

# Installation Manual

## Installation & Appliance Set-Up

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

**OWNER:** Retain this manual for future reference.

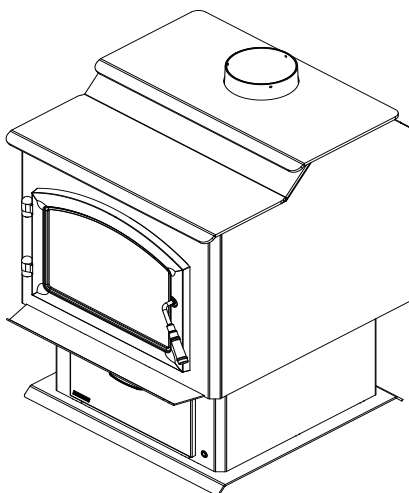
**NOTICE: DO NOT DISCARD THIS MANUAL**

# QUADRA-FIRE®

NOTHING BURNS LIKE A QUAD

## Model(s): Adventure-II

**EPA CERTIFIED WOODBURNING  
APPLIANCE**



### WARNING



#### Fire Risk.

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

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

**hearthED**  
**FACTORY TRAINING**  
Fuel Your Fire



### WARNING



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

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



### WARNING



#### HOT SURFACES!

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

#### Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures
- **High temperatures may ignite clothing or other flammable materials.**
- Keep clothing, furniture, draperies and other flammable materials away.

### NOTE

To obtain a French translation of this manual, please contact your dealer or visit [www.quadrafire.com](http://www.quadrafire.com)

Pour obtenir une traduction française de ce manuel, s'il vous plaît contacter votre revendeur ou visitez [www.quadrafire.com](http://www.quadrafire.com)



### Safety Alert Key:

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

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Quadra-Fire is a registered trademark of Hearth & Home Technologies.

# 1 Important Safety Information

## A. Appliance Certification

<b>Model:</b>	Adventure II
<b>Laboratory:</b>	Underwriter's Laboratories, Inc.
<b>Report No:</b>	MH 60687
<b>Type:</b>	Solid Fuel Room Heater
<b>Standard:</b>	UL1482-10 and ULC S627-00 and (UM) 84-HUD, Mobile Home Approved.

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the UL1482, (UM) 84-HUD and NPFA211 in the U.S.A. and the ULC S628-93 and CAN/CSA-B365 Installation Codes in Canada.

## B. BTU & Efficiency Specifications

EPA Certification #:	1007-15
EPA Certified Emissions:	2.4 grams per hour
*LHV Tested Efficiency:	77.6%
**HHV Tested Efficiency:	71.8%
***EPA BTU Output:	10,500 to 31,100 / hr.
****Peak BTU/Hour Output:	61,700
Vent Size:	6 inches
Firebox Size:	2.5 cubic feet
Recommended Log Length:	18 inches
Fuel	Seasoned Cord Wood
* Weighted average LHV (Low Heating Value) efficiency using Douglas Fir dimensional lumber and data collected during EPA emission test. LHV assumes the moisture is already in a vapor state so there is no loss in energy to vaporize.	
**Weighted average HHV (High Heating Value) efficiency using Douglas Fir dimensional lumber and data collected during EPA emission test. HHV includes the energy required to vaporize the water in the fuel.	
***A range of BTU outputs based on EPA Default Efficiency and the burn rates from the low and high EPA tests, using Douglas Fir dimensional lumber.	
****A peak BTU out of the appliance calculated using the maximum first hour burn rate from the High EPA Test and the BTU content of cordwood (8600) times the efficiency.	

The Quadra-Fire Adventure-II Series Wood Burning Appliance meets the U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2015.

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

## C. Mobile Home Approved

This appliance is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is provided. The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The appliance must be properly grounded to the frame of the

mobile home and use only listed double-wall connector pipe. Outside Air Kit, part OAK-ADV must be installed in a mobile home installation.

## D. Glass Specifications

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

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



## WARNING



### Fire Risk.

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.
- Do NOT Overfire - If appliance or chimney connector glows, you are overfiring.

Any such action that may cause a fire hazard.

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

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

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

- Warped air tubes, deteriorated refractory brick retainers, deteriorated baffle and other interior components.

## E. Non-Combustible Materials

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

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

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

## F. Combustible Materials

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

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

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

# Install Guide

## 2 Getting Started

### A. Design and Installation Considerations

Consideration must be given to:

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

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation. If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.

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

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

### CAUTION

Check building codes prior to installation.

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



### WARNING



#### Asphyxiation Risk.

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

May allow flue gases to enter the house.

### B. Fire Safety

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

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

In the event of a chimney fire:

- a. Evacuate the house immediately
- b. Notify fire department

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

**NOTICE:** HEARTH & HOME TECHNOLOGIES ASSUMES NO RESPONSIBILITY FOR THE IMPROPER PERFORMANCE OF THE APPLIANCE SYSTEM CAUSED BY:

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

## C. Negative Pressure



### WARNING



#### Asphyxiation Risk.

- Negative pressure can cause spillage of combustion fumes, soot and carbon monoxide.
- Appliance needs to draft properly for safety.

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

## D. Tools And Supplies Needed

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

Reciprocating saw	Framing material
Utility knife	High temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Roof sealant	Drill and bits
Plumb line	Safety glasses
Level	Tape measure
Misc. screws and nails	Tin snips

## E. Inspect Appliance and Components

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



### WARNING



#### Fire Risk.

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.



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

## F. Install Checklist

### ATTENTION INSTALLER: Follow this Standard Work Checklist

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

Customer: \_\_\_\_\_

Date Installed: \_\_\_\_\_

Lot/Address: \_\_\_\_\_

Location of Appliance: \_\_\_\_\_

Installer: \_\_\_\_\_

Dealer/ Distributor Phone #: \_\_\_\_\_

Serial #: \_\_\_\_\_

Model (circle one):    Adventure-II

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

#### **Appliance Install Section 3**

Verified clearances to combustibles.

Appliance is leveled and chimney connector is secured to appliance.

Outside air kit installed.

Floor protection requirements have been met.

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.

YES

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

IF NO, WHY?

_____
_____
_____
_____
_____
_____

#### **Chimney Section 4**

Chimney configuration complies with diagrams.

Chimney installed, locked and secured in place with proper clearance.

Chimney meets the minimum height requirements.

Roof flashing installed and sealed.

Terminations installed and sealed.

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

_____
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_____
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#### **Clearances Section 3**

Combustible materials not installed in non-combustible areas.

Verified all clearances meet installation manual requirements.

Mantels and wall projections comply with installation manual requirements.

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

_____
_____
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_____

#### **Appliance Setup Section 5**

All packaging and protective materials removed.

Firebrick, baffle and ceramic blanket installed correctly.

All packaging materials are removed from inside/under the appliance.

Manual bag and all of its contents are removed from inside/under the appliance  
and given to the party responsible for use and operation.

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

_____
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#### **Hearth & Home Technologies recommends the following:**

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

**Comments:** Further description of the issues, who is responsible (Installer/Builder/Other Trades, etc.) and corrective action needed:

Comments communicated to party responsible \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_  
(Builder/Gen. Contractor) (Installer) (Date)

# 3 Dimensions and Clearances

## A. Appliance Dimensions

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

### Adventure-II

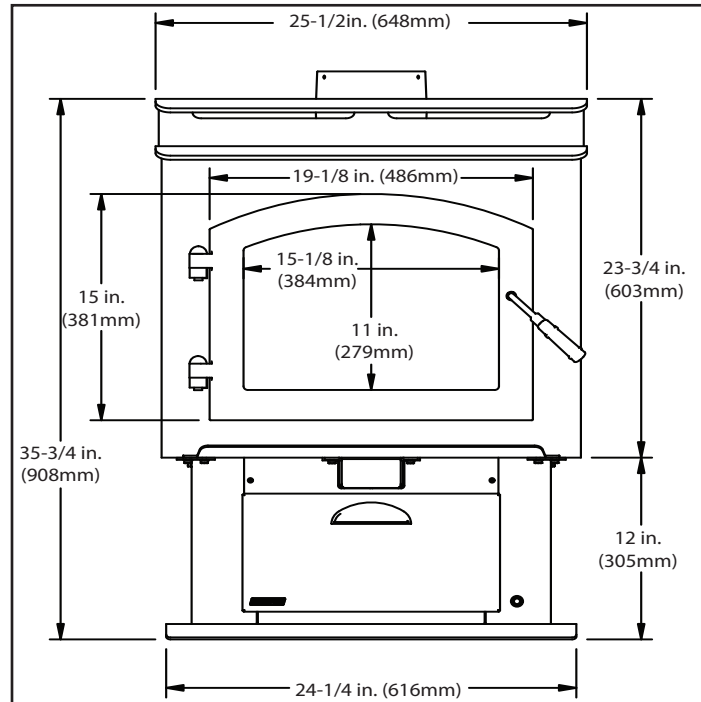


Figure 3.1 Front View

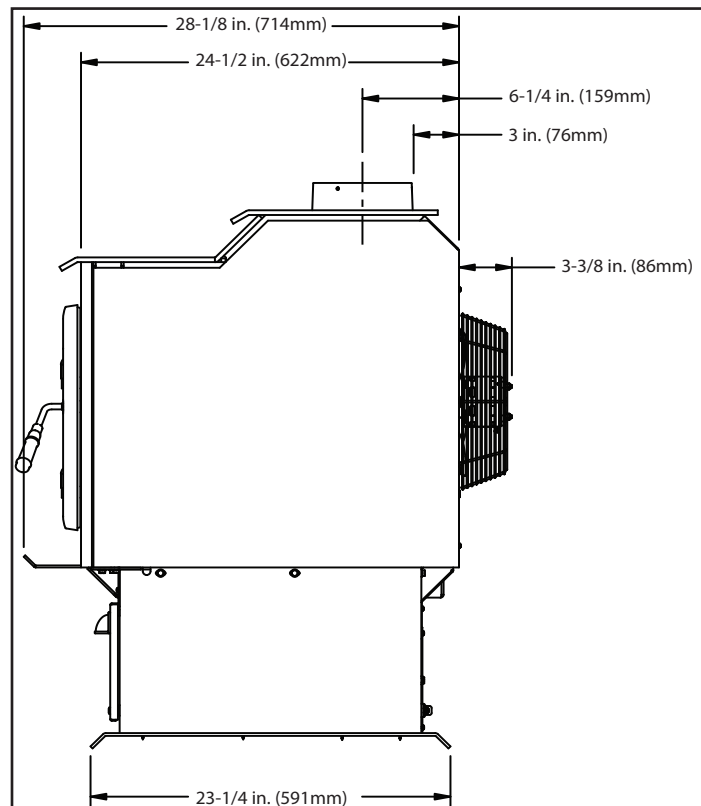


Figure 3.2 Side View (shown with optional fan)



B. Clearances to Combustibles (UL and ULC)

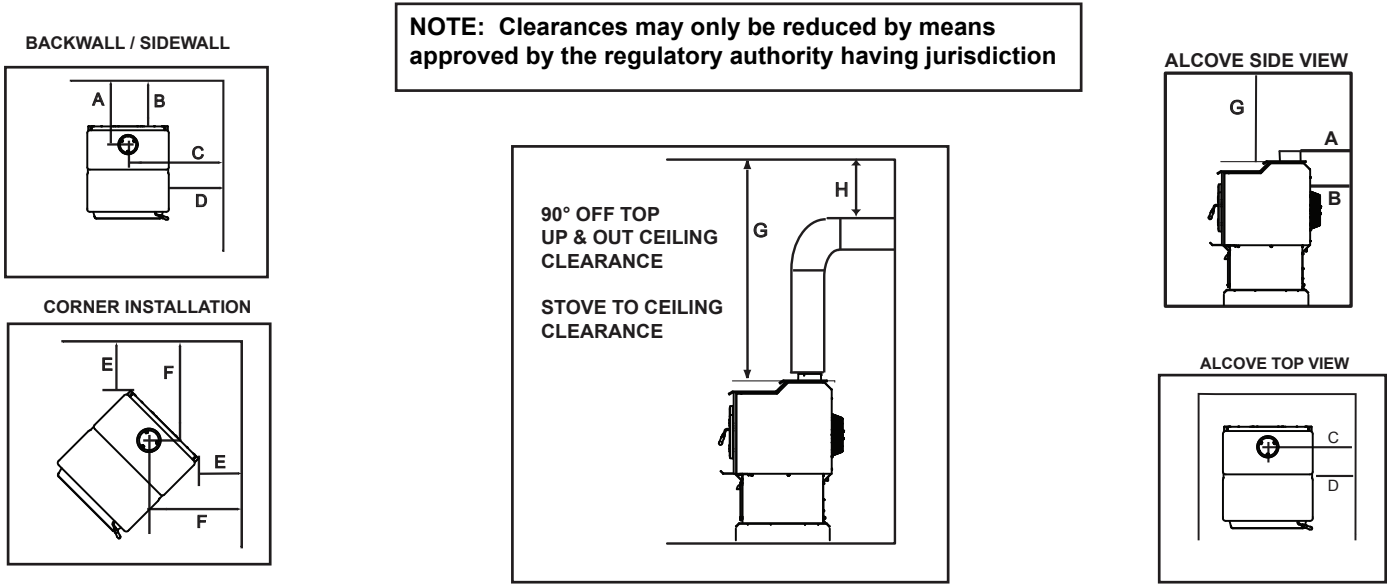



Figure 3.3


	A	B	C	D	E	F	G	H
INSTALLATION: Full Vertical								
Single Wall Pipe	17.5	11	26.5	14	5.5	18.5	42	NA
Double Wall Pipe	15.5	9	24.5	12	4	16.5	42	NA
INSTALLATION: Horizontal with 2 foot minimum vertical Off Appliance Top								
Single Wall Pipe	17.5	11	26.5	14	5.5	18.5	42	18
Double Wall Pipe	15.5	9	24.5	12	4	16.5	42	13

**INSTALLATION: ALCOVE** Six inch (6”) (152mm) diameter listed Double Wall air insulated connector pipe with UL 103 HT\*\* Listed factory-built Class “A” chimney, or a masonry chimney. (Manufactured home must be equipped with a spark arrestor). Maximum depth of Alcove shall be no more than 48 inches (1219mm) with a minimum height of 84.0 (2134mm) from floor to bottom of ceiling and the reference clearances.

**\*\*In Canada must comply with Standard CAN/ULC-S629-M87 for the 650°C Factory-built chimney.**



**WARNING**



**Fire Risk.**

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

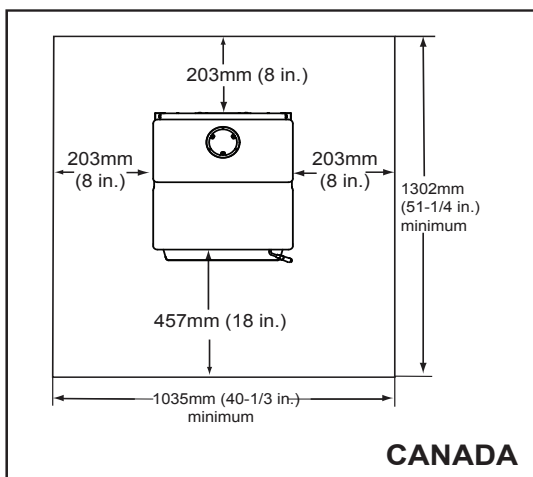
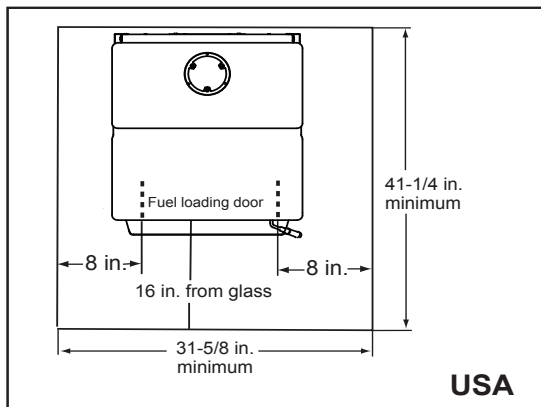


## C. Hearth Protection Requirements

### Floor Protection:

- Type 1 (ember) floor protector or 1/2" non-combustible material.
- Extend beneath appliance and to the front, sides and rear as indicated.
- The floor must be non-combustible or otherwise adequately protected from sparks and falling embers.
- A layer of thin brick or ceramic over a combustible is sufficient.

**In US Installations**, it is necessary to install a floor protector of non-combustible material a minimum of 16 inches (496mm) in front of glass and 8 inches (203mm) to both sides of the fuel loading door. Open the door and measure 8 inches (203mm) from the side edge of the opening in the face of the appliance. **\*See exception.**

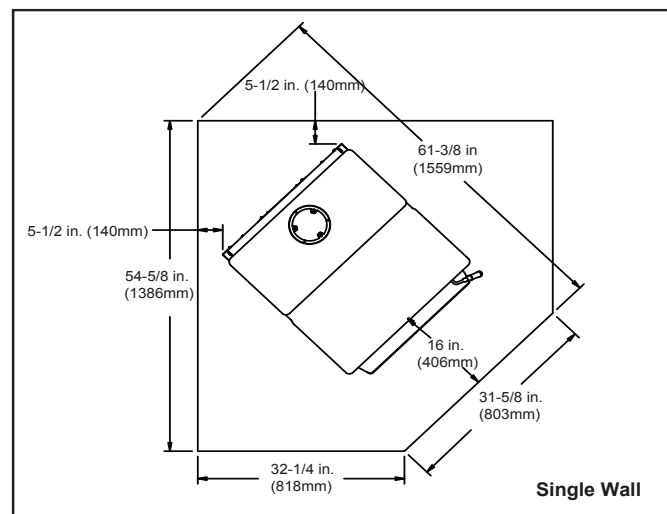
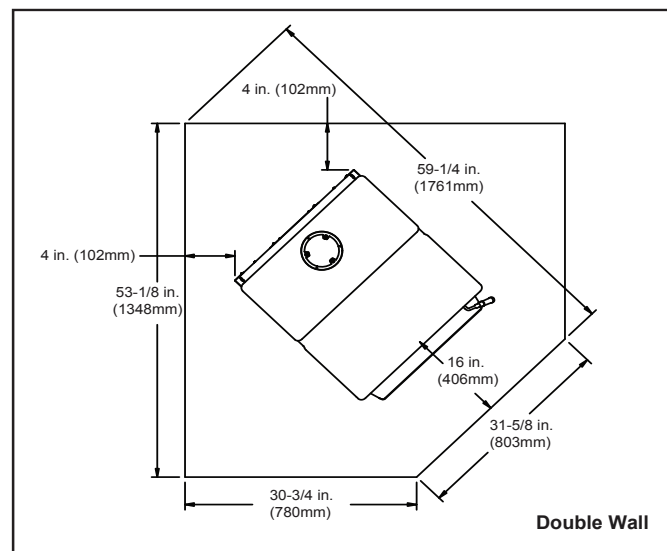


**In Canada**, it is necessary to install a floor protector of non-combustible material a minimum of 18 inches (457mm) in front of glass and 8 inches (203mm) to both sides and back of the appliance. **\*See exception.**

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

### **WARNING! Risk of Fire!**

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



**Figure 3.4**

- NOTICE:**
- Illustrations and photos 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
  - Hearth & Home Technologies reserves the right to alter its products.

## D. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance. As shown in **Figure 9.1** the chimney should:

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

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

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

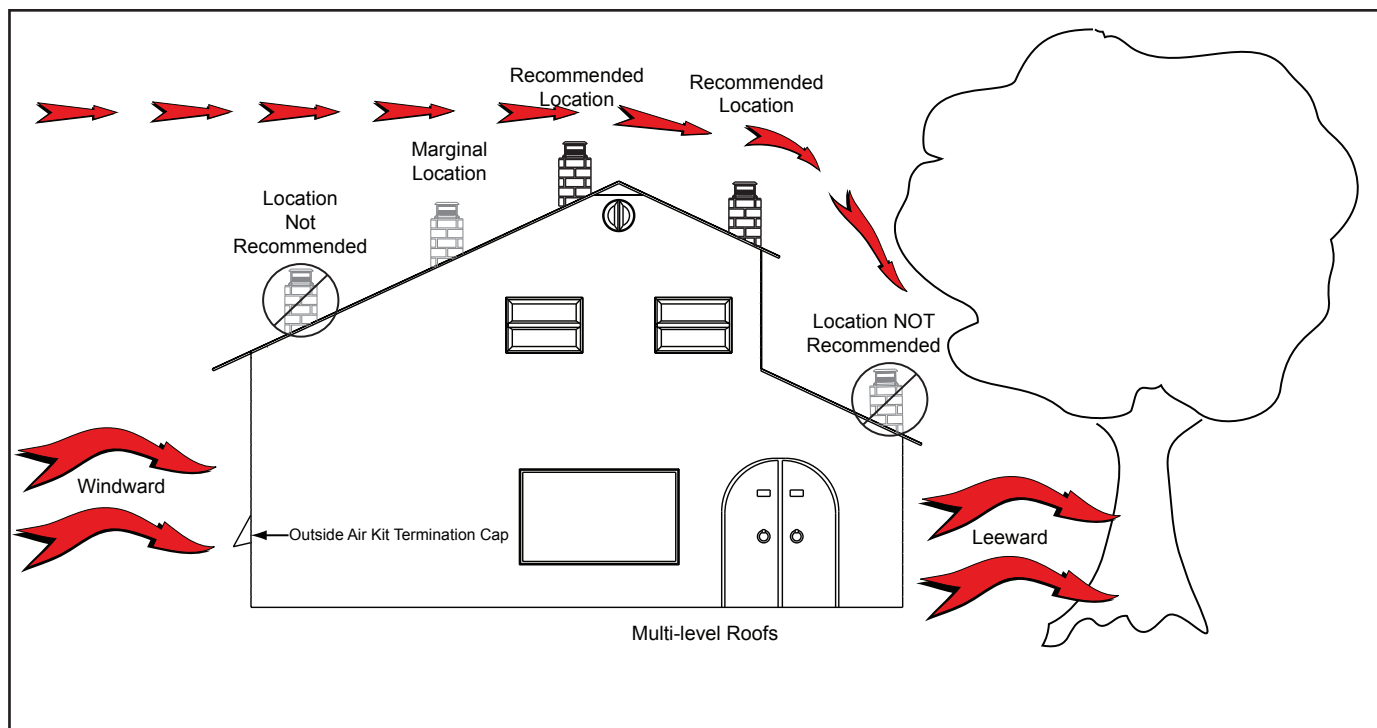


Figure 3.5

## E. Chimney Termination Requirements

Follow manufacturer's instructions for clearance, securing flashing and terminating the chimney.

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

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

- Frequently open doors
- Central heat outlets or returns

### NOTICE:

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

## F. 2-10-3 Rule

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

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

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

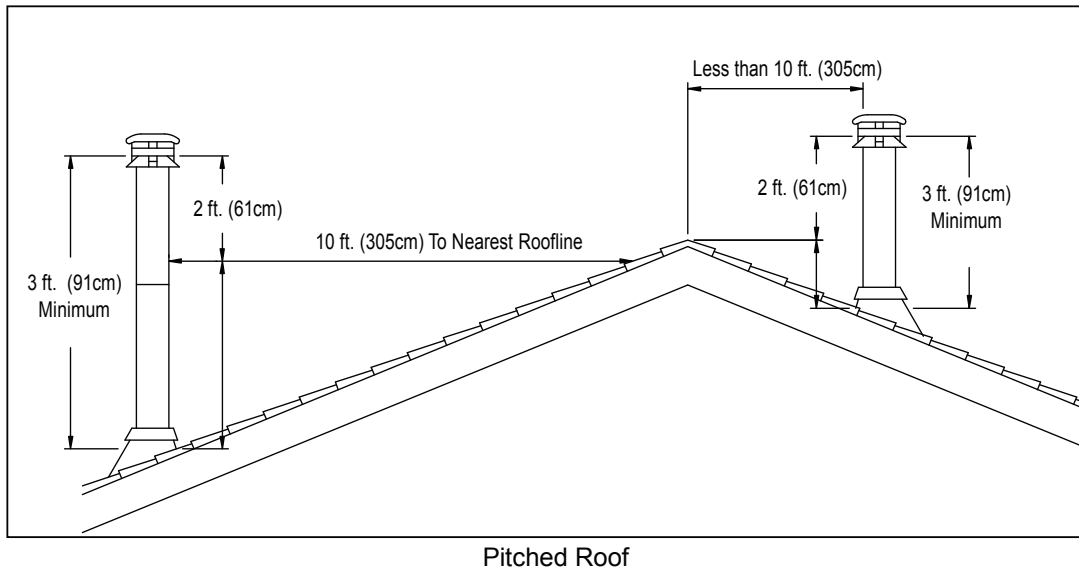


Figure 3.6

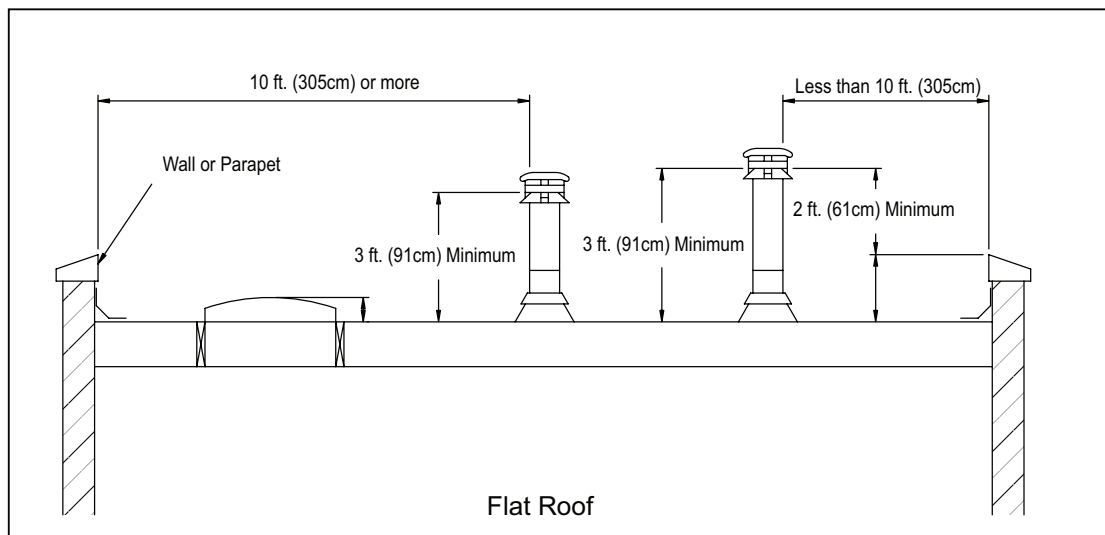


Figure 3.7

# 4 Chimney Systems

## A. Venting Systems

The venting system consists of:

- A chimney connector (also known as flue or appliance pipe)
- A chimney
- Thimble

These get extremely hot during use. Temperatures inside the chimney may exceed 2000°F (1100°C) in the event of a creosote fire.

To protect against the possibility of a house fire:

- Chimney connector and chimney **must be properly installed and maintained.**
- An approved thimble must be used when a connection is made through a combustible wall to a chimney.
- A chimney support package must be used when a connection is made through the ceiling to a factory built chimney.
- An approved thimble and chimney support package are **absolutely necessary** to provide safe clearances to combustible wall and ceiling material.

### Thimble

A thimble is a manufactured or site-constructed device installed in combustible walls through which the chimney connector passes to the chimney.

- It is intended to keep the walls from igniting.
- Site constructed thimbles must meet NFPA 211 Standards.
- Factory-built must be suitable for use with selected chimney and meet UL103 Type HT Standards.
- Follow instructions provided by the manufacturer for manufactured thimbles for masonry chimney and factory-built chimneys.

### Air Clearances

- Masonry chimney clearance must meet NFPA 211 minimum requirement of 2 inches (51mm) to sheet metal supports and combustibles.
- Minimum of 1 inch (25mm) clearance around the chimney connector.
- Top of wall opening is a minimum of 13-1/2 inches (343mm) from ceiling or 4-1/2 inches (114mm) below minimum clearance specified by chimney connector manufacturer. NFPA 211 minimum vertical clearance of 18 inches (457mm) from chimney connector and ceiling or minimum recommended by chimney connector manufacturer. **Figure 4.1.**

### Instructions:

1. Open inside wall at proper height for the chimney connector to entry the masonry chimney. **Figure 4.1**
2. Entry hole to masonry chimney must be lined with an 8 inch (203mm) minimum diameter clay liner, or equivalent, secured with refractory mortar.

3. Construct a 17 inch x 17 inch (432mm x 432mm) outside dimension frame from 2 x 2 framing lumber to fit into wall opening. Inside opening of frame should be no less than 14 inch x 14 inch (356mm x 356mm). **Figure 4.1.**
4. Attach the wall spacer to the chimney side of the frame.
5. Nail the frame into the wall opening. The spacer should be on the chimney side.
6. Insert the section of the solid insulated chimney into the outer wall of the masonry chimney.
7. Tightly secure the length of the solid insulated chimney with the wall band to the masonry chimney.
8. Insert a section of chimney connector into the chimney. Make sure it does not protrude past the edge of the clay chimney liner inside the chimney.
9. Seal the end of the chimney connector to the clay liner with refractory mortar.
10. Install trim collar around the sold pack chimney section.

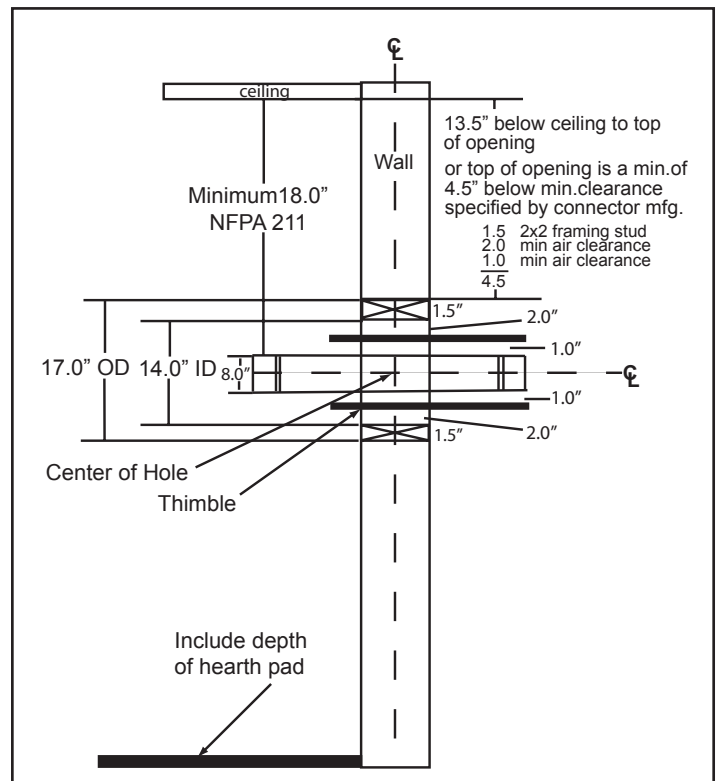


Figure 4.1

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

## Solid Pack Chimney with Metal Supports as a Thimble

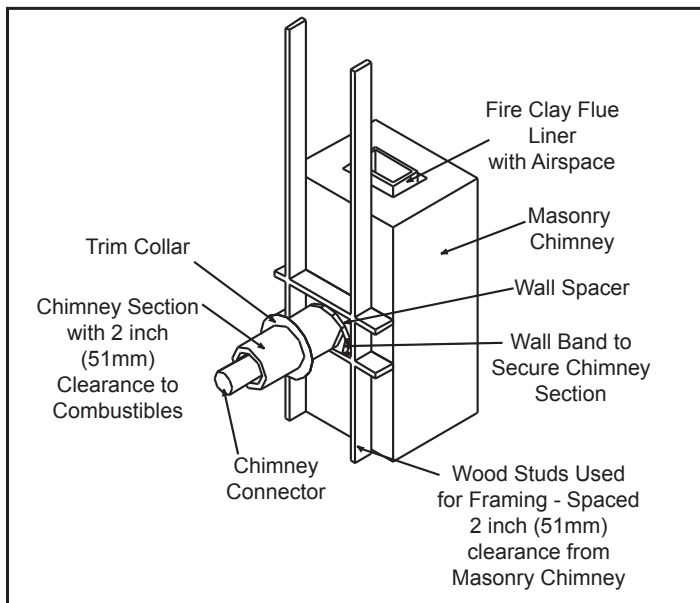


Figure 4.2

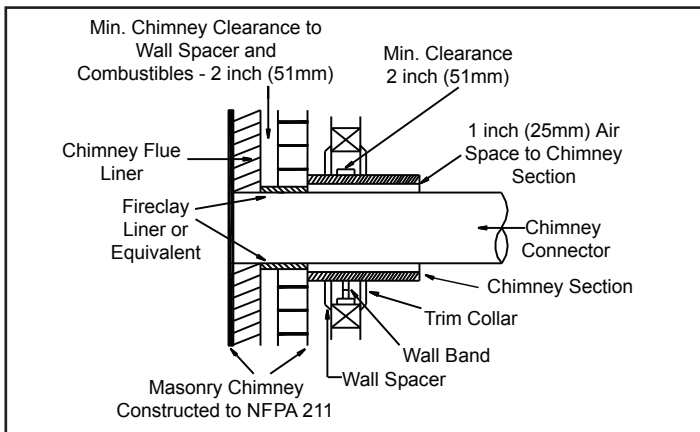


Figure 4.3

## B. Chimney Systems

- The chimney connector joins the appliance to the chimney.
- It must be a 6 inch (152mm) minimum diameter 24 gauge mild steel black or 26 gauge blue steel.
- Or an approved air-insulated double wall venting pipe.

### Single wall connector or appliance pipe

- Must be at least 24 gauge mild steel or 26 gauge blue steel.
- Sections must be attached to the appliance and to each other with the crimped (male) end pointing toward the appliance.
- All joints, including the connection at the flue collar, should be secured with 3 sheet metal screws.
- Follow the minimum clearances to combustibles

### Factory-built chimney connector (vented)

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

## C. Chimney Height / Rise and Run

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

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

- This appliance was designed for and tested on a 6 inch (152mm) chimney, 14 to 16 feet (427-487cm) high, (includes appliance height) measured from the base of the appliance.
- The further your stack height or diameter varies from this configuration, the possibility of performance problems exists.
- Chimney height may need to be increased by 2 - 3% per each 1000 feet (304.8m) above sea level.
- It is not recommended to use offsets or elbows at altitudes above 4000 feet (1219.2m) above sea level or when there are other factors that affect flue draft.

## D. Installing Chimney Components

### Chimney Connector

#### Single wall connector or appliance pipe.

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

#### Factory-built listed chimney connector (vented).

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

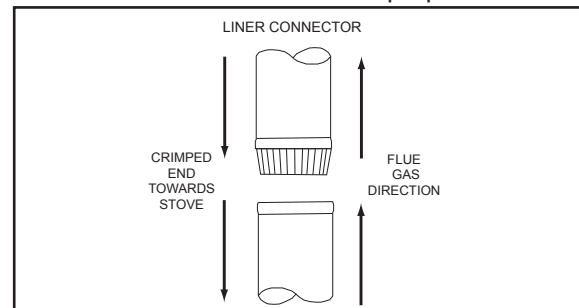


Figure 4.4 Chimney Connector (Appliance Pipe)



## 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.

## E. Factory-Built Chimney

The chimney can be new or existing, and must meet the following minimum requirements.

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

**NOTICE:** In Canada when using a factory-built chimney it must be safety listed, **Type UL103 HT (2100°F) [1149°C] CLASS "A"** or conforming to **CAN/ULC-S629, STANDARD FOR 650°C FACTORY-BUILT CHIMNEYS.**

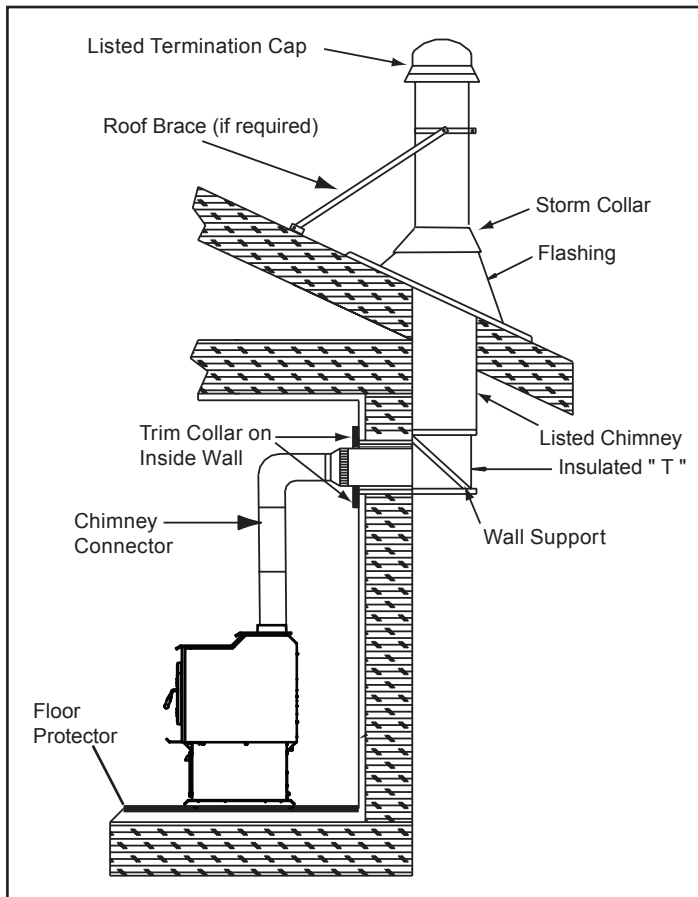


Figure 4.5 - Factory-Built Exterior Chimney

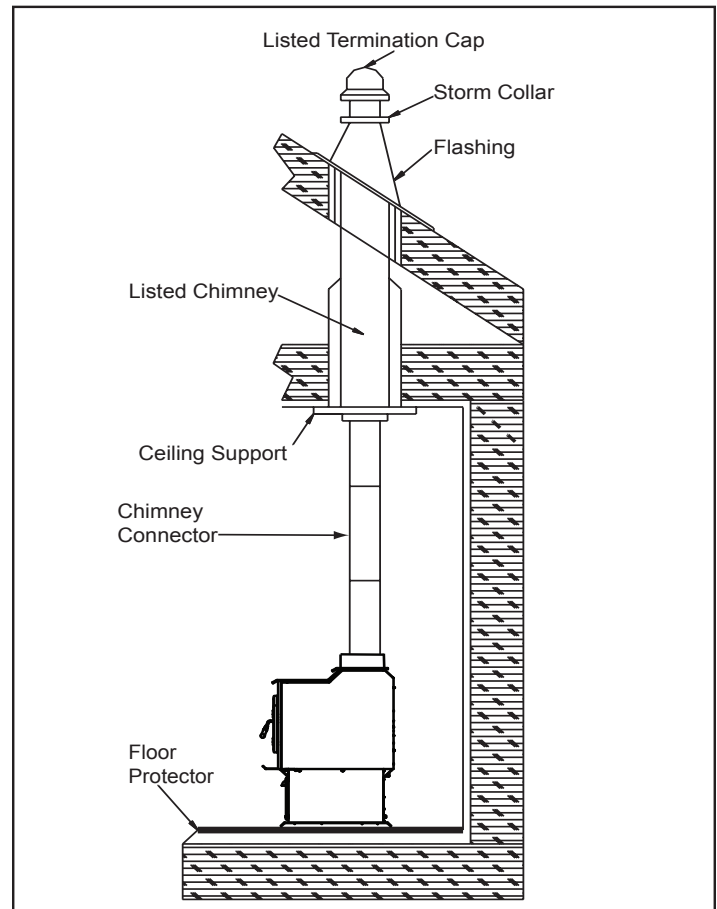


Figure 4.6 - Factory-Built Interior Chimney



### WARNING



#### Fire Risk.

- Do NOT pack insulation or other combustibles between spacers.
- ALWAYS maintain specified clearances around venting and spacers.
  - Install spacers as specified.
- Failure to keep insulation or other material away from vent pipe may cause fire.



### WARNING



#### Fire Risk.

##### Inspection of Chimney:

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



### WARNING



#### Fire Risk.

Follow Chimney Connector Manufacturer's Instructions for Proper Installation. ONLY use connector within the room, between appliance and ceiling or wall.

Connector shall NOT pass through:

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

Maintain minimum clearances to combustibles



### WARNING



#### Asphyxiation Risk.

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

May allow flue gases to enter the house.

## F. Masonry Chimney

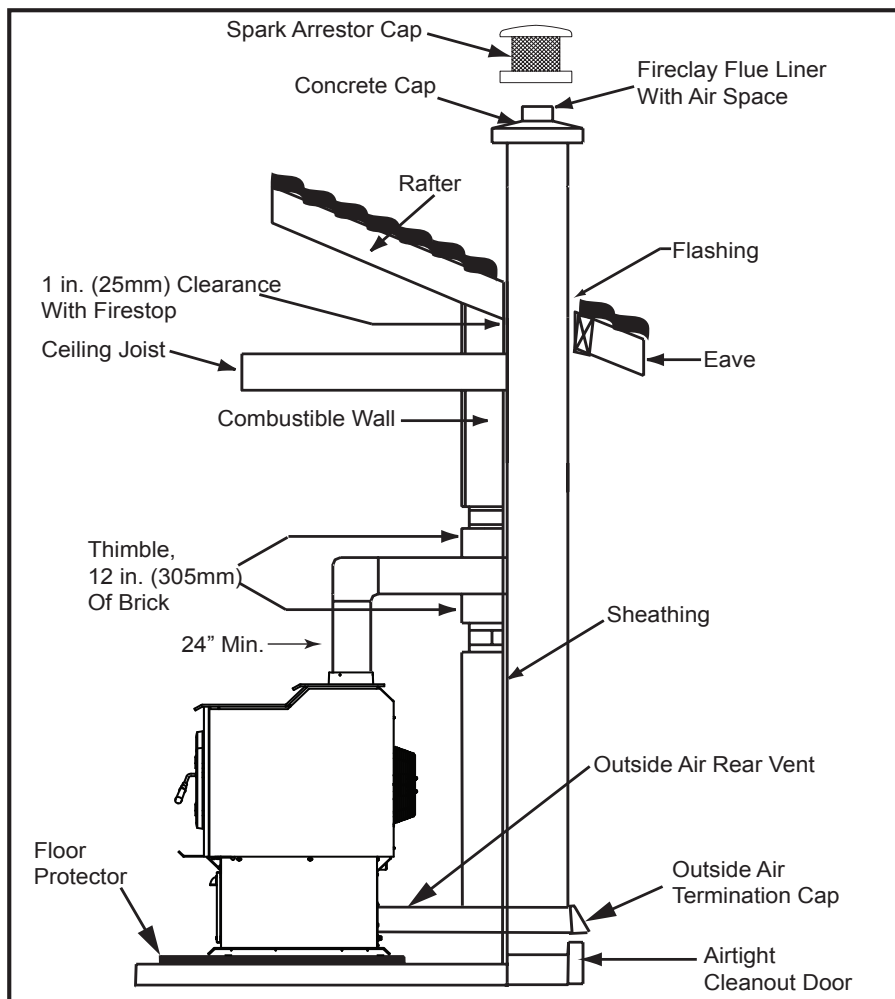


Figure 4.7



### WARNING



#### Fire Risk.

Follow Chimney Connector Manufacturer's Instructions for Proper Installation.

ONLY use connector:

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

Connector shall NOT pass through:

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

Maintain minimum clearances to combustibles



### WARNING



#### Fire Risk.

When lining air-cooled factory-built chimneys:

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



## G. Masonry Chimney Liner

For optimal performance, masonry chimneys used to vent this appliance should be:

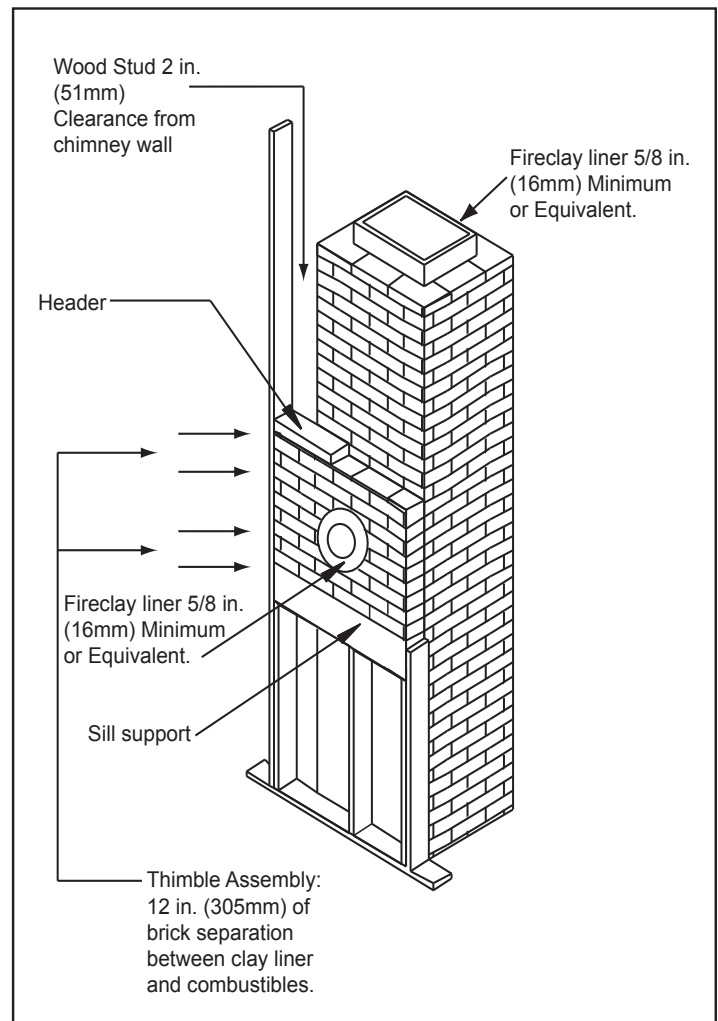
1. Lined with a 6 inch (152mm) stainless steel liner.
  - Installations into a clay flue without a stainless steel liner may reduce draw which affects performance, cause the glass to darken and produce excessive creosote.
2. It is recommended that a chimney with a larger diameter than 6 inches (152mm) be relined.
  - The oversized flue can cause poor performance and contribute to the accumulation of creosote.
3. Have the chimney cleaned before the appliance is installed and operated.

The following bullets list the more critical requirements for a properly constructed chimney:

- The masonry wall of the chimney, if brick or modular block, must be a minimum of 4 inches (102mm) nominal thickness.
- A chimney of rubble stone must be at least 12 inches (305mm) thick.
- The chimney must have a fire clay flue liner (or equivalent) with a minimum thickness of 5/8 inch (16mm) and must be installed with refractory mortar.
- An equivalent liner must be a listed chimney liner system or other approved material.
- Since an oversized flue contributes to the accumulation of creosote, the size of the flue should be checked to determine that it is not too large for the insert.
- The chimney should also be checked to ensure it meets the minimum standard of the National Fire Protection Association (NFPA) Standard 211.
- A chimney support package must be used when a connection is made through the ceiling to a factory built chimney.
- An approved thimble and chimney support package are **absolutely necessary** to provide safe clearances to combustible wall and ceiling material.

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

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



**Figure 4.8**

## Prefabricated Metal Chimney (Cont'd)

	Inches	Millimeters
Minimum Width of Cavity Opening - Front	29-1/16	738
Minimum Width of Cavity Opening - Rear	25-1/2	648
Minimum Height	20-3/4	528
Minimum Depth from Front to Rear	17-9/16	446

## H. Securing Chimney Components

All joints should be secured with 3 sheet metal screws or rivets per pipe manufacturers instructions. The sections must be attached to the insert and to each other with the crimped (male) end pointing toward the insert. **Figure 4.9.**

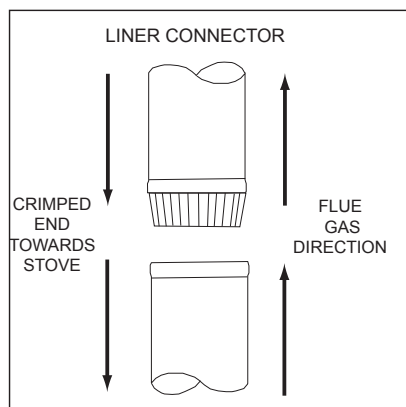


Figure 4.9



### WARNING



#### Fire Risk.

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



### WARNING



#### Fire Risk.

Do NOT pack insulation or other combustibles between spacers.

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

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



### WARNING



#### Fire Risk.

This appliance relies upon natural draft to operate properly.

- Chimney heights exceeding 25 feet (7.62m) from base of appliance may create an over-draft situation.
- Overdraft condition may create over-firing.

Over-firing may ignite creosote and/or damage appliance and chimney

# 5 Appliance Set-Up

## A. Door Assembly

### Install New Door

1. Place the hinge pins into the hinge holes on the left side of the door.
2. Place the door on the front of the appliance, carefully lining it up with the appliance hinge holes. See Figure 5.1
3. If the door is not level:

**BOTTOM RIGHT CORNER LOW:** With a hammer, tap Hinge A outward (away from door opening) and tap Hinge B inward (toward door opening).

**BOTTOM RIGHT CORNER HIGH:** Tap Hinge A inward and Hinge B outward.

**NOTE:** It is important to move both hinges an equal distance to ensure the proper operation of the door latch.

4. Door rope may be stiff, which will make the door hard to close at first, with time it will break in.

### Install New Door Handle

**Included in Kit:** 1 door handle, 1 key, 2 washers, 1 latch cam, 1 locknut. See Figure 5.2

**Tools Needed:** 9/16" wrench

1. Slide door handle through door.
2. Install two washer(s) as shown and install key in groove.
3. Align groove in latch cam with key; slide latch cam over shaft.
4. Install locknut.

**CAUTION! DO NOT OVERTIGHTEN LOCKNUT. DOOR HANDLE NEEDS TO MOVE SMOOTHLY.**

5. Install fiber handle using a clockwise motion until the fiber handle is snug against the door handle shaft.

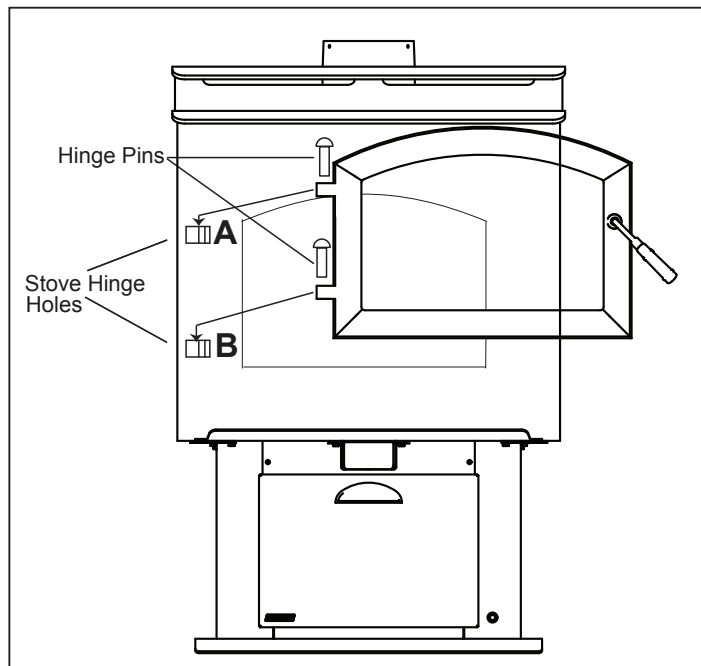


Figure 5.1

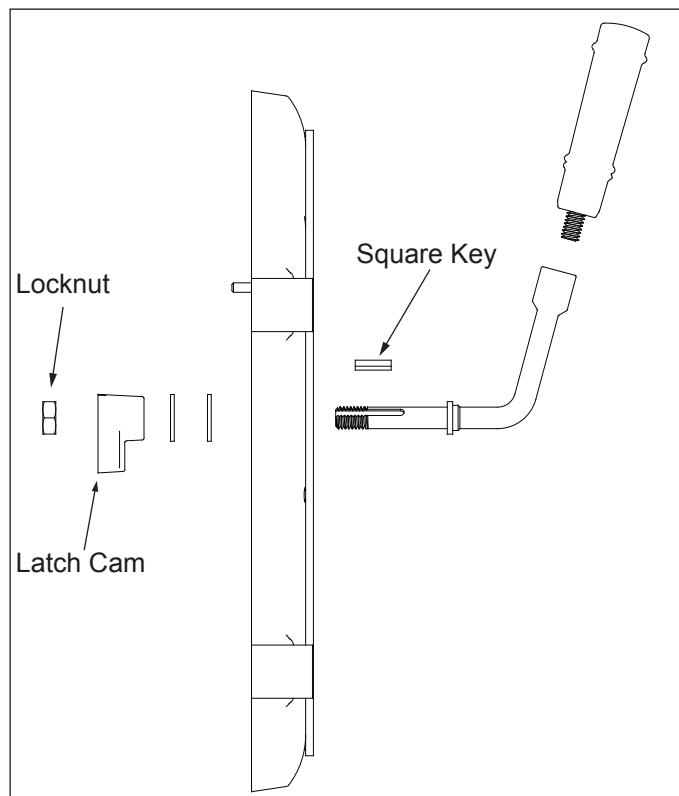


Figure 5.2

## B. Programmable Wall Thermostat Installation

The appliance comes standard with a programmable wall thermostat and 25' of wire. If you need to run more than 25' make sure you use 18 to 22 gauge thermostat wire. For optimum performance your thermostat should be located on an inside wall approximately 5' up from the floor.

### How to Install Your Programmable Wall Thermostat

1. Separate the body of the thermostat from the mounting plate by gently pulling the two pieces apart
2. Connect your thermostat wire to the W and R terminals
3. Screw the backer plate to the wall using the hardware included
4. Snap the thermostat to the backer plate
5. Connect the wires to the 2 center screws on the terminal block on the bottom back right hand side of the pedestal
6. Follow the instructions in the Owner's manual on how to properly program your thermostat

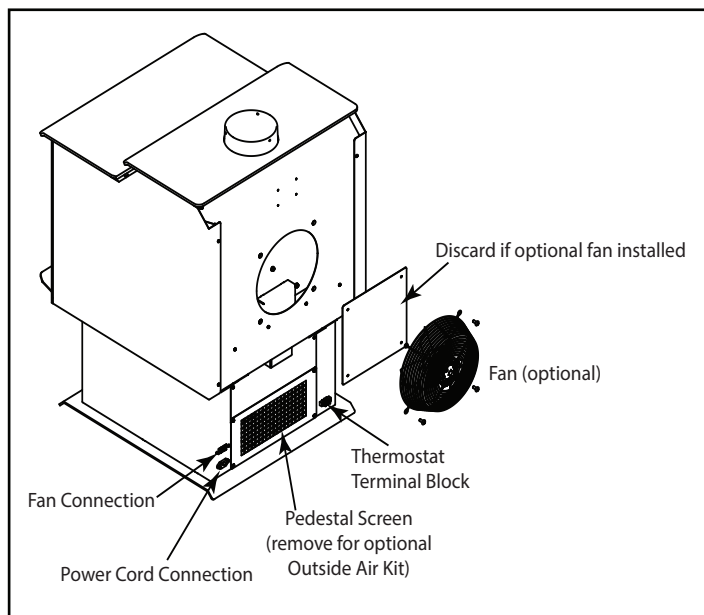


Figure 5.3



Figure 5.4

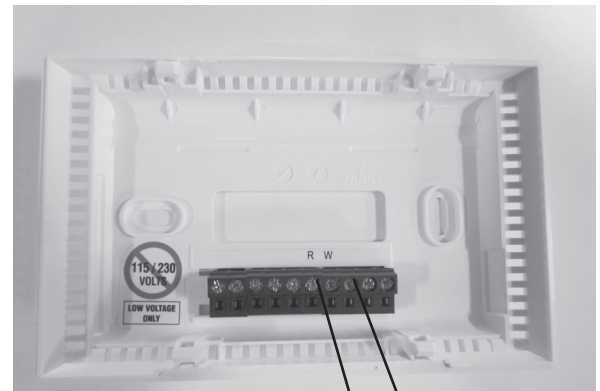
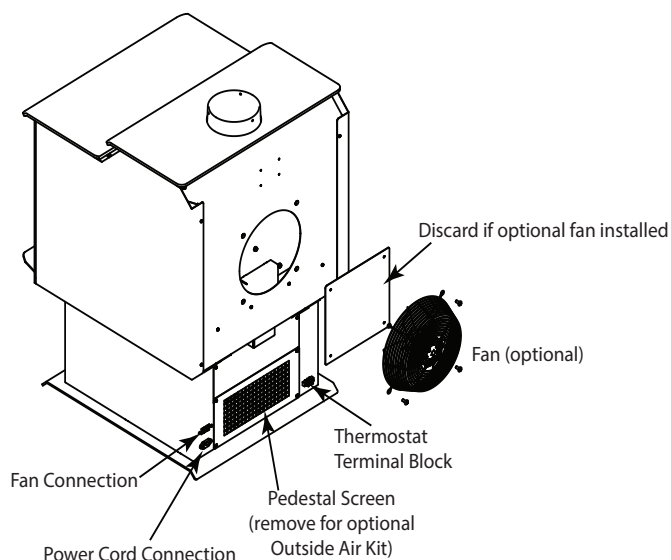


Figure 5.5


### C. Fan (Optional)


1. This appliance is designed to accept the optional BK-350 fan kit.
2. The fan is designed to automatically increase and decrease its speed based on the temperature inside the appliance.
3. To install the fan kit ensure the appliance is not hot and the fire is completely out.
4. Unplug your appliance from the wall.
5. Locate the square plate on the back center of the appliance. **See Figure 5.6.**
6. Remove the 4 Phillips head screws securing the plate to the appliance and keep the screws.
7. Remove plate and discard.
8. Install the fan in the opening with the fan wire hanging in the 6 o'clock position.
9. Secure the fan with the 4 screws used to hold the plate in place.



**Figure 5.6**

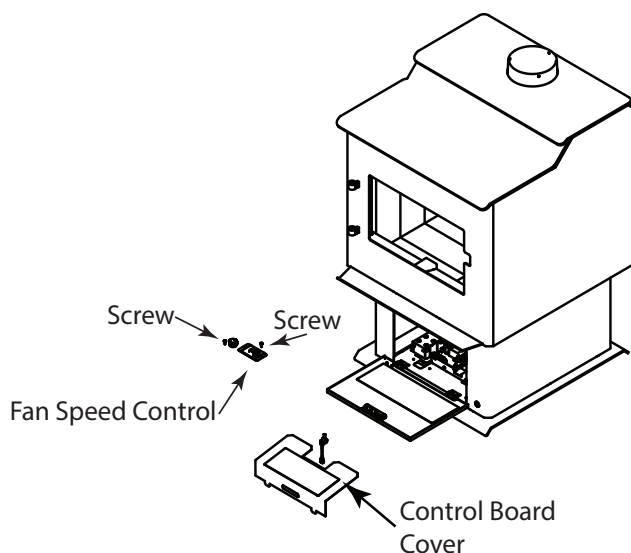
10. Plug the fan cord into receptacle located on the bottom back left hand side of the pedestal.
11. To install the fan speed control open the control access door on the pedestal and remove Control Board Cover. **See Figure 5.7.**
12. Remove the 2 screws on the inside front left edge to remove the fan speed control plate. **See Figure 5.8.**
13. Once the plate is removed take the fan speed control, remove the locknut from the shaft, install the fan speed control through the hole. Notice the locating pin on the speed control should align with the small hole in the face plate. Place the locknut on the speed control and tighten.
14. Run the wires through the channel and connect to the corresponding pin locations on control board on the left side.

**CAUTION**



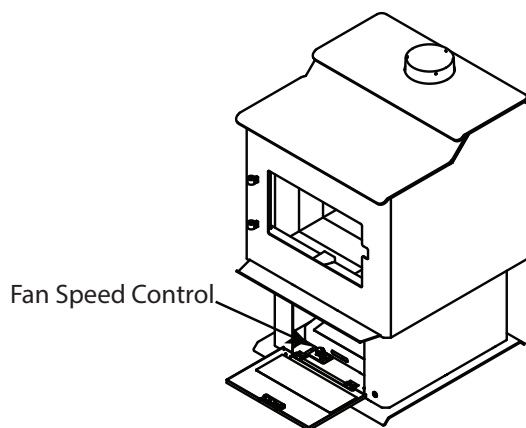
**Shock Risk.**

- 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 5.7**

15. Reinstall the fan speed control plate to the bottom of the appliance.
16. Replace the control board cover.
17. Place the dial control knob on the shaft of the fan speed control.
18. Turning the dial control clockwise will increase your fan speed setting.
19. To turn the fan off turn the dial control counterclockwise to the off position.



**Figure 5.8**



## D. Outside Air Kit Installation

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

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

**Included in kit:** Termination cap, (2) wire ties, pedestal coverplate, flex adapter, and fasteners. (2) 19-3/4" rubber gasket, 12" piece of rope gasket, and silicone. See Figure 5.9.

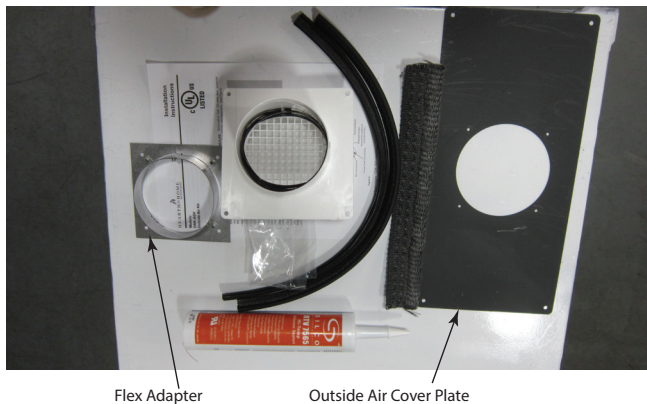


Figure 5.9

### Items Needed for Installation (not supplied)

- 4 inch flex aluminum pipe, or if using alternate material, then it shall be made from durable, non-combustible, heat resistant material up to 350°F (177°C). Cut the pipe to the required length for your installation.
- Phillips head screwdriver
- Tin Snips
- Drills and saws necessary for cutting holes through the wall or flooring in your home

### For Wall Installation

1. Remove materials from carton.
2. Using a #2 Philips screwdriver, remove the pedestal screen cover from the rear of the pedestal and replace with the Outside Air Cover Plate. **See Figure 5.3.**
3. Attach the flex adapter to the plate with the screws provided.
4. Cut a 4 1/4 inch hole in the outside wall or floor to accommodate the outside air duct. Use 4 inch duct to directly connect the appliance to the inlet air hood supplied. Seal between the wall and duct with silicone to prevent moisture and cold air infiltration.

### For Floor Installation

1. Remove the pedestal screen cover from the rear of the pedestal
2. Remove the cover plate on the pedestal base and install it on the Outside Air Cover Plate.
3. Cut a 4 1/4 inch hole in the floor to accommodate the outside air duct. Use rigid 4 inch tube to go through the pedestal base and floor. Termination must have a rodent screen or use the supplied termination cap.
4. Install the Outside Air Cover Plate

## E. Sealing the Control Access Door

1. Using a pair of tin snips, cut (1) 1-7/8", (1) 10-1/2" and (1) 5-3/4" out of each piece of rubber gasket.
2. Slide the 6 pieces down over the edge of the door on both ends. See Figure 5.10.

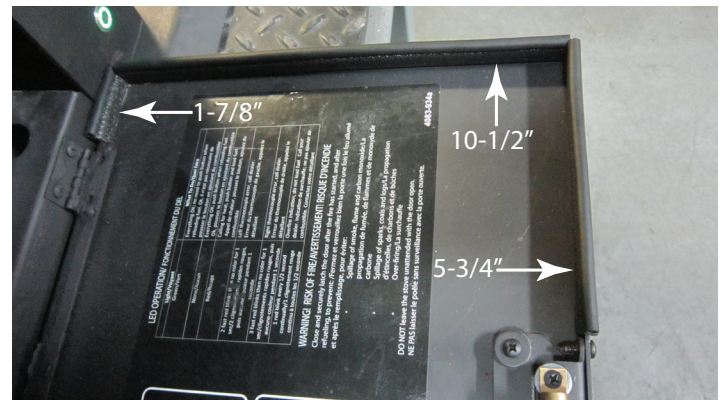


Figure 5.10

3. Locate the 12" piece of rope gasket and remove the paper from the back to expose the adhesive. See Figure 5.11.



Figure 5.11

4. Starting with the flat side of the gasket, stick it over the screw heads on the door hinges. Refer to Figure 5.10 and Figure 5.12 for location.

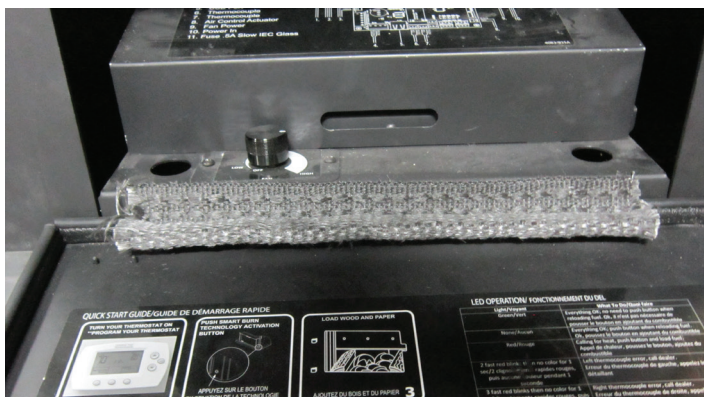


Figure 5.12

5. Remove the door latch and put (3) washers under each side and screw back on. See Figure 5.13.

NOTE: You may need to adjust the number of washers to get the door to seal up when closed.



Figure 5.13

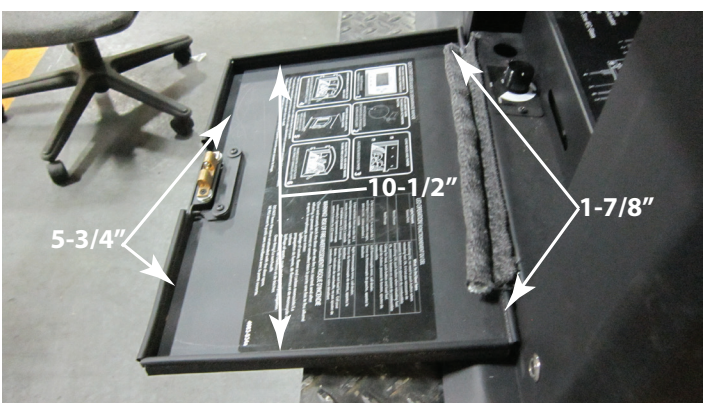


Figure 5.14 Door Complete

6. Refer to the install that came with the Outside Air Kit (OAK-ADV) to seal around the pedestal with the silicone provided.

## WARNING



### Fire Risk.

### Asphyxiation Risk.

Do not draw outside combustion air from:

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

Fumes or odor may result

## WARNING



### Asphyxiation Risk.

Outside air inlet must be located to prevent blockage from:

- Leaves
- Snow or ice
- Other debris

Block may cause combustion air starvation

Smoke spillage may set off alarms or irritate sensitive individuals.

## WARNING



### Asphyxiation Risk.

Length of outside air supply duct shall NOT exceed the length of the vertical height of the exhaust flue.

- Fire will not burn properly
- Smoke spillage occurs when door is opened due to air starvation.



# 6 Mobile Home Installation

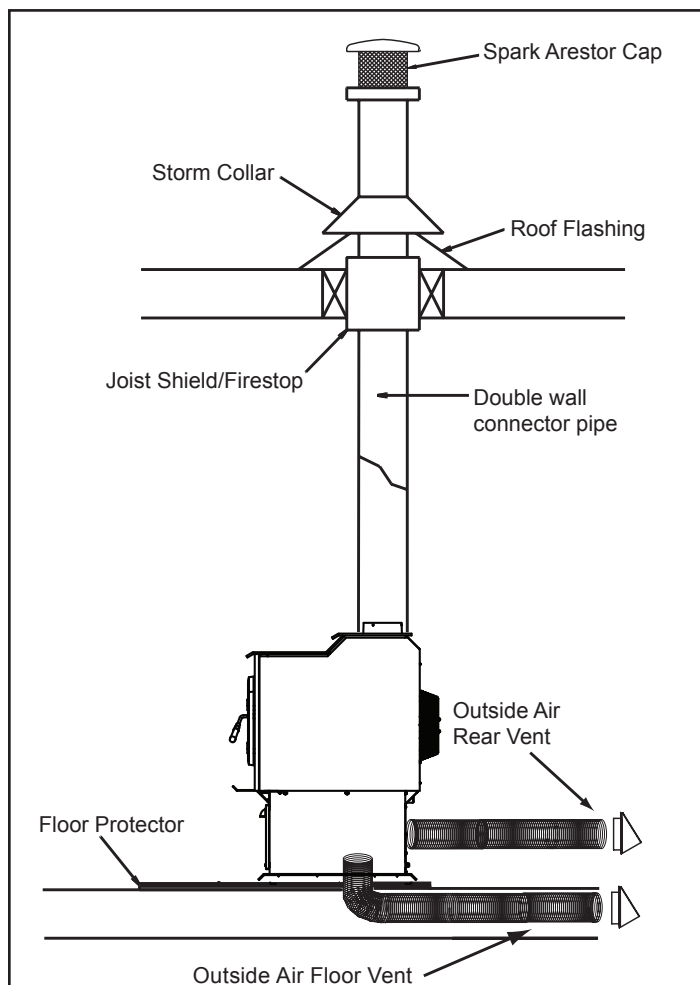
**You must use a Quadra-Fire Outside Air Kit Part OAK-ADV for installation in a mobile home.**

1. An outside air inlet must be provided for combustion. See **page 21** for installation information.
2. Appliance must be secured to the mobile home structure by bolting the pedestal through hearth pad and into floor in the base using the holes inside the pedestal.
3. Appliance must be grounded with #8 solid copper grounding wire or equivalent and terminated at each end with N.E.C. approved grounding device.
4. Appliance must be installed with an approved UL103 HT ventilated chimney connector, UL103 HT chimney, and terminal cap with spark arrester. Never use a single wall connector (appliance pipe) in a mobile home installation. Use only double-wall connector pipe, Dura-Vent DVL, Selkirk metalbestos DS or Security DL double-wall connector or any listed double-wall connector pipe.
5. In Canada, this appliance must be connected to a 6 inch (152mm) factory-built chimney conforming to CAN/ULC-629M, STANDARD FOR FACTORY BUILT CHIMNEYS.
6. Follow the chimney and chimney connector manufacturer's instructions when installing the flue system for use in a mobile home.
7. Maintain clearance to combustibles.
8. Floor protection requirements must be followed precisely.
9. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure.

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

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

10. Burn wood only. Other types of fuels may generate poisonous gases (e.g., carbon monoxide).
11. If appliance burns poorly while an exhaust blower is on in home, (i.e., range hood), increase combustion air.
12. Installation shall be in accordance with the Manufacturers Home & Safety Standard (HUD) CFR 3280, Part 24.



**Figure 6.1**

## CAUTION

THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED

Do NOT cut through:

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

## WARNING



**Asphyxiation Risk.**

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

# 7

## Accessory List

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### **Doors**

DR-31/43 BK-FH - Black Arched Door

DR-31/43 NL-FH - Black Arched Door with Satin Nickel Trim

DR-31/RCT - Black Rectangular Door

### **Door Upgrade Kit**

UK-DRNL - Door upgrade kit - satin nickel

### **Fan Kit**

BK-350

### **Outside Air Kit**

OAK-ADV



NOTHING BURNS LIKE A QUAD

## CONTACT INFORMATION

Hearth & Home Technologies  
1915 West Saunders  
Mt. Pleasant, IA 52641

Please contact your Quadra-Fire dealer with any questions or concerns.  
For the number of your nearest Quadra-Fire dealer  
log onto [www.quadrafire.com](http://www.quadrafire.com)

### CAUTION



#### DO NOT DISCARD THIS MANUAL

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

DO NOT  
DISCARD

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

Date purchased/installed: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Location on appliance: \_\_\_\_\_

Dealership purchased from: \_\_\_\_\_ Dealer phone: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

