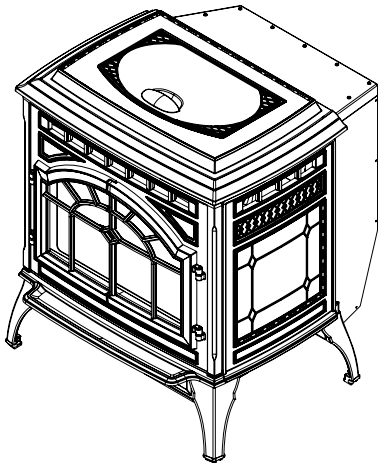


QUADRA-FIRE®

MT. VERNON PELLET STOVE ADVANCED ENERGY (AE)



Owner's Manual Installation and Operation

Models:

MTVERNON-AE-MBK

MTVERNON-AE-PMH

MTVERNON-AE-CSB

MTVERNON-AE-CWL

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



NOTICE

DO NOT DISCARD THIS MANUAL



- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



WARNING



Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

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



WARNING



HOT SURFACES!

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

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- 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.


CAUTION

Tested and approved for wood pellets, shelled field corn, wheat and black oil sunflower seeds. Burning of any other type of fuel voids your warranty.

CAUTION

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

Congratulations 
and Welcome to the Quadra-Fire Family!

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

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

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

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

LOCATION OF SAMPLE SERIAL NUMBER / SAFETY LABEL: Back of Stove

Serial No.

Model Name

QUADRA-FIRE
Mt. Vernon Pellet Stove AE
SERIAL NO. / NUMERO DU
007001

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

Listed Solid Fuel Room Heater/Pellet Type Stove. Also suitable for Mobile Home Installation. This appliance has been tested and listed for use in Manufactured Homes in accordance with OAR 814-23-9000 through 814-23-9005.

Tested to: ASTM E1509-04, ULC S622-00, ULC/ORD-C1482-M1990 Room Heating Pellet Burning Type, (UM) 84-HUD FOR USE ONLY WITH PELLETIZED WOOD. See Owner's Manual for other fuel options.

Input Rating: 60,000 Btu's/hr. Electrical Rating: 115 VAC, 60 Hz, Start 5 Amps, Run 12.5 AMPS.

Route power cord away from unit. Do not route cord under or in front of appliance.

DANGER: Risk of electrical shock. Disconnect power supply before servicing. Replace glass only with 5mm ceramic available from your dealer. To start, set thermostat above room temperature, the stove will light automatically. To shutdown, set thermostat to below room temperature. For further instruction refer to owner's manual. Keep viewing and ash removal doors tightly closed during operation.

ALCOVE INSTALLATION:
Min. Alcove Height: 43 in. (1092mm)
Min. Alcove Side Wall: 6 in. (152mm)
Min. Alcove Width: 40 in. (1016mm)
Max. Alcove Depth: 36 in. (914mm)

A	2 in. (51mm)
B	6 in. (152mm)
C	2 in. (51mm)
D	3 in. (76mm)
E	6 in. (152mm)
F	8 in. (203mm)
G	3 in. (76mm)

Note 1: In residential installations, when using Parts TPVNT-MV, (3 in. - 3 in. Top Vent Adapter) and 812-3570 (3 in. - 6 in. Offset Adapter), 24 gauge 6 in. Single wall flue connector may be used.

Note 2: In manufactured home installation, when using Part TPVNT-MV, (3 in. - 3 in. Top Vent Adapter) and 812-3570 (3 in. - 6 in. Offset Adapter), use listed double wall flue connector. An Outside Air Kit (Part 811-0872), must be used with manufactured home installation.

FLOOR PROTECTION
I' = 2 in. (51mm)
J = 2 in. (51mm)
K = 6 in. (152mm)

Use a non-combustible floor protector, extending beneath heater and to the front/sides/rear as indicated. Measure front distance (K) from the surface of the glass door.

*Non-combustible floor protection must extend beneath the flue pipe when installed with horizontal venting or under the Top Vent Adapter with vertical installation. RECOMMENDED IN USA

ESPACE LIBRE MINIMUM DES MATÉRIEAUX COMBUSTIBLES:

A	2 in. (51mm)	E	6 in. (152mm)
B	6 in. (152mm)	F	8 in. (203mm)
C	2 in. (51mm)	G	3 in. (76mm)
D	3 in. (76mm)		

INSTALLATION DE L'ALCÔVE
Une hauteur minimum de l'alcôve: 43 in. (1092mm)
Une hauteur minimum mur de l'alcôve: 6 in. (152mm)
Une épaisseur minimum mur de l'alcôve: 40 in. (1016mm)
La profondeur maximum de l'alcôve: 36 in. (914mm)

Note 1: Dans les installations résidentielles, lorsque les pièces TPVNT-MV, (dessus de l'adaptateur de ventilation 3 in. - 3 in.) et 812-3570 (le ressaut de l'adaptateur 3 in. - 6 in.), un tuyau connecteur de 6 in. pour mur simple calibre 24 peut être utilisé.

Note 2: Dans les installations dans les maisons préfabriquées, lorsque les pièces TPVNT-MV, (dessus de l'adaptateur de ventilation 3 in. - 3 in.) et 812-3570 (le ressaut de l'adaptateur 3 in. - 6 in.), utilisez un tuyau connecteur enregistré pour mur double. Un assemblage d'air extérieur (pièce 811-0872), doit être utilisé pour l'installation dans les maisons préfabriquées.

PROTECTION DU SOL

I'	2 in. (51mm)
J	2 in. (51mm)
K	6 in. (152mm)

Manufactured by / Fabriqué par:
HEARTH & HOME
1445 Highway North,
Colville, WA 99114
www.quadrafire.com
Made in the USA
Fait-Aux États-Unix

DO NOT REMOVE THIS LABEL
NE PAS ENLEVER L'ÉTIQUETTE

CAUTION: HOT WHILE IN OPERATION DO NOT TOUCH, KEEP CHILDREN, CLOTHING AND FURNITURE AWAY.

ATTENTION: 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. VOIR

CALENDRIER

JAN	FEB	MAR	APR	MAY	JUN
■	■	■	■	■	■
JULY	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■
2007	2008	2009			

Report / Rapport
061-S-68-6

7034-107B

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Listing and Code Approvals

A. Appliance Certification

Model	Mt. Vernon Pellet Stove AE
Laboratory	OMNI Test Laboratories, Inc.
Report No.	061-S-68-6
Type	Solid Fuel Room Heater/Pellet Type
Standard	ASTM E1509-04, ULC S627-00 and ULC/ORD-C1482-M1990 Room Heater Pellet Fuel Burning type and (UM) 84-HUD, Mobile Home Approved.
FCC	Complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

B. Mobile Home Approved

This appliance is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is provided. The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The appliance must be properly grounded to the frame of the mobile home and use only listed pellet vent Class "L" or "PL" connector pipe. A Quadra-Fire Outside Air Kit must be installed in a mobile home installation.

C. Glass Specifications

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

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the **ASTM E1509, ULC S627-00, (UM) 84-HUD and ULC/ORD-C-1482.**

D. Electrical Rating

115 VAC, 60 Hz, Start 5 Amps, Run 1.25 Amps

E. BTU & Efficiency Specifications

Emissions Rating:	EPA Compliance
*BTU Output:	14,620 - 60,200
Efficiency:	81.4% - 83.6%
Heating Capacity:	2,400 - 3,800 square feet depending on heating zone
Hopper Capacity:	81 lbs
Fuels:	Pellets, Shelled Field Corn, Wheat and Black Sunflower Seeds
Shipping Weight:	429 lbs

*BTU output will vary, depending on the type of fuel you use in your stove. Consult your Quadra-Fire dealer for best results.

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

2

Getting Started

A. Design, Installation & Location Considerations

1. Appliance Location

OT Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation

Consideration must be given to:

- Safety, convenience, traffic flow
- Placement of the chimney and chimney connector.
- 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.
- Installing an optional outside air kit would affect the location of the vent termination.

Since pellet exhaust can contain ash, soot or sparks, you must consider the location of:

- Windows
- Air Intakes
- Air Conditioner
- Overhang, soffits, porch roofs, adjacent walls
- Landscaping, vegetation

When locating vent and venting termination, vent above roof line when possible.

Damaged parts could impair safe operation. Do NOT install damaged, incomplete or substitute components.

TO If burning shelled field corn, you must use approved venting specifically designed for corn to prevent corrosion or degradation. Follow the instructions from the venting manufacturer.

OT Locating the appliance 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

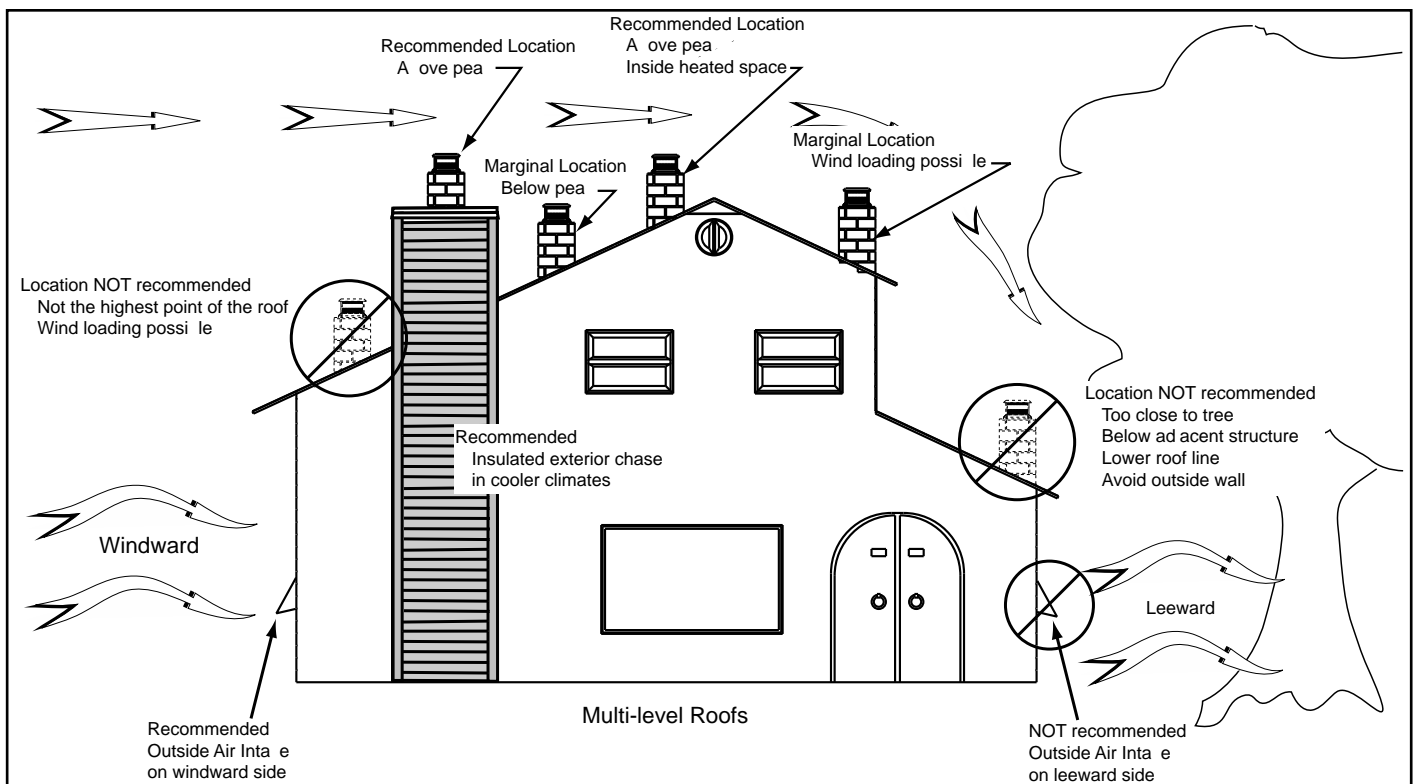


Figure 5.1

B. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance.

- Install through the warm airspace 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 effects of wind loading.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.
- Take into consideration the termination requirements on **Page 10**.



CAUTION

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

C. Wall Control Thermostat

The wall control's location will have some affect on the appliance's operation.

- When located close to the appliance, it may require a slightly higher temperature setting to keep the rest of the house comfortable.
- When located in an adjacent room or on a different floor level, you will notice higher temperatures near the appliance.

T O T

D. Draft

Draft is the pressure difference needed to vent appliances successfully. When an appliance is drafting successfully, all combustion byproducts are exiting the home through the chimney.

Considerations for successful draft include:

- Preventing negative pressure
- Location of appliance and chimney

OT *Hearth & Home Technologies assumes no responsibility for the improper performance of the chimney system caused by:*

- *Inadequate draft due to environmental conditions*
- *Downdrafts*
- *Tight sealing construction of the structure*
- *Mechanical exhausting devices*

E. Negative Pressure

Negative pressure can cause spillage of combustion fumes and soot.

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 heaters 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

F. Fire Safety


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

- Install at least one smoke detector on each floor of your home.
- Locate smoke detector away from the heating appliance and close to the sleeping areas.
- Follow the smoke detector manufacturer’s placement and installation instructions and maintain regularly.
- Conveniently locate a Class A fire extinguisher to contend with small fires.
- In the event of a hopper fire:
 - Evacuate the house immediately.
 - Notify fire department.


G. Tools And Supplies Needed

Tools and building supplies normally required for installation, unless installing into an existing masonry fireplace:	
Reciprocating Saw	Safety Glasses
Channel Locks	Framing Square
Hammer	Electric Drill & Bits (1/4")
Phillips Screwdriver	1/4" Self-Tapping Screws
Tape Measure	
Plumb Line	<u>May also need:</u>
Level	Vent Support Straps
Framing Material	Venting Paint
Hi-temp Caulking Material	
Gloves	

H. Inspect Appliance & Components and Pre-Use Check List




WARNING



Fire Risk.


- Do not operate appliance before reading and understanding operating instructions.



Failure to operate appliance properly may cause a house fire.



WARNING



Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance.
- Modification of the appliance.
- Installation other than as instructed by Hearth & Home Technologies.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.
- Operating appliance without fully assembling all components.
- Operating appliance without legs attached (if supplied with unit).
- Do NOT Overfire

Or any such action that may cause a fire hazard.

1.		Place the appliance in a location near the final installation area and follow the procedures below:
2.		Open the appliance and remove all the parts and articles packed inside the Component Pack. Inspect all the parts and glass for shipping damage. Contact your dealer if any irregularities are noticed. Remove rubber band from ash pan installed for shipping purposes only.
3.		All safety warnings have been read and followed.
4.		This Owner’s Manual has been read.
5.		Floor protection requirements have been met.
6.		Venting is properly installed.
7.		The proper clearances from the appliance and chimney to combustible materials have been met.
8.		The masonry chimney is inspected by a professional and is clean, or the factory built metal chimney is installed according to the manufacturer’s instructions and clearances.
9.		The chimney meets the required minimum height.
10.		All labels have been removed from the glass door.
11.		Plated surfaces have been wiped clean, if applicable.
12.		Wall Control Thermostat has been installed.
13.		A power outlet is available nearby.
14.		A good quality surge protectory is highly recommended to protect the electronics.

3 Dimensions and Clearances

A. Appliance Dimensions

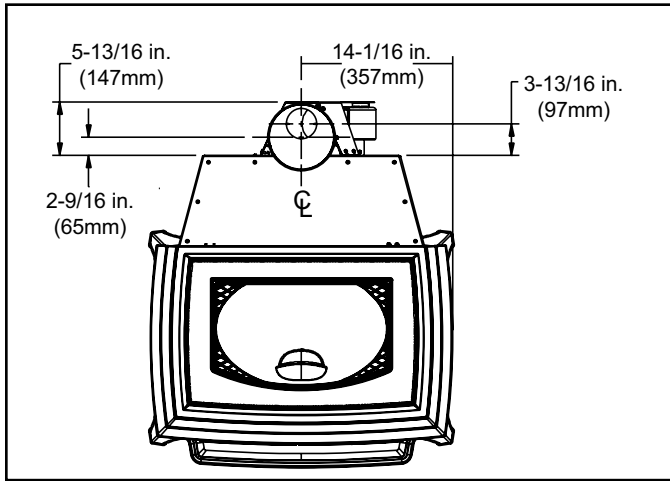


Figure 8.1 - Top View with Top Vent Adapter and 3 to 6 in (76-152mm) Adapter

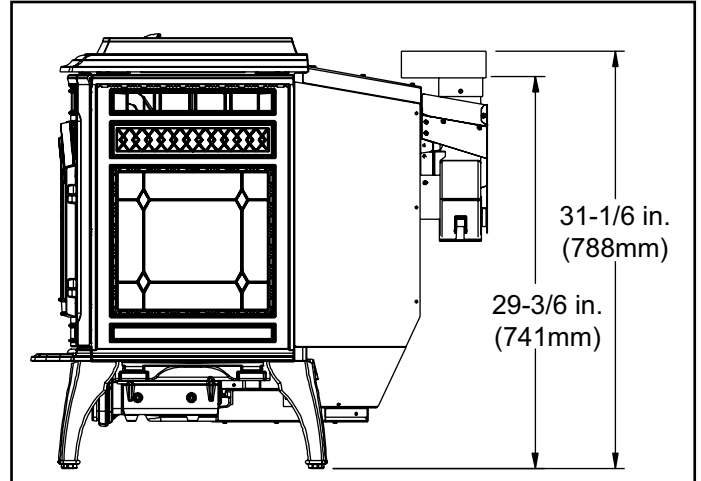


Figure 8.2 - Side View with Top Vent Adapter and 3 to 6 in (76-152mm) Offset Adapter.

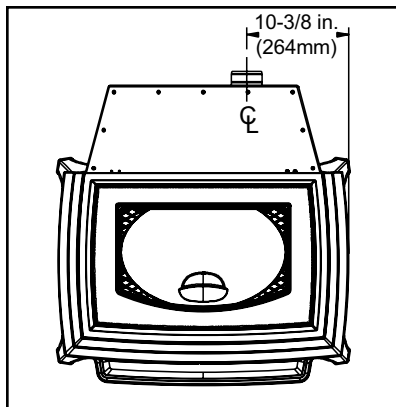


Figure 8.3 - Top View

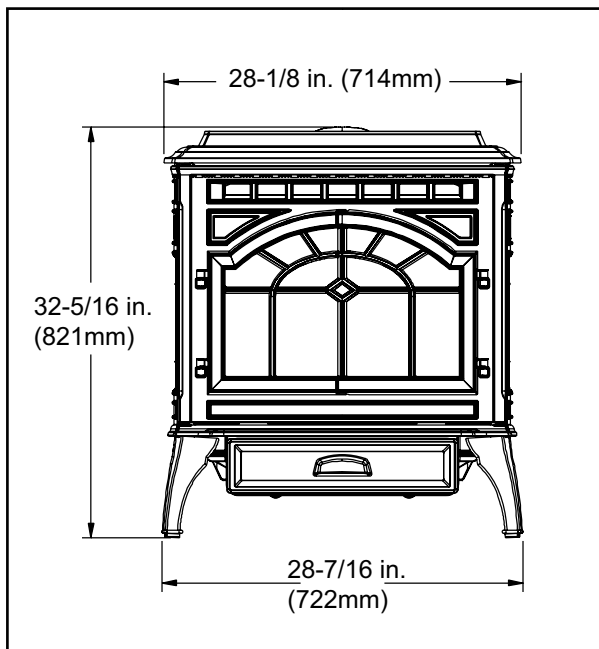


Figure 8.4 - Front View

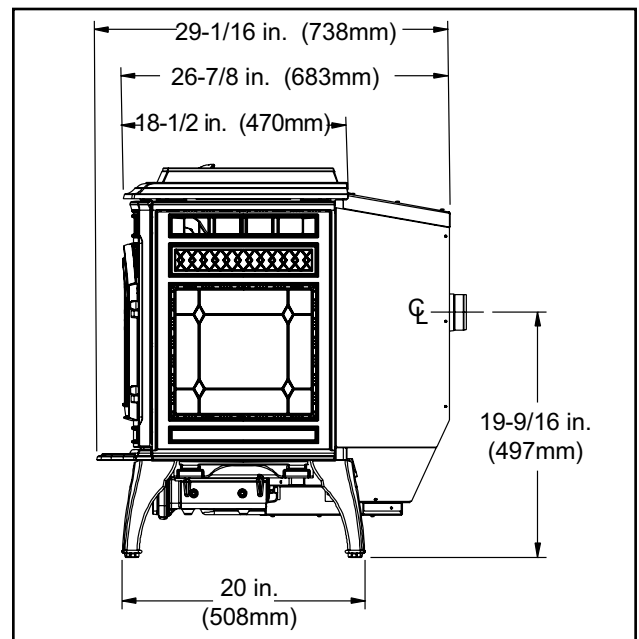
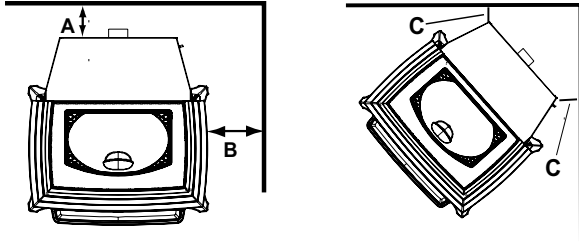


Figure 8.5 - Side View

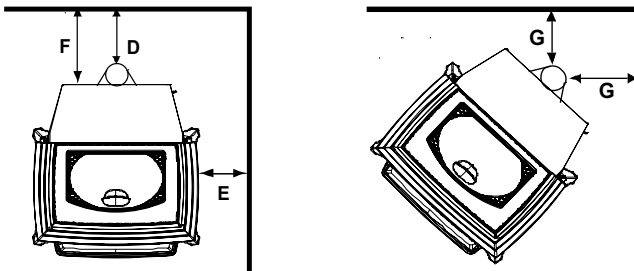
B. Clearances to Combustibles (UL and ULC)



Straight Back Against Wall		Inches	Millimeters
A	Back Wall to Appliance	2	51
B	Side Wall to Appliance	6	152

Corner Installation		Inches	Millimeters
C	Walls to Appliance	2	51

**Installations with:
3 to 3 inch Top Vent Adapter and
3 to 6 inch Offset Adapter Kit**



Vertical Installation		Inches	Millimeters
D	Back Wall to Flue Pipe	3	76
E	Side Wall to Appliance	6	152
F	Back Wall to Appliance	8	203

Corner Installation		Inches	Millimeters
G	Side Wall to Flue Pipe	3	76

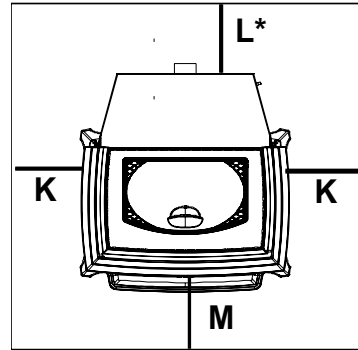
Alcove Installation		Inches	Millimeters
Minimum Alcove Height		43	1092
Minimum Alcove Side Wall		6	152
Minimum Alcove Width		40	1016
Maximum Alcove Depth		36	914

NOTE:

- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

C. Hearth Pad Requirements (UL and ULC)

Use a non-combustible floor protector, extending beneath appliance and to the front, sides and rear as indicated. Measure front distance "M" from the surface of the glass door.

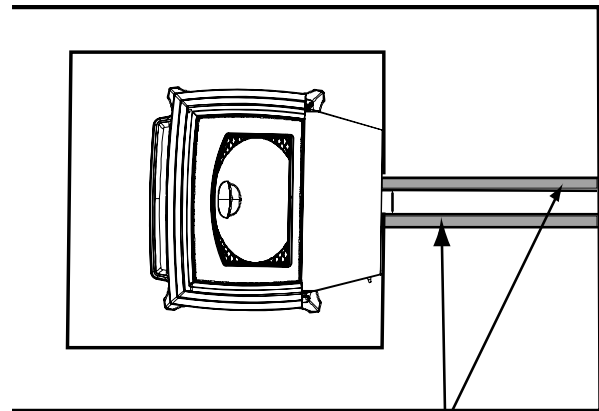


Hearth Pad Requirements		Inches	Millimeters
K	Sides	2	51
L*	Back	2	51
M	Front	6	152

***L Exception for Horizontal Installations:**

USA INSTALLATIONS: A non-combustible floor protection is recommended extending beneath the flue pipe when installed with horizontal venting or under the Top Vent Adapter with vertical installation.

CANADA INSTALLATIONS: A non-combustible floor protection extending beneath the flue pipe is **required** with horizontal venting or under the Top Vent Adapter with vertical installation.



Must extend 2 inches (51mm) beyond each side of pipe (shaded area)

WARNING



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

4 Vent Information

A. Venting Termination Minimum Requirements

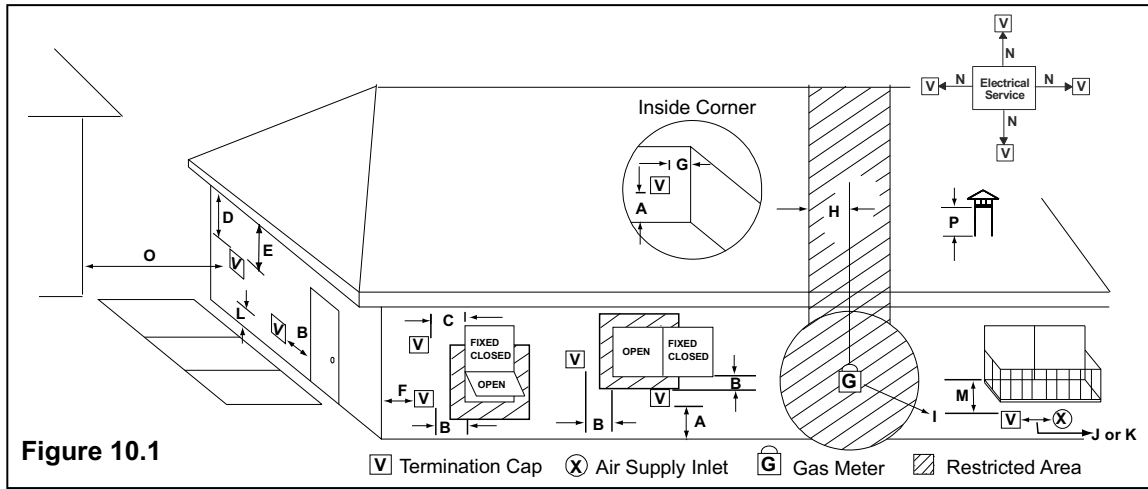


Figure 10.1

All minimum clearances are listed with an Outside Air Kit (OAK) installed, unless otherwise noted in table below.

A	12 in.	Above Finish Grade (the grade surface must be a non-combustible material)
B	12 in. 48 in. no OAK	Open door or window: below or to the side
B	12 in.	Open door or window: above
C	6 in.	Permanently closed window: above, below or to the side
D	18 in. 36 in. no OAK	Vertical clearance to a ventilated soffit located above the terminal within a horizontal distance of 2 ft from the center-line of the terminal
E	12 in.	Clearance to unventilated soffit
F	12 in.	Clearance to outside corner
G	12 in.	Clearance to inside corner
H	36 in.	Above gas meter/regulator measured from horizontal center-line of regulator
I	36 in. USA 72 in. Canada	Clearance to service regulator vent outlet
J	12 in. 48 in. no OAK	Clearance to non-mechanical air supply inlet to the building or the combustions air inlet to any other appliance
K	10 ft horizontal 3 ft vertical	Clearance to mechanical air supply
L	7 ft.	Above paved sidewalk, paved driveway located on public property
M	12 in.	Under an open veranda, porch, deck or balcony
N	See Note below*	Electric service: above, below or to the side (location must not obstruct or interfere with access)
O	24 in.	Adjacent building, fences and protruding parts of the structure
P	12 in.	Clearance above roof line for vertical terminations

24 in.	Above grass, top of plants, wood or any other combustible
12 in. 36 in. no OAK	Clearance from any forced air intake of other appliance
12 in.	Clearance horizontally from combustible wall
15 in.	Vented directly through a wall, minimum length of horizontal pipe
6 in. horizontal 12 in. vertical	Minimum horizontal or vertical terminations must protrude from wall

OT

Do NOT Terminate Vent:

- In any location that will allow flue gases or soot from entering or staining the building
- In any location which could create a nuisance or hazard
- In any enclosed or semi-enclosed area such as a carport, garage, attic, crawl space, under a sun deck or porch, narrow walkway
- Closely fenced area, or any location that can build up a concentration of fumes such as a stairwell, covered breezeway, etc.

OT

Termination must exhaust above air inlet elevation.

- It is recommended that at least 60 inches (1524mm) of vertical pipe be installed when appliance is vented directly through a wall. This will create a natural draft, which will help prevent the possibility of smoke or odor venting into the home during a power outage.
- It will also keep exhaust from causing a nuisance or hazard by exposing people or shrubs to high temperatures.
- The safest and preferred venting method is to extend the vent vertically through the roof or above the roof.


*NOTE: Consult local building, fire officials or authorities having jurisdiction. Local codes or regulations may require different clearances.

B. Chimney and Exhaust Connection

- Chimney & Connector:** Use 3 or 4 inch (76-102mm) diameter type "L" or "PL" venting system. It can be vented vertically or horizontally.
- Mobile Home:** Approved for all Listed pellet vent. If using the 3 inch (76mm) vertical Top Vent Adapter Kit or the 3 to 6 inch (76-152mm) Top Vent Offset Adapter, use Listed double wall flue connector. A Quadra-Fire Outside Air Kit must be used with manufactured home installations.
- Residential:** The 3 inch (76mm) vertical Top Vent Adapter Kit and the 3 to 6 inch (76-152mm) Top Vent Offset Adapter are tested to use 24 gauge single wall flue connector or Listed double wall flue connector to Class A Listed metal chimneys, or masonry chimneys meeting International Residential Code standards for solid fuel appliances.
- INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**
- Secure exhaust venting system to the appliance with at least 3 screws. Also secure all connector pipe joints with at least 3 screws through each joint.


NOTE: All pipe must be welded seam pipe whenever possible. Seal pipe joints with high temperature silicone (500°F [260°C] minimum rated only).

NOTE: If burning shelled field corn, you must use approved venting specifically designed for corn. Follow the instructions from the venting manufacturer.



WARNING

Fire Risk

- Only LISTED venting components may be used.
- NO OTHER vent components may be used. Substitute or damaged vent components may impair safe operation.


WARNING

Vent surfaces get HOT, can cause burns if touched. Non-combustible shielding or guards may be required.

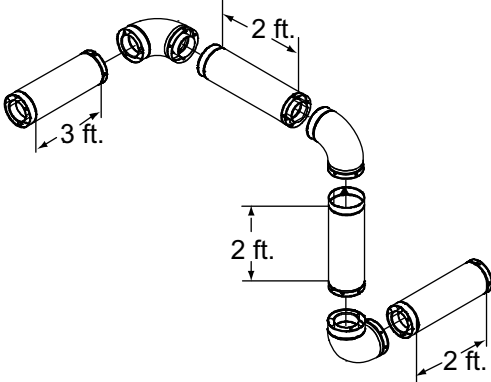

WARNING

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

C. Equivalent Feet of Pipe

The table below can help you calculate the equivalent feet of pipe which is a method used to determine pellet vent size. See Figure 11.1.

Example of 3 Elbow-Rear Vent Termination Calculation



Pellet Venting Component	# of Elbows	Feet of Pipe	Multiplied By	Equivalent Feet	Components Equivalent Feet
90° Elbow or Tee	3		X	5	15
45° Elbow			X	3	
Horizontal Pipe		7	X	1	7
Vertical Pipe		2	X	0.5	1
<i>Total Equivalent Feet</i>					23

Note: This is a generic example and is not intended to represent any specific fuel type.

Figure 11.1

D. Pipe Selection Chart

The chart will help you in determining proper venting size according to the equivalent feet of pipe calculated in Vent Termination Calculation Table and the altitude above sea level of this installation. **See Figure 12.1.**

Locate the calculated equivalent feet of pipe on the vertical left side of the chart. Move to the right horizontally on the chart until you reach your altitude above sea level.

If you fall below the diagonal line, 3 or 4 inch (76 to 102mm) pipe may be used. If it is anywhere above the diagonal line, a 4 inch (102mm) diameter pipe is required.

The chart reveals that a 90° elbow is 5 times as restrictive to the flow of exhaust gases under positive pressure as one foot of horizontal pipe, and a foot of horizontal pipe is twice as restrictive as a foot of vertical pipe.

WARNING

Fire Risk.

Do NOT pack insulation or other combustibles between firestops.

- ALWAYS maintain specified clearances around venting and firestop systems.
- Install firestops as specified.

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

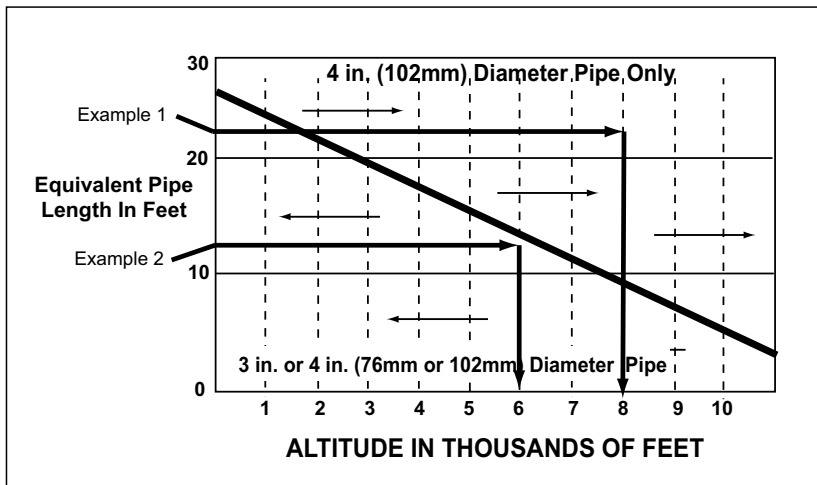


Figure 12.1

Example 1: If the equivalent length of pipe is 23 feet with altitude of 8,000 feet you must use 4 inch (102mm) diameter type “L” or “PL” vent.

Example 2: If the equivalent length of pipe is 12 feet with altitude of 6,000 feet you may use 3 or 4 inch (76 to 102mm) diameter type “L” or “PL” vent

5 Venting Systems

A. Alcove

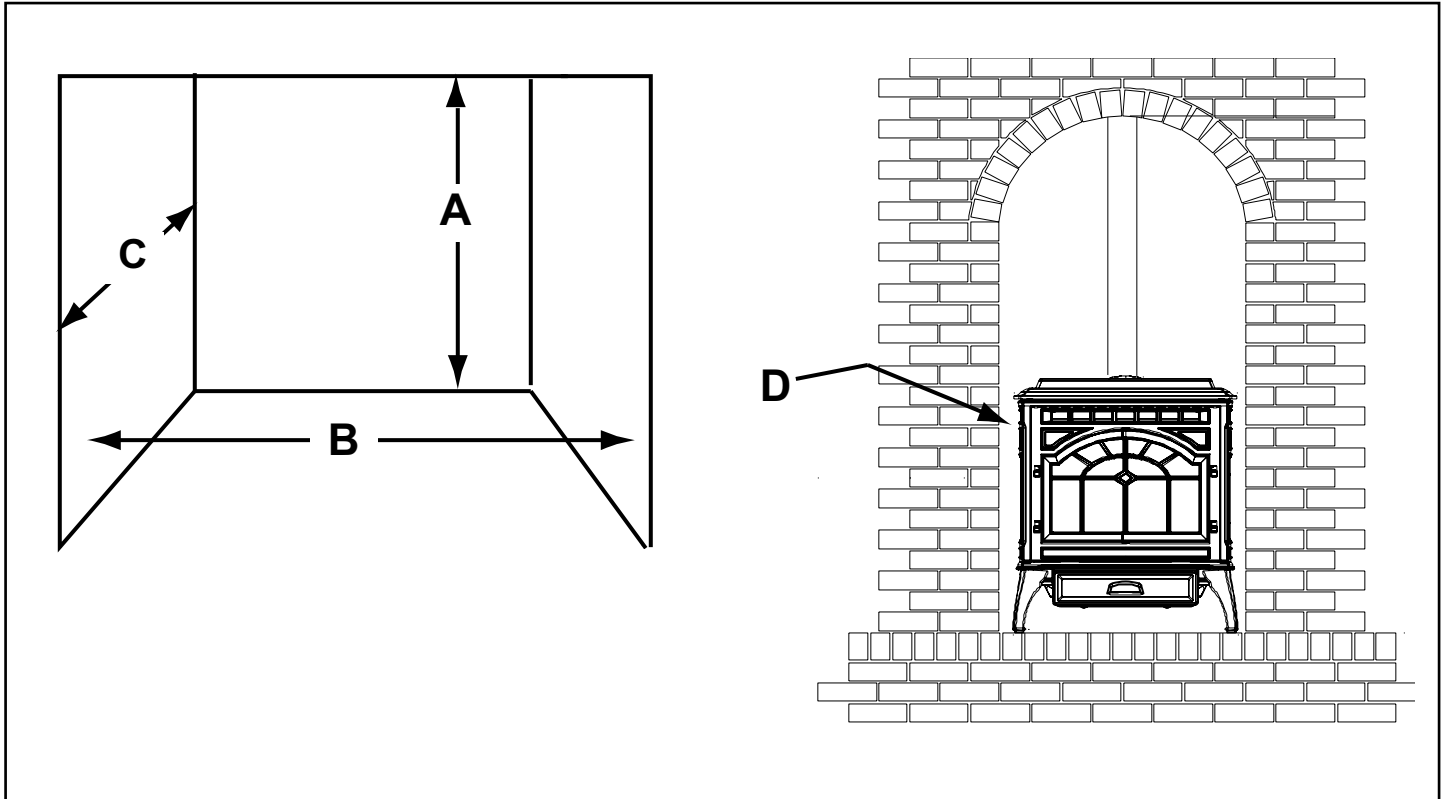


Figure 13.1

		Minimum*		Maximum	
		Inches	Millimeters	Inches	Millimeters
A	Height	43	1092	n/a	n/a
B	Width	40	1016	n/a	n/a
C	Depth	n/a	n/a	36	914
D	To Side Wall	6	152	n/a	n/a

*All minimums listed are to a combustible surface.

NOTE:

- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

B. Through The Wall

Horizontal termination cap must be a minimum of 6 inches. (152mm) from the wall. Approved for mobile home installations. Must use 3 or 4 inch (76-102mm) "L" or "PL" Listed pellet venting or Listed double wall pipe and a Quadra-Fire Outside Air Kit in mobile homes.

NOTE:
In Canada, where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365

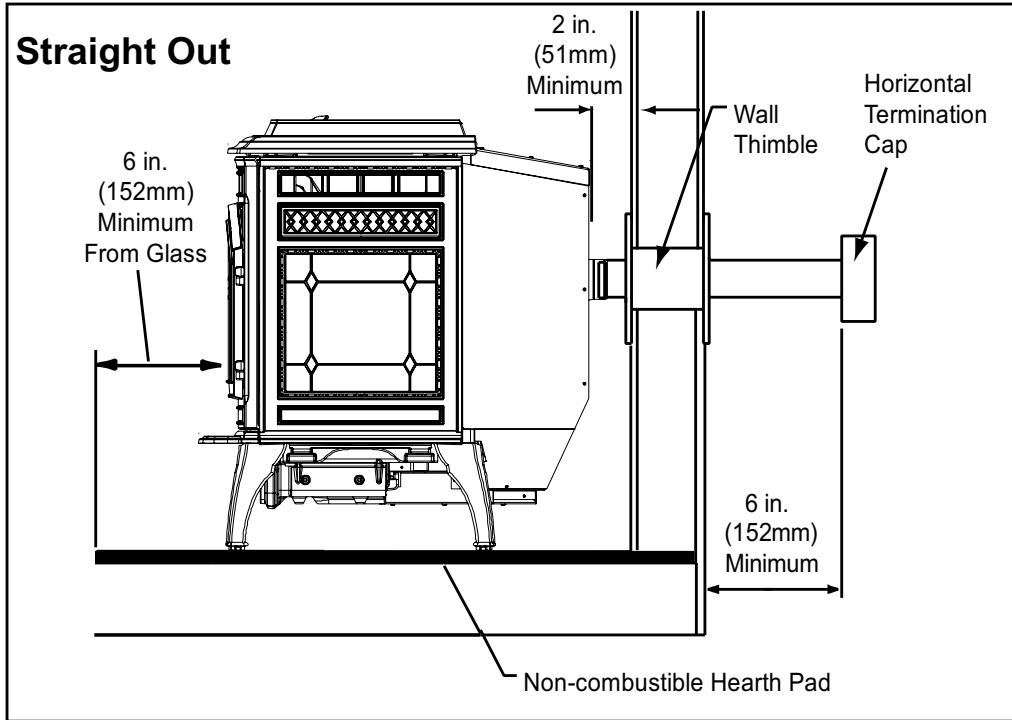


Figure 14.1

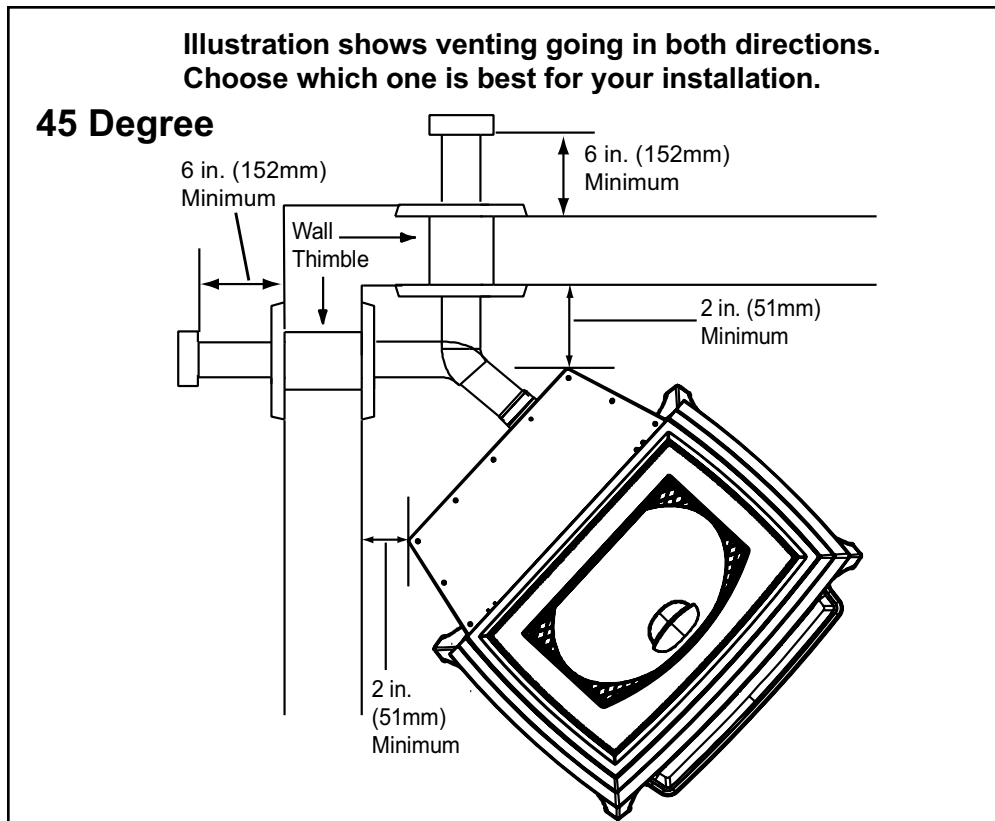


Figure 14.2

C. Vertical into Existing Class A Chimney

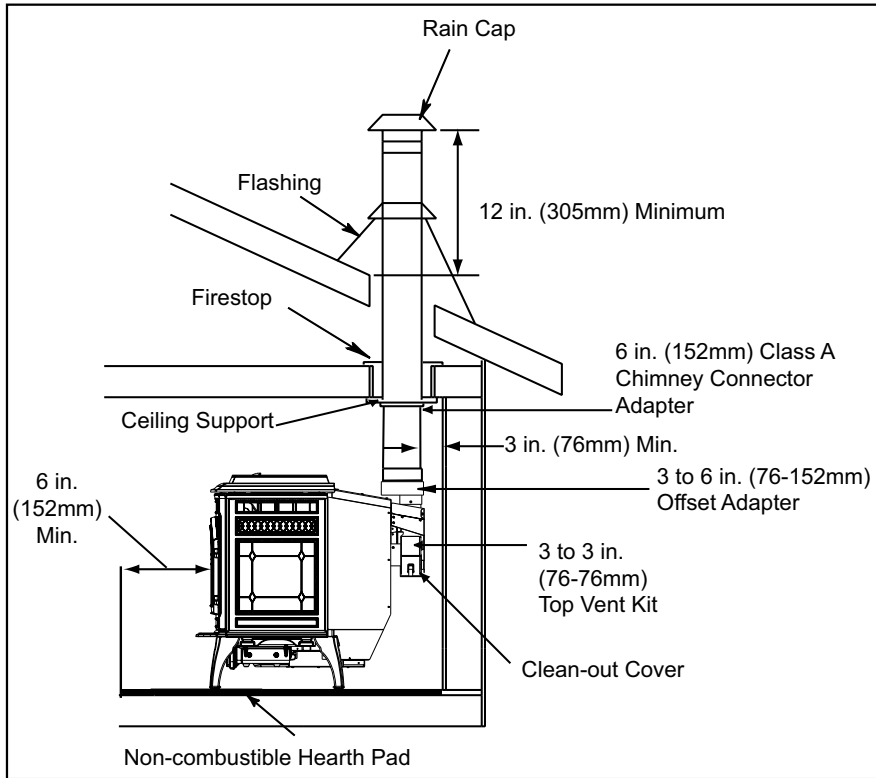


Figure 15.1

We recommend a minimum of 60 inches (1524mm) vertical, however above the eave is preferred.

All three installations are approved for mobile home installations. Must use 3 or 4 inch (76 to 102mm) "L" or "PL" Listed pellet venting or Listed double wall pipe and Quadra-Fire Outside Air Kit in mobile homes. Single wall pipe is approved for residential installations only.

*NOTE: Clearance to combustibles are for standard pellet pipe. If pellet pipe manufacturer allows reduced clearances to their pipe, reduced clearances are allowed.

D. Through The Wall & Vertical - Exterior

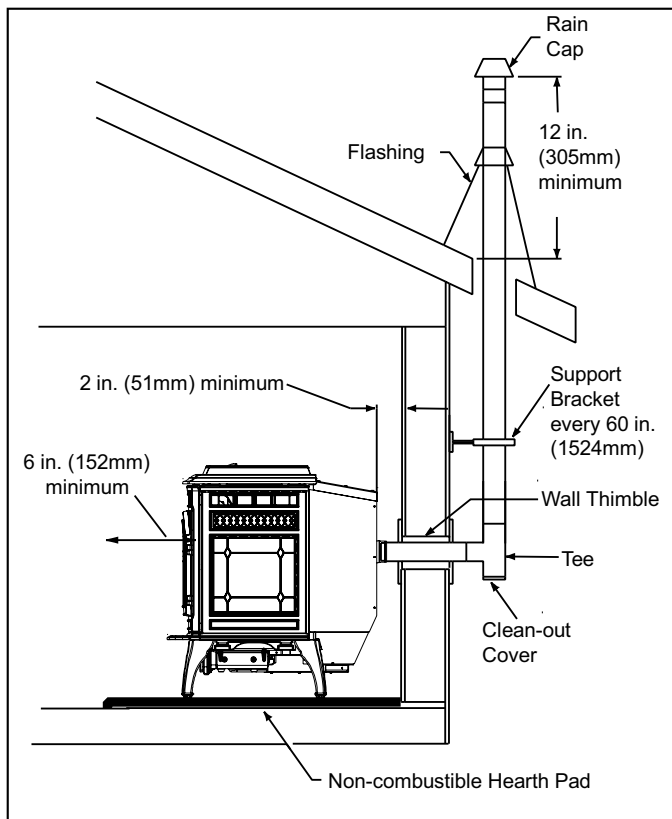


Figure 15.2

E. Vertical - Interior - Typical Installation

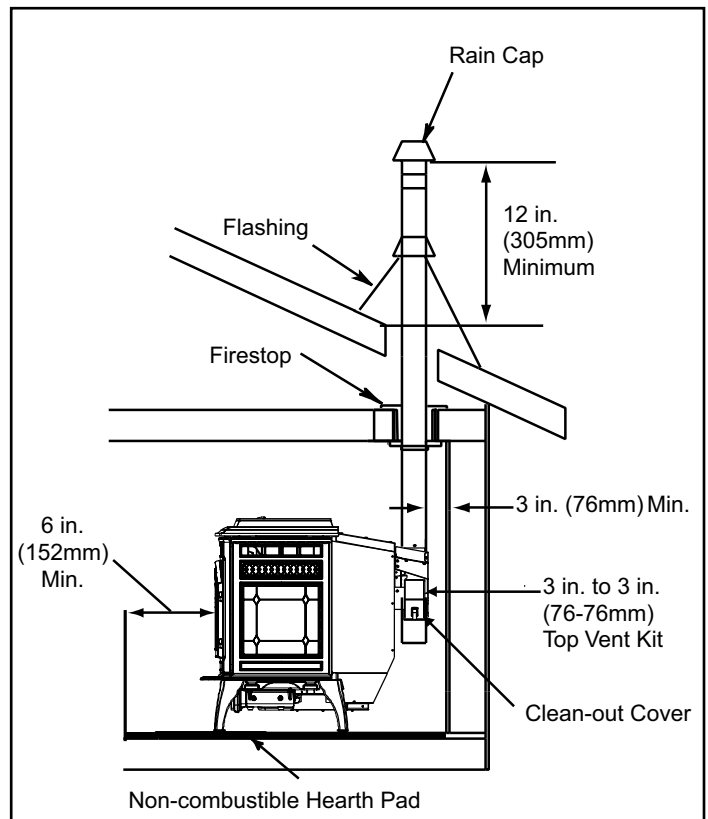




Figure 15.3


WARNING



Fire Risk.

Inspection of Chimney:

- Masonry chimney must be in good condition.
- Meets minimum standard of NFPA 211
- Factory-built chimney must be 6 inch (152mm) UL103 HT.

F. Masonry

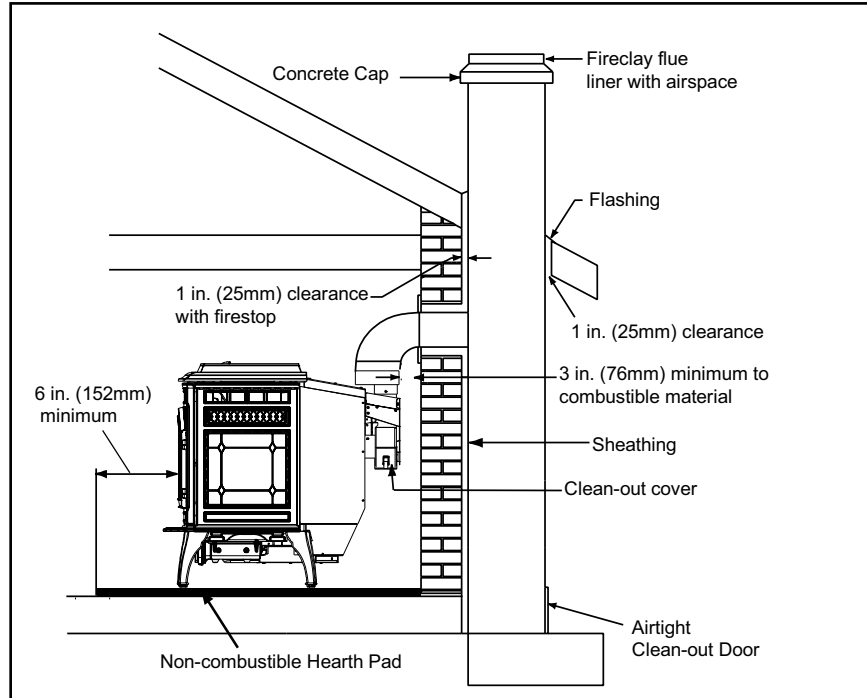


Figure 16.1

G. Alternate Masonry

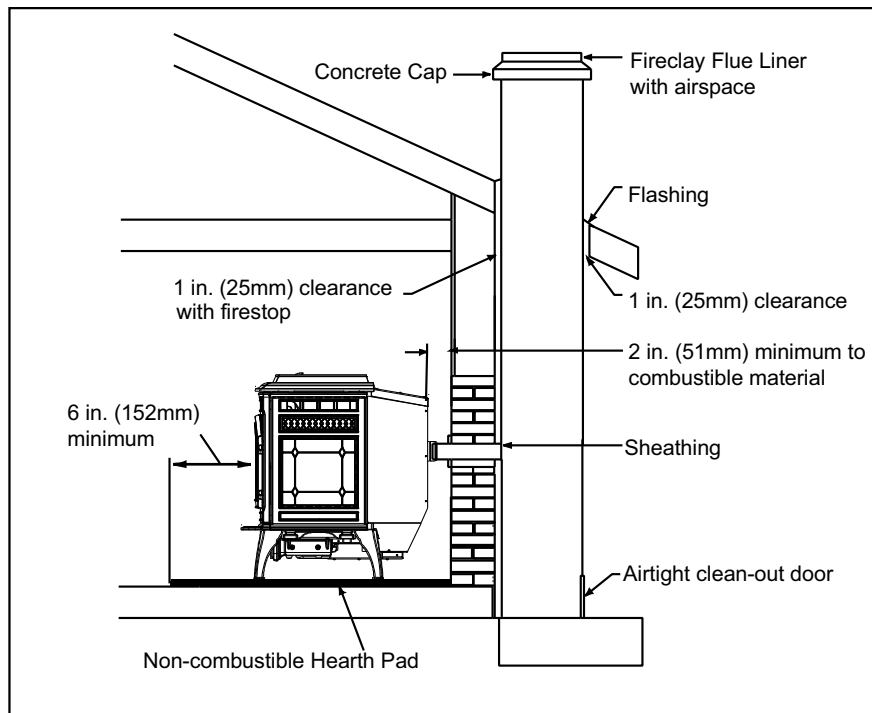


Figure 16.2

6 Mobile Home Installation

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

1. An outside air inlet must be provided for the combustion air and must remain clear of leaves, debris, ice and/or snow. It must be unrestricted while the appliance is in use to prevent room air starvation which causes smoke spillage. Smoke spillage can also set off smoke alarms.
2. The combustion air duct system must be made of metal. It must permit zero clearance to combustible construction and prevent material from dropping into the inlet or into the area beneath the dwelling and contain a rodent screen.
3. The appliance must be secured to the mobile home structure by bolting it to the floor (using lag bolts). Use the same holes that secured the appliance to the shipping pallet.
4. The appliance must be grounded with #8 solid copper grounding wire or equivalent, terminated at each end with an NEC approved grounding device.
5. Refer to Clearances to Combustibles and floor protection requirements on **page 9** for listings to combustibles and appropriate chimney systems.
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 manufacturer's instructions when installing the vent system for use in a mobile home.
8. Installation shall be in accordance with the Manufacturers Home & Safety Standard (HUD) CFR 3280, Part 24.

CAUTION
<p>Maintain structural integrity of mobile home:</p> <ul style="list-style-type: none"> • Floor, wall, ceiling and/or roof. <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.

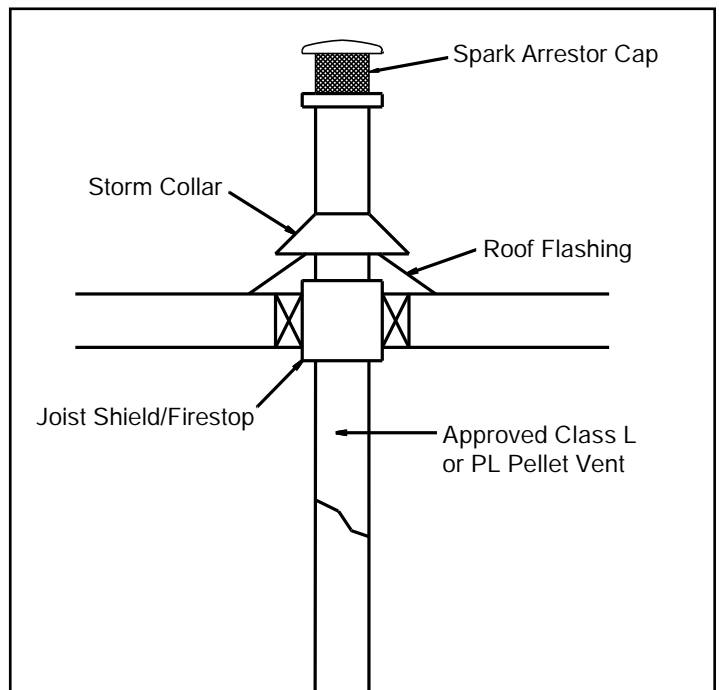


Figure 17.1

⚠ WARNING
<p>Installation must comply with Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24.</p>

⚠ WARNING
<p>Never install in a sleeping room.</p>

7 Appliance Set-Up

A. Leg Leveling System

1. Thread Allen bolts through nuts until flush. **Figure 18.1.** The Allen bolts and nuts are included in the component pack inside the appliance firebox.
2. Slide assembled nuts and bolts into slots on legs with the nuts on the bottom. **Figure 18.2.** Use a 5/32 in. (3.96mm) Allen wrench to adjust legs up and down to desired level. **Figure 18.3.**

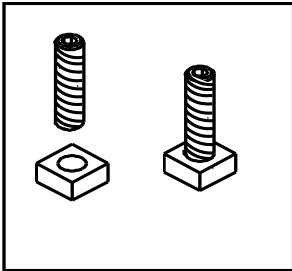


Figure 18.1

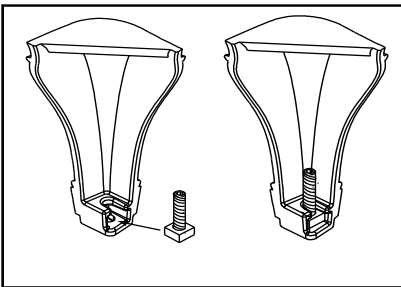


Figure 18.2

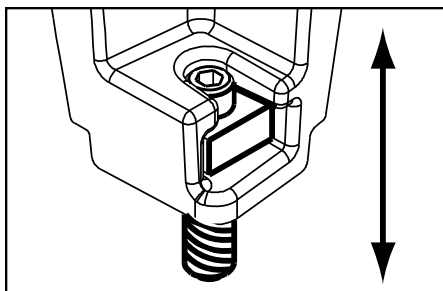


Figure 18.3 - Bolt fully extended

B. Outside Air Kit Instructions

CAUTION

- Never draw outside combustion air from:
- Wall, floor or ceiling cavity
 - Enclosed space such as an attic or garage

Included in Kit: 2 wire ties, 1 collar assembly, 1 termination cap assembly, 1 trim ring, fasteners.

NOTE: 3 INCH ALUMINUM FLEX PIPE NOT INCLUDED.

Tools Needed: Phillips head screw driver; wire cutters; hole saw or jig saw.

1. Measure distance from floor to air vent opening in appliance and mark location on wall.
Use saw to cut opening in wall. Cut a 3-1/2 to 4 inch (89-102mm) opening on inside wall and a 4 to 4-1/2 inch (102-114mm) opening on outside of house.
2. Use wire tie to secure flex pipe to collar assembly.
3. Slide trim ring over flex pipe and run pipe through wall.
4. Attach flex pipe (not supplied) to outside termination cap with second wire tie.
5. Secure termination cap to outside surface.
6. Secure trim ring to interior wall.

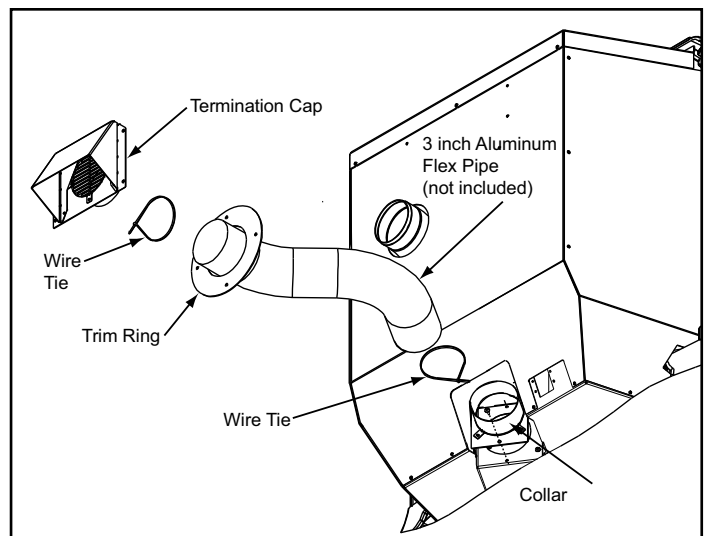


Figure 18.4

C. Top Vent Adapter Installation

- 3 to 3 inch Top Vent Adapter**
- 3 to 6 inch Top Vent Offset Adapter**

Installing the Top Vent Adapter

1. Put a layer of high temperature silicone on the 3 inch (76mm) exhaust outlet. **Figure 19.1.**
2. Slide the top vent adapter onto the rear exhaust outlet and adjust the assembly to a vertical position until the top of the flue outlet is centered and is in a level position. **Figure 19.1.**
3. Align slot on left of adapter with hole in the back of the unit and secure with screw. You may drill out the hole using #26 drill bit provided but only if needed. **Figure 19.2.**
4. Install the 5 mounting screws, 3 on the left and 2 on the right.
5. Drill 2 holes with #26 drill bit through the rear exhaust outlet using the 2 holes already in the short horizontal pipe in the top vent adapter as a guide. Install the screws. **Figure 19.2.**
6. Install the vent pipe into the top vent adapter (be sure to silicone all joints). To use an existing 6 inch (152mm) vent system, install the 3 to 6 in (76-152mm) offset adapter before installing vent pipe.
7. To clean top vent adapter, open clean-out cover and remove any debris build-up. **Figure 19.2.**

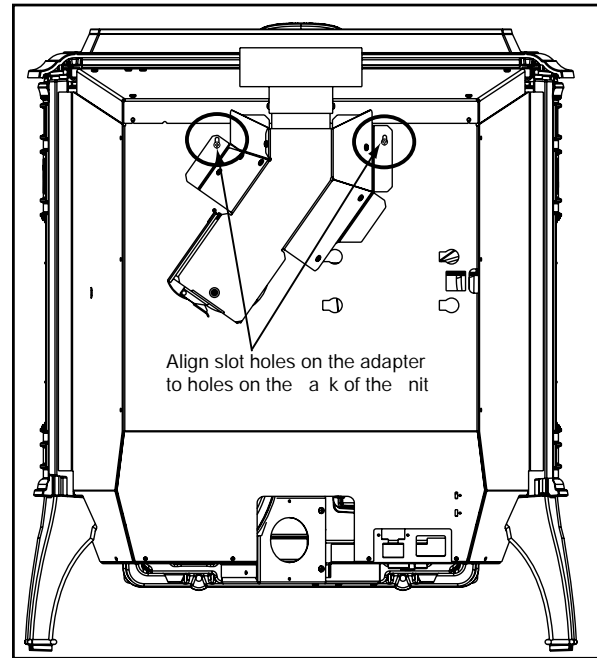


Figure 19.2

D. Rear Vent and Rear Vent to Top Vent Adapter Installation

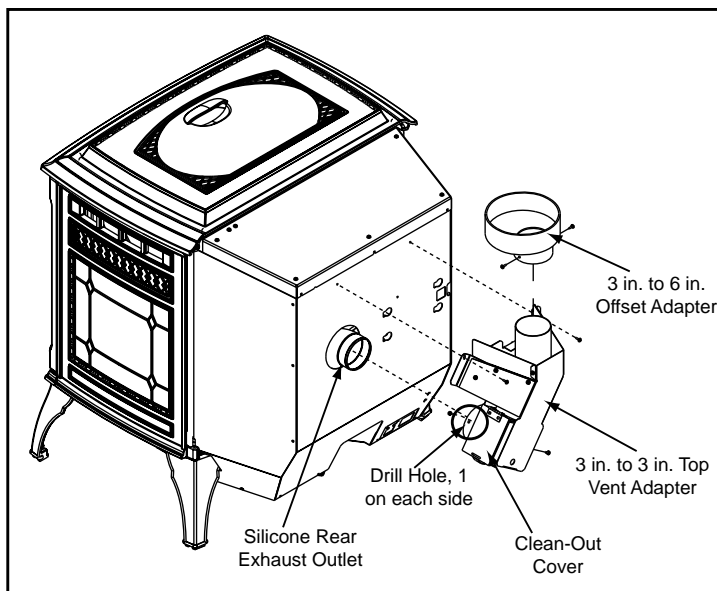


Figure 19.1

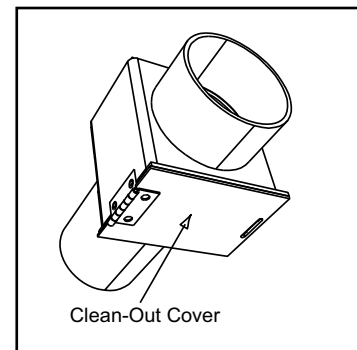


Figure 19.3 - Rear Vent Adapter

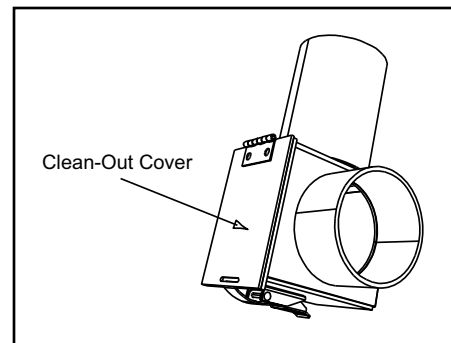


Figure 19.4 - Rear to Top Vent Adapter - 90°

1. Put a layer of high temperature silicone on the 3 inch (76mm) exhaust outlet. **Figure 18.1.**
2. Slide the adapter onto the rear exhaust outlet and adjust the assembly to the appropriate position.
3. Install the vent pipe into the adapter (be sure to silicone all joints)

E. Optional Log Set Placement Instructions

2 PIECE LOG SET INSTALLATION

1. Place the left log as shown. There are 2 indentations in the bottom of the log to fit over the screw heads in the firebox. **Figures 20.1 and 20.2.**
2. Place the right log in front of the 2 screw heads in the firebox. **Figures 20.3 & 20.4.**

CAUTION

Logs are FRAGILE. Use extreme care when handling or cleaning logs.

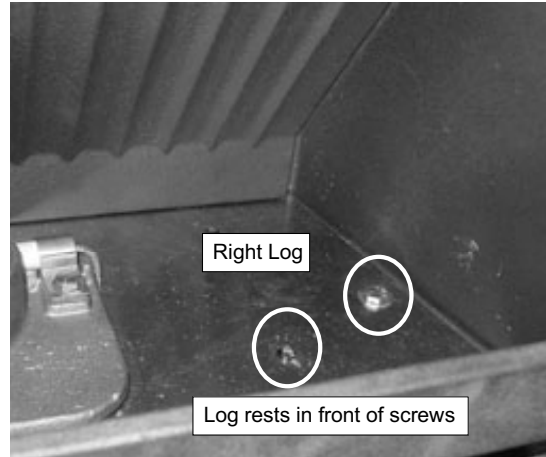


Figure 20.3

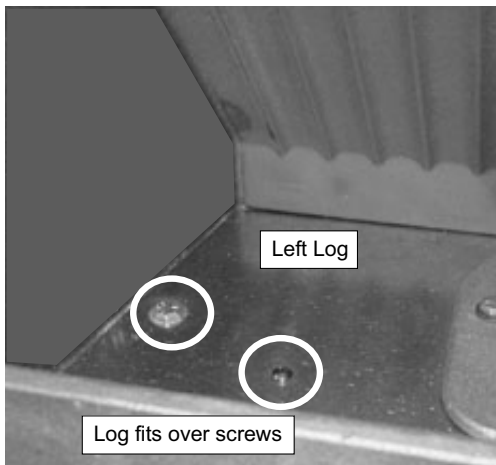


Figure 20.1



Figure 20.4

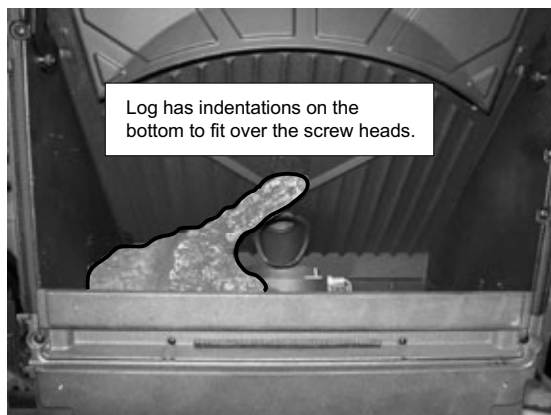


Figure 20.2

NOTICE:

Due to the abrasive nature of a pellet appliance fire, the logs are not covered under warranty. Any placement variation other than shown here can cause excessive heat and shall void the appliance warranty.

F. Wall Control Thermostat Installation

1. When mounting the wall control thermostat on the wall, be sure to follow your thermostat wall control's installation instructions carefully.

NOTE: The wall control thermostat should be mounted on an inside wall and not in direct line with the appliance convection air.

NOTE: If the wall control thermostat is located too close to the appliance, you may need to set the temperature setting slightly higher to maintain the desired temperature in your home.

2. There is a 5 screw terminal block located on the back lower left corner of the appliance directly above the power cord inlet.

The center 3 screws are for the wall control thermostat wires and the 2 outer screws are mounting screw and should not have wires attached to them.

The thermostat wires are color coded. The green wire is on the left, the white in the middle and the red on the right.

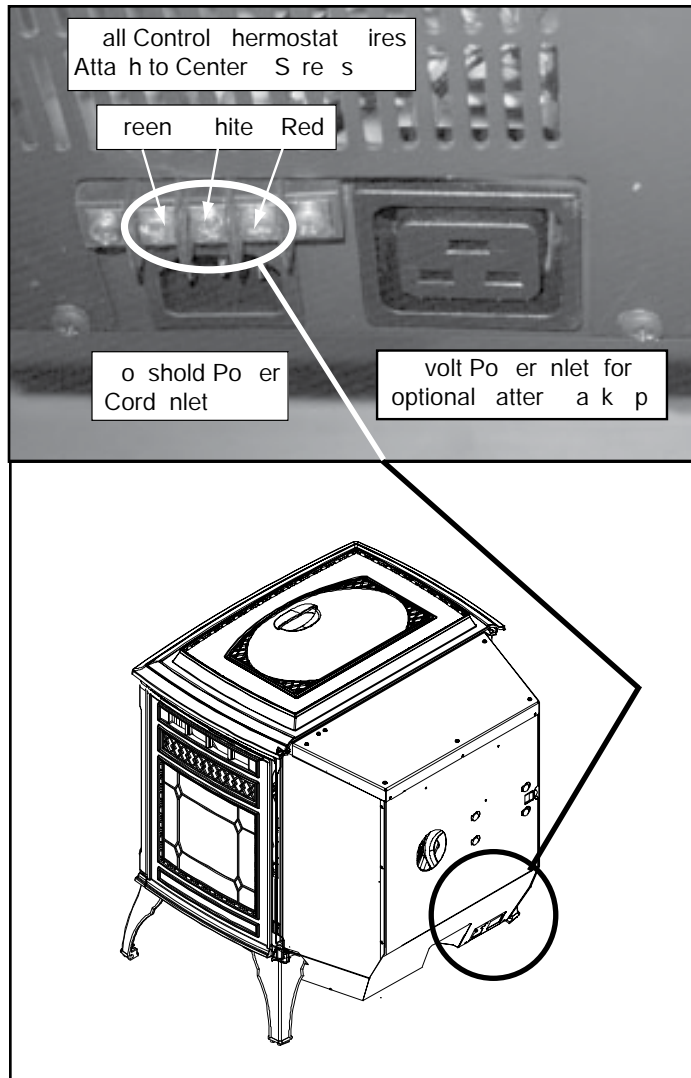


Figure 21.2

CAUTION

Shock hazard.

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

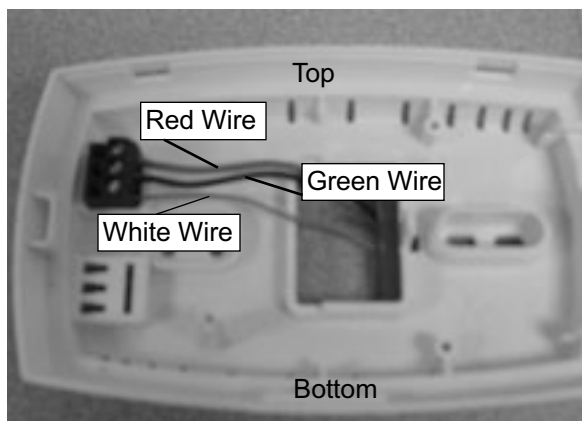


Figure 21.1 - Back Side of Wall Control with Cover Off

8 Operating Instructions

CAUTION

Tested and approved for wood pellets, shelled field corn, wheat and black oil sunflower seeds. Burning of any other type of fuel voids your warranty.

A. Fuel Size, Material and Storage

1. Wood Pellets

Wood pellets are made from sawdust or wood by-products. If the source material is hardwood, they can have a higher mineral content, creating more ash. Fuels containing bark will also have higher ash content.

Minerals and other non-combustible materials such as sand will turn into a hard, glass-like substance called a clinker when heated to the extreme temperatures our firepot reaches. This is what forms clinkers in the bottom of the firepot. Trees from different areas will vary in mineral content. That is why some fuels produce more clinkers than others.

Pellets are manufactured in either 1/4 inch or 5/16 inch (6-8mm) diameter and should be **no more than 1-1/2 inches (38mm) in length**. Pellet lengths may even vary by lot from the same manufacturer which is why the feed rate may need to be adjusted occasionally. **If you burn pellets longer than 1-1/2 inches (38mm) you may have an inconsistent fuel feed rate and/or missed ignitions.**

Pellet fuel quality can greatly fluctuate. The Advanced Energy (AE) appliance has been designed to burn a wide variety of fuels, giving you the choice to use the fuel that is most economical in your region. Premium wood pellets have the lowest ash content, under 1%. Standard grade pellet, high ash pellets, corn and other biomass fuels all have higher ash content.

The higher the ash content, the more often the ash pan will need to be emptied. Premium wood pellets will produce the least ash and tends to produce the highest heat output.

Pellets made from hardwoods (i.e. oak) have a higher ash content than pellets made from softwoods (i.e. pine). The hardwood pellets may require more air to burn properly so make sure you have the wall control on the correct setting.

If you are burning a higher ash fuel and your firepot and ash pan are filling quickly, set the wall control on "Utility Pellet" and the auto-clean system will empty the firepot more frequently.

Always burn dry fuel. Burning fuel with high moisture content takes heat from the fuel and tends to cool the appliance, robbing heat from your home. Damp pellet fuel can clog the feed system.

We recommend that you buy fuel in multi-ton lots whenever possible. However, we do recommend trying various brands before purchasing multi-ton lots to ensure your satisfaction.

2. Other Fuels

This appliance has been tested and approved by Hearth & Home Technologies for shelled field corn, wheat and black oil sunflower seeds.

When purchasing corn or wheat to burn in your appliance, read the ingredient label very carefully. **Do NOT purchase fuel that contains any additives** such as oils (i.e. soybean oil) and meals as it will result in poor unit performance. If you are buying corn or wheat the only ingredient that should be listed is corn or wheat.

Shelled field corn must be 15% or less moisture content. The corn must be clean and free from debris. Never burn corn straight from the field. Stalk parts, excessive fines and cob remnants, etc. will clog the auger mechanism. Corn with excessive grain dust must be screened by sifting with 3/16 inch mesh screening.

WARNING



Risk of Chemical Poisoning.

- Do Not burn treated seed corn
- Chemical pesticides are harmful or fatal if swallowed
- Burning treated seed corn will void your warranty

Do not burn treated seed corn in your appliance. Seed corn is treated with chemical pesticides that are harmful or fatal if swallowed; therefore, seed corn is dangerous to have in the house, especially where children can reach it. Burning treated seed corn in your appliance will void your warranty and will destroy the exhaust system on the unit.

When changing to a different fuel, be sure to empty the hopper of the previous fuel and vacuum the hopper before you fill it with the new fuel. Make the appropriate selection on the FUEL SELECTION screen on the thermostat wall control. The burn rate, BTU content and heat output will all vary depending on fuel selected. **See Figure 23.3 on page 23.**

3. Storage

Wood pellets should be left in their original sealed bag until using. This will prevent moisture absorption.

Shelled corn, wheat or sunflower seeds should be stored in a tight container where it will not absorb moisture from damp or wet floors. This will also prevent rodents from becoming a problem.

Do not store any pellet fuel within the clearance requirements or in an area that would hinder routine cleaning and maintenance.

B. General Operating Information

See Wall Control Thermostat Manual for detailed operating instructions.

1. Wall Control Thermostat - Automatic Setting

The appliance is like most modern furnaces; when the wall control thermostat calls for heat, your appliance will automatically light and deliver heat. When the room is up to temperature and the wall control is satisfied the appliance will shut down.

In the automatic setting the heat output level is controlled by the wall control. Select "Automatic" on the AUTO/MANUAL screen. **Figure 23.1.**

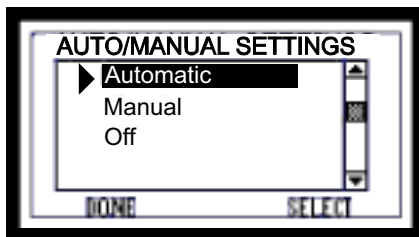


Figure 23.1

2. Wall Control Thermostat - Manual Setting

When you select "Manual" on the AUTO/MANUAL screen the appliance will still automatically turn on and off according to the temperature setting. However, you will be able to manually control the heat output levels. Adjust the heat output levels by using the HEAT OUTPUT LEVEL screen.

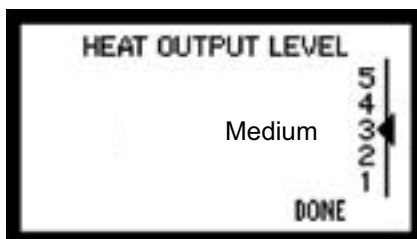


Figure 23.2

3. Auto-Clean Firepot System

Your appliance is equipped with an automatic firepot cleaning system that will change the frequency of cleaning based on the fuel being burned.

The auto-clean system will clean itself immediately on initial plug in. If there is a power outage, as soon as power is restored it will automatically clean itself.

C. Before Your First Fire

1. First, make sure your appliance has been properly installed and that all safety requirements have been met. Pay particular attention to the fire protection, venting and wall control thermostat installation instructions.
2. Double check that the ash pan and firebox are empty and then close the front door.

CAUTION

Tip of thermocouple must be in contact with the inside end of the thermocouple cover.

Missed ignitions can occur.

D. Starting Your First Fire

1. Fuel Selection

To start your first fire, you must select the appropriate fuel on the FUEL SELECTION screen on the thermostat wall control to match the fuel you have chosen to burn.

If the proper fuel is not selected your appliance will not operate properly. For example, if you have selected wood pellets and you are burning corn, the appliance may not light, may go out or overfeed. **Figure 23.3.**

2. Comfort Level Selection

Once your fuel is selected, select the temperature at the desired setting on the SET COMFORT LEVEL screen. **Figure 23.4.**

3. Automatic or Manual Setting

The automatic setting will control the heat output based on the comfort level selection. The manual setting allows you to manually control the heat output settings. **See page 24, Ignition Cycles.**

NOTE: See the Wall Control Thermostat manual for detailed instructions.

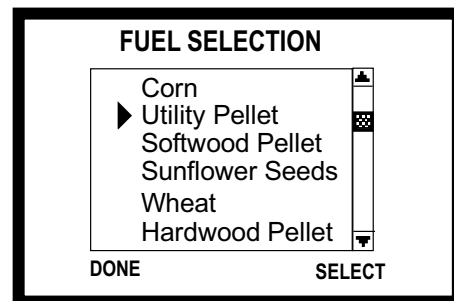


Figure 23.3



Figure 23.4

E. Fire Characteristics and Flame Height Adjustment

A properly adjusted fire with the heat output on HIGH has an active flame pattern that extends out of the firepot approximately 8 inches (203mm).

If the fire has tall flames with black tails and seems somewhat lazy, the flame height will need to be reduced. If the fire is not 8 inches (203mm) tall, the flame height will need to be increased. A medium or low setting will give a shorter flame.

The flame will rise and fall somewhat. This is normal. With your appliance in Manual mode and the heat output level set to HIGH adjust the flame height using the FLAME HEIGHT ADJUST screen on the thermostat wall control. **Figure 24.1.**



Figure 24.1

F. Battery Back-up System (Optional)

The appliance has been designed to operate on an optional battery back-up system. If you have frequent power outages in your region, hook the appliance up to a 12 volt battery and it will automatically switch to battery power in the event of a power failure. There will be a battery icon that appears on your wall control to let you know you are now operating on battery power.

Once you are operating on battery power, you must manually light the fire in the appliance as it will no longer automatically light. Use only approved fire starting gel to start the fire. The high burn rate is no longer available on battery back-up as each level drops down one level. For example; the high burn becomes medium high burn and so on.

We recommend a 12 volt deep cycle battery, (i.e., marine or RV type). If the battery charge falls below 10 volt it can no longer sustain the appliance operation and the appliance will shut down. A 12 volt battery cable is available through your local dealer.

CAUTION

- Hook up to battery terminals BEFORE you plug battery into the appliance.
- Damage to internal electronic components may occur.

G. Ignition Cycles

The Advanced Energy engine is controlled by the digital wall control. The digital display on the wall control will tell you what your appliance is doing in the upper left corner, above the line

Every time the thermostat calls for heat, the appliance steps through five cycles:

1. Ignition cycle
2. Soft-start cycle
3. Heating cycle
4. Shut down cycle
5. Cleaning cycle

The duration and characteristics of these cycles may be different with each type of fuel selected.

1. Start-Up

During this cycle:

- The igniter turns on for 90 seconds to heat up the air in the firepot
- The combustion blower starts
- Vacuum switch comes on
- Feed motor turns on adding fuel to the firepot and the appliance waits for the fire to start

The duration of start-up depends on the type and quality of fuel used. It is normal to see some smoke during the ignition process as moisture evaporates and the fuel lights. The smoke will stop once the fire starts.

If you are lighting your appliance for the first time the feed tube is empty and it can take some time to fill it with fuel before you will see a fire. To speed up this process, put a handful of fuel in the firepot. You can also do this when you have run your hopper dry.

2. SS-Low / SS-Med (Slow-Start Low, Slow-Start Medium)

Once the fire is lit, the appliance moves into the low soft-start cycle as it continues to build the fire. In this cycle, more fuel will be added. As the fire builds, the appliance will change to medium soft-start mode and the heating cycle begins.

3. Auto / Man - L, ML, M, MH, H

There are two choices in the Automatic / Manual menu of how your appliance will operate.

In Automatic Mode, the wall control will turn the heat output level up or down depending on how far the room temperature is from the desired temperature. The digital display will read AUTO:M as an example of automatic, medium level.

As the room temperature approaches the desired temperature, the appliance will turn down to lower settings. When you change the appliance to Manual, set the heat output setting from the main screen. The right bottom button will read HEAT OUTPUT.

3. Auto / Man - L, ML, M, MH, H (Cont'd)

You can operate the appliance from any of the 5 levels. On the lowest level, the appliance will stay on longer, burn less fuel per hour, but will take longer to bring the home up to your desired temperature. On the highest setting, the appliance will burn more fuel per hour, but bring your home up to temperature more quickly.

Regardless of the heat output level, when the home reaches your set temperature, the appliance will go into the shut down cycle. In Manual mode heat output does not change. Turn to OFF to stop operation.

4. Shutdown

Once your home has reached your set temperature, the appliance will stop feeding fuel and allow the fire to diminish. The convection blower will continue to run until the appliance cools to appropriate temperature and will go into the auto-clean cycle.

5. Auto-Clean

The firepot auto-clean system will cycle when the appliance is first plugged in:

- When the house reaches temperature and the appliance shuts down.
- At prescribed intervals, depending on the type of fuel selected.

If your appliance is running and the auto-clean cycle is initiated, the appliance will revert to shut down cycle.

The floor of the firepot will open and deposit the ash into the ash pan. It takes approximately 2 minutes to complete the auto-clean cycle. The floor will then shut, and if the thermostat is still calling for heat, the fire will start again, continuing the heating process.

During this auto-clean cycle, the convection blower will continue to run.



Additional Screen Messages:



READY It is telling you that the home is up to temperature and does not need any heat.

- - - - - The screen will show 5 dashes when the wall control and the control board are NOT communicating with each other. Check that the wiring on the thermostat is properly connected.

MAINTENANCE BURN The maintenance burn is to keep the system from shutting down when operating on battery backup. The appliance will not automatically re-light in manual mode.

OFF The AUTO/MANUAL SETTING screen has been set to OFF. Set the appliance to OFF when performing periodic maintenance to prevent an unexpected startup.

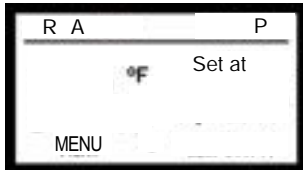
	WARNING
	<p>Fire Risk</p> <p>Do NOT operate appliance:</p> <ul style="list-style-type: none"> • With appliance door open. • With Firepot floor open. <p>Do NOT store fuel:</p> <ul style="list-style-type: none"> • Closer than required clearances to combustibles to appliance. • Within space required for loading or ash removal.

	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 heater. • Keep all such liquids well away from the heater while it is in use. • Combustible materials may ignite.

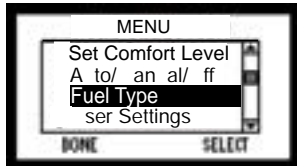
H. Quick Start Guide

NOTICE: Any button pressed will turn on the backlight. Wall control will automatically revert back to the starting screen if there is no activity for 15 seconds; except for the “CONFIRM FUEL CHANGE” screen.

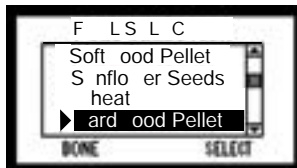
CHOOSING FUEL TYPE



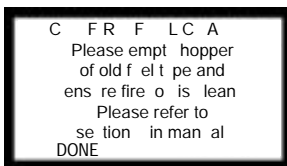
1. At the starting screen, press “MENU” button once or twice until “MENU” screen appears.



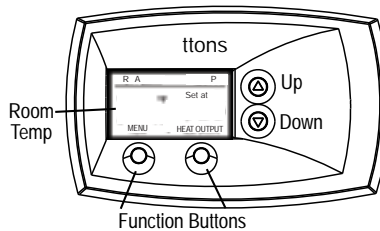
2. Highlight “FUEL TYPE” using the “UP/DOWN” buttons to the right side of the display. Press “SELECT”.



3. Scroll down and highlight “HARDWOOD PELLETS” or your fuel type.
4. Now press “SELECT” to choose new fuel

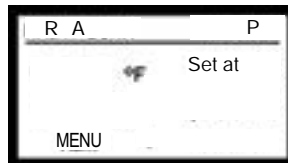


5. Press “DONE” to confirm fuel change.
6. Press “DONE” twice or wait 15 seconds for starting screen to reappear.
7. Fill the hopper with fuel, and if the hopper was completely empty, or has run out of fuel, throw approximately 1/2 cup of pellets into the firepot.
8. Be sure the hopper lid and glass door are both closed.

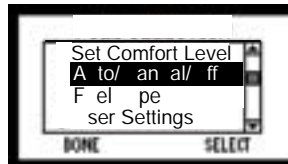


Wall Control for Reference

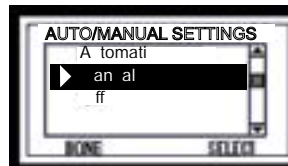
TURNING ON APPLIANCE



1. At the starting screen, press “MENU”.

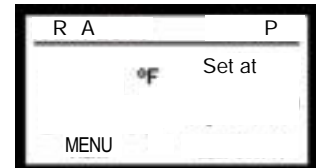


2. Highlight “AUTO/MANUAL/OFF”. Press “SELECT”.

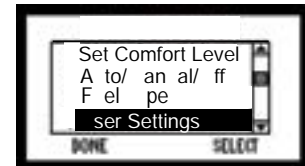


3. Highlight “MANUAL”. Press “SELECT”.
4. Press “DONE” twice or wait 15 seconds for starting screen to reappear.

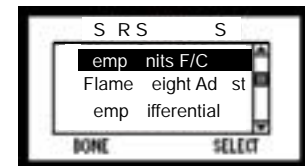
CHOOSING TEMP UNIT: °F or °C



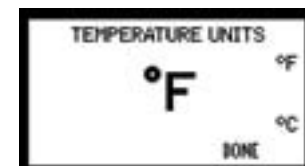
1. At the starting screen, press “MENU” button once or twice until “MENU” screen appears.



2. Highlight “USER SETTINGS” using the “UP/DOWN” buttons to the right side of the display. Press “SELECT”.



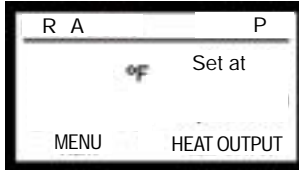
2. Highlight “TEMP UNITS F/C” using the “UP/DOWN” buttons to the right side of the display. Press “SELECT”.



3. Press the “UP” or “DOWN” button to set desired temperature unit and press “SELECT”..
4. Press “DONE”. Press “DONE” again, or wait 15 seconds for starting screen to reappear.

H. Quick Start Guide (Cont'd)

SETTING COMFORT LEVEL

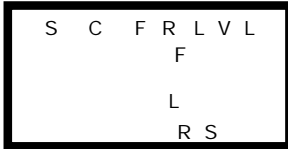


1. Press and hold "UP" or "DOWN" button to set desired temperature.

NOTE: Set temperature must be 3 degrees higher than room temperature for appliance to start.



2. Press "HOLD TEMP".



3. Press "DONE".

SETTING HEAT OUTPUT



1. At the starting screen, press "HEAT OUTPUT".



2. Use the "UP" button to change "HEAT OUTPUT LEVEL" to "MEDIUM-HIGH".
3. Press "DONE" or wait 15 seconds for starting screen to reappear.

I. Frequently Asked Questions

ISSUES	SOLUTIONS
1. Metallic noise	1. 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 your appliance.
2. Ash build-up on glass	2. This is normal. Clean the glass.
3. Glass has turned dirty	3. Excessive build up of ash. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.
4. Fire has tall flames with black tails and is lazy	4. The flame height adjustment needs to be reduced or the firepot needs cleaning. Heat exchanger or exhaust blower needs cleaning.
5. Excessive smokey start-up	5. Either the firepot is dirty or there is too much fuel at start-up and not enough air.
6. Large flame at start-up	6. This is normal. Flame will settle down once the fire is established. Some smoke is normal.
7. Mechanical Noise	7. The floor of the firepot in the auto-clean system may make some noise as it scrapes the ash into the ash pan.

CAUTION

Odors and vapors released during initial operation.

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

Odors may be irritating to sensitive individuals.

9

Troubleshooting

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

Error Message	Possible Cause	Corrective Action
— — — — —	Bad wall control or control board 3 wires have loose connections or installed wrong	Replace wall control or control board Check connections
LOW BATTERY	Battery supply on battery backup is drained	Recharge battery
BAD TC DROP TUBE (TC = Thermocouple)	Drop tube thermocouple is broken or leads are reversed	Check connections Replace thermocouple
BAD TC FIREPOT (TC = Thermocouple)	Firepot thermocouple is broken or leads are reversed	Check connections Replace thermocouple
SNAP DISC TRIPPED	Overheat sensor (snap disc) has tripped	Unplug the appliance and then manually reset snap disc
VACUUM SW ERROR (SW = Switch)	Vacuum switch is bad Vacuum hose is plugged/disconnected	Check connections. Bypass vacuum with jumper wire, if runs, switch is bad. Replace switch Check vacuum hose
COMB BLOWER JAMMED	Combustion blower is blocked/jammed	Remove blockage Replace blower if necessary Must unplug the appliance to clear the error
AUGER JAMMED	Auger jammed, feed motor bad	Pull the feed system and inspect Clear jam. Press Retry
MISSED IGNITION	Igniter bad or poor harness connection Out of fuel or fuel is bridging in hopper Faulty firepot thermocouple connection has shorted.	Check connections, if OK replace igniter Break up bridging pellets Refill hopper Replace the thermocouple and then press Retry
MIN FIREPOT TEMP	Out of fuel	Refill hopper Add handful of pellets to firepot Press Retry
MAX DROP TUBE TEMP	Wrong fuel table setting Flame height set too high	Confirm setting matches burning fuel Adjust flame height
CONV BLOWER JAMMED	Convection blower blocked/jammed	Remove blockage Replace blower if necessary Must unplug the appliance to clear the error
CHECK ASHPAN	Auto-clean jammed Auto-clean switch is bad Linkage has become disconnected	If ashpan is empty, check for a jam. Use a screw driver and firmly push in the firepot floor holes and flex spring and push toward home to release jam. Replace switch Reconnect linkage
	Hopper lid open while you refill the hopper Switch is out of adjustment (auger will not function)	Fill hopper between cycle Adjust or replace switch
SCREEN GOES BLANK	Static discharge or nearby lightening or Electric fast transients at the input mains	Unplug the power to the appliance and plug it back in

10 Maintaining & Servicing Your Appliance

A. Proper Shutdown Procedure

1. Set the wall control thermostat to "OFF" on AUTOMATIC/MANUAL SETTING screen and let the appliance completely cool. **Figure 30.1**. The exhaust blower must be off before you can unplug the appliance before servicing.
2. Smoke spillage into the room can occur if the appliance is not cool before unplugging.
3. There is a risk of shock if the appliance is not unplugged before servicing the appliance.

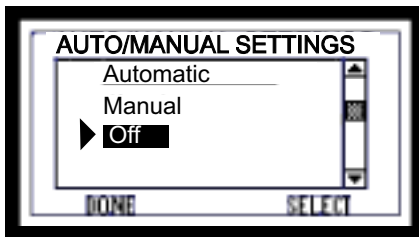



Figure 30.1

 CAUTION	
Shock and Smoke Hazard	<ul style="list-style-type: none"> • Proper Shutdown Procedure must be followed. • Smoke spillage into room can occur if appliance is not cool before unplugging. • Risk of shock if appliance not unplugged before servicing appliance.

B. Quick Reference Maintenance Chart

Cleaning or Inspection	Frequency		Daily	Weekly	Every 2 Weeks	Monthly	Yearly
Ash Pan - Burning Pellets	Every 5 bags of fuel	OR		X			
Ash Pan - Burning Alternate Fuels	Every 1 bag of fuel	OR	X				
Ash Removal from Firebox	More frequently depending on the fuel type or ash build-up	OR		X			
Auto-Clean Inspection	More frequently depending on the fuel type	OR				X	
Blower, Combustion (Exhaust)	More frequently depending on the fuel type	OR					X
Blower, Convection	More frequently depending on the fuel type	OR					X
Door Latch Inspection	Prior to heating season	OR				X	
Firebox - Prepare for Non-Burn Season	At end of heating season	OR					X
Firepot - Burning Pellets	Every 3 bags	OR	X				
Firepot - Burning Alternate Fuels	Every 1 bag	OR	X				
Glass	When clear view of firepot becomes obscured	OR		X			
Heat Exchanger & Drop Tube	Every 1 ton of fuel	OR			X		
Hopper	Every 1 ton of fuel or when changing fuel types	OR				X	
Top Vent Adapter	More frequently depending on the fuel type or ash build-up	OR					X
Venting System	More frequently depending on the fuel type	OR					X

C. General Maintenance and Cleaning

1. Types of Fuel

Depending on the type of fuel you are burning will dictate how often the firepot cleans itself. If the fuel you are burning has a high dirt or ash content or you are burning other biomass fuels, it may be necessary to do a more thorough cleaning during the burn season.

The auto-clean firepot system will routinely clean the firepot, at shutdown when the wall control is satisfied or the predetermined amount of burn time has elapsed.

A clinker is formed when dirt, ash or a non-burnable substance is heated to 2000°F (1093°C) and becomes glass-like. Clinkers filling the ash pan will have to be cleaned out more often than ash. Excessive clinkers will eventually jam the auto-clean system and generate an error. **Figure 31.1.**

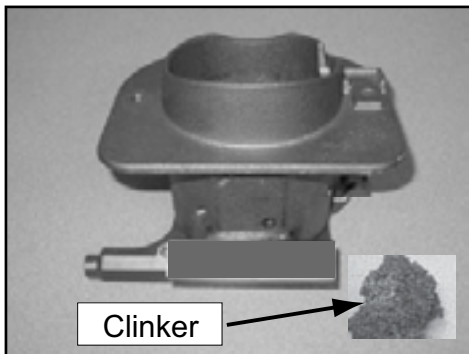


Figure 31.1 - Large Clinker

2. Auto-Clean System Inspection

- **Frequency:** Monthly or more frequently depending on fuel type
- **By:** Homeowner
 - a. The appliance must be in complete shutdown, completely cool and the exhaust blower off.
 - b. Inspect the auto-clean springs for any degradation or deformation. As the springs heat up and cool down they can lose tension.

If there is a gap showing above the firepot floor it means the springs have lost their tension and can not keep the floor in the proper position.

This will cause ignition problems and fuel falling into the ash pan. Replace them if that occurs.
 - c. Inspect the holes in the firepot floor for any debris. They must be kept clear. If you are burning corn, the holes have a tendency to fill with particles which will need to be removed.

3. Cleaning Ash Pan

- **Frequency:**
 - Wood Pellet Fuel:** Weekly or every 5 bags of fuel
 - Alternate Fuel:** Daily
- **By:** Homeowner

Locate the ash pan underneath the firepot. Slide the ash pan straight out. Empty into a non-combustible container and re-install ash pan. When replacing ash pan push it back until it catches on the 2 side latches. **See Disposal of Ashes below.**

4. Ash Removal from Firebox

- **Frequency:** Weekly or more frequently depending on fuel type or ash build-up.
- **By:** Homeowner

There must not be any hot ashes in the firebox during cleaning so allow the appliance to completely cool. Frequent cleaning of the ash in the firebox with a vacuum cleaner will help slow down the build-up of ash in the exhaust blower and vent system.

	WARNING
	<p>Disposal of Ashes</p> <ul style="list-style-type: none"> • Ashes should be placed in metal container with tight fitting lid. • Ashes should be retained in closed container until all cinders have thoroughly cooled.

5. Disposal of Ashes

- **Frequency:** As needed
- **By:** Homeowner

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 been thoroughly cooled.

6. Cleaning Firepot with Firepot Clean-Out Tool• **Frequency:****Softwood Pellets:** Weekly or every 5 bags**Hardwood Pellets:** Weekly or every 3 bags**Alternate Pellets:** Daily or every 1 bag• **By:** Homeowner

a. The appliance must be in complete shutdown, completely cool and the exhaust blower off.

b. It may be necessary to use your firepot clean-out tool to chip away material that has built up on the sides of the firepot and to push out any clinkers. Larger clinkers may have to be removed from the top of the firepot.

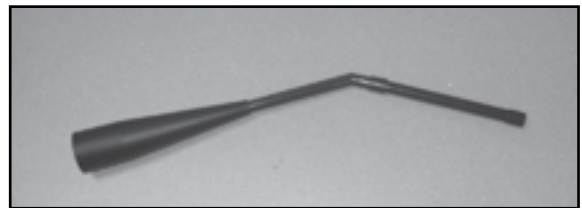
Corn clinkers can be especially difficult to break up. If the clinker adheres to the sides of the firepot, you will need to manually clean the firepot.

c. After cleaning the firepot and inspecting the holes, turn off the power and then restore the power. The auto- clean system will then clean itself.

d. The firepot floor plate must be fully closed when finished.

d. A Micro Cleaning Kit can be purchased at your local hardware store as an accessory for a shop vacuum.

Figure 32.2. Assemble the crevice tool. **Figure 32.3.**

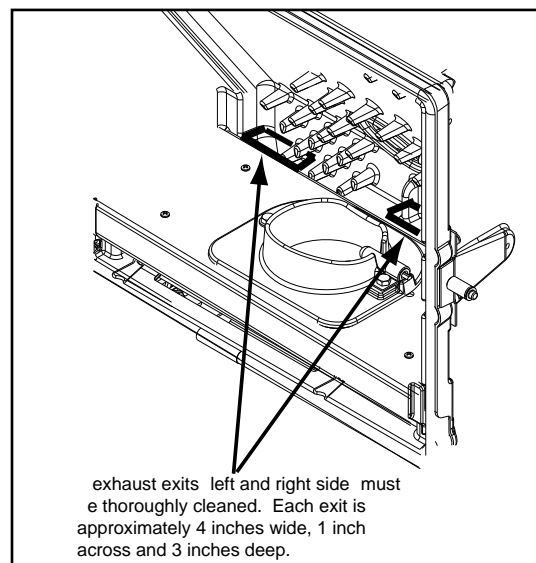
**Figure 32.2****Figure 32.3**

e. Use the crevice tool to finish cleaning the heat exchanger fins. It is critical that the 2 exhaust exits at the back of the firebox floor (left and right) be thoroughly cleaned. **Figure 33.4.** There are several ways this can be done.

1. Use the crevice tool.

2. Attach a hose 1/2 inch (12.7mm) in diameter and approximately 2 feet (607mm) in length to your vacuum hose.

3. Use a bottle brush and push the ash down to the bottom. Remove the exhaust blower and then vacuum out the ash. **Figures 33.1-4 on page 33.**

**Figure 32.4****7. Cleaning Heat Exchanger & Drop Tube**• **Frequency:** Monthly or every 1 ton of fuel• **By:** Homeowner

a. The appliance must be in complete shutdown, completely cool and the exhaust blower off.

b. It is necessary to remove the baffle to gain access to the heat exchanger. Follow instructions for baffle removal on **page 35.**

c. Vacuum the ash from the heat exchanger with an upholstery brush to remove the majority of the ash. Be sure to vacuum the back of the baffle also. Inspect the drop tube and remove any residue build-up in the drop tube. **Figure 323.1.**

**Figure 32.1**

f. Removing the Combustion (Exhaust) Blower

1. The combustion blower is mounted in the bottom right rear of the appliance. **Figure 33.1.**
2. Use an 11/32 nut driver to loosen all six nuts, but do not remove. Rotate the blower and remove from the housing. **Figure 33.2.**
3. Set the blower on the top of the housing. You do not need to disconnect the wires. **Figure 33.3.**
4. Vacuum out the exhaust area. **Figure 33.4.**

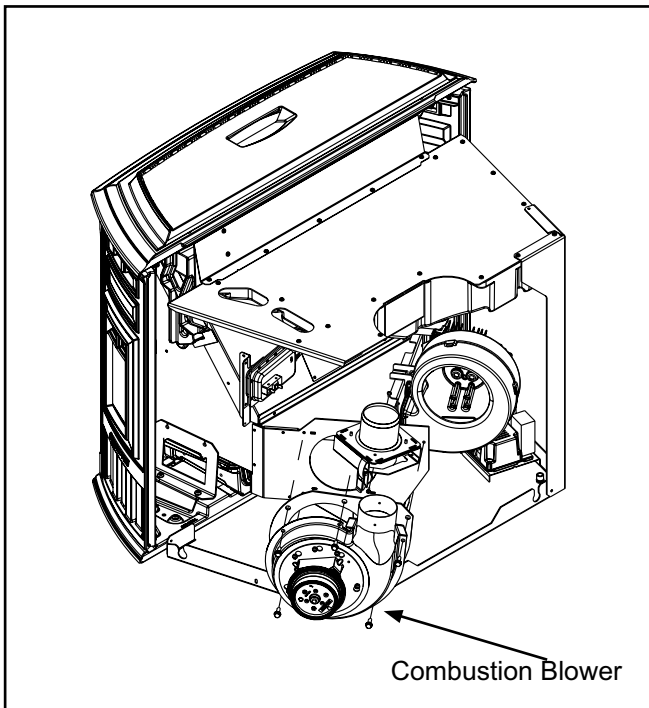


Figure 33.1



Figure 33.3



Figure 33.4

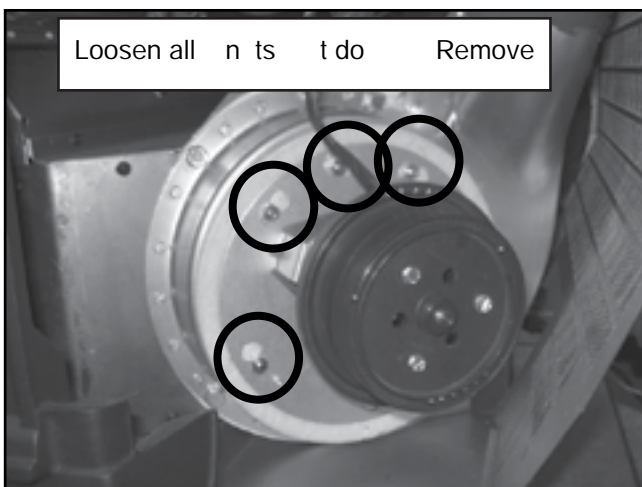


Figure 33.2

8. Cleaning the Hopper

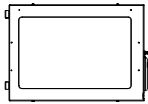
- **Frequency:** Monthly, every 1 ton of fuel or when changing fuel types.
- **By:** Homeowner

After burning approximately 1 ton of fuel you will need to clean the hopper to prevent sawdust and/or fines build-up. A combination of sawdust/fines and pellets on the auger reduces the amount of fuel supply to the firepot. This can result in nuisance shut downs and mis-starts.

- The appliance must be in complete shutdown and cool and the exhaust blower off
- Empty the hopper of any remaining pellets.
- Vacuum the hopper and feed tube.

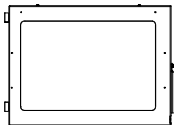
9. Cleaning the Glass

- **Frequency:** When clear view of the firepot is obscured
 - **By:** Homeowner
- Appliance must be completely cool before cleaning glass.
 - Use a damp paper towel or any non-abrasive glass cleaner. Wipe off with dry towel.


WARNING


Handle glass doors with care.

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

CAUTION


Handle glass assembly with care.

When cleaning glass door:

- 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.

Refer to maintenance instructions.

11. Cleaning Convection Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Qualified Service Technician
- **Task:** **Contact your local dealer.**

12. Door Latch Inspection

- **Frequency:** Prior to heating season
- **By:** Homeowner
- **Task:**

The door latch is non-adjustable but the gasketing between the glass and firebox should be inspected periodically to make sure there is a good seal. If the gasket is frayed or damaged, replace with a new one.

13. Soot and Fly Ash: Formation & Need for Removal in Exhaust Venting System.

- **Frequency:** Yearly or more frequently depending on fuel type or ash build-up
- **By:** Qualified Service Technician/Homeowner

The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of the flue gases.

At start-up if there is incomplete combustion, or if there is a shutdown or incorrect operation of the appliance it will lead to some soot formation. This will collect in the exhaust venting system.

The venting system may need to be cleaned at least once a year or more often depending upon the quality of your fuel or if there is a lot of horizontal pipe sections. Ash will build up more quickly in the horizontal sections.

14. Cleaning the Top Vent Adapter (if installed)

- **Frequency:** Yearly or more frequently depending on fuel type or ash build-up
 - **By:** Homeowner
- The appliance must be in complete shutdown, completely cool and the exhaust blower off.
 - Open the clean-out cover. **Figure 34.1.**
 - Sweep out any ash build-up.

NOTE: There are heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

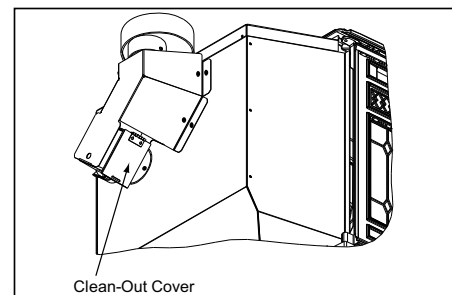


Figure 34.1

10. Cleaning Exhaust Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Qualified Service Technician
- **Task:** **Contact your local dealer.**


15. Preparing Firebox for Non-Burn Season

- **Frequency:** At the end of heating season
- **By:** Homeowner
 - a. The appliance must be in complete shutdown and allow the appliance to completely cool down.
 - b. Remove all ash from the firebox and vacuum thoroughly.
 - c. Paint all exposed steel, including cast-iron. Use the Touch-Up paint supplied with the appliance or purchase paint from your local dealer. You must use a high-temperature paint made specifically for heating appliances.

D. High Ash Fuel Content Maintenance

- **Frequency:** When the ash exceeds more than half way up the firepot.
 - **By:** Homeowner
- If the ash build-up exceeds the half way point in the firepot before it automatically cleans, then the firepot is not being cleaned often enough.
- Another symptom is if clinkers are adhering to the sides of the firepot. Double check the wall control to ensure the proper setting has been selected for the fuel you are burning. If that is correct, change the setting to "Utility Pellet".


E. Baffle Removal



WARNING

Cast iron is a very heavy material. The baffle is made of cast iron and therefore is heavy and awkward at times to maneuver. Clear and prepare your work area before you begin.

- a. The appliance must be in complete shutdown, completely cool and the exhaust blower off.
- b. Open door.
- c. The baffle is located at the top inside of firebox.
- d. Remove baffle by placing a flat head screw driver into the slot of the latches located in the upper corners and push down. The bottom of the latch will fall forward off of the post. Lift the baffle up and then out toward you. **Figure 35.2.**
- e. To replace the baffle, place the 2 locating ears behind the bottom edge and tilt the baffle up and into place.
- f. The baffle must be centered in the firebox before latching it in place. If it is not centered the latch is trapped between the baffle and side of the firebox instead of latching properly.
- g. The bottom of the latches will fit over the posts. Push the top of the latch forward to lock latch into place.



WARNING

Fire and Smoke Risk.

- High ash fuels or lack of maintenance can cause firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

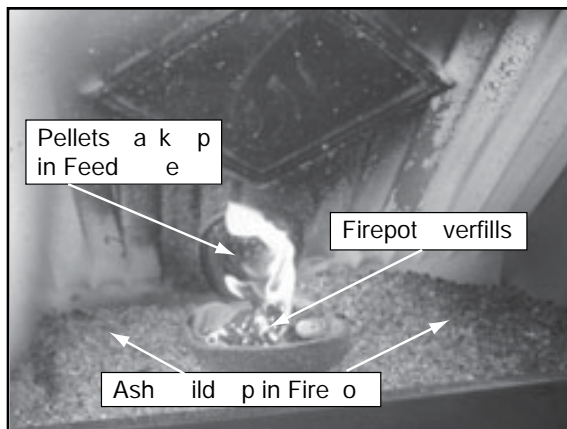


Figure 35.1

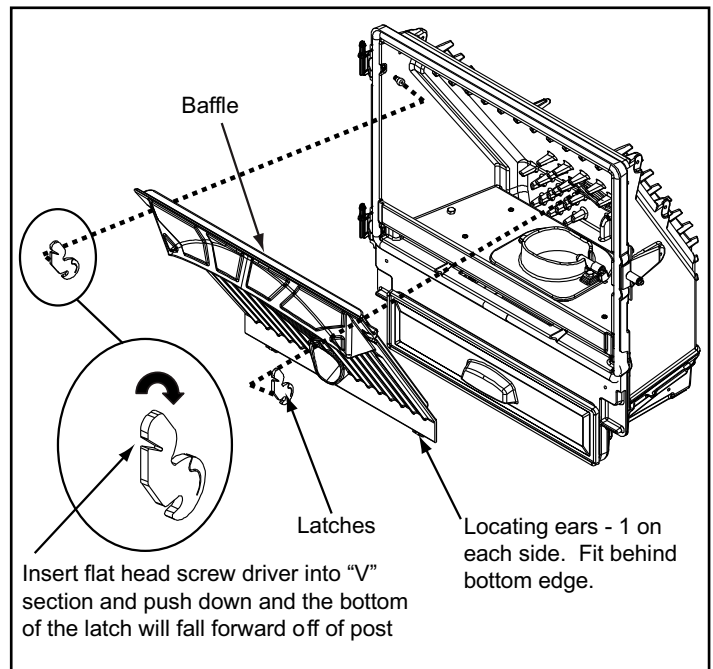


Figure 35.2

F. Convection Blower Replacement

1. Follow the proper shut down procedures as outlined on **page 30, Section 10.A.**
2. Remove the left and right side panels by removing the 4 screws using a Phillips head screw driver. **Figure 36.1.**
3. Depress the tab on the left side and snap out the power supply. You do not need to disconnect any wires. **Figure 36.1.**
4. Remove the 2 screws at the bottom of the back panel so there will be room to remove the blower. **Figure 36.1**
5. Reach behind the blower and release the latch by pushing the top of the latch towards the blower. **Figure 36.2.**
6. Rock the top of the blower slightly and lift up. The blower will pass around the control board and out the left side of the appliance.
7. Disconnect the wire harness from the bottom of the blower by depressing the tabs on the sides of the connector and then pulling to remove. **Figure 36.1.**
8. Re-connect wire harness to the new blower.
9. Install replacement blower by placing the bottom flange into the opening first then rotate blower up into position.
10. When the blower is properly positioned the latch will engage the notch to hold the blower in place. **Figure 36.3.**
11. Re-secure the back panel, snap the power supply back in and re-secure the side panel(s).

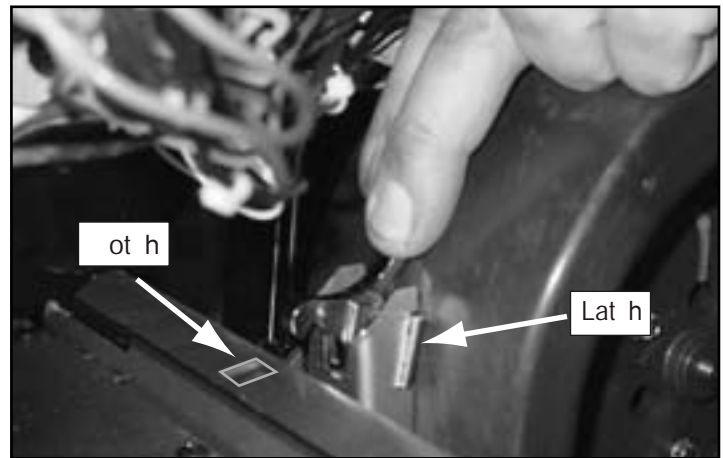


Figure 36.2



Figure 36.3

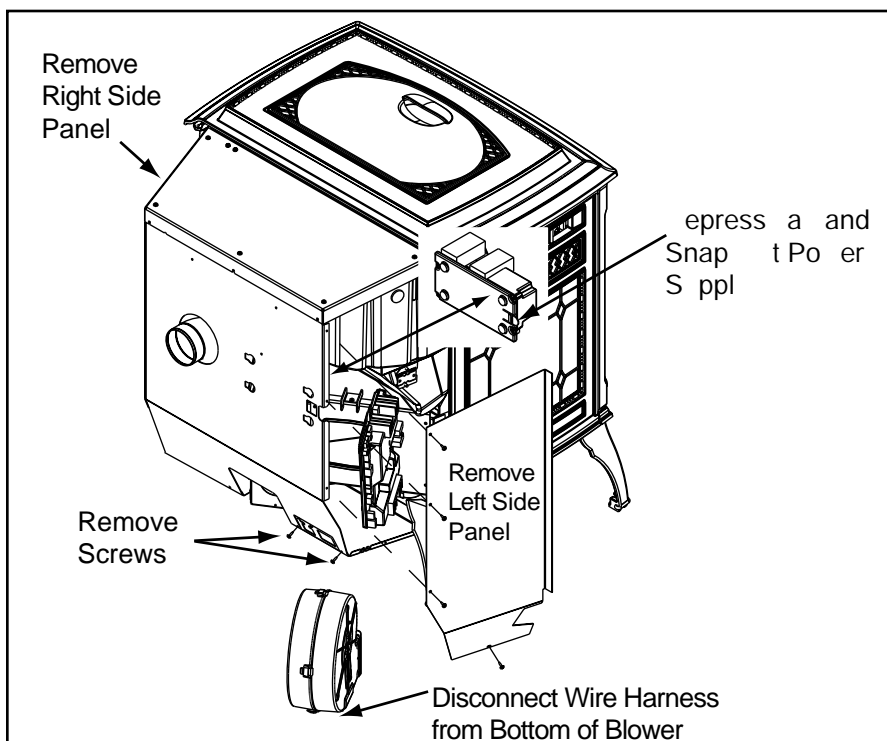


Figure 36.1

G. Combustion (Exhaust) Blower Replacement

1. Follow the proper shut down procedures as outlined on **page 30, Section 10.A.**
2. Remove the right side panel by removing the 4 screws using a Phillips head screw driver. **Figure 37.1.**
3. It is not necessary or recommended to remove the housing to replace or service the combustion blower. You only need to remove the motor and impeller.
4. Disconnect the wire from the control board connection points #1 and #8. Depress the tab on the connector to disconnect the wire (similar to a telephone connector). **See Figure 39.1 on page 39** for the locations of #1 and #8.
5. Using an 11/32 socket or nut driver, remove the (6) 8x32 nuts securing the motor and impeller to the housing.
6. Holding the black plastic body of the motor, rotate the impeller counter-clockwise until blades line up with opening in the housing and remove motor and impeller.
7. If the gasket between housing and motor is damaged it will have to be replaced. A gasket is included with the replacement blower.
8. Re-install in reverse order.

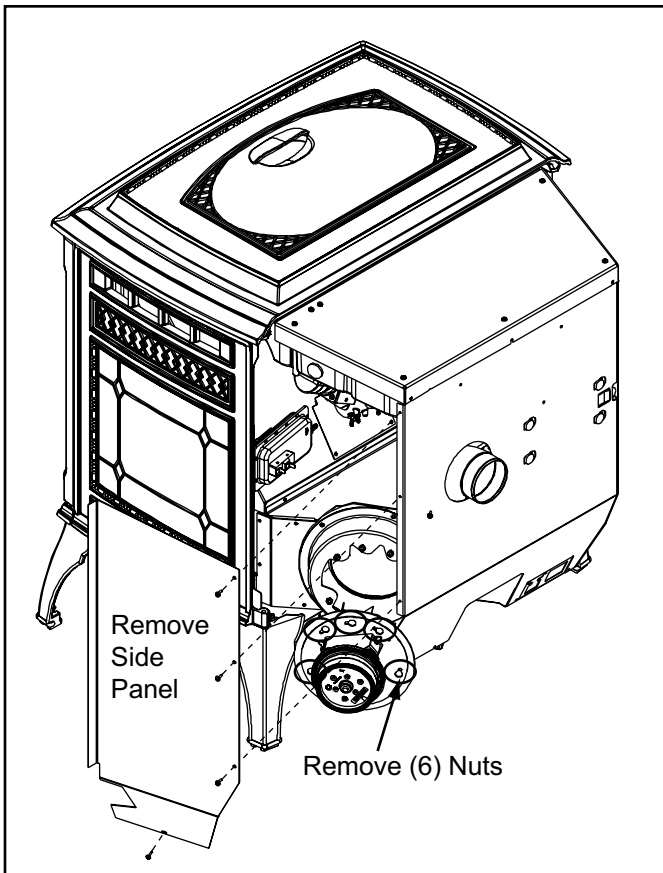


Figure 37.1

H. Glass Replacement

⚠ WARNING



- Glass is 5mm thick high temperature heat-resistant ceramic glass.
- **DO NOT REPLACE** with any other material.
- Alternate material may shatter and cause injury.

- a. Swing open the face and remove the door from the appliance by lifting the door off of the hinge pins and lay on a flat surface face down.
- b. Using a Phillips head screw driver, remove 4 screws, 2 on the top and 2 on the bottom. Remove metal bracket and then remove the glass. **Figure 37.2.**
- c. Replace with new glass with gasket.
- d. Re-attach metal bracket with 4 screws.
- e. Re-install door over hinge pins and close face.

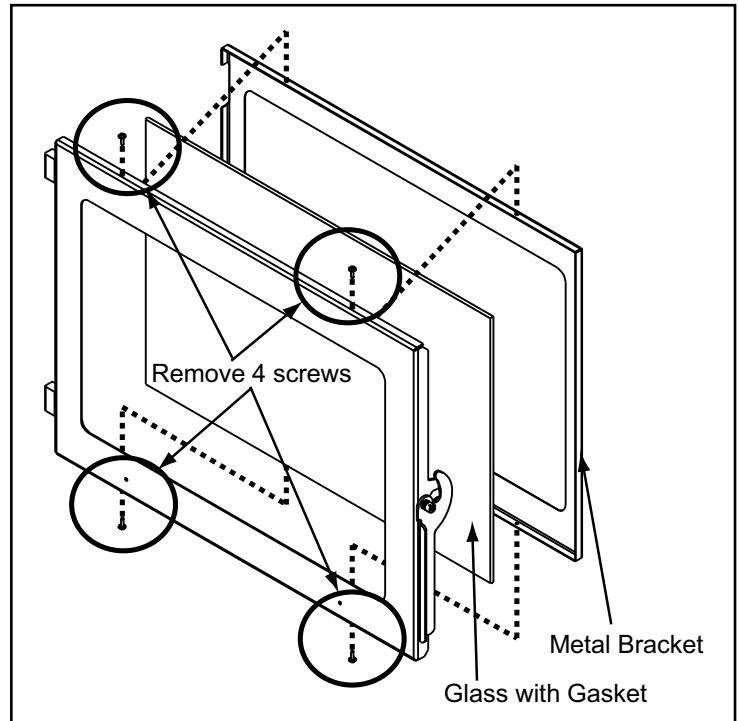


Figure 37.2

11

Reference Materials

A. Component Functions



When describing the location of a component, it is always AS YOU FACE THE FRONT OF THE APPLIANCE.

1. Auto-Clean Motor

The auto-clean motor is located under and behind the firepot on the left side, inside the convection air chamber. It automatically opens and closes the firepot floor so ashes can fall into the ash pan.

2. Auto-Clean Switch

The auto-clean switch is located on top of the auto-clean motor. It communicates to the control board when the firepot floor is open and when the auto-clean system has completed its cycle and is back in the home (closed) position.

3. 12 Volt Battery Back-Up Cable

This is an optional accessory. It will plug into the appliance at the rear of the appliance. An icon will display on the wall control when the appliance has lost main power and is running on battery back-up.

4. Combustion (Exhaust) Blower

The combustion (exhaust) blower is mounted in the bottom right rear of appliance. The blower is designed to pull the exhaust from the appliance and push it out through the venting system.

5. Control Board

The control board is located on the lower left side of appliance. It controls the functioning of the appliance and communicates with the wall control. The control board can only be opened by an authorized dealer.

6. Convection Blower

The convection blower is mounted at the bottom left rear of the appliance. The convection blower pushes heated air through the heat exchange system into the room.

7. Door Switch

The door switch is mounted on the right side of the firebox behind the door handle. It senses when the door is open and will display an icon on the wall control, and will turn off the auto-clean system and feed motor for safety.

8. Feed System

The feed system is located on the right side of the appliance and can be removed as an entire assembly. The assembly includes the feed motor, mounting bracket, bearing and feed spring (auger). The hollow feed spring (auger) pulls pellets up the feed tube from the hopper area and drops them down the feed chute into the firepot.

9. Firepot

The firepot is made of high quality ductile iron. The floor of the firepot automatically opens for cleaning and is operated by the auto-clean firepot system. The floor needs to return to a completely closed position or the appliance will not operate properly.

10. Fuses

There are three fuses. Two fuses are located on the inside of the control board. One fuse is AC and operates the igniter and the other fuse is DC and operates all of the other components. The third fuse is located in the power supply. A fuse will blow should a short occur and shut off power to the appliance. The fuses can only be replaced by an authorized dealer.

11. Heat Exchanger

The heat exchanger is located behind the baffle and it transfers heat from the exhaust system into the convection air chamber. Remove the cast iron baffle to access the heat exchanger.

12. Hopper Lid Switch

The hopper lid switch is located on the right side inside the hopper. It senses whether the hopper lid is open and displays an icon on the wall control and will turn off the feed motor.

13. Igniter (Heating Element)

The igniter is mounted on the base of the firepot. Combustion air travels over the red hot igniter creating super heated air that ignites the pellets or other fuels.

14. Low Fuel Indicator

The low fuel indicator is attached to the left side of the hopper. It senses the amount of fuel in the hopper and will display an icon on the wall control.

15. Optical Switch for the Auger

The optical switch is located on top of the feed system and communicates to the wall control that the auger is spinning or if it has stopped.

16. Power Receptacle

The power receptacle is located on the lower rear of the appliance. Check the wall receptacle for 120 volt, 60 Hz (standard current). Make sure the outlet is grounded and has the correct polarity. A good quality surge protector is highly recommended to protect the electronics.

17. Power Supply

The power supply is located at the rear of the appliance. It converts 120 volt AC current to 15 volt DC current to power the appliance.

18. Overheat Sensor (Snap Disc)

The overheat sensor is mounted on the back of the drop tube in the center of the appliance and has a reset button. To access it remove the right side panel. If the fire tries to burn back into the feed system or push exhaust up the feed tube, this sensor will shut the stove down, however the wall control will still display messages. This sensor must be manually re-set. Disconnect power before resetting.

19. Thermocouple - Firepot

This thermocouple is located on top of the firepot inside the thermocouple cover (ceramic protection tube). The thermocouple sends a millivolt signal to the control board telling the control board there is a fire in the firepot.

20. Thermocouple - Drop Tube

This thermocouple is located on the bottom of the drop tube on the right side and attached with a wing nut. It turns the convection blower on and off, varies the speed of the convection blower and will shut down appliance if internal heat exceeds set temperature.

21. Vacuum Switch

The vacuum switch is located on the right side of the appliance under the feed motor behind right side panel and connects to the drop tube with a hose. This switch turns the feed system on when vacuum is present in the firebox. The vacuum switch is a safety device to shut off the feed motor if the exhaust or the heat exchanger system is dirty, plugged or if the firebox door is open.

22. Wall Control

The appliance is designed to run on a custom designed 3.3 volt DC thermostat wall control. It will not operate on any other wall control. Refer to the instructions supplied with the thermostat wall control.

23. Wiring Schematic for Control Board

See Figure 39.1 below.

24. Wiring Schematic for Power Supply

See Figure 39.2 below.

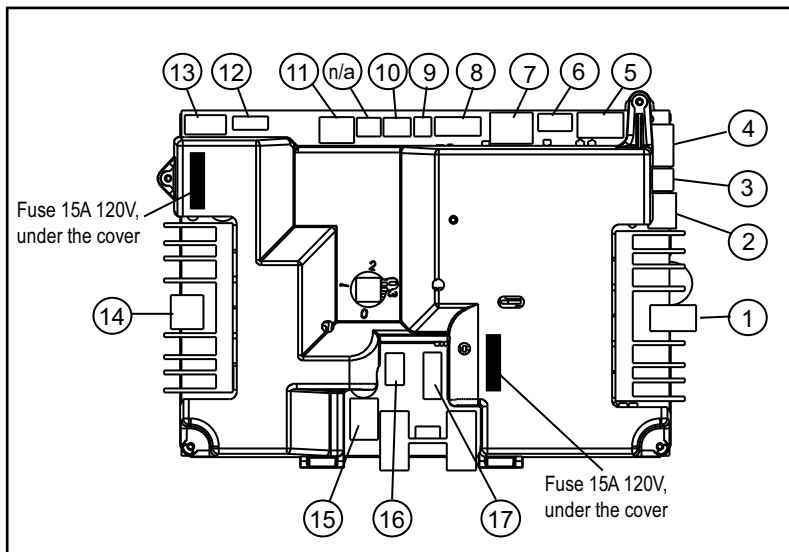


Figure 39.1

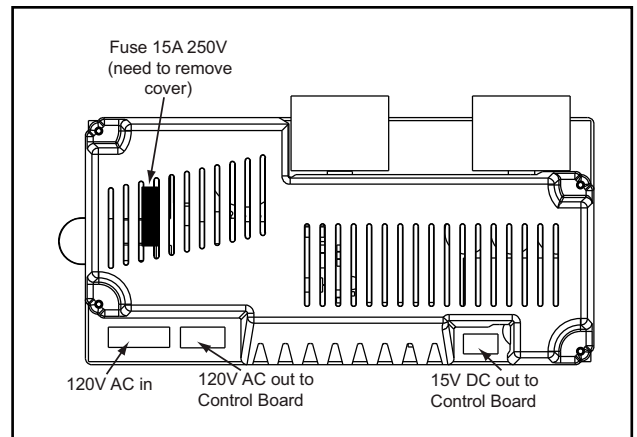


Figure 39.2

#	Description
1	Combustion Blower
2	Auto-Clean System
3	Feed/Auger Motors
4	Hopper/Door Switches
5	Auger/Auto-Clean/Vacuum Switches
6	Low Fuel

#	Description
7	Thermostat Wall Control
8	Combustion Blower (feedback)
9	Firepot Thermocouple
10	Drop Tube Thermocouple
n/a	Not Used
11	Convection Blower (feedback)

#	Description
12	Igniter
13	AC Power In for Igniter
14	Convection Blower Power
15	Overheat Sensor (Snap Disc)
16	DC Power In from Power Supply
17	12 Volt Battery Back-up

B. Component Locations

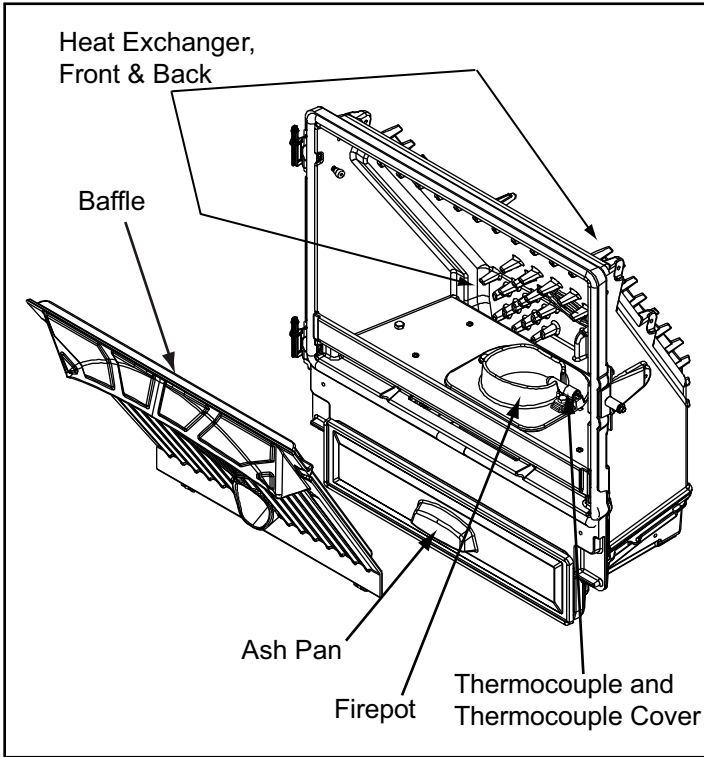


Figure 40.1

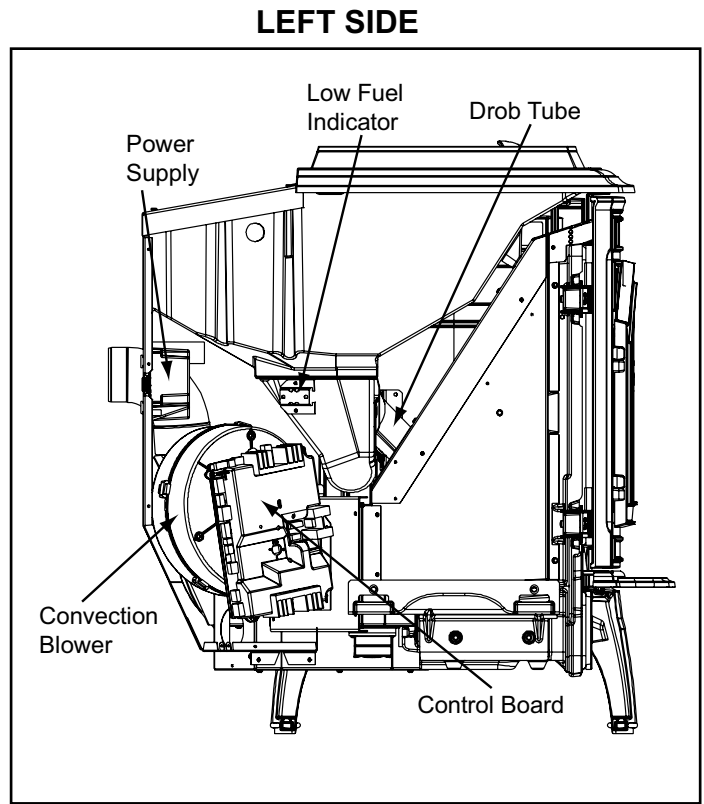


Figure 40.2

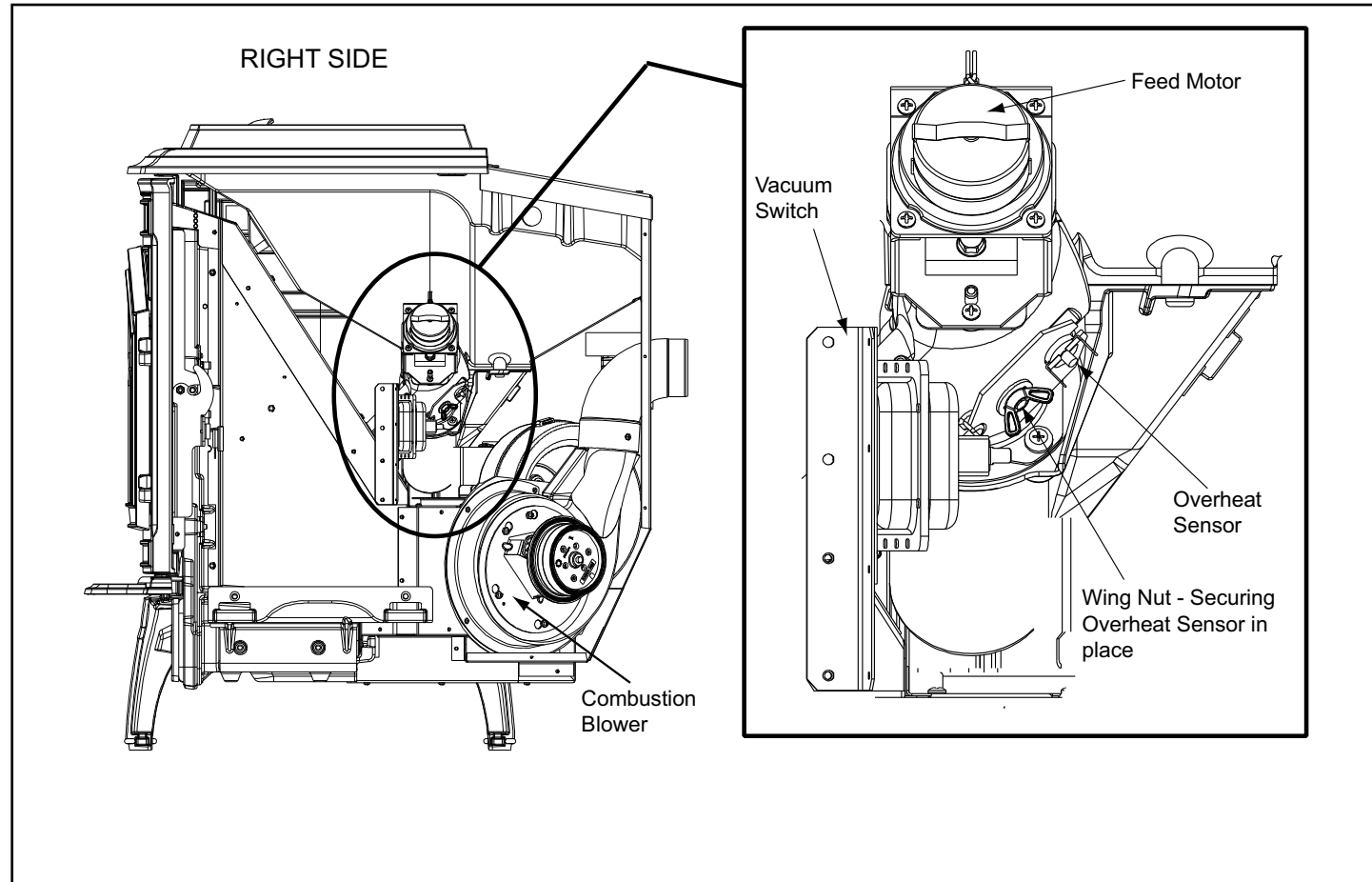
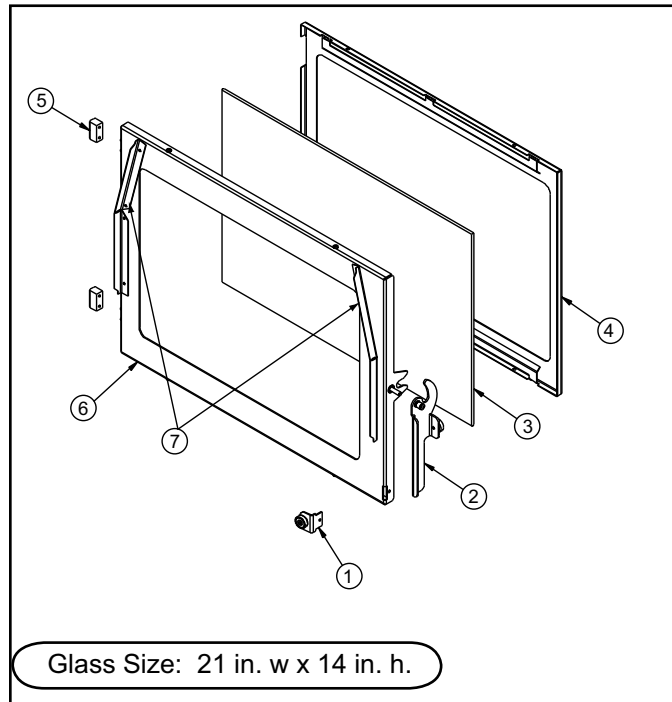


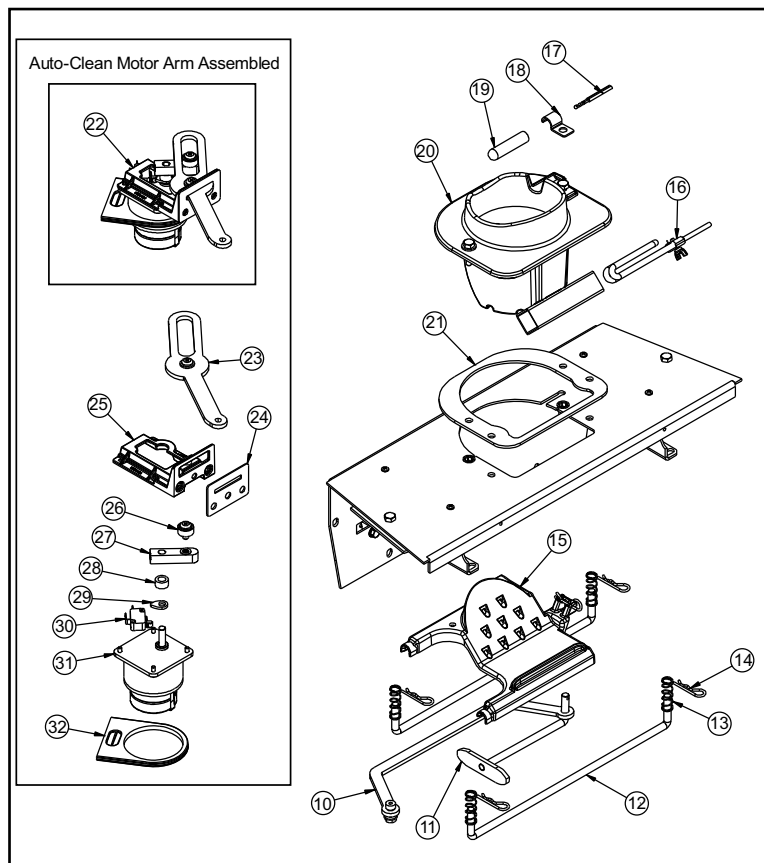
Figure 40.3

C. Exploded Drawings



Item	Description	Part Number
1	Magnet & Bracket Assembly	7034-008
2	Latch, Door Assembly	7034-039
3	Glass Assembly	7034-007
4	Glass Retainer	7034-136
5	Hinge, Female	450-2910
6	Door Frame Assembly	7034-026
7	Door Air Deflector	7034-185

Figure 41.1 - Door, Glass & Door Latch Assembly



Item	Description	Part Number
10	Auto-Clean Link Arm	7034-176
11	Auto-Clean Plow	7034-024
12	Auto-Clean Rail	SRV7034-152
13	Spring, Auto-Clean, Qty: 4	7000-299/4
14	Clip, Hitch Pin 3/32, Qty: 10	7000-374/10
15	Firepot Bottom	7034-153
16	Heating Element (Igniter) 18"	SRV7000-226
17	Thermocouple	SRV7000-334
18	Clip, Half	7000-321
19	Thermocouple Cover	SRV7034-186
20	Firepot Assembly	SRV7034-010
21	Gasket, Firepot	7034-190
22	Auto-Clean Motor/ Arm Assy	7034-020
23	Auto-Clean Lever	7034-158
24	Gasket, Auto-Clean	7034-165
25	Auto-Clean Motor Mount	<i>not sold sep.</i>
26	Bearing	7000-333
27	Crank Arm	<i>not sold sep.</i>
28	Spacer	<i>not sold sep.</i>
29	Auto-Clean Cam Switch	SRV7034-187
30	Switch, Micro, Normally Open	7000-327
31	Motor 12 Volt	7000-300
32	Auto-Clean Motor Grommet	7034-188

Figure 41.2 - Firepot, Igniter & Auto-Clean System

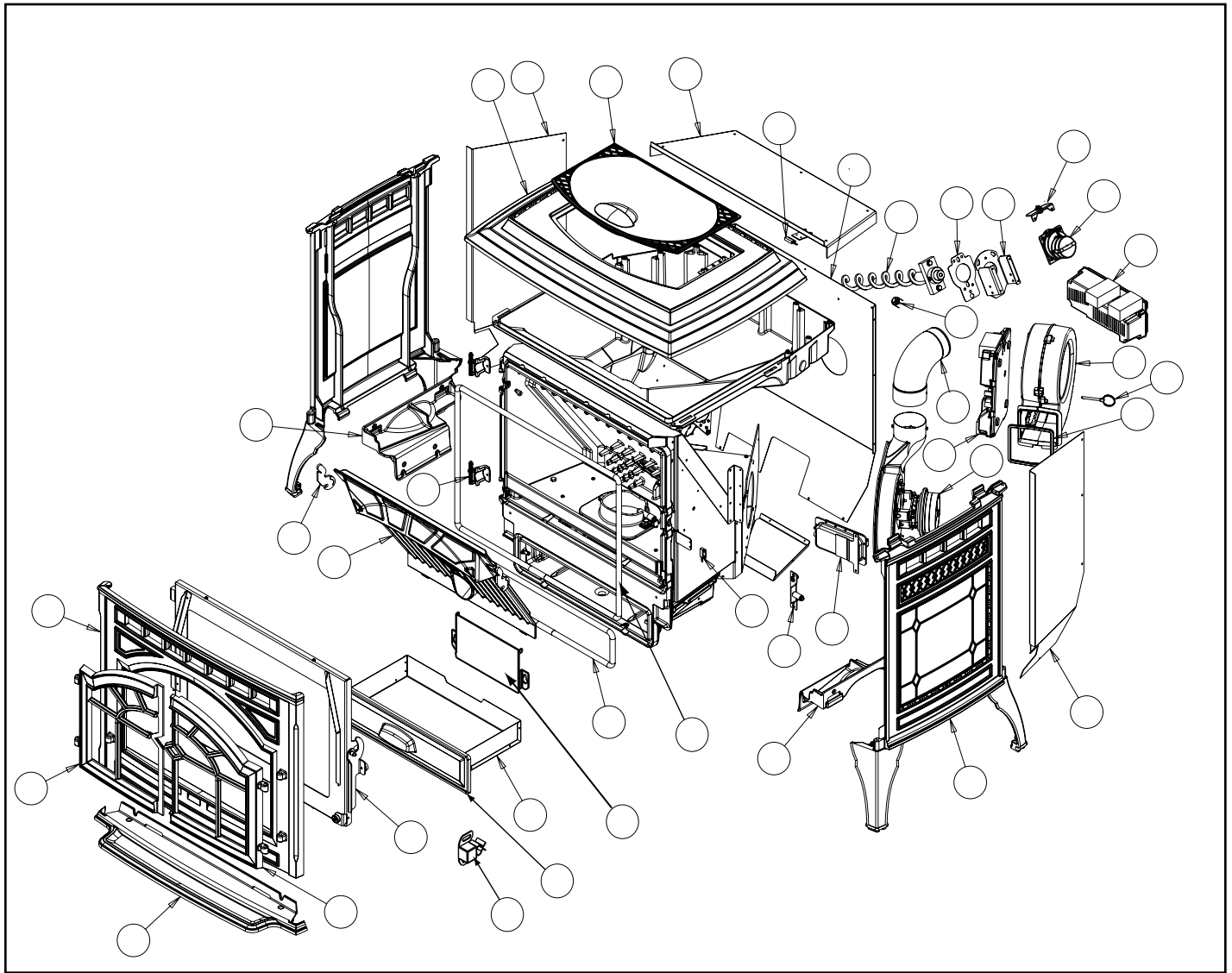


Figure 42.1

Item	Description	Item	Description	Item	Description
35	Ash Lip	49	Exhaust Transition	63	Shroud, Left
36	Door, Cast, Right	50	Gasket, Blower, Convection	64	Top, Cast
37	Door Assembly	51	Detent Pin 3/16	65	Side Mount, Left
38	Ash Pan Assembly	52	Blower, Convection	66	Hinge, Male, Door
39	Gasket, Ash Door	53	Power Supply	67	Latch, Baffle
40	Gasket, (Rope) Door	54	Feed Motor	68	Baffle
41	Switch, Magnetic	55	Switch, Optical Assembly	69	Front, Cast
42	Bracket, Latch	56	Bracket, Feed Motor	70	Door, Cast, Left
43	Vacuum Switch	57	Sensor, Overheat (Snap Disc)	71	Clip Receiver
44	Side Mount, Right	58	Gasket, Feed Motor	72	Ash Pan Door
45	Side, Cast. Left & Right	59	Feed Spring Assembly	73	Intake Shield
46	Shroud, Right	60	Shroud, Rear		
47	Blower, Combustion (Exhaust)	61	Hopper Top		
48	Control Board	62	Hopper Lid		

D. Service Parts and Accessories

IMPORTANT: THIS IS DATED INFORMATION. The most current information is located on the Quadra-Fire web site at www.quadrafire.com. When ordering, supply serial and model numbers to ensure correct service parts.

Item No.	Accessories	Part No.
	12 Volt Power Cord	12VCORD-AE
	Firescreen	SCR-7005
	Log Set, 2 pieces	LOGS-60-AE
	Outside Air Kit	OAK-3
	Rear Vent to Top Vent, Short, 90 degrees with Clean-Out	811-0610
	Rear Vent Adapter with Clean-Out	811-0620
	Top Vent Adapter, 3 to 3 inch Offset	811-0720
	Top Vent Adapter, 3 to 6 inch Offset	812-3570
	Top Vent Adapter	TPVNT-3
	Warming Shelves with Brackets, Matte Black (pair)	844-9780
	Warming Shelves with Bracket, Porcelain Mahogany (pair)	844-9810
	Warming Shelves with Bracket, Powder Coat, Sienna Bronze (pair)	WSLG-CSB
	Warming Shelves with Bracket, Powder Coat, Willow (pair)	WSLG-CWL

Item No.	Service Parts	Part No.
35	Ash Lip, Matte Black	7005-111MBK
35	Ash Lip, Porcelain, Mahogany	7005-111PMH
35	Ash Lip, Powder Coat, Sienna Bronze	7005-111CSB
35	Ash Lip, Powder Coat, Willow	7005-111CWL
38	Ash Pan Assembly	7034-013
72	Ash Pan Door	7034-133
	Auto-Clean Bottom Assembly	7034-021
23	Auto-Clean Lever	7034-158
10	Auto-Clean Link Arm	7034-176
22	Auto-Clean Motor Arm Assembly	7034-020
32	Auto-Clean Motor Grommet	7034-188
11	Auto-Clean Plow	7034-024
12	Auto-Clean Rail	SRV7034-152
29	Auto-Clean Switch Cam	SRV7034-187
68	Baffle	SRV7034-148
26	Bearing for Auto-Clean System, Qty: 1	7000-333
47	Blower, Combustion (Exhaust) with Gasket	7034-033
52	Blower, Convection	SRV7000-260
	Bracket, Catch	7036-145
	Bracket, Control Board	7034-212
	Bracket, Door Switch	7034-215
56	Bracket, Feed Motor	7034-143
	Bracket, Hopper Switch	7034-216

Item No.	Service Parts	Part No.
42	Bracket, Latch Assembly	7034-014
	Bracket, Overheat Sensor (Snap Disc)	7034-150
	Bracket, Vacuum Switch	7034-211
18	Clip, Half, for Auto Clean System	7000-321
14	Clip, Hitch Pin 3/32, Qty: 10	7000-374/10
71	Clip, Receiver, Black	704-832
	Clip, Wire, Qty: 10	7000-400/10
	Component Pack, Mahogany (includes owner's manual, warranty card, quick start guide, heat exchanger 7 exhaust cleaning instructions, DVD "How To", wall control & harness, power cord, (4) leveling nuts & bolts, firepot clean-out tool, touch-up paint and label "If Fireplace Altered")	7034-037
	Component Pack, Matte Black, (see above for contents)	7034-034
	Component Pack, Sienna Bronze, (see above for contents)	7034-035
	Component Pack, Willow, includes, (see above for contents)	7034-036
48	Control Board	SRV7000-456
51	Detent Pin for Convection Blower	7000-376
37	Door Assembly	7034-006
6	Door Frame Assembly	7034-026
7	Door, Air Deflector	7034-185
2	Door Latch Assembly	7034-039
70	Door, Left, Matte Black	7005-110MBK
70	Door, Left, Porcelain Mahogany	7005-110PMH
70	Door, Left, Powder Coat, Sienna Bronze	7005-110CSB
70	Door, Left, Powder Coat, Willow	7005-110CWL
36	Door, Right, Matte Black	7005-109MBK
36	Door, Right, Porcelain, Mahogany	7005-109PMH
36	Door, Right, Powder Coat, Sienna Bronze	7005-109CSB
36	Door, Right, Powder Coat, Willow	7005-109CWL
	Elbow, Catch	7000-393
49	Exhaust Transition Assembly	7034-139
	Face Plate, located behind Ash Removal Door	7034-124
54	Feed Motor, DC Current	SRV7000-313
	Feed Motor & Spring Assembly	7034-004
59	Feed Spring Only	SRV7001-046
20	Firepot Assembly	SRV7034-010
15	Firepot Bottom	7034-153
	Firepot Clean-Out Tool	414-1140
	Firepot Riser Clamp Assembly	7034-012
	Firepot Riser Assembly	SRV7034-002
69	Front, Matte Black	7005-108MBK
69	Front, Porcelain, Mahogany	7005-108PMH
69	Front, Powder Coat, Sienna Bronze	7005-108CSB
69	Front, Powder Coat, Willow	7005-108CWL
39	Gasket, (Rope), Ash Door	SRV7034-178
40	Gasket, (Rope), Door	SRV7034-177

Item No.	Service Parts	Part No.
24	Gasket, Auto-Clean	7034-165
50	Gasket, Blower, Convection	7000-329
	Gasket, Blower, Combustion, goes between blower housing and stove	SRV7000-332
	Gasket, Blower, Combustion, goes between blower housing and motor	SRV7000-423
	Gasket, Exhaust	7034-109
	Gasket, Extruded Edge, 10 ft, Hopper	7000-319/10
	Gasket, Extruded, 10 ft, Hopper Lid	7000-320/10
58	Gasket, Feed Motor	7034-144
21	Gasket, Firepot	7034-190
	Gasket, Glass, 1/8" x 1-1/4", 10 ft.	7000-377/10
3	Glass Assembly, Door	7034-007
4	Glass Retainer	7034-136
16	Heating Element, 18" (Igniter)	SRV7000-226
	Heating Element, 18" (Igniter), Qty: 10	7000-226/10
	Hinge Arm, Left, Hopper Lid	7034-161
	Hinge Arm, Right, Hopper Lid	7034-160
5	Hinge, Female, Door	450-2910
66	Hinge, Male, Door	7034-138
	Hinge Pin, Hopper Lid, Qty: 1	7034-159
	Hinge Retainer, Hopper Lid	7034-163
62	Hopper Lid, Matte Black	7034-157MBK
62	Hopper Lid, Porcelain, Mahogany	7034-157PMH
62	Hopper Lid, Powder Coat, Sienna Bronze	7034-157CSB
62	Hopper Lid, Powder Coat, Willow	7034-157CWL
61	Hopper Top	7034-169
73	Intake Shield	7034-224
67	Latch, Baffle	7034-149
	Log, Front, Left	7034-227
	Log, Front, Right	7034-226
	Magnet, Round	SRV7000-140
1	Magnet & Bracket Assembly	7034-008
31	Motor, Gear, Auto-Clean	7000-300
	Paint, Touch-Up, Matte Black	7000-304
	Paint, Touch-Up, Porcelain Mahogany	855-1450
	Paint, Touch-Up, Powder Coat, Sienna Bronze	TOUCHUP-CSB
	Paint, Touch-Up, Powder Coat, Willow	TOUCHUP-CWL
	Paint, (1) 12 oz can, Powder Coat, Willow	PAINT1-CWL/CTO
	Paint, (1) 12 oz can, Powder Coat, Sienna Bronze	PAINT1-CSB/CES
	Power Cord	812-1180
53	Power Supply Assembly	SRV7000-324
	Rivet, Button head, Gold	Qty 1: 72171 Qty 2: 844-5750
	Rivnut Repair Kit, 1/4-20	RIVNUT-REPAIR
	Screw 1/4-20 x 3/8", Qty: 24	7000-401/24
	Screw 1/4-20 x 5/8", Qty: 24	7000-398/24

Item No.	Service Parts	Part No.
57	Sensor, Overheat (Snap Disc)	230-1290
	Sensor, Fuel Level	7000-380
60	Shroud, Rear	7034-170
63	Shroud, Left	7034-172
46	Shroud, Right	7034-171
65	Side Mount, Left	7034-128
44	Side Mount, Right	7034-126
45	Side, Matte Black	7005-107MBK
45	Side, Porcelain, Mahogany	7005-107PMH
45	Side, Powder Coat, Sienna Bronze	7005-107CSB
45	Side, Powder Coat, Willow	7005-107CWL
13	Spring, for Auto-Clean, Qty: 4	7000-299/4
41	Switch, Magnetic	7000-375
30	Switch, Micro, Normally Open	7000-327
55	Switch, Optical Assembly	7034-038
17	Thermocouple, Firepot	SRV7000-334
19	Thermocouple Cover	SRV7034-186
	Thermocouple Ring Mount	SRV7000-381
	Thermostat Wire, 3 Conductor	7000-409
64	Top, Matte Black	7034-155MBK
64	Top, Porcelain, Mahogany	7034-155PMH
64	Top, Powder Coat, Sienna Bronze	7034-155CSB
64	Top, Powder Coat, Willow	7034-155CWL
	Vacuum Hose	7000-373
43	Vacuum Switch	SRV7000-166
	Wall Control, Thermostat, Programmable	SRV7000-451
	Wire Harness, Auger, Auto Clean, Vacuum Switch	SRV7034-191
	Wire Harness, Battery Back-up	7034-202
	Wire Harness, Convection Blower	7034-219
	Wire Harness, Door, Hopper	SRV7034-192
	Wire Harness, Igniter (Heating Element)	SRV7034-199
	Wire Harness, Overheat Sensor	7034-193
	Wire Harness, Power Out, AC Current	7034-220
	Wire Harness, Power Out, DC Current	7034-221
	Wire Harness, Power (Supply) Receptacle	SRV7034-233
	Wire Harness, Thermostat	SRV7034-200

Appliances	Part No.
Mt. Vernon AE, Matte Black	MTVERNON-AE-MBK
Mt. Vernon, AE Porcelain, Mahogany	MTVERNON-AE-PMH
Mt. Vernon, AE, Powder Coat, Sienna Bronze	MTVERNON-AE-CSB
Mt. Vernon, AE, Powder Coat, Willow	MTVERNON-AE-CWL

F. Homeowner's Notes

G. Warranty Policy**Hearth & Home Technologies LIMITED WARRANTY**

Hearth & Home Technologies ("HHT") and its respective brands extends the following warranty for HHT gas, wood, pellet and electric appliances purchased from an authorized HHT dealer and installed in the United States of America or Canada. Warranty starts with date of purchase by the original owner (End User) except as noted for replacement parts.

Warranty Period		HHT Manufactured Appliances and Venting						Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Electric	Venting	
1 Year		X	X	X	X	X	X	All Parts and Material Except as covered by Conditions, Exclusion, and Limitations listed
2 years				X	X			Igniters, Electronic Components, and Glass
		X	X	X	X			Blowers
			X					Molded Refractory Panels
3 years				X				Firepots
5 years	3 years			X	X			Castings & Baffles
7 years	3 years		X	X	X			Firebox, HHT Chimney, Termination & Heat Exchanger
10 years	1 year	X						Burners, Logs & Refractory
Limited Lifetime	1 year	X						Firebox & Heat Exchanger
90 Days		X	X	X	X	X	X	All Replacement Parts
See Conditions, Exclusions, and limitations.								9-01-08

CONDITIONS, EXCLUSIONS & LIMITATION OF LIABILITY

- This warranty applies to the original owner and is transferable up to two years from date of purchase to the new homeowner, provided the purchase was made through an authorized dealer or distributor of HHT, and the appliance remains in its original place of installation.
- The maximum amount recoverable under this warranty is limited to the purchase price of the product.
- In no event shall HHT be liable for any incidental or consequential damages caused by defects in the product.
- Adjustments, regular maintenance, cleaning and temporary repairs, or the failure to duplicate the problem in the home is not covered under this warranty.
- This limited warranty does not extend to or include surface finish on the appliance or terminations, door gasketing, glass gasketing, glass discoloration, firebrick, pellet logs, kaowool or other ceramic insulating materials. Rust and/or corrosion on any of the metal surfaces, cast iron components, baffles, firepots, doors, or firebox area are not covered by this warranty.
- Noise resulting from minor expansion, contraction, or movement of certain parts is normal and complaints related to this noise are not covered by this warranty.

Hearth & Home Technologies LIMITED WARRANTY (Cont'd)

- HHT's obligation under this warranty does not extend to damages resulting from: (1) installation, operation or maintenance of the appliance not in accordance with the installation instructions; operating instructions and the listing agent identification label furnished with the appliance; (2) installation which does not comply with local building codes; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure or handling devices such as exhaust fans or forced air furnaces or other such causes; (5) use of fuels other than those specified in the operating instructions; (6) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; and/or (7) modification of the appliance not expressly authorized and approved by HHT in writing.
- This warranty does not apply to non-HHT venting components, hearth components or other accessories used in conjunction with the installation of this product.
- This warranty is void if the appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals the appliance is subject to prolonged periods of dampness or condensation, or 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.
- HHT's liability under this warranty is limited to the replacement and repair of defective components or workmanship during the applicable period. HHT may fully discharge all of its obligations under such warranties by repairing the defective component(s) at HHT's discretion. Shipping costs are not covered under this warranty.
- Some states do not allow exclusions or limitation of incidental or consequential damages, so those 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 WARRANTY SPECIFIED ABOVE.

This Limited Warranty is effective on all HHT appliances sold after September 01, 2008 and supersedes any and all warranties currently in existence.

If warranty service is needed, you should contact your installing dealer. If the installing dealer is unable to provide necessary parts or components, contact the nearest authorized HHT dealer or supplier.

QUADRA-FIRE®

O T T O T O :

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

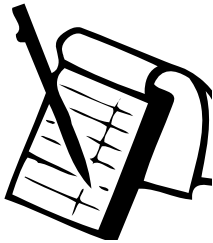
Please contact your Quadra-Fire dealer with any questions or concerns.
For the number of your nearest Quadra-Fire dealer
visit our web site at www.quadrafire.com

NOTICE



DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



We recommend that you record the following pertinent information for your MT. VERNON PELLET STOVE (AE)

Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer phone: _____

Notes: _____

This product may be covered by one or more of the following patents: (United States) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439226, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, 6769426, 6774802, 6796302, 6840261, 6848441, 6863064, 6866205, 6869278, 6875012, 6880275, 6908039, 6919884, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408, 2313972; (Australia) 780250, 780403, 1418504 or other U.S. and foreign patents pending.



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