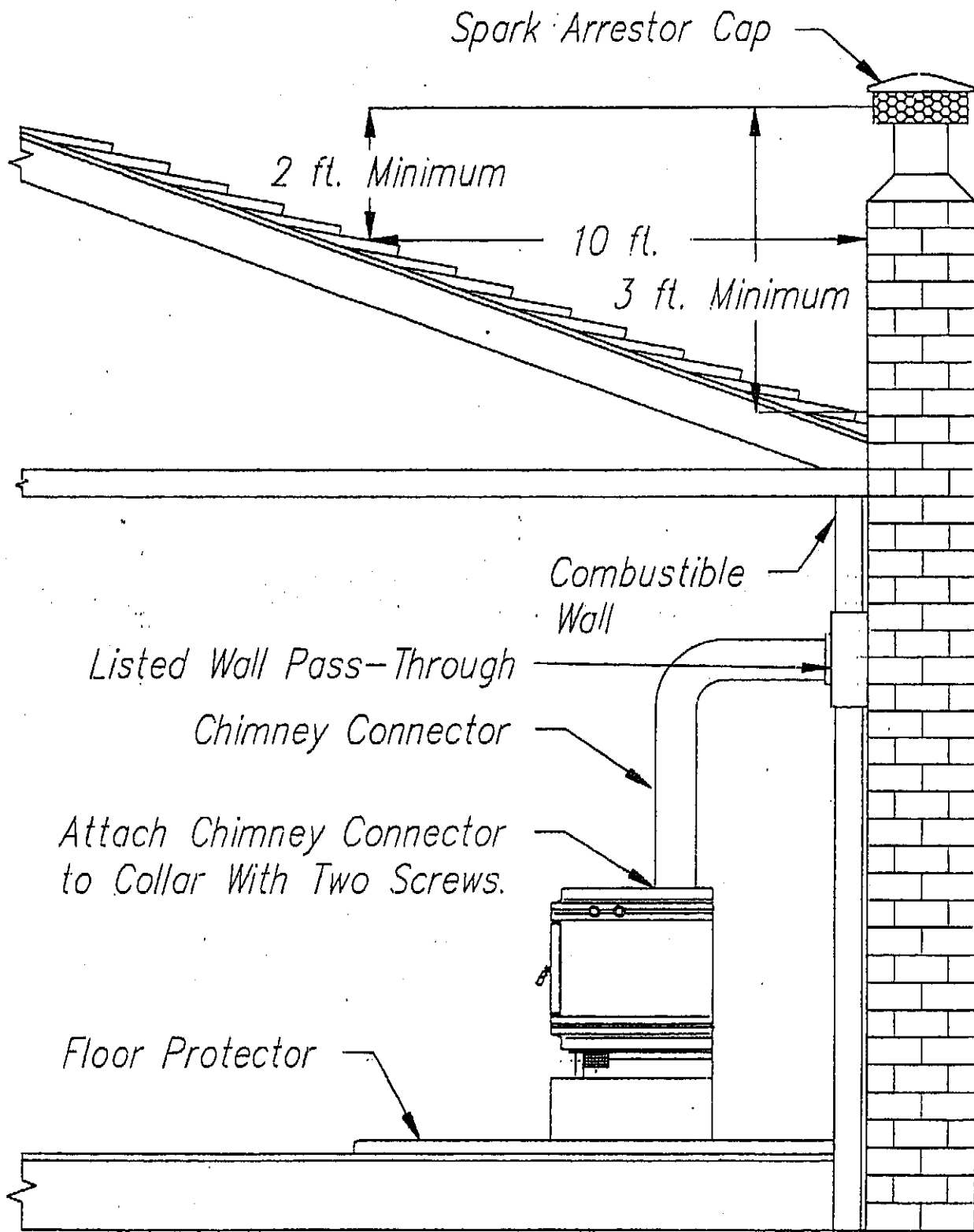


Figure D. Residential Standard Clearance Installation Using an Exterior Masonry Chimney.

WARNING!

IMPROPER INSTALLATION OF THIS STOVE WILL VOID THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR CHIMNEY FIRE AND ENDANGER YOUR FAMILY. READ SECTION 1, PAGES 5 THROUGH 8, FOR SAFETY INFORMATION. ALLOW THE REQUIRED CLEARANCES TO COMBUSTIBLE MATERIALS AND PROVIDE THE REQUIRED FLOOR PROTECTION (SEE SECTION 3, P. 10). CAREFULLY FOLLOW THE INSTALLATION INSTRUCTIONS GIVEN BELOW. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

WARNING!

THIS STOVE IS FOR USE WITH NATURAL, UNPROCESSED SOLID WOOD FUEL ONLY. NEVER USE GASOLINE, KEROSENE, LIGHTER FLUID OR ANY FLAMMABLE LIQUID IN OR NEAR THIS STOVE. THE USE OF SUCH FUELS WILL CAUSE AN EXPLOSION OR AN EXTREMELY INTENSE FIRE, THUS ENDANGERING YOUR HOME AND FAMILY.

1. GET PROFESSIONAL ASSISTANCE
Read this section carefully.

Proper installation of this Royal Heir catalytic woodstove is vital for the safety of you and your family. Take proper precautions by consulting your local building inspector or fire department for specific requirements concerning safe, legal woodstove installation. In rare instances, when neither of these services are available, contact a professional chimney sweep for this information. Some areas require permits prior to woodstove installation, so be sure to secure a permit (or permits) if it is (they are) required in your area. Have your installation inspected by your local building inspector or fire department official if required by law to do so.

2. CHECK YOUR CHIMNEY

Check the position of the chimney in relation to outside structures, trees, etc. Remember that building and fire codes require that the top of the chimney extend two feet above any area of the structure within ten feet and at least three feet above a the roof (see Fig. D, p. 19).

Before connecting any wood-burning unit to an existing chimney, inspect the chimney to be sure that it is in good condition. There must be no cracks or holes. The cross-sectional area must not be less than that of the flue collar (8" for the RHT 2100, 6" for the RHT 2200). A proper chimney is crucial for safe, satisfactory operation of any wood heating system. Relining or rebuilding may be necessary to make the chimney safe, efficient and in conformity with local codes. Observe all minimum clearances between the chimney connector and combustible surfaces (see Section 3).

This is also an ideal time to clean the existing chimney. For peak efficiency, a clean chimney flue is essential. A qualified professional chimney sweep can perform both inspection and cleaning. If you choose to clean your own chimney, use the proper tools. Homemade cleaners, such as chains, may damage your chimney. Remember: the safety of your home and family depends on a clean chimney in good condition.

3. STOVE PLACEMENT

Remove the box from the stove base and set the base in the intended installed position.

As you plan your installation, consider the following:

- a. Clearances to combustible (burnable) materials (Section 3).
- b. Electrical power. The Royal Heir is equipped with a seven-foot electrical cord. Do not route this cord in front of this stove. See Step 7 for more details.
- c. Floor supports. Check floor joists for proper support of the stove. If local codes require outside combustion air, an outside air kit is available for use in a standard residential installation. If you are planning to use outside air, do not cut any structural supports in the floor.

| CAUTION! |
| THE STRUCTURAL INTEGRITY OF YOUR RESIDENCE'S FLOOR, WALL |
AND CEILING/ROOF MUST BE MAINTAINED.

4. STOVE ASSEMBLY

You are now ready to assemble your Royal Heir. Please go to Section 7, p. 43.

5. CHIMNEY CONNECTORS

The RHT 2100's flue collar accepts only 8" chimney connector; the 2200's flue collar accepts only 6" chimney connector. The small end of the connector fits into the collar to enable any water vapor which may form in the chimney to fall back into the stove. Single-wall blue or black steel chimney connector (not less than 24-gauge) or Blaze King Porcelain Chimney Connector is used to connect the stove to a masonry chimney. Prefabricated chimney is not normally required as a chimney connector for residential standard clearance installations. Check with your local building or fire inspector for local requirements.

Chimney connector can also be used horizontally as a connection between the stove and a masonry chimney, provided that the horizontal length does not exceed three feet AND THE CONNECTOR SLOPES UPWARD TOWARD THE CHIMNEY AT THE RATE OF 1/4" PER FOOT. This slope in the horizontal connection is required to encourage the water vapor to drain back into the stove. Use a carpenter's level and a ruler or tape measure to check the slope. You should also use a level (or a weight tied to the end of a string) to check the chimney connector exiting the stove to be sure it is vertical. Under no condition should the chimney connector have more than one 90 degree bend or two 45 degree bends. The distance between the chimney connector and the ceiling must not be less than 18". The chimney connector sections should be secured together with no less than three sheet metal screws per joint. The chimney connector should be attached to the stove's flue collar with two sheet metal screws.

6. CHIMNEY DRAFTS

When using an existing chimney or after installing a prefabricated chimney, determine the draft by using a water manometer (draft gauge). The draft should be measured with the stove at medium burn and with the probe of the draft gauge inserted into the chimney connector about 12" above the stove top. (Drill a hole in the connector large enough for the probe to be inserted. After the measurement is completed, plug the hole with a screw of the appropriate size coated with furnace cement.) The draft should measure between .02" and .10" of water. If the draft is outside these limits, the woodstove may not operate properly. Drafts below .02" will cause excessive smoke spillage, incomplete combustion and fire start-up problems. Drafts above .10" may cause premature catalytic failure. A draft near the upper limit will contribute to the door glass staying clean. CONSISTENT USE OF DRAFTS HIGHER THAN .10" MAY NEGATE YOUR CATALYTIC COMBUSTOR WARRANTY.

CHIMNEY HEIGHT AFFECTS DRAFT. Tall chimneys usually provide a strong, dependable draft. The chimney should be kept warm to enhance the draft. This will also reduce creosote accumulation caused by smoke and a condensation of water vapor. A buildup of creosote can reduce the draft and will become a potential fire hazard.

Chimney tops should NEVER be near trees or other tall objects that might cause downdrafts.

Exhaust fans, such as are installed in kitchens and bathrooms, can create a downdraft in a chimney when the fans are operating. Smoke may be drawn into the room, particularly if the loading door is open while the stove is being reloaded. If this problem arises, open a window while the exhaust fan is being used or do not operate the exhaust fan while reloading the stove.

7. ELECTRICAL CONNECTION

Your Royal Heir is equipped with a three-prong (grounded) plug to decrease shock hazard. THIS PLUG SHOULD BE INSERTED DIRECTLY INTO A PROPERLY-GROUNDED, THREE-HOLE RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. Do not route the power cord in front of the stove.

8. STOVE INSPECTION

We recommend that your woodstove installation be inspected by your local fire department official or building inspector. In some areas, this inspection is required by law.

6B. RESIDENTIAL STANDARD CLEARANCE INSTALLATION, USING PREFABRICATED CHIMNEY*

BEFORE PROCEEDING FURTHER, REVIEW THE FOLLOWING:

- Safety, Section 1, pages 5 through 8
- Clearances to Combustible Materials, Section 3, p. 10
- Installation Diagrams, Figures E and F, pages 25 and 26.

For Residential Close Clearance Installation (RHT 2100 only), see Section 6C.

This freestanding stove is listed by Underwriters Laboratories, Inc. ONLY if: (a.) it is connected to a suitable masonry Chimney, or a Listed Residential Type and Building Heating Appliance Type Chimney System (8" for the RHT 2100, 6" for the RHT 2100) and (b.) minimum clearances to combustible (burnable) materials are observed. Failure to install the Royal Heir according to the instructions given in this manual may void the stove's U.L. listing.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

WARNING!

IMPROPER INSTALLATION OF THIS STOVE WILL VOID THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR CHIMNEY FIRE AND ENDANGER YOUR FAMILY. READ SECTION 1, PAGES 5 THROUGH 8, FOR SAFETY INFORMATION. ALLOW THE REQUIRED CLEARANCES TO COMBUSTIBLE MATERIALS AND PROVIDE THE REQUIRED FLOOR PROTECTION (SEE SECTION 3, P. 10). CAREFULLY FOLLOW THE INSTALLATION INSTRUCTIONS GIVEN BELOW. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

WARNING!

THIS STOVE IS FOR USE WITH NATURAL, UNPROCESSED SOLID WOOD FUEL ONLY. NEVER USE GASOLINE, KEROSENE, LIGHTER FLUID OR ANY FLAMMABLE LIQUID IN OR NEAR THIS STOVE. THE USE OF SUCH FUELS WILL CAUSE AN EXPLOSION OR AN EXTREMELY INTENSE FIRE, THUS ENDANGERING YOUR HOME AND FAMILY.

*In this section (6B), "prefabricated chimney" refers to a Listed Residential Type and Building Heating Appliance Type Chimney System.

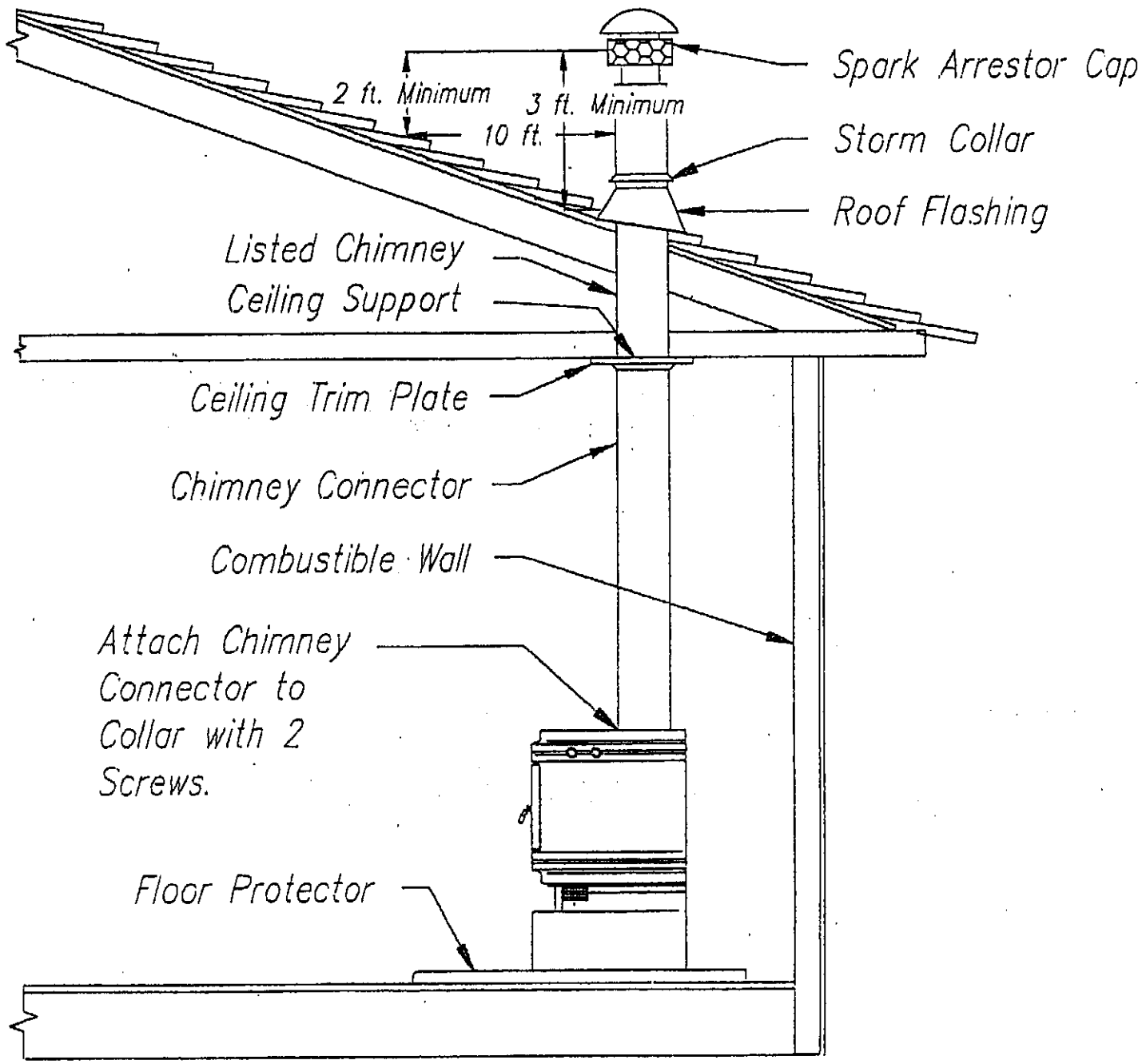


Figure E. Residential Standard Clearance Installation Using a Prefabricated Chimney.

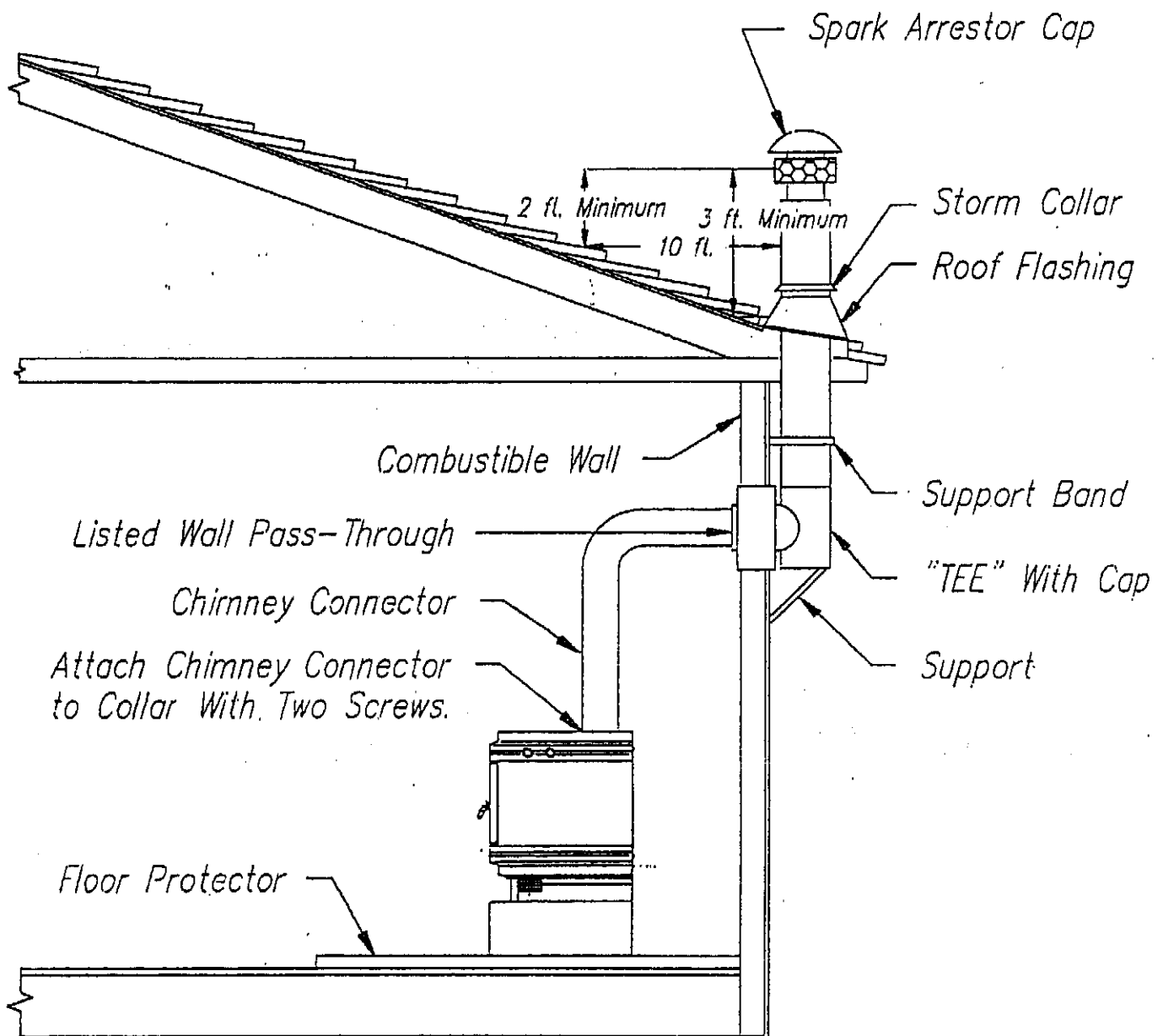


Figure F. Residential Standard Clearance Wall Exit Installation Using a Prefabricated Chimney.

1. GET PROFESSIONAL ASSISTANCE
Read this section carefully.

Proper installation of this Royal Heir catalytic woodstove is vital for the safety of you and your family. Take proper precautions by consulting your local building inspector or fire department for specific requirements concerning safe woodstove installation. In rare instances, when neither of these services are available, contact a professional chimney sweep for this information. Some areas require permits prior to woodstove installation, so be sure to secure a permit (or permits) if it is (they are) required in your area.

If you do not have the knowledge or experience to do a chimney installation, consult a specialist: a woodstove dealer, chimney sweep or stove installation professional.

2. STOVE PLACEMENT

Remove the box from the stove base and set the base in the intended installed position.

As you plan your installation, consider the following:

- a. Clearance to combustible (burnable) materials (Section 3).
- b. Position of chimney relative to ceiling and roof joists. It's best not to cut supporting ceiling or roof joists. If you must cut away structural supports, consult your building inspector for advice.
- c. Floor supports. Check floor joists for proper support of the stove. If local codes require outside combustion air, an outside air kit is available for use in a standard residential installation. If you are planning to use outside air, do not cut any structural supports in the floor.

CAUTION!

THE STRUCTURAL INTEGRITY OF YOUR RESIDENCE'S FLOOR, WALL
AND CEILING/ROOF MUST BE MAINTAINED.

- d. Position of the stove's chimney relative to outside structures, trees, etc. Remember that building and fire codes require that the top of the chimney extend two feet above any area of the structure within ten feet and at least three feet above the roof (Fig. E and F, p. 25 and 26. Chimney tops should NEVER be near trees or other tall objects that might cause downdrafts.
- e. Electrical power. The Royal Heir is equipped with a seven foot electrical cord. Do not route this cord in

front of the stove. See Step 7 for more details.

3. PREFABRICATED CHIMNEY INSTALLATION

There are two major types of prefabricated chimney: (1) solid pack insulated and (2) air insulated. Prefabricated chimney is available from numerous manufacturers. Consult local building and fire codes to determine which type(s) of prefabricated chimney may be legally installed. Ask your local dealer about the availability of types of chimney which meet local codes. The chimney and chimney connector must be the same size (8" for the RHT 2100, 6" for the RHT 2200) as the flue collar on the stove.

REFER TO CHIMNEY MANUFACTURER'S INSTALLATION INSTRUCTIONS. Since each manufacturer of prefabricated chimney systems employs different nomenclature and varying assembly procedures, you should read their instructions before proceeding further.

Special methods are required when passing through a wall or ceiling. Consult your local building inspector.

4. Now that the prefabricated chimney is installed, you are ready to assemble your Royal Heir. Please go to Section 7, p. 43.

5. CHIMNEY CONNECTORS

The RHT 2100's flue collar accepts only 8" chimney connector; the 2200's flue collar accepts only 6" chimney connector. The small end of the connector fits into the collar to enable any water vapor which may form in the chimney to fall back into the stove. Single-wall blue or black steel chimney connector (not less than 24-gauge) or Blaze King Porcelain Chimney Connector is used to connect the stove to a prefabricated chimney in residential standard clearance installations. Prefabricated chimney is not normally required as a chimney connector for these installations. Check with your local building or fire inspector for local requirements.

Chimney connector can also be used horizontally as a connection between the stove and a masonry chimney, provided that the horizontal length does not exceed three feet AND THE CONNECTOR SLOPES UPWARD TOWARD THE CHIMNEY AT THE RATE OF 1/4" PER FOOT. This slope in the horizontal connection is required to encourage the water vapor to drain back into the stove. Use a carpenter's level and a ruler or tape measure to check the slope. You should also use a level (or a weight tied to the end of a string) to check the chimney connector exiting the stove to be sure it is vertical. Under no condition should the chimney connector have more than one 90 degree bend or two 45 degree bends. The distance between the chimney connector and the ceiling must not be less than 18". The chimney connector sections should be secured together

with no less than three sheet metal screws per joint. The chimney connector should be attached to the stove's flue collar with two sheet metal screws.

6. CHIMNEY DRAFTS

After installing a prefabricated chimney, determine the draft by using a water manometer (draft gauge). The draft should be measured with the stove at medium burn and with the probe of the draft gauge inserted into the chimney connector about 12" above the stove top. (Drill a hole in the connector large enough for the probe to be inserted. After the measurement is completed, plug the hole with a screw of the appropriate size coated with furnace cement.) The draft should measure between .02" and .10" of water. If the draft is outside these limits, the woodstove may not operate properly. Drafts below .02" will cause excessive smoke spillage, incomplete combustion and fire start-up problems. Drafts above .10" may cause premature catalytic failure. A draft near the upper limit will contribute to the door glass staying clean. CONSISTENT USE OF DRAFTS HIGHER THAN .10" MAY NEGATE YOUR CATALYTIC COMBUSTOR WARRANTY.

CHIMNEY HEIGHT AFFECTS DRAFT. Tall chimneys usually provide a strong, dependable draft. The chimney should be kept warm to enhance the draft. This will also reduce creosote accumulation caused by smoke and a condensation of water vapor. A buildup of creosote can reduce the draft and will become a potential fire hazard.

Exhaust fans, such as are installed in kitchens and bathrooms, can create a downdraft in a chimney when the fans are operating. Smoke may be drawn into the room, particularly if the loading door is open while the stove is being reloaded. If this problem arises, open a window while the exhaust fan is being used or do not operate exhaust fan while reloading the stove.

7. ELECTRICAL CONNECTION

The Royal Heir is equipped with a three-prong (grounded) plug to prevent shock hazard. THIS PLUG SHOULD BE INSERTED DIRECTLY INTO A PROPERLY GROUNDED, THREE-HOLE RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. Do not route the power cord in front of this heater.

8. STOVE INSPECTION

We recommend that your woodstove installation be inspected by your local fire department official or building inspector. In some areas, this inspection is required by law.

6C. RESIDENTIAL CLOSE CLEARANCE INSTALLATION (RHT 2100 ONLY) AND RESIDENTIAL ALCOVE INSTALLATION (RHT 2200 ONLY) USING PREFABRICATED CHIMNEY*.

BEFORE PROCEEDING FURTHER, REVIEW THE FOLLOWING:

Safety, Section 1, pages 5 through 8
Clearances to Combustible Materials, Section 3, p. 10
Installation Diagram, Fig. G, p. 31

THE RHT 2100 IS NOT LISTED FOR ALCOVE INSTALLATIONS. FOR DEFINITION OF "ALCOVE", CONSULT YOUR LOCAL BUILDING OR FIRE DEPARTMENT OFFICIAL.

WALL EXIT STOVE CONNECTIONS ARE NOT ALLOWED IN RESIDENTIAL CLOSE CLEARANCE OR RESIDENTIAL ALCOVE INSTALLATIONS.

IF YOU HAVE NOT ALREADY DONE SO, PLEASE TAKE A FEW MINUTES TO COMPLETE THE WARRANTY CARDS FOUND IN THE FIREBOX AND MAIL THEM IMMEDIATELY.

For residential close clearance (RHT 2100 only) and residential alcove (RHT 2200 only) installations, the Royal Heir is listed by Underwriters Laboratories, Inc. to be used with Simpson Dura-Vent DVL close clearance chimney connector up to the ceiling and Simpson Dura-Vent Dura-Chimney or Dura-Plus chimney system above the ceiling (8" for the RHT 2100, 6" for the RHT 2200). The Royal Heir requires an adapter (part no. 3225 for the RHT 2100, part no. 3255 for the RHT 2200) and two #10 x 3/8" sheet metal screws (part no. 0104) to connect the Dura-Vent chimney connector to the flue collar. No other chimney connectors or chimney systems have been tested and approved for use with these stoves. Minimum clearances to combustible (burnable) materials must be observed.

These stoves are listed by Underwriters Laboratories, Inc. for residential close clearance (RHT 2100 only) and residential alcove (RHT 2200 only) installations only if (a) the above chimney connector and chimney systems are used, (b) the chimney and chimney connector is installed vertically (straight up from

*As used in this section (6C) "prefabricated chimney" refers to Simpson Dura-Vent Dura-Chimney or Simpson Dura-Vent Dura-Plus chimney systems (8" for RHT 2100, 6" for RHT 2200), which are Listed Residential Type and Building Heating Appliance Type Chimney Systems.

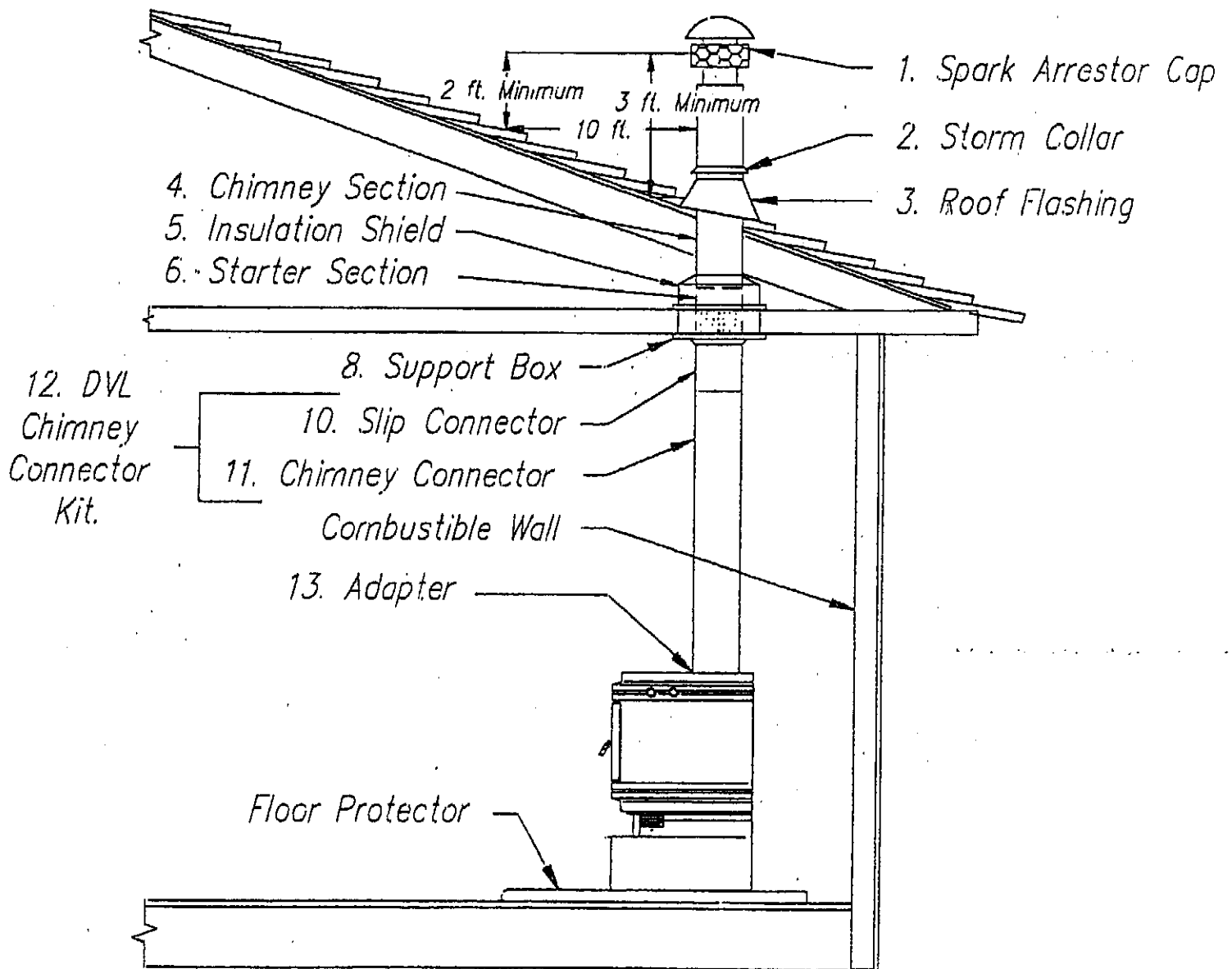


Figure G. Residential Close Clearance and Residential Alcove Installations Using a Simpson Dura-Vent Chimney System.

the stove top and through the ceiling and roof) and (c) minimum clearances to combustible (burnable) materials are observed. DO NOT use prefabricated chimney or chimney connectors in a horizontal configuration or use elbows or tees in residential close clearance and residential alcove installations. Failure to install the Royal Heir according to the instructions given in this manual may void the stove's U.L. listing.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

WARNING!

IMPROPER INSTALLATION OF THIS STOVE WILL VOID THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR CHIMNEY FIRE AND ENDANGER YOUR FAMILY. READ SECTION 1, PAGES 5 THROUGH 8, FOR SAFETY INFORMATION. ALLOW THE REQUIRED CLEARANCES TO COMBUSTIBLE MATERIALS AND PROVIDE THE REQUIRED FLOOR PROTECTION (SEE SECTION 3, P. 10). CAREFULLY FOLLOW THE INSTALLATION INSTRUCTIONS GIVEN BELOW. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

WARNING!

THIS STOVE IS FOR USE WITH NATURAL, UNPROCESSED SOLID WOOD FUEL ONLY. NEVER USE GASOLINE, KEROSENE, LIGHTER FLUID OR ANY FLAMMABLE LIQUID IN OR NEAR THIS STOVE. THE USE OF SUCH FUELS WILL CAUSE AN EXPLOSION OR AN EXTREMELY INTENSE FIRE, THUS ENDANGERING YOUR HOME AND FAMILY.

1. GET PROFESSIONAL ASSISTANCE
Read this section carefully.

Proper installation of this Royal Heir catalytic woodstove is vital for the safety of you and your family. Take proper precautions by consulting your local building inspector or fire department for specific requirements concerning safe woodstove installation. In rare instances, when neither of these services are available, contact a professional chimney sweep for this information. Some areas require permits prior to woodstove installation, so be sure to secure a permit (or permits) if it is (they are) required in your area.

If you do not have the knowledge or experience to do a chimney installation, consult a specialist: a woodstove dealer, chimney sweep or stove installation professional.

2. STOVE PLACEMENT

Remove the box from the stove base and set the base in the intended installed position.

consider the following:

- a. Clearance to combustible (burnable) materials (see Section 3, p. 10).
- b. Position of chimney relative to ceiling and roof joists. It's best not to cut supporting ceiling or roof joists. If you must cut away structural supports, consult your building inspector for advice.
- c. Floor supports. Check floor joists for proper support of the stove. If local codes require outside combustion air, an outside air kit is available for use in a standard residential installation. If you are planning to use outside air, do not cut any structural supports in the floor.

| CAUTION! |
| THE STRUCTURAL INTEGRITY OF YOUR RESIDENCE'S FLOOR, WALL |
AND CEILING/ROOF MUST BE MAINTAINED.

- d. Position of the chimney relative to outside structures, trees, etc. Remember that building and fire codes require that the top of the chimney extend two feet above any area of the structure within ten feet and at least three feet above the roof (Fig. G, p. 31). Chimney tops should NEVER be near trees or other tall objects that might cause downdrafts.
 - e. Electrical power. The Royal Heir is equipped with a seven-foot electrical cord. Do not route this cord in front of this stove. See Step 7 for more details.
3. PREFABRICATED CHIMNEY INSTALLATION
REFER TO THE CHIMNEY MANUFACTURER'S INSTALLATION INSTRUCTIONS. Special methods are required when passing through the ceiling -- see chimney manufacturer's instructions and local building codes.
 4. Now that the prefabricated chimney is installed, you are ready to assemble your Royal Heir. Please go to Section 7, P. 43.
 5. CHIMNEY CONNECTORS
Attach the flue collar adapter (Blaze King part no. 3225 for the RHT 2100, part no. 3255 for the RHT 2200) to the flue collar with two #10 x 3/8" sheet metal screws. The chimney connector must then be installed in the adapter with the crimped end down and attached to the adapter with two sheet metal screws (not included).

The chimney connector sections should be secured together with no less than three sheet metal screws per joint. Use a carpenter's level or a weight tied to the end of a string to check the chimney connector to be sure it is vertical.

6. CHIMNEY DRAFTS

After installing a prefabricated chimney, determine the draft by using a water manometer (draft gauge). The draft should be measured with the stove at medium burn and with the probe of the draft gauge inserted into the chimney connector about 12" above the stove top. (Drill a hole in the chimney connector large enough for the probe to be inserted. After the measurement is completed, plug the hole with a screw of the appropriate size coated with furnace cement.) The draft should measure between .02" and .10" of water. If the draft is outside these limits, the woodstove may not operate properly. Drafts below .02" will cause excessive smoke spillage, incomplete combustion and fire start-up problems. Drafts above .10" may cause premature catalytic failure. A draft near the upper limit will also contribute to the door glass staying clean. CONSISTENT USE OF DRAFTS HIGHER THAN .10" MAY NEGATE YOUR CATALYTIC COMBUSTOR WARRANTY.

CHIMNEY HEIGHT AFFECTS DRAFT. Tall chimneys usually provide a strong, dependable draft. The chimney should be kept warm to enhance the draft. This will also reduce creosote accumulation caused by smoke and a condensation of water vapor. A buildup of creosote can reduce the draft and will become a potential fire hazard.

Exhaust fans, such as are installed in kitchens and bathrooms, can create a downdraft in a chimney when the fans are operating. Smoke may be drawn into the room, particularly if the loading door is open while the stove is being reloaded. If this problem arises, open a window while the exhaust fan is being used or do not operate the exhaust fan while reloading the stove.

7. ELECTRICAL CONNECTION

The Royal Heir is equipped with a three-prong (grounded) plug to decrease shock hazard. THIS PLUG SHOULD BE INSERTED DIRECTLY INTO A PROPERLY GROUNDED, THREE-HOLE RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. Do not route the power cord in front of this heater.

8. STOVE INSPECTION

We recommend that your woodstove installation be inspected by your local fire department official or building inspector. In some areas, this inspection is required by law.

6D. MOBILE HOME (RHT 2100 AND RHT 2200) AND MOBILE HOME ALCOVE (RHT 2200 ONLY) INSTALLATION, USING PREFABRICATED CHIMNEY*

BEFORE PROCEEDING FURTHER, REVIEW THE FOLLOWING:

- Safety, Section 1, pages 5 through 8
- Clearances to Combustible Materials, Section 3, p. 10
- Installation diagram, Fig. H, p. 36
- Chimney connector and chimney component list, p. 38 and 39

THE RHT 2100 IS NOT LISTED FOR ALCOVE INSTALLATIONS. FOR DEFINITION OF "ALCOVE", CONSULT YOUR LOCAL BUILDING OR FIRE DEPARTMENT OFFICIAL.

USE ONLY THE COMPONENTS SPECIFIED ON PAGES AND . DO NOT SUBSTITUTE OTHER COMPONENTS. THE USE OF SUCH SUBSTITUTES CAN CAUSE A FIRE OR OTHER UNSAFE CONSEQUENCE. FOLLOW THESE INSTRUCTIONS CAREFULLY.

MOBILE HOME AND MOBILE HOME ALCOVE INSTALLATIONS REQUIRE OUTSIDE COMBUSTION AIR INTAKES. An outside air kit is included in the mobile home kit, part no. 8040 (RHT 2100) or part no. 8140 (RHT 2200). ALSO, WALL EXIT INSTALLATIONS ARE NOT ALLOWED IN MOBILE HOMES.

IF YOU HAVE NOT ALREADY DONE SO, PLEASE TAKE A FEW MINUTES TO COMPLETE THE WARRANTY CARDS FOUND IN THE FIREBOX AND MAIL THEM IMMEDIATELY.

For mobile home (RHT 2100 and RHT 2200) and mobile home alcove (RHT 2200 only) installations, these stoves are listed by Underwriters Laboratories, Inc. to be used with Simpson Dura-Vent DVL close clearance chimney connector between the stove and ceiling and Simpson Dura-Vent Dura-Chimney or Dura-Plus chimney systems above the ceiling (8" for the RHT 2100, 6" for the RHT 2200). An adapter and two sheet metal screws are included in the mobile home kit (part no. 8040 for the RHT 2100, part no. 8140 for the RHT 2200) to connect the Dura-Vent chimney connector to the flue collar. No other chimney connectors or chimney systems have been tested and approved for use with these stoves. Minimum clearances to combustible (burnable) materials must be observed.

*As used this section, prefabricated chimney refers to Simpson Dura-Vent Dura-Chimney or Simpson Dura-Vent Dura-Plus chimney systems (8" for RHT 2100, 6" for RHT 2200), which are Listed Residential Type and Building Heating Appliance Type Chimney Systems.

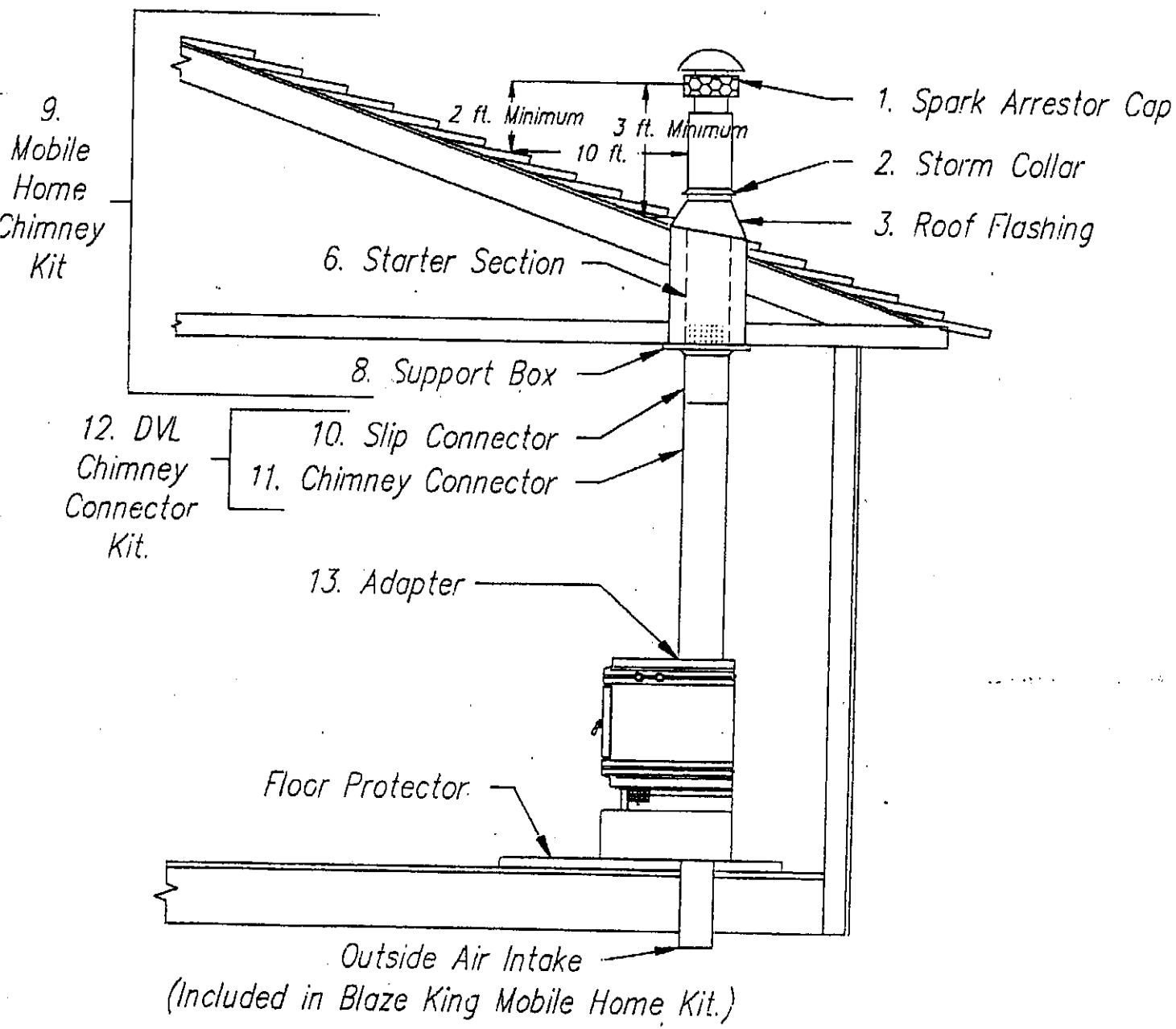


Figure H. Mobile Home and Mobile Home Alcove Installations Using a Simpson Dura-Vent Chimney System.

These stoves are listed by Underwriters Laboratories, Inc. for mobile home (RHT 2100 and RHT 2200) and mobile home alcove (RHT 2200 only) installations only if (a) the above chimney connector and chimney systems are used, (b) the chimney and chimney connector is installed vertically (straight up from the stove top and through the ceiling and roof) and (c) minimum clearances to combustible (burnable) materials are observed. DO NOT use prefabricated chimney or chimney connectors in a horizontal configuration, or elbows or tees in mobile home and mobile home alcove installations. Failure to install the Royal Heir according to the instructions given in this manual may void the stove's U.L. listing.

| WARNING! |

| IMPROPER INSTALLATION OF THIS STOVE WILL VOID THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR CHIMNEY FIRE AND ENDANGER YOUR FAMILY. READ SECTION 1, PAGES 5 THROUGH 8, FOR SAFETY INFORMATION. ALLOW THE REQUIRED CLEARANCES TO COMBUSTIBLE MATERIALS AND PROVIDE THE REQUIRED FLOOR PROTECTION (SEE SECTION 3, P. 10). CAREFULLY FOLLOW THE INSTALLATION INSTRUCTIONS GIVEN BELOW. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA. |

| WARNING! |

| DO NOT INSTALL IN SLEEPING ROOM. |

| WARNING! |

| THIS STOVE IS FOR USE WITH NATURAL, UNPROCESSED SOLID WOOD FUEL ONLY. NEVER USE GASOLINE, KEROSENE, LIGHTER FLUID OR ANY FLAMMABLE LIQUID IN OR NEAR THIS STOVE. THE USE OF SUCH FUELS WILL CAUSE AN EXPLOSION OR AN EXTREMELY INTENSE FIRE, THUS ENDANGERING YOUR HOME AND FAMILY. |

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

RHT 2100
8" Simpson Dura-Vent

	Dura-Chimney DCR	Dura-Plus SDP
1. Spark arrester cap	9284	9284
2. Storm collar	9259	9259
3. Roof flashing, Ø/12-6/12	5249	9249
4. Chimney Section		
a. 9" length	5219	9219
b. 12" length	5214	9214
c. 24" length	5221	9221
d. 36" length	5217	9217
5. Insulation shield	9246	9246
6. Starter section		9216
7. Firestop radiation shield (if required)	9244	9244
8. 11" Support box with trim	9248	9248
9. Mobile home chimney kit (includes items 1, 2, 3, 4b, 4c, and 8. Dura-Plus kit also includes item 6.)	5296	9296
		Close Clearance DVL
10. Slip connector		
a. 6" length		8886
b. 14" length		8889
11. Chimney connector		
a. 6" length		8806
b. 12" length		8812
c. 18" length		8818
d. 24" length		8824
12. DVL chimney connector kit (includes 2 24" lengths, 14" slip connector)		8893
13. Adapter section*		3225

*Blaze King part number. Adapter section is included in mobile home kit, part number. 8040.

RHT 2200
6" Simpson Dura-Vent

	Dura-Chimney DCR	Dura-Plus SDP
1. Spark arrester cap	9084	9084
2. Storm collar	9059	9059
3. Roof flashing, Ø/12-6/12	5049	9049
4. Chimney Section		
a. 9" length	5019	9019
b. 12" length	5014	9014
c. 24" length	5021	9021
d. 36" length	5017	9017
5. Insulation shield	9046	9046
6. Starter section		9016
7. Firestop radiation shield (if required)	9044	9044
8. 11" Support box with trim	9048	9048
9. Mobile home chimney kit (includes items 1, 2, 3, 4b, 4c, and 8. Dura-Plus kit also includes item 6.)	5096	9096
		Close Clearance DVL
10. Slip connector		
a. 6" length		8686
b. 14" length		8689
11. Chimney connector		
a. 6" length		8606
b. 12" length		8612
c. 18" length		8618
d. 24" length		8624
12. DVL chimney connector kit (includes 2 24" lengths, 14" slip connector)		8693
13. Adapter section*		3255

*Blaze King part number. Adapter section is included in mobile home kit, part number 8140.

1. GET PROFESSIONAL ASSISTANCE:
Read this section carefully.

Proper installation of this Royal Heir catalytic woodstove is vital for the safety of you and your family. Take proper precautions by consulting your local building inspector or fire department for specific requirements concerning safe woodstove installation. In rare instances, when neither of these services are available, contact a professional chimney sweep for this information. Some areas require permits prior to woodstove installation, so be sure to secure a permit (or permits) if it is (they are) required in your area.

2. STOVE PLACEMENT

Remove the box from the stove base and set the base in the intended installed position.

As you plan your installation, consider the following:

- a. Clearances to combustible (burnable) materials (see Section 3, p. 10).
- b. Position of chimney relative to ceiling and roof joists. It's best not to cut supporting ceiling or roof joists. If you must cut away structural supports, consult your building inspector for advice.
- c. Floor supports. Check floor joists for proper support of the stove. An outside combustion air kit is included in the mobile home kit and must be installed. When installing the outside air kit, do not cut any structural supports in the floor.

| CAUTION! |

| THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL |
AND CEILING/ROOF MUST BE MAINTAINED.

- d. Position of chimney relative to outside structures, trees, etc. Remember that building and fire codes require that the top of the chimney extend two feet above any area of the structure within ten feet and at least three feet above the roof (Fig. H, p. 36). Chimney tops should NEVER be near trees or other tall objects that might cause downdrafts.
- e. Electrical power. The Royal Heir is equipped with a seven-foot electrical cord. Do not route this cord in front of this stove. See Step 7 for more details.

3. PREFABRICATED CHIMNEY INSTALLATION

REFER TO THE CHIMNEY MANUFACTURER'S INSTALLATION INSTRUCTIONS. Special methods are required when passing through the wall or ceiling -- see chimney manufacturer's instructions and local building codes.

4. STOVE ASSEMBLY

Now that the prefabricated chimney is installed, you are ready to assemble your Royal Heir. Please go to Section 7, P. 43.

5. CHIMNEY CONNECTORS

Attach the adapter (included in the mobile home kits) to the flue collar with two #10 x 3/8" sheet metal screws. The chimney connector must then be installed in the adapter with the crimped end down and attached to the adapter with two sheet metal screws (not included).

The chimney connector sections should be secured together with no less than three sheet metal screws per joint. Use a carpenter's level or a weight tied to the end of a string to check the chimney connector to be sure it is vertical.

6. CHIMNEY DRAFTS

After installing a prefabricated chimney, determine the draft by using a water manometer (draft gauge). The draft should be measured with the stove at medium burn and with the probe of the draft gauge inserted into the chimney connector about 12" above the stove top. (Drill a hole in the chimney connector large enough for the probe to be inserted. After the measurement is completed, plug the hole with a screw of the appropriate size coated with furnace cement.) The draft should measure between .02" and .10" of water. If the draft is outside these limits, the woodstove may not operate properly. Drafts below .02" will cause excessive smoke spillage, incomplete combustion and fire start-up problems. Drafts above .10" may cause premature catalytic failure. A draft near the upper limit will also contribute to the door glass staying clean. CONSISTENT USE OF DRAFTS HIGHER THAN .10" MAY NEGATE YOUR CATALYTIC COMBUSTOR WARRANTY.

CHIMNEY HEIGHT AFFECTS DRAFT. Tall chimneys usually provide a strong, dependable draft. The chimney should be kept warm to enhance the draft. This will also reduce creosote accumulation caused by smoke and a condensation of water vapor. A buildup of creosote can reduce the draft and will become a potential fire hazard.

Exhaust fans, such as are installed in kitchens and bathrooms, can create a downdraft in a chimney when the fans are operating. Smoke may be drawn into the room, particularly if the loading door is open while the stove is being reloaded. If this problem arises, open a window while

the exhaust fan is being used or do not operate exhaust fan while reloading the stove.

7. ELECTRICAL CONNECTION

Your Royal Heir is equipped with a three-prong (grounded) plug to prevent shock hazard. THIS PLUG SHOULD BE INSERTED DIRECTLY INTO A PROPERLY GROUNDED, THREE-HOLE RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. Do not route the power cord in front of this heater.

8. STOVE INSPECTION

We recommend that your woodstove installation be inspected by your local fire department official or building inspector. In some areas, this inspection is required by law.

SECTION 7*****
 STOVE ASSEMBLY INSTRUCTIONS

 | WARNING!
 |

| IF THE STOVE IS IMPROPERLY ASSEMBLED, ITS OPERATION WILL VOID
 | THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR
 | CHIMNEY FIRE, DAMAGE OR DESTROY THE STOVE AND ENDANGER YOUR
 | HOME AND ITS OCCUPANTS. FOLLOW THESE ASSEMBLY INSTRUCTIONS
 | CAREFULLY.
 |

1. Remove all items packed in the firebox -- trim kit, bricks, etc.

IF YOU HAVE NOT ALREADY DONE SO, PLEASE TAKE A FEW MINUTES TO COMPLETE THE WARRANTY CARDS FOUND IN THE FIREBOX AND MAIL THEM IMMEDIATELY.

2. BLAZE KING stoves are known for their quality materials and construction. However, no one is perfect and mistakes occasionally occur. Inspect all parts for damage due to shipping and to be sure that all needed parts are enclosed. If you discover a part is missing or damaged, contact your dealer for immediate replacement or repair. Refer to the part number listed here and the model and serial numbers of your stove (see the tag on the back of the stove).

RHT 2100

Quantity	Item	Part Number
1	Firebox Assembly	-----
1	Pedestal and Base Assembly (fans installed)	-----
1	Screen (for stove top)	6321
1	Heat Shield (4-1/4" x 21-3/8")	6377
1	Heat Shield (8-1/4" x 21-3/8")	6378
1	Box of Firebrick	8035
1	#2 Square Drive Bit	0509
4	1/4" x 3/4" Sheet Metal Screws	0106
4	#10 x 1/2" Square Drive Screws	0295
4	#10 x 1/2" Square Drive Screws	0295
6*	#10 x 1/2" Square Drive Screws	0295
1*	7/16" Teflon Washer	0492
1*	Loading Door Assembly	8005
1*	Left Side Panel Window Assembly	8008
1*	Right Side Panel Window Assembly	8009
1*	Loading-Door Handle Assembly	8006
2*	Front Corner Clips	6372
2*	Rear Corner Clips	6371

* These items may already be installed.
 (Check with your dealer for available glass side panel patterns)

Quantity	Item	Part Number
1	Firebox Assembly	
1	Pedestal and Base Assembly (fans installed)	
1	Screen (for stove top)	6521
1	Heat Shield (4 3/4" x 20 1/2")	6577
1	Heat Shield (7 1/4" x 20 1/2")	6578
1	Box of Firebrick	8135
1	#2 Square Drive Bit	0509
4	1/4" x 3/4" Sheet Metal Screws	0106
4	#10 x 1/2" Square Drive Screws	0295
6*	#10 x 1/2" Square Drive Screws	0295
1*	7/16" Teflon Washer	0492
1*	Loading Door Assembly	8105
1*	Left Side Panel Window Assembly	8108
1*	Right Side Panel Window Assembly	8109
1*	Loading-Door Handle Assembly	8006
2*	Front Corner Clips	6372
2*	Rear Corner Clips	6371

* These items may already be installed.
(Check with your dealer for available glass side panel patterns)

3. Place the base assembly in its intended installed position on the noncombustible floor protection. Check clearances to combustible materials. See Section 3, page 10. When the base is in position, proceed to Step 4.
4. An outside combustion air intake is required for mobile home installations. It is not usually mandatory for residential installations. An outside air kit is included in all Royal Heir mobile home kits and is also available separately.

If you will not be installing an outside air kit, go to step 5.

The following parts are included in the outside air kit:

Quantity	Item	Part Number
3	#10 x 3/8" Sheet Metal Screws	0104
4	1/4" x 3/4" Sheet Metal Screws	0106
1	Flange Assembly	1718
1	Outside Air Pipe	3249
1	Pedestal Intake Cover (RHT 2100 only)	6345
1	Pedestal Intake Cover (RHT 2200 only)	6545

- a. Mark the stove's position on the floor protection with masking tape.
- b. Move the stove and mark a reference point on the centerline of the floor protection, 10" from the back of the floor protection.
- c. Mark the desired position of the outside air pipe. Th//////////

pipe is 6" in diameter. You will need to cut a hole approximately 1/4" larger in diameter than the pipe. The center of this hole may be located anywhere in the

crosshatched areas or on the line joining them. See Fig. I, p. 46 for the RHT 2100 and Fig. J, p. 47 for the RHT 2200. Check below the floor for possible obstructions, such as floor joists, wiring, or plumbing.

- d. Cut the hole in the floor protection.
- e. Set the floor protection back in place on the floor. Mark the position of the outside air pipe hole on the floor using the floor protection as a template. Set aside the floor protection.
- f. Cut the hole in the floor for the outside air pipe.
- g. Assemble the outside air pipe to the outside air flange and collar with three #10 x 3/8" sheet metal screws.
- h. Install the outside air pipe assembly through the floor. Drill pilot holes and attach the outside air flange to the floor and the floor protection with four 1/4" x 3/4" screws.
- i. Remove the fan speed control knob by pulling it straight out from the pedestal.
- j. Remove the two #10 x 1/2" square-drive screws holding the pedestal front cover in place. Remove the cover.
- k. Remove the two 10-24 x 3/4" bolts and nuts holding the combustion air intake screen on the top front side of the pedestal. Remove the screen.
- l. Remove the two #10 x 1/2" square-drive screws holding the fan air intake screen to the BACK of the pedestal.
- m. Secure the stove base to the floor and the floor protection with two 1/4" x 3" lag screws and two 3/8" flat washers. (This step is required for mobile home installations only. It is optional for other installations. If this step does not apply to your installation, proceed to Step 4.n.) To do this, mark for two holes on the centerline of the floor protection in the positions indicated in Fig. I, p. 46 (RHT 2100) or Fig. J, p. 47 (RHT 2200). Drill two 5/16" holes through the floor protection at these locations. Now drill two 1/8" pilot holes in the floor. Set the stove in place, being careful to align the bolt holes in the base of the stove with the bolt holes in the floor

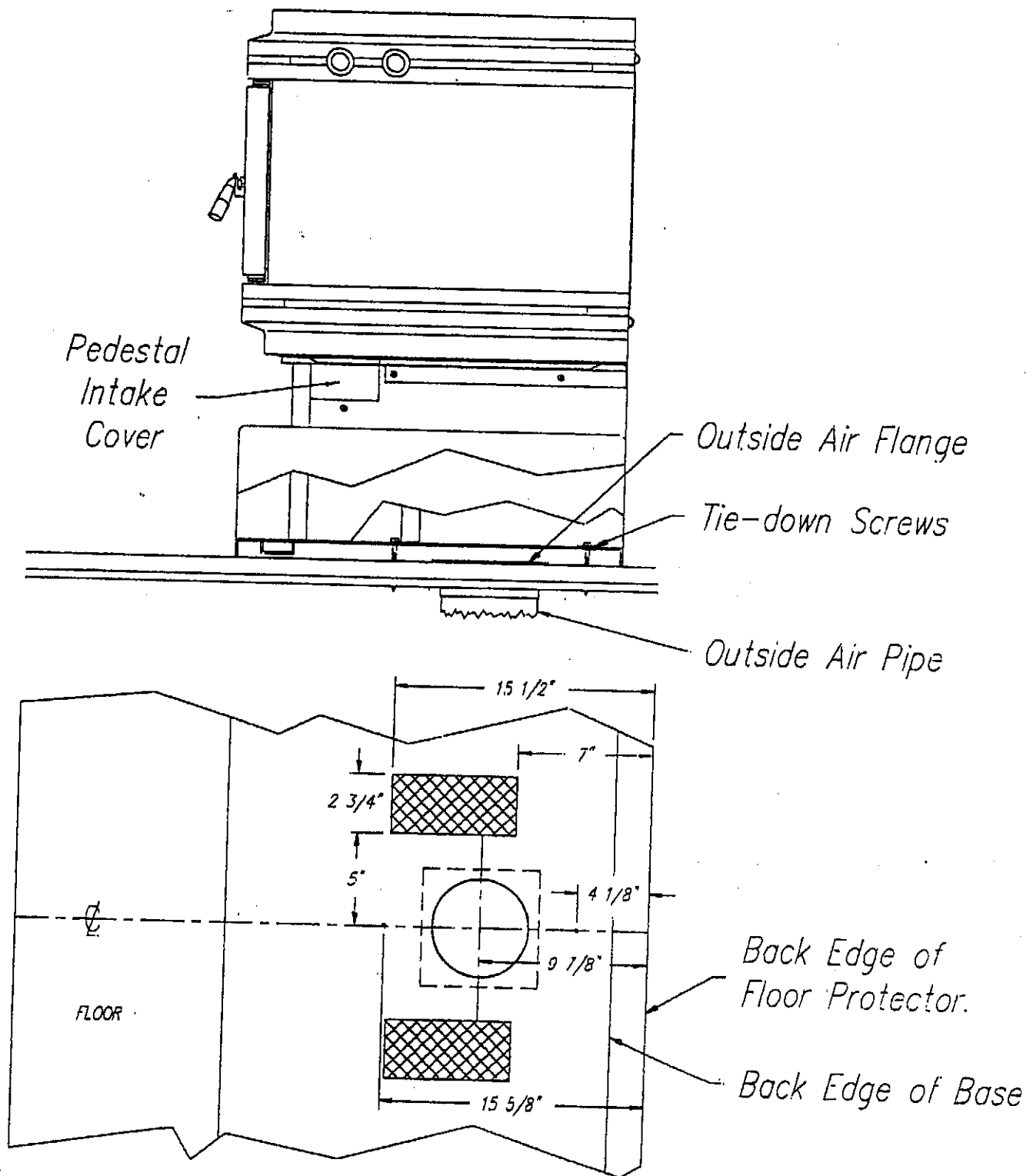


Figure 1. Outside Air Kit (RHT-2100).

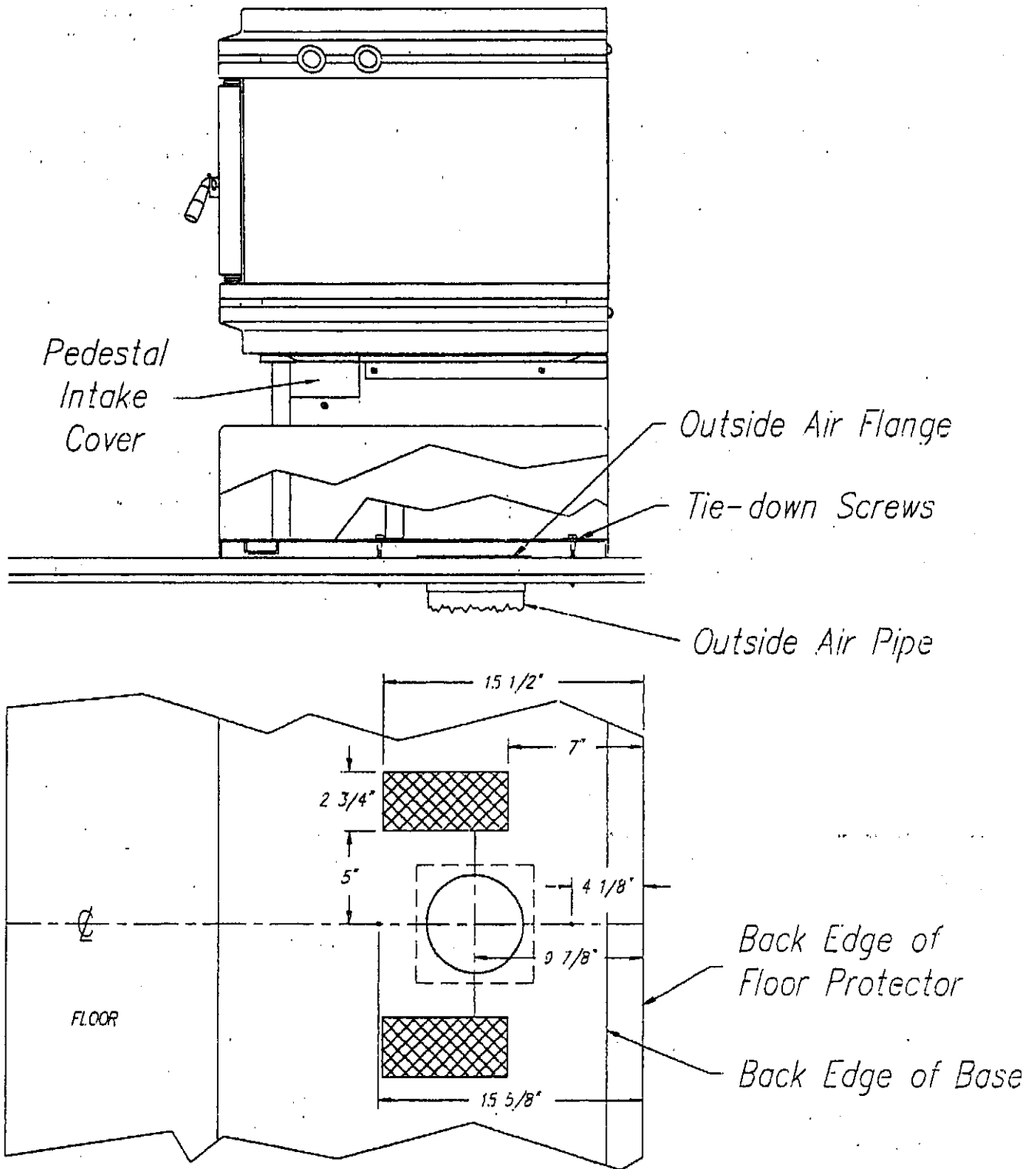


Figure J. Outside Air Kit (RHT-2200).

protection and the floor. Secure the stove to the floor using the lag screws and washers.

- n. Install the solid pedestal intake cover in the area previously covered by the combustion air intake screen, using the 10-24 x 3/4" bolts removed in Step 4.k., above.
 - o. Install the pedestal front cover to the FRONT of the pedestal. The extension shaft for the fan speed control will need to be guided through the cover while it is being installed. Secure the pedestal front cover with the #10 x 1/2" screws removed in Step 4.j., above.
 - p. Install the fan speed control knob by aligning the retainer in the knob with the flat spot on the shaft and pressing the knob onto the shaft.
 - q. Install the fan air intake screen to the BACK of the pedestal with the screws removed in Step 4.l., above.
5. The firebox assembly is mounted to a shipping pallet. To remove the firebox, reach under the pallet and remove the 1/4" x 1-1/2" screws and washers that hold the stove to the pallet. Discard the screws and save the washers.
 6. With four or more people, lift the firebox off the pallet and carefully set it in position on the base.
 7. Fasten the base assembly to bottom of the firebox using the four 1/4" flat washers that were on the pallet and four 1/4" x 3/4" sheet metal screws.

WARNING!

FAILURE TO INSTALL THE HEAT SHIELDS AS DESCRIBED BELOW WILL VOID THE STOVE'S U.L. LISTING AND CAN CAUSE WOOD STORED IN THE STOVE BASE TO IGNITE.

8. Fasten the two heat shields to the sides of the pedestal with four #10 x 1/2" square-drive screws. (The heat shields provide an air space of about 1/4" from the bottom of the stove when properly assembled.)
9. Remove the catalytic combustor's cardboard retainer, located just above and inside of the door. Do not worry if some cardboard sticks in the stove. It will burn out with the first fire. Check the combustor to be sure it is seated squarely in its housing.
10. RECHECK ALL CLEARANCES.

11. If the loading door, door handle, side panel windows and corner clips have not been installed, follow the following procedure. If they have been installed, proceed to step 16.

WARNING!

FAILURE TO PROPERLY INSTALL THE LOADING DOOR AND DOOR HANDLE ASSEMBLY AS DESCRIBED BELOW WILL VOID THE STOVE'S U.L. LISTING AND THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE EXCESSIVELY HIGH STOVE TEMPERATURES, WARPAGE OF THE FIREBOX AND A HOUSE FIRE.

- a. Loosen, but DO NOT REMOVE the two #10 x 3/4" round-headed screws in the underside of the top left corner of the stove top. This will allow the top pivot pin to move UP far enough to get the top door hinge into position. The top pivot pin is mounted in a slotted opening to allow some adjustment of the door.
- b. Place the 7/16" washer from the trim pack on the lower pivot pin. Place the hole for the door's lower hinge over the lower pivot pin.
- c. Hold the top pivot pin UP and swing the door's top hinge into position. Allow the top pivot pin to drop into the hole in the door's top hinge.
- d. Tighten the two #10 x 3/4" round-headed screws until they are just tight enough to hold the pin in position so an alignment evaluation can be made.
- e. Close the door and observe the alignment of the top of the door frame compared with top of the stove. Move the pivot pin right or left as required to align. Tighten the two round-headed screws to hold the pivot pin location.
- f. Install the right and left side panel windows with four #10 x 1/2" square drive screws provided. DO NOT tighten the screws at this time. The mounting for these windows is a slot with enough adjustment space to allow you to align the window with the sides of the stove and the top edge of the door frame. When the alignment is correct, tighten the screws to hold the windows in place.
- g. Remove the handle bracket on the right side of the door frame and insert the machined surface of the steel door handle in the appropriate opening. Remount the handle bracket to the right side of the door frame.

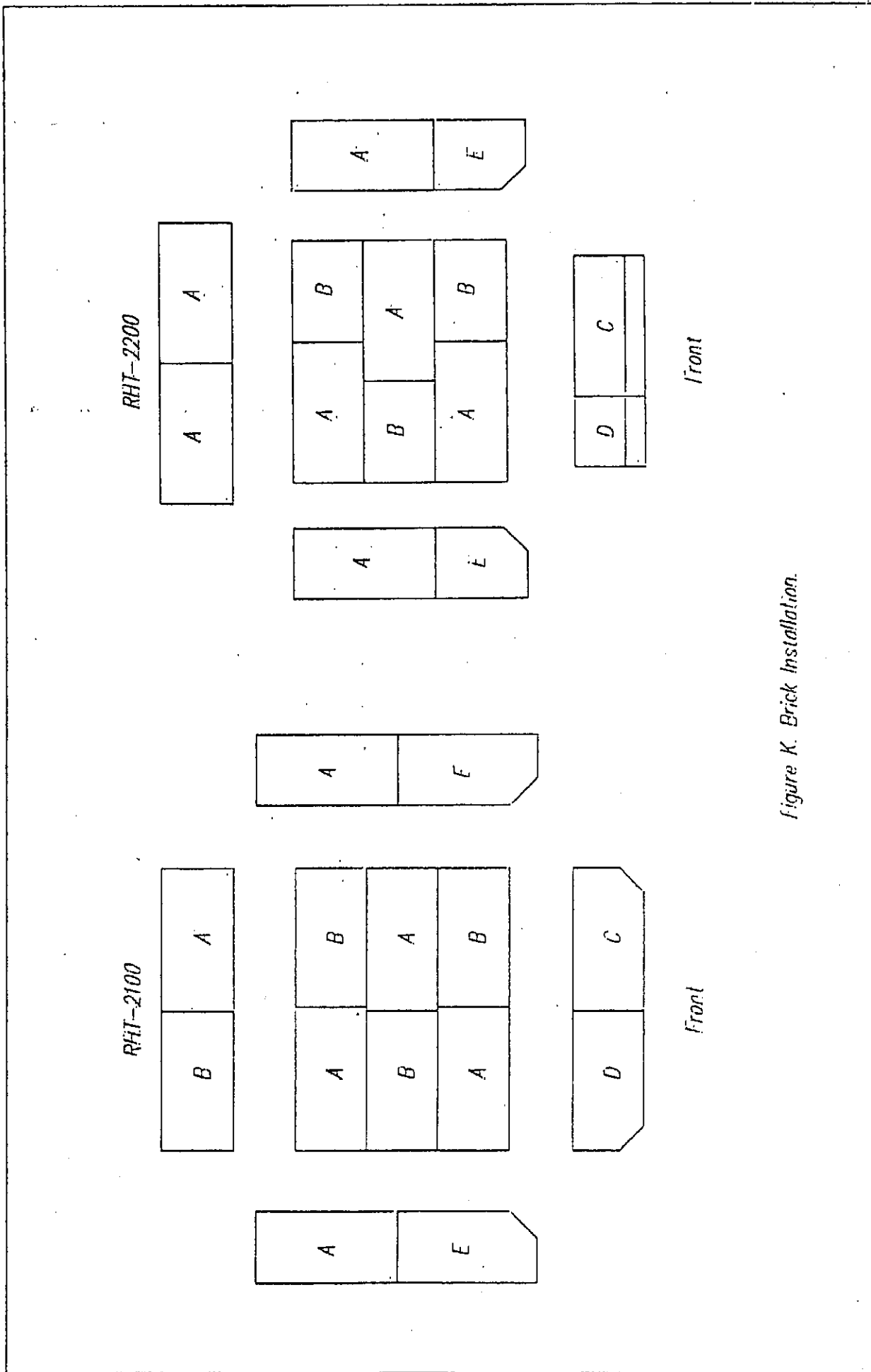


Figure K. Brick Installation.

- h. Check the fit of the door gasket by inserting a piece of paper into the door opening and closing and latching the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door. If the gasket does not seal, remove and reinstall it. See Section 9, p. 63, for gasket installation instructions.
- i. The corner clips are in the package of items that came with the glass door box. The symmetrical clips are for the front corners and are pushed on. Place your index fingers at opposite ends of the clip and thumbs at the center. Gently spread the clip just enough to clear the porcelain and snap it in place. Repeat for the opposite side. The clips with the short leg are for the back corners and should be installed in the same manner, then attached with square-drive screws from the back.
13. The firebricks are packed separately from the stove. The bricks must be installed in the Royal Heir's firebox BEFORE the first fire is built. Refer to Figure K, p. 50, for the shape and size of the various bricks.

Parts required:	RHT - 2100	RHT - 2200
	6 "A" Brick	7 "A" Brick
	4 "B" Brick	3 "B" Brick
	1 "C" Brick	1 "C" Brick
	1 "D" Brick	1 "D" Brick
	2 "E" Brick	2 "E" Brick

- a. Install the "A" and "E" bricks along the sides of the firebox. Be sure the two "E" bricks are placed with the angle cuts toward the front with the cut DOWN.
- b. Install the bricks at the back of the firebox.
- c. Install the floor bricks with the long sides parallel to the back of the firebox. Note that the "A" and "B" bricks are alternated to reduce the possibility of unacceptably large gaps between the brick.
- d. Install the "D" and "C" bricks across the front of the firebox, following the diagram in Figure K, p. 50.
14. Now that you have assembled your Royal Heir, return to the appropriate section to complete the installation. If you have a --

residential standard clearance installation using a masonry chimney, go to Section 6A, p. 18.
 residential standard clearance installation using a prefabricated chimney, go to Section 6B, p. 24.

residential close clearance installation using a prefabricated chimney, RHT 2100 only, go to Section 6C, p. 30.

residential alcove installation using a prefabricated chimney, RHT 2200 only, go to Section 6C, p. 30.

mobile home installation using prefabricated chimney, go to Section 6D, p. 35.

mobile home alcove installation using a prefabricated chimney, RHT 2200 only, go to Section 6D, p. 35.

SECTION 8*****
OPERATION INSTRUCTIONS

Your stove's performance (including its efficiency, pollutant emission level and serviceable lifetime) depends largely on how it is operated. You, then, are the most important factor affecting performance. Read these operation instructions carefully. Follow the safety guidelines given in Section 1 (pages 5 through 8). If you encounter a problem, refer to the troubleshooting guide (Section 11, pages 69 through 73).

WARNING!

FAILURE TO OPERATE YOUR BLAZE KING ROYAL HEIR CATALYTIC WOODSTOVE ACCORDING TO THE GUIDELINES DETAILED IN THESE INSTRUCTIONS WILL VOID THE STOVE AND COMBUSTOR WARRANTIES AND CAN CAUSE A HOUSE OR CHIMNEY FIRE, DAMAGE OR DESTROY THE STOVE OR COMBUSTOR AND ENDANGER YOUR FAMILY. FOLLOW THESE OPERATION INSTRUCTIONS CAREFULLY.

WARNING!

THIS STOVE IS FOR USE WITH NATURAL, UNPROCESSED SOLID WOOD FUEL ONLY. NEVER USE GASOLINE, KEROSENE, LIGHTER FLUID OR ANY FLAMMABLE LIQUID IN OR NEAR THIS STOVE. THE USE OF SUCH FUELS WILL CAUSE AN EXPLOSION OR AN EXTREMELY INTENSE FIRE, THUS ENDANGERING YOUR HOME AND FAMILY. FOLLOW THE FUEL USAGE INSTRUCTIONS BELOW.

FUEL

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use. Never use other flammable liquids such as lighter fluid, naptha, turpentine, lacquer thinner, paint remover or fingernail polish remover. The use of such liquids will cause an explosion or an excessively hot fire. Never burn materials soaked with flammable liquids. Keep all such materials well away from the stove while it is in use.

Do not burn trash, garbage, artificial or paper logs, plastics, gift wrappings, coal, charcoal, chemical cleaners, chemical fire starters, treated or painted wood, driftwood, railroad ties, plywood, particle board, metal foil or foil-backed paper such as gum wrappers or cigarette packages. Burning materials other than natural wood can considerably shorten the life of the catalytic combustor and will void the six-year limited catalytic combustor warranty.

Do not burn sawdust, wood shavings or chips in this stove. Such materials can cause an excessively hot fire and will also impair catalytic combustor operation.

When selecting wood for a catalytic stove, do not use extremely dry wood or small pieces. Dry or small pieces of fuel will release too many volatiles early in the burn and flood the catalyst, keeping it from reaching the clean burn stage. In extreme cases, the catalyst may not reach clean burn for up to three hours.

NEVER USE A GRATE IN THIS WOODSTOVE.

Never use a grate or other method of supporting the firewood in this stove. Build the fire directly on the firebox hearth bricks.

WARNING!

ALWAYS OPEN THE BYPASS DOOR BEFORE COMPLETELY OPENING THE LOADING DOOR. IF THE LOADING DOOR IS OPENED WHEN THE BYPASS DOOR IS CLOSED, THE SUDDEN INTRODUCTION OF AIR CAN CAUSE THE FIRE TO FLARE AND DISCHARGE SMOKE OR FLAME INTO THE ROOM. SUCH A DISCHARGE CAN BURN PERSONS WHO ARE NEAR THE STOVE.

WARNING!

THIS STOVE IS NOT DESIGNED NOR INTENDED TO BE OPERATED WITH THE LOADING AND/OR BYPASS DOOR OPEN, EXCEPT FOR A FEW MINUTES DURING INITIAL STARTUP. IF THE BYPASS OR LOADING DOOR IS LEFT OPEN, EXCESSIVE TEMPERATURES MAY BE ATTAINED WHICH CAN CAUSE STOVE WARPAGE, PREMATURE CATALYTIC COMBUSTOR FAILURE AND/OR A HOUSE OR CHIMNEY FIRE.

PROVIDE ADEQUATE AIR CIRCULATION.

WARNING!

It is essential that a source of fresh air be provided at all times when the stove is in operation, either by an open window or by the use of an outside air kit.

Unless your stove is equipped with the optional outside air kit (required for mobile home installations), keep a window slightly open when operating the stove to provide enough air for proper combustion. A stove requires oxygen to burn and can use up the oxygen in a closed room. Maintain the door gaskets (as described in Section 9, p. 63) and check the joints and condition of the chimney connector at the beginning of each heating season to prevent smoke from entering your home.

CONNECT ONLY TO A PROPERLY-GROUNDED RECEPTACLE.

The Royal Heir is equipped with a seven-foot electrical cord and three-prong (grounded) plug. This plug should only be inserted into a properly-grounded, three-hole receptacle. Do not cut or remove the grounding prong from this plug. Do not route the power cord in front of the stove or where it could be damaged. Do not stack firewood on top of the cord. Failure to follow

these guidelines could present an electrical shock hazard.

THE FIRST FIRE IN YOUR ROYAL HEIR

Check the catalytic combustor before lighting the first fire. It is located just above and inside the loading door. If you have not already done so, remove the cardboard retainer. Don't worry if some of the cardboard sticks in the stove. It will burn out during the first fire. Be sure the catalytic combustor is seated squarely in its housing.

| CAUTION! |

| The firebox of your Royal Heir has been painted and, as the |
| stove heats up for the first time, the paint will go through a |
| curing process and will give off an odor and possibly visible |
| smoke. Avoid breathing the fumes. Maintain good ventilation. |
| If you are unable to adequately ventilate your home, or if you |
| or anyone in your household is sensitive to airborne vapors, |
you should leave the stove outside for the first fire.

If you must leave the stove outside for the first fire, connect several lengths of chimney connector to the stove. The fire should be out and the stove cold before you attempt to move it inside.

The first fire should be long and medium-hot to cure as much of the surface as possible.

STOVE OPERATION

1. INITIAL START-UP

- a. SET THE THERMOSTAT KNOB
Turn knob in the direction of the arrow, to the warmest setting (Figure L, below).

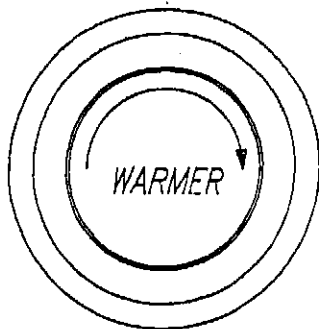


Figure L. Thermostat Knob.

- b. **OPENING THE LOADING DOOR**
Rotate the loading door handle counter-clockwise (up) to release the door latch. Do not open the door at this time. This turning of the door handle will allow the bypass door mechanism to release. Open the bypass door by sliding the bypass door knob toward the BACK of the stove. Finally, pull open the loading door.
- c. **STARTING THE FIRE**
Place several balls of newspaper near the FRONT of the firebox and put a fairly large quantity (approximately one cubic foot) of kindling on top of the paper. Next, lay two or three medium sized (approximately 3" diameter) pieces of wood on top of the kindling. The maximum wood length is 19" for the RHT 2100, 18" for the RHT 2200. Load the wood in a front-to-back orientation with the ends of the logs toward the FRONT of the stove. Light the paper.
- d. **LOADING THE FIREBOX**
After igniting the paper, allow the kindling and most of the larger logs to get started. Close the loading door, but do not latch it. If you close the loading door too soon, a new fire may go out. NEVER LEAVE ANY STOVE UNATTENDED WHEN THE DOORS ARE NOT TIGHTLY CLOSED!! When the larger wood pieces are well started, you may open the door and completely load the firebox. The best efficiency is obtained when the firebox is fully loaded and left to burn for the longest possible time.

WARNING!

ALWAYS OPEN THE BYPASS DOOR BEFORE COMPLETELY OPENING THE LOADING DOOR. IF THE LOADING DOOR IS OPENED WHEN THE BYPASS DOOR IS CLOSED, THE SUDDEN INTRODUCTION OF AIR CAN CAUSE THE FIRE TO FLARE AND DISCHARGE SMOKE OR FLAME INTO THE ROOM. SUCH A DISCHARGE CAN BURN PERSONS WHO ARE NEAR THE STOVE.

WARNING!

THIS STOVE IS NOT DESIGNED NOR INTENDED TO BE OPERATED WITH THE LOADING AND/OR BYPASS DOOR OPEN, EXCEPT FOR A FEW MINUTES DURING INITIAL STARTUP. NEVER OPERATE THE STOVE IF THE LOADING DOOR GLASS IS BROKEN. IF THE BYPASS OR LOADING DOOR IS LEFT OPEN, EXCESSIVE TEMPERATURES MAY BE ATTAINED WHICH CAN CAUSE STOVE WARPAGE, PREMATURE CATALYTIC COMBUSTOR FAILURE AND/OR A HOUSE OR CHIMNEY FIRE.

- e. **CLOSING THE LOADING DOOR**
Close the loading door but do not latch it. Close the bypass door by pulling the knob toward the FRONT of the

stove. Latch the loading door by rotating the door handle clockwise (down). Do not abuse the glass door by slamming it or striking it. Do not force the door closed if there is wood in the firebox that is obstructing it.

r. MAINTAINING AN EFFICIENT FIRE

A bed of hot coals is the most important requirement for keeping an efficient fire. A bed of hot coals will help the stove maintain a more even temperature as well as getting the new load of wood started easily. Let each full load burn down to a coal bed before reloading. Many new stove users hesitate to load enough wood to sustain a fire fearing that a full stove automatically means a hot fire. This is not true with the Royal Heir catalytic woodstove. The automatic thermostat permits a low fire even with a full stove.

Frequent reloading will cause major fluctuations in the firebox temperature and the wood/air mixture, thereby reducing catalytic efficiency. At each reloading, load the stove fully, because every time the door is opened more creosote is deposited in the chimney. Four or five 5" to 6" diameter logs may burn for up to 12 hours. This will vary considerably for many reasons, including type of wood, how well the wood is "seasoned", the thermostat setting, the position of the stove in the house, and how well the house is insulated.

g. FAN OPERATION

Once the stove is warm, you can turn on the fans to begin circulating the warm air into the room.

2. THERMOSTAT ADJUSTMENT

OPTIMUM SETTING AFTER LOADING OR RELOADING

a. THERMOSTAT POSITION

Leave the thermostat in the fully open position (the warmest setting) for at least fifteen minutes or until the catalyst thermometer indicates that the catalyst is active (whichever is longer) before making further adjustments. IF AT ANY TIME THE CATALYST THERMOMETER INDICATES THAT THE CATALYTIC COMBUSTOR IS INACTIVE, CREOSOTE FORMATION CAN OCCUR IN THE CHIMNEY AND CAN ALSO PLUG THE COMBUSTOR.

b. TEMPERATURE ADJUSTMENTS

Adjustments to achieve the desired room temperature should be made in small increments for the most effective clean-burning operation. Even a small change may increase emissions slightly for 10-15 minutes.

Changes should be made as few times each day as

possible. The combustor temperature will begin to rise as the fire intensity builds up and moisture is driven from the wood.

c. THERMOSTAT TAMPERING

The thermostat is adjusted at the factory and should not be tampered with. If the thermostat breaks, the air intake will close automatically and the fire will go out.

3. RELOADING THE FIREBOX

a. SET THE THERMOSTAT KNOB

Turn knob to the warmest setting.

b. OPENING THE LOADING DOOR

Rotate the loading door handle counter-clockwise (up) to release the door latch. Do not open the door at this time. This turning of the door handle will allow the bypass door mechanism to release. Open the bypass door by sliding the bypass door knob toward the BACK of the stove. Finally, slowly pull open the loading door. Always open the bypass door before fully opening the loading door.

WARNING!

ALWAYS OPEN THE BYPASS DOOR BEFORE COMPLETELY OPENING THE LOADING DOOR. IF THE LOADING DOOR IS OPENED WHEN THE BYPASS DOOR IS CLOSED, THE SUDDEN INTRODUCTION OF AIR CAN CAUSE THE FIRE TO FLARE AND DISCHARGE SMOKE OR FLAME INTO THE ROOM. SUCH A DISCHARGE CAN BURN PERSONS WHO ARE NEAR THE STOVE.

c. LOADING THE FIREBOX

Put wood into the stove in a front-to-back position with the ends of the logs pointing toward the FRONT of the stove. The RHT 2100 will accept logs up to 19" long; the RHT 2200 will accept logs up to 18" long. (Using logs that exceed these lengths may break the door glass when the door is closed.) A good bed of hot coals will help the new load get started easily. FULLY LOAD THE FIREBOX (See Section 8, l.f., p. 57).

d. CLOSING THE LOADING DOOR

Close the loading door but do not latch it. Close the bypass door by pulling the knob toward the FRONT of the stove. Latch the loading door by rotating the door handle clockwise (down). Do not abuse the glass door by slamming it or striking it. Do not force the door closed if there is wood in the firebox that is obstructing it.

WARNING!

THIS STOVE IS NOT DESIGNED NOR INTENDED TO BE OPERATED WITH THE LOADING AND/OR BYPASS DOOR OPEN, EXCEPT FOR A FEW MINUTES DURING INITIAL STARTUP. NEVER OPERATE THE STOVE IF THE LOADING DOOR GLASS IS BROKEN. IF THE BYPASS OR LOADING DOOR IS LEFT OPEN, EXCESSIVE TEMPERATURES MAY BE ATTAINED WHICH CAN CAUSE STOVE WARPAGE, PREMATURE CATALYTIC COMBUSTOR FAILURE AND/OR A HOUSE OR CHIMNEY FIRE.

e. THERMOSTAT ADJUSTMENT

Leave the thermostat in the fully open position (the warmest setting) for at least fifteen minutes or until the catalyst thermometer indicates that the catalytic combustor is active (whichever is longer) before making further adjustments. IF AT ANY TIME THE CATALYST THERMOMETER INDICATES THAT THE CATALYTIC COMBUSTOR IS INACTIVE, CREOSOTE FORMATION CAN OCCUR IN THE CHIMNEY AND CAN ALSO PLUG THE COMBUSTOR. For further information, see Section 8, procedure 2.b., p. 57.

4. CHIMNEY FIRE

If a fire in the chimney connector or chimney occurs:

- a. Turn the thermostat to its lowest setting.
- b. Check the loading door to be sure it is tightly closed.
- c. Call the fire department.

After the fire is out, have your chimney connector and chimney inspected by a certified chimney sweep. Any damaged chimney connector or prefabricated chimney should be replaced before the stove is used again. A masonry chimney that is damaged should be repaired or rebuilt. See Section 11, p. 72, for possible reasons for a chimney fire and a list of things to check after a fire occurs.

Contact your local fire department for further advice. Your family should have a prearranged plan so that each person will know what to do and will act immediately if such an emergency arises.

SECTION 9*****
MAINTENANCE INSTRUCTIONS

AUTHORIZED SERVICE REPRESENTATIVE

Your local BLAZE KING dealer is your authorized service representative. Should you have any problems with operating or maintaining your BLAZE KING Royal Heir catalytic woodstove, contact your dealer as soon as possible. The dealer will help you solve operating problems, provide replacement parts and/or arrange warranty repairs as required. Dealers will need information such as model, serial number, date of purchase and a summary of the problem.

ASH REMOVAL

The ashes must be removed any time they come within one inch of the door's lower sill. A thick bed of ashes will significantly limit the amount of wood you can get into the stove. Wood burns best in a bed of ashes 1/2 inch to one inch thick. It is not necessary or advisable to completely remove all of the ashes when cleaning the stove. Remove ashes only when they are cold.

DISPOSAL OF ASHES

Ashes should be placed in a steel container with a tight-fitting lid. Do not place other waste in this container. The closed container of ashes should be placed outdoors on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

| WARNING! |

| NEVER STORE HOT ASHES IN A GARAGE OR BASEMENT. HOT ASHES |
| WILL GENERATE CARBON MONOXIDE AND/OR FLAMMABLE GASES. THESE |
GASES MAY CAUSE SUFFOCATION OR A LIFE-THREATENING EXPLOSION.

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 connector and chimney should be inspected at the beginning of each heating season and at least twice each month 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. Hire a chimney sweep, or

clean the chimney yourself with a tight-fitting chimney brush. Makeshift equipment--hoses, tire chains, etc.-- can damage the flue and/or do an unsatisfactory cleaning job.

When in good condition and operated properly, this is a clean-burning stove. So, if significant creosote buildup occurs, reexamine your fire-building and burning procedures. Most instances of creosote buildup in catalytic woodstoves are due to operator error. Consult the troubleshooting guide at the end of these instructions.

The chimney cap at the top of your chimney may become completely blocked with creosote in a relatively short time. Check the chimney cap at least twice each month during the heating season. If a buildup occurs on the cap, clean it with a stiff brush. If the chimney cap is repeatedly blocked with creosote, your initial start-up and operating procedures may be faulty. Reread Section 8 and consult the troubleshooting guide (Section 11) at the end of these instructions.

The heat exchange chamber inside the top of the stove must be cleaned once a year. BE SURE THE STOVE IS COLD. After removing the chimney connector, use a vacuum cleaner to clean the chamber immediately below the flue collar. Remove as much creosote and fly ash as possible from the area around the bypass doors. Accumulation of creosote and ash in the heat exchange chamber can interfere with the operation of the bypass doors. It can also insulate the chamber, thus causing the stove's heat output to gradually diminish.

* The design of this combustor-equipped stove should reduce the accumulation of creosote to a very low level if the stove is operated properly (see Operation Instructions, Section 8, p. 53). The catalytic combustor burns the smoke, burning most of the matter that would otherwise be deposited on the flue lining. Even so, some creosote will eventually accumulate and must be dealt with. The frequency of start-up operations and the temperature at which the stove is usually operated will affect the rate of accumulation. Frequent inspections are still a vital step in the safe operation of any wood-burning stove.

ICE FORMATION AND REMOVAL

Water vapor is a major component of stove exhaust. In cold weather, ice may form in the chimney. If the chimney is still open enough to allow adequate stove performance, build a hot fire in the stove and try to melt the ice. If this is not successful, the ice will have to be cleared from the chimney manually. Do not continue to operate the stove if the chimney is plugged with ice or the ice accumulation is significantly hindering stove performance. If the chimney is not drawing adequately, smoke can be drawn into your home and may cause death due to smoke inhalation.

WARNING!

WORKING ON A SNOW- OR ICE-COVERED ROOF IS EXTREMELY DANGEROUS.
A CHIMNEY CAN ALSO BE DAMAGED BY IMPROPER ICE-REMOVAL METHODS.
CONTACT A CHIMNEY SWEEP FOR ASSISTANCE.

CATALYTIC COMBUSTOR MAINTENANCE

NOTE: Before removing the catalyst, be sure you have a replacement catalyst seal gasket. If the catalyst is replaced without a new gasket, inefficient operation will result, with a subsequent increase in creosote buildup, which may cause a chimney fire. The insulating material (part no. 6388) used for the combustor gasket can be obtained from your Blaze King dealer.

Once each year (at the end of each heating season) the catalyst should be cleaned. In many installations, a coating of light fly ash will coat the combustor face and reduce its efficiency. If the combustor must be replaced, use only Blaze King part no. 6300 for the RHT 2100 and 6500 for the RHT 2200. To remove and clean or replace the catalytic combustor, follow the following procedure.

1. Wash your hands with soap and water before handling the combustor. Body oils deposited on the catalyst can adversely effect the performance of the combustor.
2. Allow the fire to burn out and the stove to cool.
3. Reach up through the open loading door and carefully pry (with a screwdriver) behind the stainless steel edging around the catalyst. Pull the combustor forward and remove it. This may not be easy, primarily because the insulating material will have expanded.
4. Inspect the combustor seat to determine if any residue is present. If the combustor seat is not perfectly clean, clean it with a stiff bristle brush. Wipe the seat clean with a dry cloth.

5. If the combustor is to be replaced, proceed to step 7. If it is to be cleaned and reused, proceed to step 6.
6. Clean the catalytic combustor by using a vacuum cleaner with a VERY soft brush. DO NOT scrape the combustor or clean it with a wire brush. DO NOT use detergents or solvents to clean the combustor. Be sure to replace the combustor gasket at this time.
7. Any time the combustor is removed, the gasket forming the seal between the combustor and the combustor seat MUST be replaced. (See your dealer for a strip of insulating material, part no. 6388.)
8. Hold the combustor assembly with cell openings toward the FRONT of the stove and the insulating material on the outside of the band. (This insulating material will expand when heated and will seal the combustor in place.) Push the combustor into the combustor seat. Make sure it is fully seated. DO NOT HANDLE THE COMBUSTOR ASSEMBLY ANY MORE THAN NECESSARY FOR INSTALLATION.
9. Wash your hands with soap and water after handling the combustor.

LOADING DOOR GASKET MAINTENANCE

Safe and efficient operation of an airtight stove depends greatly on the integrity of the gaskets. Therefore, it is imperative that the loading door gasket be replaced every year. Check the loading door gasket at least twice each heating season. When the gasket no longer seals, it must be replaced (see your dealer for part no. 0182). Inspect the gasket for physical deterioration, missing sections or obvious leakage. To check the gasket further, insert a piece of paper into the door opening and close and latch the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door.

FAN AIR INTAKE CLEANING

Occasional cleaning of the fan air intake screen may be needed. This screen is located at the back of the stove pedestal.

FAN ASSEMBLY REMOVAL AND REPLACEMENT

Routine maintenance of the fan assembly in the stove pedestal is not required. However, if you need access to the components for replacement of motors, fan speed control, etc., follow this procedure:

1. Unplug the power cord from the wall outlet.
2. Remove the fan speed control knob by pulling straight out from the pedestal.

3. Remove the two #10 x 1/2" square-drive sheet metal screws holding the pedestal front cover in place. Remove the cover.
4. Remove the two 1/4" x 3/4" SEMS hex-head sheet metal screws holding the fan assembly to the pedestal divider.

| WARNING! |

| SAVE THESE SEMS SCREWS AND REUSE WHEN REASSEMBLING. SEMS |
| SCREWS HAVE A CAPTIVE WASHER WITH SHARP TEETH THAT WILL |
| "BITE" INTO THE METAL WHEN THE SCREW IS INSTALLED, THUS |
| PROVIDING A GROUND CONNECTION. DO NOT USE ANY OTHER TYPE |
| OF SCREWS. FAILURE TO USE SEMS SCREWS IN THIS APPLICATION |
CAN CREATE AN ELECTRICAL SHOCK HAZARD.

5. Remove the two #10 x 1/2" square-drive sheet metal screws holding the fan air intake screen to the BACK of the pedestal. Remove the screen.
6. Remove the #10 x 1/2" square-drive sheet metal screw holding the fan assembly bracket to the BACK of the pedestal.
7. Remove the ground wire.
8. Remove the fan assembly.
9. You now have access to the motors, fan speed control and cord assembly for repair or replacement as necessary.
10. When reassembling the stove, pay particular attention to mounting positions and wire routing during replacement of components. If you will be replacing the fan speed control, be certain the speed control's alignment tab is inserted in the small hole alongside the mounting hole.
11. Reinstall the fan assembly.
12. Start the two SEMS screws in the FRONT of the fan assembly from the front of the pedestal divider. DO NOT tighten these screws at this time.
13. Install the fan assembly bracket up through the slot in the BACK of the fan box and start the #10 x 1/2" sheet metal screw through the alignment slot in the BACK. Hold the fan assembly tight against the top plate and tighten the screw in the fan assembly bracket.
14. Install the ground wire using a 1/4" x 3/4" SEMS screw. Tighten both SEMS screws.
15. Install the fan air intake screen with two (2) #10 x 1/2" sheet metal screws.

16. Install the pedestal front cover to the FRONT of the pedestal. The extension shaft for the fan speed control will need to be guided through the cover while it is being installed. Insert a small tube, such as a soda straw, through the hole in the pedestal front cover and over the end of the fan speed control shaft. As the cover is brought into position, this tube will guide the shaft through the hole. Secure the pedestal front cover with the #10 X 1/2" square drive screws.
17. Install the fan speed control knob by aligning the retainer in the knob with the flat spot on the shaft and pressing the knob onto the shaft.
18. Plug the power cord into properly grounded, 115V, 60HZ, wall outlet. DO NOT route the power cord in front of this stove.

CLEANING THE GLASS

The design of the stove will keep the glass from becoming clouded rapidly. But, eventually, the glass will have to be cleaned so that you may continue to enjoy watching the fire.

While the glass may lightly coat during a low, overnight burn, turning the thermostat to the warmest setting after reloading each morning will usually allow the glass to clean. Heavier deposits may require hand cleaning. Manual glass cleaning should be done when the stove and glass are cool. DO NOT CLEAN THE GLASS WHILE IT IS HOT. Use a soft cloth and Blaze King Glass Cleaner, available from most Blaze King dealers. Other NONABRASIVE household cleaners may also work. After using any cleaner, thoroughly rinse the glass with water to remove any deposits left by the cleaner. Failure to remove all traces of glass cleaner will result in the glass cleaner residue baking on. This residue will be very difficult to remove.

LOADING DOOR GLASS REPLACEMENT

BLAZE KING's Royal Heir catalytic woodstove is equipped with a door which uses a strong, heat-resistant ceramic intended to withstand extremely high temperatures. However, this glass can be broken through improper use. Inspect the glass occasionally for small chips or cracks that would necessitate replacement. If glass replacement becomes necessary, use only Blaze King part no. 0550 for the RHT 2100, part no. 0548 for the RHT 2200. DO NOT SUBSTITUTE ANY OTHER MATERIAL FOR THIS PURPOSE. Always replace the glass gasket, part no. 0254, when replacing the glass.

1. Allow the fire to completely burn out and the stove to cool.
2. Remove the two #10 x 1-1/4" square-drive screws holding the left side panel window assembly on the stove. (This assembly must be removed to gain access to the door frame screws on the left side of the door.) These screws are located in the

center (top and bottom) at the BACK of the window frame.
Remove the side panel window assembly.

3. Remove the two 6-32 x 3/16" round-head screws on the left side of the loading door, while the door is still closed.
4. Open the door and remove the two 6-32 x 3/16" screws holding the door latch assembly on the right edge of the door. Remove the door latch assembly.
5. Remove the six remaining 6-32 x 3/16" screws around the outside of the door. These hold the inner door frame in place. Remove the inner door frame.
6. Remove the damaged glass and old glass gasket.

| WARNING! |
| BROKEN DOOR GLASS IS SHARP. ALWAYS WEAR PROTECTIVE GLOVES |
| WHEN HANDLING GLASS. DISCARD THE GLASS IN A CLOSED |
CONTAINER INACCESSIBLE TO CHILDREN.

7. Always install a new glass gasket (part no. Ø254) when replacing the glass. Install this braided gasket to the edge of the new glass. Fold it around the edge so that it is distributed equally on both sides of the glass. Trim off any excess length.
8. Place the glass in the door frame. Be sure the "BLAZE KING" etched in the glass reads correctly when the door is closed. Note that one side of the inner door frame has four mounting holes, two of which accommodate the door latch assembly on the right side of the door.
9. Install the inner door frame with the 6-32 x 3/16" round-head screws. Do not tighten the screws at this time.
10. Install the door latch assembly and tighten all ten 6-32 x 3/16" screws.
11. Install the left side panel window assembly with the two #10 x 1-1/4" square-drive screws.
12. Check the fit of the door gasket. Insert a piece of paper into the door opening and close and latch the door. Obvious resistance should be felt when pulling the paper out. Repeat this check several times around the perimeter of the door.

SIDE PANEL WINDOW GLASS REPLACEMENT

The side panel windows are specially-made to withstand high temperatures. If replacement becomes necessary, use only Blaze

Section 11*****
TROUBLESHOOTING

Your BLAZE KING Royal Heir is designed to allow a wide selection of heat output levels. If you begin to lose control of the amount of heat the stove is emitting, determine the problem early so that major problems can be avoided.

The five major needs of a well-controlled fire are:

1. Knowledgeable operator
2. Adequate air supply
3. Firewood of good quality and proper size
4. Catalytic combustor in good condition
5. Clean chimney, properly sized and installed

Considering all of the above, number one is the most important for the safe and efficient operation of any stove. Please study the operation instructions carefully (Section 8, p. 53). Consult your BLAZE KING dealer or call the Customer Service Department at Woodcutters Mfg., Inc. (509-529-9820) if you have any questions not answered in this manual.

All of the five above-mentioned needs are interrelated. A deficiency in any one will effect all of the others. If you encounter a problem, determine the source of the problem and then follow up by checking the other needs for possible problems.

PROBLEM: Not enough heat.

CAUSE	SOLUTION
Green or wet wood.	Use seasoned wood.
Obstruction in chimney or cap screen.	Remove obstruction.
Heat exchange chamber filled with ash.	Clean heat exchange chamber (see Section 9, p. 61).
Combustor plugged or coated.	Clean combustor (see Section 9, p. 62).
Combustor not functioning.	Replace combustor (see Section 9, p. 63).
Thermostat set too low.	Raise thermostat setting.
Thermostat not operating properly.	Consult your Blaze King dealer.

Poor draft caused by
oversize flue, etc.

Strong, gusting winds
causing downdraft in
chimney.

Tightly sealed house,
inadequate air supply.

Low barometric pressure.

Reloading too much wood on
top of too few coals.

Measure draft with manometer.
Consult your Blaze King
dealer or a chimney sweep.

Install wind-resistant
chimney cap.

Open window slightly or
install outside air kit.

Raise thermostat setting.

Allow a larger bed of coals
to build up. (See Section
Section 8, p. 57).

PROBLEM: Too much heat.

CAUSE

Thermostat set too high.

Thermostat not operating
properly.

Loading door gasket leaking,
admitting excess air into
firebox.

Excessive draft in
chimney.

Wood too dry.

Wood in too small pieces.

SOLUTION

Lower thermostat setting.

Consult your Blaze King
dealer.

Replace door gasket
and/or adjust door (See
Section 9, p. 63).

Measure draft with a
manometer. Consult your
Blaze King dealer or a chimney
sweep. Install cap.

Replace wood or mix with
not-as-dry pieces.

Use 5" to 8" diameter pieces.

PROBLEM: Excessive creosote formation.

CAUSE

Improper operation.

Wood too green or wet.

Wood in too small pieces.

SOLUTION

Check thermostat setting
and operating procedures
(See Section 8, p. 57).

Use seasoned wood.

Use 5" to 8" diameter pieces.

Chimney too cold or poorly insulated.

Upgrade chimney system.
Consult your Blaze King dealer or a chimney sweep.

Bypass doors leaking or not closing completely.

Inspect bypass doors. Adjust or repair as necessary.

PROBLEM: Spots of creosote accumulation in chimney or chimney connector.

CAUSE

SOLUTION

Air leaks in chimney or chimney connector.

Inspect chimney or chimney connector. Repair or replace as necessary. Check to be sure that the chimney connector or chimney is installed correctly.
CAUTION: A leaking chimney or chimney connector is a fire hazard and demands immediate attention.

PROBLEM: Catalytic combustor not reaching operating temperature.

CAUSE

SOLUTION

Improper operation.

Check thermostat setting and operating procedures. (See Section 8, p. 57).

Obstruction in chimney or cap.

Clean chimney, remove obstructions.

Faulty catalyst thermometer.

Replace thermometer and recheck combustor operating temperature.

Wood too green or wet.

Use seasoned wood.

Wood in too small pieces.

Use 5" to 8" diameter pieces.

Combustor plugged or or coated.

Clean combustor (See Section 9, p. 62)

Combustor not functioning.

Replace combustor. (See Section 9, p. 63)

Thermostat not operating properly.

Consult your Blaze King dealer.

Bypass doors leaking or not closing completely.

Inspect bypass doors. Adjust or repair as necessary. Consult your Blaze King dealer.

PROBLEM: Chimney fire.

CAUSE

SOLUTION

Act immediately, regardless of cause.

Turn thermostat to lowest setting, check the loading door to be sure it is tightly closed, call fire department.

After the fire is out, have your chimney connector and chimney inspected by a certified chimney sweep. Any damaged chimney connector or prefabricated chimney should be replaced before the stove is used again. A masonry chimney that is damaged should be repaired or rebuilt.

Possible causes for a chimney fire, and remedies for those causes, can be found in the above PROBLEM sections:

"Excessive creosote formation", "Spots of creosote accumulation in chimney or chimney connector" and "Catalytic combustor not reaching operating temperature."

PROBLEM: Door glass quickly becomes coated with soot.

CAUSE

SOLUTION

Low thermostat setting.

Turn the thermostat to the warmest setting during the first 15-20 minutes after each reloading.

Lowering the thermostat setting too far, too quickly.

Turn the thermostat to the warmest setting during the first 15-20 minutes after each reloading.

Poor chimney draft.

Measure draft with manometer. Consult your dealer or a chimney sweep.

Obstruction in chimney or cap screen.

Remove obstruction.

Heat exchange chamber filled with ash.

Clean heat exchange chamber (see Section 9, p. 61).

Poor draft caused by -oversize flue, etc.

Measure draft with manometer. Consult your Blaze King dealer or a chimney sweep.

Strong, gusting winds causing downdraft in chimney.

Install wind-resistant chimney cap.

Tightly sealed house, inadequate air supply.

Open window slightly or install outside air kit.

Burning poorly-seasoned, wet wood, or wood with high pitch content, such as some types of pine.

Use seasoned wood with low pitch content.

PROBLEM: Fans minimum speed too fast or maximum speed too slow.

CAUSE

SOLUTION

Fan speed control out of adjustment.

Consult your Blaze King dealer.

Section 12*****
DEFINITIONS

BASE ASSEMBLY

Entire lower portion of the stove. Includes storage area for wood and kindling, the fan assembly, power cord, and combustion air intake screen.

BYPASS DOOR KNOB

Moving the bypass door knob back opens the bypass door and moving the knob forward closes it.

BYPASS DOORS

Consist of two sliding doors at the top of the firebox. When loading the stove, the open bypass doors allow smoke to bypass the combustor. THE BYPASS DOORS MUST BE OPEN DURING LOADING. If the bypass doors are NOT open during loading, smoke will come into the room. WARNING: The stove must not be loaded so full that wood goes into the bypass opening.

CATALYST

See CATALYTIC COMBUSTOR

CATALYST THERMOMETER

Monitors the combustor's temperature. Temperature is an indicator of combustor performance. See catalytic combustor definition below, operation instructions and troubleshooting guide for further information.

CATALYTIC COMBUSTOR

Helps keep the air and the chimney clean. The Royal Heir combustor performs this function by burning the emission components in the smoke. By burning these components, which otherwise form creosote deposits in your chimney, the Royal Heir combustor also reduces the risk of a chimney fire. The combustor begins cleaning the smoke's emission components when combustor temperatures reach approximately 500 F. (The combustor typically operates at between 500 F. and 1800 F.)

CHIMNEY

One or more passageways, vertical or nearly so, for sending flue gases (smoke) to the outside atmosphere. The chimney must be one of the following types:

Prefabricated Chimney

A chimney composed of listed, factory-built parts assembled according to the requirements of the listing. For residential close clearance and mobile home installations, the only allowed prefabricated chimney systems are Simpson Dura-Vent Dura-Chimney and Simpson Dura-Vent Dura-Plus chimney systems.

Masonry Chimney

A chimney made of solid masonry units, such as bricks, stones, listed chimney units or reinforced portland cement concrete. It must be assembled on the site and be lined with suitable chimney flue liners built in accordance with applicable building code requirements.

CHIMNEY CONNECTOR

Connects a stove to a chimney. Commonly referred to as "stovepipe". For standard residential installations, this must be a single-wall, blue or black steel pipe of not less than 24 guage. It must be 8" diameter for the RHT 2100 and 6" diameter for the RHT 2200. For close clearance and mobile home installations, the only allowed chimney connector is Simpson Dura-Vent DVL chimney connector.

COMBUSTION AIR INTAKE SCREEN

Located on the sides of the base assembly near the front. Combustion air is drawn into the stove through these intakes. A block-off plate replaces the screen when the optional outside air kit is used.

FAN CONTROL KNOB

Operates the fan speed control which regulates the speed of the fans.

FAN SPEED CONTROL

Operated by the fan control knob. Controls the fan speed...from a warm, subtle breeze to a room-filling current of heated air.

FANS

Two variable speed axial fans (105 cfm each). The fans circulate room air around the firebox and back into the house.

FIREBOX

1/4" steel lined with firebrick. The RHT 2100 firebox accepts logs up to 19" long; the RHT 2200 firebox accepts 18" logs.

FLOOR PROTECTION

Noncombustible shield under stove. Minimum size is 32" X 44" for the RHT 2100, 30.5" X 41" for the RHT 2200. No insulative requirements; you can use any noncombustible material. (Not provided with stove.)

HEARTH

The bottom of the firebox, lined with firebrick. Build the fire directly on the hearth.

OUTSIDE AIR KIT (Optional)

An optional kit which draws outside air through a duct. The stove uses the air for combustion. This kit is included in the mobile home kit. Its use is required in mobile home installations, and occasionally required in residential installations. Check local codes before installing your stove.

STOVEPIPE. see CHIMNEY CONNECTOR.

TIE-DOWN SCREWS

These lag screws are used to secure the stove to the residence floor. Their use is required in mobile home installations. They are included in the mobile home kit. gs up to 19" long; the RHT 2200 firebox accepts 18" logs.

* PRELIMINARY DOCUMENT *

BLAZE KING ROYAL HEJR OWNER'S MANUAL
RHT 2100 and RHT 2200

SAVE THESE INSTRUCTIONS!

WARNING!

IMPROPER ASSEMBLY, INSTALLATION, MAINTENANCE OR OPERATION OF THIS APPLIANCE CAN CAUSE DAMAGE TO PROPERTY, SERIOUS INJURY OR DEATH. READ THESE INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Dear Blaze King Customer:

This document has been carefully written and edited. But since it is new, we have chosen to distribute it in this preliminary form until all "bugs" have been eliminated.

If you have any questions or comments concerning these instructions, call our Blaze King Marketing Dept. at 1-800-541-0391.

Thank you!

OM-10B

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