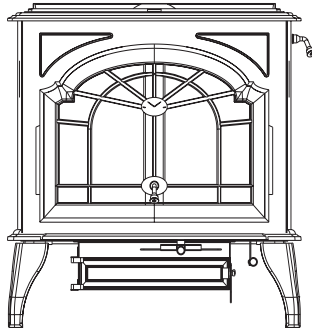


QUADRA-FIRE®

Isle Royale

Non-Catalytic, Top-load, Wood Heater



This manual contains instructions for Installation, Operation & Maintenance. Please read this entire manual before you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death.

IMPORTANT SAFETY NOTES:

- 1) When installing your stove, particular attention should be paid to fire protection. If this room heater is not properly installed, a house fire may result. To reduce the risk of fire, follow the installation instructions. Contact local building or fire officials or authority having jurisdiction about restrictions, installation inspection and permit requirements in your area.
- 2) CAUTION: Never use gasoline or 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 heater while it is in use.
- 3) During operation, if any part of the stove starts to glow, the stove is in an overfired condition. Close the air controls completely until the glowing has stopped. **OVERFIRING VOIDS YOUR WARRANTY!**
- 4) Cool ashes should be disposed of carefully, using a metal container.
- 5) Do not burn wet or green wood. Store wood in a dry location.
- 6) **DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.** Do not burn 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 methods 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 open, without the firescreen, or ash removal system door open.
- 15) For further information refer to NFPA 211 (USA) or CAN/CSA-B365 (Canada).
- 16) Do not operate without fully assembling all components. Burning your stove without the legs attached (if supplied with unit) will void your warranty, and could present a serious safety hazard
- 17) Do not operate with broken glass..

PRIOR TO FIRST FIRE: Remove all labels from glass. Clean plated surfaces with a glass cleanser and soft cloth to prevent staining from fingerprint oils.

SAVE THESE INSTRUCTIONS



1445 North Highway
Colville, WA 99114-2008

250-5763B February 4, 2005

www.quadrafire.com

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PRE-USE CHECK LIST

1.		Place the unit in a location near the final installation area and follow the procedures below.
2.		Open the stove and remove all the parts and articles packed inside. Inspect all the parts and cast iron body for shipping damage. Contact your dealer if any irregularities are noticed.
3.		All safety warning have been read and followed.
4.		This Owner's Manual has been read.
5.		Floor protection requirements have been met.
6.		Chimney connector is properly installed.
7.		The proper clearances from the stove and chimney to combustibles materials have been met.
8.		The masonry chimney is inspected by a professional and is clean, or the factory-built metal chimney is installed according to the manufacturer's instructions and clearances.
9.		The chimney meets the required minimum height.
10.		All labels have been removed from the glass doors.
11.		Plated surfaces have been wiped clean.

CAUTION!
DO NOT TILT THE UNIT ON THE CAST IRON LEGS.
 Lift the unit upright and place it into position on the floor protector.

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LISTINGS and SAFETY NOTICES

These installation instructions describe the installation and operation of the **QUADRA-FIRE ISLE ROYALE** woodstove. This stove meets the U.S. Environmental Protection Agency's 1990 particulate emission standards. The stove is listed by OMNI-Test Laboratories, Inc. to UL Safety Standard 1482, and ULC S627, and (UM) 84-HUD., Report number 061-S-18-2. This stove is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is provided. The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The stove must be properly grounded to the frame of the mobile home and only use listed double-wall pipe. Outside Air Kit, Part 831-1780 must be installed in a mobile home installation.

Check with your local building code agency before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections. Be sure local building codes do not supersede UL specifications and always obtain a building permit so that insurance protection benefits cannot be unexpectedly cancelled. If any assistance is required during installation, please contact your local dealer.

Inspect and clean vent system frequently in accordance with the instructions contained in this manual. Do not connect this unit to a chimney serving another appliance.

When using optional Blower, Part 831-1701, route power cord away from unit. Do not route cord under or in front of appliance.

Do not elevate fire. Build wood fire directly on firebrick.

Do not overfire - if heater or chimney connector glows, you are overfiring. Stove thermometer recommended.

Operate only with the door closed unless using a firescreen. Open only to add fuel to the fire. Operating with the door open can cause hot embers or sparks to fall out and a fire may result.

INSTALLATION MATERIALS NEEDED FOR YOUR SAFETY

CHIMNEY CONNECTOR (also known as flue pipe or stove pipe): The chimney connector joins the stove to the chimney (**see page 10**). It must be 6 inch (152mm) minimum diameter 24 MSG black or blued steel, or an approved air-insulated double wall venting pipe.

THIMBLE: A manufactured or site-constructed device installed in combustible walls through which the chimney connector passes to the chimney (**see page 11-12**). It is intended to keep the walls from igniting.

CHIMNEY SYSTEMS:

1. **APPROVED MASONRY** (**see specifications on page 13**) with at least 5/8 inch (16mm) fire clay lining joined with refractory cement or other listed system suitable for use with wood stoves.
2. **PREFABRICATED** 6 inch (152mm) listed high temperature (UL 103 HT or ULC S629) chimney. Components required by manufacturers for installation such as the chimney support base, firestop (as appropriate), attic insulation shield, insulated tee, etc., are necessary to assure a safe chimney installation. Use only components manufactured for the chimney. Chimney installation should meet NFPA 211 standards.

FIRE SAFETY: To provide reasonable fire safety, the following should be given serious consideration:

1. Install at least one smoke detector on each floor of your home to ensure your safety. They should be located away from the heating appliance and close to the sleeping areas. Follow the smoke detector manufacturer's placement and installation instructions, and be sure to maintain regularly.
2. A conveniently located Class A fire extinguisher to contend with small fires resulting from burning embers.
3. A practiced evacuation plan, consisting of at least two escape routes.
4. A plan to deal with a chimney fire as follows:

In the event of a chimney fire:

- A. Notify fire department.
- B. Prepare occupants for immediate evacuation.
- C. Close all openings into the stove.
- D. While awaiting fire department, watch for ignition of adjacent combustibles from overheated stove pipe, hot embers or sparks from the chimney.

VENTING SYSTEM

The venting system consists of a chimney connector and a chimney. These get extremely hot during use. Temperatures inside the chimney may exceed 2000°F (1100°C) in the event of a creosote fire. To protect against the possibility of a house fire, the chimney connector and chimney must be properly installed and maintained. An approved thimble must be used when a connection is made through a combustible wall to a chimney. A chimney support package must be used when a connection is made through the ceiling to a prefabricated chimney. These accessories are absolutely necessary to provide safe clearances to combustible wall and ceiling material. Follow venting manufacturer's clearances when installing venting system.

This stove may be connected to a lined masonry chimney or a listed high temperature prefabricated approved metal chimney. Do not connect it to a chimney serving another appliance. To do so will affect the safe operation of both appliances.

WARNING! NEVER DRAW OUTSIDE COMBUSTION AIR FROM A WALL, FLOOR OR CEILING CAVITY OR FROM ANY ENCLOSED SPACE SUCH AS AN ATTIC OR GARAGE.

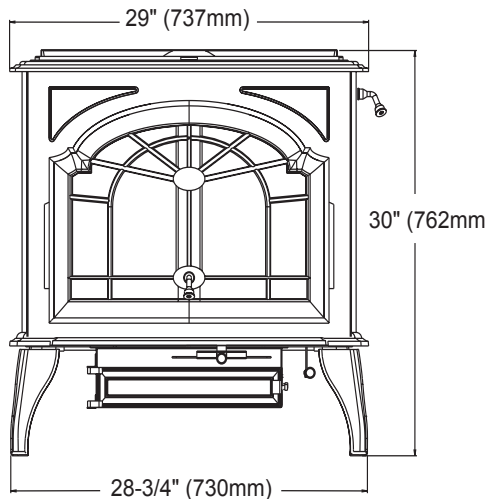
WARNING ! DO NOT ATTEMPT TO OPERATE THIS WOODSTOVE WITHOUT READING AND UNDERSTANDING THESE OPERATING INSTRUCTIONS THOROUGHLY. FAILURE TO OPERATE THIS APPLIANCE PROPERLY MAY CAUSE A HOUSE FIRE.

WARNING ! THE OUTSIDE SURFACES OF THIS UNIT WILL BECOME EXTREMELY HOT DURING USE. ALWAYS KEEP CHILDREN AWAY WHILE IT IS OPERATING AND DO NOT LET ANYONE OPERATE THIS APPLIANCE UNLESS THEY ARE FAMILIAR WITH THESE OPERATION INSTRUCTIONS.

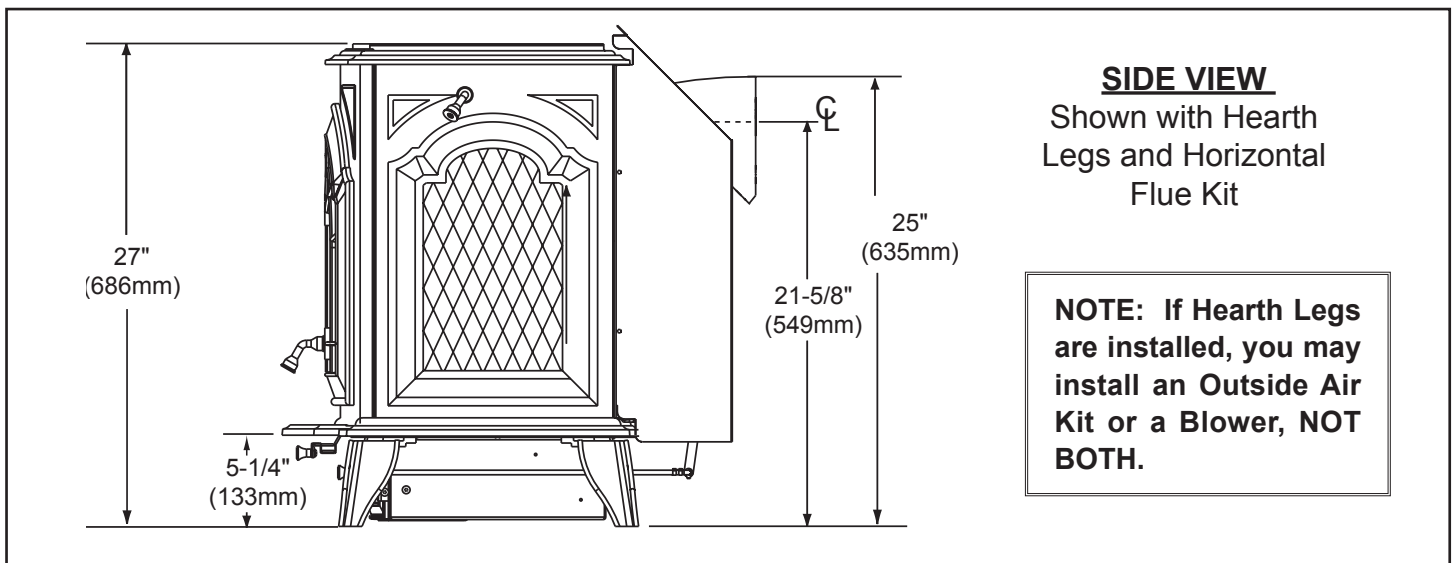
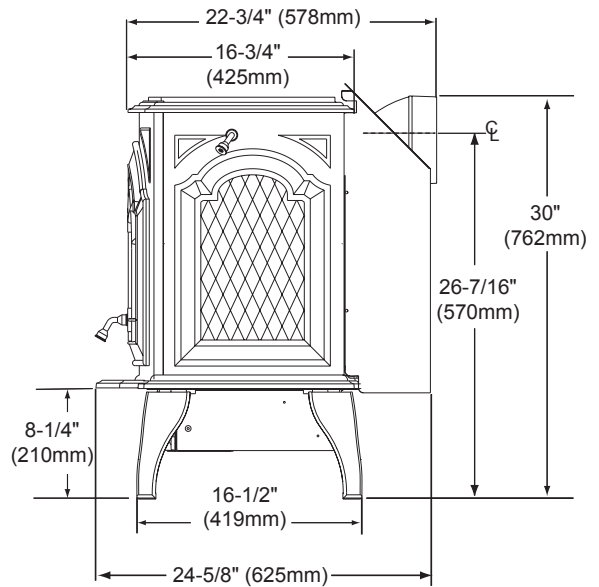
DIMENSIONS

LABEL IS LOCATED ON THE BACK OF THE STOVE

FRONT VIEW



SIDE VIEW



SIDE VIEW
Shown with Hearth
Legs and Horizontal
Flue Kit

**NOTE: If Hearth
Legs are installed, you may
install an Outside Air
Kit or a Blower, NOT
BOTH.**

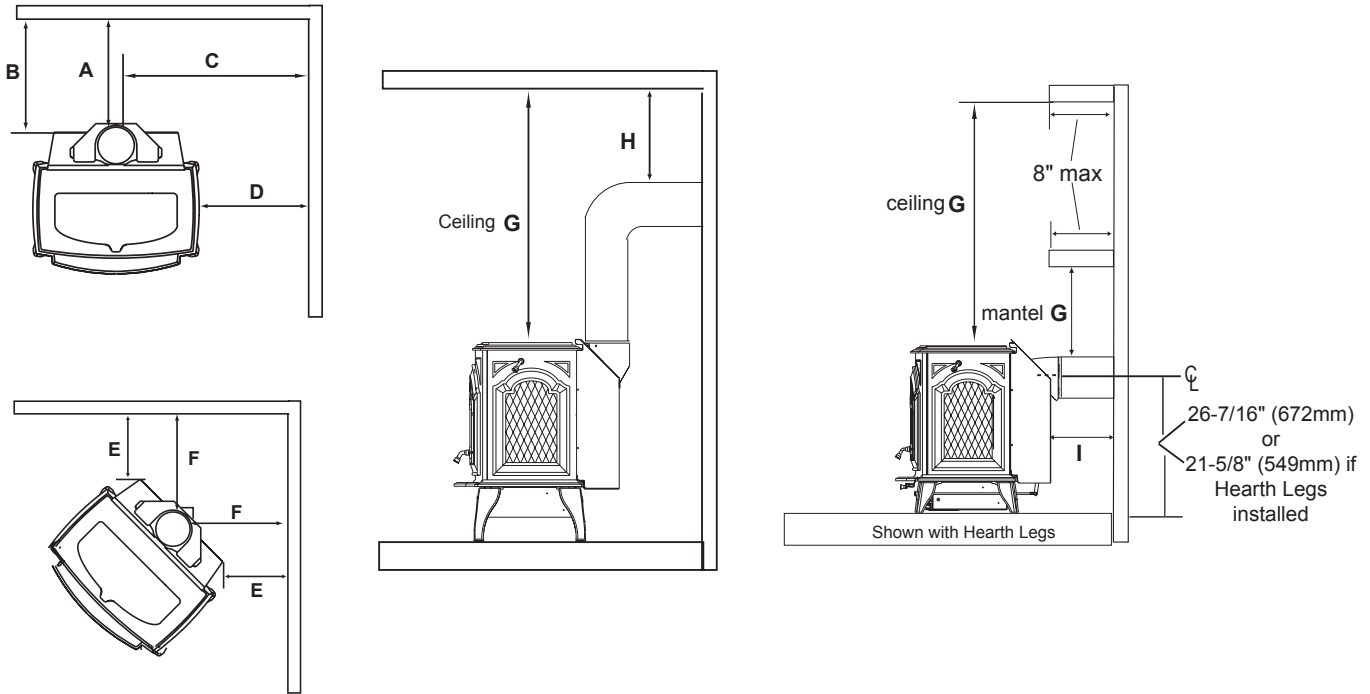
VENT SPECIFICATIONS:

Single Wall: Six inch (6") (152mm) diameter, minimum 24 MSG black or blued steel connector pipe, with a listed factory-built chimney type UL103 HT* suitable for use with solid fuels, or a masonry chimney, and the referenced clearances.

Double Wall/Mobile Home: Six inch (6") (152mm) diameter, listed double wall air insulated connector pipe with listed factory-built UL103 HT* Class "A" chimney, or a masonry chimney (Mobile Home must be equipped with a spark arrester), and the referenced clearances. Use only double-wall connector pipe, Dura-Vent DVL, Selkirk metalbestos DS, Security DL double wall connector or any listed double-wall connector pipe.

***In Canada must comply with CAN/ULC-S269 or the 650° Factory-built chimney.**

CLEARANCES TO COMBUSTIBLES (UL and ULC)



MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS In Inches & (Millimeters)

NOTE: "A" ,"C" and "F" Dimensions are to the inside diameter of the flue collar.

OMNI Test Laboratories, Inc Report Ntumber 061-S-18-2

	A	B	C	D	E	F	G	H	I
FOR TOP VENT INSTALLATIONS:									
SINGLE WALL PIPE	15 (381)	16 (406)	33 (838)	22 (558)	22 (558)	28 (711)	53 (1346)	18 (457)	16 (406)
DOUBLE WALL PIPE	13 (333)	14 (356)	29 (737)	18 (457)	6 (153)	12 (305)	53 (1346)	18 (457)	14 (356)
INSTALLATION: ALCOVE Six inch (6") (152mm) diameter listed Double Wall air insulated connector pipe with UL 103 HT listed factory-built Class "A" chimney, or a masonry chimney. (Mobile Home must be equipped with a spark arrestor). Maximum depth of Alcove shall be no more than 48 inch(1220mm). Please refer to the clearances below for minimum Alcove height requirements to top of unit.									
DOUBLE WALL PIPE	13 (333)	14 (356)	29 (737)	18 (457)	N/A	N/A	53 (1346)	18 (457)	14 (356)
FOR REAR VENT INSTALLATIONS:									
IN A MASONRY FIREPLACE OR THROUGH THE WALL: Six inch (6") (152mm) diameter listed double wall air insulated connector pipe with UL 103HT listed factory-built Class "A" chimney, or a masonry chimney. (Mobile Home must be equipped with a spark arrestor). Additional specifications include a maximum 8 inch (203mm) deep mantel without heat shield and the following clearances.									
	A	B	C	D	E	F	G	H	I
	N/A	N/A	33 (838)	22 (558)	N/A	N/A	36 (914) ceiling 14 (356)* mantel	N/A	14 (356) 9 (229) 0 (00) In Masonry Wall
* (G mantel) with shield spaced 1 inch (25mm) away from bottom mantel surface.									

FLOOR PROTECTION

The floor must be non-combustible material, extending beneath heater and to the front, sides and rear as indicated. The floor must be non-combustible or otherwise adequately protected from radiant heat given off by the unit and from sparks and falling embers. A layer of thin brick or ceramic tile over a combustible floor is not sufficient. See Alternate floor protection calculation sample on **page 8**.

In USA installations, it is necessary to install a floor protector of 1 inch ("k" value = .45) thick metal clad millboard or equivalent at least 16 inches in front and 8 inches to both sides of the loading door. If Hearth Leg kit is used in rear vent installation, floor protector must extend 18 inches (457mm) in front of the fuel loading door opening. **See *exception below**.

In Canada, similar floor protection must be provided 18 inches (457mm) in front and 8 inches (203mm) from the sides and rear of the stove. **See *exception below**.

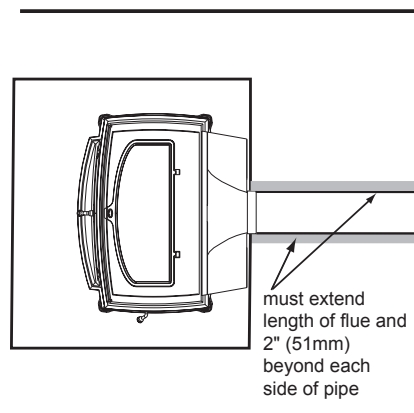
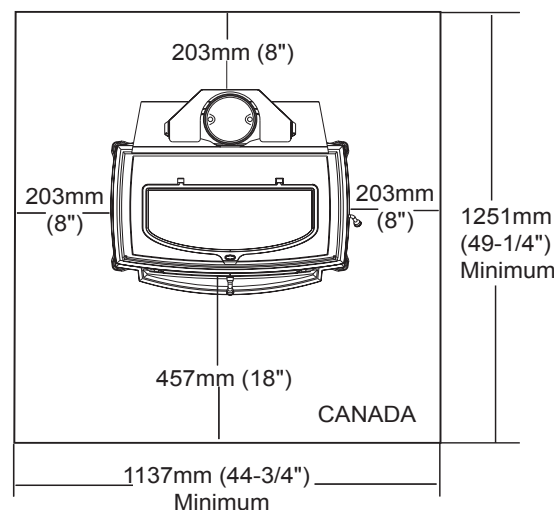
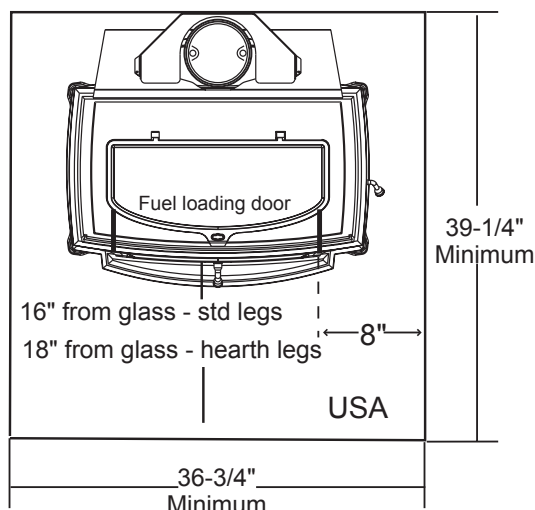
***EXCEPTION:** Non combustile floor protections must extend beneath the flue pipe when installed with horizontal venting and extend 2 inches (51mm) beyond each side.

LOCATING YOUR STOVE

WHEN LOCATING YOUR STOVE consider safety, convenience, traffic flow, and the fact that the stove will need a chimney and chimney connector. It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation. If you're not using an existing chimney, place the stove where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.

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. **NOTE: Clearances may only be reduced by means approved by the regulatory authority having jurisdiction.**

WE RECOMMEND that you have a qualified building inspector and your insurance company representative review your plans before and after installation.



USA - Required
CANADA - Recommended

Calculating Alternate Floor Protection

Material

Thermal Conductivity: k value

The k value indicates the amount of heat (in BTU's) that will flow in 1 hour through 1 square foot of a uniform material 1 inch thick for each degree (F) of temperature difference from one side of the material to the other. The LOWER the k factor means less heat is being conducted through the non-combustible material to the combustible material beneath it. The k value of a material must be equal or smaller then the required k value to be acceptable.

$$\frac{(\text{BTU}) (\text{inch})}{(\text{foot}^2 (\text{hour}) (^\circ\text{F}))}$$

Thermal Resistance: R value

The R value is a measure of a material's resistance to heat transfer. R value is convenient when more than one material is used since you can add the R values together, whereas you can not do this for k value. The HIGHER the R factor means less heat is being conducted through the non-combustible material to the combustible material beneath it. The R value of a material must be equal or larger then the required R value to be acceptable.

Converting k to R:

Divide 1 by k and multiply the results times the thickness in inches of the material.

$$R = 1/k \times \text{inches of thickness}$$

Converting R to k:

Divide the inches of thickness by R.

$$k = \text{inches of thickness}/R$$

Calculatons:

Example: Floor protection requires k value of 0.84 and 3/4 inch thick.

Alternative material has a k value of 0.6 and is 3/4 inch thick.

Divide 0.6 by .75 = k value of 0.80. This k value is smaller than 0.84 and therefore is acceptable.

REVERSIBLE FLUE COLLAR

The flue collar is reversible for either a top or rear venting installation. The unit is shipped with the flue collar in the top vent position.

CONVERTING COLLAR FOR REAR VENT INSTALLATION

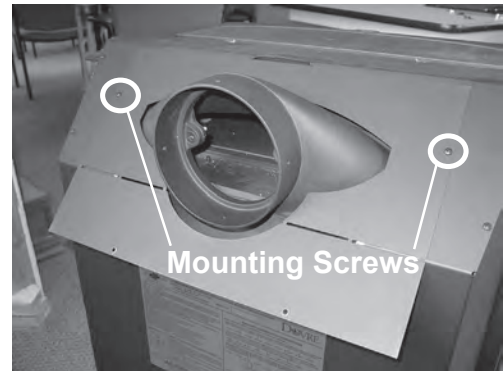
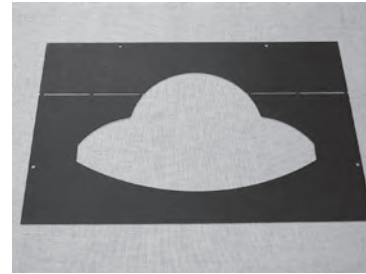
1. Remove 5 Phillips head screws from the rear shield, lift shield up and set aside.
2. Remove bolts from each side of the flue transition (2 total). (Place your free hand in flue opening to locate and retrieve nuts attached to bolts.)

3. Turn vent to horizontal position. Inspect sealant to ensure a leak free application.
4. Re-assemble in reverse order.

REAR FLUE DEFLECTOR COVER PLATE

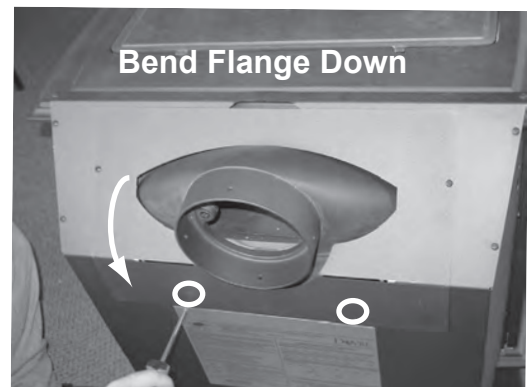
This cover plate is used when the flue collar is turned for a rear vent application.

Please note this cover plate will not work with the Low-Profile Kit



Mounting Screws

1. After the flue collar has been reversed for a rear vent installation, install the cover plate on the stove with the two screws provided.



Bend Flange Down

2. Bend the cover plate flange down.
3. Secure the cover plate with the remaining two screws.

CHIMNEY HEIGHT REQUIREMENTS / DRAFT

To be sure that your stove burns properly, the chimney draft (static pressure) should be approximately $-.04$ " water column (W.C.) during a low burn and $-.10$ " W.C. during a high burn, measured 6 inches (152mm) above the top of the stove after one hour of operation at each burn setting.

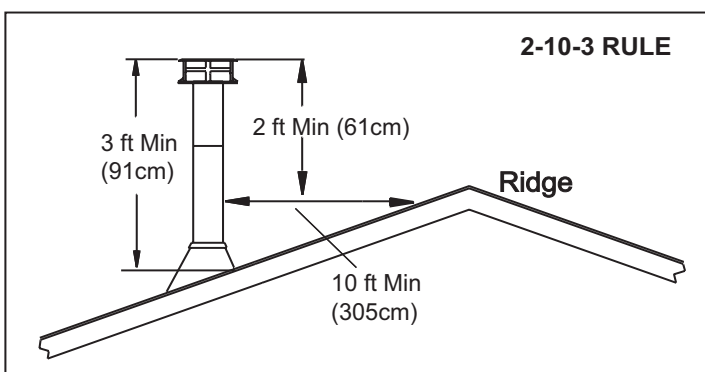
NOTE: These are guidelines only, and may vary somewhat for individual installations.

The stove was designed for and tested on a 6 inch (152mm) chimney, 12 ft.-14 ft. (360-420cm) high, measured from the base of the stove. The further your stack height or diameter varies from this configuration, the possibility of performance problems increases. In addition, exterior conditions such as roof line, surrounding trees, prevailing winds and nearby hills can influence stove performance.

A masonry chimney or a listed factory-built UL103 HT Class "A" chimney must be the required height above the roof and any other nearby obstructions. The chimney must be at least 3 ft. (91cm) higher than the highest point where it passes through the roof and at least 2 ft. (61cm) higher than the highest part of the roof or structure that is within 10 ft. (305cm) of the chimney, measured horizontally. **See 2-10-3 Rule below.**

These are safety requirements and are not meant to assure proper flue draft.

We recommend using a minimum total system height of 12 ft. (360cm), measured from the flue collar to the top of the chimney (not including chimney cap).



A proper amount of flue draft is required to assure the safe and efficient operation of this woodstove. Flue draft is measured as negative pressure in the chimney. The amount of negative pressure determines the strength of the draft. This draft performs two important roles in the operation of the woodstove. It draws the combustion air into the firebox, and pulls the smoke out of the chimney.

Three factors work together as a system to create the flue draft; 1) availability of combustion air; 2) heat generated from the fire, and 3) diameter and height of the flue system.. Increasing or decreasing any one of them will affect the other two and thus change the amount of draft in the entire system.

A source of air (oxygen) is necessary in order for combustion to take place. The combustion air enters the firebox below the ash catcher and is directed to the upper front of the firebox. These openings are regulated by the Primary Air Slide Control and Start-up Air Control, (see **page 17** for operation of these controls). It is important to realize that whatever combustion air is consumed by the fire must be replaced. If you are using room air, the air is replaced via air leakage that occurs around windows and under doors, etc. However, in most newly constructed houses, mobile homes, or even existing homes that are fitted with tightly sealed doors and windows, the area from which the combustion air is taken is relatively air tight. In these cases, an outside air source must be made available to feed combustion air from outside the home into the stove. An Outside Air Kit is available as an option, Part 831-1780. The kit is a requirement for mobile home installations.

A specific volume of air, determined by the diameter and height of the chimney connector and chimney, is contained within the flue system. As heat from the fire enters the flue, it warms this air causing it to rise. The air moving up the flue draws smoke and more heated air from the fire with it, thus establishing draft. The amount of draft depends on the temperature of the heated air and the volume of air that is contained in the flue system.

If the fire is difficult to start, and smoke spills out of the door, or you find it hard to establish and maintain a moderately high burn rate, then the flue draft is too low and corrective measures must be taken.

If you still suspect you have a low draft problem, it may be necessary to increase the volume of air in your flue system. Since the diameter of your flue system is matched with the size of the flue collar and should not be changed, the height of the system will need to be increased. Add chimney a little at a time until the draft improves, and ensure that the flue collar and venting section are sealed.

Your local dealer is the expert in your geographic area and can usually make suggestions or discover problems that will easily correct your flue draft problem, allowing your woodstove and its flue system to operate correctly and provide safe and economical heat for your home.

FLUE SYSTEMS

There are two separate and different parts to a flue system: the chimney connector and the chimney itself.

1. Single wall connector or stovepipe. This must be at least 24 gauge mild steel or 26 gauge blue steel. The sections must be attached to the stove and to each other with the crimped (male) end pointing toward the stove. **See Figure 10A.** All joints, including the connection at the stove collar, should be secured with three sheet metal screws. Make sure to follow the minimum clearances to combustibles as set out on **pages 6 and 7** of this manual. Where passage through the wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365.
2. Factory-built listed chimney connector (vented). A listed connector (vented) must be used when installing this unit in a mobile home. A listed chimney and listed connector must be used. They must conform to each other to ensure a proper fit and seal.

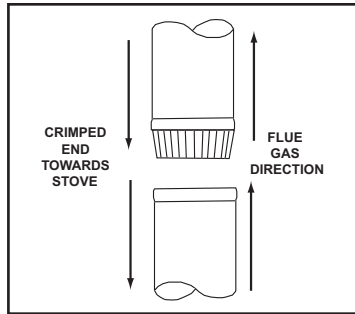


Figure 10A - Chimney Connector

MASONRY CHIMNEY

For optimal performance, masonry chimneys used to vent this appliance should be lined with a 6 inch stainless steel liner. Installations into a clay flue without a stainless steel liner may reduce efficiency, cause the glass to darken, and produce excessive creosote.

Ensure that a masonry chimney meets the minimum standards of the National Fire Protection Association (NFPA) Standard 211. It must have at least a 5/8 inch (16mm) fire clay liner or a listed chimney liner system. **See Figure 10B.** Make sure there are no cracks, loose mortar or other signs of deterioration and blockage. It is best to have the chimney inspected by a professional and be sure to have the chimney cleaned before the stove is installed and operated.

The flue should be checked to determine that it is not too large for the stove. NFPA 211 allows the cross-sectional area of the flue to be no more than 3 times the cross-sectional area of the flue collar of the stove ($28 \times 3 = 84$ square inches). It is recommended that a chimney with a larger diameter be relined, since the oversized flue can cause poor performance and contribute to the accumulation of creosote. (See **page 24** for more information about troubleshooting draft problems).

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

When connecting the stove through a combustible wall to a masonry chimney, special methods are needed. There are several ways to make this connection, including the construction of a masonry thimble. This installation shall conform to CAN/CSA-B365. Check with your local building authorities or consult the National Fire Protection Association (NFPA 211). Refer to **Figure 11B (page 11)** and **Figures 12A & 12B (page 12)**.

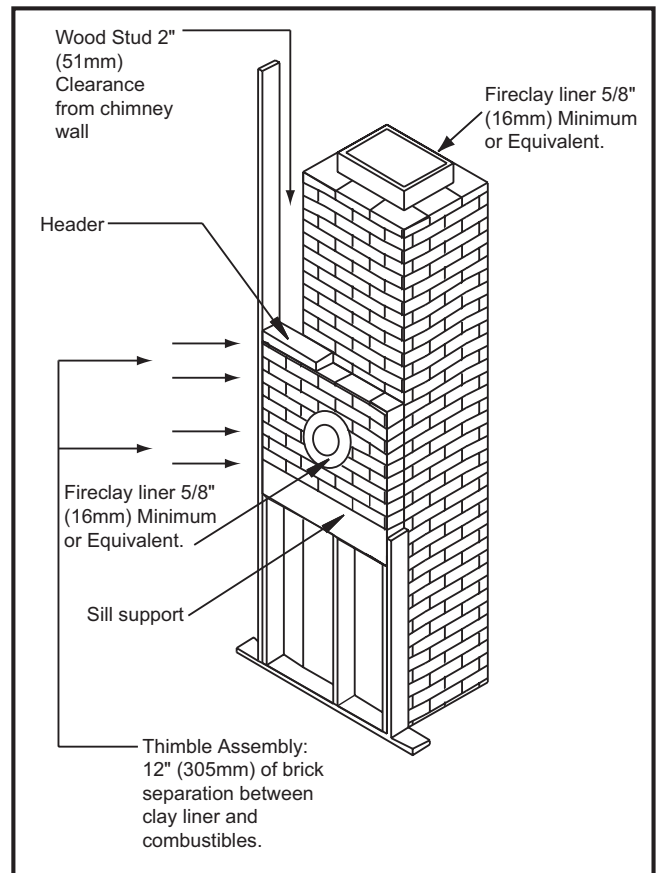


Figure 10B

WARNING! IF INSTALLING THIS MODEL TO A MASONRY CHIMNEY, ALWAYS BE SURE THE CHIMNEY IS IN GOOD CONDITION AND THAT IT MEETS THE MINIMUM STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 211.

THIS APPLIANCE IS MADE WITH A 6 INCH/152mm DIAMETER CHIMNEY CONNECTOR AS THE FLUE COLLAR ON THE UNIT. CHANGING THE DIAMETER OF THE CHIMNEY CAN AFFECT DRAFT AND CAUSE POOR PERFORMANCE. IT IS NOT RECOMMENDED TO USE OFFSETS OR ELBOWS AT ALTITUDES ABOVE 4000 FEET ABOVE SEA LEVEL OR WHEN THERE ARE OTHER FACTORS THAT AFFECT FLUE DRAFT.

SOLID PACK CHIMNEY WITH METAL SUPPORTS AS A THIMBLE

For the method of installation to a masonry chimney shown in **Figures 12A & 12B, (page 12)** it will be necessary to purchase a 12 inch (305mm) long 8 inch (203mm) inside diameter, section of prefabricated listed solid pack chimney to use as a thimble. Purchase a wall spacer, trim collar, and a wall band manufactured to fit the chimney section you purchase.

The safety features of this system are two fold: 1) a 2 inch (51mm) air space between the chimney section and combustible wall; and, 2) the 1 inch (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 inches (457mm) vertical clearance between the connector pipe and the ceiling to prevent the ceiling from catching fire.

Measure as shown in **Figure 11A**. Cut an opening in the wall large enough to accommodate the outside dimension of the chimney section plus the minimum air space specified by its manufacturer. It may be necessary to cut the wall studs and install a header and a sill frame to maintain the wall support. The hole in the chimney must have at least an 8 inch (203mm) 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.

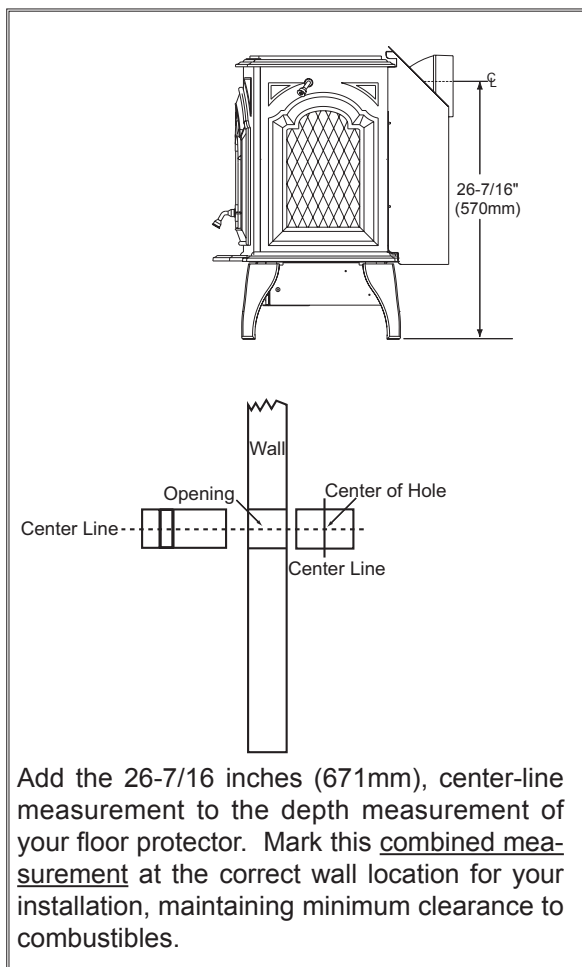


Figure 11A

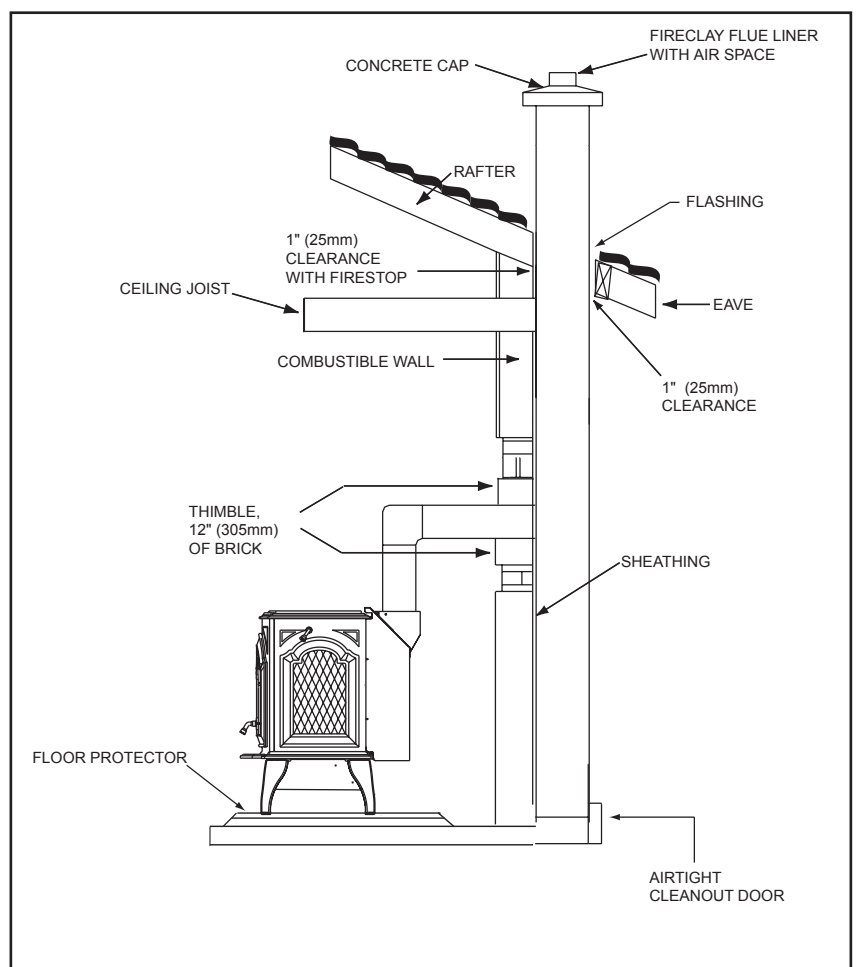


Figure 11B

WARNING! ALWAYS FOLLOW CHIMNEY CONNECTOR MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.

CHIMNEY CONNECTOR IS TO BE USED ONLY WITHIN THE ROOM, BETWEEN THE STOVE AND CEILING OR WALL, NEVER PASSING THROUGH A COMBUSTIBLE CEILING OR WALL. THE CONNECTOR SHALL NOT PASS THROUGH AN ATTIC OR ROOF SPACE, CLOSET OR SIMILAR CONCEALED SPACE, OR A FLOOR, OR CEILING. MAINTAIN MINIMUM CLEARANCES TO COMBUSTIBLES AS REFERENCED ON PAGES 6,7.

SOLID PACK CHIMNEY WITH METAL SUPPORTS AS A THIMBLE (CONT'D)

First, make the frame for the thimble, ensuring it is no smaller than 14 inches (356mm) square to maintain a 2 inch (51mm) 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 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 ensure there is a 1 inch (25mm) air space between the connector and the chimney section.

During installation ensure that a 2 inch (51mm) air space to the wood framing is maintained. Do not fill this space with insulation. Insulation in this air space will cause a heat buildup which may ignite the wood framing.

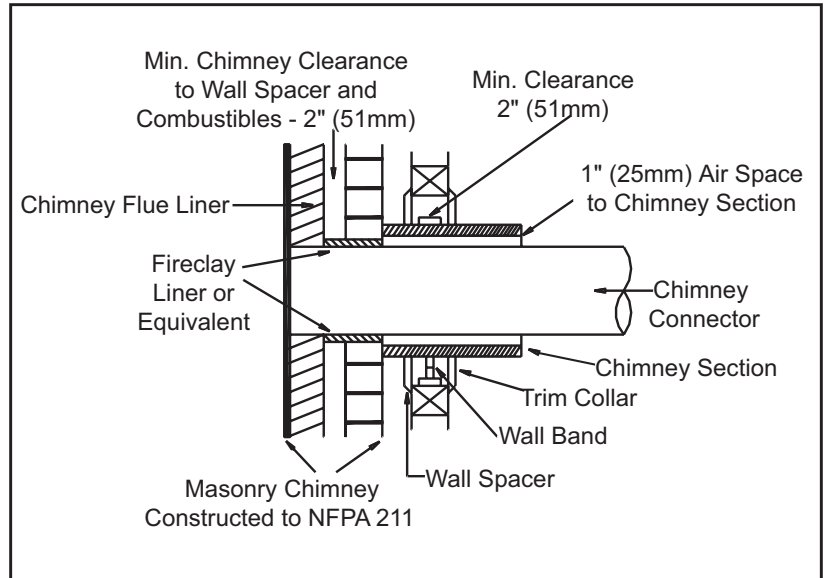


Figure 12A

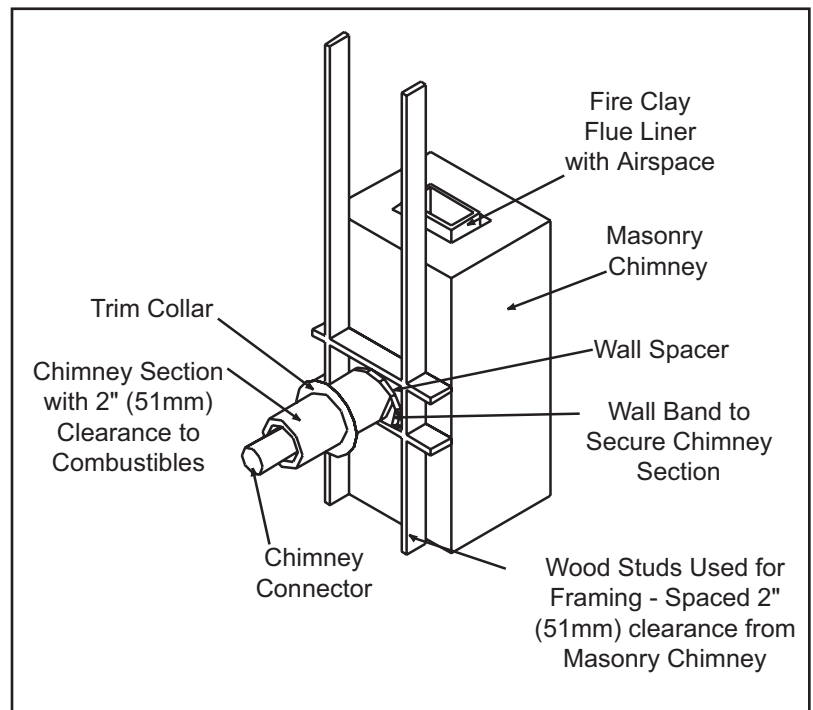


Figure 12B

CONNECTION TO A MASONRY FIREPLACE

There are several kits available to connect the stove to a masonry fireplace. Look for a listed kit. The kit is an adapter which is installed at the location of the fireplace damper. The existing damper may have to be removed to allow installation of the kit. The key points of this type of stove connection are that the connector pipe must extend up the chimney above where the fire clay liner starts, and the areas of the kit installation and penetration should fit tightly and be sealed with high temperature furnace cement unless the kit's instructions state otherwise. **Figure 13.** The tight fitting installation aids the proper draw of the chimney.

NOTE: For instances with a fireplace measuring less than 30 inches in height, Hearth Legs (see Accessories on **page 25**) or Horizontal Flue Kit, Part 834-3790, may be ordered to complete the masonry fireplace installation.

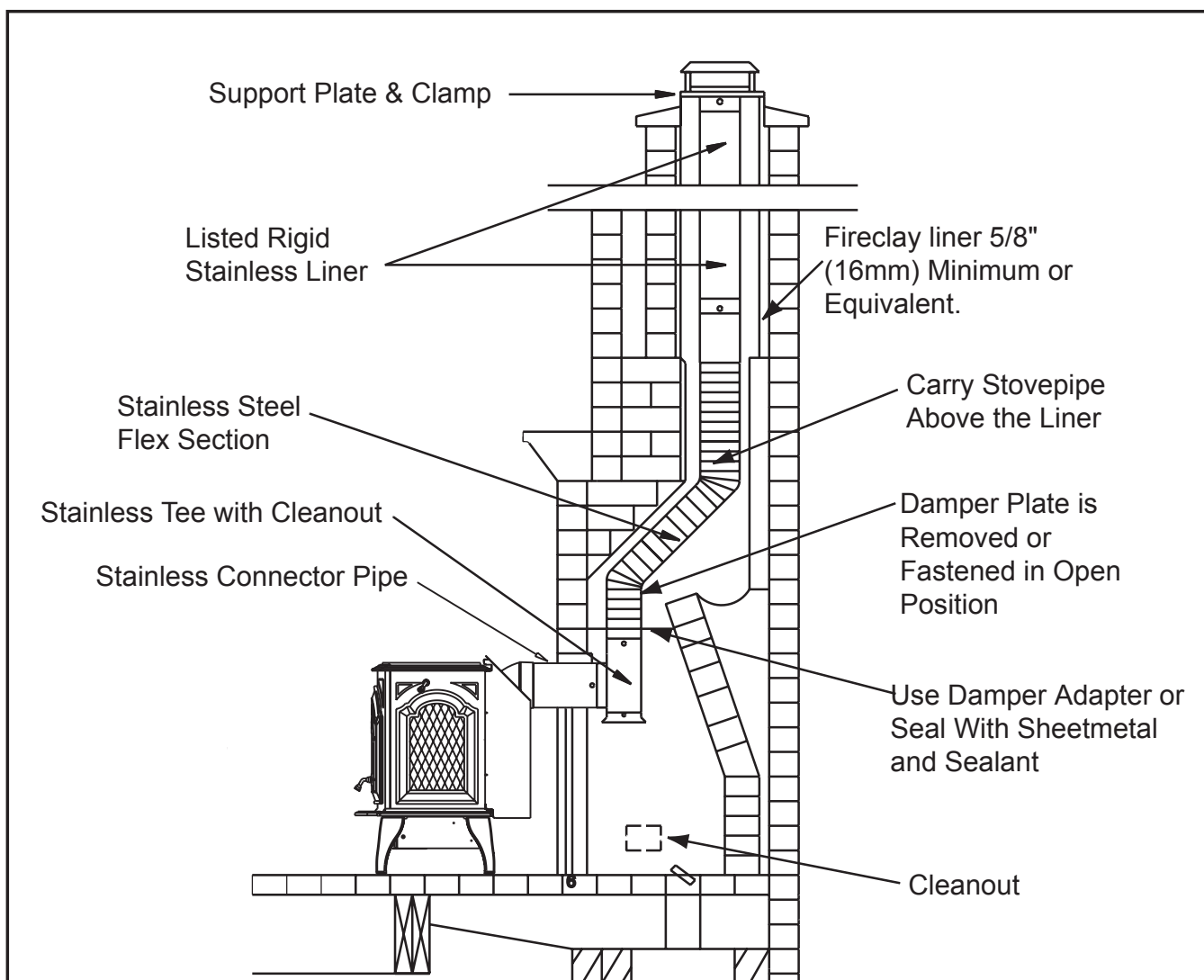


Figure 13A

CONNECTION TO A METAL PREFABRICATED CHIMNEY

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed precisely. It will be necessary to install the ceiling support package or wall pass through, "T" section package, firestops (when needed), insulation shield, roof flashing, chimney cap, and any other materials deemed necessary by the instructions of manufacturer of the prefabricated chimney. Maintain the proper clearance to the structure as recommended by the manufacturer. This clearance is usually a minimum of 2 inch (51mm), although it may vary by manufacturer or for certain components. Follow the manufacturers' instructions carefully.

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. Install an attic insulation shield to maintain the specified clearance to insulation. Insulation in this air space will cause a heat buildup which may ignite the ceiling joists. This method of installation requires, at minimum, a ceiling support package, an insulation shield and roof flashing. **Figure 14A.**

The other method is to install an exterior chimney that runs up the outside of the residence. **See Figure 14B.** The components illustrated may not look exactly like the system you purchase, but they demonstrate the basic components necessary for a proper and safe installation.

The chimney must be the required height above the roof or other obstruction for safety and for proper draft operation. The requirement is that the chimney must be at least 3 ft. (91cm) higher than the highest point where it passes through the roof and at least 2 ft (61cm) higher than the highest part of the roof or structure that is within 10 ft. (305cm) of the chimney, measured horizontally. **(See page 9)**

IMPORTANT! FOLLOW MANUFACTURERS' INSTALLATION INSTRUCTIONS AND MAINTAIN CLEARANCES AS SPECIFIED ON PAGES 6 & 7.

In Canada, when using a factory-built chimney, make sure it is safety listed, Type UL 103 HT CLASS "A" or conforming to CAN/ULC-S629, STANDARD FOR 650°C FACTORY-BUILT CHIMNEYS.

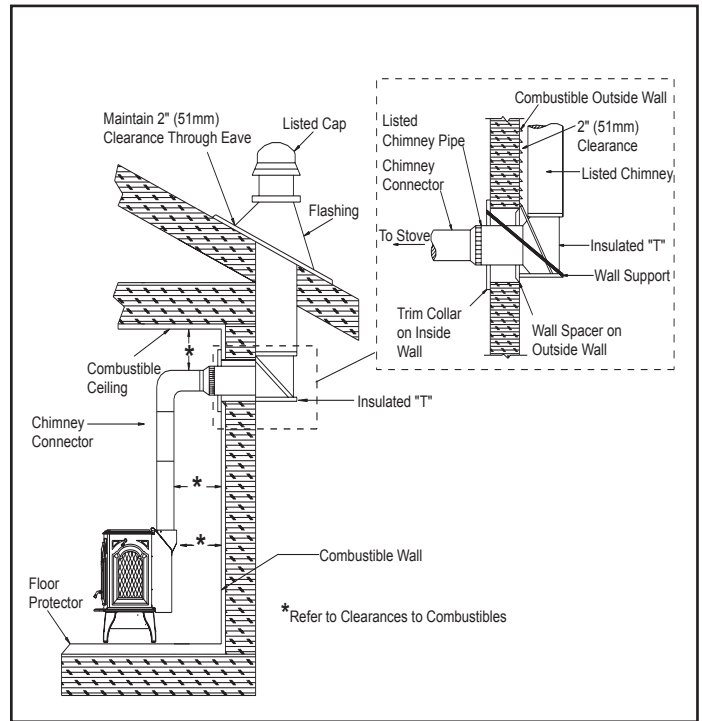


Figure 14A - Exterior Chimney

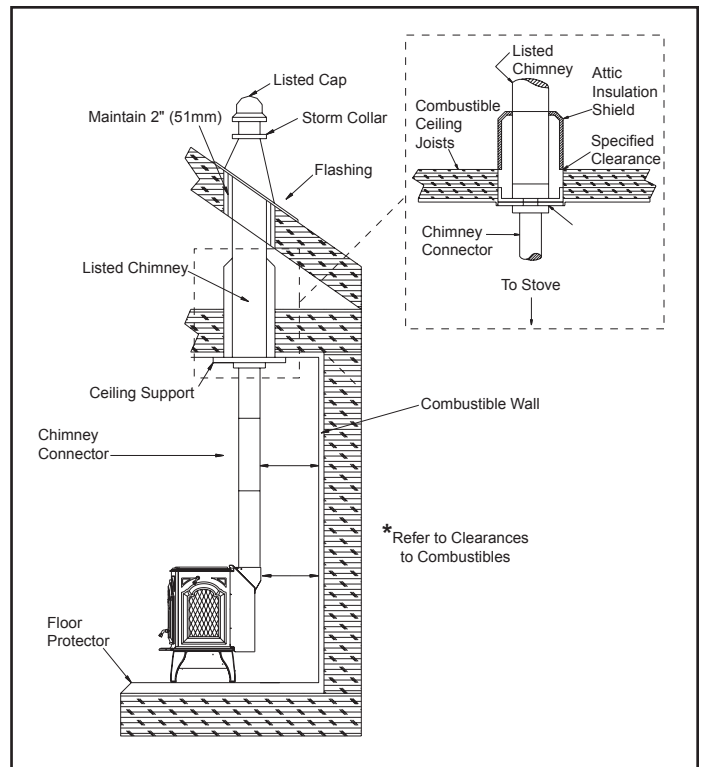
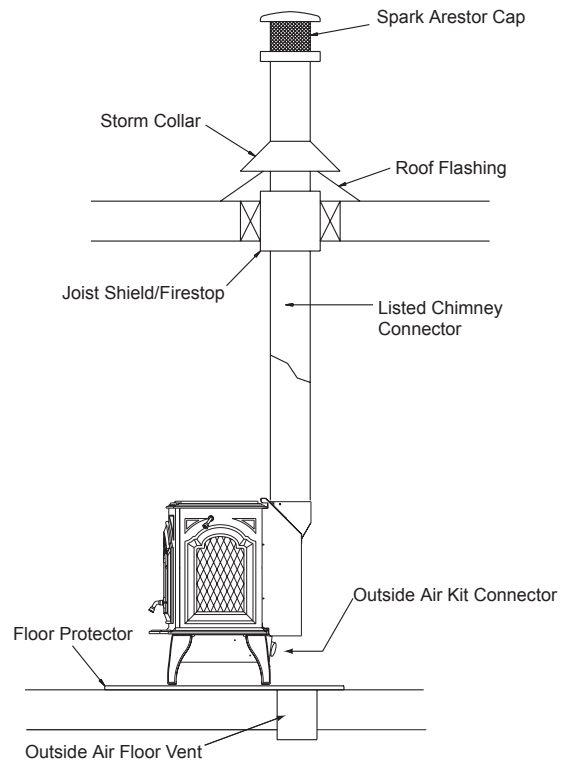


Figure 14B- Interior Chimney

MOBILE HOME INSTALLATION

You must use a Quadra-Fire Outside Air Kit Part 831-1780 for installation in a mobile home.

1. An outside air inlet must be provided for combustion and must remain clear of leaves, debris, ice and/or snow. It must be unrestricted while stove is in use to prevent room air starvation which can cause smoke spillage and an inability to maintain a fire. Smoke spillage can also set off smoke alarms.
 2. Stove must be secured to the mobile home structure. Use 1/4 inch (6mm) lag bolts with the appropriate length for your installation to secure stove through pad and into floor.
 3. Stove must be grounded with #8 solid copper grounding wire or equivalent and terminated at each end with N.E.C. approved grounding device.
 4. Stove must be installed with an approved UL103 HT ventilated chimney connector, UL103 HT chimney, and terminal cap with spark arrester. Never use a single wall connector (stove pipe) in a mobile home installation. Use only double-wall connector pipe, Dura-Vent DVL, Selkirk metalbestos DS, Security DL double wall connector or any listed double wall pipe connector.
 5. **Refer to page 6t** of this manual or the Serial Number label on the back of the stove for clearances to combustibles.
 6. Floor protections requirements on **page 7** must be followed precisely.
 7. In Canada, this appliance must be connected to a 6 inch (152mm) factory-built chimney conforming to CAN/ULC-629M, STANDARD FOR FACTORY BUILT CHIMNEYS. Floor protection referenced on **page 7** must be followed.
 8. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure.
 9. Follow the chimney and chimney connector manufacturer's instructions when installing the flue system for use in a mobile home.
- 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.
- NOTE:** Top sections of chimney must be removable to allow maximum clearance of 13.5 ft. (411cm) from ground level for transportation purposes.
10. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).
 11. If unit burns poorly while exhaust blower is on in home, (i.e. kitchen range hood) increase combustion air.



WARNING: NEVER DRAW COMBUSTION AIR FROM A WALL, FLOOR OR CEILING CAVITY OR FROM ANY ENCLOSED SPACE SUCH AS AN ATTIC OR GARAGE.

CAUTION: THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED. (i.e., DO NOT CUT THROUGH FLOOR JOIST, WALL STUD, CEILING TRUSS, ETC.)

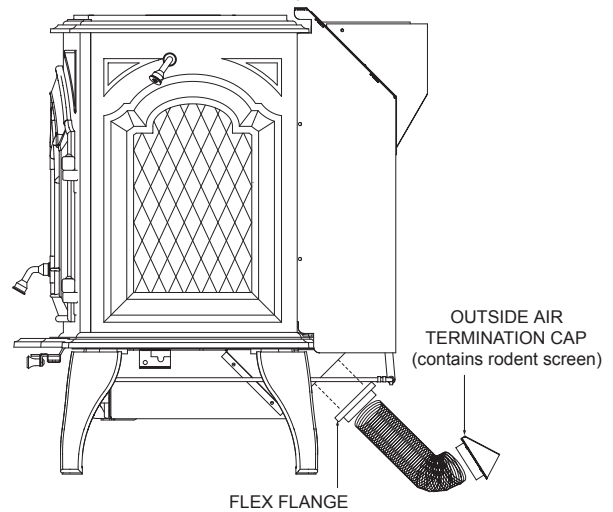
WARNING: DO NOT INSTALL IN SLEEPING ROOM.

OUTSIDE AIR KIT INSTALLATION

Included in Kit: 1 flex flange; 2 cable ties; outside air termination cap; mounting screws (Discard the remaining parts).

Items Needed for Installation: 4 inch (102mm) diameter flex pipe in the length as required for your installation; Phillips screwdriver; Silicone sealant; Drills and saws necessary for cutting holes through the wall or flooring in your home.

1. Remove all materials from packing box.
2. Mount the flex flange (with pipe fitting extending out), over the intake air opening at the rear of stove using the four mounting screws supplied with kit.
3. Cut a 4 inch (102mm) minimum hole in the floor or wall to accommodate outside air piping. Use 4 inch (102mm) metal flex or rigid piping to directly connect outside air to the unit or into vented crawl space. (Do not put flex into a non-vented crawl space). If using flex tubing attach cable ties to secure tubing at both ends. Use the supplied termination cap with a rodent screen. Seal between the floor or wall and the pipe with silicone to prevent moisture penetration.



NOTE: If you plan to install the optional blower **and** the outside air kit, complete installation of the outside air kit **first**.

NOTE: If using Hearth Legs, you can install an Outside Air Kit or Blower, **but not both**.

INSTALLATION OF OPTIONAL BLOWER

The blower is shipped fully assembled and ready for installation.

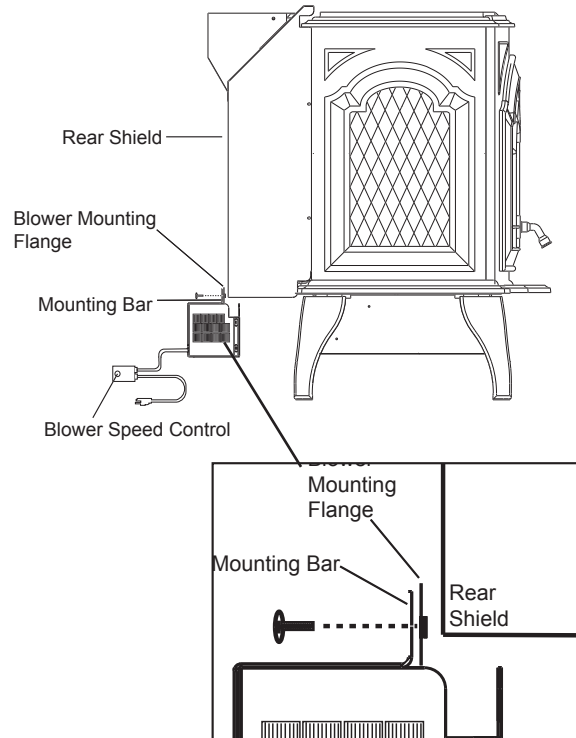
1. Remove 3 Phillips head screws from rear of unit.
2. Using the Phillips head screws, attach blower to lower rear of stove, as shown.
3. Plug blower cord into a grounded outlet. Do not remove ground prong from plug. Route power cord to avoid heat from the stove, or other damage. Do not route cord under or in front of appliance.
4. Adjust the blower speed control to the desired speed.

ADJUSTING THE BLOWER SPEED CONTROL,* If Necessary

NOTE: 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.

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.

*The blower speed control for this unit is adjusted at the factory, and normally does not require further adjustment.



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.

KINDLING or 1st STAGE

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 is called 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 / 100C) 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 controls and burn the stove at a high burn setting for a longer time to start it burning. The heat generated from the fire should be warming your home and establishing the flue draft, not evaporating the moisture out of wet, unseasoned wood, resulting in wasted heat.

The air control to the right of the stove is called the Start-Up Air Control; it is used during the kindling stage of burning. It must be closed (pulled out) after the first 5 to 15 minutes. **Figure 20A.**

2nd STAGE

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 ensure 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 slide in the center of the stove, beneath the ashcatcher, is the one used to adjust the stove for burn rates. This is called the Primary Air Slide Control.

FINAL STAGE

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 controls 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.

AIR CONTROLS

START-UP AIR SYSTEM

The combustion air enters at the rear of the firebox through the rear air tubes. This air supply is controlled by the Start-up Air Control. For more air push control in, for less air pull control out.

PRIMARY AIR SYSTEM

The primary air enters below the ash catcher and is directed to the upper front of the firebox, near the top of the glass door and to the lower front of firebox. This preheated air supplies the necessary fresh oxygen to mix with the unburned gases, helping to create secondary, tertiary and quaternary combustions. This air is regulated by the Primary Air Slide Control. For more primary air slide control left, for less air, slide control to the right.

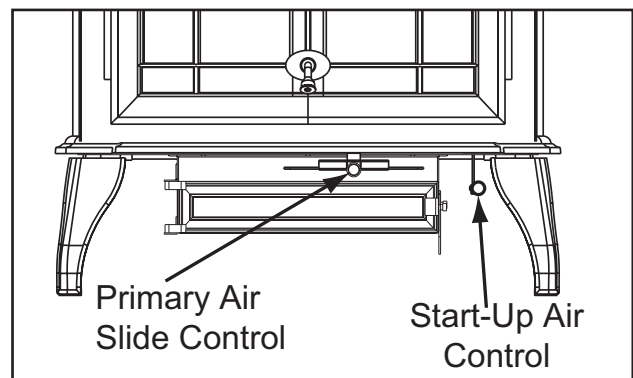


Figure 17A

- | | |
|------------------------------|-------------------------|
| <u>Primary Slide Control</u> | <u>Start-Up Control</u> |
| OPEN - SLIDE LEFT | OPEN - PUSH IN |
| CLOSE - SLIDE RIGHT | CLOSED - PULL OUT |

**OPERATING INSTRUCTIONS (Cont'd)
HEAT OUTPUT SETTINGS**

For maximum operating efficiency with the lowest emissions, follow these operating procedures:

1. Regardless of desired heat output, when loading stove, burn your Quadra-Fire with both air controls wide open for 5 to 15 minutes.
2. Regulate burn rate (heat output) by using the Primary Air Slide Control (center under ashcatcher). The Start-Up Air Control (on the right) is used for initial start-up and reloading.
3. Heat output settings are listed below, following 5 to 15 minutes of burning with controls wide open (**see #1 above**):
4. Burn dry, well-seasoned wood.

BTU / Hr	Start-Up Air Control	*Primary Air Slide Control
Below 10,000	Closed after 5 to 15 minutes	Slide to right
10,000 - 15,000	Closed after 5 to 15 minutes	1/8 to 1/2" open (slide to left)
15,000 - 40,000	Closed after 5 to 15 minutes	1/2" to 1-1/8" open (slide to left)
Maximum Heat	Closed after 5 to 15 minutes	Fully open (all the way left)

WARNING: Do not operate with Start-Up Air Control in the open position in excess of 15 minutes! Risk of extreme temperatures! Prolonged operation of this stove with the Start-Up Air Control in the open position may cause the combustible materials around the stove to exceed safe temperature limits.

NOTE: These are approximate settings, and will vary with type of wood or chimney draft. Due to altitude and other environmental circumstances, this operation information is a guideline only. Similar burn rates may be obtained using other settings unique to your situation.

OPERATING THE TOP LOADING OPTION

NOTE: This stove is provided with 3 fiber door handles for the door, baffle by-pass handle and the top-loading griddle slot.

1. Open by-pass door by moving the side handle towards rear of stove.
2. Wait 15 seconds to allow smoke to clear out of firebox.
3. Slowly open top loading door and load unit with fuel.
4. Close the top door.
5. Close the by-pass door (move side handle towards front of stove.)

NOTE: See **page 20** for operation considerations with a blower installed.

CAUTION! IF THE DOOR HANDLE IS LEFT ON THE STOVE DURING OPERATION, IT MAY OVERHEAT AND CAUSE BURNS TO YOUR HAND, EITHER REMOVE THE HANDLE DURING OPERATION, OR WEAR PROTECTIVE GLOVES. ALSO, USE CARE WHEN OPERATING THE DRAFT CONTROL KNOBS AS THEY ALSO BECOME HOT DURING OPERATION.

WARNING! ALWAYS OPERATE THIS APPLIANCE WITH THE DOOR CLOSED AND LATCHED EXCEPT DURING START-UP AND RE-FUELING OR WHEN USING THE FIRESCREEN.

WARNING! DO NOT LEAVE THE FIRE UNATTENDED WHEN THE DOOR IS UNLATCHED OR WHEN USING THE FIRESCREEN. UNSTABLE FIREWOOD COULD FALL OUT OF THE FIREBOX CREATING A FIRE HAZARD TO YOUR HOME.

OPERATING INSTRUCTIONS (Cont'd)

CAUTION: Before lighting your first fire in the stove: 1) make certain that the baffle is correctly positioned. It should be resting against the rear support; 2) Follow instructions on page 22 for cleaning plated surfaces, and; 3) Remove all labels from glass front.

CAUTION: 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.

BUILDING A 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. *Heating the flue with slightly crumpled newspaper before adding kindling keeps smoke to a minimum.*
2. Lay small dry sticks of kindling on top of the paper.
3. Open Start-Up Air Control and Primary Air Slide Control fully. After 5 to 15 minutes, when the fire is well established, gently pull Start-Up Air Control forward until resistance is felt. Do not allow control to "spring back" into the open position.
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 inches (76mm) or 4 inches (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 Start-Up Air Control and Primary Air Slide Control; the more you close down (slide right) the Primary Air Slide Control, the lower and slower the fire will burn. The more you open (slide left) the Primary Air Slide Control, the more heat will be produced. The Start-Up Air Control is only used for the first 5 to 15 minutes.
9. 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: Stove should be run full open for 15 minutes a day to keep air passages clean.

WARNING! DO NOT LEAVE THE FIRE UNATTENDED WHEN THE DOOR IS UNLATCHED. UNSTABLE FIREWOOD COULD FALL OUT OF THE FIREBOX CREATING A FIRE HAZARD TO YOUR HOME.

OPACITY

This helps to determine 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 of the smoke column emitted from your chimney. This will allow you to know how to burn your stove as nearly smoke-free as possible (aim for a goal of 0% opacity).

OPERATING INSTRUCTIONS (Cont'd)**BURN RATES**

- **STARTING FIRE:** Start fire with both controls fully open (Start-up Air Control pushed all the way IN and Primary Slider Control all the way to the LEFT.) Close Start-up Air Control after approximately 5 to 15 minutes,
- **HIGH:** Leave the Primary Air Slide Control fully open. It is important to do this when reloading the stove. Failure to do this could result in excessive emissions (opacity).

After a wood load has been burning for 5 to 15 minutes on High set the controls as listed below to achieve the following burn rates:

- **MEDIUM HIGH:** Close the Primary Slide Control to 1/2 inch to 1-1/8 inches (13mm to 29mm) open. (Slide left to open, right to close). Start-Up Air Control is closed.
- **MEDIUM LOW:** Close the Primary Slide Control to 1/8 inch to 1/4 inch (3mm to 13mm) open. Start-Up Air Control is closed.
- **LOW:** Gradually close down the Primary Slider control, making sure to maintain flames in the stove. Start-Up Air Control is closed. It is very important to maintain flames in your stove during the first few hours of a low burn to avoid excessive air pollution.

WOOD SELECTION AND STORAGE

CAUTION: DO NOT STORE WOOD CLOSER THAN THE REQUIRED CLEARANCE TO COMBUSTIBLES OF THE STOVE WITHIN THE SPACE REQUIRED FOR FUELING AND ASH REMOVAL

Burn only dry seasoned wood! This will not only minimize creosote formation, but also provide the most efficient heat output. 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 maintain particulate (smoke) burning. It is a waste of energy to burn unseasoned wood of any variety. The heat generated from the fire should be warming your home and establishing the flue draft, not evaporating the moisture out of wet, unseasoned wood, resulting in wasted heat.

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.

OPTIONAL BLOWER OPERATING INSTRUCTIONS

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 a good coalbed is established.
2. **High burn setting:** The blower may be left on throughout the burn at your desired setting.
3. **Medium burn settings:** The blower should be left off until a good burn is established, then turned on at your desired setting.
4. **Low burn setting:** The blower tends to cool off the stove. Leave blower off until burn is well established. Then turn on at your desired rate.
5. The highest blower speed is obtained by turning the speed control on and then adjusting counterclockwise 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.

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 once every two months during the heating season to determine if a creosote or soot build-up has occurred. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

INSPECTION: The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a soot or creosote buildup have occurred. 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: If soot or creosote have accumulated, it should be removed to reduce the risk of a chimney fire. Use 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, cleaned, and repaired if necessary.

Prior to brushing the chimney clean, follow these steps to ensure that the accumulation of ash and creosote falls directly into the firebox for removal.

CHIMNEY CLEANING

1. Remove all ash from the firebox and extinguish all hot embers before disposal. Allow the stove to cool completely.
2. Close the door tightly and proceed with sweeping the chimney.
3. Sweep the collected ashes into the ash removal box, and empty. Clean out the remaining ashes from firebox.
4. Open top-loading door and vacuum out.

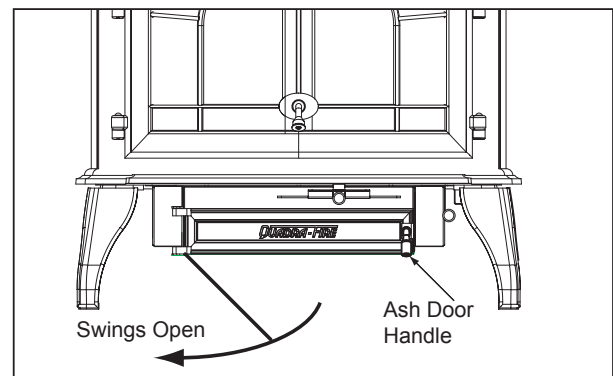
ASH REMOVAL & DISPOSAL

The stove is equipped with an ash removal system. We recommend emptying the ash pan at least once a week when the stove is in constant operation. The amount of ash is dependent on the type of wood being burned.

DO NOT ALLOW ASHES TO BUILD UP IN THE ASHPAN UNTIL THEY REACH THE GRATE. THIS WILL LEAD TO PREMATURE DETERIORATION OF THE GRATE AND MAKE IT DIFFICULT TO EMPTY THE ASH PAN.

TO EMPTY THE ASH PAN AND DISPOSE OF ASHES:

1. Allow the stove to cool completely.
2. **CAUTION ! Ash coals can remain extremely hot for several days. Protect your hands with gloves when removing the ash pan.**
3. **DO NOT OPERATE WITH ASH PAN DOOR OPEN OR WITH ASH PAN REMOVED.** The hinged door will open from the right hand side. Pull ash pan out carefully.
4. Ashes should be placed in a metal 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.
5. Replace ash pan and close ash door handle.



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 controls and door, if open, to reduce the air supply to the fire. **Overfiring will void the stove warranty.**

FIREBRICK

The firebox of your Quadra-Fire stove is lined with high quality firebrick, which has exceptional insulating properties. There is no need to use a grate; simply build a fire on the firebox floor of your stove. Do not operate stove without firebrick.

MAINTENANCE (CONT'D)**GLASS CARE**

NOTE: Remove all labels from glass prior to lighting the first fire.

This stove is equipped with ceramic, heat-resistant glass, which can only be broken by impact or misuse. Do not slam the stove door or impact the glass. When closing the door, make sure that logs do not protrude against the glass.

Inspect the glass regularly for cracks or breaks. If you detect a crack or break, extinguish the fire immediately and contact your Dealer for replacement.

A portion of the combustion air entering the firebox is deflected down over the inside of the door glass. This air flow "washes" the glass, helping to keep smoke from adhering to its surface. When operated at a low burn rate, less air will be flowing over the glass and the smokey, relatively cool condition of a low fire will cause the glass to become coated. Operating the stove with the Primary Air Control all the way open for 15-20 minutes should remove the built up coating. If the deposits on the glass are not very heavy, normal glass cleaners work well. Heavier deposits may be removed by using a damp cloth dipped in wood ashes or by using a commercially available oven cleaner. After using an oven cleaner, it is advisable to remove any residue with a glass cleaner or soap and water. Oven cleaner left on during the next firing can permanently stain the glass and damage the finish on plated metal surfaces.

Do not clean the glass with abrasive materials that may scratch or otherwise damage the glass. Scratches on the glass can develop into cracks or breaks. Never attempt to clean the glass while a fire is in the unit. The best method for maintaining clean glass is to operate the stove efficiently by using dry well seasoned wood and burning moderate to hot fires.

WARNING !

DO NOT OPERATE THE WOODSTOVE IF THE DOOR GLASS IS BROKEN OR MISSING. DANGEROUS OVERFIRING CAN OCCUR WHICH CAN DAMAGE THE APPLIANCE OR IGNITE CREOSOTE IN THE CHIMNEY, POSSIBLY CAUSING A HOUSE FIRE.

GLASS REPLACEMENT**Replace with 5mm ceramic glass only**

1. Ensure that the fire is out and the appliance is cool to the touch.
2. Protect a table or counter top with padding or towels.
3. Remove door with broken glass from the appliance by lifting door up and off of the hinges.
4. Lay door face down on a table or counter making sure handle and handle attachment knob hang over the edge of the table top so door lays flat, on a soft surface.
5. Remove the screws from each glass retainer.
6. Remove the glass.
7. Position the glass with edges evenly overlapping the opening in the front door.
8. Replace the glass retainers. Be careful not to cross thread the screws.
9. Tighten each retainer just a few turns until each is secured. Then continue to tighten each retainer alternately, a few turns at a time, until the glass panel is tightened snugly.
10. Replace the door on the appliance.

CARE AND CLEANING OF PLATED SURFACES

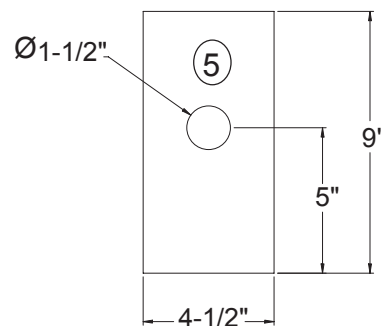
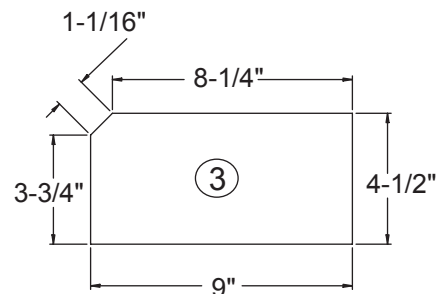
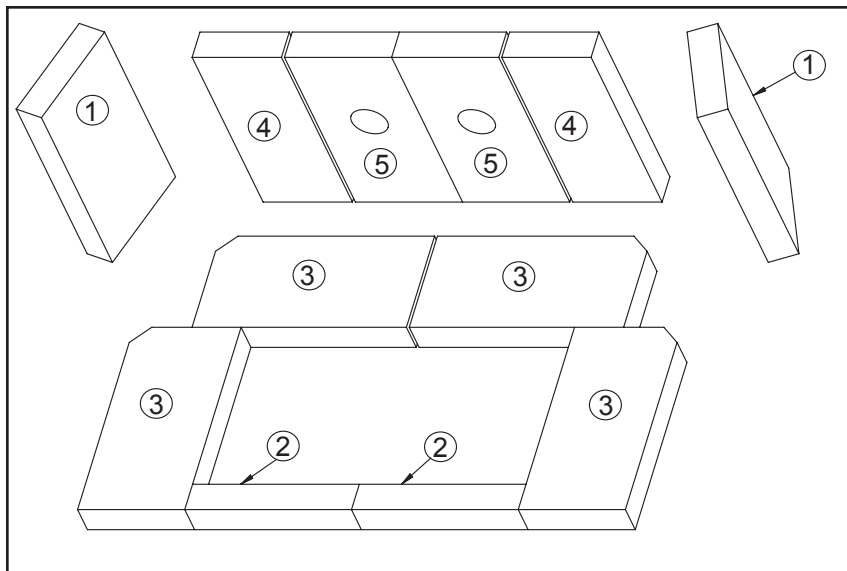
Clean plated surfaces with vinegar or a glass cleaner before lighting your first fire.

CAUTION: Do not use polishes with abrasives as it will scratch the surface.

MAINTENANCE

FIREBRICK REPLACEMENT

Ensure that the firebricks are correctly positioned as referenced by diagram below, and that the firebox does not contain any broken brick prior to operating the unit.

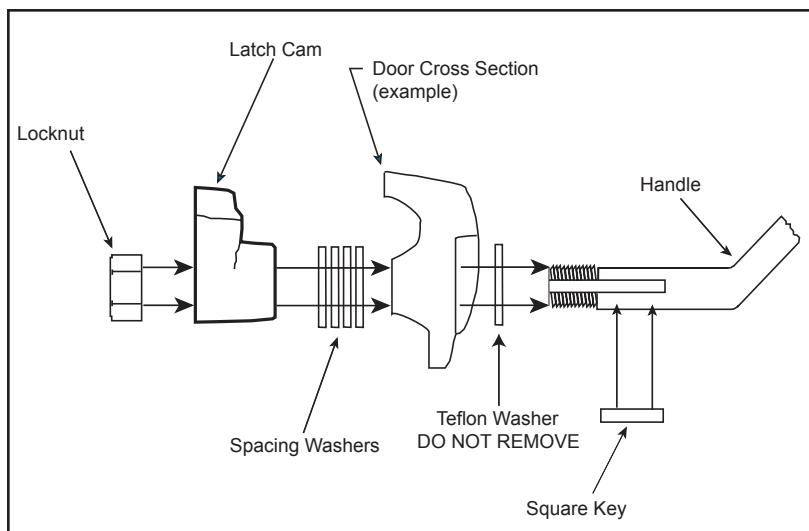


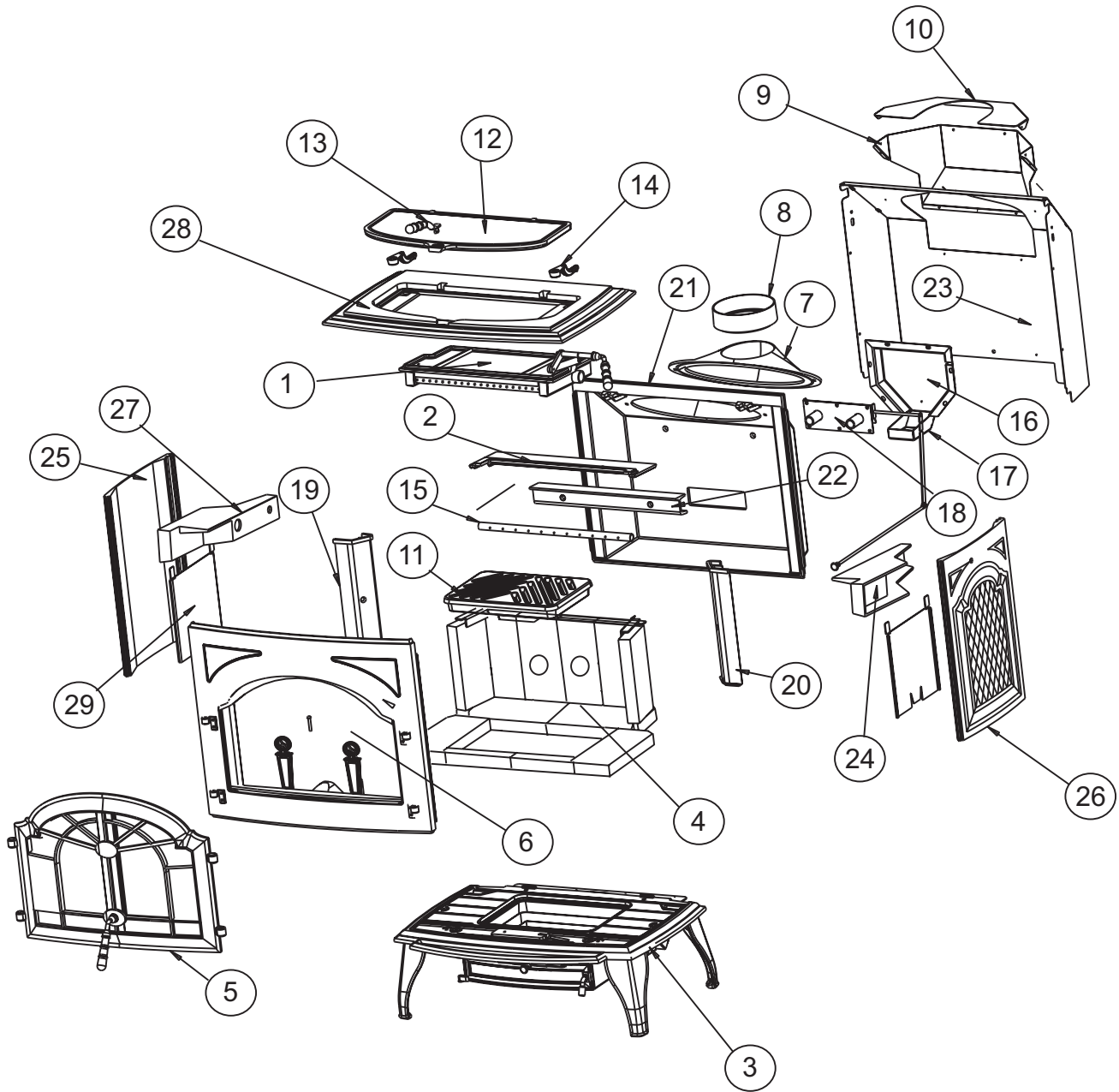
Nbr	Brick Size	Qty
1	9 x 4-1/2 x 1-1/4"	2
2	7 x 1-1/4 x 1-1/4"	2
3	9 x 4-12/ x 1-1/4" w/cut	4
4	9 x 3-3/4" x 1-1/4"	2
5	9 x 4-12/ x 1-14" w/hole	2

Use Part 832-0550 when ordering individual brick. Please provide brick dimensions or copy this page and mark the desired brick and take it to your authorized dealer.

DOOR & GASKET

Periodically check the door gasket for proper seal. As the gasket compresses or "seats" during use, it may become necessary to adjust or tighten the door latch either by removing spacer washers, shown below (at least one washer must be left in place) or, by replacing the gasket material as wear or damage to the gasket material can cause air leakage into the firebox resulting in overfiring and loss of efficiency. A replacement gasket, Part 23434A, is available from your dealer.





1	Baffle Assembly	11	Grate	21	Rear
2	Baffle Filler	12	Griddle	22	Rear Channel
3	Bottom Assembly	13	Griddle Handle	23	Rear Shield
4	Brick Assembly	14	Hopper Lid Stop	24	Side Tertiary Channel, Right
5	Door Assembly	15	Manifold Tube, #4	25	Side, Left
6	Face Assembly	16	Primary Air Channel	26	Side, Right
7	Flue Collar Transition	17	Primary Air Channel, Lower	27	Tertiary Channel, Left
8	Flue Collar	18	Primary Air ASBM	28	Top
9	Flue Shield, Bottom	19	Rear Channel, Left	29	Wear Plate
10	Flue Shield, Top	20	Rear Channel, Right		

Service Parts	Serial No.	Part No.
Brick Set		834-3860
Brick, single (See page 23 for dimensions)		832-0550
Door Handle Only, Fiber		SRV433-1380
Door Handle Assembly,(includes cam latch & key, gasketing, fiber handle and screw adapter. Also gold or nickel handle depending on order.		834-3850GD 834-3850NL
Door Cam Latch Only		430-1151
Door Gasketing, 1/4", field cut to length		834-1460
NOTE: Order glass & gasketing separately with door frames		
Door Frame, Left, Matte Black		844-9640
Door Frame, Left, Porcelain (specify color)		844-9650
Door Frame, Right, Matte Black		844-9680
Door Frame, Right, Porcelain (specify color)		844-9690
Door Hinge (2) Left, (specify black or porcelain color)		434-0470
Door Hinge (2) Right, (specify black or porcelain color)		434-0480
Glass Gasketing Only, 7/16", Black		23434A
Glass Panel Only (1 piece)		834-3930
Griddle Top, Cast, with Screw Adapter		834-4000
Manifold Tube Set (4)		832-3360

Accessories	Serial No.	Part No.
Blower		831-1701
Brackets with Mitten Rod, Gold, WSB2G-2		844-7980
Brackets with Mitten Rod,, Black, WSB2-2		844-7970
Firescreen, (USA installations only)		834-3610
*Hearth Legs, Matte Black, MBK		834-3800
*Hearth Leggs, Procelain Creme, PCR		834-3820
*Hearth Legs, Procelain Green, PGR		834-3830
*Hearth Legs, Porcelain, Mahogany, PMH		834-4130
*Hearth Legs, Porcelain Blue, PMB		834-4141
Outside Air Kit		831-1780
Warming Shelves, Matte Black, WS3-2 MBK		834-3531
Warming shelves, Porcelain Creme, WS3-2 PCR		834-3551
Warming shelves, Porcelain Green, WS3-2 PGR		834-3561
Warming shelves, Porcelain Mahogany, WS3-2 PMH		834-4110
Warming shelves, Porcelain Midnight Blue, WS3-2 PMB		834-4121

***Hearth Legs are 2-1/2" shorter than standard legs. If you install Hearth Legs, please note that you can install an Outside Air Kit or Blower, but not both.**

Appliances	Part No.
Isle Royale, Matte Black, MBK	823-0170
Isle Royale, Porcelain Creme, PCR	823-0190
Isle Royale, Porcelain Green, PGR	823-0200

Appliances	Part No.
Isle Royale, Porcelain Mahogany, PMH	823-0300
Isle Royale, Porcelain Midnight Blue, PMB	823-0200



Lifetime Warranty

LIMITED LIFETIME WARRANTY

The Hearth & Home Technologies limited Lifetime Warranty guarantees that the following components will work as designed for the lifetime of the stove or Hearth & Home Technologies will repair or replace them. These items include but are not limited to steel and cast iron components, all gas burners, gas logs, combustion chambers, heat exchanger systems, stainless steel firebox components, plating, doors, glass damaged by thermal breakage, steel baffle supports, steel and ceramic baffles and manifold tubes. Labor is for the first five years.

THREE YEAR WARRANTY

Our EZ Clean firepots are covered under Hearth & Home Technologies three-year warranty program. Labor is for 3 years.

TWO YEAR WARRANTY

All electrical components such as but not limited to blowers, wiring, vacuum switches, speed controls, control boxes, thermodisc switches, pilot assembly, gas valves, thermostats and remotes are covered under Hearth & Home Technologies two-year warranty program. Labor is for two years.

ONE YEAR WARRANTY

Porcelain finishes are warranted against manufacturer defects for one year. Labor to repair or replace these parts is covered for one year, reimbursed per our warranty service fee schedule.

CONDITIONS

This warranty is non-transferable and is made to the original retail purchaser only provided that the purchase was made through an authorized dealer of Hearth & Home Technologies. It must be installed and operated at all times in accordance with the Installation and Operating Instructions furnished with this product, as well as any applicable local and national codes. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.

Labor to repair or replace items covered under the limited Lifetime Warranty will be covered for the first five years per our warranty service fee reimbursement schedule. Parts covered under the limited Lifetime Warranty will be covered for the lifetime of the appliance up to a maximum of ten (10) years after Hearth & Home Technologies discontinues the model and two (2) years for optional accessories. Adjustments, regular maintenance, cleaning and temporary repairs do not qualify for a service call fee and will not be covered. The replacement of consumer replaceable items and installation of upgraded component parts do not qualify for a service call fee, and will not be covered.

This limited Lifetime Warranty does not extend to or include surface finish on the appliance, door gasketing, glass gasketing, glass, firebrick, pellet logs, igniters, 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.

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 Hearth & Home Technologies assume responsibility for them. Further, Hearth & Home Technologies will not be responsible for any incidental, indirect, or consequential damages, except as results in damage to the interior or exterior of the building in which this appliance is installed. This limited Lifetime Warranty does not apply to the venting components, hearth components or other accessories used in conjunction with the installation of this product not manufactured by Hearth & Home Technologies

This warranty is void if the stove has been overfired or 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. Hearth & Home Technologies may, at its discretion, fully discharge all obligations with respect to this warranty by either repairing or replacing the unit, or refunding the wholesale price of the defective part(s).

This limited Lifetime Warranty is effective on all appliances sold after May 1, 2002 and supersedes any and all warranties currently in existence.



Policy 250-8620 Rev F

QUADRA-FIRE®

CONTACT INFORMATION:

Hearth & Home Technologies
1445 North Highway
Colville, WA 99114
Division of HNI INDUSTRIES
www.quadrafire.com

Please contact your Quadra-Fire dealer with any questions or concerns.
For the number of your nearest Quadra-Fire dealer,
call 1-800-926-4356

	CAUTION
	<ul style="list-style-type: none">• Do NOT discard this manual.• Important operating and maintenance instructions included.• Read, understand and follow these instructions for safe installation and operation.• Leave this manual with party responsible for use and operation.
	



Your Records for Model: Isle Royale Wood Stove

WHERE PURCHASED:

SERIAL NUMBER: _____

DATE PURCHASED: _____

DATE INSTALLED: _____

TELEPHONE: _____

This product may be covered by one or more of the following patents: (United States) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439226, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, D320652, D445174, D462436; (Canada)1297749, 2195264, 2225408; or other U.S. and foreign patents pending.



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