

QUADRA-FIRE®

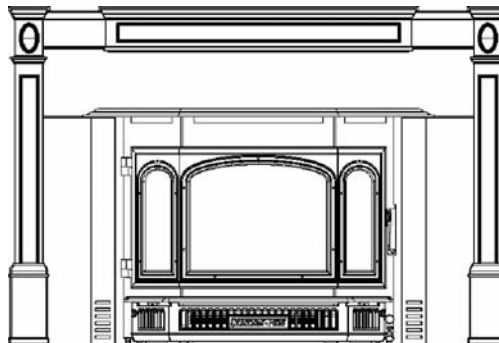
4100- I ACT WOOD INSERT

Advanced Combustion Technology (ACT)

Models:

4100I-GD-B

4100I-NL-B



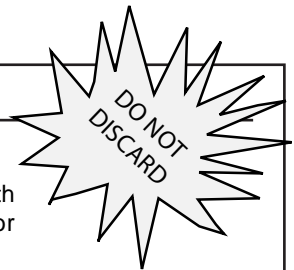
Tested and
Listed by  Portland
Oregon USA
C US
OMNI-Test Laboratories, Inc.

NOTICE



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.



WARNING



If the information in these instructions is not followed exactly, a fire may result causing property damage, personal injury, or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire - If heater or chimney connector glows, you are overfiring. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in the same room as appliance
- Alert children and adults to hazards of high temperatures

High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other combustibles away.

WARNING



Fire Risk.

For use with solid wood fuel only. Other fuels may overfire and generate poisonous gases (i.e. carbon monoxide).



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends NFI certified professionals, or technicians supervised by an NFI certified professional.



Congratulations 

and Welcome to the Quadra-Fire Family!

Hearth & Home Technologies welcomes you to our tradition of excellence! In choosing a Quadra-Fire appliance, you have our assurance of commitment to quality, durability, and performance.

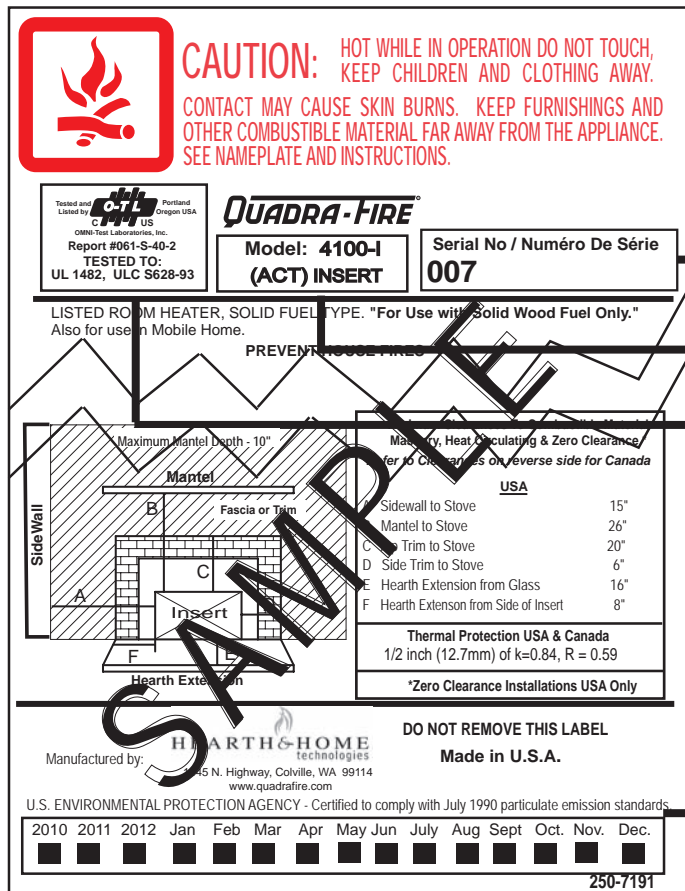
This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of

our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. Each unit is meticulously fabricated and surfaces are hand-finished for lasting beauty and enjoyment. Our pledge to quality is completed as each model undergoes a quality control inspection.

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. Thank you for choosing Quadra-Fire.

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

SAMPLE OF SERIAL NUMBER / SAFETY LABEL
LOCATION: Back side of left side panel



CAUTION: HOT WHILE IN OPERATION DO NOT TOUCH, KEEP CHILDREN AND CLOTHING AWAY. CONTACT MAY CAUSE SKIN BURNS. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIAL FAR AWAY FROM THE APPLIANCE. SEE NAMEPLATE AND INSTRUCTIONS.

Tested and Listed by **CTL US** Portland Oregon USA
 OMBL Test Laboratories, Inc.
 Report #061-S-40-2
 TESTED TO:
 UL 1482, ULC S628-93

QUADRA-FIRE
 Model: **4100-I (ACT) INSERT** Serial No / Numéro De Série **007**

LISTED ROOM HEATER, SOLID FUEL TYPE. "For Use with Solid Wood Fuel Only."
 Also for use in Mobile Home.

PREVENT HOUSE FIRES

Maximum Mantel Depth - 10"
 Mantel
 Fascia or Trim
 Side Wall
 Insert
 Hearth Extension

Mantel, Heat Circulating & Zero Clearance	
Refer to Clearances on reverse side for Canada	
USA	
Sidewall to Stove	15"
Mantel to Stove	26"
C Trim to Stove	20"
D Side Trim to Stove	6"
E Hearth Extension from Glass	16"
F Hearth Extension from Side of Insert	8"

Thermal Protection USA & Canada
 1/2 inch (12.7mm) of k=0.84, R = 0.59
 *Zero Clearance Installations USA Only

DO NOT REMOVE THIS LABEL
 Made in U.S.A.

Manufactured by: **HEARTH & HOME technologies**
 145 N. Highway, Colville, WA 99114
 www.quadrafire.com

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

2010	2011	2012	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

250-7191

Serial Number

Model Name

Test Lab & Report No.

Manufactured Date

Safety Alert Key:

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Indicates practices which may cause damage to the fireplace or to property.

TABLE OF CONTENTS

Listing and Code Approvals

Appliance Certifications4
 Mobile Home Approved4
 Glass Specifications4
 BTU & Efficiency Specifications4

Getting Started

Design, Installation & Location
 Considerations.....5
 Fire Safety5

Dimensions & Clearances

Appliance Dimensions6
 Clearances to Combustibles.....7
 Hearth Extension7
 Alternate Floor Protection Calculation7

Venting Requirements

Venting Systems..... 8
 Chimney Systems..... 8
 Masonry Chimney.....8-9
 Metal Heat Circulating Masonry 10
 Prefabricated Metal Chimney10-11
 Securing Chimney Components..... 11
 Altering the Fireplace..... 11
 Ovalizing Round Stainless Steel Liners.....12
 Chimney Height / Rise & Run.....12
 Air Clearances12
 Chimney Termination & 2-10-3 Rule 13

Installation Considerations

Mobile Home Installations..... 14
 Outside Air Installation 15
 Securing Liner to Flue Collar 15
 Leveling Bolts & Metal Shims 16
 Door Handle Assembly 16
 Door Latch Adjustment 16
 Zero-Clearance Adjustable Trim Support ..17
 Panel & Trim Set Installation 18
 Blower Cord Location & Snap Disc 19
 Blower Control Box Operations 19

Operating Instructions

Overfiring Your Appliance.....20
 Wood Selection & Storage20
 Burning Process20-21
 Building A Fire.....21
 Burn Rates & Operating Efficiency.....22
 Opacity (Smoke)22
 Blower Operating Instructions22
 Air Controls23
 Correct Baffle & Blanket Placement.....24

Maintaining & Servicing Appliance

Cleaning Plated Surfaces25
 Care & Cleaning of Glass25
 Ash Removal25
 Creosote (Chimney) Cleaning25
 Quick Reference Maintenance Guide.....26
 Firebrick Replacement.....27
 Baffle Removal27
 Glass Replacement28

Reference Material

Exploded Drawings.....29
 Service Parts & Accessories30-34
 Service & Maintenance Log.....35-36
 Homeowner's Notes37
 Warranty Policy38-39
 Contact Information40

LISTING AND CODE APPROVALS

Appliance Certification

MODEL:	4100-I ACT Wood Insert
LABORATORY:	OMNI Test Laboratories, Inc.
REPORT NO.	061-S-40-2
TYPE:	Solid Fuel Type, Wood Stove Insert
STANDARD:	UL1482 and ULC S628-93 and (UM) 84-HUD, Mobile Home Approved.

The Quadra-Fire 4100-I ACT Wood Inserts meets the U.S. Environmental Protection Agency's 1990 particulate emission standards.

Mobile Home Approved

This appliance 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 appliance must be properly grounded to the frame of the mobile home and use only listed double-wall connector pipe. An Outside Air Kit comes standard on the appliance and must be installed in a mobile home installation.

Glass Specifications


This appliance is equipped with 5mm ceramic glass. Replace glass only with 5mm ceramic glass. Please contact your dealer for replacement glass.

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the **UL1482, (UM) 84-HUD and NFPA211** in the U.S.A. and the **ULC S628-93** and **CAN/CSA-B365** Installation Codes in Canada.

BTU & Efficiency Specifications

EPA Certified:	3.1 grams/hour
Efficiency:	Up to 82.8%
BTU Output:	9,000 to 41,800
Heating Capacity:	1,500 to 2,150 sq ft depending on climate zone
Maximum Log Length:	18 inches
Firebox Capacity:	2.47 cubic feet
Weight:	345 lbs

NOTE: Hearth & Home Technologies grants no warranty, implied or stated, for the installation or maintenance of this unit and assumes no responsibility for any consequential damage(s).

 **WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or your dealer.

NOTE: Hearth & Home Technologies, manufacturer of this appliance, reserves the right to alter its products, their specifications and/or price without notice.

GETTING STARTED

Design, Installation & Location Considerations

Consideration must be given to:

- Safety
- Convenience
- Traffic flow
- Chimney and chimney connector required

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 are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.

We recommend that a qualified building inspector and your insurance company representative review your plans before and after installation

If this appliance is in an area where children may be near it is recommended that you purchase a decorative barrier to go in front of the appliance. Remember to always keep children away while it is operating and do not let anyone operate this appliance unless they are familiar with these operating instructions.

CAUTION
<p>Check building codes prior to installation.</p> <ul style="list-style-type: none"> • Installation MUST comply with local, regional, state and national codes and regulations. • Consult insurance carrier, local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

WARNING
<div style="display: flex; align-items: center;"> <div> <p>Asphyxiation Risk.</p> <ul style="list-style-type: none"> • DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE. • DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM. <p>May allow flue gases to enter the house.</p> </div> </div>

Fire Safety

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

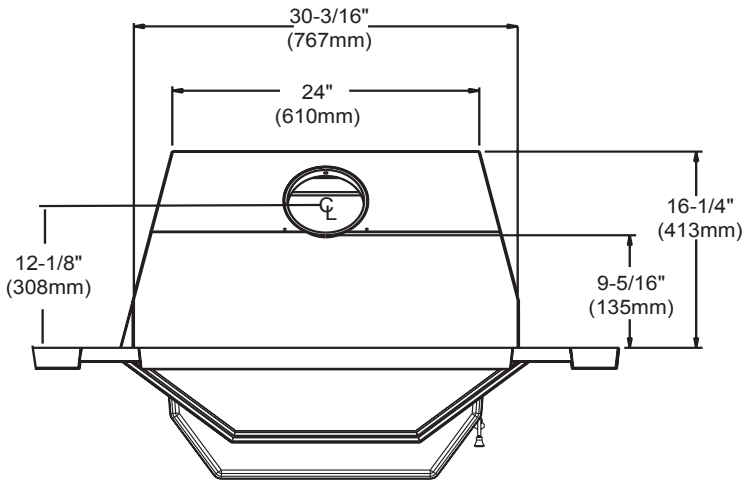
1. Install at least one smoke detector on each floor of your home to ensure your safety. They should be located away from the heating appliance and close to the sleeping areas. Follow the smoke detector manufacturer's placement and installation instructions, and be sure to maintain regularly.
2. A conveniently 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. Evacuate the house immediately
 - b. Notify fire department

WARNING
<div style="display: flex; align-items: center;"> <div> <p>Fire Risk.</p> <p>Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:</p> <ul style="list-style-type: none"> • Installation and use of any damaged appliance. • Modification of the appliance. • Installation other than as instructed by Hearth & Home Technologies. • Installation and/or use of any component part not approved by Hearth & Home Technologies. • Operating appliance without fully assembling all components. • Operating appliance without legs attached (if supplied with unit). • Do NOT Overfire - If appliance or chimney connector glows, you are overfiring. <p>Any such action that may cause a fire hazard.</p> </div> </div>

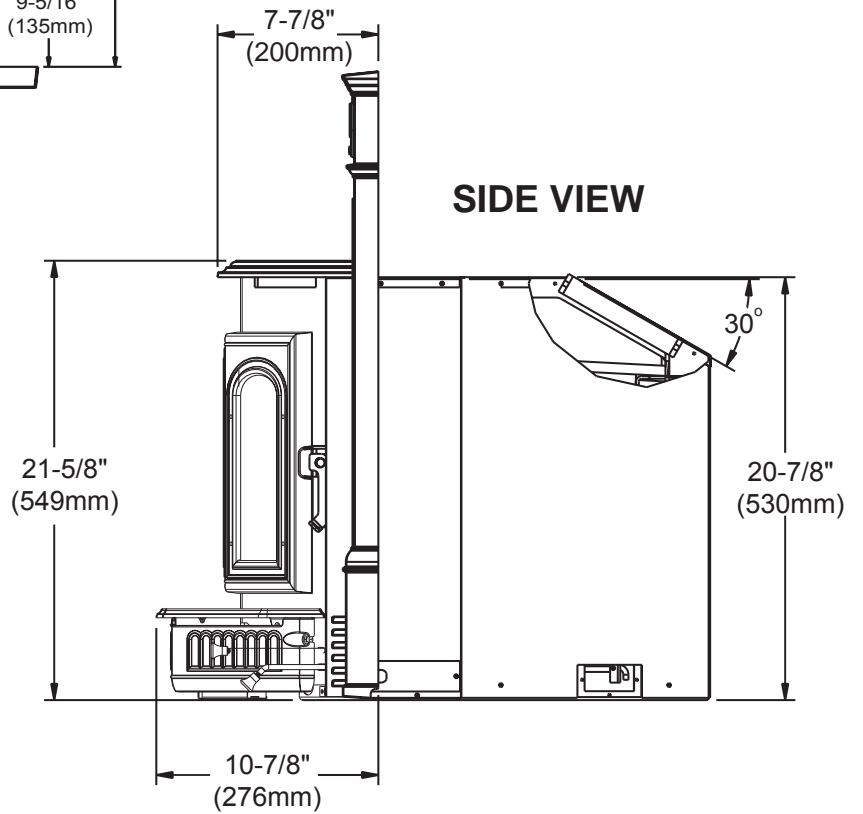
WARNING
<div style="display: flex; align-items: center;"> <div> <p>Fire Risk.</p> <ul style="list-style-type: none"> • Do not operate appliance before reading and understanding operating instructions. • Failure to operate appliance properly may cause a house fire. </div> </div>

DIMENSIONS

NOTE: Flue Collar size is 6 inch (152mm) diameter (ID)

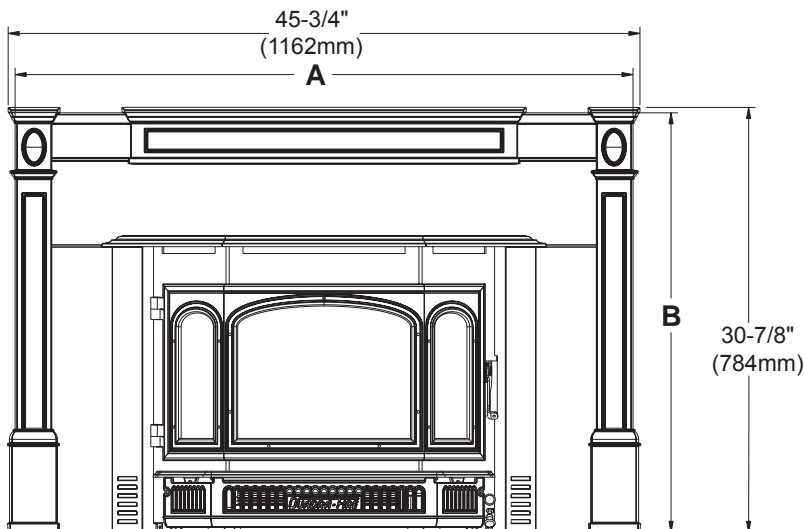


TOP VIEW



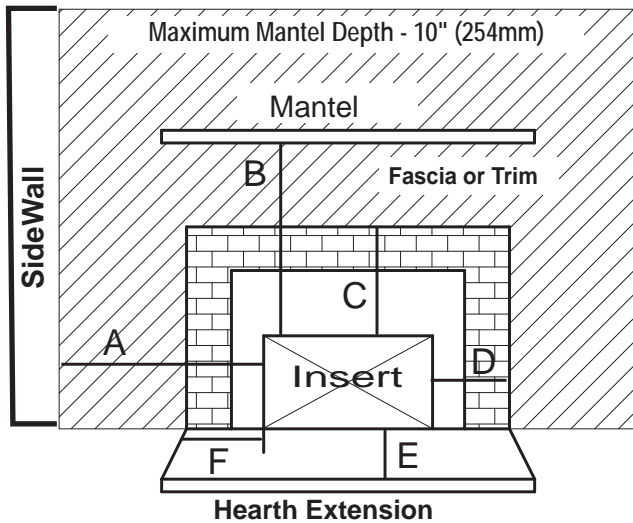
SIDE VIEW

FRONT VIEW



Panel Size	A	B
Standard	44-3/4" (1137mm)	30-1/2" (775mm)
Large	48" (1219mm)	34" (867mm)

CLEARANCES TO COMBUSTIBLES
United States and Canada



	USA	CANADA
A Sidewall to Stove	15" (381mm)	15" (381mm)
B Mantel to Stove	26" (660mm)	23" (584mm)
C Top Trim to Stove	20" (508mm)	20" (508mm)
D Side Trim to Stove	6" (152mm)	6" (152mm)
E Hearth Extension from Glass	16" (406mm)	18" (457mm)
F Hearth Extension from Side of Insert	8" (203mm)	8" (203mm)
Thermal Protection USA & Canada		
Thermal protection must be 1/2 Inch (12.7mm) minimum thickness ('k' value = 0.84, R value = 0.59) or equivalent material*		
*Zero Clearance Installations USA Only		

*Refer to Calculating Alternate Floor Protection

Hearth Extension

If the hearth extension is lower than the fireplace opening, the portion of the insert extending onto the hearth must be supported. Manufacturer designed adjustable support kit can be ordered from your dealer. **Refer to page 17.**

Hearth Extension Insulation Alternatives, R Value = 1.03			
Material	k per inch thick	R per inch thick	Minimum thickness required
Hearth & Home HX3 & HX4	0.49	2.06	1/2 in.
USG Micore 300™	0.49	2.06	1/2 in.
USG Durock™ Cement Board	1.92	0.52	2-1/4 in.
Cement Mortar	5.0	0.20	5-7/8 in.
Common Brick	5.0	0.20	5-7/8 in.
Ceramic Tile	12.50	0.08	14-5/8 in.
Marble	14.3 to 20.0	0.07 to 0.05	16-5/8 in. to 23-3/8 in.

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. (BTU) (inch)
(foot² (hour) (°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.

VENTING REQUIREMENTS

Venting Systems

Chimney Connector:

It is also known as flue pipe or stove pipe. It must be 6 inches (152mm) minimum diameter stainless steel connector pipe.

Chimney:

The chimney can be new or existing, masonry or prefabricated and must meet the following minimum requirements as specified below.

WARNING! Risk of Fire!

Follow venting manufacturer's clearances and instructions when installing venting system.

Inspections

Existing chimneys should be inspected and cleaned by a qualified professional prior to installation. The chimney must not have cracks, loose mortar or other signs of deterioration and blockage. Hearth & Home recommends a NFI or CSIA certified professional or a technician, under the direction of a certified professional, conduct a Level II inspection per NFPA 211.

	WARNING
	Fire Risk
	<p>Inspection of Chimney:</p> <ul style="list-style-type: none"> • Chimney must be in good condition. • Meets minimum standard of NFPA 211 • Factory-built chimney must be 6 inch (152mm) UL103 HT.

Larger Chimneys

It is recommended that chimneys with larger diameters than 6 inches (152mm) be relined. An oversized flue can affect draft and impair performance and will allow increased build-up of creosote.

NOTICE: Check with your local building authorities and/or consult the National Fire Protection Association (NFPA 211).

Chimney Systems

Approved Masonry Chimney:

- Must meet minimum standards of NFPA 211.
- Must have at least 5/8 inch (16mm) fireclay lining joined with refractory cement. (Installations into a clay flue without a stainless steel liner may reduce draw which affects performance, will cause the glass to darken and produce excessive creosote).
- The masonry wall of the chimney, if brick or modular block, must be a minimum of 4 inches (102mm) nominal thickness.
- A chimney of rubble stone must be at least 12 inches (305mm) thick.
- Cross-sectional area should be no more than 3 times the cross-sectional area of the flue collar of the insert. (28 sq inch flue area x 3 inches = 84 square inches maximum chimney area).
- Should be lined with a 6 inch (152mm) stainless steel flue liner to improve performance and reduce creosote build-up.
- An equivalent liner must be a listed chimney liner system or other approved material.
- No dilution air is allowed to enter the chimney.
 1. Secure the fireplace damper in the open position. If this cannot be accomplished, it will be necessary to remove the damper
 2. Seal damper area of chimney around chimney connector with a high temperature sealant or seal insert against the face of the fireplace.
 3. Both methods must be removable and replaceable for cleaning and re-installation.
- When possible, install an airtight clean-out door to the rear of the smoke shelf.

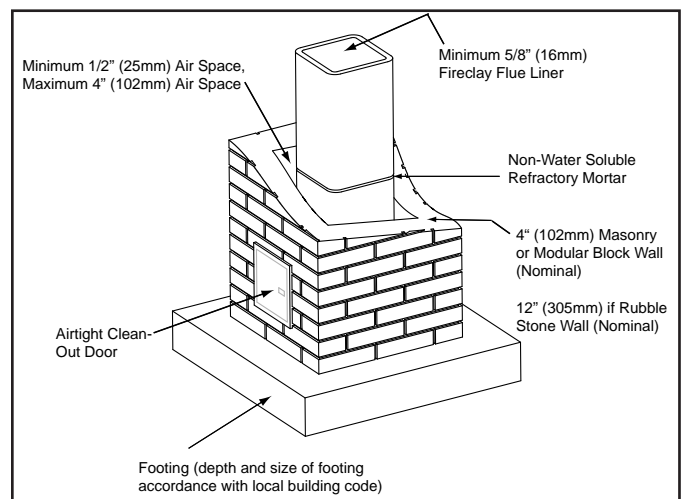


Figure 8.1

Masonry Chimney (Cont'd)

This insert conforms with the UL 1482 and ULC S628 (Canada) in all respects, and is approved to UL & ULC safety standards for installation and use within a fireplace with a masonry chimney in accordance with NFPA 211 and CAN/CSA-B365-01.

NOTE: In Canada, this fireplace insert must be installed with a continuous chimney liner of a 6 inch (152mm) diameter extending from the fireplace insert to the top of the chimney. The chimney liner must conform to the Class 3 requirements of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

NOTE: Installation into fireplaces without a permit will void the listing.

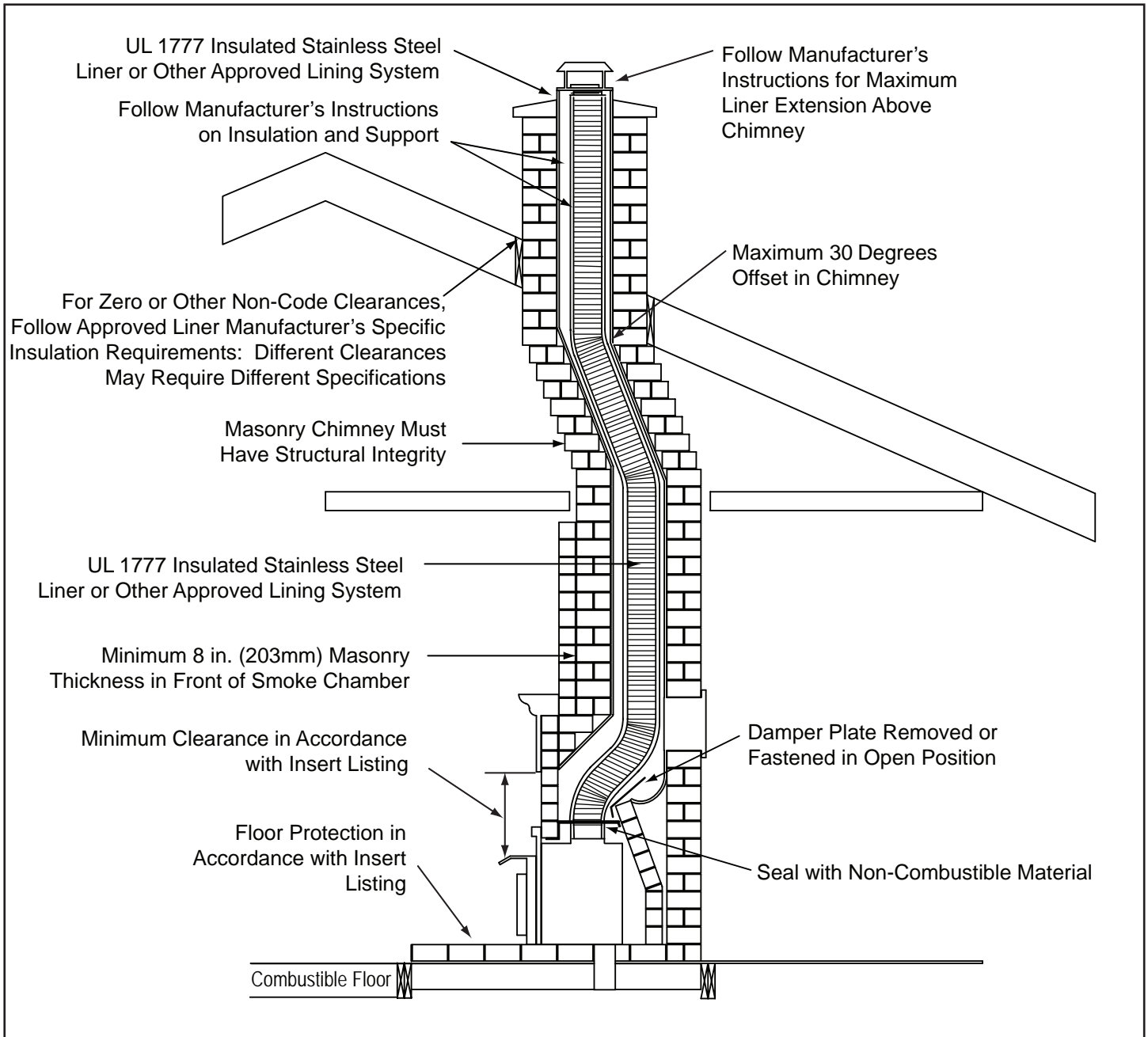


Figure 9.1

Metal Heat Circulating Masonry

This insert conforms with the safety standard UL 1482 and ULC S628 (Canada) in all respects and is approved to UL & ULC safety standards for installation and use within a fireplace with masonry chimney, in accordance with NFPA 211, with a direct flue collar connection.

Prefabricated Metal Chimney

The chimney can be new or existing, masonry or prefabricated and must meet the following minimum requirements:

- Must be minimum 6 inch (152mm) inside diameter of high temperature chimney listed to UL 103 HT (2100°F) or ULC S628.
- Must use components required by the manufacturer for installation.
- Must maintain clearances required by the manufacturer for installation.
- Refer to manufacturers instructions for installation
- This insert is listed to UL 1482 Standard and is approved for installation into listed factory-built zero clearance fireplaces listed to UL 127 conforming to the following specifications and instructions:

Prefabricated Metal Chimney (Cont'd)

- The original factory-built clearance fireplace chimney cap must be re-installed after installing the approved chimney liner meeting type UL 103 HT requirements (2100°F) per UL 1777.
- If the chimney is not listed as meeting HT requirements, or if the factory built fireplace was tested prior to 1998, a full height listed chimney liner must be installed from the appliance flue collar to the chimney top.
- The liner must be securely attached to the insert flue collar and the chimney top.
- The air flow of the factory-built zero-clearance fireplace system must not be altered. The flue liner top support attachment must not reduce the air flow for the existing air-cooled chimney system.
- No dilution air is allowed to enter the chimney.
 1. Secure the fireplace damper in the open position. If this cannot be accomplished, it will be necessary to remove the damper
 2. Seal damper area of chimney around chimney connector with a high temperature sealant or seal insert against the face of the fireplace.
 3. Both methods must be removable and replaceable for cleaning and re-installation.

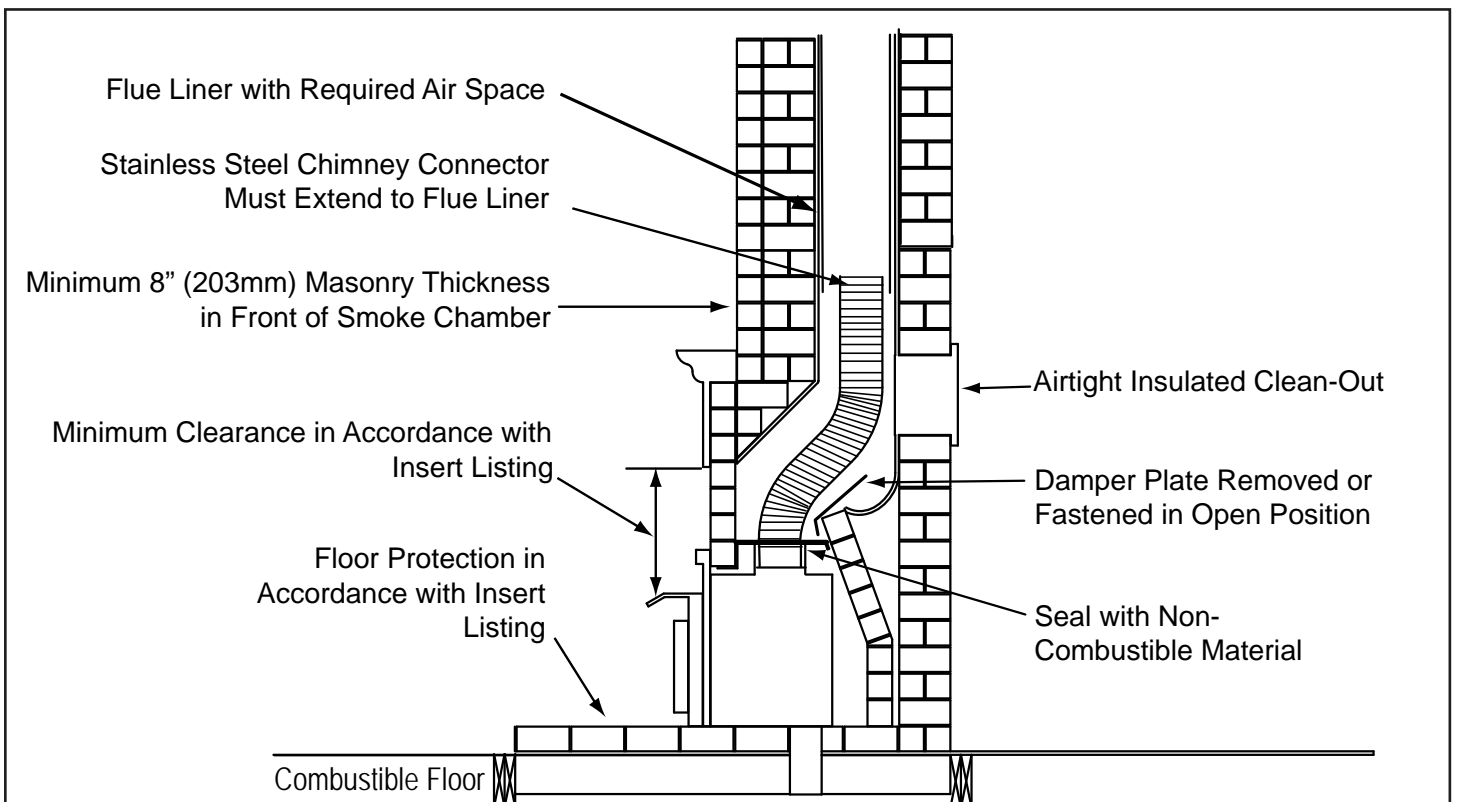


Figure 10.1


Prefabricated Metal Chimney (Cont'd)

	<i>Inches</i>	<i>Millimeters</i>
Minimum Width of Cavity Opening	30-3/16	767
Minimum Height	21	533
Minimum Depth from Front to Rear	16-1/4	413


NOTE: Refer to chimney liner manufacturer for recommendations on supporting the liner. Installation into fireplaces without a permit will void the listing

NOTICE: In Canada when using a factory-built chimney it must be safety listed, **Type UL103 HT (2100°F) [1149°C] CLASS "A"** or conforming to **CAN/ULC-S629M, STANDARD FOR 650°C FACTORY-BUILT CHIMNEYS.**

NOTE: In Canada, installations into factory-built zero clearance fireplaces are **NOT** allowed.



WARNING



Fire Risk.

When lining air-cooled factory-built chimneys:

- Run chimney liner approved to UL 1777 Type HT requirements (2100 degrees F)
- Re-install original factory built chimney cap ONLY
- DO NOT block cooling air openings in chimney
- Blocking cooling air will overheat the chimney

Securing Chimney Components

All joints should be secured with 3 stainless steel rivets. The sections must be attached to the insert and to each other with the crimped (male) end pointing toward the insert. **Figure 11.1.**

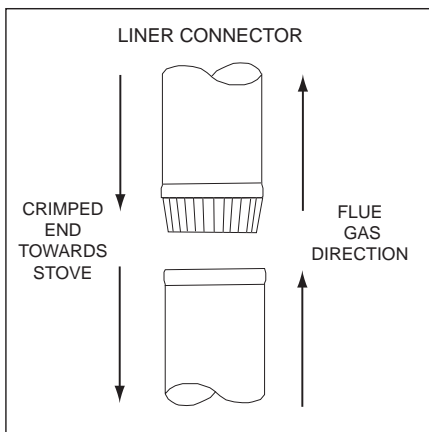


Figure 11.1

Altering the Fireplace

The following modifications of factory-built fireplaces are permissible:

The following parts may be removed:

Damper	Smoke Shelf or Baffle
Ember Catches	Fire Grate
Viewing Screen/Curtain	Doors

- The fireplace must not be altered, except that the damper may be removed to accommodate a direct-connect starter pipe or chimney liner,
- External trim pieces which do not affect the operation of the fireplace may be removed providing they can be stored on or within the fireplace for reassembly if the insert is removed.
- The permanent metal warning label provided must be attached to the back of the fireplace, with screws or nails, stating that the fireplace may have been altered to accommodate the insert, and must be returned to original condition for use as a conventional fireplace. **Figure 11.2**
- If the hearth extension is lower than the fireplace opening, the portion of the insert extending onto the hearth must be supported.
- Manufacturer designed adjustable support kit can be ordered from your dealer.
- Final approval of this installation type is contingent upon the authority having jurisdiction.

WARNING! Risk of Fire!

Follow venting manufacturer's clearances and instructions when installing venting system.

WARNING

THIS FIREPLACE MAY HAVE BEEN ALTERED TO ACCOMMODATE AN INSERT. IT MUST BE RETURNED TO ITS ORIGINAL CONDITION BEFORE USE AS A SOLID FUEL BURNING FIREPLACE.

250-2061

Figure 11.2

Ovalizing Round Stainless Steel Liners

Ovalizing round stainless steel liners to accommodate the liner passing through the damper region of a fireplace is an allowable and acceptable practice.

Ensure that the ovalization is minimized to the extent required to fit through the damper.

Chimney Height / Rise and Run

To be sure that your Quadra-Fire insert burns properly, the chimney draft (static pressure) should be approximately -0.10 inches water column (W.C.) during a high burn and -0.04 inches W.C. during a low burn, measured 6 inches (152mm) above the top of the insert after one hour of operation at each burn setting.

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

- This product was designed for and tested on a 6 inch (152mm) chimney, 14 to 16 feet (4.27-4.87m) high, (includes appliance height) measured from the base of the appliance.
- The further your stack height or diameter varies from this configuration, the possibility of performance problems exists.
- Chimney height may need to be increased by 2 - 3% per each 1000 feet (304.8m) above sea level.
- It is not recommended to use offsets or elbows at altitudes above 4000 feet (1219.2m) above sea level or when there are other factors that affect flue draft.

Air Clearances

To ensure that insulation or any other combustible material does not contact the chimney follow clearances below:

- A chimney inside the house must have at least 2 inches (51mm) of clearance to the combustible structure.
- A chimney outside the house must have at least 1 inch (25mm) clearance to the combustible structure.
- Non-combustible fire stops must be installed at the spaces where the chimney passes through floors and/or ceilings. **Figures 12.1 and 12.2.**

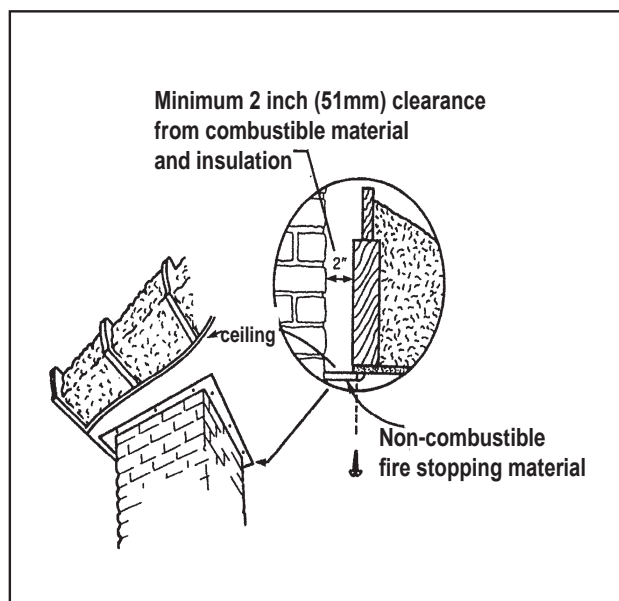


Figure 12.1

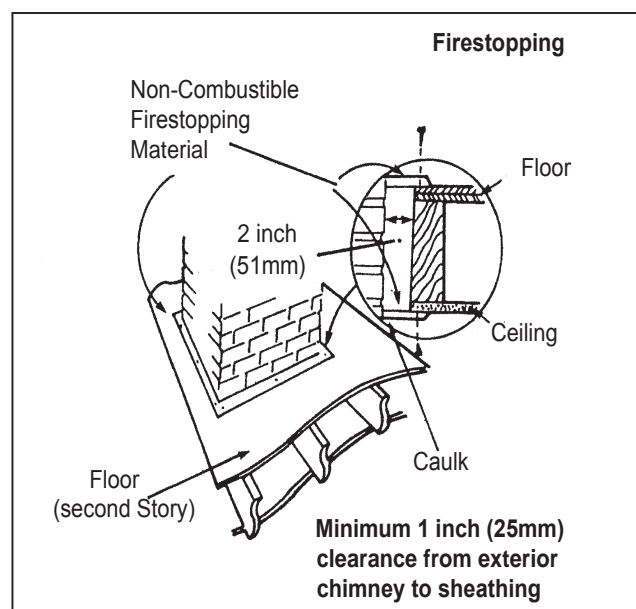


Figure 12.2

WARNING

Fire Risk.

Do NOT pack insulation or other combustibles between spacers.

- ALWAYS maintain specified clearances around venting and spacers.
- Install spacers as specified.

Failure to keep insulation or other material away from vent pipe may cause fire.

WARNING! Risk of Asphyxiation!

- **DO NOT CONNECT THIS APPLIANCE TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE OR TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.**

This may allow flue gases to enter the house.

Chimney Termination Requirements

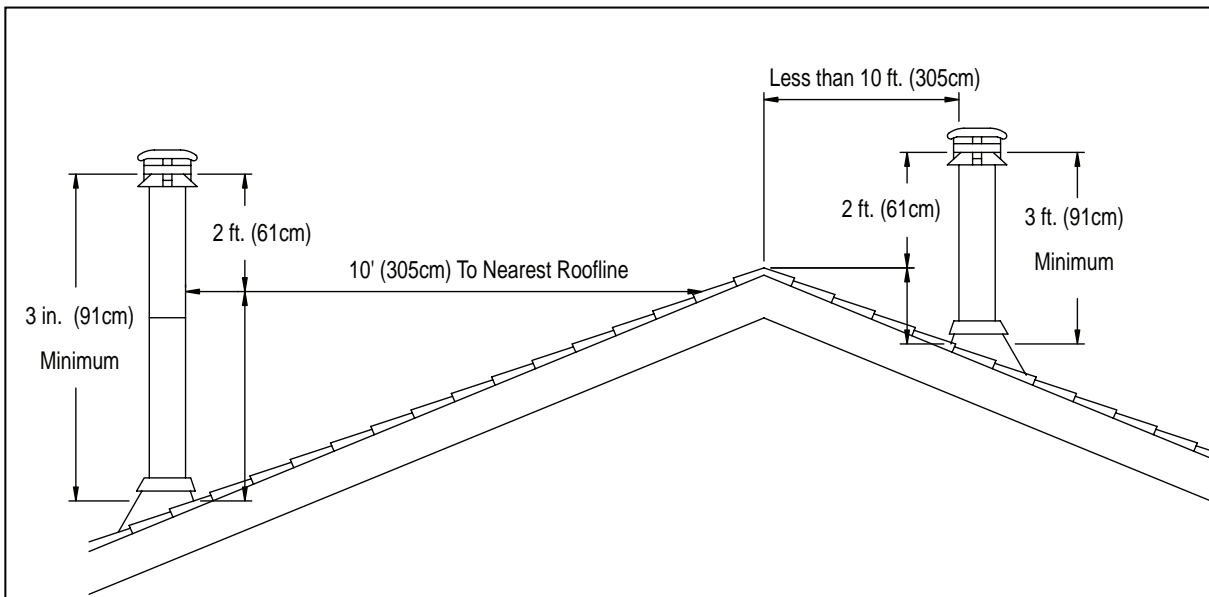
Follow manufacturers instructions for clearances, securing, flashing and terminating the chimney.

- Must have an approved and listed cap
- Must not be located where it will become plugged by snow or other material
- Must terminate at least 3 feet (91cm) above the roof **and** at least 2 feet (61cm) above any portion of the roof within 10 feet (305cm).
- Must be located away from trees or other structures

NOTE:

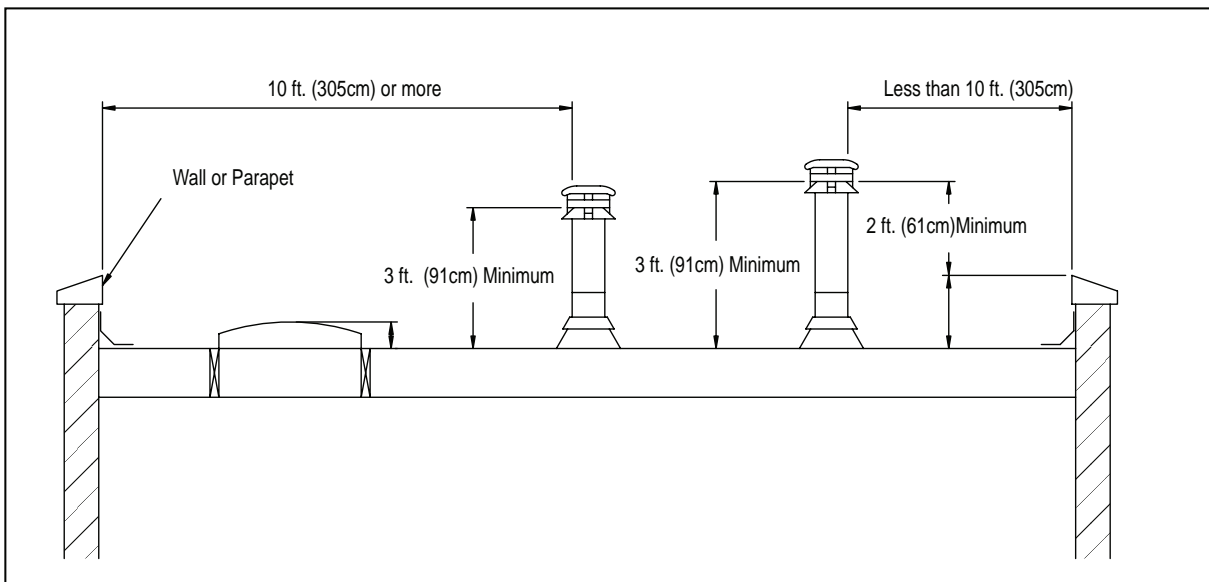
- Chimney performance may vary.
- Trees, buildings, roof lines and wind conditions affect performance.
- Chimney height may need adjustment if smoking or overdraft occurs.

2-10-3 Rule These are safety requirements and are not meant to assure proper flue draft



Pitched Roof

Figure 13.1



Flat Roof

Figure 13.2

Installations Into Zero-Clearance Fireplaces in Mobile Homes (USA Only)

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 unit 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. See **page 15** for detailed information.
2. Appliance must be secured to the mobile home structure. Drill a hole on each side of the insert into the outer skin and into the floor. Use plumbers tape to secure to structure (washers may be required).
3. Appliance must be grounded with #8 solid copper grounding wire or equivalent and terminated at each end with N.E.C. approved grounding device.
4. The factory-built fireplace must meet (UM)84-HUD requirements for outside combustion air supply to the fireplace fire chamber and the chimney must be listed to UL103 HT or a listed UL 1777 full length 6 inch (152mm) diameter liner must be used. It must be equipped with a spark arrestor cap and the outside air must be installed on the insert.
5. In Canada, this appliance must be connected to a 6 inch (152mm) factory-built chimney conforming to CAN/ULC-S610, STANDARD FOR FACTORY BUILT CHIMNEYS.
6. Follow the chimney and chimney connector manufacturer's instructions when installing the flue system for use in a mobile home.
7. Maintain clearance to combustibles.
8. Floor protection requirements must be followed precisely.
9. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure.
10. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).
11. If unit burns poorly while an exhaust blower is on in home, (i.e., range hood), increase combustion air.

NOTE: Top sections of chimney must be removable to allow maximum clearance of 13.5 feet (411cm) from ground level for transportation purposes.

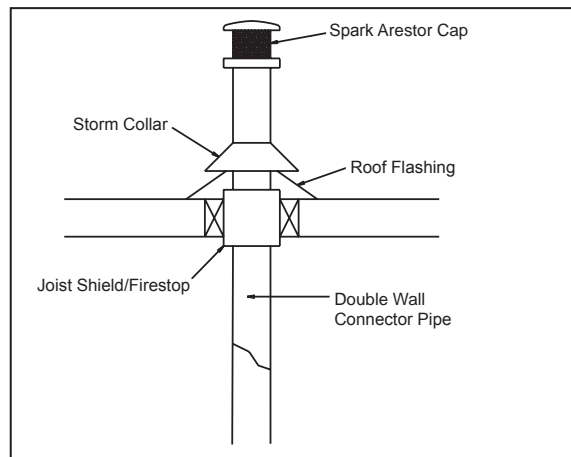


Figure 14.1

WARNING



Fire Risk.



Asphyxiation Risk.

Do not draw outside combustion air from:

- Wall, floor or ceiling cavity
- Enclosed space such as an attic or garage
- Close proximity to exhaust vents or chimneys.

Fumes or odor may result

CAUTION

THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED
Do NOT cut through:

- Floor joist, wall, studs or ceiling trusses.
- Any supporting material that would affect the structural integrity.

WARNING



Asphyxiation Risk.

- NEVER INSTALL IN A SLEEPING ROOM.
Consumes oxygen in the room.

Outside Air Installation

NOTE: This insert requires replacement of combustion air. If your home is fairly air-tight, it is recommended that you install outside air. If you are installing into a Mobile Home, outside air is required. See page 14.

Tools Needed: Phillips Head screw driver

1. Remove 3 screws and cover plate from back side of insert. Save the screws.
2. Re-attach the cover plate using the same screws to front side of the insert as shown in **Figure 15.1**.
3. Repeat same procedure for other side of insert.

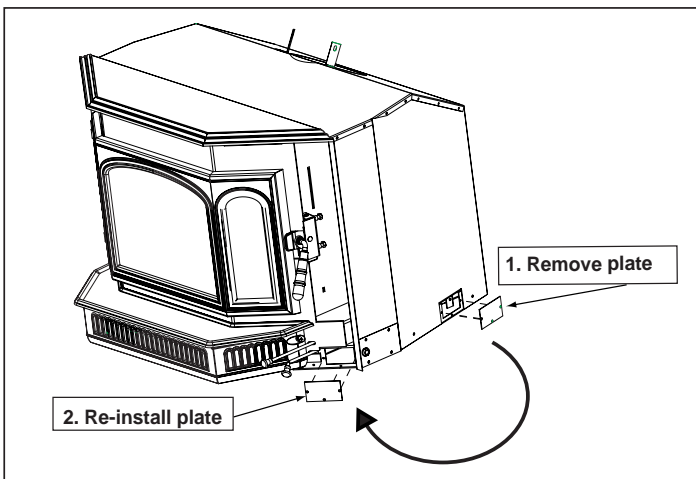






Figure 15.1

IMPORTANT!
**THE ZERO CLEARANCE FIREPLACE OUTSIDE AIR
 MUST BE TURNED TO "ON"**

	 WARNING
<p>Fire Risk. Asphyxiation Risk.</p> <p>Do not draw outside combustion air from:</p> <ul style="list-style-type: none"> • Wall, floor or ceiling cavity • Enclosed space such as an attic or garage • Close proximity to exhaust vents or chimneys. <p>Fumes or odor may result</p>	

	 WARNING
<p>Asphyxiation Risk.</p> <p>Length of outside air supply duct shall NOT exceed the length of the vertical height of the exhaust flue.</p> <ul style="list-style-type: none"> • Fire will not burn properly • Smoke spillage occurs when door is opened due to air starvation 	

Securing Liner To Flue Collar

There are two options to secure the liner to the flue collar. **Figure 15.2.**

Option One: If there is enough room on the top of the insert to work, hand bend the two tabs upward 90°. Secure the liner with the supplied hex head bolts 1/4-20-3/4.

Option Two: Remove the manifold tubes, fiberboard baffle and ceramic blanket. From inside the firebox, pull liner down through the chimney ring below the outer skin. There are two pre-drilled holes in the chimney ring 180° apart. Secure the liner with the supplied hex head bolts 1/4-20-3/4.

NOTE: Tabs are shipped from factory in a flat position. Bend upwards 90 degrees.

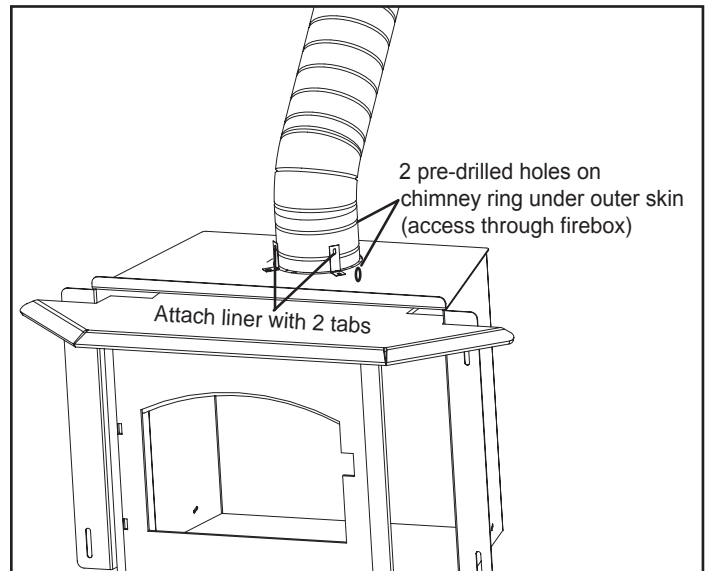


Figure 15.2

Leveling Bolts And Sheet Metal Shims

This product shipped with two leveling bolts, and two sheet metal guides for ease in sliding the insert into place when using the leveling bolts. Not all installations will require the use of the leveling bolts. The sheet metal guides are used only when the leveling bolts are necessary. Discard if not needed.

Sheet Metal Guides

Slide each guide under the insert on each side placing them directly under leveling bolts. If they are not directly under the bolts, the bolts may hang up on uneven material when sliding the insert into place. **Figure 16.1.**

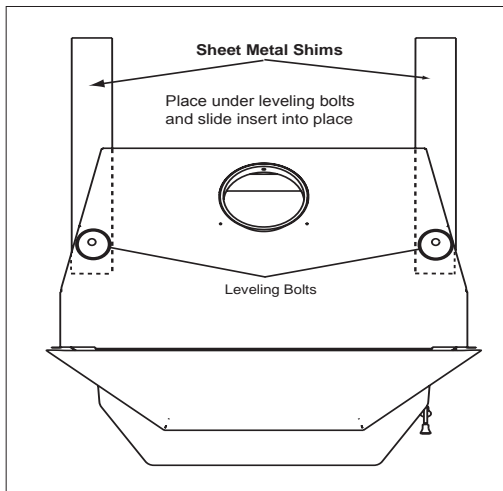


Figure 16.1

Adjusting The Leveling Bolts

It is best to use a 1/2 inch (12.7mm) socket wrench with an extended handle for ease in adjusting bolts to the desired level. The bolts will adjust from 0 to 2 inches (0 - 51mm). You can also reach in and adjust the bolts by hand, although space is limited. **Figure 16.2.**

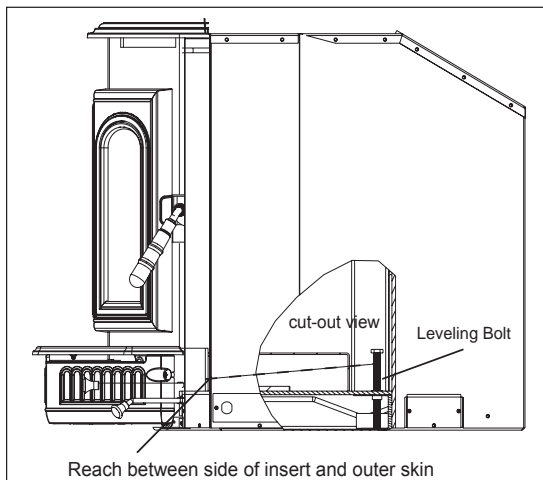


Figure 16.2

Door Handle Assembly

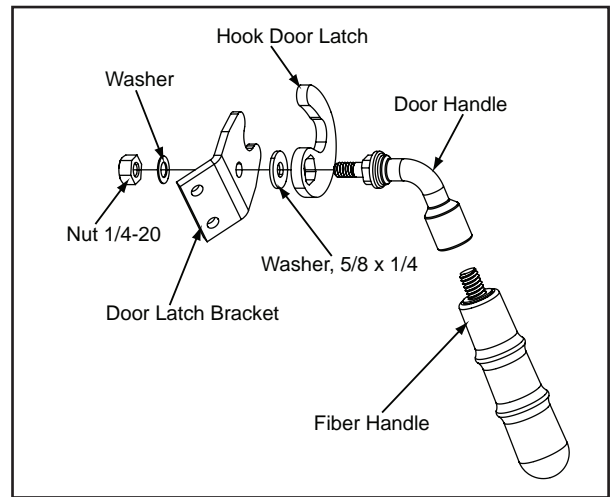


Figure 16.3

Door Latch Adjustment

It is important the door gasket has a proper seal. As the gasket compresses or "seats" during use, it may become necessary to adjust or tighten the door latch.

1. Loosen securing screw (do not remove).
2. Turn adjustment bolts as need for adjustment (in or out) using 7/16" end wrench.
3. Tighten securing screw to hold adjusted position in place.

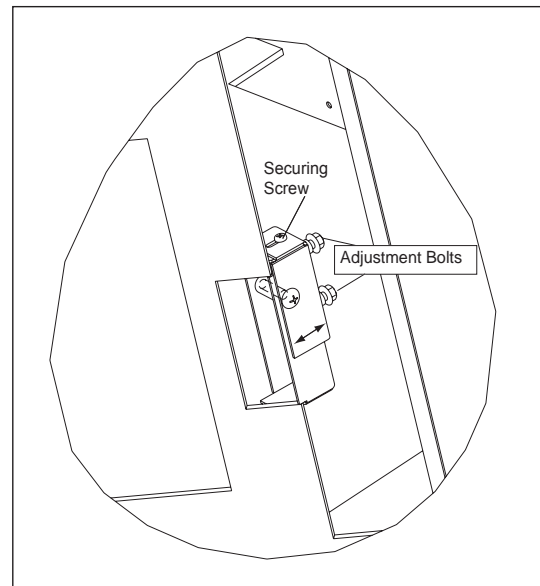


Figure 16.4

Zero Clearance Adjustable Trim Support

Two sizes: 9”d x 45”w and 12”d x 50”w, both 2” to 10” Height Adjustment

Included in Kit: (1) trim top, (1) trim front, (2) trim sides, double-sided tape (already installed)

Tools Needed: Phillips Head screwdriver, sheet metal shears, measuring tape, gloves

1. The 10 screws on each set of scissors will already be loose when shipped. **Figure 17.1.**
2. Expand scissors to desired height. Tighten screws to hold in place using Phillips Head screwdriver. **Figure 17.2.**
3. Measure front and side trims to required height to cover scissors and mark pieces for cutting. Cut excess material from **top** of trim’s edge, not bottom. This edge will be sharp; wear gloves to prevent injury to your hands. **Figure 17.2.**
4. Using sheet metal shears, cut trim along the marked edge. The cut edge fits under lip of top trim, so it allows for some variance in your straight edge.
5. The double-sided tape that holds front and side trims to scissors has a powerful bonding adhesive. Adjustments are extremely difficult once trim has adhered to tape. Do a dry run first without removing paper from tape.
6. Place cut edge of trim under top lip and into position on scissors. Place side pieces on first and then front piece. The front piece overlaps side pieces. **NOTE:** *The trim in the Flush Mount Kit is one piece.*
7. Once you are satisfied with the positioning, remove trim and set aside.
8. Remove the paper from double-sided tape that is to accept trim side. Align side and then press hard against tape to secure side piece. Repeat for other side. Install front trim piece last.

NOTE: 3/8 inch (9.5mm) thick tile or like material can be cut to size and fit under lip of top trim edge for a decorative touch. **Figure 17.3.**

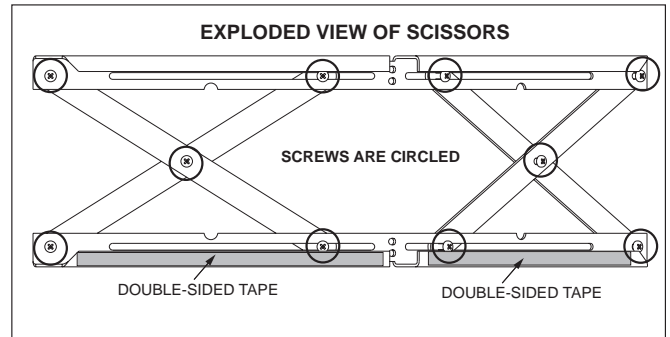


Figure 17.1

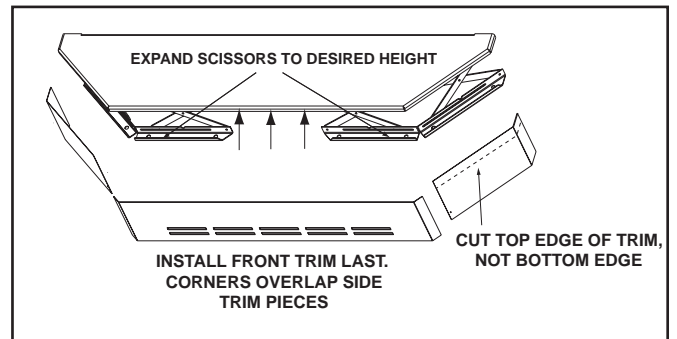


Figure 17.2

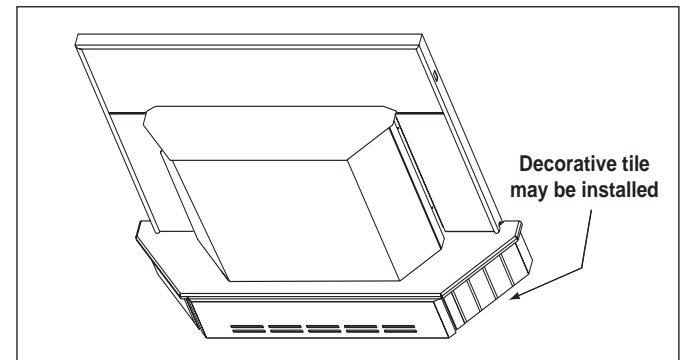


Figure 17.3

Panel Set And Cast Trim Set

Standard Size: 30-1/2" h x 44-3/4"w

Large Size: 34"h x 48"w

NOTE: *Panel and Cast Trim must be ordered separately.*

Included in Panel Kit: (2) side panels, left and right; (1) panel top; (2) trim pieces; (1) trim top; (1) fastener package.

Included in Cast Trim Kit: (2) cast trim legs, left and right; (1) cast trim header; (2) cast trim footers, left and right.

Tools Needed: Powered Phillips head screwdriver

1. Remove contents from box being careful not to scratch or damage cast trim pieces.
2. Lay the panel set face down on protective covering to prevent scratching the painted surface.
3. Secure panel set together with screws provided.

Figure 18.1.

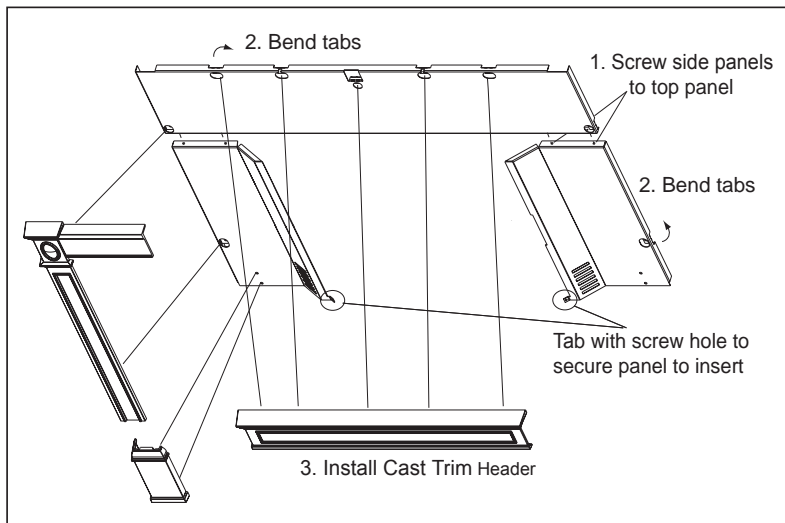


Figure 18.1

4. Now bend the tabs down toward the backside of the panel set, on top piece and on each leg. Leave panel set face down.
5. Place the corresponding cast trim pieces (2 cast trim legs and 1 cast trim header) underneath panel set, also face down.
6. Place washer provided over tab and secure the trim and panel together with screw. Continue for all tabs.
7. Secure cast footers with screws.

CAUTION: DO NOT PICK UP ASSEMBLED UNIT BY CORNERS. IT IS TOO HEAVY AND MAY DAMAGE THE PANELS. PICK UP FROM CENTER.

8. Slide assembled panel and trim over top of the insert into place.
9. Secure panels to insert with 8-32 sheet metal screws through tabs on bottom lower inside corners on side panels. **Figure 18.2.**

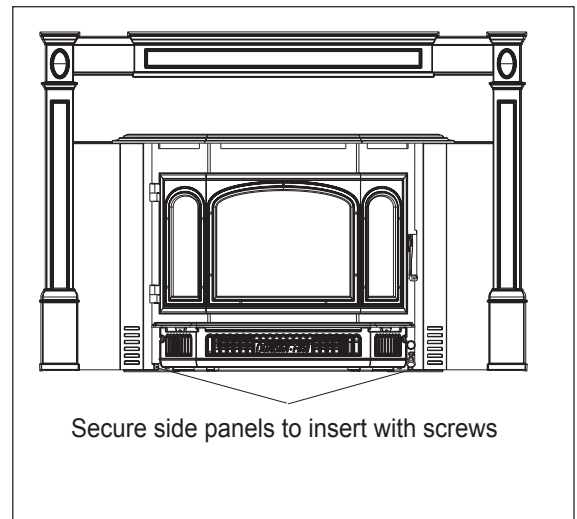


Figure 18.2 - Completed View

Panel And Gold Trim Set

Basic Standard Size: 30"h x 40"w

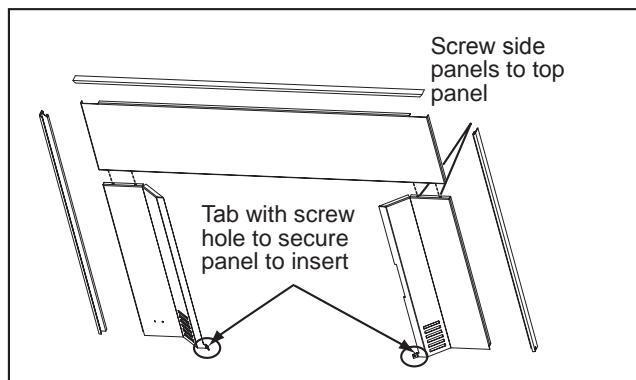


Figure 18.3

1. Repeat Steps 1 - 3 above.
2. To assemble the trim, attach the 2 side trim pieces to the top trim at each corner using the "L" bracket included in fasteners package. **Figure 18.3**
3. Slide panel and trim over top of the insert and into position.

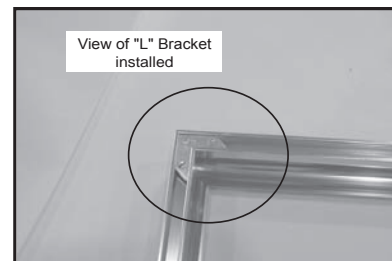


Figure 18.4

Blower Cord Location & Blower Control Box With Switch

This insert comes standard with a blower, installed at the factory with blower cord on right side of insert (as you face the unit). The blower cord can also be installed on the left side. Disconnect the cord from right side. ROUTE WIRES IN FRONT OF FAN. Re-install on the left side. Do not route cord behind the cooling fan.

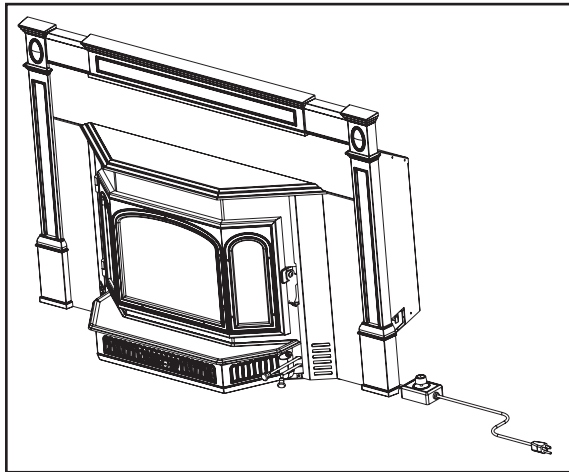


Figure 19.1

Operating the Blower Control Box with Snap Disc

1. The blower will turn on/off automatically when set to AUTO.
2. When set to MANUAL, the fan will turn on/off only when you turn it on or off. This setting over-rides the internal snap disc.
3. Adjust the speed of the fan by turning the HIGH/LOW knob to the desired setting.

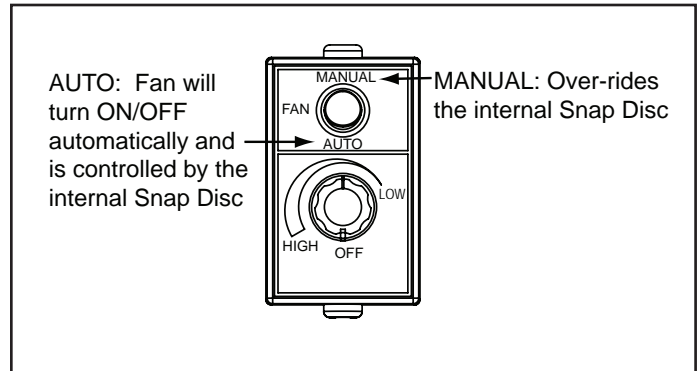


Figure 19.4

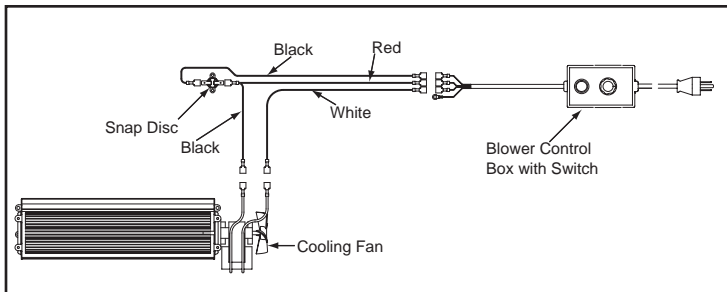


Figure 19.2 - Right Side Location

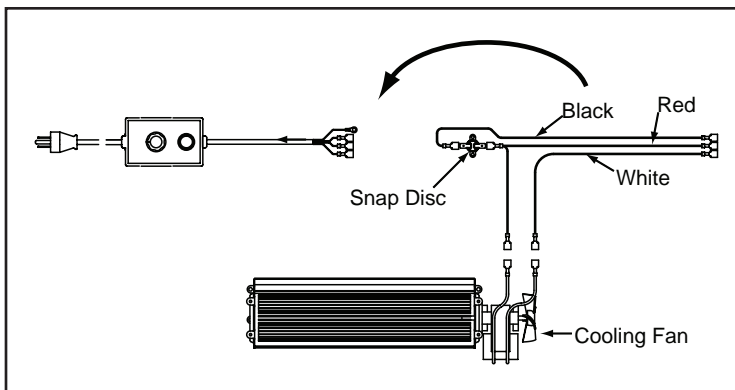




Figure 19.3 - Left Side Location

OPERATING INSTRUCTIONS

Over-Firing Your Appliance

	<h2>WARNING</h2>
	<p>Fire Risk</p> <p>Do not over-fire.</p> <p>Over-firing may ignite creosote or will damage the stove and chimney.</p> <p>To prevent over-firing your stove, DO NOT:</p> <ul style="list-style-type: none"> • Use flammable liquids • Overload with wood • Burn trash or large amounts of scrap lumber • Permit too much air to the fire

1. Symptoms of Over-Firing

Symptoms of over-firing may include one or more of the following:

- Chimney connector or appliance glowing
- Roaring, rumbling noises
- Loud cracking or banging sounds
- Metal warping
- Chimney fire

2. What To Do if Your Stove is Over-Firing

- Immediately close the door and air controls to reduce air supply to the fire.
- If you suspect a chimney fire, call the fire department and evacuate your house.
- Contact your local chimney professional and have your stove and stove pipe inspected for any damage.
- Do not use your stove until the chimney professional informs you it is safe to do so.

Hearth & Home Technologies WILL NOT warranty stoves that exhibit evidence of over-firing. Evidence of over-firing includes, but is not limited to:

- Warped air tube
- Deteriorated refractory brick retainers
- Deteriorated baffle and other interior components

Wood Selection & Storage

Burn only dry seasoned wood. Store wood under cover, out of the rain and snow. 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 Selection & Storage (Cont'd)

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 2/3 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.

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 woodstoves that surpass the requirements for emissions established by our governing agencies. These woodstoves, 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.

1. Kindling or First 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) and will not get any hotter until the water is evaporated. This process takes heat from the coals and tends to cool the appliance.

Fire requires three things to burn - fuel, air and heat. So, if heat is robbed from the appliance 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 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.

2. Second 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 the flames tend to go out, it is set too low for your burning conditions. The air control located at the upper right hand corner is used to adjust for burn rates. This is called the Burn Rate Air Control. **Figure 21.1.**

3. 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 appliance 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 Burn Rate Air and Start-Up Air Controls **before reloading**. This livens up the coalbed and reduces excessive emissions (opacity/smoke). Open door slowly so that ash or smoke does not exit appliance 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.

3. Open Start-Up Air Control (right control) and Primary Air Control (center control under ashlip) fully. **Figure 23.1 on page 23.**
4. Ensure that no matches or other combustibles are in the immediate area of the insert, that the room is adequately ventilated, and the flue is unobstructed.
5. Light the paper in the insert. NEVER light or rekindle insert 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 insert, 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 Control, maintaining flames above the fuel. The more you close down the Primary Control, the lower and slower the fire will burn. The more you open the Primary Control the more heat will be produced. The Start-Up Air Control (right control) is only used for the first 5 to 15 minutes.

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

	<p>WARNING</p>
	<p>Fire Risk.</p> <ul style="list-style-type: none"> • Do NOT burn with insert door open. <p>Embers may fall out and start a fire.</p>



Building A Fire



Before lighting your first fire in the insert, make certain that the baffle is correctly positioned. It should be resting against the rear support. Refer to **page 24**.

NOTE: Remove all labels from glass front prior to lighting the first fire and refer to plated surfaces care on **page 25**.

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 flue with slightly crumpled newspaper before adding kindling keeps smoke to a minimum.*
2. Place several wads of crushed paper on the firebox floor.

	<p>WARNING</p>
	<p>Fire Risk.</p> <p>Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.</p> <ul style="list-style-type: none"> • Do NOT store flammable materials in the appliance's vicinity. • DO NOT USE GASOLINE, 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. • Combustible materials may ignite.

	<p>WARNING</p>
	<p>Fire Risk.</p> <ul style="list-style-type: none"> • DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL. • Do NOT burn treated wood or wood with salt (driftwood). • May generate carbon monoxide if burn material other than wood. <p>May result in illness or possible death.</p>

Burn Rates & Operating Efficiency

STARTING FIRE: Open both controls (push in) completely. After a wood load has been burning on high for 5 to 15 minutes or longer for very large pieces, close the Start-Up Air Control (bottom rod) by pulling it out.

HIGH: Leave the Primary Air Control fully open (immediately under the ashcatcher). It is especially important to fully open both controls when reloading the insert as failure to do so could result in excessive emissions, also referred to as 'opacity'.

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

MEDIUM HIGH: Close the Primary Air Control to 1-1/4 inch to 2-1/2 inch (31mm to 63mm) open. Start-Up Air is closed.

MEDIUM LOW: Close the Primary Air Control to 1.0 inch to 1-1/4 inch (25mm to 31mm) open. Start-Up Air is closed.

LOW: Gradually close down the Primary Air Control by pulling out making sure to maintain flames in the insert. Start-Up Air is closed. It is very important to maintain flames in your insert during the first few hours of a low burn to avoid excessive air pollution.

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

1. Regardless of desired heat output, when loading insert, burn your Quadra-Fire with both air controls wide open for a minimum of 5 to 15 minutes.
2. Regulate burn rate (heat output) by using the Primary Control (center control under ashlip). The Start-Up Air Control (right control) is mainly for initial start-up and reloading.
3. Heat output settings: Follow burn rate instructions listed below.
4. **Burn only dry, well-seasoned wood.**

BTU / Hr	Close Start-Up Air	Primary Control
Below 10,000	After 5-15 min	Pull to Stop
10,000 - 15,000	After 5-15 min	1.0 in to 1-1/4 in open
15,000 - 30,000	After 5-15 min	1-1/4 in to 2.5 in open
Maximum Heat	After 5-15 min	Fully Open

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

CAUTION

Odors and vapors released during initial operation.

- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.



WARNING

Fire Risk

- Do NOT operate with Start-Up Air Control in open position in excess of 15 minutes.
- Risk of extreme temperatures!

Prolonged operation with Start-Up Air Control in open position may cause combustible materials around appliance to exceed safe temperature limits.

NOTE:

- Build fire on brick firebox floor.
- Do NOT use grates, andirons or other methods to support fuel. It will adversely affect emissions.

Opacity

Opacity is the measure of how clean your insert is burning and is measured in percentages. An opacity of 100% in the smoke column from a chimney will totally obscure an object. Whereas 0% opacity means that no smoke column can be seen. A periodic check of the opacity emitted from your chimney will enable you to burn your insert as smoke free as possible.

Blower Operating Instructions

1. **Initial (cold) startup:** Leave fan off until your insert is hot and a good coal bed is established, approximately 30 minutes after fuel is lit.
2. **High Burn Setting:** The fan may be left on throughout the burn.
3. **Medium or Medium High Burn Setting:** The fan should be left off until a good burn is established, then turned on a medium or high rate.
4. **Low Burn Setting:** The fan tends to cool the insert. Leave fan off until the burn is well established; then, if you wish, turn the fan on at a low rate.
5. The fan is equipped with a rheostat (speed control). The highest fan speed is obtained by turning the rheostat on, then adjusting back towards "OFF" as far as possible without turning the fan off. For a low fan speed, turn the control knob clockwise as far as possible.

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.

Primary Air System

The primary 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 mix with the unburned gases, helping to create second, third and fourth combustions.

This air is regulated by the Primary Air Control. For more primary air push control "IN", for less air pull control "OUT".

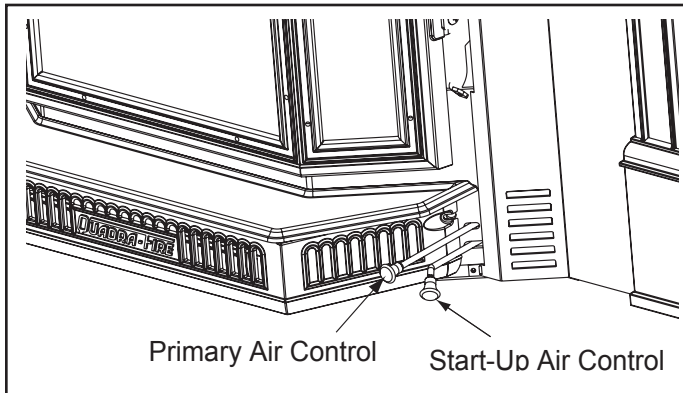




Figure 23.1


OPEN - PUSH IN

CLOSE - PULL OUT

	WARNING
	<p>Fire Risk</p> <ul style="list-style-type: none">• Do NOT operate with Start-Up Air Control in open position in excess of 15 minutes.• Risk of extreme temperatures! <p>Prolonged operation with Start-Up Air Control in open position may cause combustible materials around appliance to exceed safe temperature limits.</p>

CORRECT BAFFLE & CERAMIC BLANKET PLACEMENT

WARNING



Fire Risk
 Firebox damage due to improper baffle placement is not covered by warranty. Operate the wood burning appliance with the baffle in the correct position only. Not doing so could result in:

- Reduced efficiency
- Overheating the chimney
- Overheating the rear of the firebox
- Poor performance

Ensure correct baffle placement and replace baffle components if damaged or missing.

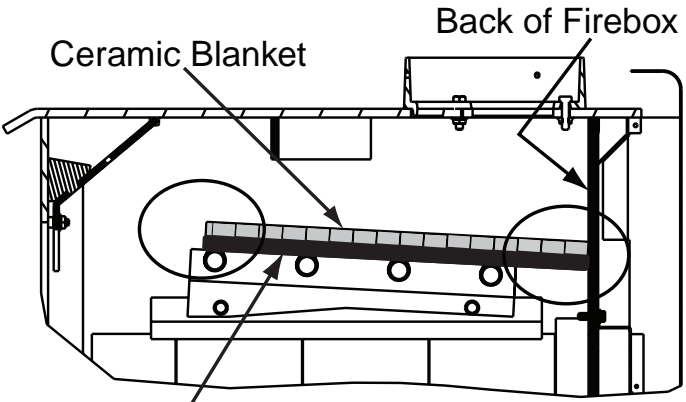
CAUTION

The baffle boards are **FRAGILE**. Use extreme caution when loading firewood to prevent:

- Cracking, breaking or damaging the baffle boards

DO NOT operate the stove without baffle boards

CORRECT POSITION



Ceramic Blanket

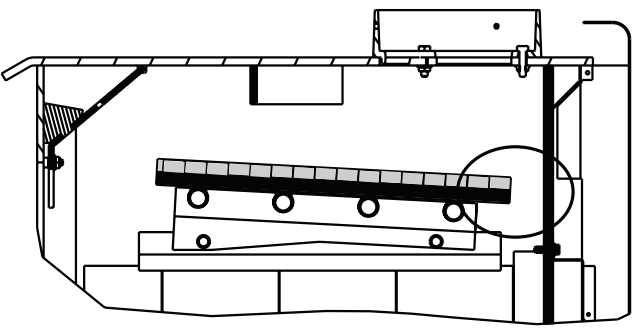
Back of Firebox

Baffle Board

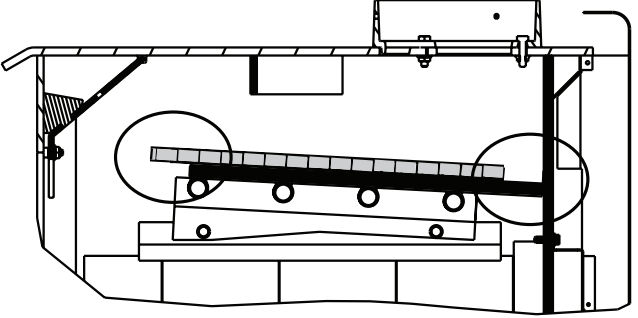
Ceramic Blanket and Baffle Board **MUST** be in contact with the back of the firebox and even with each other in the front.

Figure 24.1

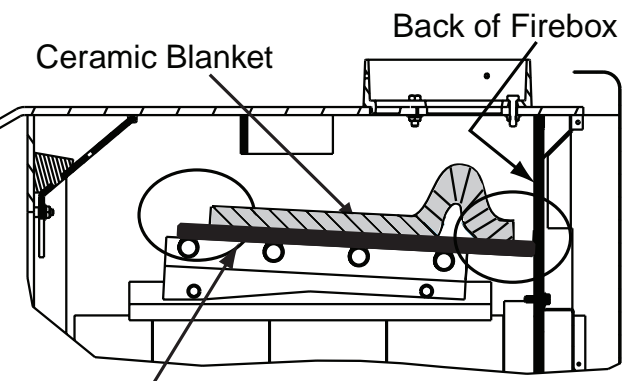
INCORRECT POSITIONS



Ceramic Blanket and Baffle Board are **NOT** in contact with the back of the firebox.



Ceramic Blanket is **NOT** in contact with the back of the firebox and **NOT** even with the Baffle Board in the front.



Ceramic Blanket

Back of Firebox

Baffle Board

Ceramic Blanket is bunched up at the back of the firebox and **NOT** even with the Baffle Board in the front.

Figure 24.2

MAINTAINING & SERVICING YOUR APPLIANCE

Cleaning Plated Surfaces

IMPORTANT: You must clean all the fingerprints and oils from the plated surfaces before firing the insert for the first time. Use warm soapy water and a soft rag, glass cleaner and a paper towel, or vinegar and a paper towel to remove the oils. **DO NOT** use abrasive cleaners! If not cleaned properly prior to lighting the first fire, the oils can cause permanent stains. The plating will be cured upon firing of the insert and oils will no longer affect the finish. Subsequently, little maintenance is then required. Wipe clean as needed with a soft towel.



Care and Cleaning of Glass



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

Quadra-Fire inserts are equipped with super heat resistant ceramic glass which can only be broken by impact or misuse. Clean glass with any non-abrasive glass cleaner. 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 authorized dealer for replacement of glass before further use. Do not substitute materials for glass replacement.

Disposal of Ashes

Remove cold ashes (not hot) from the insert at regular intervals, depending on your usage. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Always treat ashes as if they contain hot coals.

	 WARNING
Fire Risk. Disposal of Ashes	
<ul style="list-style-type: none"> • Ashes should be placed in metal container with tight fitting lid. • Do not place metal container on combustible surface. • Ashes should be retained in closed container until all cinders have thoroughly cooled. 	

	 WARNING
Fire Risk. Will corrode pipe.	
<ul style="list-style-type: none"> • Do not use chimney cleaners or flame colorants in your appliance. 	

Creosote (Chimney) Cleaning



Remove all ash from the firebox and extinguish all hot embers before disposal. Allow the appliance to cool completely. Disconnect flue pipe or remove baffle and ceramic blanket from appliance before cleaning chimney. Otherwise residue can pile up on top of the baffle and ceramic blanket and the appliance will not work properly. (See Baffle Removal on **page 27**). Close the door tightly. The creosote or soot should be removed with a brush specifically designed for the type of chimney in use. Clean out fallen ashes from the firebox. 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. During the heating season it should be cleaned every 2 months or as recommended by a certified chimney sweep; more frequently if chimney exceeds or is under 14-16 ft (4.27 to 4.87m) measured from the bottom of the appliance.

Inspection: Inspect the system at the appliance 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.

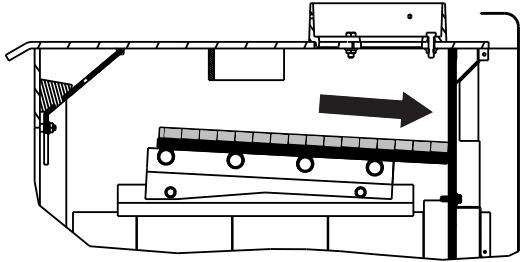
Formation and Need For Removal: When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a newly-started or a slow-burning fire. As a result, creosote residue accumulates 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 once every 2 months during the heating season to determine if a creosote or soot buildup has occurred. If creosote or soot has accumulated, it should be removed to reduce the risk of a chimney fire.

If your type of installation is direct connect within a masonry chimney, the insert will need to be pulled out from the fireplace and disconnected from the flue prior to cleaning the chimney. The creosote can either be caught in a large garbage bag secured to the pipe or swept and vacuumed out of the fireplace. Reconnect the pipe and re-install the insert following installation instructions in this manual.

	 WARNING
Fire Risk. Prevent creosote buildup.	
<ul style="list-style-type: none"> • Inspect chimney connector and chimney once every two months during heating season. • Remove creosote to reduce risk of chimney fire. • Ignited creosote is extremely HOT. 	

QUICK REFERENCE MAINTENANCE GUIDE

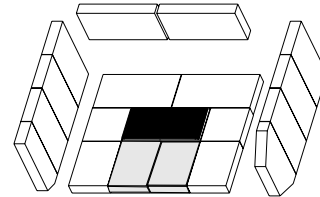
BAFFLE & BLANKET PLACEMENT



Baffle and blanket placement is critical to heat output, efficiency and overall life of the unit. Make sure the baffle is pushed all of the way to the back of the firebox and the blanket is laying flat.

INSPECT FIREBRICKS & ASH GRATE

(AFTER EACH CLEANING)



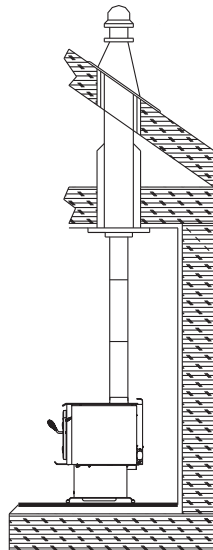
Step Top Models Only

Firebrick is designed to protect your firebox. Replace firebricks that are crumbling, cracked or broken. If you have an optional ash door, check to make sure the door is closing properly.

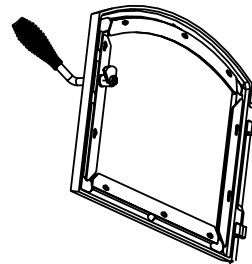
CHIMNEY & CAP INSPECTION

The chimney and chimney cap must be inspected for soot and creosote during the burn season. This will prevent pipe blockage, poor draft, and chimney fires.

Always burn dry wood to help prevent cap blockage and creosote build-up.

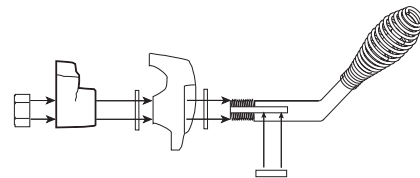


DOOR & LATCH CHECK



Keeping the door and glass gasket in good shape will maintain good burn times on a low burn setting.

Check the glass frame for loose screws to prevent air leakage.



Check the door latch for proper adjustment. This is very important especially after the door rope has formed to the stove face.

Start the first inspection of your unit after the first 2 months of use, or if performance changes, and adjust your schedule accordingly.

Maintenance is required for safe operation and must be performed to maintain your warranty.

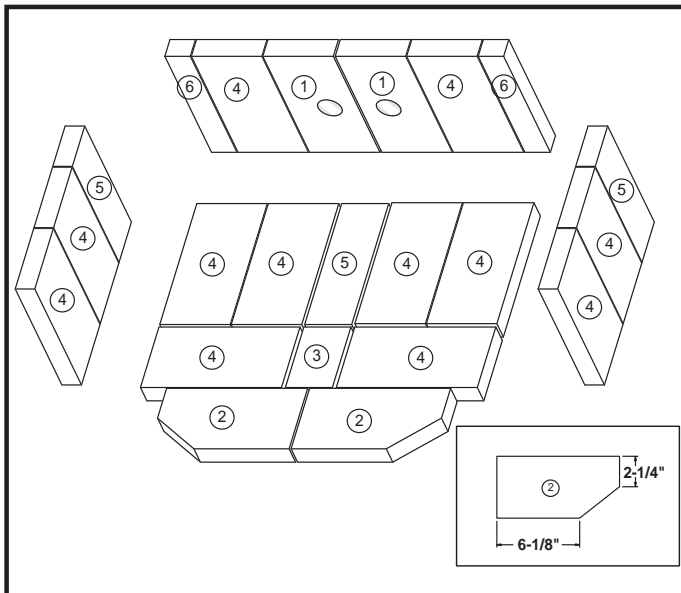
These are generic drawings and may not represent your model.

Brick Replacement Instructions

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

1. Be certain coals are completely cold. Remove all old brick and ash from unit and vacuum out firebox.
2. Remove new brick set from box and lay out to THE diagram as shown.
3. Lay bottom bricks in unit.
4. Install rear bricks on the top of the bottom bricks. Slide top of bricks under clip on back of firebox wall and push bottom of brick back.
5. Install side bricks. Slide top of brick under clips on side of firebox and push the bottom of the brick until it is flush with the side of the unit.

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



Item	Brick Size	Qty in Set
1	9 x 4-1/2 x 1-1/4" with hole	2
2	9 x 4 x 1-1/4" with cut	2
3	4-1/2 x 3 x 1-1/4"	1
4	9 x 4-1/2 x 1-1/4"	12
5	9 x 3 x 1-1/4"	3
6	9 x 1-1/2 x 1-1/4"	2

Baffle Removal & Installation

1. Remove all ash from firebox, and extinguish all hot embers before disposal into a metal container.
2. Remove ceramic blanket from above the baffle.
3. With a 3/16" Allen wrench, remove 2 front manifold tube retainer bolts on the air channel under the end of the front tubes. **NOTE:** Soak the bolts with penetrating oil for at least 15 minutes before trying to remove them. **Figure 27.1.**
4. To remove manifold tubes, slide the tube to one side until one end is out of its hole. Then, while lifting that end of the fiber board baffle, pull tube up over the air channel and out of hole at the other end. It is necessary to remove the first two tubes in order to remove the baffle. **NOTE:** When replacing the manifold tubes, be sure the tube with the larger holes is placed in the front for your insert to operate properly.
5. Slide fiber board baffle forward to front of stove and straight out through door. **Figure 27.2.**
6. To install the fiber board baffle, repeat steps 2 through 4 in reverse. Be sure the fiber board baffle and ceramic blanket are pushed back fully into position and the ceramic blanket lays flat.

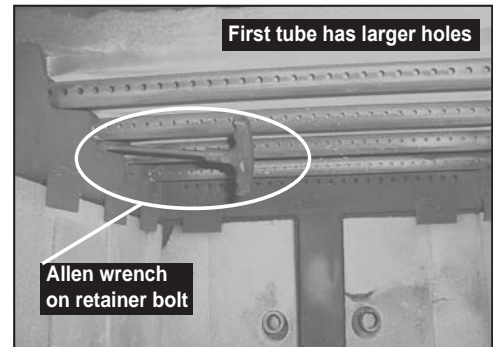


Figure 27.1 - Manifold tubes retaining bolt.

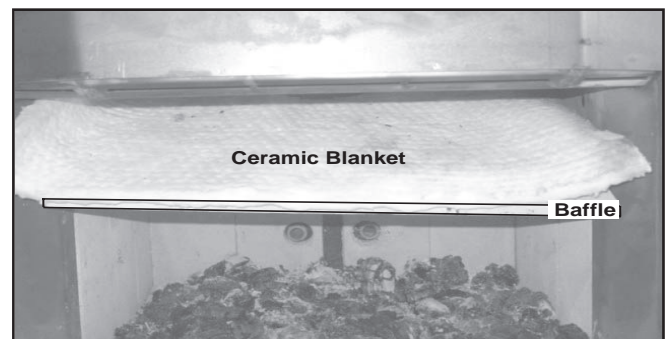





Figure 27.2 - Baffle & Ceramic Blanket on top.

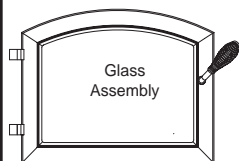
Glass Replacement Instructions

Replace with 5mm ceramic glass only

1. Remove door from insert and lay on a padded flat surface.
2. Remove glass retainer screws using a Phillips screwdriver.
3. Lift glass out of the door frame and/or side frames.
4. Lay new glass with fiberglass tape around it into door frame and/or side frames.
5. Place glass retainers over the fiberglass tape on the edges of the glass and re-install screws. Be sure glass is centered in the opening (i.e. same space top and bottom, left and right).
6. Tighten screws enough to hold frame and glass in place.
7. Check again for centering of glass in door and/or side frames and give all screws a final tightening.

	WARNING
	Fire Risk.
	Injury Risk.
	<ul style="list-style-type: none"> • Use only glass specified in manual. • DO NOT REPLACE with any other material. Glass breakage will occur.

CAUTION

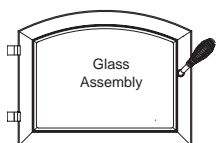


Handle glass assembly with care.

When cleaning glass:

- Avoid striking, scratching or slamming glass.
- Do NOT clean glass when hot.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Use commercial oven cleaner on heavier deposits.
- Remove all residue of oven cleaner or will permanently stain glass on next firing.
- Refer to maintenance instructions.

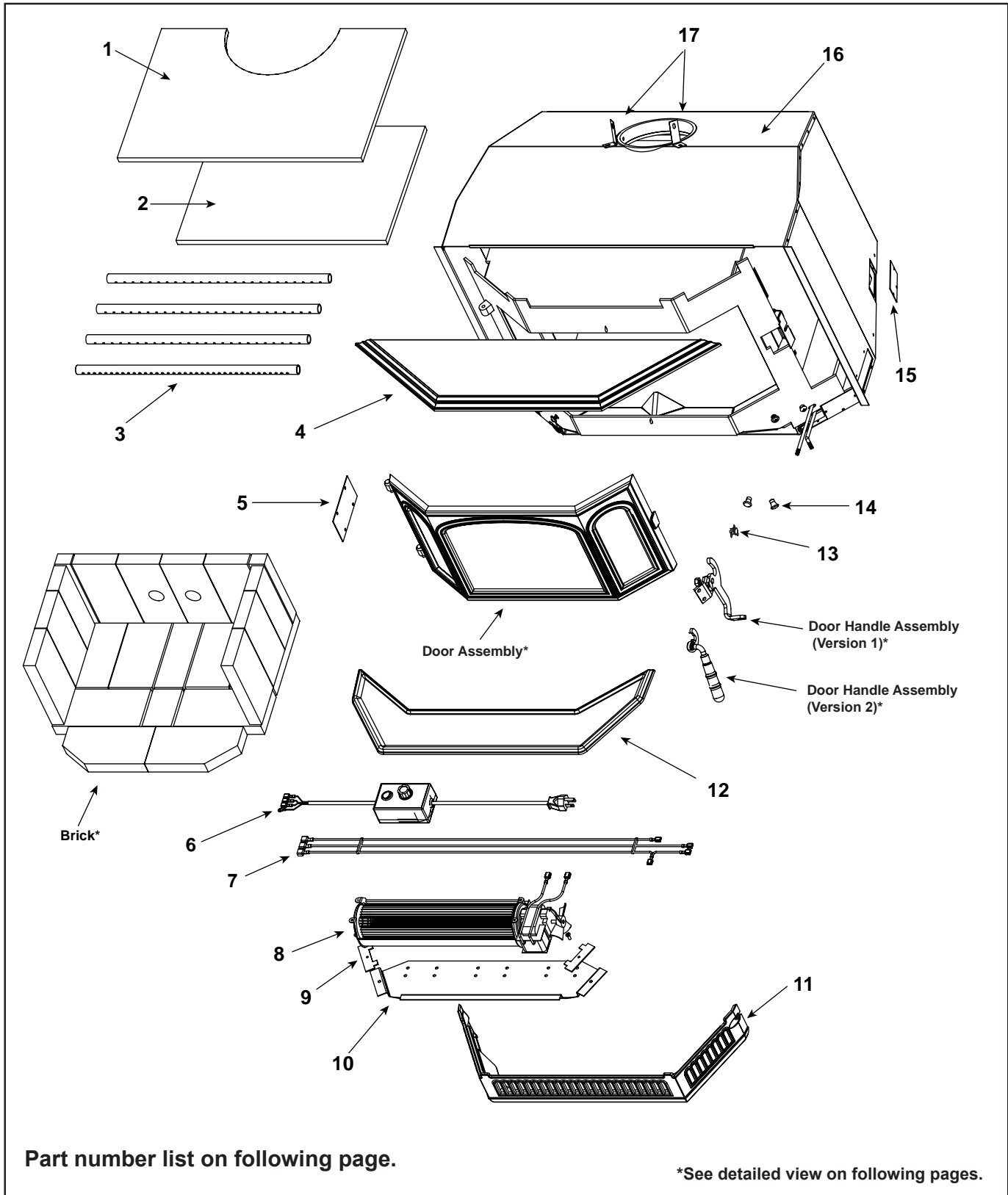
WARNING



Handle glass with care.

- Inspect the gasket to ensure it is undamaged.
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass & door assembly removed.
- Do NOT operate with glass cracked, broken or scratched.

830-0390 (July 2002 - April 2004), 4100i-NL (Feb. 2003 - April 2004), 4100i-GD-B & 4100i-NL-B (April 2004 - Active)



QUADRA-FIRE

Service Parts

4100-I ACT

Wood Insert Appliance

Beginning Manufacturing Date: July 2002
Ending Manufacturing Date: Active

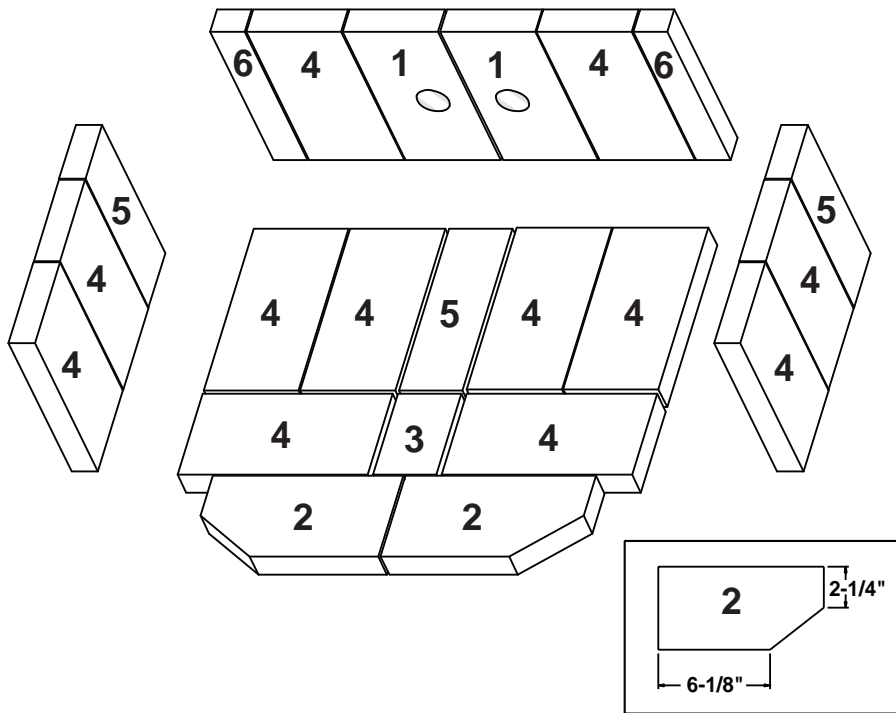
IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.


**Stocked
at Depot**

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
1	Ceramic Fiber Blanket, 1/2" Thick		832-3390	Y
2	Baffle, Fiberboard		832-3520	Y
3	Manifold Tube Set	Set of 4	832-3530	Y
	Manifold Clip/Screws		832-0661	Y
4	Top, Cast		435-0300	
5	Panel, Wire Access		435-0900	
6	Blower Control Box w/Switch (Included wire harness)	Post 1453128	SRV7000-194	Y
7	Wire Harness Only	Pre 1453127	435-1420	
8	Blower Replacement	Post 1451097	832-3491	
9	Blower Mount Clamp	Qty: 2 Req.	435-0400	
10	Base, Blower Mount	Post 1451097	435-0320	
11	Blower Housing Cast		435-0590	
12	Ashcatcher, Cast		435-0310	
13	Snap Disc, 110-20 degrees		SRV230-1220	Y
14	Knob, Air Control		32284	Y
15	Outside Air Cover Plate		435-0290	
16	Outer Top		435-0260	
17	Flue Tab		438-0010	
	Component Pack (Includes Owners Manual, Touch-Up Paint, Warranty Card, 2 Screws, Permanent Label "If Fireplace Altered")		435-5310	
	Paint Touch-Up		7000-304	
	Wire Extension, Blower, 12"		435-0920	
ACCESSORIES				
	Adjustable Hearth Support, 9" d x 45" w, 2"-10" High		841-0990	
	Adjustable Hearth Support, 12" d x 50" w, 2"-10" High		ADJSPT-12	
	Trim Front		481-0160	
	Trim Side		481-0090	
	Panel & Trim, Small - 44.5 W x 30.5 H	Gold	SP-BB3044-GD	
	Bracket, -L-, Trim	Qty: 2 Req.	832-0840	
	Component Pack		435-5540	
	Logo, Quadra-Fire	Gold	200-3180	
	Trim Set Only	Gold	7000-007	
	Panel & Trim, Small - 44.5 W x 30.5 H	Nickel	SP-BB3044-NL	
	Bracket, -L-, Trim	Qty: 2 Req.	832-0840	
	Component Pack		435-5550	
	Logo, Quadra-Fire	Nickel	200-3240	

Additional service part numbers appear on following page.

Brick Pattern

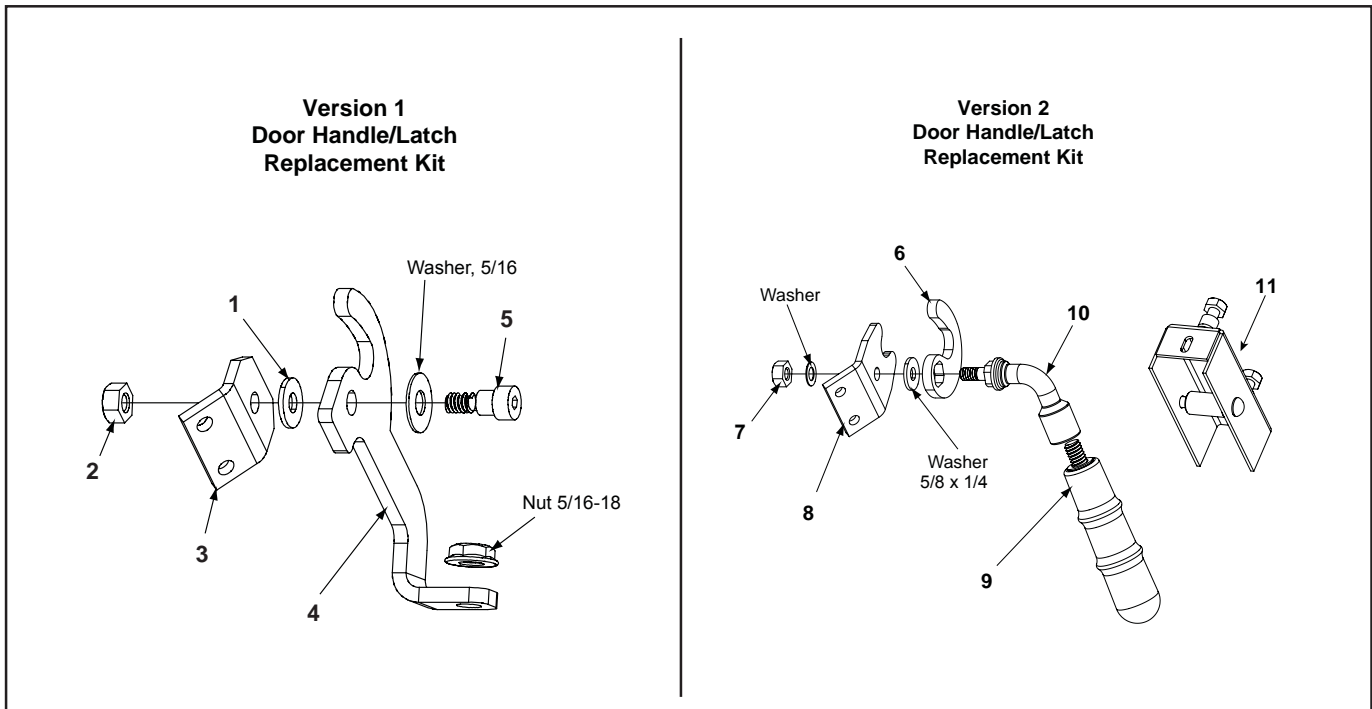


IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



Stocked at Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
	Brick Set, Complete Assembly	Pkg of 20	832-3500	Y
1	Brick w/Hole (9 x 4.5 x 1.25")	Pkg of 2	SRV435-0800	Y
2	Brick 2, Angle Cut (9 x 4 x 1.25")	Qty: 2 Req.	832-0552	Y
3	Brick 3, (4.5 x 3 x 1.25")	Qty. 1 Req.	832-0553	Y
4	Brick 4, (9 x 4.5 x 1.25")	Qty: 12 Req.	832-0554	Y
5	Brick 5, (9 x 3 x 1.25")	Qty: 3 Req.	832-0555	Y
6	Brick 6, (9 x 1.5 x 1.25")	Qty: 2 Req.	832-0556	Y
	Brick, Uncut (9 x 4.5 x 1.25")	Qty: 12 Req.	832-0550	Y
	Brick, Uncut (9 x 4.5 x 1.25")	Pkg. of 6	832-3040	Y



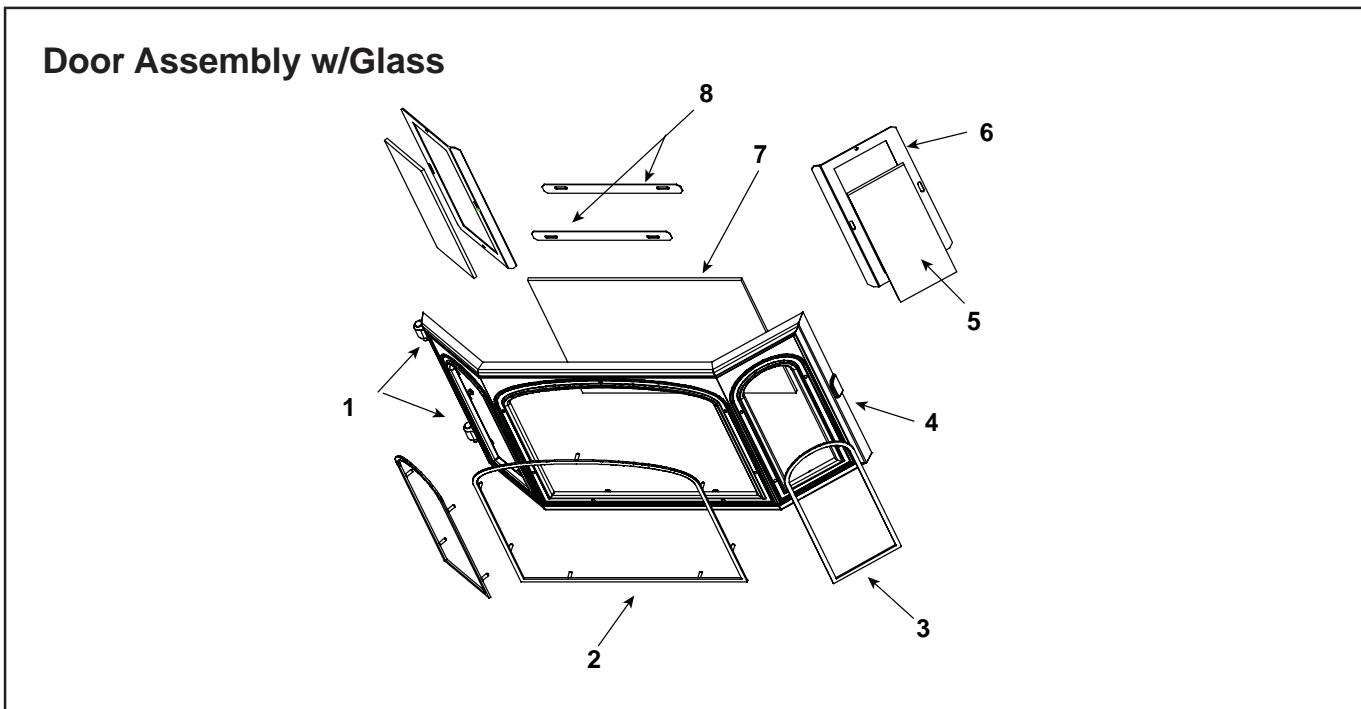
IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



Stocked at Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
VERSION 1 - Pre 1452200				
	Door Handle/Latch Replacement Kit		832-3570	Y
1	Washer, 1/4 Sae	Pkg. of 24	28758/24	Y
2	Nut, Lock 1/4-20		226-0090	Y
3	Bracket, Door Latch		435-0910	
4	Arm, Latch, Door		435-0250	
5	Bolt, Shoulder, 5/16 x 1/4-20	Pkg. of 20	223-0170/20	Y
	Latch Box Assembly* must be ordered separately		435-5270	Y
VERSION 2 - Post 1452200				
	Door Handle/Latch Replacement Kit		SRV435-5510	Y
6	Hook, Door Latch		435-1190	Y
7	Nut, 1/4-20 Hex		7000-236	
8	Bracket, Door Latch		435-1480	
9	Fiber, Door Handle		SRV433-1380	Y
10	Arm, Latch, Door		435-1470	
*11	Latch Box Assembly		435-5270	Y
	Bolt, Hex Head, 1/4-20 X 1	Pkg. of 10	25221A/10	Y
	Button Head Rivet M6 x 35	Pkg. of 2	844-3290	

Additional service part numbers appear on following page.



IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



Stocked at Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
	Door Assembly w/Glass (Version 1) Pre 1452200	Gold Trim	435-5190	
		Nickel Trim	435-5300	
	Door Assembly w/Glass (Version 2) Post 1452200	Gold Trim	435-5340	
		Nickel Trim	435-5390	
1	Hinge Pin (Rivet M6 x 35 Button Head)	Gold	72171	Y
		Nickel	433-1590	Y
2	Trim Ring, Front	Gold	435-0570	
		Nickel	435-0990	
3	Trim Ring, Side	Gold	435-0580	
		Nickel	435-1000	
4	Door Frame, Cast		435-0050	
5	Glass Assembly Side (1 piece)		435-5480	Y
6	Glass Frame, Side	Right or Left	435-0950	
7	Glass Assembly Front		435-5470	Y
8	Glass Frame		435-0960	
	Gasket, Glass Tape, 3/4" - Field Cut to Size	5 FT Length	832-0460	Y
	Nut, Keps Lock, 8-32	FT Length	226-0060/40	Y
	Rope, Door, 5/8" x 96 - Field Cut to Size	Qty. 8 Ft. Req.	842-1420	
	Screw, Pan Head Philips 10-32 X 3/8	Pkg. of 40	21799A/40	Y
	Screw, Pan Head Philips 8-32 X 3/8	Pkg. of 40	225-0500/40	Y

Homeowner's Notes

**Hearth & Home Technologies Inc.
LIMITED LIFETIME WARRANTY**

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets; firebricks; grates; flame guides; and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

QUADRA-FIRE®

CONTACT INFORMATION:

Hearth & Home Technologies
1445 North Highway
Colville, WA 99114
Division of HNI INDUSTRIES

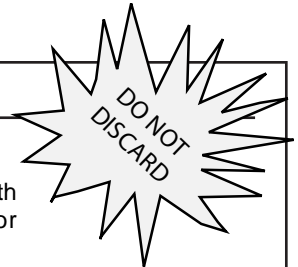
Please contact your Quadra-Fire dealer with any questions or concerns.
For the number of your nearest Quadra-Fire dealer,
log onto www.quadrafire.com

NOTICE



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.



We recommend that you record the following pertinent information for your 4100-I Wood Insert (ACT)

Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer phone: _____

Notes: _____

This product may be covered by one or more of the following patents: (United States) 5341794, 5263471, 6688302, 7216645, 7047962 or other U.S. and foreign patents pending.

