

Owner's Manual

Installation and Operation

INSTALLER: Leave this manual with party responsible for use and operation.

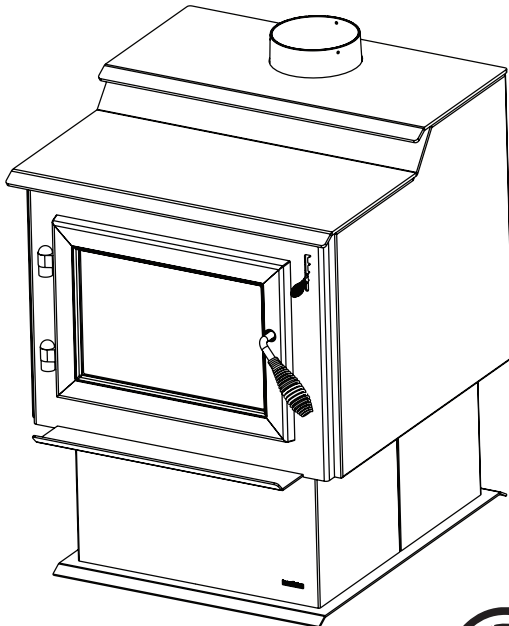
OWNER: Retain this manual for future reference.

Contact your dealer with questions on installation, operation, or service.

NOTICE: DO NOT DISCARD THIS MANUAL

heatilator
ECOCHOICE™
WOOD BURNING APPLIANCE

MODEL(S):
ECO-ADV-WS22



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals.

hearthED
FACTORY TRAINING
Fuel Your Fire

NFI
NATIONAL FIREPLACE INSTITUTE
A CERTIFICATION AGENCY

Consumer Care 1-877-427-3316 - Prior to calling, please have the model and serial number of the unit you are calling about. This information can be found at the front of the unit.



WARNING



If the information in these instructions is not followed exactly, a fire could 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 over-fire - If appliance or chimney connector glows, you are over-firing. Over-firing 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 and appliance will cause burns.

- Do not touch glass until it is cooled
- Use leather gloves when reloading fuel
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in 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 flammable materials away.



WARNING



Fire Risk.

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

NOTE: To obtain a French translation of this manual, please contact your dealer or visit www.heatilatorecochoice.com

REMARQUE : Pour obtenir une traduction française de ce manuel, s'il vous plaît contacter votre revendeur ou visitez www.heatilatorecochoice.com

Read this manual before installing or operating this appliance.
Please retain this owner's manual for future reference.

Congratulations!


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

A. Sample of Serial Number / Safety Label
Location: Back of Appliance

Test Lab and Report Number


Model Name

Serial Number



CAUTION:
ATTENTION:

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.
CHAUD LORS DE L'OPÉRATION. NE PAS TOUCHER. GARDEZ LES ENFANTS ET LES VÊTEMENTS LOIN DE L'ESPACE DÉSIGNÉ DE L'INSTALLATION. LE CONTACT PEUT CAUSER DES BRÛLURES À LA PEAU. GARDEZ LES MEUBLES ET LES MATÉRIAUX COMBUSTIBLES LOIN DE L'ESPACE DÉSIGNÉ DE L'APPAREIL. VOIR L'ÉTIQUETTE ET LES INSTRUCTIONS.



Conforms to UL STD 1482
Certified to UL STD 8627

ECO-ADV-WS22

Serial No. / N° de série
HF

VENT SPECIFICATIONS:
MUR SIMPLE: De six (6 inches) (152mm) de diamètre, minimum 24 MSG black or blue steel connector pipe, with a listed factory-built UL103HT* Class "A" chimney, suitable for use with solid fuels, or a masonry chimney, and the referenced clearances.
MUR DOUBLE: De six (6 inches) (152mm) de diamètre, listed double wall air insulated connector pipe with listed factory-built UL103HT* Class "A" chimney, or a masonry chimney and the referenced clearances.
*In Canada must comply with Standard CAN/ULC-S629-M87 for 650 degree Factory-built chimneys.
MAISON MOBILE: Use double wall pipe by Dura-Vent DVL Metalbestos DS or Security DL double wall connector pipe. Must be equipped with a spark arrestor. Apply double wall clearances below when installing unit.
MINIMUM CLEARANCES TO COMBUSTIBLES (in Inches & (Millimeters))
NOTE: All "A", "C" and "F" Dimensions are inside diameter of the flue collar.

SPÉCIFICATIONS DE LA VENTILATION:
MUR SIMPLE: De six (6 inches) (152mm) de diamètre le connecteur de conduit de minimum d'acier noir ou bleu de minimum de 24MSG, avec une cheminée bâtit en usine UL103HT* de Classe "A", adéquate pour usage avec les combustions solides, ou une cheminée de briques, avec espaces libres référés.
MUR DOUBLE: De six (6 inches) (152mm) de diamètre, le connecteur du conduit d'air isolé pour mur double avec une cheminée bâtit en usine UL103HT* de Classe "A", ou une cheminée de briques, avec espaces libres adoués.
*Au Canada doit conformer à CAN/ULC-S629-M87 la norme pour 650 degré C cheminée bâtit en usine.
MAISON MOBILE: Utiliser un conduit de mur double par Dura-Vent DVL Selkirk Metalbestos DS ou Security DL. Doit être équipé d'un arrêt d'étincelle. Utiliser les espaces libres pour mur double comme mentionné ci-bas.
ESPACES LIBRES MINIMUM DES MATÉRIAUX COMBUSTIBLES EN Pouces & (millimètres)
NOTE: Toutes les dimensions "A", "C", et "F" sont à partir du diamètre intérieur de l'entrée du conduit.

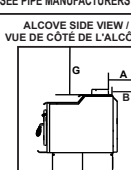
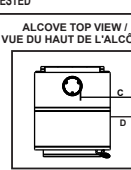
INSTALLATION: FULL VERTICAL / INSTALLATION: FULL VERTICAL
INSTALLATION: HORIZONTAL / INSTALLATION: HORIZONTAL
INSTALLATION: HORIZONTAL / INSTALLATION: HORIZONTAL

	A	B	C	D	E	F	G	H
SINGLE WALL PIPE	25 (203)	21 (533)	11 (279)	3.5 (89)	12.5 (318)	49 (1245)	*	
DOUBLE WALL PIPE	178	19.5 (495)	9 (229)	3 (76)	12 (305)	49 (1245)	10 (254)	

INSTALLATION: 90° ELONG OFF TOP OF STOVE THROUGH BACKWALL
INSTALLATION: 90° ELONG OFF TOP OF STOVE THROUGH BACKWALL

	A	B	C	D	E	F	G	H
SINGLE WALL PIPE	9.25 (235)	7.5 (191)	18 (457)	8 (203)	3.5 (89)	12.5 (318)	49 (1245)	*
DOUBLE WALL PIPE	9.25 (235)	7.5 (191)	18 (457)	8 (203)	3 (76)	12 (305)	49 (1245)	10 (254)

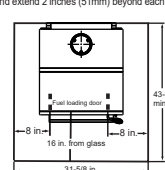
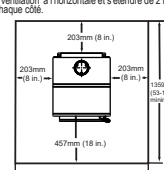
ALCOVE SIDE VIEW / VUE DE CÔTÉ DE L'ALCÔVE
ALCOVE TOP VIEW / VUE DU HAUT DE L'ALCÔVE

90 OFF TOP UP & OUT CEILING CLEARANCE
ESPACE LIBRE DU DESSUS DE L'APPAREIL AU PLAFOND AVEC 90 DE COURBURE
STOVE TO CEILING CLEARANCE
ESPACE LIBRE DU POÊLE AU PLAFOND

FLOOR PROTECTION:
Floor protector must be a minimum R value = 0.13 non-combustible material or equivalent, extending beneath heater and to front/sides/rear as indicated on the diagram below. Exception: Non-combustible floor protectors must extend beneath the flue pipe when installed with horizontal venting and extend 2 inches (51mm) beyond each side.

PROTECTION DU PLANCHER:
Le protecteur de plancher doit être d'un minimum de R value = 0.13 de matériel incombustible ou équivalent, s'étendant du dessous de l'appareil de chauffage à l'avant, aux côtés et à l'arrière comme indiqué sur le diagramme suivant. Exception: Les protecteurs incombustibles du plancher doivent s'étendre en dessous du conduit de cheminée lorsqu'installés avec une ventilation à l'horizontale et s'étendre de 2 inches (51mm) de chaque côté.

U.S. ENVIRONMENTAL PROTECTION AGENCY Certified to comply with 2015 particulate emission standards at 2.7 G/HR EPA Method 28 and 5G. Not approved for sale after May 15, 2020. This wood heater needs periodic inspection and repair for proper operation. Consult the owner's manual for further information. It is against federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in the owner's manual.

Made in U.S.A. of US and imported parts.
Fabriqué aux États-Unis-d'Amérique par des pièces d'origine américaine et pièces importées.

Manufactured by: HEARTH & HOME Technologies
Fabriqué par: 352 Mountain House Road, Halifax, PA 17032
www.heatilator.com

DO NOT REMOVE THIS LABEL / NE PAS ENLEVER L'ÉTIQUETTE

2018	2019	2020	JAN	FEB	MAR	APR	MAY	JUN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JUL	AUG	SEP	OCT	NOV	DEC			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

7057-125J

Manufacturer 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 appliance or to property.

TABLE OF CONTENTS

A. Sample of Serial Number / Safety Label	2
B. Warranty Policy	4
C. Quick Start Guide	6
1 Listing and Code Approvals	7
A. Appliance Certification	7
B. BTU & Efficiency Specifications	7
C. Mobile Home Approved	8
D. Glass Specifications	8
E. Non-Combustible Materials	8
F. Combustible Materials	8
G. Sleeping Room	8
H. California - Prop65	8
User Guide	
2 Operating Instructions	9
A. Your Wood Appliance - General Operating Parts	9
B. Fire Safety	10
C. Over-Firing Your Appliance	10
D. Combustible/Non-combustible Materials	10
E. Wood Selection & Storage	10
F. Chimney Fire	11
G. Burning Process	11
H. Burn Rate Air Controls	12
I. Burn Rates and Operating Efficiency	12
J. Building A Fire	13
K. Correct Baffle/Blanket Placement	14
L. Wood Fuel	15
M. Blower Operating Instructions	16
N. Opacity (Smoke)	16
O. Clear Space	17
P. Negative Pressure	17
Q. Frequently Asked Questions	18
3 Maintenance and Service	19
A. Quick Reference Maintenance Guide	19
B. General Maintenance	20
4 Troubleshooting Guide	22
5 Service Parts Replacement	23
A. Glass Replacement	23
B. Firebrick Replacement	23
C. Snap Disc Replacement	24
D. Door Handle Assembly	24
E. Baffle Removal	25
F. Tube Channel Assembly Replacement	26

Install Guide	
6 Getting Started	27
A. Design and Installation Considerations	27
B. Fire Safety	27
C. Negative Pressure	28
D. Tools And Supplies Needed	28
E. Inspection of Appliance and Components	28
F. Install Checklist	29
7 Dimensions and Clearances	30
A. Appliance Dimensions	30
B. Hearth Protection Requirements	31
C. Clearances to Combustibles (UL and ULC)	32
8 Chimney Systems	33
A. Locating Your Appliance & Chimney	33
B. Chimney Termination Requirements	34
C. 2-10-3 Rule	34
D. Chimney Height / Rise and Run	35
E. Venting Components	35
F. Chimney Systems	35
9 Appliance Set-up	36
A. Outside Air Kit Installation	36
B. Blower Installation (Optional)	37
C. Adjusting the Blower Speed Control	37
10 Mobile Home Installation	38
11 Reference Materials	39
A. Service & Maintenance Log	39
B. Exploded View	41
C. Service Parts	42
D. Accessories	43

Heatilator is a registered trademark of Hearth & Home Technologies.

B. Warranty Policy

Hearth & Home Technologies Inc.

HEATILATOR ECO-CHOICE WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands (“HHT”), extends the following warranty for ECOCHOICE by Heatilator wood and pellet 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 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 purchaser 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 original purchase. 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.

Warranty Period		Heatilator ECO-CHOICE Appliances		Components Covered
Parts	Labor	Pellet	EPA Wood	
1 year		X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations Listed
3 years		X		Firepots and burnpots
3 years	1 year	X	X	Castings
5 years	3 years		X	Manifold tubes
5 years	3 years	X	X	Firebox and heat exchanger
90 days		X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page

WARRANTY COVERAGE:

- 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 are not covered. These parts include: firebricks, flame guides, batteries and the discoloration of glass.
- 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 operation 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 connections 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 the 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. Overfiring 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:

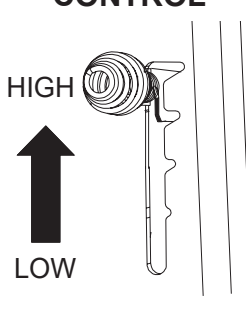
- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages 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.

C. Quick Start Guide

NOTE: These are generic drawings and may not represent your specific model.

ITEMS NEEDED FOR FIRST FIRE: 10 Pieces of Newspaper, 10-20 Pieces of Dry Kindling and Few Pieces of Dry Split Wood.

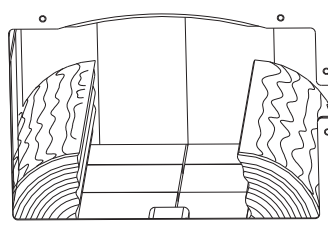
OPEN AIR CONTROL



HIGH
↑
LOW

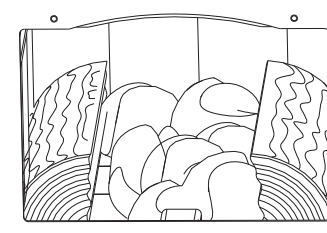
1

LOAD WOOD



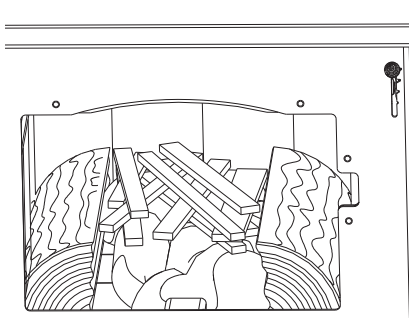
2

ADD NEWSPAPER



3

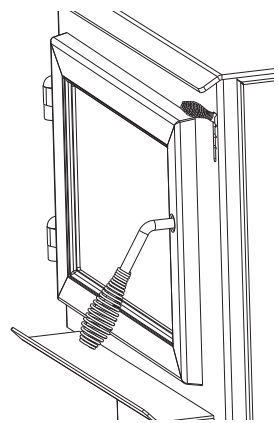
ADD KINDLING



LIGHT THE PAPER

4

Warning! Risk of Fire.



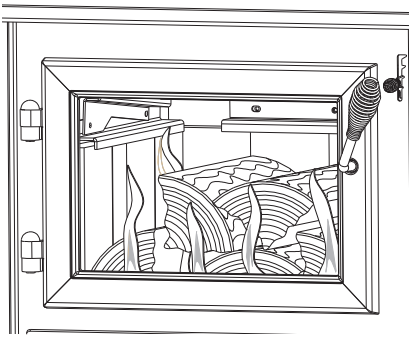
Close and securely latch the door after the fire has started, and after refueling, to prevent:

- Spillage of smoke, flame and carbon monoxide
- Spillage of sparks, coals, and logs
- Over firing

DO NOT leave the appliance unattended with the door open. Starting a fire may not require an open door for draft. The air control should supply adequate draft.

5

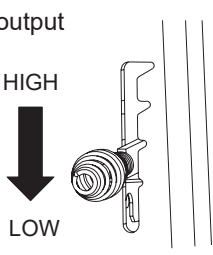
ADD MORE WOOD



6

REDUCE AIR CONTROL

Set to desired heat output



HIGH
↓
LOW

7

The appliance is ready for normal operation.

1 Listing and Code Approvals

A. Appliance Certification

Model:	ECO-ADV-WS22 Wood Appliance
Laboratory:	Intertek
Report Number:	3198460
Type:	Listed Room Appliance, Solid Fuel Type
Standard:	UL1482 and ULC S627-00 and (UM) 84-HUD, Mobile Home Approved.

B. BTU & Efficiency Specifications

EPA Certification #:	780
EPA Certified Emissions:	2.7 grams per hour
*LHV Tested Efficiency:	80.9 %
**HHV Tested Efficiency:	74.8 %
***EPA BTU Output:	11,700 to 27,000 / hr.
****Peak BTU/Hour Output:	63,800
Vent Size:	6 inches
Firebox Size:	2.75 cubic feet
Maximum Wood Length:	22 inches
Ideal Wood Length:	20 inches
Fuel	Seasoned Cord Wood
* Weighted average LHV efficiency using Douglas Fir dimensional lumber and data collected during EPA emissions test.	
**Weighted average HHV efficiency using Douglas Fir dimensional lumber and data collected during EPA emissions test.	
***A range of BTU outputs based on EPA Default Efficiency and the burn rates from the low and high EPA tests, using Douglas Fir dimensional lumber.	
****A peak BTU out of the appliance calculated using the maximum first hour burn rate from the High EPA Test and the BTU content of cord wood (8600) times the efficiency.	

NOTICE: This installation must conform with local codes. In the absence of local codes you must comply with the **UL1482, (UM) 84-HUD and NPFA211 in the U.S.A. and the ULC S627-00 and CAN/CSA-B365 Installation Codes in Canada.**

The Heatilator ECO-CHOICE Wood Appliance meets the U.S. Environmental Protection Agency's crib wood emission limits for wood appliances sold after May 15, 2015.

This wood appliance needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood appliance in a manner inconsistent with operating instructions in this manual.

C. 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 with #8 copper ground wire.
- Outside Air Kit, part OAK-ACC must be installed in a mobile home installation.

D. Glass Specifications

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

E. Non-Combustible Materials

Material which will not ignite and burn, composed of any combination of the following:

- | | |
|-----------|------------|
| - Steel | - Concrete |
| - Plaster | - Tile |
| - Brick | - Glass |
| - Iron | - Slate |

Materials reported as passing ASTM E 136, Standard Test Method for Behavior of Metals, in a Vertical Tube Furnace of 750° C.

F. Combustible Materials

Material made of/or surfaced with any of the following materials:


- | | |
|--------------------|------------------------|
| - Wood | - Plastic |
| - Compressed Paper | - Plywood/OSB |
| - Plant Fibers | - Sheet Rock (drywall) |


Any material that can ignite and burn: flame proofed or not, plastered or non-plastered.

G. Sleeping Room

When installed in a sleeping room it is recommended that a smoke and/or CO alarm be installed in the bedroom. The size of the room must be at least 50ft³ per 1,000 Btu/hr stove input, if the stove exceeds the room size, out air must be installed.

H. California - Prop65

 <p>WARNING</p>
<p>This product and the fuels used to operate this product (wood), and the products of combustion of such fuels, can expose you to chemicals including carbon black, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to: WWW.P65Warnings.ca.gov</p>

 <p>WARNING</p>
<p>Fire Risk  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 appliance). • Do NOT Over fire - If appliance or chimney connector glows, you are over firing. <p>Any such action that may cause a fire hazard.</p>

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified installer, service agency or your dealer.

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

<p>Hearth & Home Technologies WILL NOT warranty appliances that exhibit evidence of over-firing. Evidence of over-firing includes, but is not limited to:</p> <ul style="list-style-type: none"> • Warped air tube • Deteriorated refractory brick retainers • Deteriorated baffle and other interior components

User Guide

2 Operating Instructions

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 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 flammable materials away.

NOTICE: If you expect that children may come into contact with this appliance, we recommend a barrier such as a decorative screen. See your dealer for suggestions.

A. Your Wood Appliance - General Operating Parts

WARNING



DO NOT operate appliance before reading and understanding operating instructions. *Failure to operate appliance according to operating instructions could cause fire or injury.*

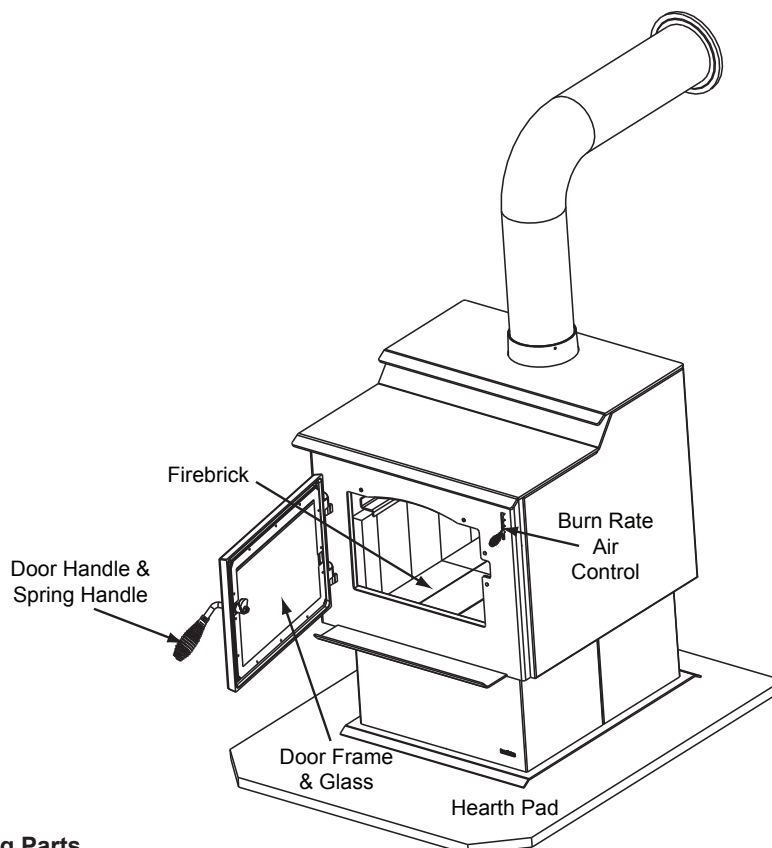



Figure 9.1 - General Operating Parts

B. 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 CO detector should be installed in the room with the appliance.
4. A practiced evacuation plan, consisting of at least two escape routes.
5. 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.

C. Over-Firing Your Appliance


WARNING

Fire Risk.
Do not over-fire.
Over-firing may ignite creosote or will damage the appliance and chimney.

To prevent over-firing your appliance, DO NOT:

- Use flammable liquids
- Overload with wood
- Burn trash or large amounts of scrap lumber
- Permit too much air to the fire

Visit www.heatilatorecochoice.com/Customer-Care/Videos to view product and use & care videos.

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 Appliance 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 appliance and appliance pipe inspected for any damage.
- Do not use your appliance until the chimney professional informs you it is safe to do so.

Hearth & Home Technologies WILL NOT warranty appliances 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

D. Combustible/Non-combustible Materials

• Combustible Material

Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame-proofed or not, plastered or non-plastered.

• Non-combustible Material

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, slate, glass or plasters, or any combination thereof.

• Non-combustible Sealant Material

Sealants which will not ignite and burn: Rutland, Inc. Fireplace Mortar #63, Rutland 76R, Nuflex 304, GE RTV106 or GE RTB116 (or equivalent).

E. 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 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.

F. Chimney Fire



WARNING



Fire Risk.

Do not over-fire.

A chimney fire can permanently damage your chimney system and nearby structures.

In the event of a chimney fire, Hearth & Home Technologies Inc. recommends:

- Replacement of the chimney, and
- Inspection of the adjacent structure to the provisions of NFPA Level III inspection criteria.

G. 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 appliances that surpass the requirements for emissions established by our governing agencies. These wood appliances, 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 appliance into a smoldering environmental hazard.

NOTICE: Improper operation can turn any wood appliance 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 appliance. 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 12.1 on page 12**).

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 coal bed 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 appliances in the cleanest way possible. Doing this will allow us to continue using our wood appliances for many years to come.

H. Burn Rate Air Controls

- The air supply 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 Burn Rate Air Control.
- There are four settings High, Medium-High, Medium-Low and Low.
- When the control is raised all the way up it is on the High setting and when pushed all the down it is on the Low setting (**Figure 12.1**).

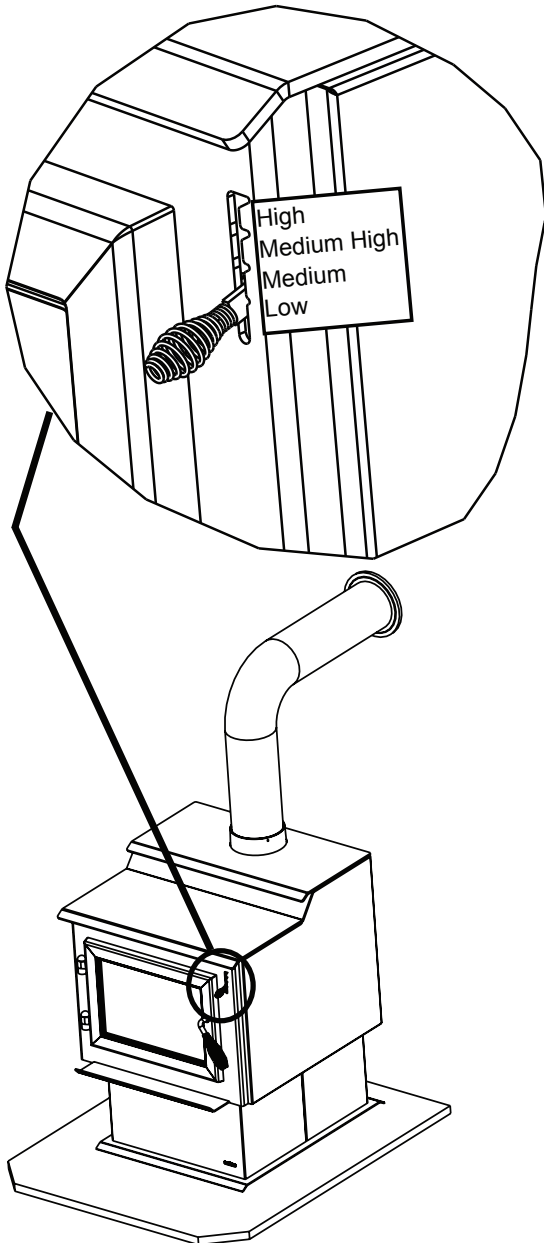


Figure 12.1 - Burn Rate Air Control

I. Burn Rates and Operating Efficiency

	WARNING
	<p>Risk of Fire. When set on High Burn Rate and over-riding the system an over fire situation can occur and may result in a chimney fire. Over firing will void the appliance warranty.</p>

For maximum operating efficiency

This wood appliance has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood appliance in a manner inconsistent with operating instructions in this manual.

1. Follow the instructions below for each burn rate for the Burn Rate Air Control (**Figure 12.1**).
2. Burn dry, well-seasoned wood.

Burn Rates

1. Starting a Fire

- Open the Burn Rate Air Control by raising it all the way to the top for the High setting.
- The blower tends to cool the appliance. Leave the blower off until the burn is well established, i.e., 30 minutes.
- After loading the appliance with wood and starting the fire, set the Burn Rate Air Controls to the desired setting by following the burn rate instructions below.

2. High Burn Rate - Maximum Heat* - 30,000+ BTU/hr

- Raise the Burn Rate Air Control all the way up until it stops (top marker) to a fully open position.
- Be sure and monitor the fire closely while in this setting to avoid over firing your appliance.

3. Medium-High Burn Rate* - 15,000 to 30,000 BTU/hr

- Raise the Burn Rate Air Control to the Medium High marker. Blower may remain on.

4. Medium-Low Burn Rate* - 10,000 to 15,000 BTU/hr

- Raise the Burn Rate Air Control to the Medium marker. Leave the blower off until the burn is well established, i.e., 30 minutes.

5. Low Burn Rate* - Below 10,000 BTU/hr

- Leave the Burn Rate Air Control at the bottom marker. Leave the blower off until the burn is well established, i.e., 30 minutes.

***NOTE:** These are approximate settings, and will vary with type of wood or chimney draft. Due to altitude and other environmental circumstances, this operational information is a guideline only.

J. Building A Fire



WARNING

Fire Risk.

Keep combustible materials, gasoline and other flammable vapors and liquids clear of the appliance.



DO NOT:

- Store flammable materials close to the appliance, or
 - Use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "fresh up" a fire in this appliance.
- Keep all flammable liquids well away from the appliance while it is in use. Combustible materials may ignite.

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

Before lighting your first fire in the appliance:

1. Confirm the baffle is correctly positioned. It should be even with the front tube and resting on all tubes (**Figure 13.1 and 13.2**).
2. Remove all labels from glass and inside of appliance.

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. Raise the Burn Rate Air Control to the High Setting.
2. 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.
3. Lay small dry sticks of kindling on top of the paper.
4. Make sure that no matches or other combustibles are in the immediate area of the appliance. Be sure the room is ventilated and the flue unobstructed.
5. Light the paper in the appliance. NEVER light or rekindle fire 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 to 4 inches (76 to 102mm) in diameter. Be careful not to smother the fire. Stack the pieces of wood 1/2 inch to 1 inch apart; near enough to keep each other hot, but far enough away from each other to allow air flow between them.
7. Once there is an established bed of coals, set the Burn Rate Air Control to the desired setting following the instructions found in the Section: Burn Rates and Operating Efficiency.
8. If you have installed the optional blower, please note that the blower tends to cool the appliance. Leave the blower off until the burn is well established, i.e., 30 minutes.

9. When ready to reload, It is best to set the Burn Rate Air Control in the High position before reloading.
 - This livens up the coal bed and reduces excessive emissions (opacity/smoke).
 - Open door slowly so that ash or smoke does not exit appliance through opening.
 - Large logs burn slowly, holding a fire longer.
 - Small logs burn fast and hot, giving quick heat.
10. As long as there are hot coals, repeating steps 6 through 8 will maintain a continuous fire throughout the season.

NOTE:

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

It will adversely affect emissions.



WARNING

Fire Risk.

Do NOT store wood:

- Closer than required clearances to combustibles to appliance
- Within space required for loading or ash removal.

Do NOT operate appliance:

- With appliance door open.
- With ash removal system door open.

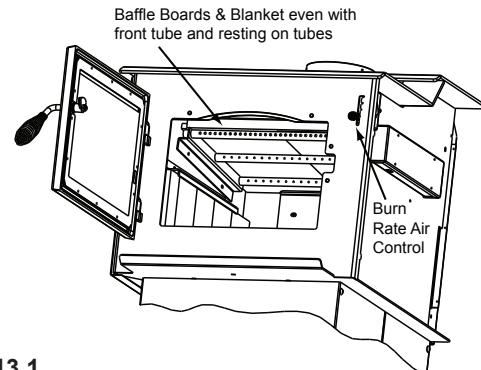


Figure 13.1

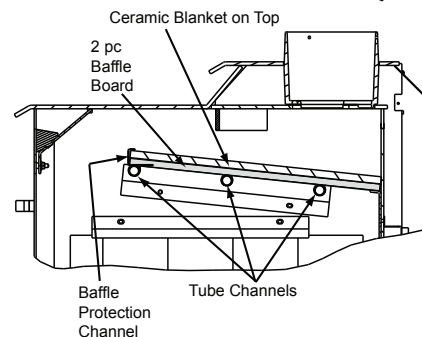


Figure 13.2



WARNING

Fire Risk.

- Do NOT burn wet or green wood.
- Store wood in dry location.
- Stack wood so both ends are exposed to air.


Wet, unseasoned wood can cause accumulation of creosote.



K. Correct Baffle/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 appliance without baffle boards

CORRECT POSITION

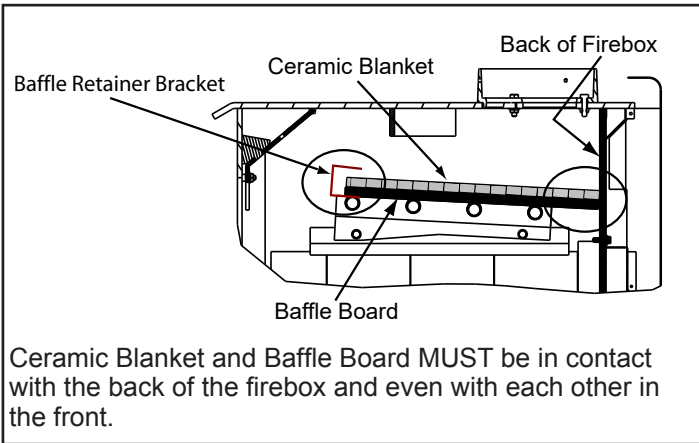
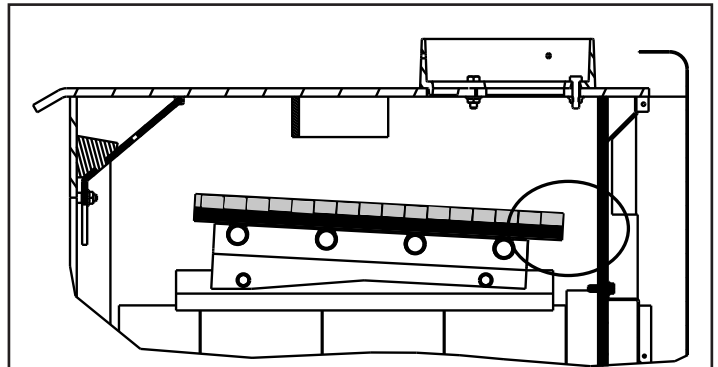
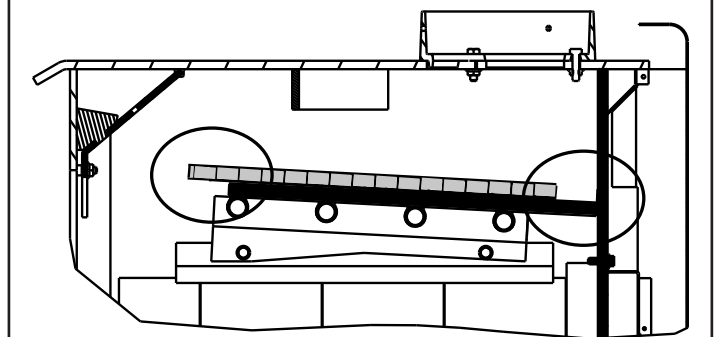


Figure 14.1

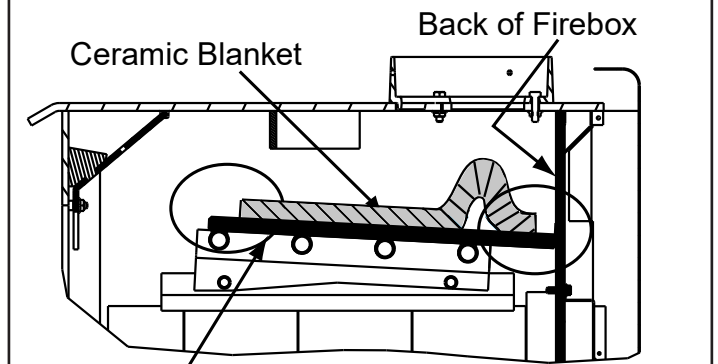
INCORRECT POSITIONS



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

Figure 14.2

L. Wood Fuel

	WARNING
	<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>

Hardwood vs Softwood

Your appliance performance depends on the quality of the firewood you use.



- Seasoned wood contains about 8,000 BTUs per pound.
- Hard woods are more dense than soft woods.
- Hard woods contain 60% more BTUs than soft woods.
- Hard woods require more time to season, burn slower and are harder to ignite.
- Soft woods require less time to dry, burn faster and are easier to ignite.
- Start the fire with softwood to bring the appliance up to operating temperature and to establish draft.
- Add hardwood for slow, even heat and longer burn time.

HARDWOODS	SOFTWOODS
Alder	Aspen
Apple	Cedar
Birch	Douglas Fir
Maple	Pine
Oak	Spruce
Poplar	

Processed Solid Fuel Fire Logs

- NOT permitted for use in this appliance

Moisture

	WARNING
	<p>Fire Risk.</p> <ul style="list-style-type: none"> • Do NOT burn wet or green wood. • Store wood in dry location. • Stack wood so both ends are exposed to air. <p>Wet, unseasoned wood can cause accumulation of creosote.</p>

The majority of the problems appliance owners experience are caused by trying to burn wet, unseasoned wood.

- Wet, unseasoned wood requires energy to evaporate the water instead of heating your home, and
- Causes evaporating moisture which cools your chimney, accelerating formation of creosote.

Seasoned Wood



- Cut logs to size
- Split to 6 inches (152 mm) or less in diameter
- Air dry to a moisture content of not more than 20%
 - Soft wood - about nine months to dry
 - Hard wood - about eighteen months to dry

NOTICE: Seasoning time may vary depending on drying conditions.

Storing Wood

Steps to ensure properly seasoned wood:

- Stack wood to allow air to circulate freely around and through woodpile.
- Elevate wood pile off ground to allow air circulation underneath.
- Smaller pieces of wood dry faster. Any piece over 6 in. (152 mm) in diameter should be split.
- Wood (whole or split) should be stacked so both ends of each piece are exposed to air. More drying occurs through the cut ends than the sides.
- Store wood under cover to prevent water absorption from rain or snow. Avoid covering the sides and ends completely.

	WARNING
	<p>Fire Risk</p> <p>Do NOT store wood:</p> <ul style="list-style-type: none"> • In front of the appliance. • In space required for loading or ash removal.

M. Blower Operating Instructions

NOTE: If your wood appliance is equipped with an optional blower, you should follow these guidelines:

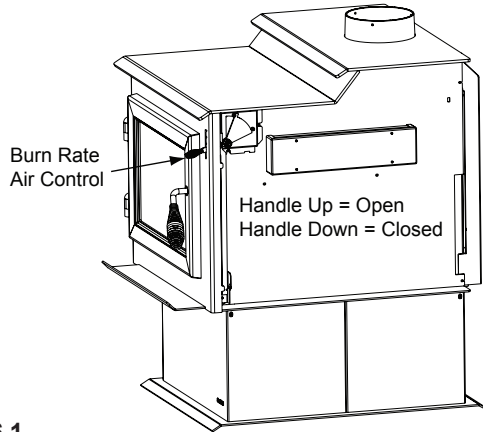


Figure 16.1

1. **Initial (cold) startup:** Open both controls fully by raising the Burn Rate Air Control all the way up until it stops and push the Start-up Air Control back until it stops. The blower tends to cool the appliance. Leave the blower off until the burn is well established, i.e., 30 minutes.
2. **High Burn Setting:** Both controls are open. Burn Rate Air Control is pulled up and the Start-up Air Control is fully pushed in. Blower may remain on.
3. **Medium High Burn Setting*:** Burn Rate Air Control is closed then opened to 1 inch (pull up) to fully open. Blower may remain on.
4. **Medium Low Burn Setting*:** Burn Rate Air Control is closed then opened to 1/4 inch to 1/2 inch. Leave the blower off until the burn is well established, i.e., 30 minutes.
5. **Low Burn Setting*:** Burn Rate Air Control is closed. Leave the blower off until the burn is well established, i.e., 30 minutes.

When reloading the appliance, raise the Burn Rate Air Control all the way to the High setting for 5 to 15 minutes before setting to the desired burn rate.

***NOTE:** For burn settings 3 to 5 the Start-up Air Control needs to be pushed in (Open) then pulled forward to activate the Automatic Combustion Control (ACC).

NOTE: For maximum efficiency and lowest emissions, when operating the blower in either the automatic or manual setting for the low and medium low burn settings leave the blower off until the burn is well established, i.e., 30 minutes.

6. The blower is equipped with a rheostat (speed control). The highest blower speed is obtained by turning the rheostat on, then adjusting back towards "OFF" as far as possible without turning the blower off. For a low blower speed, turn the control knob clockwise as far as possible

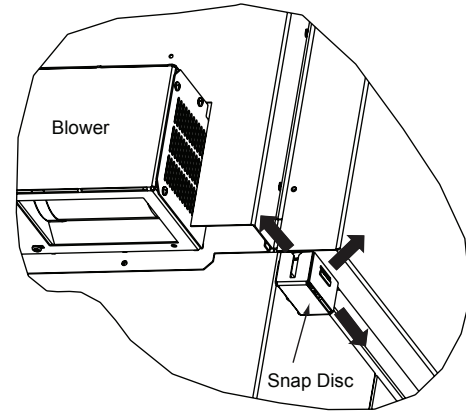


Figure 16.2 - Snap Disc Location

7. **Snap Disc Location:** If you find the blower coming on and off at undesirable temperatures, relocate the snap disc to another location in the designated zone on the back of the appliance (**Figure 16.2**). There is a manual over-ride switch to deactivate the snap disc, if necessary. See page 39 for location of over-ride switch.

N. Opacity (Smoke)

This is the measure of how cleanly your appliance 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 appliance, you should periodically check the opacity. This will allow you to know how to burn as nearly smoke-free as possible (goal of 0% opacity).



CAUTION

When burning your first fire, you will experience smoke and odor from the appliance resulting from the curing of paint and burning off of any oils remaining from manufacturing.

OPEN WINDOWS DURING INITIAL BURN TO DISSIPATE SMOKE AND ODORS!

- Odors may be irritating to sensitive individuals.
- Smoke detectors may activate.

O. Clear Space

- Do NOT place combustible objects within 4 ft (1.2 m) of the front of appliance (**Figure 17.1**).
- Mantel - avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

	WARNING
Do NOT place combustible objects in front of the appliance. High temperatures may ignite clothing, furniture or draperies.	

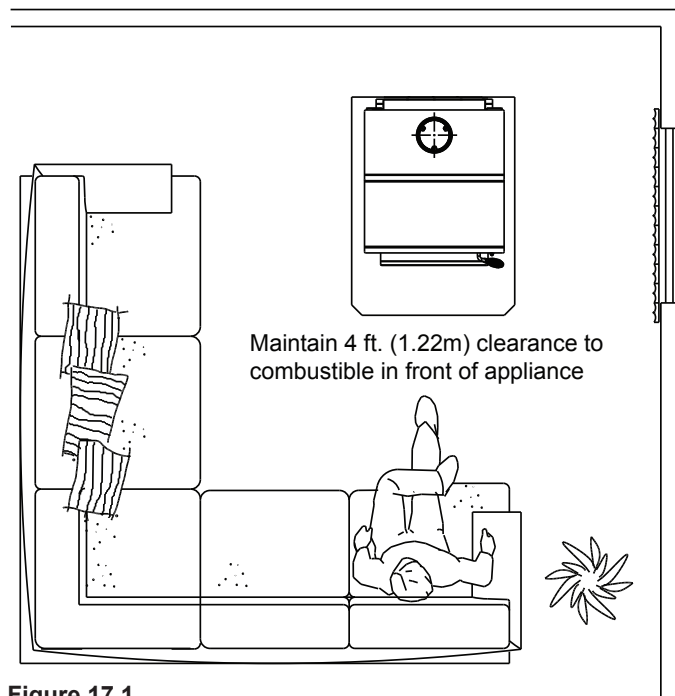




Figure 17.1

P. Negative Pressure

	WARNING
	Asphyxiation Risk. <ul style="list-style-type: none"> • Negative pressure can cause spillage of combustion fumes, soot and carbon monoxide. • Appliance needs to draft properly for safety.


Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water appliances and other combustion appliances
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
 - Recessed lighting
 - Attic hatch
 - Duct leaks

To minimize the effects of negative air pressure:



- Install the outside air kit with the intake facing prevailing winds during the heating season
- Ensure adequate outdoor air for all combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a "sealed can" design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed



	CAUTION
Do NOT operate a circulating fan within close proximity, approximately 4 ft (1.2m), of appliance:	
<ul style="list-style-type: none"> • Can reverse air flow, blowing hot air into appliance cavity. • Can damage appliance blower due to overheating. 	

Q. Frequently Asked Questions

ISSUES	SOLUTIONS
Odor from appliance	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.
Whirring sound	If the optional blower has been installed, the blower produces a whirring sound which increases in volume as the speed is increased.

CONTACT YOUR DEALER for additional information regarding operation and troubleshooting.
 Visit www.heatilatorecochoice.com to find a dealer.

	WARNING
	<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>

	WARNING
	<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 Appliance. • Keep all such liquids well away from the appliance while it is in use. • Combustible materials may ignite.

3 Maintenance and Service

A. Quick Reference Maintenance Guide

When properly maintained, your fireplace will give you many years of trouble-free service. Contact your dealer to answer questions regarding proper operation, troubleshooting and service for your appliance. Visit www.heatilatorecochoice.com/Customer-Care to view basic troubleshooting, FAQs, use & care videos.



CAUTION!

Injury Risk.

- Allow the appliance to completely cool down before performing any cleaning or maintenance.
- Start the first inspection 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.

	Frequency	Task
<p>Baffle & Blanket</p>	<p>MONTHLY or after every cord of wood</p>	<p>Baffle and blanket placement is critical to heat output, efficiency and overall life of the appliance. Make sure the baffle is pushed all of the way to the back of the firebox and the blanket is laying flat. Inspect baffle for cracks.</p>
<p>Optional Blower</p>	<p>YEARLY or After Every 4 Cords of Wood</p>	<p>Vacuum the blower impellers.</p>
<p>Chimney System</p>	<p>EVERY 2 MONTHS or After Every 4 Cords of Wood</p>	<p>The chimney and chimney cap must be inspected for soot and creosote every two months during the burn season or more frequency if chimney exceeds or is under 14-16 ft (4.3m-4.8m) measured from bottom of appliance.</p> <p>This will prevent pipe blockage, poor draft, and chimney fires.</p> <p>Always burn dry wood to help prevent cap blockage and creosote build-up.</p>
<p>Firebrick & Ash Removal</p>	<p>WEEKLY or After Every 25 Loads of Wood</p>	<p>Ashes must be cool before you can dispose of the ashes in a non-combustible container.</p> <p>Firebrick is designed to protect your firebox. After ashes are removed, inspect the firebrick and replace firebricks that are crumbling, cracked or broken.</p>
<p>Door & Glass Assemblies</p>	<p>WEEKLY or After Every 25 Loads of Wood</p>	<p>Keep door and glass gasket in good shape to maintain good burn times on a low burn setting. To test: place a dollar bill between the appliance and door and then shut the door. If you can pull the dollar out, remove one washer from door handle behind latch cam and try again. If you can still pull it out, replace the door gasket. Check the glass frame for loose screws to prevent air leakage. Check glass for cracks.</p>
<p>Door Handle</p>	<p>WEEKLY or After Every 25 Loads of Wood</p>	<p>Check the door latch for proper adjustment. This is very important especially after the door rope has formed to the appliance face.</p> <p>Check door handle for smooth cam operation.</p>

These are generic drawings and may not represent your model.

B. General Maintenance

1. Creosote (Chimney) Cleaning

- **Frequency:** Every 2 months during heating season or as recommended by a certified chimney sweep; more frequently if chimney exceeds or is under 14-16 ft. (measured from bottom of appliance)
- **By:** Certified Chimney Sweep

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 25**). 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.



It is also recommended that before each heating season the entire system be professionally inspected, cleaned and repaired if necessary.



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.

	WARNING
	<p>Fire Risk. Prevent creosote buildup.</p> <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.



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

2. Disposal of Ashes

- **Frequency:** When ash is within 1-3/4 in. (44mm) of firebox lip
- **By:** Homeowner

	WARNING
	<p>Fire Risk. Ashes could contain hot embers.</p>

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.

	WARNING
	<p>Fire Risk. Disposal of Ashes</p> <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.

3. Appliance Inspection


- **Frequency:** Every 2 months at the same time the chimney and chimney connector are inspected.
- **By:** Homeowner

Check for:

- Cracks in glass
- Door handle - smooth cam operation
- Baffle and ceramic blanket correct placement
- Baffle for warpage
- Firebrick for cracks, broken or crumbly
- Door gasket (Dollar bill test): Place a dollar bill between the stove and the door and then shut the door. If you can pull the dollar bill out, replace the door gasket.
- Glass frame for loose screws

4. Glass Cleaning

- **Frequency:** As desired
- **By:** Homeowner

 CAUTION
<p>Handle glass assembly with care. Glass is breakable.</p> <ul style="list-style-type: none"> • Avoid striking, scratching or slamming glass • Avoid abrasive cleaners • Do not clean glass while it is hot

Clean glass with a non-abrasive glass cleaner. Abrasive cleaners may scratch and cause glass to crack. 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 metal surfaces.

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 appliance with the Burn Rate Air Control and Start-Up Air Control all the way open for 30-45 minutes should remove the built up coating.

5. Cleaning Plated Surfaces

- **Frequency:** Prior to first burn and then as desired
- **By:** Homeowner

 CAUTION
<p>Do not use polishes with abrasives. It will scratch plated surfaces.</p>

Clean all the fingerprints and oils from plated surfaces **BEFORE** firing the appliance for the first time. If not cleaned properly before lighting your first fire, the oils can cause permanent markings on the plating.

After the plating is cured, the oils will not affect the finish and little maintenance is required. Wipe clean as needed.

6. Inspect Firebrick

- **Frequency:** After each ash removal
- **By:** Homeowner

Replace the firebrick if they become crumbly and/or if there is a 1/4 inch (6.35mm) gap between the bricks.

The firebox is lined with firebrick, which has exceptional insulating properties. Do not use a grate; simply build a fire on the firebox floor. Do not operate appliance without firebrick.

1. After the coals have completely cooled, remove all old brick and ash from unit and vacuum firebox.
2. Remove new brick set from box and lay out to the diagram shown in the instructions that come with the brick set or refer to the diagram on the service parts list at the end of this manual.
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 bricks 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. Provide brick dimension or copy this page, mark the desired brick and take it to your authorized dealer.

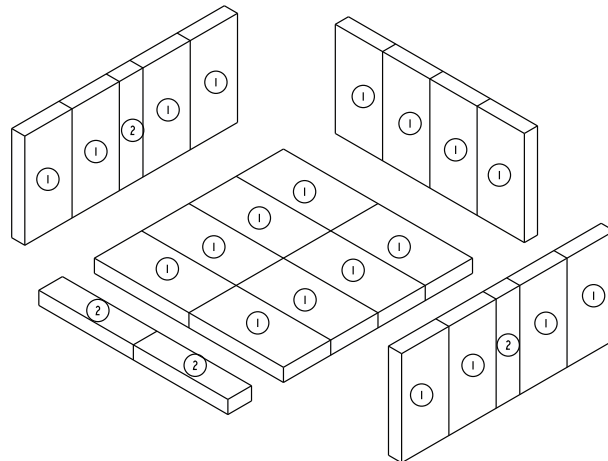


Figure 21.1

No.	Brick Size	Qty
1	9 x 4-1/2 x 1-1/4	20
2	9 x 3-1/4 x 1-1/4	4

4 Troubleshooting Guide

With proper installation, operation, and maintenance your wood appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist you or a qualified service person in the diagnosis of a problem and the corrective action to be taken.

Start Fire Problems	Possible Cause	Solution	
Can not get fire started Excessive smoke or spillage Burns too slowly Not enough heat output	Not enough kindling/paper or no kindling/paper	Use dry kindling, more paper. Arrange kindling & wood for air movement.	
	Not enough air for fire to ignite	Check for restricted termination cap	
		Check for blockage of outside air kit (if installed).	
		Check for flue blockage.	
		Pre-warm flue before starting fire (refer to Building a Fire Section).	
		Check for adequate vent height (refer to Chimney Height Section).	
		Open window below the appliance towards the wind.	
	Wood condition is too wet, too large	Use dry, seasoned wood (refer to Seasoned Wood Section).	
	Bed of coals not established before adding wood	Start with paper & kindling to establish bed of coals (refer to Building a Fire Section).	
Flue blockage such as birds' nests or leaves in termination cap	Have chimney inspected for creosote and cleaned by a certified chimney sweep.		
Down draft or negative pressure Competition with exhaust devices	Do not use exhaust fans during start-up (refer to Negative Pressure Section).		
	Open window below the appliance towards the wind.		
Fire burns too fast	Extremely dry or soft wood	Mix in hardwood.	
		Mix in less seasoned wood after fire is established (refer to Wood Fuel Section).	
	Over drafting	Check for correct vent height; too much vertical height creates over drafting.	
Check location of vent termination (refer to Chimney Termination Requirement Section).			


5 Service Parts Replacement

A. 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. Protect your hands and wear gloves to prevent injury.
3. Remove the door with the broken glass by lifting the door up and off of the hinges.
4. Lay door face down on a table or counter making sure the handle hangs over the edge so the door lays flat, on a soft surface.
5. Remove the screws from each glass retainer and remove the glass. (If screws are difficult to remove, soak with penetrating oil first).
6. Center the glass with edges evenly overlapping the opening in the door, (i.e. same space top and bottom, left and right sides).
7. Replace the glass retainers. Be careful not to cross thread the screws.
8. Tighten each retainer just a few turns until each is secured. Check again for centering of glass in door frame. Continue to tighten each retainer alternately, a few turns at a time, until the glass is secure. **DO NOT OVER TIGHTEN** - can cause glass to break.
9. Replace the door on the appliance.

Quadra-Fire appliances are equipped with ceramic super heat-resistant glass, which can only be broken by impact or misuse.




WARNING

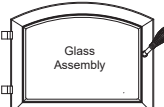


Injury Risk.

- Use only glass specified in manual.
- **DO NOT REPLACE** with any other material.



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.

B. Firebrick Replacement

The firebox 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. Do not operate appliance without firebrick.

1. After the coals have completely cooled, remove all old brick and ash from appliance and vacuum firebox.
2. Remove new brick set from box and lay out to diagram shown.
3. Lay bottom bricks in appliance.
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 appliance.

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

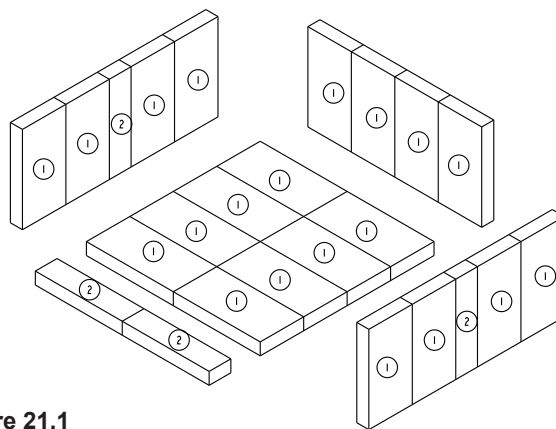


Figure 21.1

No.	Brick Size	Qty
1	9 x 4-1/2 x 1-1/4	20
2	9 x 3-1/4 x 1-1/4	4

C. Snap Disc Replacement

1. Disconnect power supply. Locate the snap disc bracket assembly at the bottom left rear corner of the appliance (**Figure 24.1**).
2. A magnet holds the bracket to the appliance. Pull the bracket down away from the appliance to expose the snap disc.
3. Pull the snap disc and spade connectors up and out of bracket as shown in **Figure 24.2**.
4. Using a Phillips head screw driver, remove the 2 screws from the snap disc and then remove the snap disc from the spade connectors. Replace with new snap disc and re-connect to spade connectors.
5. Push the snap disc and spade connectors back inside bracket and re-attach the bracket to the appliance.

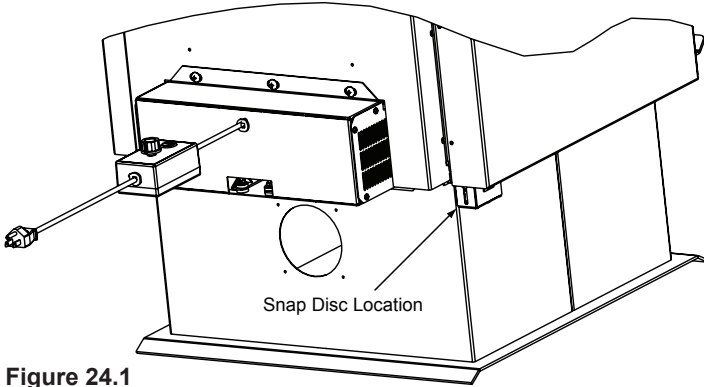


Figure 24.1

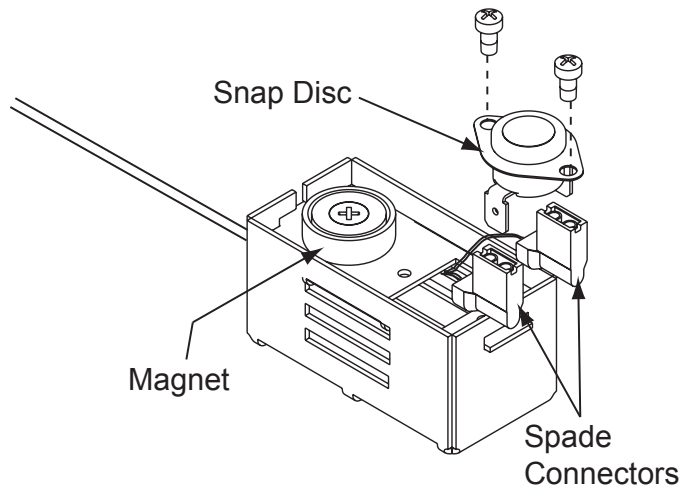


Figure 24.2

D. Door Handle Assembly

1. Install washer on door handle shaft.
2. Slide door handle through door.
3. Add up to three washer as shown in **Figure 24.3** on the inside of the door.
4. Install key in groove.
5. Align groove in latch cam with key; slide latch cam over shaft
6. Install locknut but do not over tighten, the handle needs to move smoothly.
7. Install handle turning in a counter-clockwise motion to desired location on door handle rod (**Figure 24.3**).

! CAUTION

Do not over tighten lock nut. The door handle needs to move smoothly.

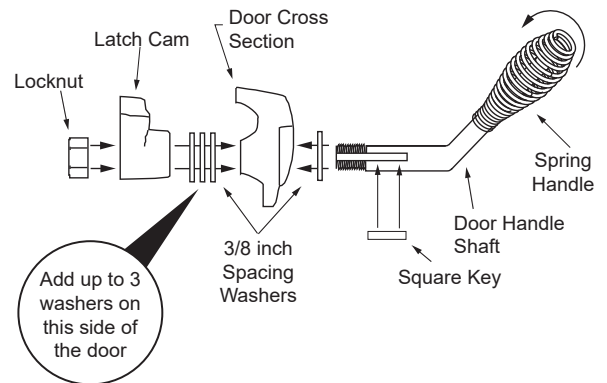


Figure 24.3

E. Baffle Removal

1. Remove all ash from the firebox, and extinguish all hot embers before disposal into a metal container.
2. Remove the baffle protection channel by rotating it down from the front tube (**Figure 25.1**).
3. Remove tube channel assembly (see section **Tube Channel Assembly Replacement** on page 26).
4. The baffle board has 2 pieces. With the ceramic blanket still in place, slide one baffle piece over the top of other one and pull out top piece through the door opening and then remove bottom baffle piece.
5. Remove the ceramic blanket.
6. Re-install the ceramic blanket and smooth out the blanket.
7. Slide the baffle pieces one piece at a time underneath the blanket. Be sure the baffle boards are even with the front manifold tube and is resting on all tubes (**Figure 25.1**).
8. Re-install the tube channel assembly (see section **Tube Channel Assembly Replacement** on page 26).
9. Re-install the baffle protection channel by rotating it up and around the front tube so the bottom flange of the channel rests behind the manifold tube. The baffle boards and blanket are tucked inside the rear of the baffle protection channel.

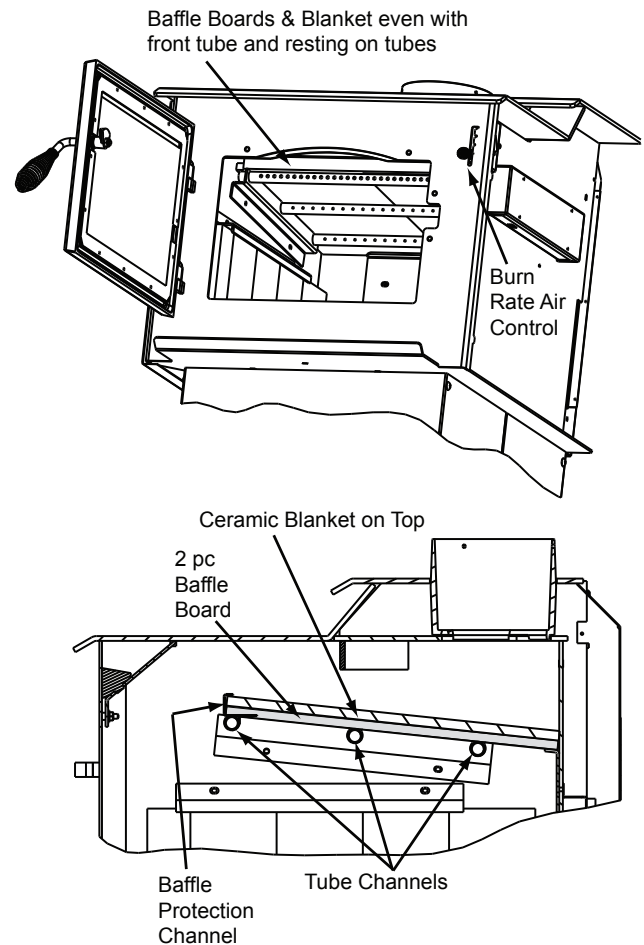


Figure 25.1

F. Tube Channel Assembly Replacement

Removing Tube Channel Assembly

1. Remove the baffle protection channel, ceramic blanket and the 2 baffle boards. See instructions on page 25.
2. Remove the right side shield by removing 3 screws in the back using a Phillips head screw driver.
3. Remove 4 screws from channel access cover and remove cover.
4. Locate 2 channel bolts behind the channel access cover and remove using a 7/16 socket wrench. Slide out tube channel assembly.

NOTE: Soak the bolts with penetrating oil for at least 15 minutes before trying to remove them.

Replacing Tube Channel Assembly

5. Slide the tube channel assembly into side of firebox and insert each tube into the corresponding hole in the tube channel rack starting with the back hole first.
6. Make sure tube channel assembly is flush against the side of the appliance and secure with channel nuts.
7. Re-install channel cover and side shield.
8. Re-install ceramic blanket, baffle pieces and baffle protection channel. See instructions of page 25.

NOTE: Service Space

In order to replace the tube channel assembly a clearance of 19 inches (483mm) is required on the right side of appliance in order to remove the tubes with the appliance in place.

If space is not available, the appliance will have to be disconnected from the chimney to proceed with the tube replacement.

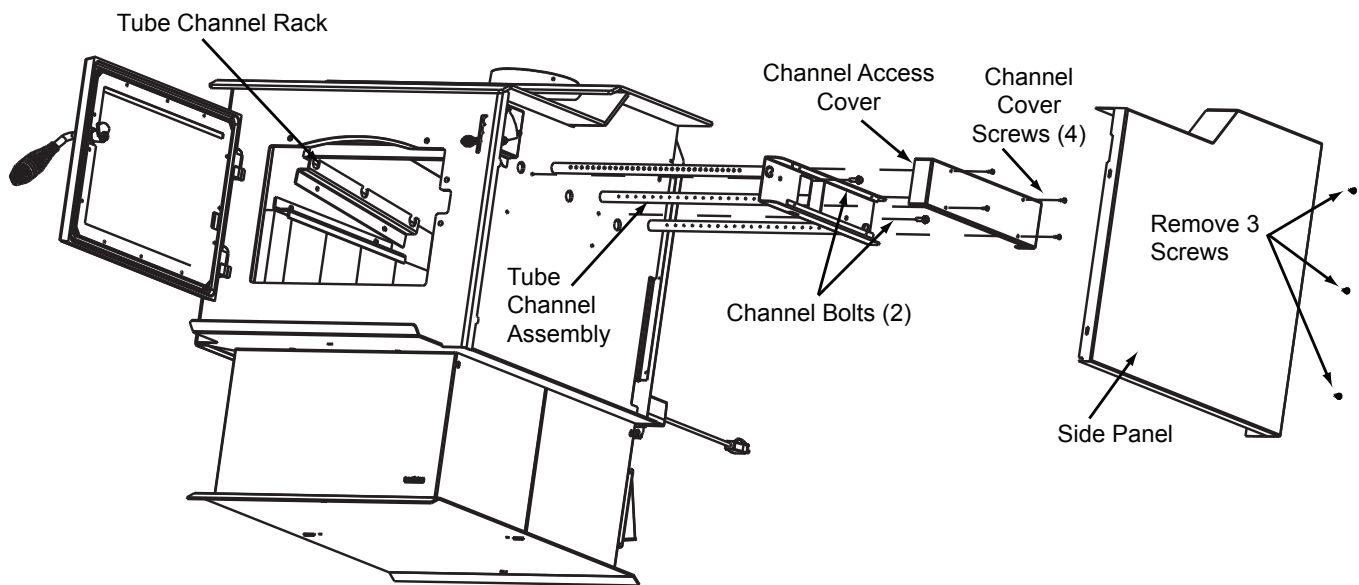


Figure 26.1

Install Guide

6 Getting Started

A. Design and Installation 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.

B. 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 CO detector should be installed in the room with the appliance.
4. A practiced evacuation plan, consisting of at least two escape routes.
5. 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.



CAUTION

Check building codes prior to installation.

- 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



Asphyxiation Risk.



- Do NOT connect this appliance to a chimney flue servicing another appliance.
- Do NOT connect to any air distribution duct or system.

May allow flue gases to enter the house.

NOTICE: Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance system caused by:

- Inadequate draft due to environmental conditions
- Down drafts
- Tight sealing construction of the structure
- Mechanical exhausting devices
- Over drafting caused by excessive chimney heights
- Ideal performance is with height of chimney between 14-16 feet (4.26-4.88m) measured from the base of the appliance.

C. Negative Pressure

	WARNING
	<p>Asphyxiation Risk.</p> <ul style="list-style-type: none"> • Negative pressure can cause spillage of combustion fumes, soot and carbon monoxide. • Appliance needs to draft properly for safety.

Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water appliances and other combustion appliances
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
 - Recessed lighting
 - Attic hatch
 - Duct leaks

To minimize the effects of negative air pressure:

- Install optional outside air kit with the intake facing prevailing winds during the heating season
- Ensure adequate outdoor air for all combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a “sealed can” design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed
- Basement installations should be avoided

D. Tools And Supplies Needed

Before beginning the installation be sure the following tools and building supplies are available:

- | | |
|---|-------------------------|
| Reciprocating saw | Flat blade screwdriver |
| Framing material | Electric drill and bits |
| Pliers | Plumb line |
| High temp caulking material | Safety glasses |
| Hammer | Level |
| Gloves | Tape measure |
| Phillips screwdriver | Misc. screws and nails |
| Framing square | 7/16 socket or wrench |
| 1/2-3/4 in. length, #6 or #8 self-drilling screws | |

E. Inspection of Appliance and Components

- Remove appliance and components from packaging and inspect for damage.
- Report to your dealer any parts damaged in shipment.
- **Read all the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

F. Install Checklist

ATTENTION INSTALLER:
Follow this Standard Work Checklist

This standard work checklist is to be used by the installer in conjunction with, not instead of, the instructions contained in this installation manual.

Customer: _____
 Date Installed: _____
 Lot / Address: _____
 Location of Appliance: _____
 Installer: _____
 Dealer / Distributor Phone #: _____
 Serial #: _____
 Model: _____

WARNING! Risk of Fire or Explosion! Failure to install appliance according to these instructions can lead to a fire or explosion.

Appliance Install

Verified clearances to combustibles.
 Appliance is leveled and connector is secured to appliance.
 Hearth extension size/height decided.
 Outside air kit installed.
 Floor protection requirements have been met.
 If appliance is connected to a masonry chimney, it should be cleaned and inspected by a professional. If installed to a factory built metal chimney, the chimney must be installed according to the manufacturer's instructions and clearances.

YES	IF NO, WHY?
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____

Chimney

Chimney configuration complies with diagrams.
 Chimney installed, locked and secured in place with proper clearance.
 Chimney meets recommended height requirements (14-16 feet).
 Roof flashing installed and sealed.
 Terminations installed and sealed.

<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____

Clearances

Combustible materials not installed in non-combustible areas.
 Verified all clearances meet installation manual requirements.
 Mantels and wall projections comply with installation manual requirements.
 Protective hearth strips and hearth extension installed per manual requirements.

<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____

Appliance Setup

All packaging and protective materials removed.
 Firebrick, baffle and ceramic blanket installed correctly.
 All labels have been removed from the door.
 All packaging materials are removed from inside/under the appliance.
 Manual bag and all of its contents are removed from inside/under the appliance and given to the party responsible for use and operation.

<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____

Hearth & Home Technologies recommends the following:

- Photographing the installation and copying this checklist for your file.
- That this checklist remain visible at all times on the appliance until the installation is complete.

Comments: Further description of the issues, who is responsible (Installer/Builder/Other Trades, etc.) and corrective action needed:
 Comments communicated to party responsible _____ by _____ on _____
 (Builder / Gen. Contractor) (Installer) (Date)

7 Dimensions and Clearances

A. Appliance Dimensions

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

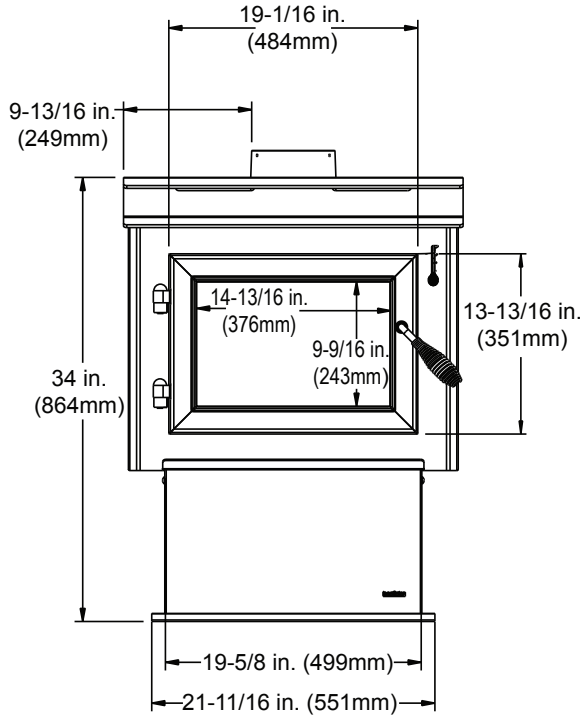


Figure 30.1 - Front View

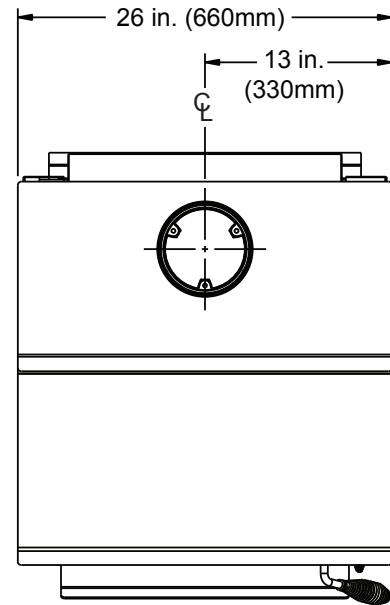


Figure 30.2 -Top View

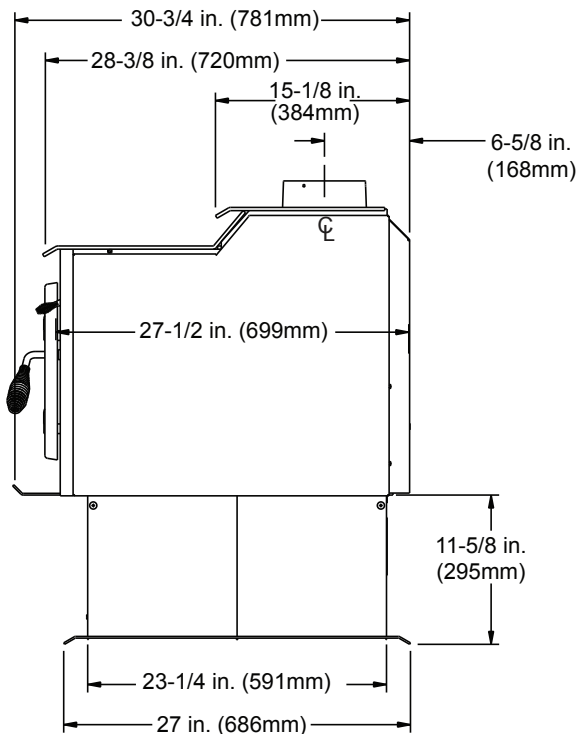


Figure 30.3 - Side View


B. Hearth Protection Requirements


FLOOR PROTECTION: It is necessary to install a Type II floor protector.

Floor protector must be non-combustible material of a minimum of 3/8 inch (10mm) thick, with a minimum R value of 0.13 extending under the appliance to a minimum of 16 inches (406mm) in front of glass, and 8 inches (203mm) to both sides of the fuel loading door. Open the door and measure 8 inches (203mm) from the side edge of the opening in the face of the appliance; ***See exception.**

In Canada (Figure 34.2), similar floor protection must be provided 18 inches (457mm) in front and 8 inches (203mm) from the sides and rear of the appliance unless reduced by the **Clearance to Combustibles** on page 32.

***EXCEPTION:** Non-combustible floor protections must extend beneath the flue pipe when installed with horizontal venting and extend 2 inches (51mm) beyond each side; **See Figure 31.2.**


WARNING



Fire Risk.
Hearth pads must be installed exactly as specified. High temperatures or hot embers may ignite concealed combustibles.

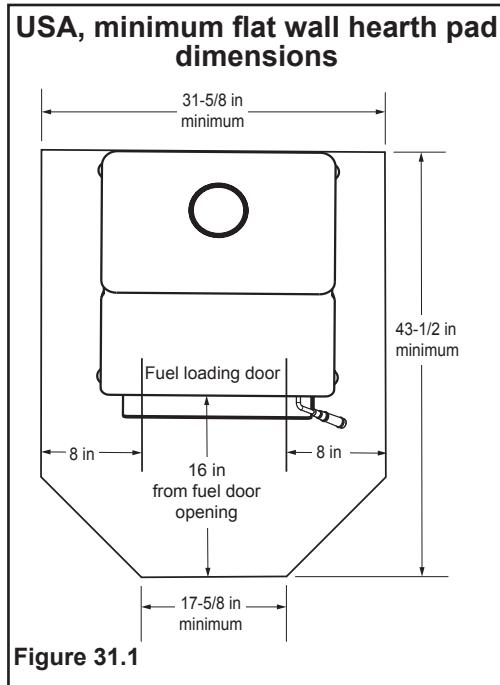


Figure 31.1

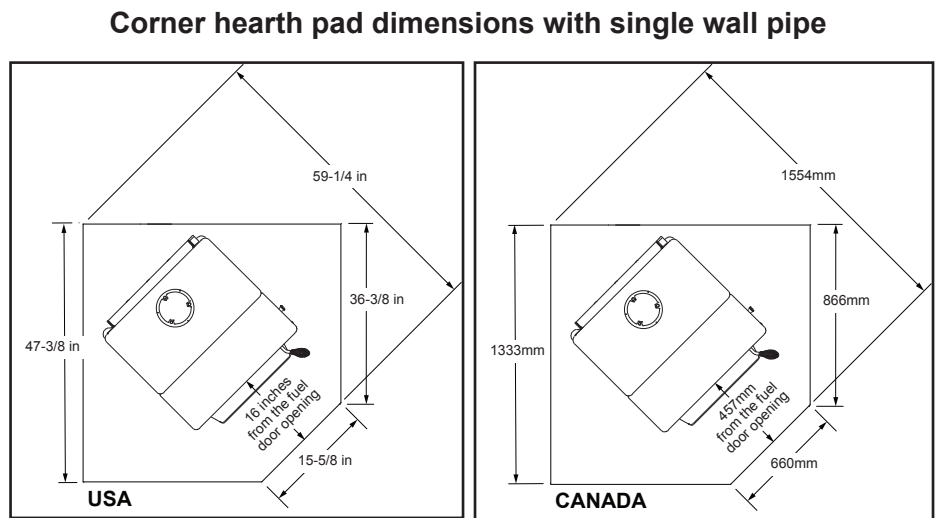


Figure 31.3

Figure 31.5

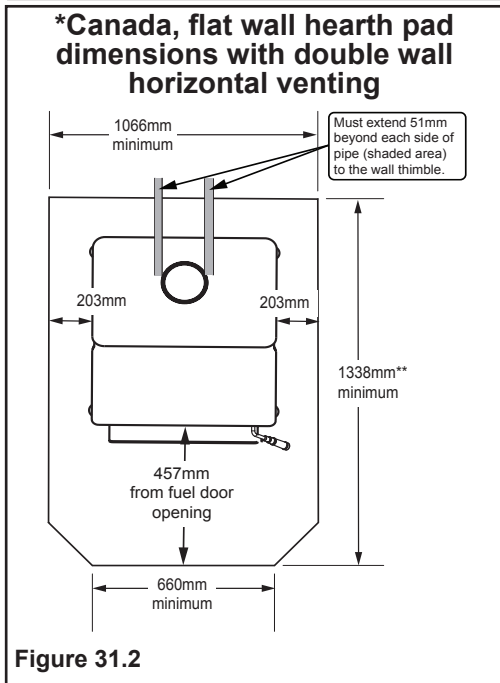


Figure 31.2

**this dimension will vary depending installation.

Corner hearth pad dimensions with double wall pipe

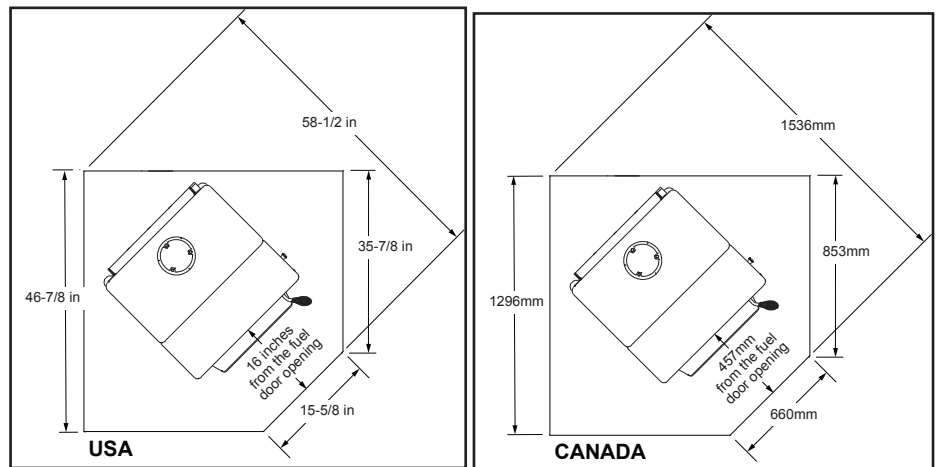
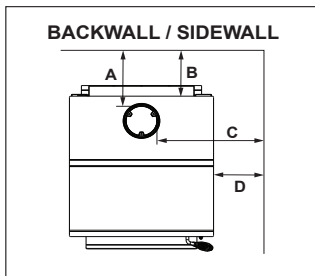


Figure 31.4

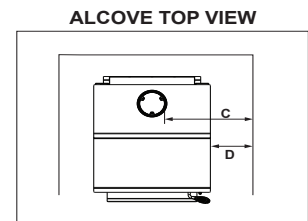
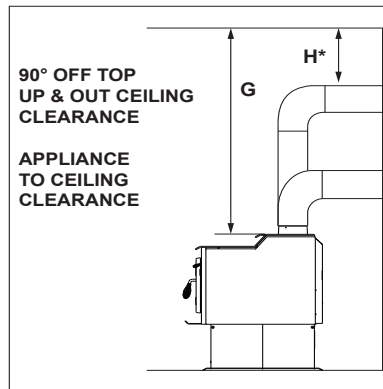
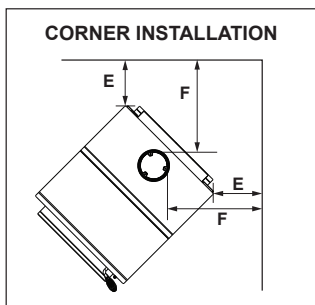
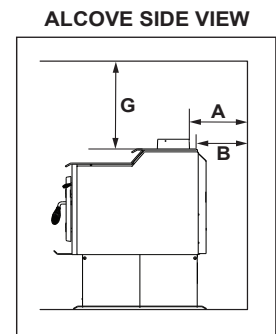
Figure 31.6

C. Clearances to Combustibles (UL and ULC)

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS: INCHES & (MILLIMETERS)								
NOTE: ALL "A", "C" AND "F" DIMENSIONS ARE TO INSIDE DIAMETER OF FLUE COLLAR.								
	A	B	C	D	E	F	G	H
INSTALLATION: Full Vertical OR Horizontal with 2 foot (609mm) minimum vertical Off Appliance Top								
Single Wall Pipe	10 (254)	8.25 (210)	21 (533.4)	11 (279)	3.5 (89)	12.5 (319)	49 (1245)	*
Double Wall Pipe	9 (229)	7 (178)	19.5 (495)	9 (229)	3 (76)	12 (305)	49 (1245)	10 (254)
INSTALLATION: 90° Elbow Off Top of Appliance Through Back wall								
Single Wall Pipe	9.25 (235)	7.5 (191)	18 (457)	8 (203)	3.5 (89)	12.5 (318)	49 (1245)	*
Double Wall Pipe	9.25 (235)	7.5 (191)	18 (457)	8 (203)	3 (76)	12 (305)	49 (1245)	10 (254)
For alcove only: Six inch diameter listed Double wall air insulated connector pipe with UL103 HT listed factory built Class A chimney or masonry chimney. Maximum depth of Alcove shall be no more than 48 inches (1219mm) and the referenced alcove clearances. Canada must comply with CAN/ULC-S269 M87 for the 650° factory built chimney.								
* SEE PIPE MANUFACTURERS CLEARANCES - NOT TESTED								



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



WARNING

Fire Risk.

- Comply with all minimum clearances to combustibles as specified.
- Failure to comply may cause house fire.

NOTE: Service Space

In order to replace the tube channel assembly a clearance of 19 inches (483mm) is required on the right side of appliance in order to remove the tubes with the appliance in place. If space is not available, the appliance will have to be disconnected from the chimney to proceed with the tube replacement.

8 Chimney Systems

A. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance. As shown in **Figure 33.1** the chimney should:

- Install through the warm space enclosed by the building envelope. This helps to produce more draft, especially during lighting and die down of the fire.
- Penetrate the highest part of the roof. This minimizes the affects of wind turbulence and down drafts.

- Consider the appliance location in order to avoid floor and ceiling attic joists and rafters.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.

Your local dealer is the expert in your geographic area and can usually make suggestions or discover solutions that will easily correct your flue problem.

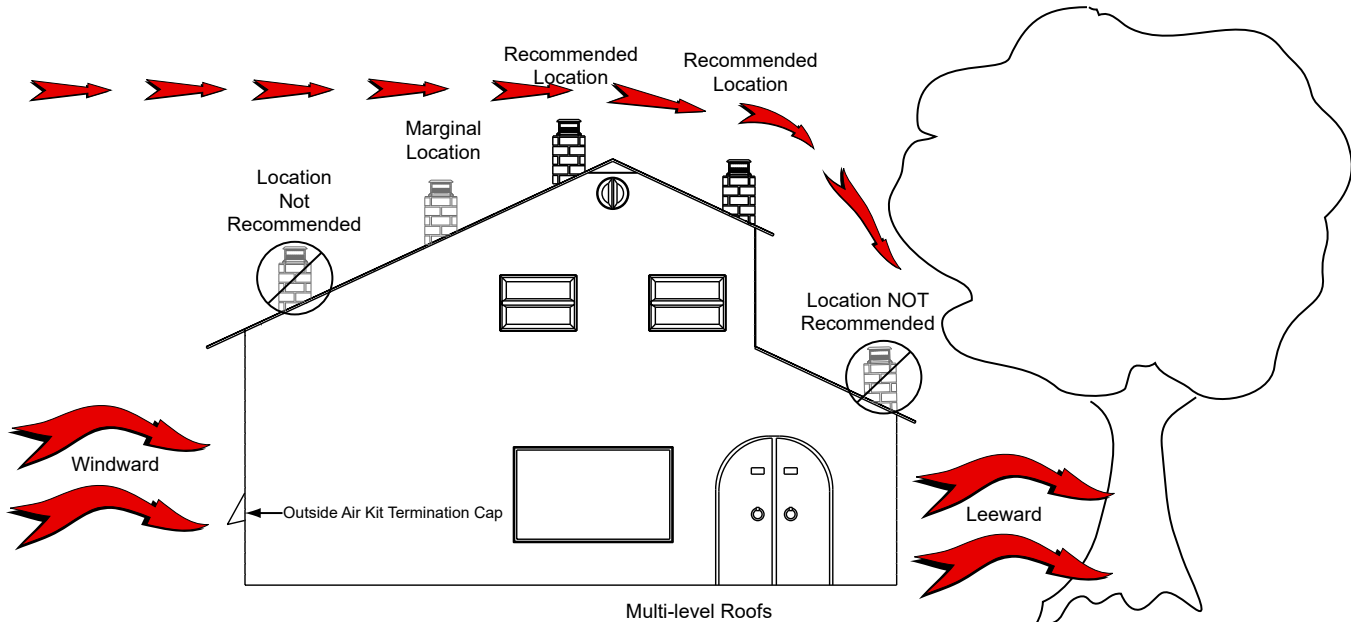


Figure 33.1

B. Chimney Termination Requirements

Follow manufacturer’s instructions for clearance, securing flashing and terminating the chimney (**Figure 34.1 & 34.2**).

- 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

NOTICE: Locating the appliance in a basement or in a location of considerable air movement can cause intermittent smoke spillage from appliance. Do not locate appliance near

- Frequently open doors
- Central heat outlets or returns

NOTICE:

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

C. 2-10-3 Rule

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

This appliance is made with a 6 inch (152mm) diameter chimney connector as the flue collar on the appliance.

- Changing the diameter of the chimney can affect draft and cause poor performance.
- It is not recommended to use offsets and elbows at altitudes above 4000 feet above sea level and or when there are other factors that affect flue draft.

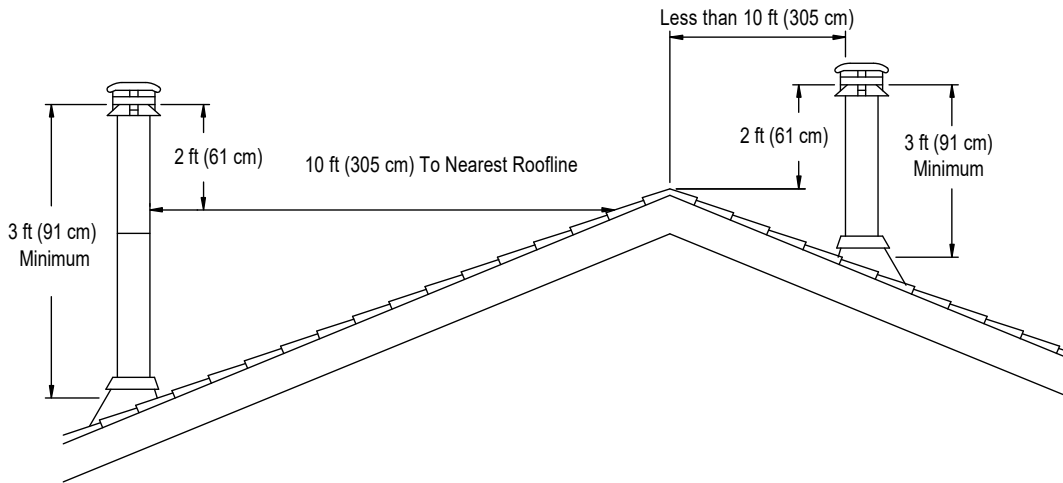


Figure 34.1

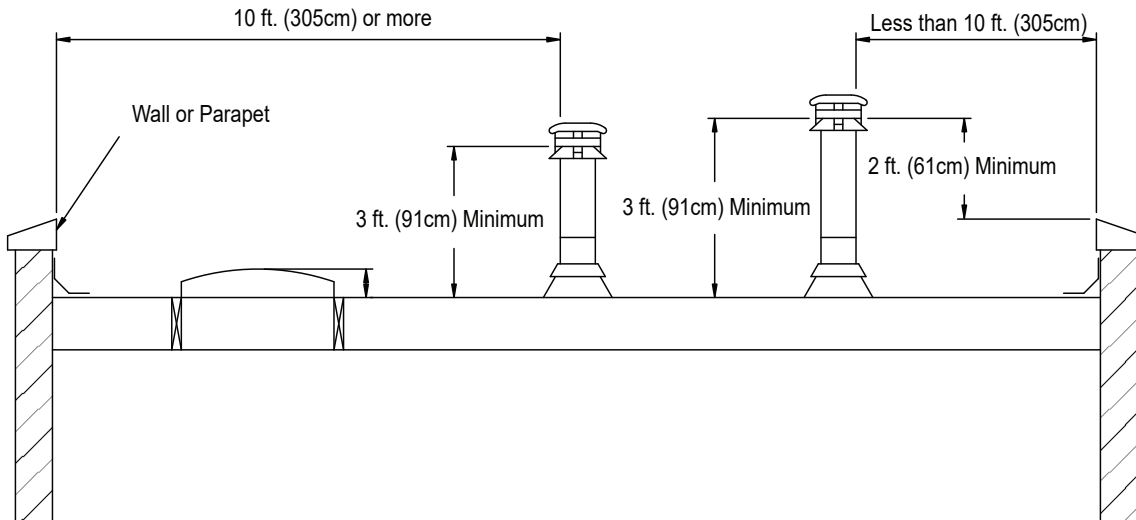







Figure 34.2

D. Chimney Height / Rise and Run

This product was designed for and tested on a 6 inch (152mm) chimney, 14 to 16 feet (420-480cm) high, (includes appliance height) measured from the base of the appliance. The further your stack height or diameter varies from this configuration, the greater the likelihood it may affect performance.

Chimney height may need to be increased by 2 - 3% per each 1000 feet above sea level. 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.

	WARNING
	<p>Fire Risk. 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.
	WARNING
	<p>Asphyxiation Risk.</p> <ul style="list-style-type: none"> • DO NOT CONNECT THIS Appliance 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>
	WARNING
<p>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.</p>	

E. Venting Components

Chimney Connector:

It is also known as flue pipe or appliance pipe. The chimney connector joins the appliance to the chimney. It must be a 6 inch (152mm) minimum diameter 24 gauge mild steel black or 26 gauge 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. It is intended to keep the walls from igniting. Site constructed thimbles must meet NFPA 211 Standards. Prefabricated must be suitable for use with selected chimney and meet UL103 Type HT Standards. Follow instructions provided by the manufacturer for manufactured thimbles for masonry chimney and prefabricated chimneys.

Chimney:

The chimney can be new or existing, masonry or prefabricated and must meet the following minimum requirements and as specified in Section 4F.

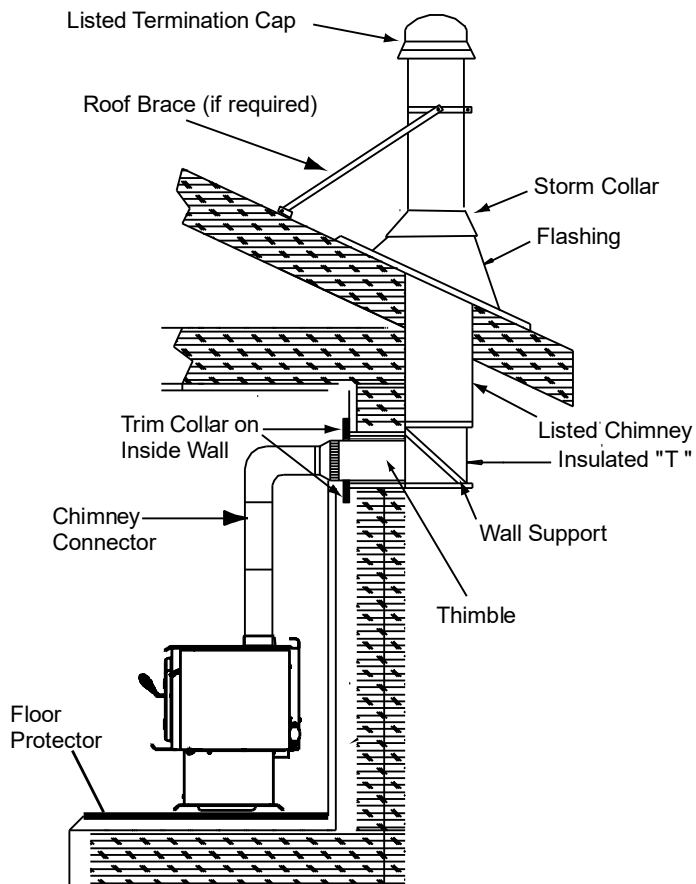


Figure 35.1 Prefabricated Exterior Chimney

F. Chimney Systems

Prefabricated Metal Chimney

- Must be minimum 6 inch (152mm) diameter (ID) high temperature chimney listed to UL 103 HT (2100°F) or ULC S629M.
- Must use components required by the manufacturer for installation.
- Must maintain clearances required by the manufacturer for installation.
- Refer to manufacturers instructions for installation.

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

Thimble

Site constructed for masonry chimney installation:

Components

A minimum length of 12 inches [305mm] (longer for thicker walls) of solid insulated factory-built chimney length constructed to **UL 103 Type HT** 6 inch (152mm) inside diameter. Chimney needs to extend a minimum of 2 inches (51mm) from the interior wall and a minimum of 1 inch (25mm) from the exterior wall.

Wall spacer, trim collar and wall band to fit solid pack chimney selected.

Minimum 8 inch (203mm) diameter clay liner section (if not already present in chimney) and refractory mortar.

When jurisdiction requires install approved chimney liner in masonry chimney.

Air Clearances

- Masonry chimney clearance must meet **NFPA 211** minimum requirement of 2 inches (51mm) to sheet metal supports and combustibles.
- Minimum of 1 inch (25mm) clearance around the chimney connector.
- Top of wall opening is a minimum of 13-1/2 inches (343mm) from ceiling or 4-1/2 inches (114mm) below minimum clearance specified by chimney connector manufacturer. **NFPA 211** minimum vertical clearance of 18 inches (457mm) from chimney connector and ceiling or minimum recommended by chimney connector manufacturer (**Figure 36.2**).

Instructions:

1. Open inside wall at proper height for the chimney connector to enter the masonry chimney (**Figure 36.2**).
2. Entry hole to masonry chimney must be lined with an 8 inch (203mm) minimum diameter clay liner, or equivalent, secured with refractory mortar.
3. Construct a 17 inch x 17 inch (432mm x 432mm) outside dimension frame from 2 x 2 framing lumber to fit into wall opening. Inside opening of frame should be no less than 14 inch x 14 inch (356mm x 356mm) (**Figure 36.2**).
4. Attach the wall spacer to the chimney side of the frame.
5. Nail the frame into the wall opening. The spacer should be on the chimney side.
6. Insert the section of the solid insulated chimney into the outer wall of the masonry chimney.
7. Tightly secure the length of the solid insulated chimney with the wall band to the masonry chimney.
8. Insert a section of chimney connector into the chimney. Make sure it does not protrude past the edge of the clay chimney liner inside the chimney.
9. Seal the end of the chimney connector to the clay liner with refractory mortar.
10. Install trim collar around the sold pack chimney section.

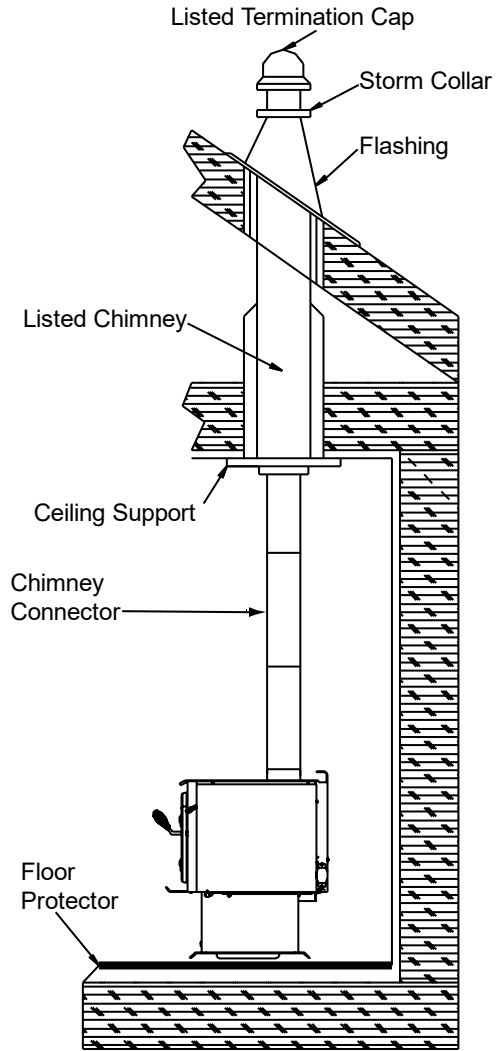


Figure 36.1 - Prefabricated Interior Chimney

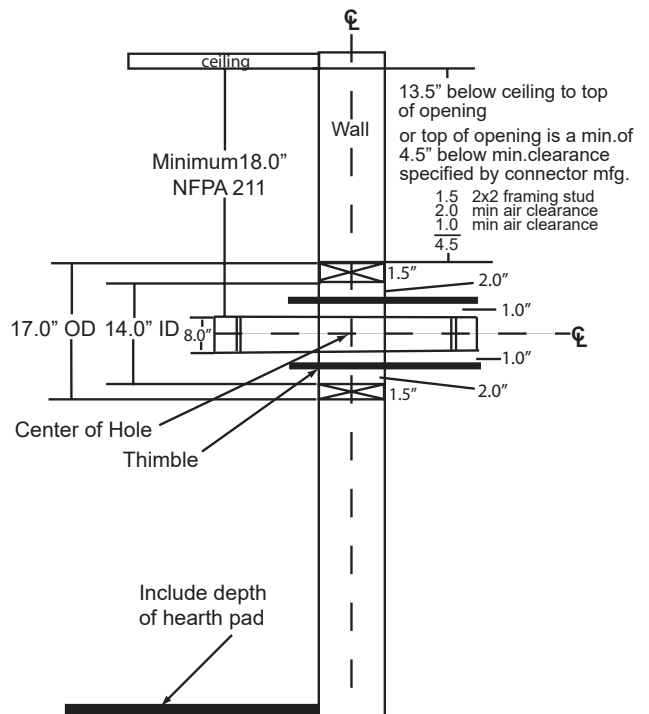


Figure 36.2

Solid Pack Chimney with Metal Supports as a Thimble

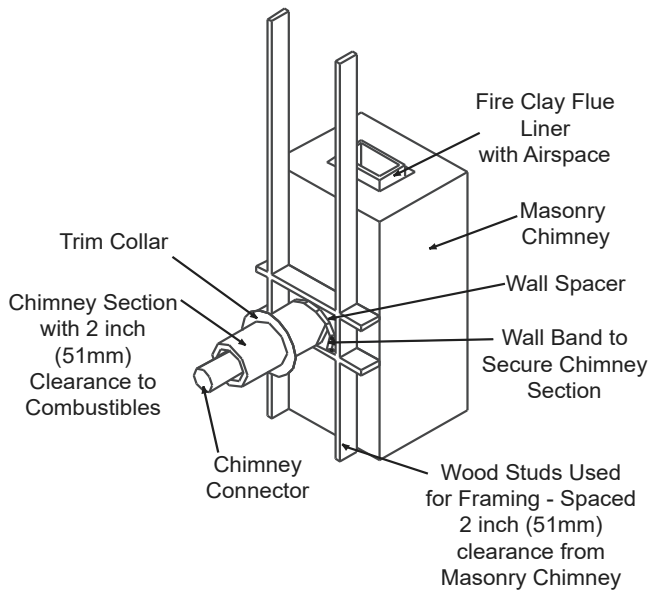


Figure 37.1

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.

**G. Installing Chimney Components
Chimney Connector**

Single wall connector or appliance pipe.
This must be at least 24 gauge mild steel or 26 gauge blue steel. The sections must be attached to the appliance and to each other with the crimped (male) end pointing toward the appliance. All joints, including the connection at the flue collar, should be secured with 3 sheet metal screws. Make sure to follow the minimum clearances to combustibles. Where passage through the wall, or partition of combustible construction is desired in Canada, the installation shall conform to **CAN/CSA-B365**.

Factory-built listed chimney connector (vented).
A listed connector (vented) must be used when installing this appliance in a mobile home. The listed connectors must conform to each other to ensure a proper fit and seal.

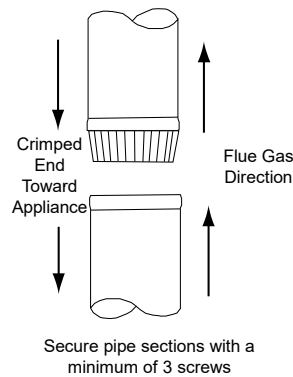


Figure 37.3 - Chimney Connector (Appliance Pipe)

Solid Pack Chimney with Metal Supports as a Thimble (Cont'd)

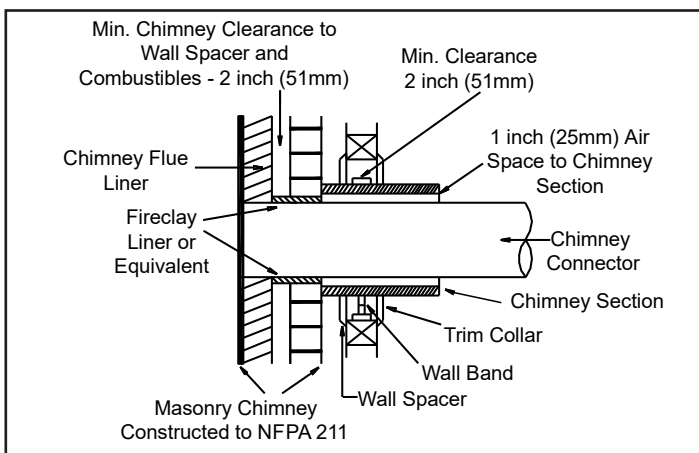


Figure 37.2

WARNING

Fire Risk.
Follow Chimney Connector Manufacturer's Instructions for Proper Installation.

ONLY use connector:

- Within the room, between appliance and ceiling or wall.

Connector shall NOT pass through:

- Attic or roof space
- Closet or similar concealed space
- Floor or ceiling

Maintain minimum clearances to combustibles

H. Proper Draft

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.

9 Appliance Set-up

A. Outside Air Kit Installation

A source of air (oxygen) is necessary in order for combustion to take place. Whatever combustion air is consumed by the fire must be replaced.

Air is replaced via air leakage around windows and under doors. In homes that have tightly sealed doors and windows, an outside air source is highly recommended. An optional Outside Air Kit is available.

Included in kit:

Termination cap, (2) wire ties, flex adapter, and fasteners

Items Needed for Installation (not supplied)

- 4 inch flex aluminum pipe, or if using alternate material, then it shall be made from durable, non-combustible, heat resistant material up to 350°F (177°C). Cut the pipe to the required length for your installation.
 - Phillips head screw driver
 - Silicone sealant
 - Non-combustible pedestal sealing material if installing with the Alternate Floor configuration.
 - Drills and saws necessary for cutting holes through the wall or flooring in your home
1. **Rear:** Remove the access cover on the back of the pedestal and discard (**Figure 38.2**).
 2. Using a #2 Phillips screw driver attach the flex adapter to the appliance using 4 screws. Secure with Wire Tie (**Figure 38.1**).
 3. **Floor:** For standard floor installation remove the circular “knock-out” in the base of the pedestal.
 4. **Floor & Rear Installation:** Cut a 4 inch (102mm) hole in outside wall or floor to accommodate outside air piping. Use 4 inch (102mm) aluminum metal flex or rigid piping to directly connect outside air to appliance intake. Use the supplied termination cap with a rodent screen. Seal between the wall (or floor) and the pipe with silicone to prevent moisture penetration.

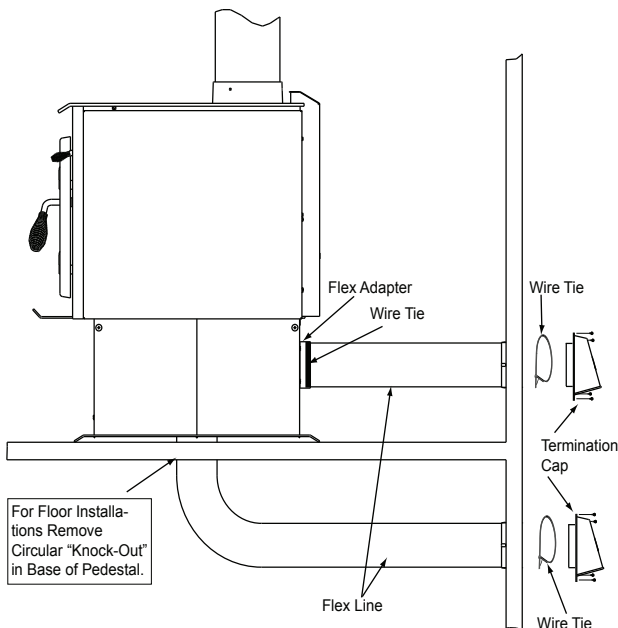








Figure 38.1 - Floor & Rear Installation

5. Floor Installation Alternative: In some instances you may not be able to install the flex pipe as show in Figure 38.1.

If that is the case, follow the instructions for a rear installation install the flex pipe to the rear of the pedestal and remove the circular “Knock-Out” in the base of the pedestal. You must seal off the pedestal with non-combustible material (not supplied). The goal is to seal the pedestal so no room air can leak into the pedestal and to seal for cold air infiltration (**Figure 36.2**).

	<p>WARNING</p>
	<p>Fire Risk. Asphyxiation Risk. 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>
	<p>WARNING</p>
	<p>Asphyxiation Risk. Outside air inlet must be located to prevent blockage from:</p> <ul style="list-style-type: none"> • Leaves • Snow or ice • Other debris <p>Block may cause combustion air starvation Smoke spillage may set off alarms or irritate sensitive individuals.</p>
	<p>WARNING</p>
	<p>Asphyxiation Risk. 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.

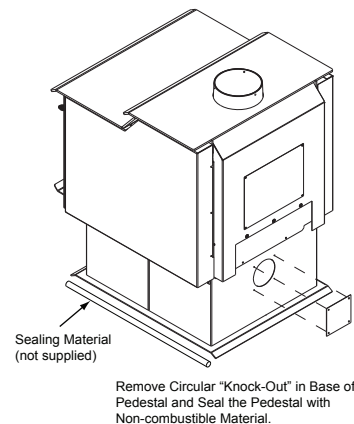


Figure 38.2 - Alternate Floor Installation

B. Blower Installation (Optional)


1. Align holes in mounting flange of blower with bolt holes in appliance. Blower should be positioned at bottom of rear outer skin as shown in **Figure 39.1**.
2. Insert and tighten bolts supplied with the kit, securing blower onto outer wall of appliance.
3. Place the bracket containing the snap disc and magnet under the bottom left rear corner as shown in **Figure 35.1**.

See pages 14 and 21 for detailed operating instructions for the blower and snap disc.

C. Adjusting the Blower Speed Control

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

NOTE: When the speed control is turned clockwise, it will click on to high speed. Continue to turn the speed control clockwise to decrease the speed. At full clockwise, the blower should blow gently, but should not stop.



CAUTION

Shock Risk.

- Do NOT remove grounding prong from plug.
- Route cord away from appliance.
- Do NOT route cord under or in front of appliance.
- Plug directly into properly grounded 3 prong receptacle.

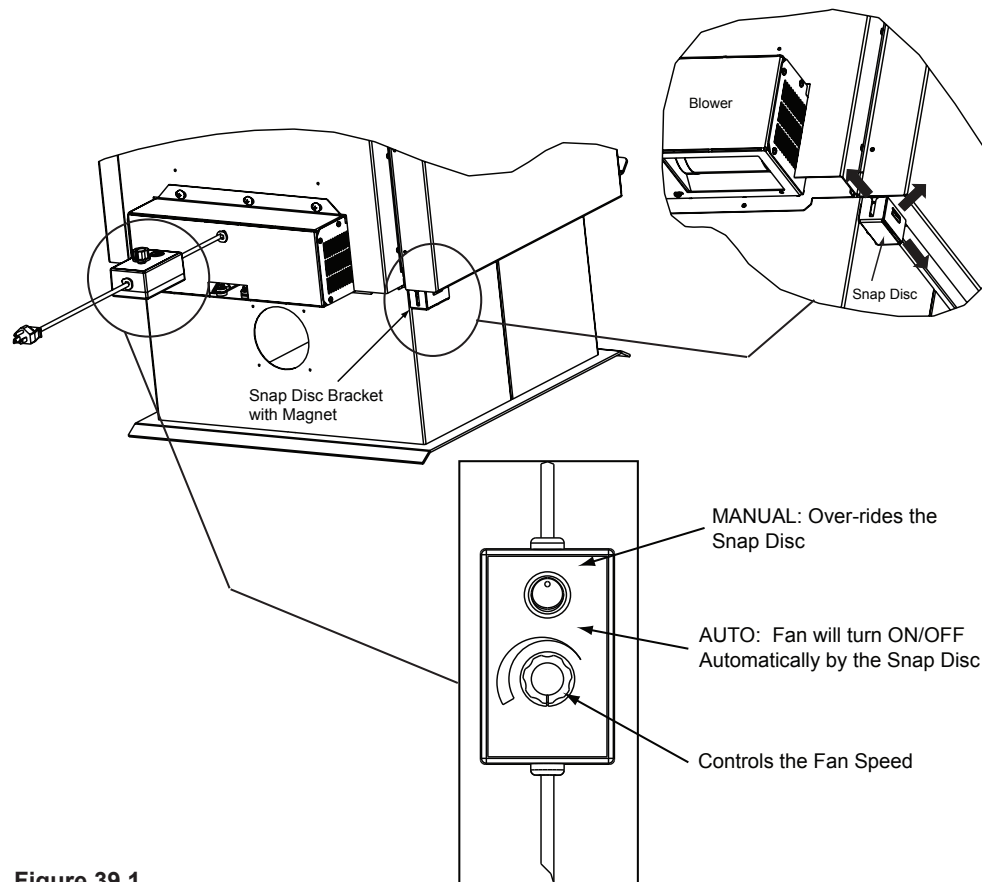


Figure 39.1

10 Mobile Home Installation

You must use a Quadra-Fire Outside Air Kit Part #:

OAK-ACC

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.
2. Unit must be secured to the mobile home structure at two attachment points. Remove bolts from each side of insert and use plumbers tape to secure to structure (a washer may be required). Re-install bolts.
3. Unit 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 six 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. Refer to **pages 30-32** of this manual for clearance to combustibles and floor protections requirements. All clearances must be followed precisely.
6. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure.
7. Follow the chimney and chimney connector manufacturer's instructions when installing the flue system for use in a mobile home.
8. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).
9. If unit burns poorly while an exhaust blower is on in home, (i.e., range hood), increase combustion air.
10. Installation shall be in accordance with the **Manufacturers Home & Safety Standard (HUD) CFR 3280, Part 24.**

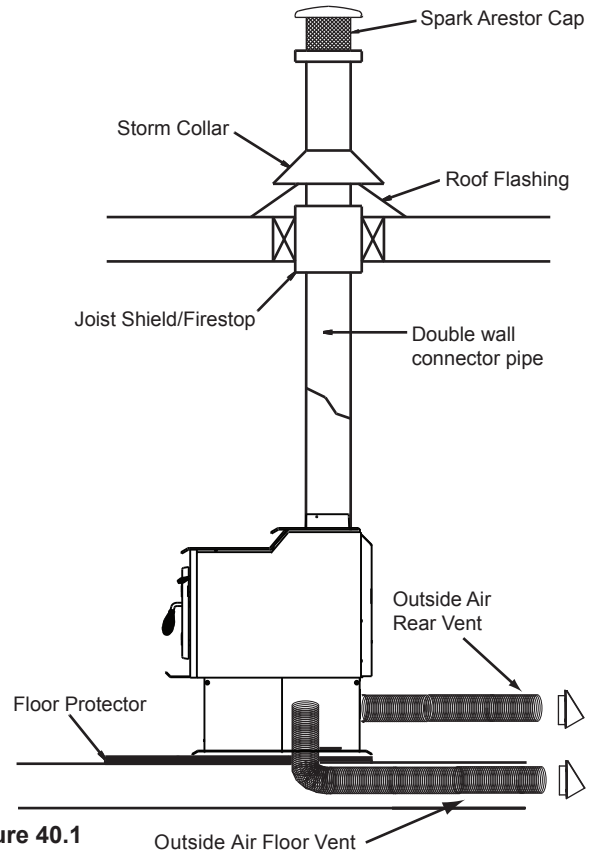








Figure 40.1

NOTICE: 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 must also comply with **NFPA 211**.

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

	WARNING
	<p>Fire Risk. Asphyxiation Risk. 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>
	
	CAUTION
<p>THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED</p> <p>Do NOT cut through:</p> <ul style="list-style-type: none"> • Floor joist, wall, studs or ceiling trusses. • Any supporting material that would affect the structural integrity. 	
	WARNING
	<p>Asphyxiation Risk. NEVER INSTALL IN A SLEEPING ROOM. Consumes oxygen in the room.</p>

B. Exploded View

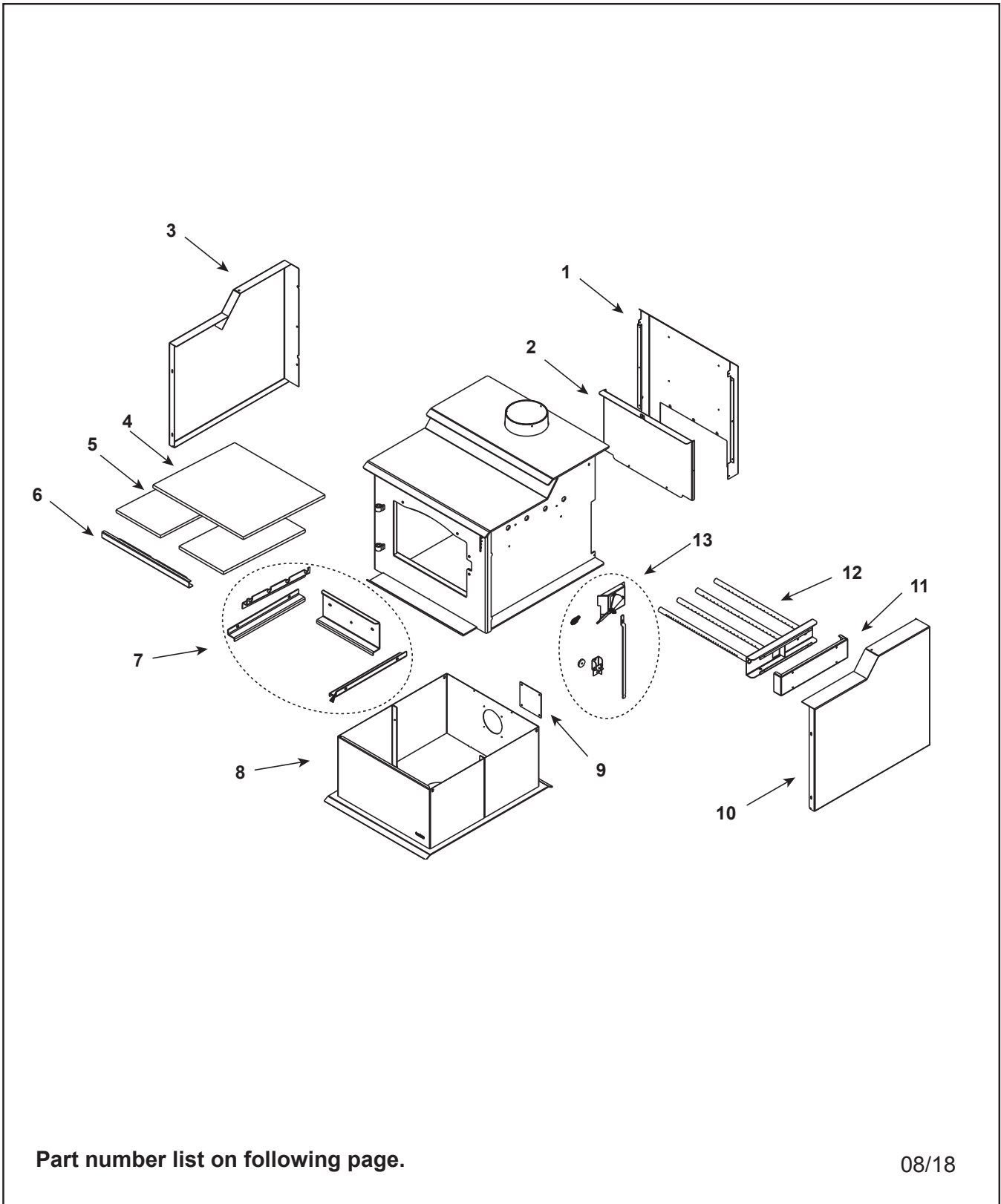


Service Parts

Free Standing Wood Stove

ECO-ADV-WS22

Beginning Manufacturing Date: Mar 2010
Ending Manufacturing Date: Active



C. Service Parts



Service Parts

ECO-ADV-WS22

Beginning Manufacturing Date: Mar 2010

Ending Manufacturing Date: Active

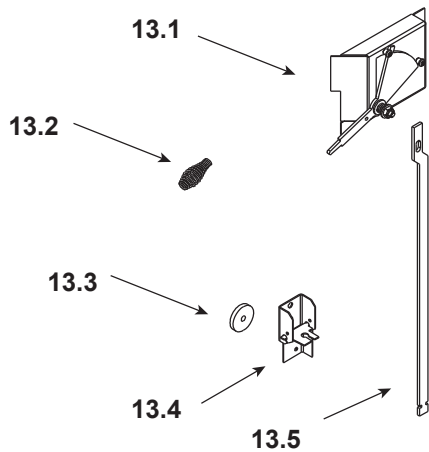
IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



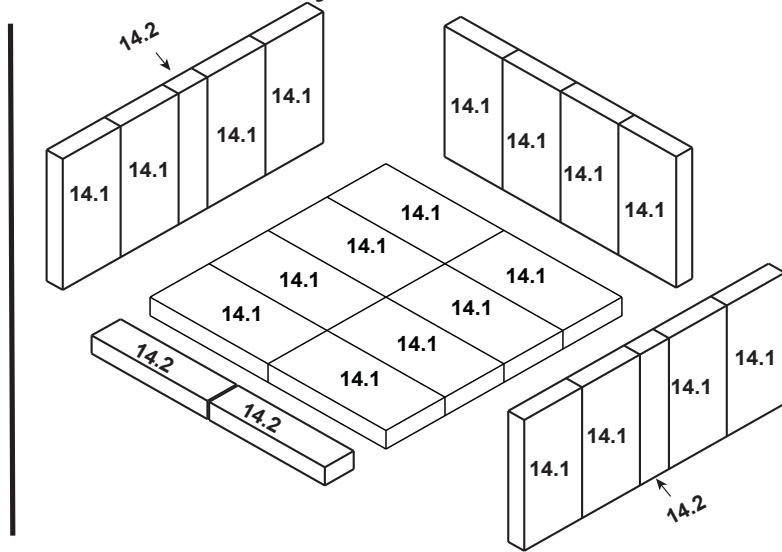
Stocked at Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
1	Convection Air Channel		SRV7057-112	
2	Combustion Air Channel		SRV7056-116	
3	Side Panel-Left		SRV7057-010	
4	Ceramic Blanket (1/2" Thick)		832-3390	Y
5	Baffle Board	Pkg of 2	SRV7057-116	Y
6	Baffle Protection Channel		SRV7056-147	
7	Retainers- Tube Support		SRV7057-118	
8	Pedestal Assembly		SRV7057-005	
9	OA Cover Plate		SRV7044-217	
10	Side Panel-Right		SRV7057-008	
11	Tube Channel Cover		SRV7057-122	
12	Tube Channel Assembly		SRV7057-007	Y

#13 Inlet Assembly



#14 Brick Assembly



13	Burn Rate Control			
13.1	Burn Rate Control Assembly		SRV7057-011	Y
13.2	Spring Handle, 1/4" Black		SRV7000-614	Y
13.3	Door Gasket		7033-282	Y
13.4	Inlet Door Assembly		SRV7056-009	
13.5	Inlet Lever		SRV7057-113	
14	Brick Assembly		SRV7057-003	
14.1	Brick 1 (9 X 4.5 X 1.25)	Qty 20 Req		
14.2	Brick 2 (9 X 2.25 X 1.25)	Qty 4 req.		
	Brick, Single Uncut		832-0550	
	Brick, 6 Pack Uncut		832-3040	

Additional Service Parts on following page.

D. Accessories



Service Parts

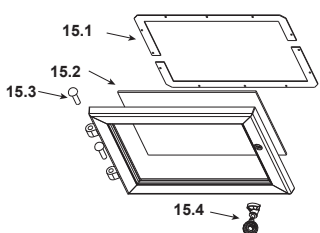
ECO-ADV-WS22

Beginning Manufacturing Date: Mar 2010
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	
#15 Door Assembly 				
15	Door Assembly		SRV7056-011	
15.1	Glass Frame	Pkg of 2	SRV7044-191	
15.2	Glass Assembly		SRV7044-027	Y
15.3	Hinge Pins	Pkg of 2	7000-606/2	
15.4	Door Hardware		SRV7056-012	
	Gasket, Door rope	7 FT Length	832-1680	Y
Accessories				
	Blower Assembly		BK-ACC	
	Blower Control Box W/Switch		SRV7000-194	Y
	Blower Replacement		812-4900	Y
	Component Pack		7033-051	
	Magnet Round		SRV7000-140	Y
	Snap Disc Bracket Assembly		SRV7033-036	
	Snap Disc, #1, Convection Blower		SRV230-0470	Y
	Wire Harness		7033-262	
	Component Pack, Stove Contains: Screws, Handle, Spring Handle (1/4" Black), Warranty Card, OA Cover Plate, Manual, Efficiency Label, EPA Label, and Startup and Maintenance Guide		SRV7057-006	
	Outside Air Kit		OAK-ACC	
	Outside Air Collar Assembly		7033-039	
	Outside Air shield		33271	Y
Fastener Packs				
	AVK Rivnut Repair Kit 1/4 -20 & 3/8-16 Rivnut Tools		RIVNUT-REPAIR	Y
	Bolt, Hex Head	Pkg of 10	25221A/10	Y
	Guide Pin Sleeve	Pkg of 25	31120/25	Y
	Nut SER FL SMALL 1/4-20	Pkg of 24	226-0130/24	Y
	Nut, 2-WY SIDE-LOCK JAM 3	Pkg of 24	226-0100/24	Y
	Nut, Lock 1/4-20	Pkg of 25	226-0090/25	Y
	Screw HWH MS 1/4-20 X3/4 NS	Pkg of 25	220-0080/25	Y
	Screw PH PHL TC 8-32X1/2	Pkg of 25	220-0030/25	Y
	SMS #8 X 1/2 S-GRIP BO	Pkg of 40	12460/40	Y
	Washer, 1/4 SAE	Pkg of 24	28758/24	Y
	Washer, SAE	Pkg of 25	227-0080/25	Y



CONTACT INFORMATION

Hearth & Home Technologies
 352 Mountain House Road
 Halifax, PA 17032
 Division of HNI INDUSTRIES

Please contact your Heatilator Eco-Choice dealer with any questions or concerns.
 For the number of your nearest Heatilator Eco-Choice dealer
 log onto www.heatilatorecochoice.com



CAUTION



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 of this appliance.



We recommend that you record the following pertinent information for your heating appliance.

Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer Phone: 1() - _____

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.



HEARTH & HOME
 technologies[™]