

# QUADRA-FIRE

North America's Best

## LIFETIME WARRANTY

Aladdin Hearth Products, warrants their wood heating appliances to the original purchaser for the lifetime of the appliance, to be free from defects in material and workmanship. This warranty gives you specific legal rights; you may have other rights which may vary from state to state.

This limited Lifetime Warranty covers items such as but not limited to combustion chambers, doors, gold plating, steel baffles, manifold tubes, and glass damaged by thermal breakage.

All parts to be replaced must be returned to an authorized Aladdin Hearth Products dealer at purchaser's expense for inspection and approval by Aladdin Hearth Products prior to repair or replacement. No repair or replacement costs will be honored without approval of Aladdin Steel Products, Inc.

This new Quadra-Fire product must be installed by a competent, authorized service contractor. It must be installed and operated at all times in accordance with the Installation and Operating Instructions in this manual, as well as any applicable local and national codes. Any alteration, willful abuse, accident, or misuse of the product shall void this warranty.

Any installation, construction, transportation, or other related costs or expenses arising from defective part(s), repair, replacement, etc., will not be covered by this warranty, nor will Aladdin Hearth Products assume responsibility for them. Further, Aladdin Hearth Products, will not be responsible for any incidental, indirect, or consequential damages, except as provided by law.

All electrical components such as but not limited to blowers, wiring, speed controls, and thermodisc switches are covered by Aladdin's one year warranty program.

Aladdin Hearth Products, will not be responsible for any alteration to the unit which causes sooting that results in damage to the interior or exterior of the building in which this appliance is installed.

This warranty is void if the stove has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals, the stove is subjected to prolonged periods of dampness or condensation, or there is any damage to the stove or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

This limited Lifetime Warranty does not extend to or include paint, door gasketing, glass gasketing, firebrick, kaowool or other ceramic insulating materials. It does not cover installation or operational-related problems such as overfiring, use of corrosive driftwood, downdrafts or spillage caused by environmental conditions, nearby trees, buildings, hilltops, mountains, inadequate venting or ventilation, excessive offsets, or negative air pressures caused by mechanical systems such as furnaces, fans, clothes dryers, etc.

This limited Lifetime Warranty does not apply to venting components, hearth components or other accessories used in conjunction with the installation of this product not manufactured by Aladdin Hearth Products.

This limited Lifetime Warranty is effective on all wood stoves sold after September 1, 1996, and supersedes any and all warranties currently in existence.

—IMPORTANT—

This warranty is not valid unless the warranty registration card has been properly completed in full and returned within 10 days from the date of purchase.

#### FOR YOUR RECORDS:

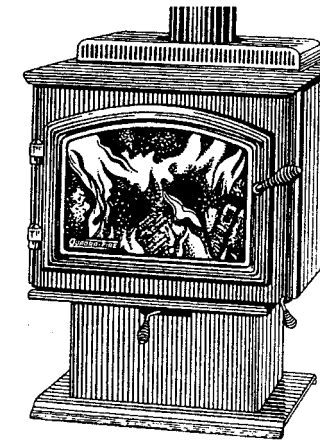
DATE PURCHASED \_\_\_\_\_ MODEL \_\_\_\_\_

AUTHORIZED DEALER \_\_\_\_\_ SERIAL \_\_\_\_\_

# QUADRA-FIRE

North America's Best

## INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS QUADRA-FIRE 1900



Listed by  Beaverton Oregon USA  
OMNI-Test Laboratories, Inc.  
Report No. 061-S-08-1 January 1999

**CONGRATULATIONS**—You are now the proud owner of one of the finest stoves in the world for your home—the **QUADRA-FIRE**. Now, before installing your stove and building your first fire—record the serial number on the warranty card. Serial number is located on the safety label on the rear of the stove.

### PLEASE READ ALL OF THE OWNERS MANUAL AND SAFETY NOTES

#### IMPORTANT SAFETY NOTES:

1. When installing your stove, particular attention should be paid to fire protection. If this unit is not properly installed, a house fire may result. For your safety, follow the installation instructions and contact local building or fire officials about restrictions and installation inspection requirements in your area.
2. Never use gasoline or similar liquids to start a fire in this unit. Keep all such liquids well away from stove.
3. During operation, if any part of the stove starts to glow, the stove is in an overfired condition. Close the air control completely until the glowing has stopped. **OVERFIRING VOIDS WARRANTY.**
4. Cool ashes should be disposed of carefully, using a metal container.
5. Do not burn wet or green wood. Store wood in dry location.
6. Do not burn garbage, treated wood, or wood with salt (driftwood, etc.). Burning materials other than wood (including charcoal) under adverse conditions may generate carbon monoxide in the home, resulting in illness or possible death.
7. Do not permit creosote or soot to accumulate excessively in the chimney or inside the firebox.
8. Check your chimney system thoroughly when installing into an existing metal or masonry chimney. Seek professional advice if in doubt about its condition.
9. Do not connect this unit to a chimney flue already serving another appliance.
10. Comply with all minimum clearances to combustibles as shown in this manual for this appliance.
11. Build fire on brick firebox floor. Do not use grates, andirons or other method to support fuel.
12. **HOT WHILE IN OPERATION.** Keep children, pets, clothing and furniture away. Contact can cause skin burns.
13. Do not connect to any air distribution duct or system.
14. **RISK OF FIRE!** Do not operate with stove door or ash removal system door open.
15. For further information refer to NFPA 211 (U.S.) or CAN/CSA-B365 (Canada).
16. **WARNING:** WHEN ASSEMBLING A UNIBODY APPLIANCE, USE ONLY GENUINE ALADDIN HEARTH PRODUCTS MANUFACTURED COMPONENTS. USE OF ANY OTHER COMPONENTS WILL VOID YOUR WARRANTY, AND COULD PRESENT A SERIOUS SAFETY HAZARD.
17. **WARNING:** DO NOT OPERATE YOUR QUADRA-FIRE STOVE BEFORE FULLY ASSEMBLING ALL COMPONENTS. BURNING YOUR STOVE WITHOUT A PEDESTAL OR LEG KIT ATTACHED WILL VOID YOUR WARRANTY, AND COULD PRESENT A SERIOUS SAFETY HAZARD.

 **ALADDIN**  
HEARTH PRODUCTS

401 N. WYNNE  
COLVILLE, WA 99114  
(Revised 10/08/1999)

**SAVE THESE INSTRUCTIONS**

www.aladdinhearth.com  
aladdin@aladdinhearth.com  
Part #250-2481/ 832-3080

# TABLE OF CONTENTS

# NOTES

Safety label .....	3
Pedestal and leg model dimensions .....	4
Clearances to combustibles .....	5
Safety listing .....	6
Installation materials needed .....	6
Venting system .....	6
Chimney connector .....	7
Chimney height/draft .....	7
Connection to a masonry chimney	
1. Chimney .....	7
2. Thimble .....	10
A. Brick chimney thimble assembly .....	10
B. 6"/152mm solid pack chimney with metal supports .....	11
Connection to a metal prefabricated chimney .....	13
Mobile home installation .....	14
Outside air kit installation .....	15
Pedestal and leg installation .....	16
Operating instructions	
Burning process .....	17
Combustion air system .....	17
Fan operating instructions .....	18
Operating tips .....	18
Burning guidelines .....	18
Building a fire .....	19
Wood selection and storage .....	19
Maintenance	
Creosote .....	20
Care and cleaning of glass and plated surfaces .....	20
Chimney cleaning .....	20
Firebrick .....	20
Overfiring .....	20
Door handle assembly and glass replacement .....	21
Baffle removal and replacement .....	22
Brick pattern .....	23
Installation of optional blower .....	24
Top heat shield installation .....	25
Accessories and service parts .....	26
Notes .....	27
Warranty .....	28
Warranty card .....	Insert

# ACCESSORIES AND SERVICE PARTS

## ACCESSORIES

- 831-1621 Top shield, black
- 831-1750 Outside air kit, pedestal
- 831-1300 Outside air kit, leg
- 831-1700 Blower
- 832-0721 Black door
- 832-1891 Trim door
- 832-0711 Gold door
- Leg mounting bracket (for mobile home installations)

## SERVICE PARTS

- 832-2530 Kaowool blanket (4 piece)
- 832-2470 Firebox brick set
- 832-0550 Individual brick
- 832-2480 Baffle, 3 piece set
- 832-0740 Door glass
- 832-0540 Door handle assembly
- 832-1760 Door rope
- 832-0620 Spring handle, door, 1/2"
- 832-0630 Spring handle, air control, 1/4"
- 832-2740 Front manifold tube
- 832-2750 Middle manifold tube
- 832-2760 Back manifold tube

# 1900 SAFETY LABEL (found on back of stove)

Model: Quadra-Fire 1900	Serial No.
-------------------------------	------------

Listed Solid Fuel Heater - Also Suitable for Mobile Home Installation (UM)84-HUD

Listed by Beaverton  
Oregon USA  
OMNI-Test Laboratories, Inc.  
Report No. 061-S-08-4 January 1999

Manufactured by:  
 **ALADDIN**  
HEARTH PRODUCTS  
401 N. Wynne  
Colville, WA 99114

### "PREVENT HOUSE FIRES"

Install and use only in accordance with manufacturer's installation and operating instructions. Contact local building or fire officials about restrictions and installation inspections in your area.

**WARNING - FOR MOBILE HOMES:** Do not install in a sleeping room. An outside combustion air inlet must be provided. The structural integrity of the mobile home floor, ceiling and walls must be maintained. The stove needs to be properly grounded to the frame of the mobile home.

Components Required for Mobile Home Installation:  
Outside Air Kit - Pedestal: Part #831-1600  
Outside Air Kit - Leg: Part #831-1300

Refer to manufacturer's instructions and local codes for precautions required for passing chimney through a combustible wall or ceiling, and maximum offsets.

Inspect and clean vent system frequently in accordance with manufacturer's instructions.

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

Tested To: UL 1482, ULC S627

For use with solid wood fuel only.

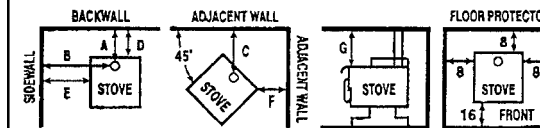
Optional Components:  
Aladdin Steel Top Shield:  
Part #831-1621

Optional Blower Electrical Rating:  
115 VAC, 1.2 Amps, 60 Hz.

Route power cord away from unit. Do not route cord over or under appliance.

**DANGER: Risk of electrical shock.** Disconnect power supply before servicing. Replace glass only with 5mm ceramic available from your dealer.

Operate only with doors closed.



Minimum Clearances to Combustible Materials ( US In Inches, Canada In mm)

Installation	Clearance	Chimney & Connector	Dimensions						
			A	B	C	D	E	F	G
Residential	Standard	Note: 1	20 in/510 mm	25 in/635 mm	22 in/560 mm	18 in/455 mm	15 in/380 mm	12 in/305 mm	52 in/1320 mm
Residential/Mobile Hm	Reduced	Note: 2	11 in/280 mm	20 in/510 mm	19 in/485 mm	9 in/230 mm	10 in/255 mm	9 in/230 mm	52 in/1320 mm
Alcove	Standard	Note: 2&3	11 in/280 mm	20 in/510 mm	19 in/485 mm	9 in/230 mm	10 in/255 mm	9 in/230 mm	52 in/1320 mm

NOTE: Dimension D (Residential Standard) can be 16" in the U.S.

Minimum Clearances to Combustible Materials With Top Shield ( US In Inches, Canada In mm)

Installation	Clearance	Chimney & Connector	Dimensions						
			A	B	C	D	E	F	G
Residential	Standard	Note: 1	20 in/510 mm	25 in/635 mm	19 in/485 mm	18 in/455 mm	15 in/380 mm	9 in/230 mm	44 in/1120 mm
Residential/Mobile Hm	Reduced	Note: 2	7 in/180 mm	18 in/455 mm	13 in/330 mm	6 in/150 mm	6 in/205 mm	3 in/75 mm	44 in/1120 mm
Alcove	Standard	Note: 2&3	7 in/180 mm	18 in/455 mm	13 in/330 mm	6 in/150 mm	6 in/205 mm	3 in/75 mm	44 in/1120 mm

NOTE: Dimension D (Residential Standard) can be 16" in the U.S.

**Note 1:** 6 inch diameter, single wall, minimum 24 MSG black or blued steel connector pipe with a listed factory-built chimney suitable for use with solid fuels or a masonry chimney.

**Note 2:** 6 inch diameter double wall air insulated connector pipe with listed factory-built Type HT chimney or a masonry chimney. (Mobile Home must be equipped with a spark arrester.)

**Note 3:** Alcove spec's. Maximum depth of Alcove shall be no more than 48", and a minimum of 44" high above stove top to a combustible, 18" high above stove top to a non-combustible. Minimum distance from stove is 8" to sidewall, 44" to ceiling.

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Certified to comply with July 1990 particulate emission standards.

Date of Manufacture

1997 1998 1999 Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.



DO NOT REMOVE THIS LABEL

Made in U.S.A.

IGN

## DIMENSIONS PEDESTAL MODEL

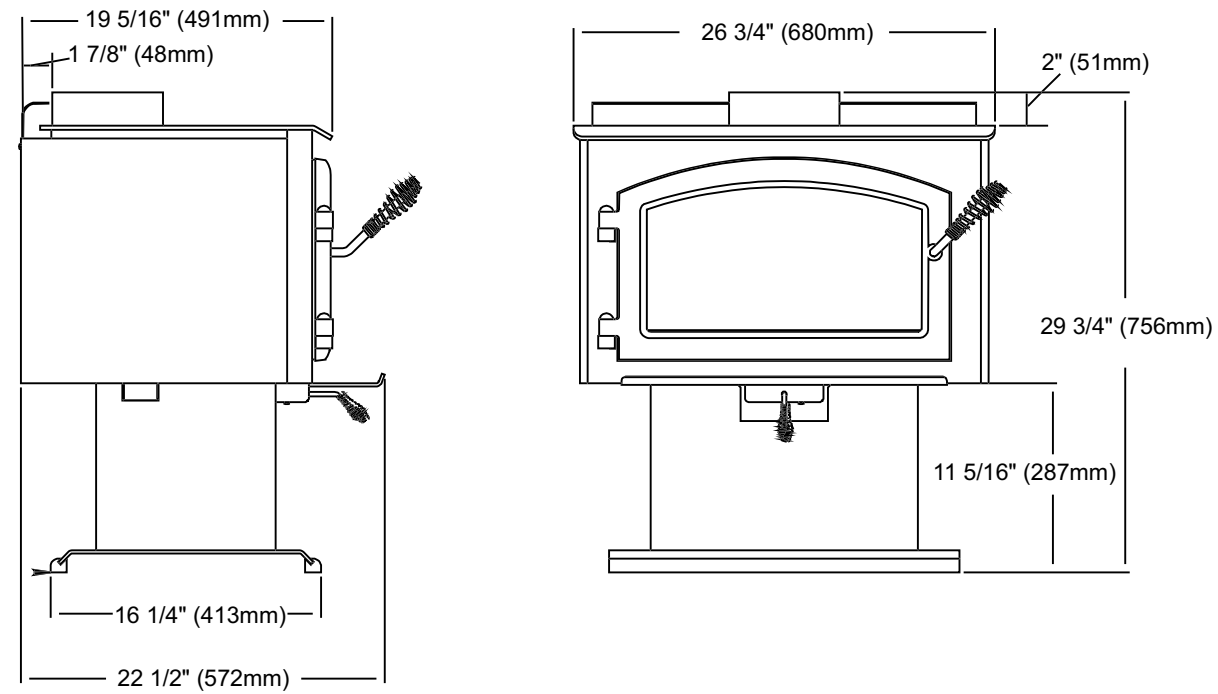


FIGURE 1

## LEG MODEL

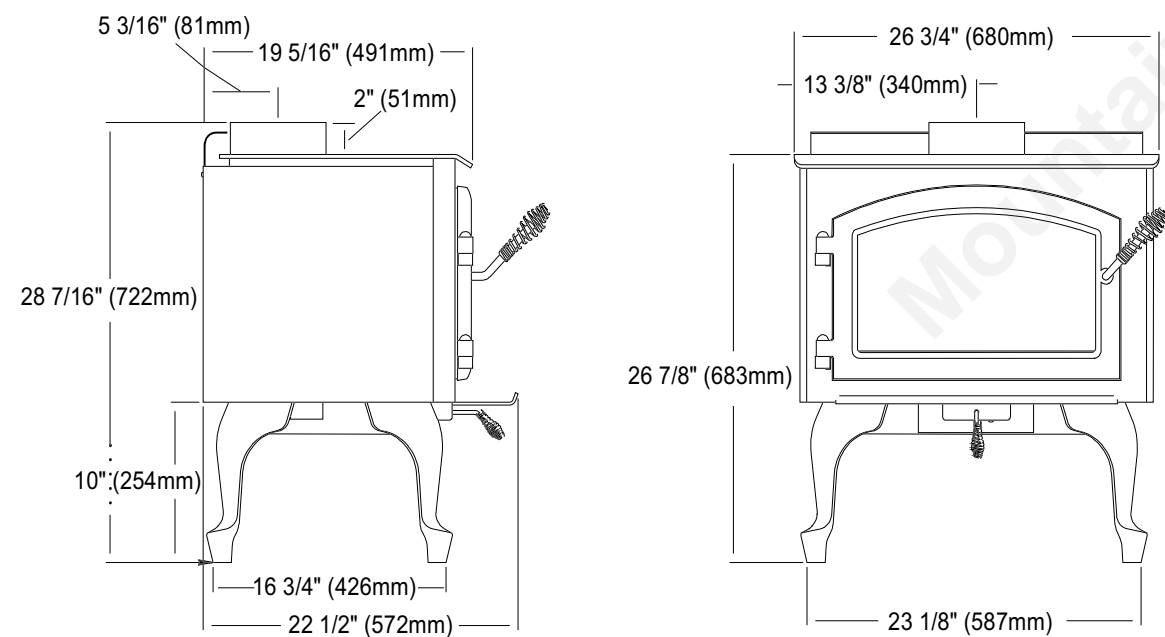
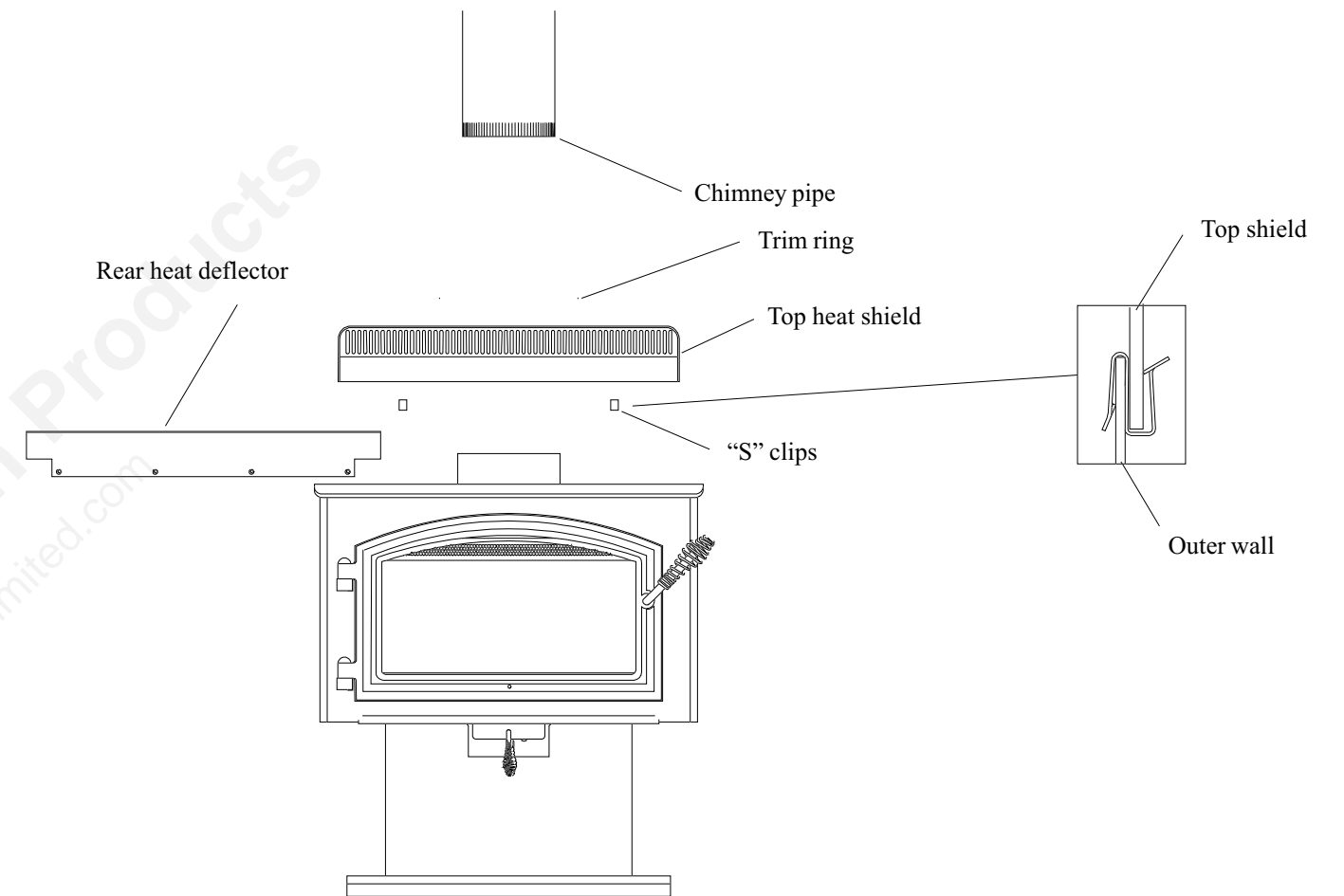


FIGURE 2

## TOP HEAT SHIELD INSTALLATION



1. Unscrew and remove the rear heat deflector.
2. Attach the two "S" clips to the upper edge of the outer wall of the stove.
3. Set top heat shield on stove and push down into "S" clips
4. Install chimney pipe through hole in top heat shield.

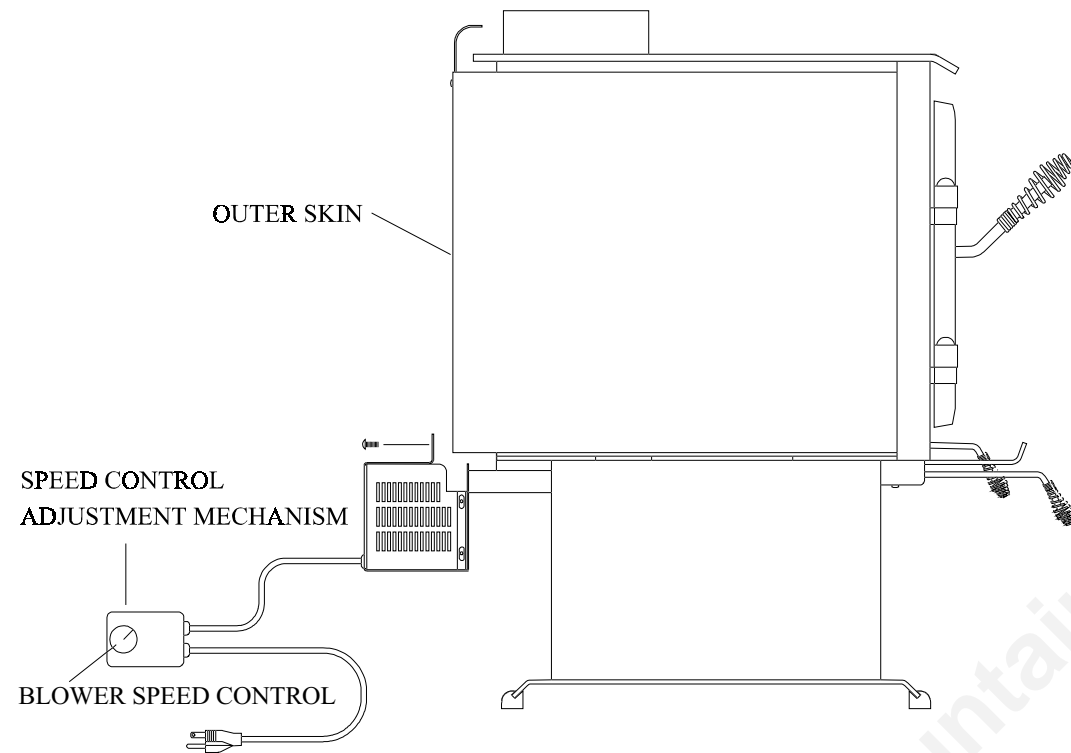
**NOTE:** SEE PAGE 5 FOR REDUCED CLEARANCES WITH THE STANDARD TOP SHIELD.

# INSTALLATION OF OPTIONAL BLOWER

## Part #831-1700

The blower is shipped fully assembled and ready for installation.

1. Remove three 1/4"-20 (3/8" hex head) bolts from blower cover, and remove nutbar. Discard nutbar.
2. Using bolts, attach blower to lower rear of stove, as shown.
3. Plug blower cord into a grounded outlet. Do not remove ground prong from plug. Route power cord to avoid heat from the stove, or other damage.
4. Adjust the blower speed control to the desired speed.



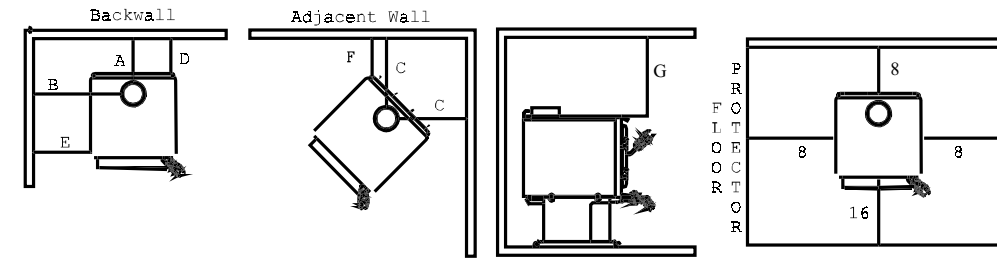
### BLOWER SWITCH ADJUSTMENTS

The blower speed control for this unit is adjusted at the factory, and should not require further adjustment. When the speed control is turned clockwise, it will click on to high speed. Turn the speed control clockwise to decrease the speed. At full clockwise, the blower should blow gently, but should not stop.

### STEPS FOR ADJUSTING THE BLOWER SPEED CONTROL

1. With the unit plugged in, turn the speed control knob to slow (full clockwise).
2. With a small screwdriver, adjust the blower speed by turning the adjustment mechanism through the hole on the side of the speed control.
3. Adjust the speed so the blower runs slowly, but does not stop. Turn clockwise to slow the blower and counterclockwise to increase the speed.

# CLEARANCES TO COMBUSTIBLES (UL AND ULC)



**FLOOR PROTECTOR:** Floor protector must be noncombustible material or equivalent, extending beneath heater and to the front/sides/rear as indicated.

**NOTE:** A 3/8" (10mm) minimum thickness tile or equivalent is recommended, but not required.

### Minimum clearances to Combustible Materials (in inches and millimeters) for Quadra-Fire 1900 Standard Stove

Installation	Clearance	Chimney & Connector	Clearance Dimensions						
			A	B	C	D	E	F	G
Residential	Standard	Note 1	20"(508)	25"(635)	22"(559)	18"(457)*	15"(381)	12"(305)	52"(1321)
Residential/Mobile Home	Reduced	Note 2	11"(280)	20"(508)	19"(483)	9"(229)	10"(254)	9"(229)	52"(1321)
Alcove	Standard	Note 2 & 3	11"(280)	20"(508)	19"(483)	9"(229)	10"(254)	9"(229)	52"(1321)

### Minimum clearances to Combustible Materials (in inches and millimeters) for Quadra-Fire 1900 with top shield

Installation	Clearance	Chimney & Connector	Clearance Dimensions						
			A	B	C	D	E	F	G
Residential	Standard	Note 1	20"(508)	25"(635)	19"(483)	18"(457)*	15"(381)	9"(229)	44"(1118)
Residential/Mobile Home	Reduced	Note 2	7"(178)	18"(457)	13"(330)	6"(152)	8"(203)	3"(76)	44"(1118)
Alcove	Standard	Note 2 & 3	7"(178)	18"(457)	13"(330)	6"(152)	8"(203)	3"(76)	44"(1118)

\*Note: Dimension D (residential standard) can be 16" (406mm) in the United States.

**Note 1:** 6" (152mm) diameter single wall, minimum 24 MSG black or blued steel connector pipe with a listed factory-built type HT chimney suitable for use with solid fuels or a masonry chimney.

**Note 2:** 6" (152mm) diameter double wall insulated connector pipe with listed factory-built type HT chimney or a masonry chimney. (Mobile home venting system must be equipped with a rain cap and spark arrestor.) For installations with a preexisting class A chimney system, a listed stainless steel chimney liner should be installed, or the existing chimney examined by a chimney sweep for acceptable further use.

**Note 3:** Alcove specifications: Maximum depth of alcove shall be no more than 48" (1219mm). For additional alcove information and clearances, refer to clearances to combustibles above.

**NOTE:** Unit is approved for use with listed double wall air-insulated chimney connector or elbows.

When locating your stove consider safety, convenience, traffic flow, and the fact that the stove will need a chimney and chimney connector.

**FLOOR PROTECTION:** Floor protector must be noncombustible material, extending beneath heater and to the front/sides/rear as indicated.

**NOTE:** A 3/8" (10mm) minimum thickness tile or equivalent is recommended, but not required.

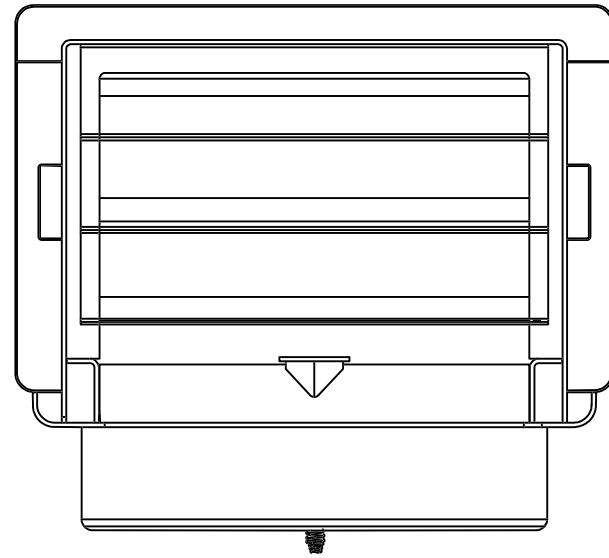
**NFPA 211:** Use a noncombustible material with 1" (25mm) ventilated air space to reduce clearances. However, this is not to exceed 50% of Quadra-Fire's specified clearances.

**NOTE:** Must follow NFPA 211 spacing and materials to qualify. It is also subject to local jurisdiction.

**AVOID FIRE:** Maintain the designated clearances to combustibles. Insulation must not touch the chimney. You must maintain the designated air space clearance around the chimney. This space around a chimney is necessary to allow natural heat removal from the area. Insulation in this space will cause a heat buildup, which may ignite wood framing.

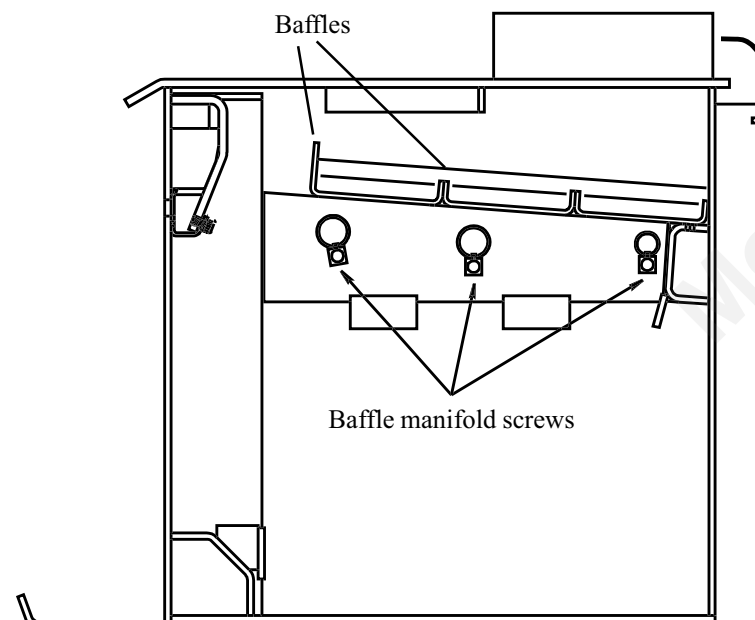


## BAFFLE REMOVAL AND REPLACEMENT



1. Remove manifold tubes and label each tube (example: front, middle, rear).  
**NOTE:** It is very important not to reverse the order of the tubes.
2. Remove firebrick.
3. Slide middle baffle onto front baffle.
4. Remove rear baffle by sliding to one side, then lift that side. The other side will then drop down.
5. Remove the middle baffle in the same way as the rear baffle was removed.
6. Remove the front baffle by lifting one side and sliding the other side toward the rear of the firebox until it drops down.
7. Reinstall in reverse order. Be sure that the large ceramic blanket is in place and the smaller ceramic blankets are in each individual baffle before reinstalling.

**NOTE:** For cleaning chimney, do not remove manifold tubes. Slide the middle and rear baffles onto the front baffle. Fold ceramic blanket down to gain access to chimney pipe.

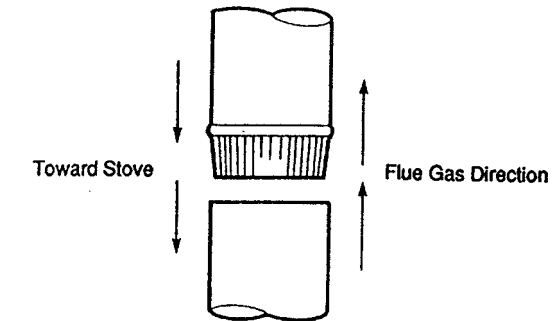


## CHIMNEY CONNECTOR

The chimney connector must be 6" (152mm) diameter with a minimum thickness of 24 gauge. Do not use aluminum or galvanized steel. They cannot properly withstand the extreme temperatures of a wood fire. Do not use chimney connector pipe as a chimney. You must connect your stove to a chimney comparable to those illustrated in this manual.

Chimney connector sections must be attached to the stove and to each other with the crimped end toward the stove (Figure 3). This allows creosote to run into the stove and not onto the outside of the pipe. Attach the chimney connector to the flue collar with three sheet metal screws. All joints should also be secured with three sheet metal screws. Otherwise, in the event of a creosote fire, the connector may vibrate apart.

FIGURE 3



For proper operation, the chimney connector should be as short as possible. Horizontal lengths of chimney connector should have a minimum upward slope from the stove of at least 1/4" per foot.

## CHIMNEY HEIGHT/DRAFT

To insure that your Quadra-Fire stove burns properly, the chimney draft (static pressure) should be approximately 0.1" water column (W.C.) during a high burn and .04" W.C. during a low burn, measured 6" (152mm) above the top of the stove after one hour of operation at each burn setting.

**NOTE:** These are guidelines only, and may vary somewhat for individual installations.

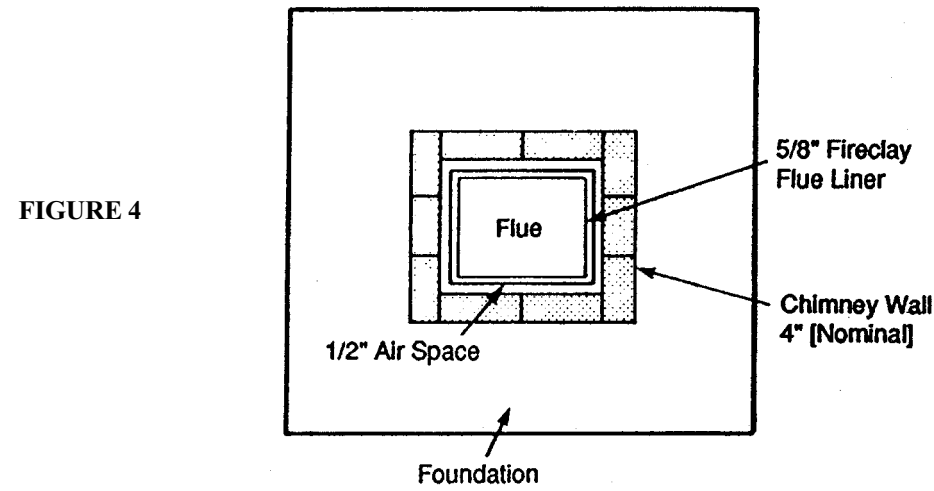
Your Quadra-Fire stove was designed for and tested on a 6" (152mm) chimney, 12'-14' (3.66-4.27m) high, measured from the top of the stove. The further your stack height or diameter varies from this configuration, the probability of performance problems increases. In addition, exterior conditions such as roof line, surrounding trees, prevailing winds and nearby hills can influence stove performance.

## CONNECTION TO A MASONRY CHIMNEY

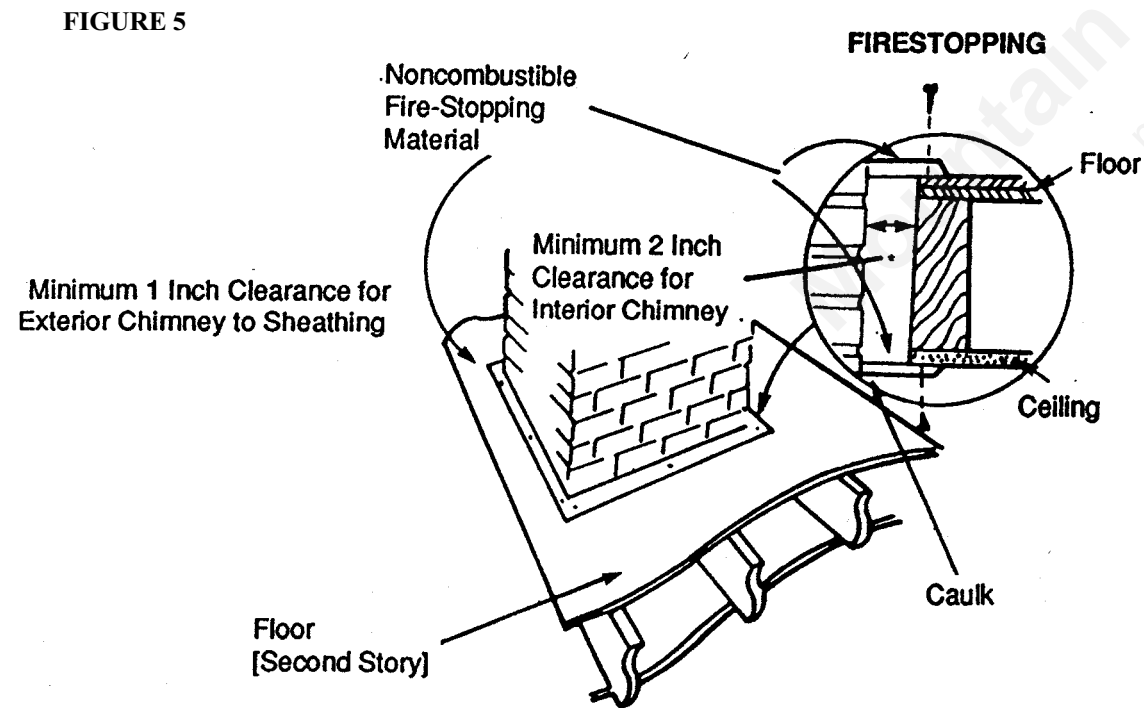
1. **CHIMNEY:** Should the stove be connected to a masonry chimney, the chimney should be examined for cracks, loose mortar, or other signs of deterioration and blockage. The stove should not be installed until it is determined that the chimney is safe for use. Since an oversized flue contributes to the accumulation of creosote, the size of the flue should be checked to determine that it is not too large for the stove. The chimney should also be checked to insure it meets the minimum standards of the National Fire Protection Association (NFPA) Standard 211. Following is a list of the more critical minimum requirements for a properly constructed chimney.

The masonry wall of the chimney, if brick or modular block, must be a minimum of 4" (102mm) thick. A mountain or rubble stone wall must be at least 12" (305mm) thick.

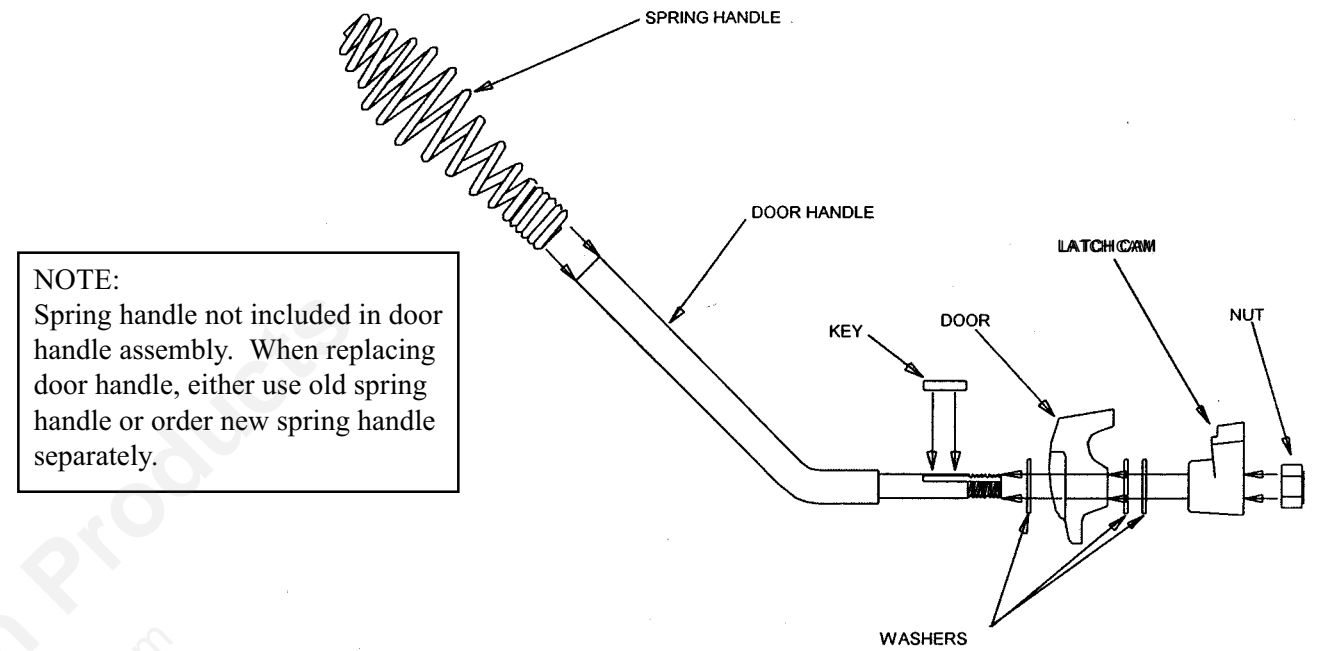
The chimney must have a fire clay flue liner (or equivalent) with a minimum thickness of 5/8" (16mm) and must be installed with refractory mortar. There must be at least 1/2" (13mm) air space between the flue liner and the chimney wall (Figure 4). An equivalent liner must be a listed chimney liner system or other approved material.



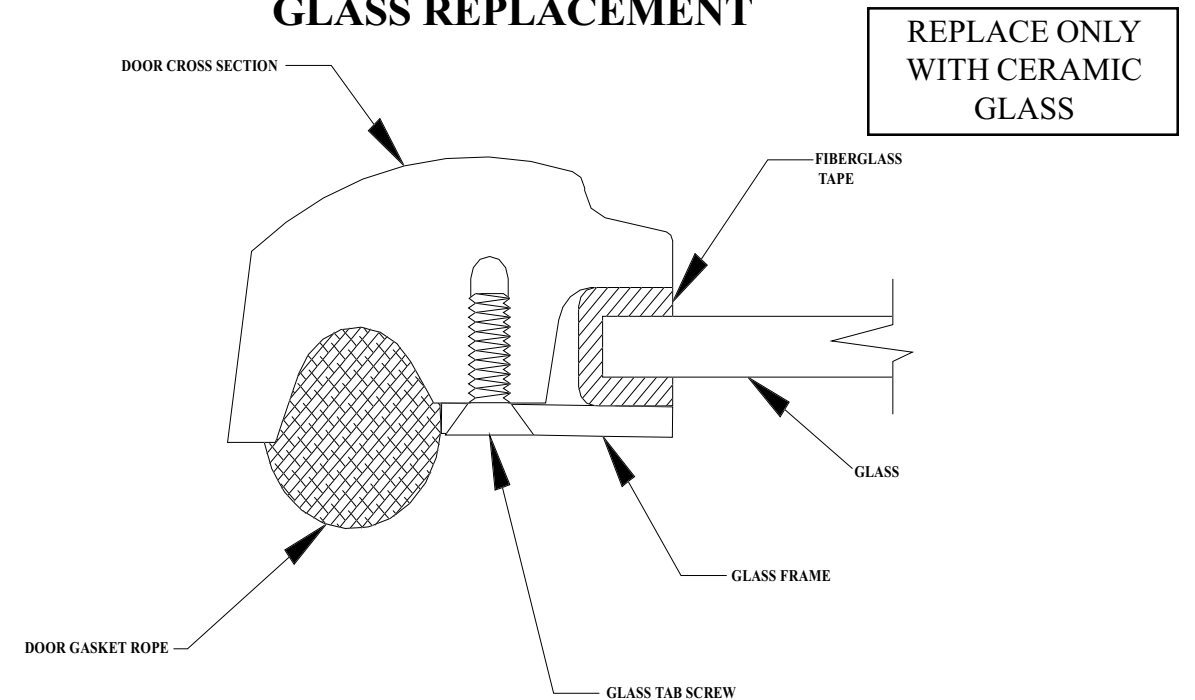
A chimney inside the house must have at least 2" (50mm) of clearance to the combustible structure. A chimney outside the house must have at least 1" (25mm) clearance to the combustible structure. Firestops must be installed in the spaces where the chimney passes through floors and/or ceiling (Figure 5).



## DOOR HANDLE ASSEMBLY



## GLASS REPLACEMENT



1. Remove door from stove and lay on a padded flat surface.
2. Remove glass frame and screws with a Phillips screwdriver (turn screws counterclockwise).
3. Lift glass frame pieces and glass out of the door frame.
4. Lay new glass with fiberglass tape around it into the door frame, making sure the Quadra-Fire logo reads correctly to the outside.
5. Place glass frame pieces over the fiberglass tape on the edges of the glass. Be sure glass is centered in the opening (i.e., same space top and bottom, left and right sides).
6. Reinstall screws tight enough to hold glass and frame in place. **DO NOT OVERTIGHTEN.**
7. Check again for centering of glass in door frame, and give all screws a final tightening.

## MAINTENANCE

### 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 newly-started or a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote creates an extremely hot fire which may damage the chimney or even destroy the house. The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.
- Inspection:** Inspect the system at the stove connection and at the chimney top. Cooler surfaces tend to build creosote deposits quicker, so it is important to check the chimney from the top as well as from the bottom.
- Removal:** The creosote should be removed with a brush specifically designed for the type of chimney in use. A chimney sweep can perform this service. It is also recommended that before each heating season the entire system be professionally inspected, and cleaned and repaired if necessary.

### CARE AND CLEANING OF GLASS

**NOTE:** Remove all labels from glass before lighting the first fire in your stove.

Quadra-Fire stoves are equipped with ceramic super heat-resistant glass, which can only be broken by impact or misuse. Do not slam stove door or impact the glass. When closing door, make sure that logs do not protrude against the glass. Clean glass with a nonabrasive glass cleaner, such as Windex. Abrasive cleaners may scratch and cause glass to crack. Inspect glass regularly. If you find a crack or break, immediately put the fire out and return the door to your dealer for replacement of glass before further use.

**NOTE:** Replace with ceramic glass only.

### CARE AND CLEANING OF PLATED SURFACES

Clean 24 karat gold-plated surfaces with vinegar or a glass cleaner before lighting your first fire.

**WARNING:** When the appliance is equipped with a 24 karat gold-plated door, you must clean all the fingerprints and oils from the gold surface before firing the appliance for the first time. Use a glass cleaner or vinegar and towel to remove the oils. If not cleaned properly before lighting your first fire, the oils can cause permanent markings on the gold plating. After the gold plating is cured, the oils will not affect the finish and little maintenance is required: just wipe clean as needed.

**CAUTION:** Do NOT USE POLISHES WITH ABRASIVE AGENTS. THEY WILL SCRATCH THE PLATING.

### CHIMNEY CLEANING

Disconnect flue pipe from stove before cleaning chimney. Otherwise residue can pile up on top of the baffle, and the stove will not work properly.

#### ASH REMOVAL

Remove cold ashes (NEVER HOT) from the stove by shoveling them into a metal container with a tight-fitting lid. Spraying cold ashes with water before shoveling them out of the stove will help eliminate ash flying around the firebox and into the room. Always treat ashes as if they contain hot coals, and store the container on a noncombustible floor away from combustible material pending final disposal.

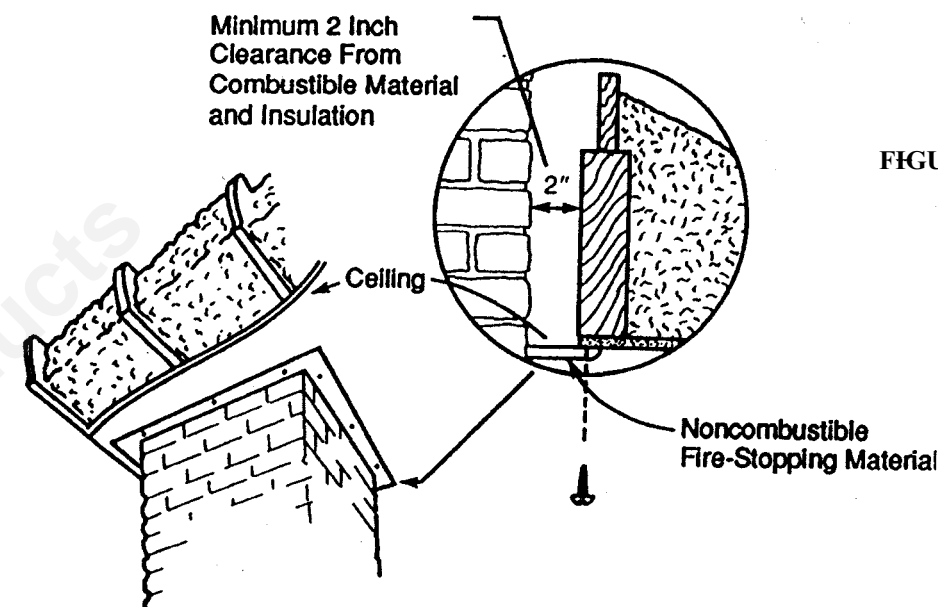
#### FIREBRICK

The firebox of your Quadra-Fire stove is lined with high quality firebrick, which has exceptional insulating properties. There is no need for use a grate; simply build a fire on the firebox floor of your stove.

#### OVERFIRING

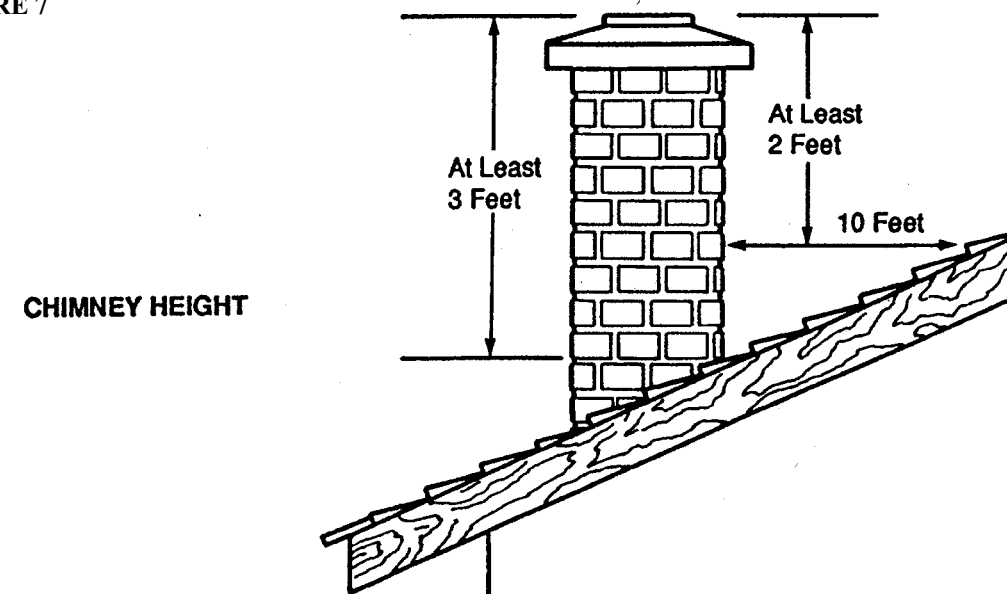
Do not overfire. Using flammable liquids or too much wood, burning trash in the stove, or allowing too much air into the stove, may result in overfiring. If the chimney connector or stove glows red or even worse, white, the stove is overfired. This condition may ignite creosote in the chimney, which can be dangerous, possibly causing a house fire. If you overfire, immediately close the air control and door, if open, to reduce the air supply to the fire.

Remember that insulation must not contact the chimney. There must be air space around the chimney. Insulation must be 2" (50mm) or more from the chimney (Figure 6).



A chimney must be the required height above the roof or other obstruction for safety and proper draft operation. The chimney must be a minimum of 3' (914mm) higher than the highest point where it passes through the roof, and at least 2' (610mm) higher than the highest part of the roof or structure that is within 10' (3048mm) of the chimney, measured horizontally (Figure 7).

FIGURE 7



2. **THIMBLE:** An approved thimble must be used when the connection from the stove is made through a combustible wall to a masonry chimney. There are several methods you can use for connection through a combustible wall, two of which are illustrated in this manual. For additional methods, consult local building authorities or use the standards set forth in NFPA 211.

Also, listed prefabricated metal thimbles are available for use with wood stoves. The manufacturer's installation for the thimbles must be strictly followed to assure the safety of the system. Be sure to maintain the designated clearances to combustible materials.

- A. **BRICK CHIMNEY THIMBLE ASSEMBLY:** Construction of the brick thimble assembly requires 12" (305mm) of brick around a fire clay liner. Be sure the point of penetration allows an 18" (457mm) clearance from the connector to the ceiling. For a 6" (152mm) chimney connector, an opening of 30" (762mm) must be cut in the wall to maintain the required 12" (305mm) of brick separation from combustibles. It will be necessary to cut wall studs and install a header and sill frame to maintain proper dimensions and to hold the weight of the brick (Figure 8).

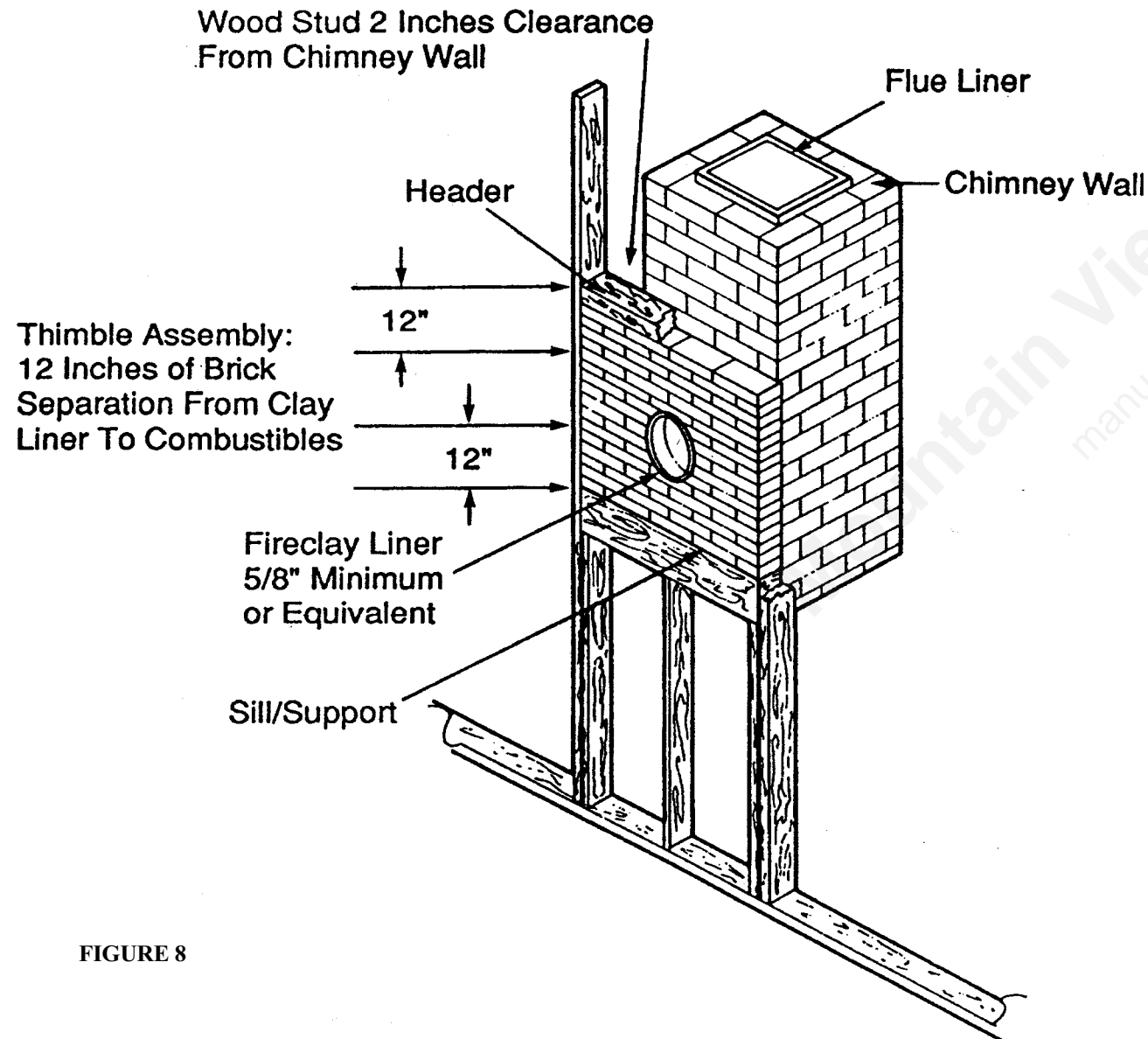


FIGURE 8

## OPERATING INSTRUCTIONS (cont.)

### BURNING GUIDELINES (cont.)

**MEDIUM:** After a wood load has been burning on high for at least 15 minutes (longer for very large pieces or wet wood), close (pull out) the air control rod to the desired setting.

**LOW:** After a wood load has been burning on high for at least 15 minutes (longer for very large pieces or wet wood), close (pull out) the air control rod, gradually making sure to maintain flames in the stove. It is very important to maintain flames in your stove during the first few hours of a low burn, to avoid excessive air pollution.

### BUILDING A FIRE

Before lighting your first fire in the stove, make certain that the baffle is correctly positioned. It should be resting on the rear baffle supports (see page 22 for baffle installation instructions). **Also refer to care and cleaning of plated surfaces section on page 20 before lighting your first fire.**

There are many ways to build a fire. The basic principle is to light easily-ignitable tinder or paper, which ignites the fast burning kindling, which in turn ignites the slow-burning firewood. Here is one method that works well:

1. Place several wads of crushed paper on the firebox floor.
2. Lay small dry sticks of kindling on top of the paper.
3. Open air control fully.
4. Make sure that no matches or other combustibles are in the immediate area of the stove. Be sure the room is adequately ventilated and the flue unobstructed.
5. Light the paper in the stove. NEVER light or rekindle stove with kerosene, gasoline, or charcoal lighter fluid; the results can be fatal.
6. Once the kindling is burning quickly, add several full-length logs 3" (76mm) or 4" (102mm) in diameter. Be careful not to smother the fire. Stack the pieces of wood carefully: near enough to keep each other hot, but far enough away from each other to allow adequate air flow between them.
7. When ready to reload the stove, add more logs. Large logs burn slowly, holding a fire longer. Small logs burn fast and hot, giving quick heat.
8. Adjust the air control: the more you close down the control, the lower and slower the fire will burn. The more open the control, the more heat will be produced.

As long as there are hot coals, repeating steps 7 and 8 will maintain a continuous fire throughout the season.

**NOTE:** The special high temperature paint that your stove is finished with will cure as your stove heats. You will notice an odor and perhaps see some vapor rise from the stove surface; this is normal. We recommend that you open a window until the odor dissipates and paint is cured.

**NOTE:** On a cold start-up, you may see a small amount of smoke coming from the underside of the stove until chimney draft is established. This is normal, and will stop when the loading door is closed.

### WOOD SELECTION AND STORAGE

Dry and well-seasoned wood will not only minimize the chance of creosote formation, but will give you the most efficient fire. Even dry wood contains at least 15% moisture by weight, and should be burned hot enough to keep the chimney hot for as long as it takes to dry the wood out - about one hour. It is a waste of energy to burn unseasoned wood of any kind. Dead wood lying on the forest floor should be considered wet, and requires full seasoning time. Standing dead wood can be considered to be about two-thirds seasoned. To tell if wood is dry enough to burn, check the ends of the logs. If there are cracks radiating in all directions from the center, it is dry. If your wood sizzles in the fire, even though the surface is dry, it may not be fully cured. Splitting wood before it is stored reduces drying time. Wood should be stacked so that both ends of each piece are exposed to air, since more drying occurs through the cut ends than the sides. This is true even with wood that has been split. Store wood under cover, such as in a shed, or covered with a tarp, plastic, tar paper, sheets of scrap plywood, etc., as uncovered wood can absorb water from rain or snow, delaying the seasoning process.

## OPERATING INSTRUCTIONS (cont.)

### BLOWER OPERATING INSTRUCTIONS

(see blower installation instructions on page 24)

If your Quadra-Fire wood stove is equipped with an optional blower, you should follow these guidelines:

1. Initial (cold) start-up: Leave blower off until your stove is hot and a good coalbed is established. The blower may be turned on approximately 30 minutes after loading the stove with fuel.
2. High burn setting: The blower may be left on throughout the burn.
3. Medium burn setting: The blower should be left off until a good burn is established, then turned on at a medium or high rate.
4. Low burn setting: The blower tends to cool off the stove. If you are using wet wood or a very low burn setting, leave blower off until the burn is well established. Then, if you wish, turn the blower on at a lower rate. Too high a blower setting with a low burn rate may adversely affect emissions.
5. The blower is equipped with a speed control. The highest blower speed is obtained by turning the speed control on and then adjusting back towards off as far as possible without turning the blower off. For a low blower speed, turn the control knob clockwise as far as possible.

### OPERATING TIPS

Here are a few tips on operating your Quadra-Fire stove to obtain maximum efficiency with lowest emissions:

1. Regardless of desired heat output, when loading stove, burn your Quadra-Fire with air control wide open for a minimum of 15 minutes.
2. Regulate burn rate (heat output) by adjusting the air control rod (under ashcatcher).
3. Heat output settings: Following 15 minutes of burning with control wide open (see #1 above):

<u>BTU/Hr.</u>	<u>Primary</u>	<u>Secondary</u>
Below 10,000	Closed after 5 minutes	Pull to stop
10,000-15,000	Closed after 5 minutes	3/4" - 1" open
15,000-30,000	Closed after 5 minutes	1" - 2 1/2" open
Maximum heat	Full open	Full open

These are approximate settings, and will vary with type of wood or chimney draft.

4. Burn dry, well-seasoned wood (see section on wood selection and storage, page 19).

### BURNING GUIDELINES

Aladdin Hearth Products, is deeply concerned with the air quality in your community. In order to maintain clean air, it is very important to burn your wood stove in the most efficient manner possible. Following these guidelines will insure environment-friendly operation.

#### OPACITY

This is the measure of how cleanly your stove is burning. Opacity is measured in percent; 100% opacity is when an object is totally obscured by the smoke column from a chimney, and 0% opacity means that no smoke column can be seen. As you become familiar with your stove, you should periodically check the opacity. This will allow you to know how to burn your stove as nearly smoke-free as possible (goal of 0% opacity).

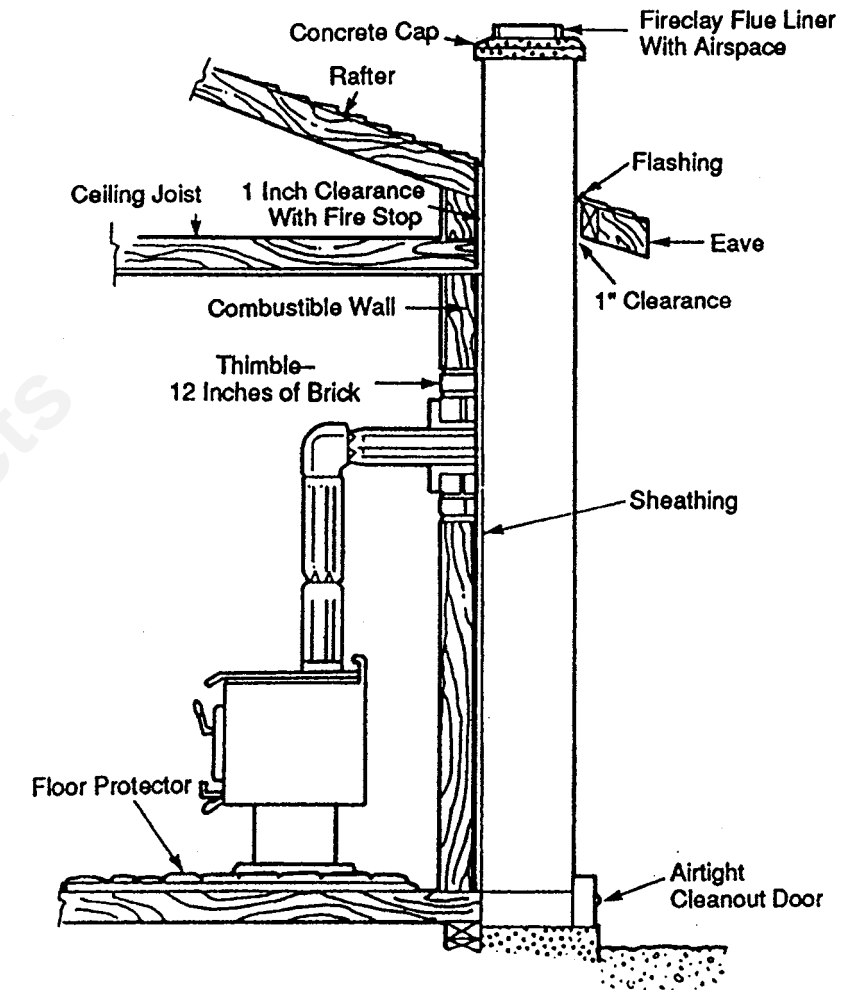
#### WOOD

Burn only dry seasoned wood. Store wood under cover, out of the rain and snow.

#### BURN RATES

**HIGH:** Open (push in) air control rod fully. It is important to do this when reloading the stove. Failure to do this could result in excessive emissions (opacity).

FIGURE 9



Minimum 3 1/2" (89mm) [4" (102mm) nominal] thick solid bricks are to be used. The fire clay liner (ASTM C35 or equivalent), 5/8" (16mm) wall thickness, must not penetrate into the chimney beyond the inner surface of the chimney flue liner and must be firmly cemented in place. If it is necessary to cut a hole in the chimney liner, use extreme care to keep it from shattering. Refractory mortar must be used at the junction with the chimney liner. After the assembly is complete, insert the chimney connector into the fire clay liner. Do not push it beyond the inside edge of the chimney liner, as this will affect the draw of the chimney.

- 6" SOLID PACK CHIMNEY WITH METAL SUPPORTS AS A THIMBLE:** For the method of installation to a masonry chimney shown in Figures 10 and 11, it will be necessary to purchase a 6" (152mm) inside diameter, 12" (305mm) long section of prefabricated listed solid pack chimney to use as a thimble. Purchase a wall spacer, trim collar and wall band that are manufactured to fit the chimney section you purchase. Cut out a 14 1/2" (368mm) diameter opening in the wall. It may be necessary to cut wall studs and install a header and sill frame to maintain the wall support. The hole in the chimney must have at least a 6" (152mm) diameter fire clay liner or equivalent, secured with refractory mortar. If it is necessary to cut a hole in the chimney liner, use extreme care to keep it from shattering.

The safety features of this system are the 2" (50mm) air space between the chimney section and combustible wall, and the 1" (25mm) air space around the chimney connector as it passes through the chimney section to the chimney. The location of the opening through the wall to the chimney must leave a minimum 18" (457mm) vertical clearance between the connector pipe and the ceiling, to prevent the ceiling from catching fire when using single wall pipe.

First, build the frame for the thimble, making sure that it is no smaller than 14½” (368mm) diameter, which will maintain a 2” (50mm) air space around the chimney section. Attach the wall spacer to the chimney side of the frame. Then insert the frame into the opening, toe-nailing it to the wall studs. Install the wall band in the framing to secure the chimney section in place. Insert a single section of chimney connector into the chimney through the wall band, being sure it does not protrude into the chimney beyond the edge of the chimney flue lining. Apply high temperature furnace cement to the end of the chimney section and install it over the connector, through the wall band, and through the wall spacer. Tighten the wall band to hold the chimney section firmly in place and against the chimney. Install the trim collar on the outside of the opening. Check to insure there is a 1” (25mm) air space between the connector and the chimney section. Also, during installation, always check to insure that a 2” (50mm) air space is being maintained to the wood framing. Do not fill this space with insulation. Insulation in this air space will cause a heat buildup which may ignite the wood framing.

FIGURE 10

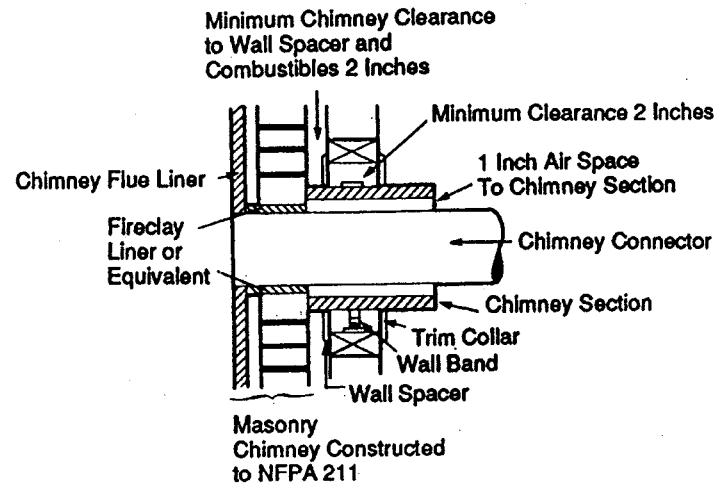
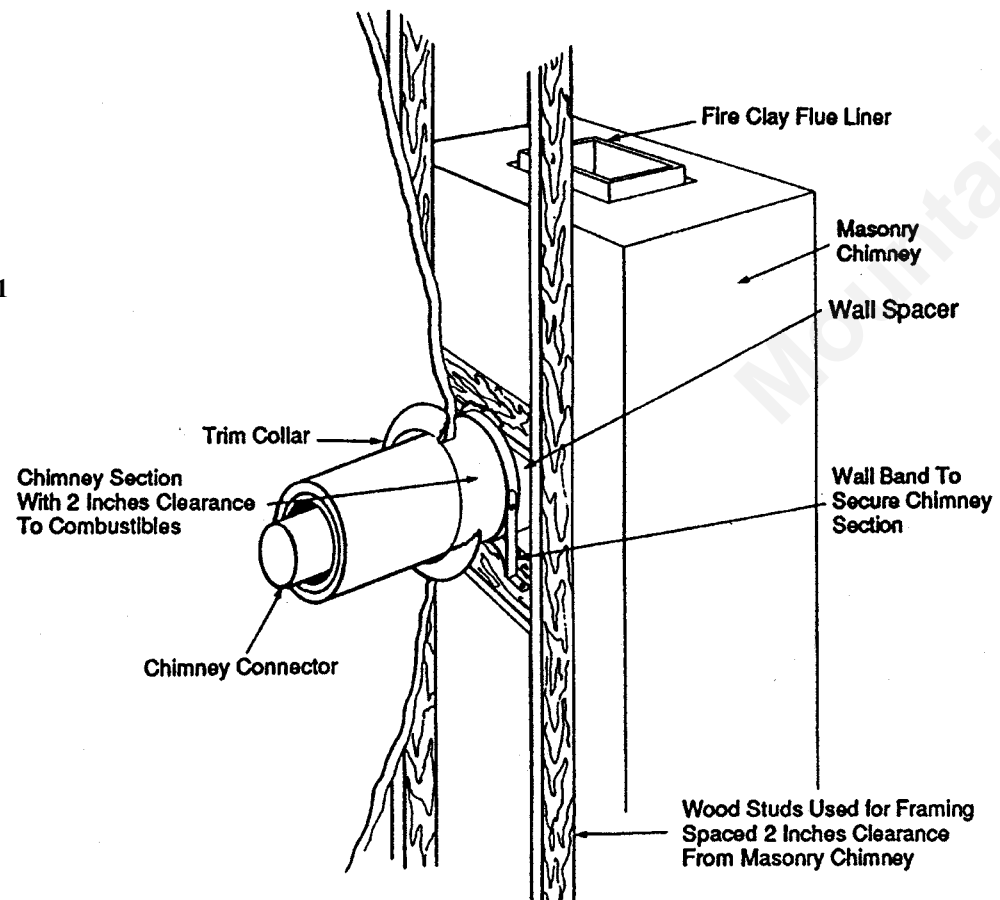


FIGURE 11



## OPERATING INSTRUCTIONS

### IMPORTANT - PLEASE READ BEFORE USING STOVE

#### BURNING PROCESS

In recent years there has been an increasing concern about air quality. Much of the blame for poor air quality has been placed on the burning of wood for home heating. In order to improve the situation, we at Quadra-Fire have developed cleaner-burning wood stoves that surpass the requirements for emissions established by our governing agencies. These wood stoves, like any other appliances, must be properly operated in order to insure that they perform the way they are designed to perform. Improper operation can turn most any wood stove into a smoldering environmental hazard.

It helps to know a little about the actual process of burning in order to understand what goes on inside a stove. The first stage of burning we will call the *kindling stage*. In this stage, the wood is heated to a temperature high enough to evaporate the moisture which is present in all wood. The wood will reach the boiling point of water (212°F) and will not get any hotter until the water is evaporated. This process takes heat from the coals and tends to cool the stove. Fire requires three things to burn: fuel, air and heat. So, if heat is robbed from the stove during the drying stage, the new load of wood has reduced the chances for a good clean burn. For this reason, it is always best to burn dry, seasoned firewood. When the wood isn't dry, you must open the air control and burn the stove at a high burn setting for a longer time to start it burning.

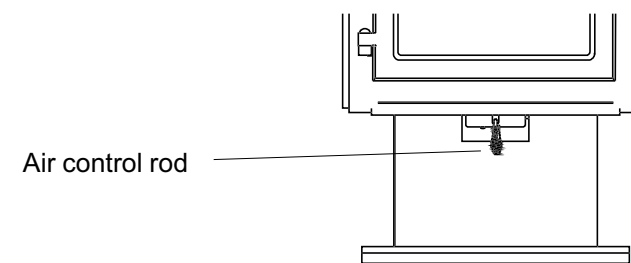
The next stage of burning, the *secondary stage*, is the period when the wood gives off flammable gases which burn above the fuel with bright flames. During this stage of burning it is very important that the flames be maintained and not allowed to go out. This will insure the cleanest possible fire. If you are adjusting your stove for a low burn rate, you should close down the air to the point where you can still maintain some flame. If the flames tend to go out, the stove is set too low for your burning conditions. The air control in the center of the stove, beneath the ashcatcher, is used to adjust the stove for lower burn rates. Pulling this control towards you closes it, pushing it in opens it. The air control rod should be closed (pulled outward) for lower burns.

The final stage of burning is the *charcoal stage*. This occurs when the flammable gases have been mostly burned and only charcoal remains. This is a naturally clean portion of the burn. The coals burn with hot blue flames. It is very important to reload your stove while enough lively hot coals remain in order to provide the amount of heat needed to dry and rekindle the next load of wood. It is best to open the air control for a short while before reloading. This livens up the coalbed. Open door slowly so that ash or smoke does not exit stove through opening. You should also break up any large chunks and distribute the coals so that the new wood is laid on hot coals.

Air quality is important to all of us, and if we choose to use wood to heat our homes we should do so responsibly. To do this we need to learn to burn our stoves in the cleanest way possible. Doing this will allow us to continue using our wood stoves for many years to come.

#### COMBUSTION AIR SYSTEM

The combustion air enters at the upper front of the firebox, near the top of the glass door. This preheated air supplies the necessary fresh oxygen to keep the wood burning and mix with the unburned gases, helping to create secondary, tertiary and quaternary combustions. This air is regulated by the air control rod beneath the ashcatcher. For more combustion air push control in, for less combustion air pull control out.

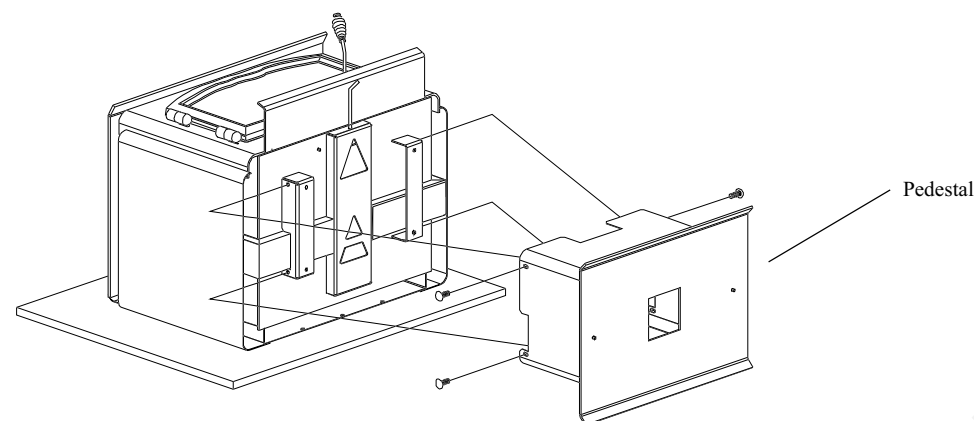


## PEDESTAL/LEG KIT INSTALLATION

**WARNING: DO NOT OPERATE YOUR QUADRA-FIRE STOVE BEFORE FULLY ASSEMBLING ALL COMPONENTS. BURNING YOUR STOVE WITHOUT A PEDESTAL OR LEG KIT ATTACHED WILL VOID YOUR WARRANTY, AND COULD PRESENT A SERIOUS SAFETY HAZARD.**

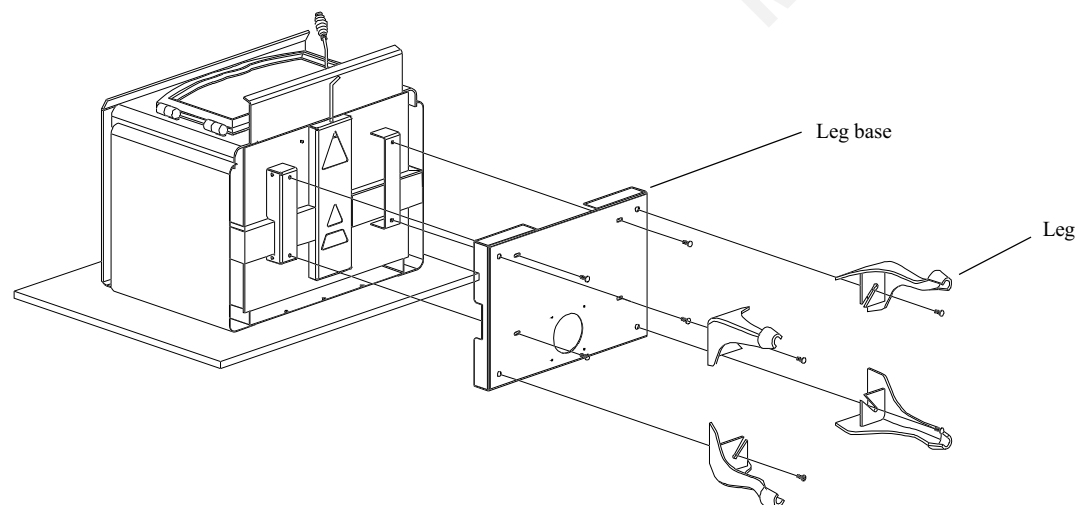
### PEDESTAL MODEL

1. Place protective pad or stove pallet on floor.
2. Lay body of stove on its back on protective pad or pallet.
3. Slide pedestal over adapter on bottom of stove
4. Line up holes in sides of pedestal with holes in adapter.
5. Bolt pedestal into place, and tighten securely.
6. Carefully stand stove up and place in desired location.
7. Slip wooden decorative strips onto pedestal edges.
8. Open door of stove and check to insure firebricks and ceramic blankets are in their proper locations (see page 22-23).



### LEG MODEL

1. Place protective pad or stove pallet on floor.
2. Lay body of stove on its back on protective pad or pallet.
3. Screw leg base to bottom of stove.
4. Slip washers onto bolts, then bolt legs onto leg base.
5. Carefully stand stove up and place in desired location.
6. Use leveling bolts on legs to stabilize and level stove.
7. Open door of stove and check to insure firebricks and ceramic blankets are in their proper locations (see page 22-23).



## CONNECTION TO A METAL PREFABRICATED CHIMNEY

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed precisely. You must also purchase (from the same manufacturer) and install the ceiling support package or wall pass-through and "T" section package, firestops (where needed), insulation shield, roof flashing, chimney cap, etc. Maintain the proper clearance to the structure as recommended by the manufacturer. This clearance is usually a minimum of 2" (50mm), although it may vary by manufacturer or for certain components.

There are basically two methods of metal chimney installation. One method is to install the chimney inside the residence through the ceiling and the roof (Figure 12). The other method is to install an exterior chimney that runs up the outside of the residence (Figure 13). The components illustrated may not look exactly like the system you purchase, but they demonstrate the basic components you will need for a proper and safe installation.

The chimney must be the required height above the roof or other obstruction for safety and proper draft operation. The chimney must be a minimum of 3' (914mm) higher than the highest point where it passes through the roof, and at least 2' (610mm) higher than the highest part of the roof or structure that is within 10' (3048mm) of the chimney, measured horizontally (Figure 5).

**REMEMBER:** Follow the manufacturer's installation instructions and maintain the manufacturer's specified clearance distances.

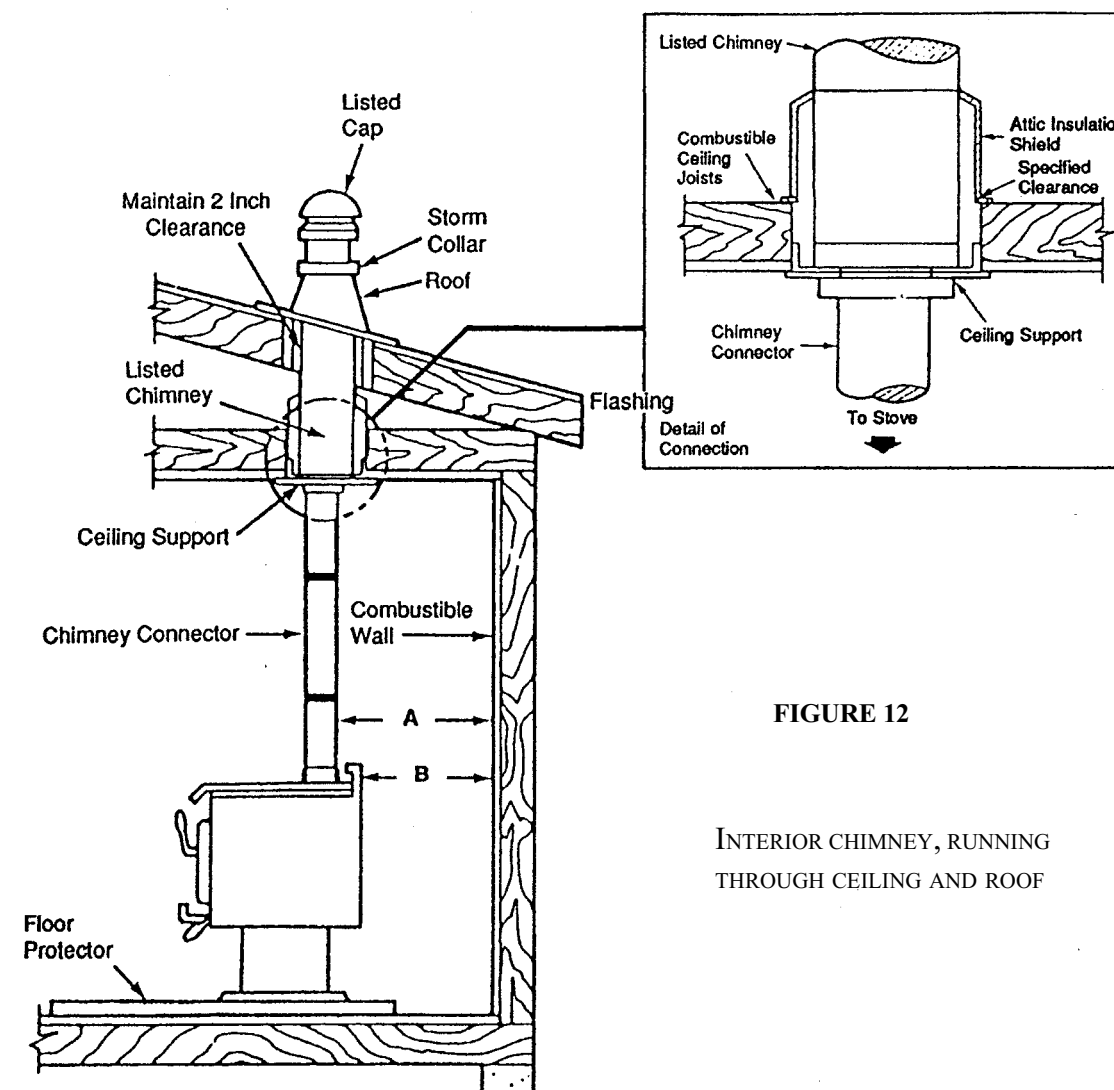


FIGURE 12

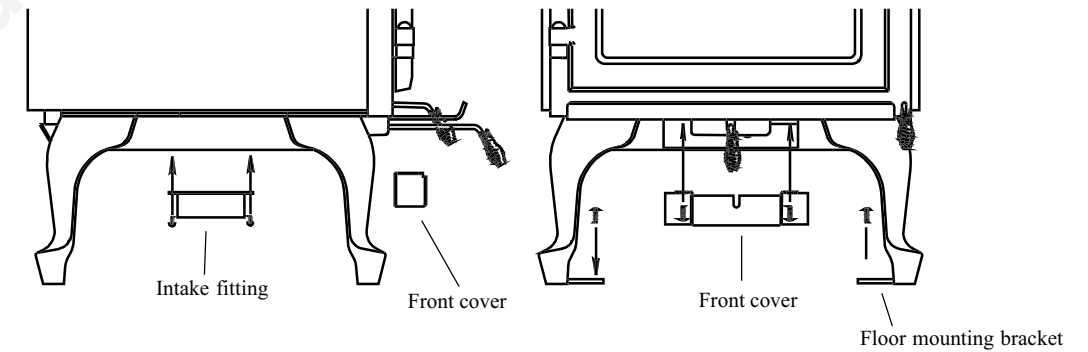
INTERIOR CHIMNEY, RUNNING THROUGH CEILING AND ROOF

## OUTSIDE AIR KIT INSTALLATION

### 1900 LEG MODELS

Part #831-1300

1. Remove ¼"-20 screws from stove bottom.
2. Mount front cover over the front air intake with two ¼"-20 screws.
3. Mount intake fitting on underside of bottom pan, and connect to ducting.
4. **Floor installation:** Cut a 4" (101mm) minimum hole in the floor to accommodate outside air piping. Use 4" (101mm) metal flex or rigid piping to directly connect outside air to the unit or into vented crawl space. Use the rodent screen supplied to cover the hole in the floor. Seal between the floor and the pipe with silicone to prevent moisture penetration.
5. **Rear/wall installation:** Cut a 4" (101mm) hole in outside wall to accommodate outside air piping. Use 4" (101mm) metal flex or rigid piping to directly connect outside air to stove intake. Use a termination cap equipped with a rodent screen (obtain from venting manufacturer). Seal between the wall and the pipe with silicone to prevent moisture penetration.



### 1900 PEDESTAL MODELS

Part #831-1750

1. Front cover plate attaches to firebox bottom below ashlip with two ¼"-20 screws supplied.
2. Mount rear cover plate with four mounting screws supplied. This cover will seal the pedestal (floor installation) or have a 4" (101mm) hole (rear installation).
3. Both kits have two 1" (25mm) rope gaskets to be tucked under pedestal to seal off both sides.
4. **Floor installation:** Cut a 4" (101mm) minimum hole in the floor to accommodate outside air piping. Use 4" (101mm) minimum metal flex or rigid pipe to directly connect outside air to the unit or into vented crawl space. Use the rodent screen supplied to cover the hole in the floor. Seal between the floor and the pipe with silicone to prevent moisture penetration.
3. **Rear/wall installation:** Cut a 4" (101mm) hole in outside wall to accommodate outside air piping. Use a 4" (101mm) metal flex or rigid piping to directly connect outside air to stove intake. Use a termination cap equipped with a rodent screen (obtain from venting manufacturer). Seal between the wall and the pipe with silicone to prevent moisture penetration.

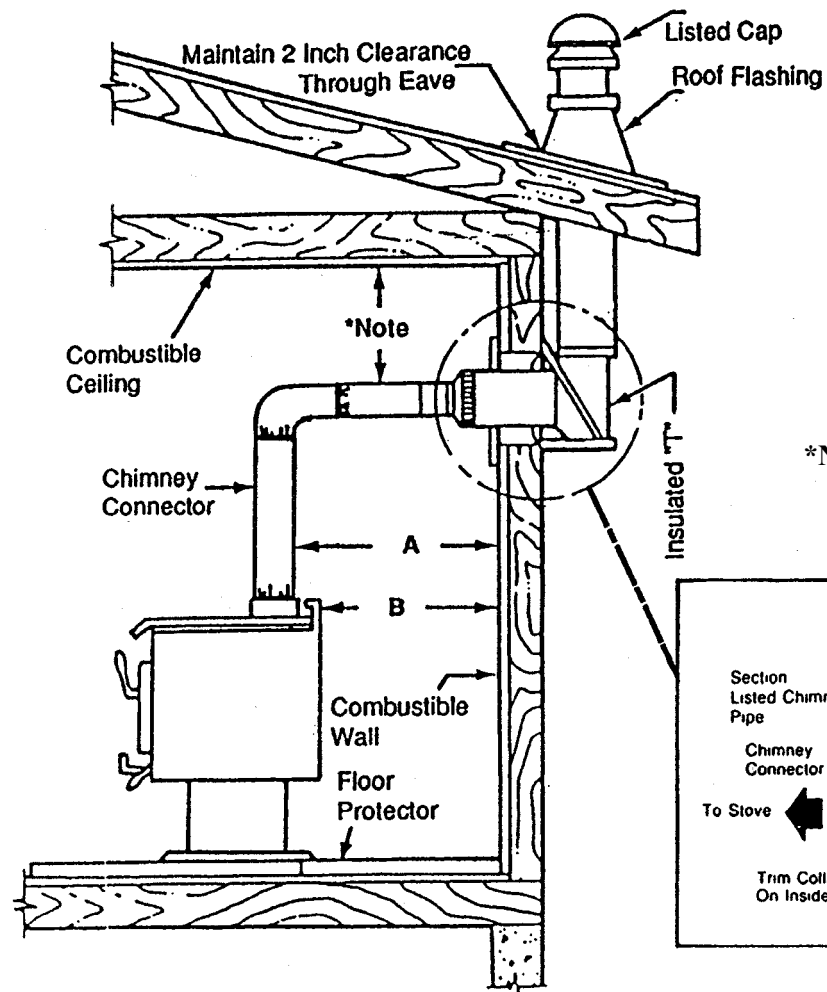
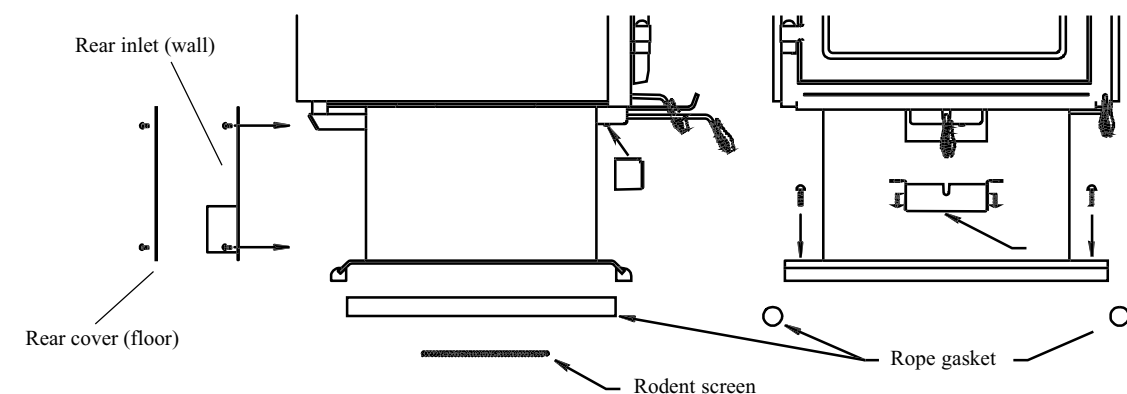
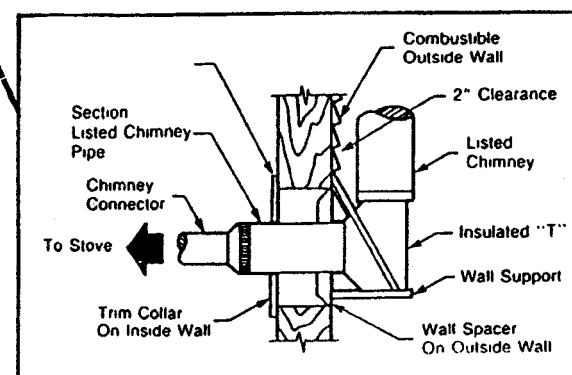


FIGURE 13

EXTERIOR CHIMNEY RUNNING UP THE OUTSIDE OF THE RESIDENCE

\*Note: Unit has not been tested with a horizontal connector. Refer to local building codes.



## MOBILE HOME INSTALLATION

You must use a Quadra-Fire 1900 outside air kit (see page 15 for part numbers) for installation in a mobile home. Use of alternative material will void warranty.

1. An outside air inlet must be provided for combustion and be unrestricted while unit is in use.
2. Unit must be secured to the mobile home structure by bolting pedestal through hearth pad and into floor. For leg models, use attachment brackets to attach stove through pad and into floor.
3. Do not install unit in a sleeping room.
4. The structural integrity of the mobile home floor, walls, and ceiling/roof must be maintained (i.e., do not cut through floor joist, wall stud, ceiling truss, etc.).
5. Unit must be grounded with #8 copper grounding wire or equivalent and terminated at each end with N.E.C. approved grounding device.
6. Refer to clearance to combustibles section (page 6) for listing to combustibles.
7. Seal all wall/floor inlets to prevent air or moisture penetration. Check periodically to insure the inlet is free of obstructions (e.g., snow or ice).
8. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).
9. If unit burns poorly while exhaust blower is on in home, increase combustion air.

**NOTE:** Offsets from the vertical, not exceeding 45°, are allowed per Section 905(a) of the Uniform Mechanical Code (UMC). Offsets greater than 45° are considered horizontal and are also allowed, providing the horizontal run does not exceed 75% of the vertical height of the vent. Construction, clearance and termination must be in compliance with the UMC Table 9C. This installation also complies with NFPA 211.