

Installation Manual

Installation & Appliance Set-Up

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

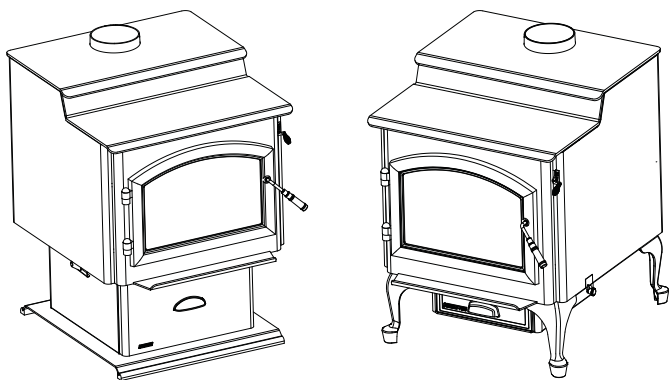
OWNER: Retain this manual for future reference.

NOTICE: DO NOT DISCARD THIS MANUAL

QUADRA-FIRE®

5700 STEP TOP WOOD STOVE SERIES
Automatic Combustion Control (ACC)

Model(s):
57ST-ACC



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



WARNING



Fire Risk.

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



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



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 heater or chimney connector glows, you are overfiring. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.



WARNING



HOT SURFACES!

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

Hot glass will cause burns.

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

NOTE

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

Pour obtenir une traduction française de ce manuel, s'il vous
plaît contacter votre revendeur ou visitez 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

Model:	5700 Step Top Uni-Body (ACC)
Laboratory:	OMNI Test Laboratories, Inc.
Report No:	061-S-73-6.2
Type:	Listed Room Heater, Solid Fuel Type
Standard:	UL1482-96 and ULC S627-00 and (UM) 84-HUD, Mobile Home Approved.

The Quadra-Fire 5700 Series Wood Stove (ACC) meets the U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2015.

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

B. BTU & Efficiency Specifications

EPA Certification #:	714
EPA Certified Emissions:	2.3 grams per hour
*LHV Tested Efficiency:	77.9 %
**HHV Tested Efficiency:	72.1 %
***EPA BTU Output:	11,100 to 40,400 / hr.
****Peak BTU/Hour Output:	76,200
Vent Size:	6 inches
Firebox Size:	2.98 cubic feet
Recommended Wood Length:	22 inches
Fuel Orientation:	Front-to-Back
Fuel	Seasoned Cord Wood
* Weighted average LHV efficiency using Douglas Fir dimensional lumber and data collected during EPA emissions test.	
**Weighted average HHV efficiency using Douglas Fir dimensional lumber and data collected during EPA emissions test.	
***A range of BTU outputs based on EPA Default Efficiency and the burn rates from the low and high EPA tests, using Douglas Fir dimensional lumber.	
****A peak BTU out of the unit calculated using the maximum first hour burn rate from the High EPA Test and the BTU content of cordwood (8600) times the efficiency.	

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-ACC must be installed in a mobile home installation.

D. Glass Specifications

This stove 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.
- Operating appliance without legs attached (if supplied with it).
- 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 stoves that exhibit evidence of over-firing. Evidence of over-firing includes, but is not limited to:

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

E. Non-Combustible Materials

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

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

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

F. Combustible Materials

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

- Wood
- Plant Fibers
- Plywood/OSB
- Compressed Paper
- 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.

NOTE: Service Space

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

If space is not available, the stove will have to be disconnected from the chimney to proceed with the tube replacement. **See owner's manual.**

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 UNIT 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

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

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

In the event of a chimney fire:

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

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
 - 1/2-3/4 in. length, #6 or #8 self-drilling screws

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
- Basement installations should be avoided

D. Tools And Supplies Needed

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

Reciprocating saw	Framing material
Pliers	High temp caulking material
Hammer	Gloves
Phillips screwdriver	Framing square
Flat blade screwdriver	Electric drill and bits
Plumb line	Safety glasses
Level	Tape measure
Misc. screws and nails	

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.

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 Fireplace: _____

Installer: _____

Dealer/ Distributor Phone #: _____

Serial #: _____

Model (circle one): 5700ST-ACC

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

Appliance Install

Verified clearances to combustibles. (Pg. 8)

Fireplace is leveled and liner is secured to appliance. (Pg. 19)

Hearth extension size/height decided. (Pg. 21)

Outside air kit installed. (Pg. 17)

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

IF NO, WHY?

Chimney Section 4 (Pg. 12)

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.

Clearances Section 3 (Pg. 7)

Combustible materials not installed in non-combustible areas.

Verified all clearances meet installation manual requirements.

Mantels and wall projections comply with installation manual requirements.

Protective hearth strips and hearth extension installed per manual requirements.

Appliance Setup Section 5 (Pg. 17)

All packaging and protective materials removed.

Firebrick, baffle and ceramic blanket installed correctly.

All labels have been removed from the door.

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

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

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 fireplace 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)

5700 Pedestal Model

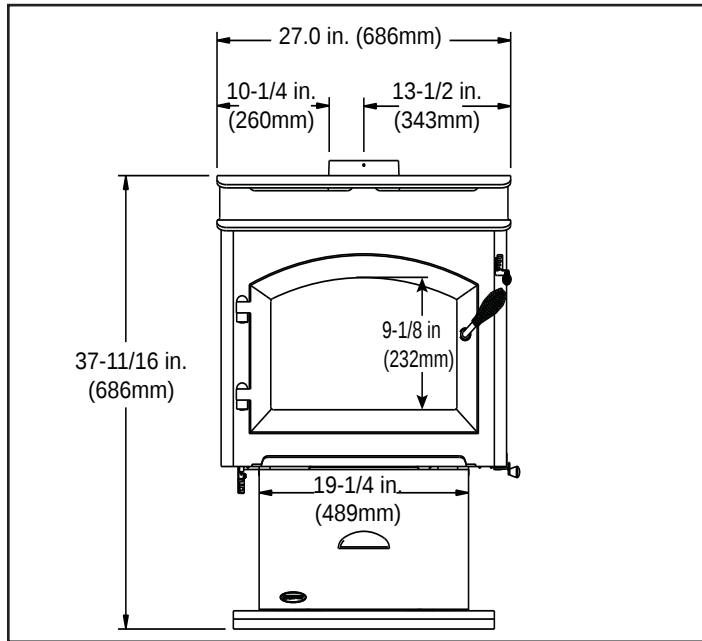


Figure 7.1 Front View

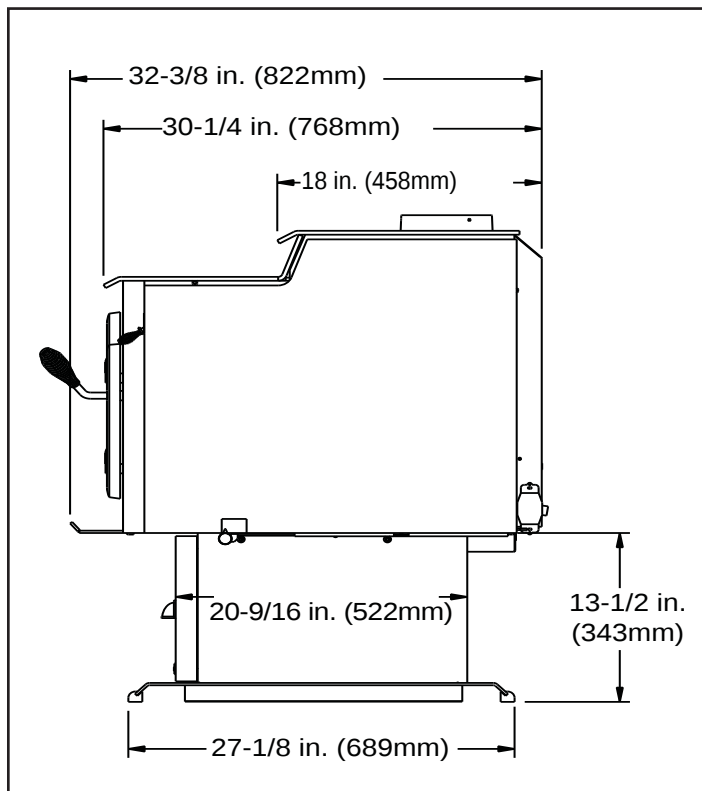


Figure 7.2 Side View

5700 Leg Model

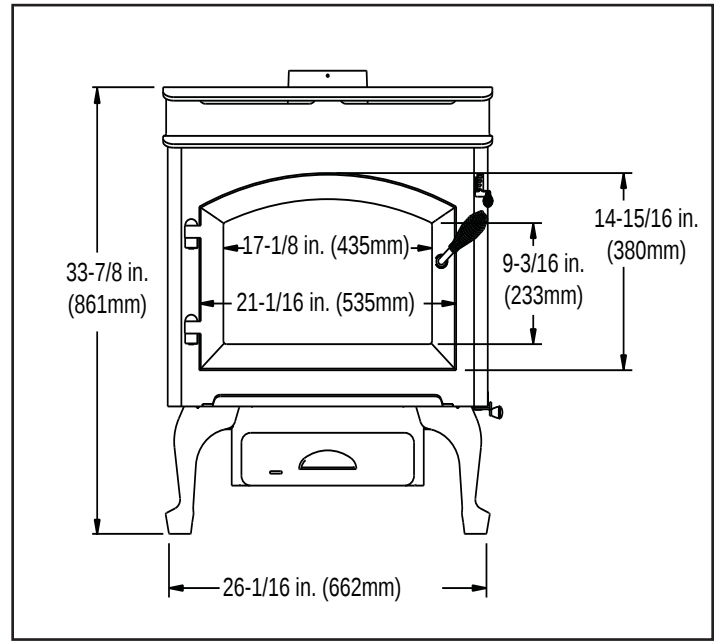


Figure 7.3 - Front View

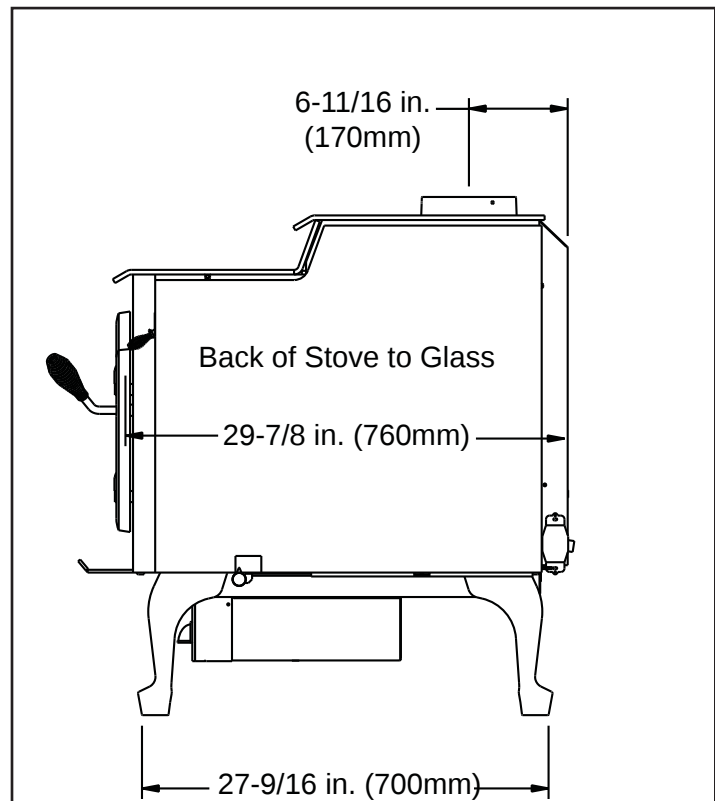
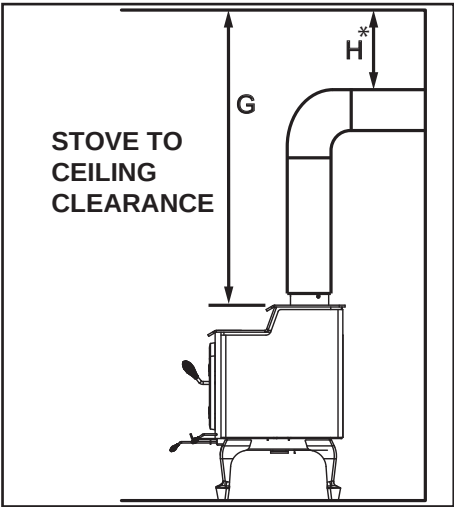
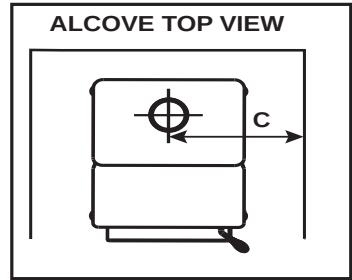
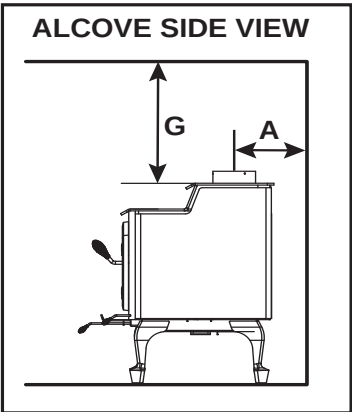
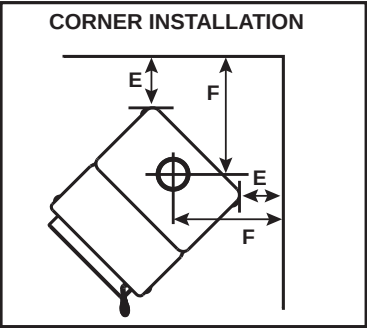
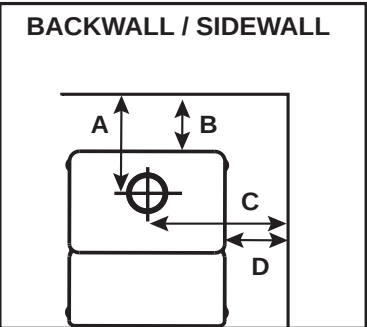


Figure 7.4 - Side View

B. Clearances to Combustibles (UL and ULC)

NOTE: A, C and F measurements are to center of flue

	A	B	C	D	E	F	G	H
INSTALLATION: Full Vertical or Horizontal with Vertical Rise								
SINGLE WALL PIPE - A, B, C and D dimensions are based off of standard 18" stove pipe clearances to combustibles or unit certified clearances, whichever is greater								
SINGLE WALL PIPE	15-1/2 [394]	10-1/2 [267]	28-1/2 [724]	15 [381]	2 [51]	15 [381]	45 [1143]	N/A
DOUBLE WALL PIPE - A, B, C and D dimensions are based off of certification clearances. Stove pipe manufacture clearances MUST be adhered to if they exceed certified unit clearances.								
DOUBLE WALL PIPE	12-1/2 [318]	7-1/2 [191]	28-1/2 [724]	15 [381]	2 [51]	15 [381]	45 [1143]	N/A
INSTALLATION - Horizontal with Minimum 2 Foot Vertical Off Stove Top								
SINGLE WALL PIPE	12-1/2 [318]	7-1/2 [191]	28-1/2 [724]	15 [381]	N/A	N/A	45 [1143]	18 [457]
DOUBLE WALL PIPE	12-1/2 [318]	7-1/2 [191]	28-1/2 [724]	15 [381]	N/A	N/A	45 [1143]	13 [330]
INSTALLATION - 90° Elbow off top of stove through backwall								
SINGLE WALL PIPE	12-1/2 [318]	7-1/2 [191]	28-1/2 [724]	15 [381]	2 [51]	15 [381]	45 [1143]	18 [457]
DOUBLE WALL PIPE	12-1/2 [318]	7-1/2 [191]	28-1/2 [724]	15 [381]	2 [51]	15 [381]	45 [1143]	13 [330]
INSTALLATION: ALCOVE - Six inch (6") [152] diameter listed DOUBLE WALL air insulated connector pipe with UL 103 HT listed factory-built Class "A" chimney, or a masonry chimney. (Mobile Home must be equipped with a spark arrestor.) Maximum depth of Alcove shall be no more than 48" [1220] with a minimum height of 48" [1220] to top of unit, and the referenced clearances. Canada must comply with CAN/ULC-S269 M87 for the 650° factory built chimney								
DOUBLE WALL PIPE	13-1/2 [343]	8-1/2 [216]	28-1/2 [724]	15 [381]	N/A	N/A	45 [1143]	N/A



* If H = N/A, follow Pipe Manufacturer's clearances

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

**WARNING**

**Fire Risk.**

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

NOTE: Service Space

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

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

C. Locating Your Stove & 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.

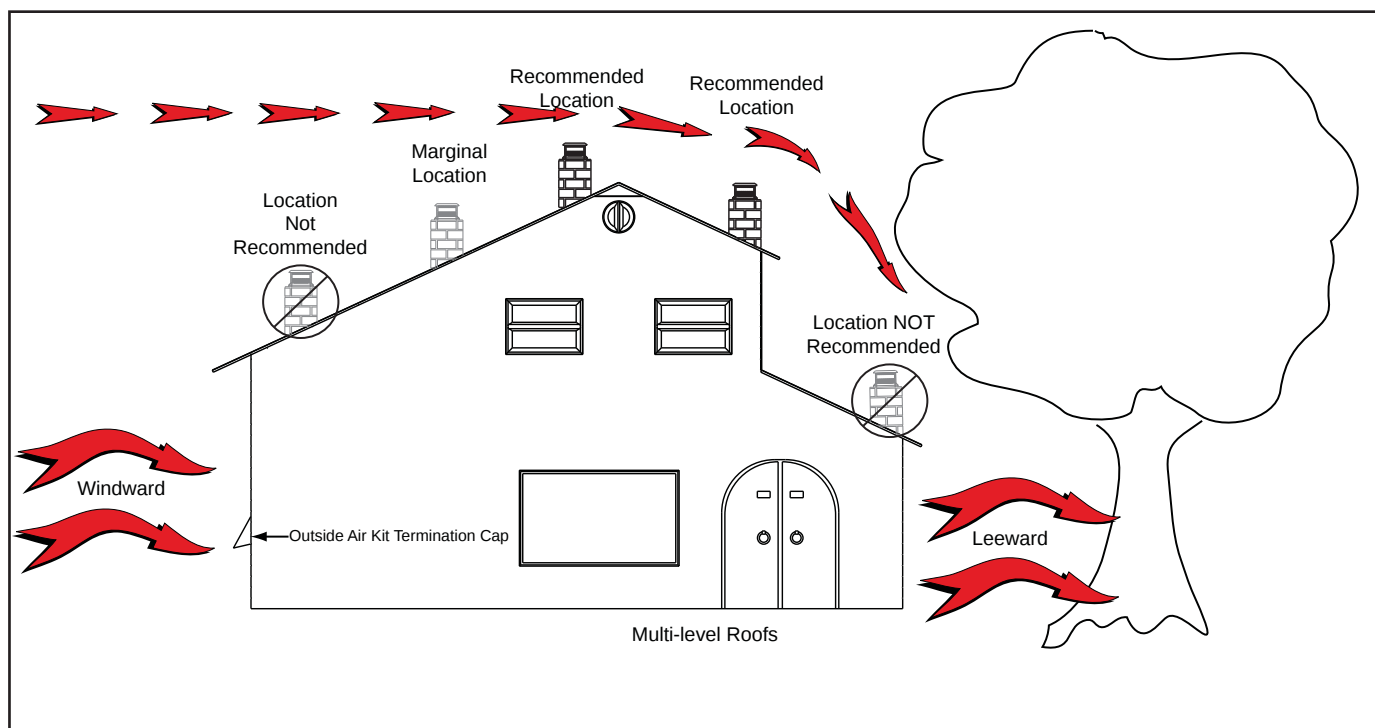


Figure 9.1

D. 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.

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

-

Figure 10.1

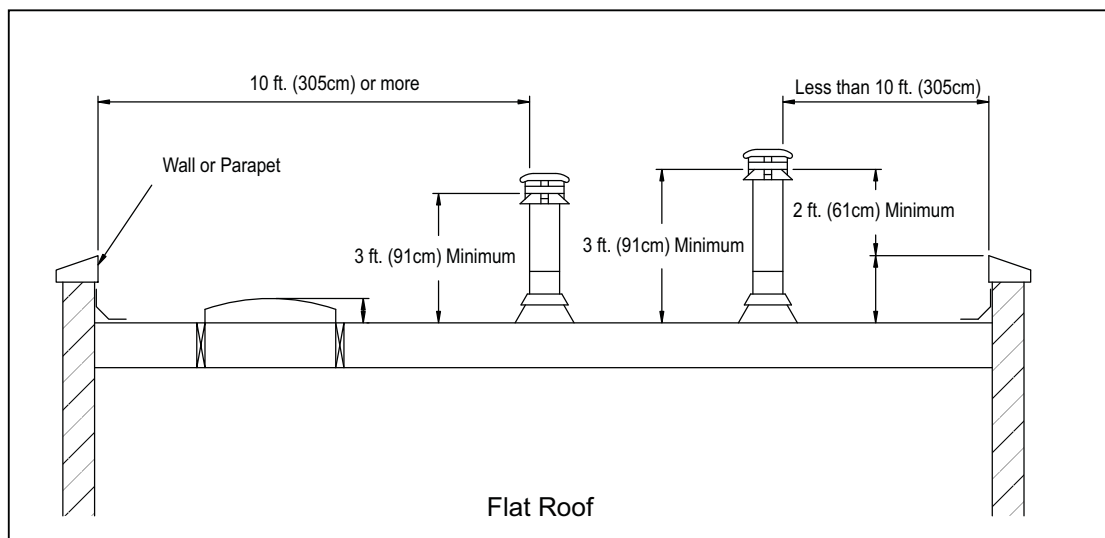


Figure 10.2

4 Chimney Systems

A. Venting Systems

The venting system consists of:

- A chimney connector (also known as flue or stove 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 11.1.**

Instructions:

1. Open inside wall at proper height for the chimney connector to entry the masonry chimney. **Figure 11.1**
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 11.1.**
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.

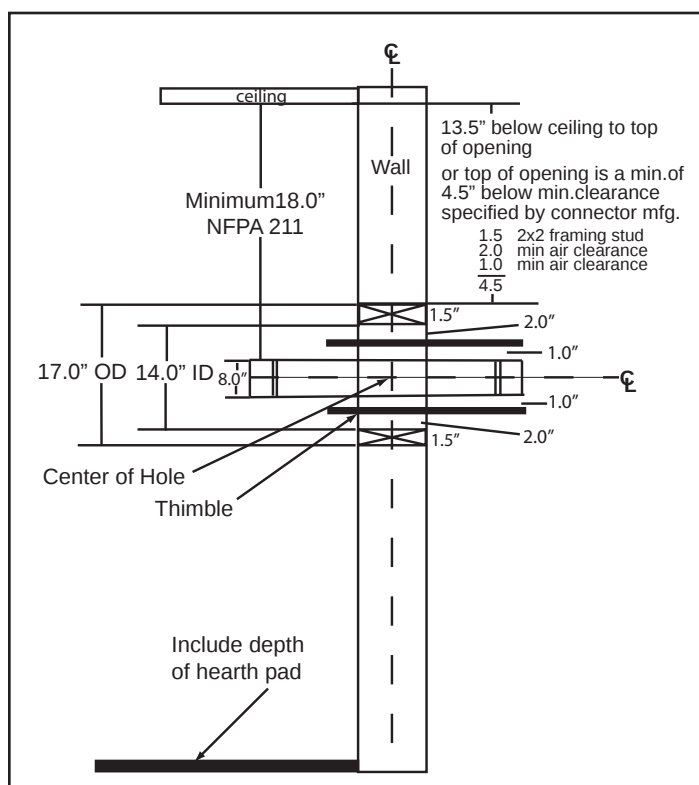


Figure 11.1

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

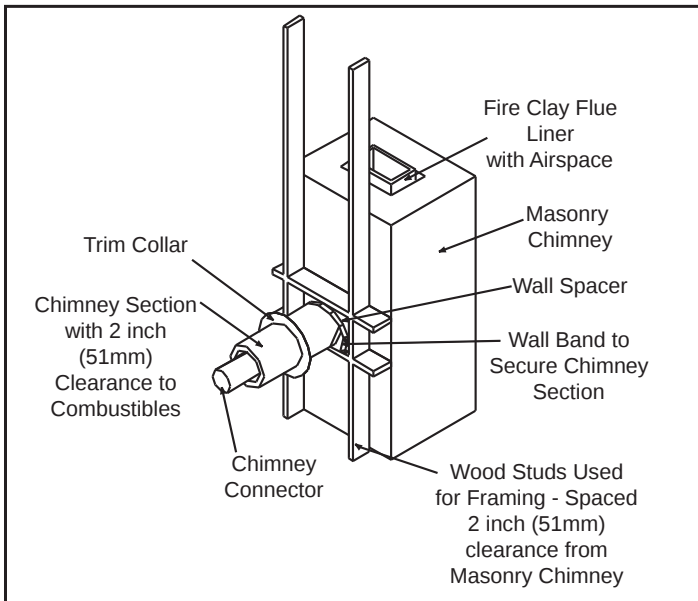


Figure 12.1

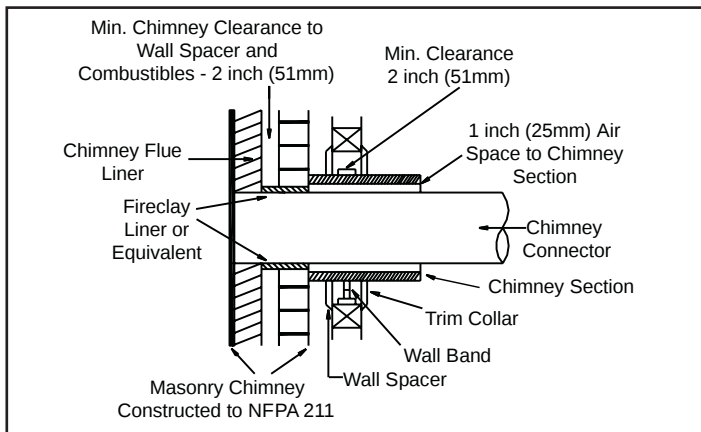


Figure 12.3

B. Chimney Systems

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

Single wall connector or stove 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 stove.
- 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 unit 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

- This product 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 stove 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 stove. 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 unit in a mobile home. The listed connectors must conform to each other to ensure a proper fit and seal.

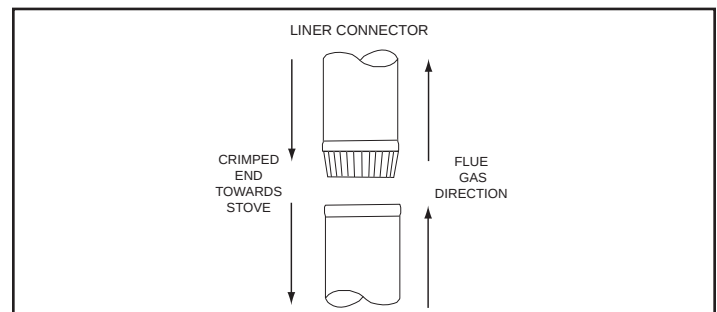


Figure 12.2 Chimney Connector (Stove Pipe)

⚠ 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.**

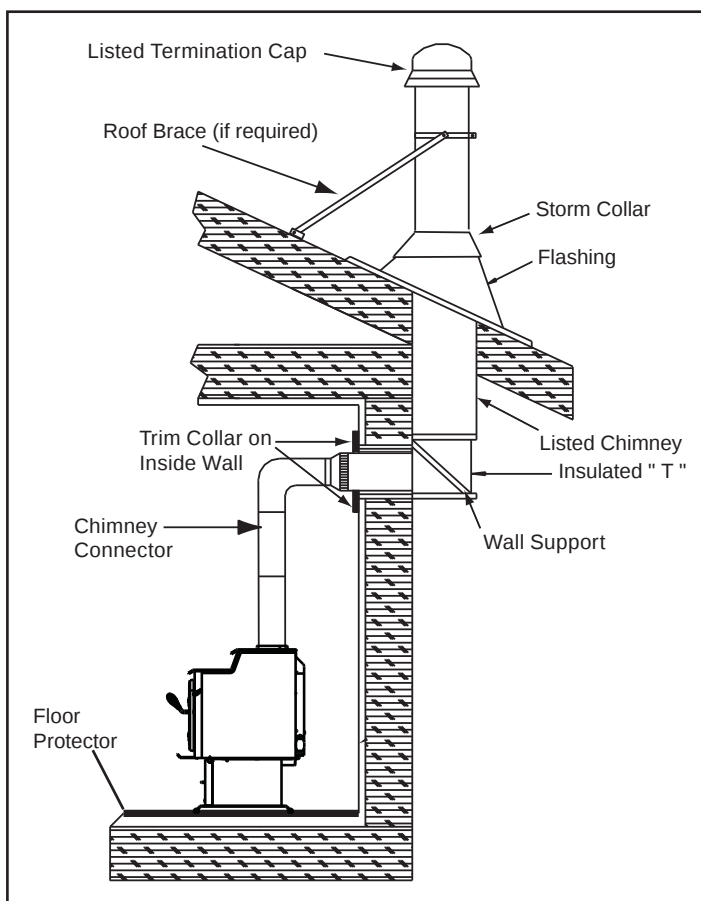


Figure 13.1 - Factory-Built Exterior Chimney

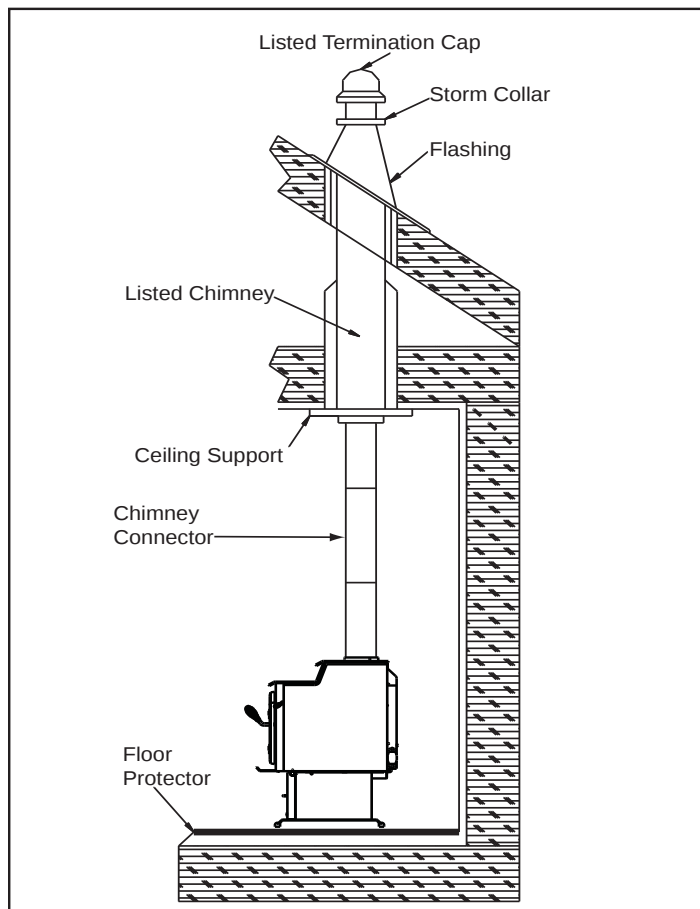


Figure 13.2 - Factory-Built Interior Chimney



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 UNIT 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.

F. Masonry Chimney

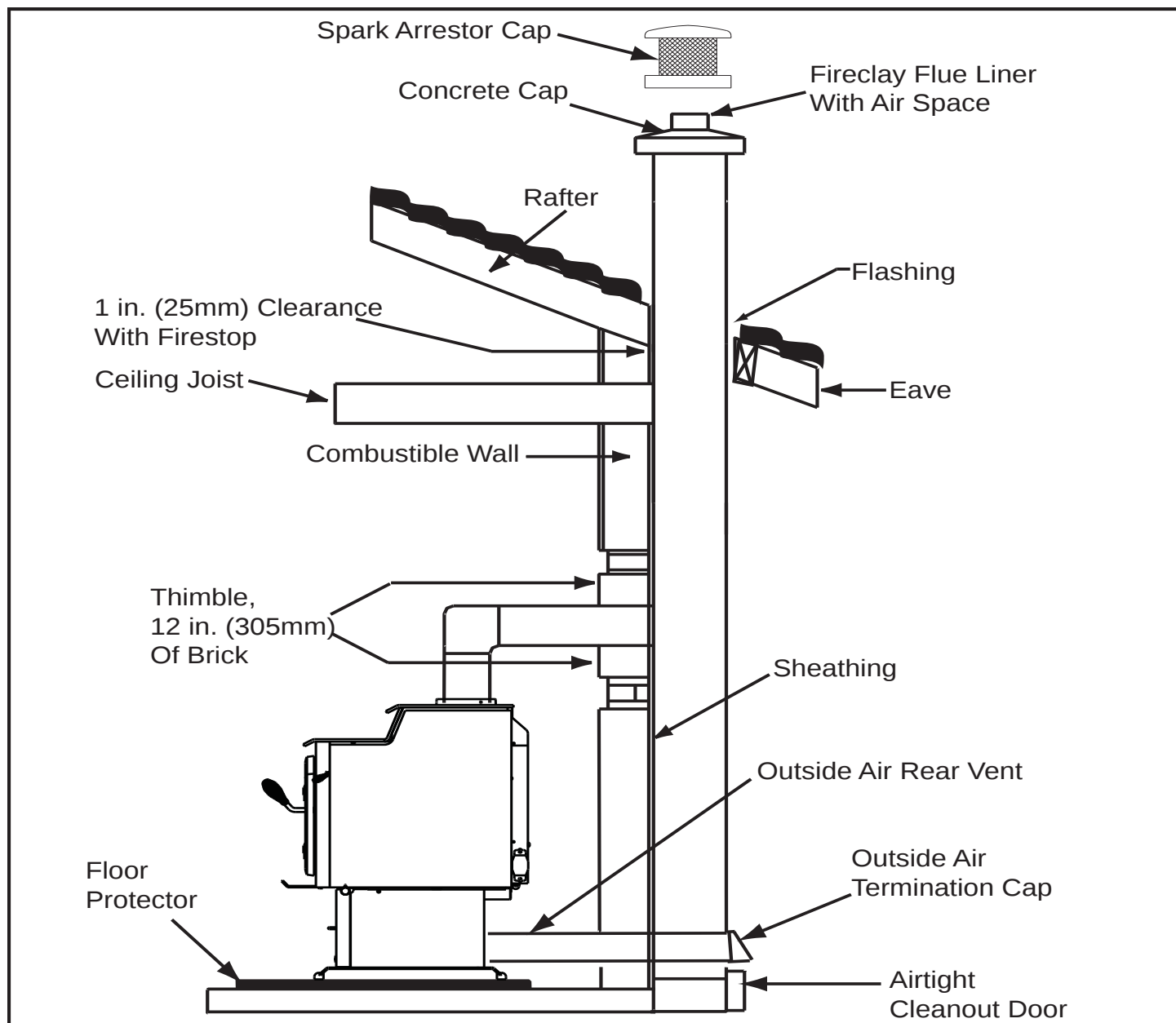


Figure 14.1

**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 stove 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 fireplaces without a permit will void the listing.

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

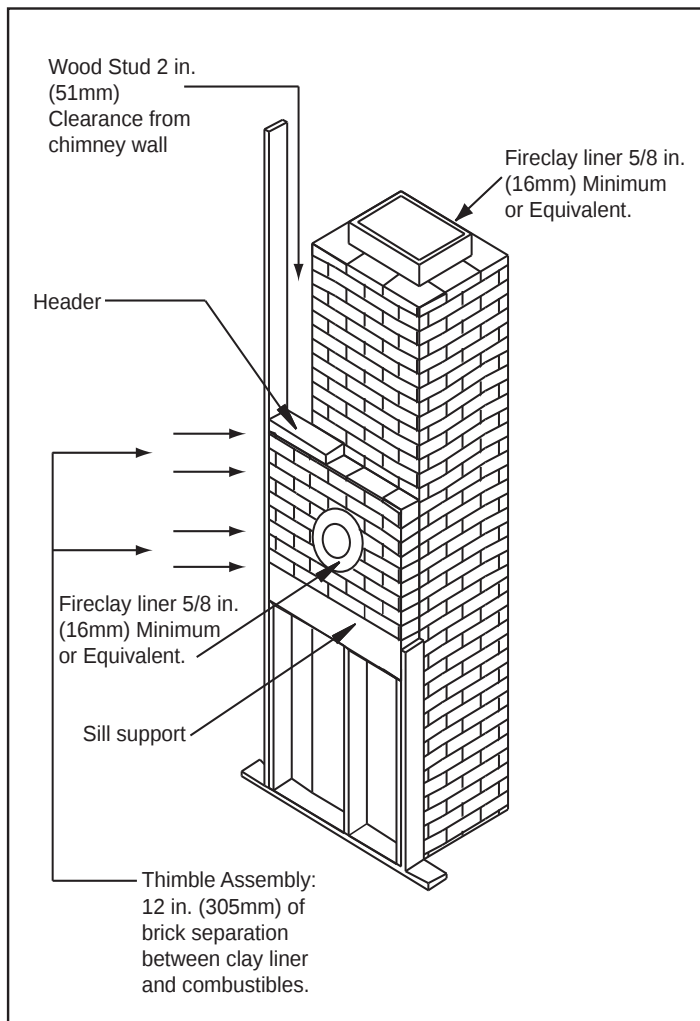


Figure 15.1

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 16.1.**

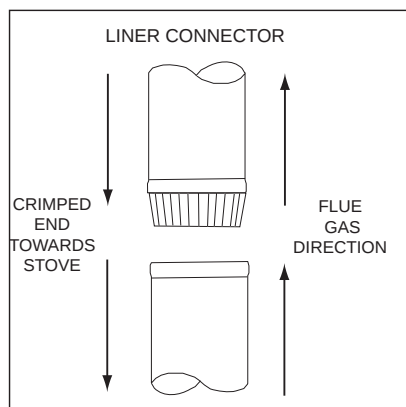


Figure 16.1



WARNING



Fire Risk.

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

I. Altering the Fireplace

The following modifications of factory-built fireplaces are permissible:

The following parts may be removed:

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

- The fireplace must not be altered. Cutting any sheet metal parts of the fireplace in which the fireplace insert is to be installed is prohibited per ANSI Z21.88 except that the damper may be removed to accommodate a direct-connect starter pipe or chimney liner,
- External trim pieces which do not affect the operation of the fireplace may be removed providing they can be stored on or within the fireplace for reassembly if the insert is removed.
- The permanent metal warning label provided in the component pack must be attached to the back of the fireplace, with screws or nails, stating that the fireplace may have been altered to accommodate the insert, and must be returned to original condition for use as a conventional fireplace.
- If the hearth extension is lower than the fireplace opening, the portion of the insert extending onto the hearth must be supported.

- Manufacturer designed adjustable support kit can be ordered from your dealer.
- Final approval of this installation type is contingent upon the authority having jurisdiction.

J. Chimney Height / Rise and Run

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

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

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



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. Pedestal Assembly and Ash Removal System (ARS) Installation

NOTE: The Ash Removal System, must be installed first before installing the pedestal.

Included in Kit: Door assembly, door handle & magnet, ash drawer, fastener package. A cover plate that is required for a floor outside air installation on a pedestal model is also included, if not needed, discard.

Tools Required: Phillips head screwdriver, 7/16 socket wrench, 3/32 and 5/36 Allen wrench.

Begin installing the ARS System.

1. Remove 3 bricks as shown in **Figure 17.1** and remove the ARS access cover with tool supplied in the component pack.
2. Lay body of stove on its back on a protective pad or pallet.
3. Remove the 2 nuts and 2 bolts holding the ash grate channel in place and set the channel aside. Discard the 2 nuts. Install the gasket over the 8 protruding screws. **Figure 17.2.**
4. Install ash door assembly by sliding the rod at an angle into the slot on the left side. Slide the door handle over the rod and then finish pushing the rod through the slot.
Slide the ash door over the 8 screws protruding from the bottom of the stove. Secure with nuts and washers provided. **Figure 17.2.**
5. Re-install handle using a 3/32 Allen wrench to tighten the set screw in the door handle. The set screw needs to be snug. **Figure 17.3.**
6. Install magnet using a Phillips head screwdriver. This magnet will hold the door handle in an open position which in turn holds the ash door open so ashes can be brushed into the ash drawer. **Figure 17.2.**

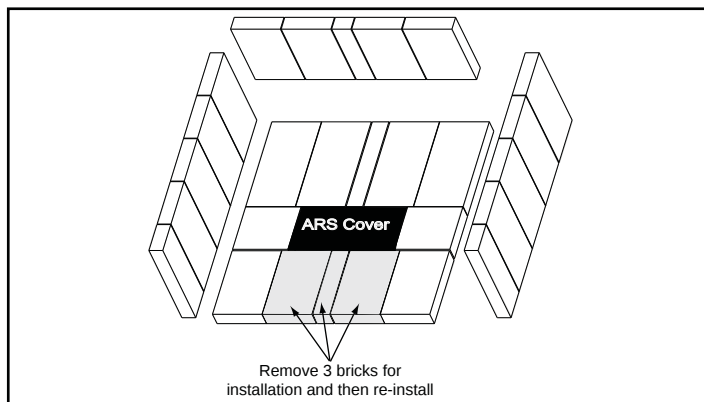


Figure 17.1

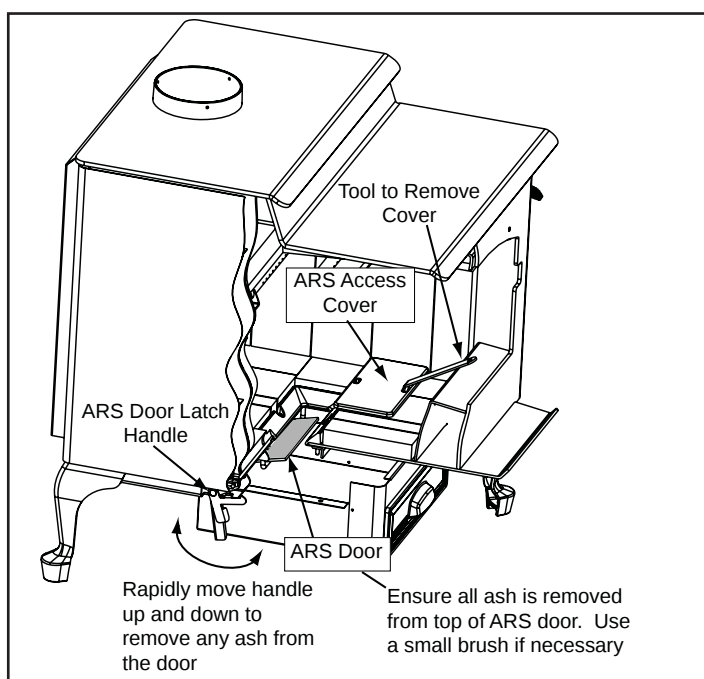


Figure 17.2

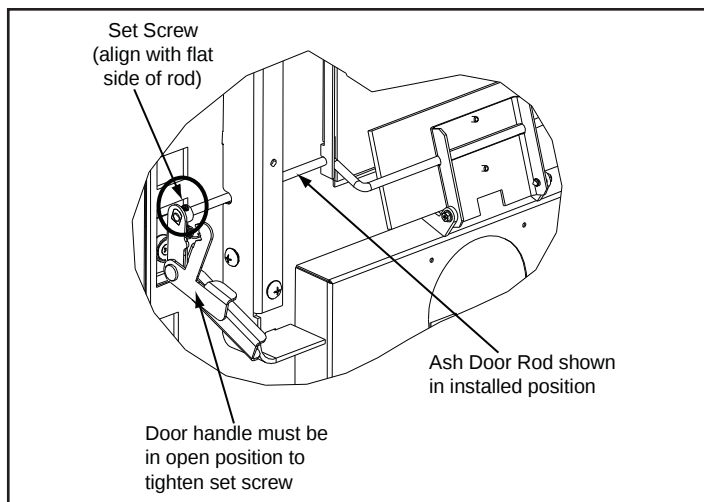


Figure 17.3

WARNING

Do **NOT** operate before fully assembling components.

Burning your stove without a pedestal or leg kit attached:

- Will void your warranty.
- May result in property damage or personal injury.

Pedestal and Ash Removal System (Cont'd)

Installing Pedestal Assembly

1. Slide pedestal over adapter on bottom of stove and secure with screws supplied with the kit. **Figure 18.1.**
2. Line up holes in sides of pedestal with holes in adapter.
3. Securely tighten pedestal into place.
4. Slip wooden decorative strips onto pedestal edges before lifting up stove.
5. Carefully stand stove up and place in desired location.

Finishing the ARS Installation

1. Re-install the ash grate channel and secure with 2 bolts previously removed. Set the ARS access cover and the 3 front cut bricks in place. **Figure 18.2.**
2. Install the ash drawer.
3. Check to make sure baffle boards and ceramic blanket are in their proper locations. **See page 20 in Owner's Manual.**

NOTE: If installing an outside air kit with a pedestal assembly as a floor installation you must attach the enclosed cover plate to the back of the stove. Other wise you may discard this piece. **Figure 18.3.**

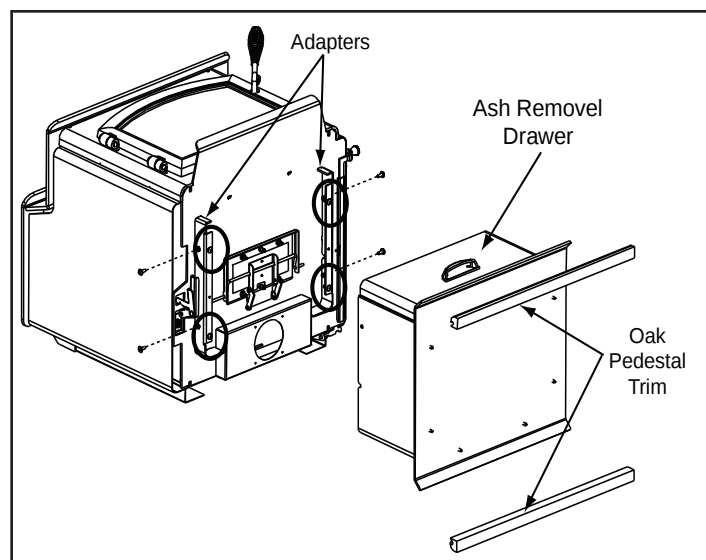


Figure 18.1

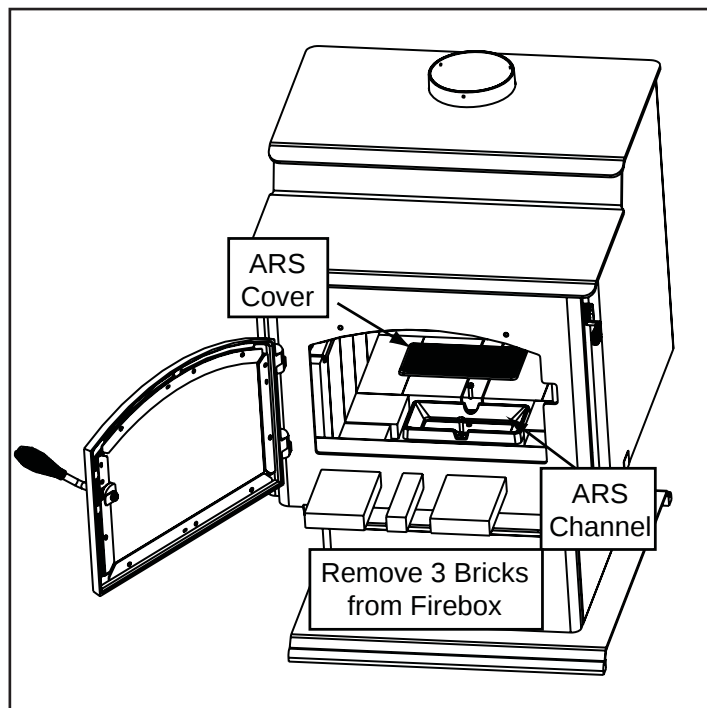


Figure 18.2

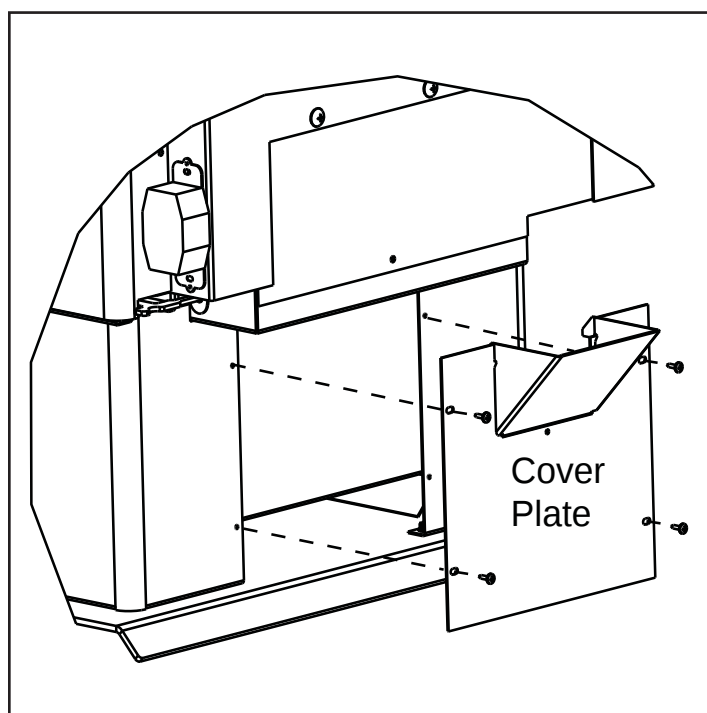


Figure 18.3

B. Leg Kit and Ash Removal System (ARS) Installation

NOTE: The Ash Removal System, must be installed first before installing the legs.

Included in Kit: Door assembly, door handle & magnet, ash drawer, fastener package.

Tools Required: Phillips head screwdriver, 7/16 socket wrench, 3/32 and 5/36 Allen wrench.

Begin installing the ARS System.

1. Follow steps 1 through 6 on **page 17**.

Installing Leg Kit

1. Remove leg mounting brackets packaged inside firebox.
2. There are 4 screws that are installed on the stove. Remove the screws and use to secure the mounting brackets to the stove at the very top and bottom of the brackets. **Figure 19.1**.
3. There are 6 screws included with the leg kit. Attach 4 of the screws to the bracket at the bottom, leaving the 2 screws loose as identified in **Figure 19.1**.
3. Slide the ash pan assembly bottom slots over the screw heads. This allows the weight of the ash pan to rest on the screws while you are attaching the top 2 screws. Once the ash pan is attached, tighten all screws. **Figure 19.2**.
3. Loosely assemble bolts into the corner of the mounting brackets for leg attachment. **Figure 19.2**.
4. Slide legs onto mounting brackets. Making sure the legs are up against the bracket and secure with bolts supplied. There are leveling bolts in 2 legs. These leveling legs should be in opposite corners. **Figure 19.2**.
5. Carefully lift stove up and place in desired location. Do NOT tilt up on the cast iron legs, it could damage the legs.
6. Use leveling bolts on legs to stabilize and level stove.

Finishing the ARS Installation

1. Follow steps 1 through 3 on **page 18**. See also **Figure 18.2**.

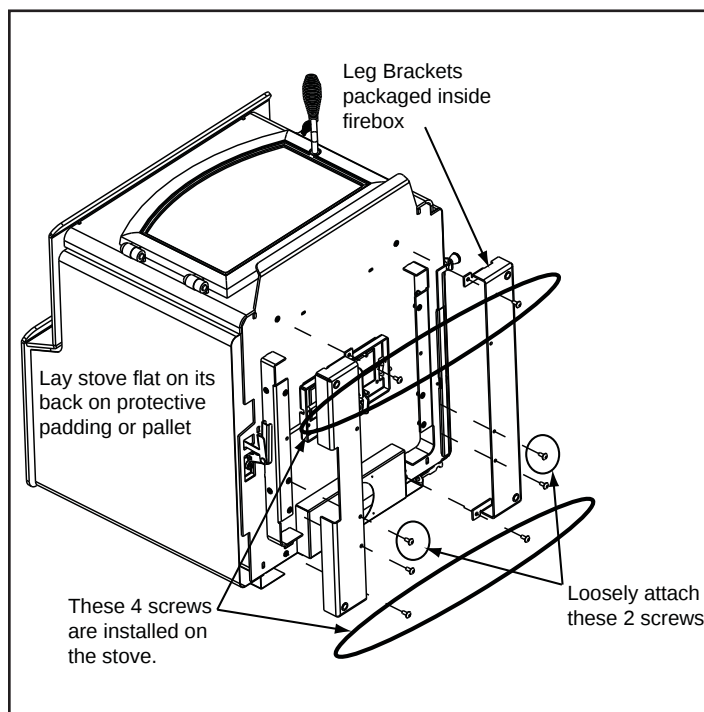


Figure 19.1

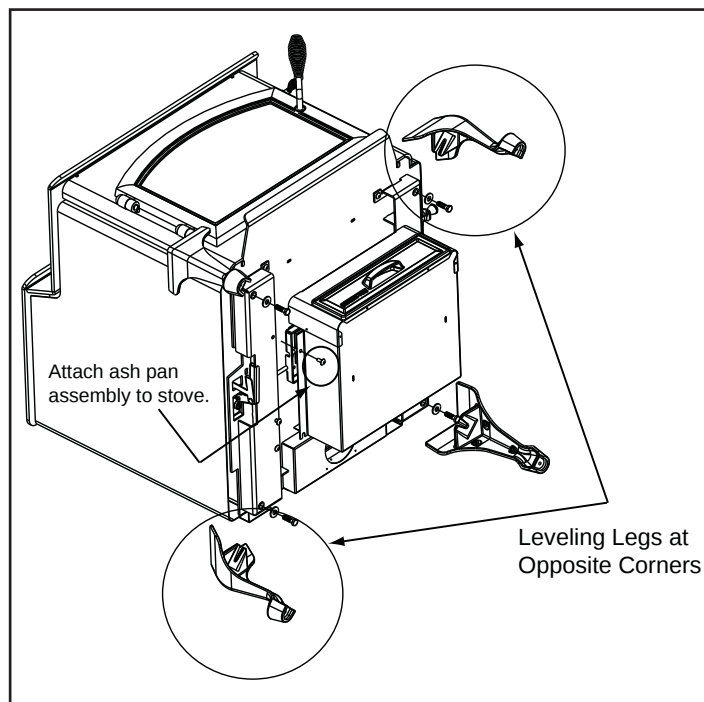


Figure 19.2

CAUTION

Do **NOT** tilt the unit on the cast iron legs.

- Tilting could lead to property damage.
- Lift the unit upright and place it into position on the floor protector.

C. Door Handle Assembly

1. Install washer on door handle shaft.
2. Slide door handle through door.
3. Install second washer(s) as shown.
4. Install key in groove.
5. Align groove in latch cam with key; slide latch cam over shaft
6. Install locknut but do not overtighten as the door handle needs to move smoothly.
7. Install spring handle turning in a counter-clockwise motion to desired location on door handle rod.

CAUTION

- Do NOT overtighten lock nut.
- Door handle needs to move smoothly.

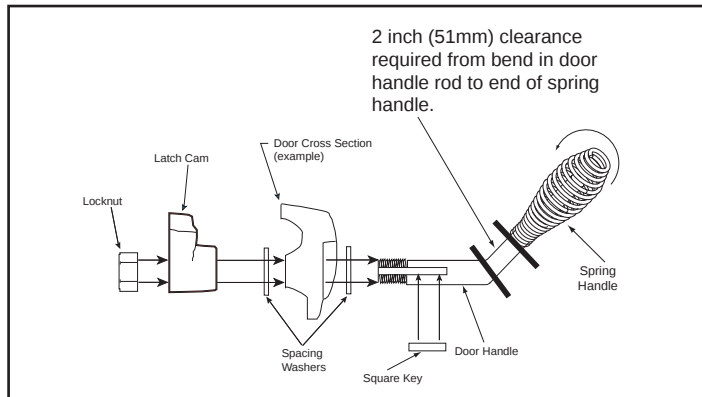


Figure 20.1

D. Adjusting The Blower Speed Control

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

1. With the appliance plugged in, turn the speed control knob to slow (full clockwise).
2. With a small screwdriver, adjust the blower speed by turning the adjustment mechanism through the hole on the side of the speed control.
3. Adjust the speed so the blower runs slowly, but does not stop. Turn clockwise to slow the blower and counterclockwise to increase the speed.

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

E. Calculating Alternate Floor Protection Material

Thermal Conductivity: k value

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

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

Thermal Resistance: R value

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

Converting k to R:

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

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

Converting R to k:

Divide the inches of thickness by R.

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

Calculations:

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

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

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

F. Hearth Protection Requirements

FLOOR PROTECTION:

- Must be non-combustible material.
- Extend beneath heater and to the front, sides and rear as indicated.
- The floor must be non-combustible or otherwise adequately protected from radiant heat given off by the unit and from sparks and falling embers.
- A layer of thin brick or ceramic tile over a combustible floor is NOT sufficient.

In US installations, it is necessary to install a floor protector of a minimum of 1 inch (k value = 0.49, R value = 2.04) of non-combustible material a minimum of 16 inches (406mm) in front of glass and 8 inches (203mm) to both sides of the

fuel loading door. Open the door and measure 8 inches (203mm) from the side edge of the opening in the face of the appliance. ***See exception.**

In Canada, it is necessary to install a floor protector of a minimum of 1 inch (k=0.49, R value= 2.04) of non-combustible material a minimum of 18 inches (457 mm) in front and 8 inches (203 mm) from the sides and rear 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. **Figure 21.4.**

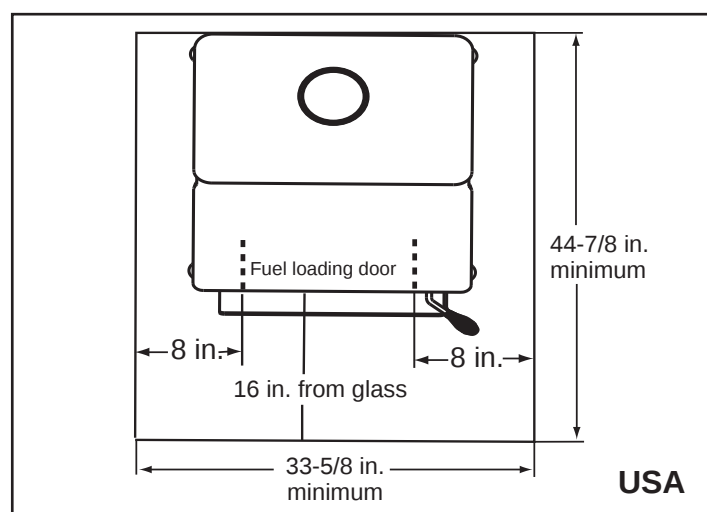


Figure 21.1

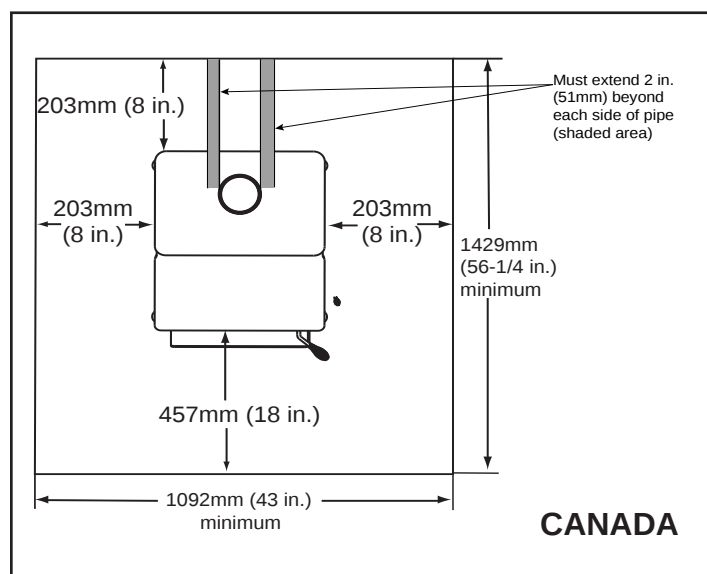


Figure 21.2

WARNING



Fire Risk.

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

NOTE:

- 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.

Corner hearth pad dimensions with single and double wall pipe

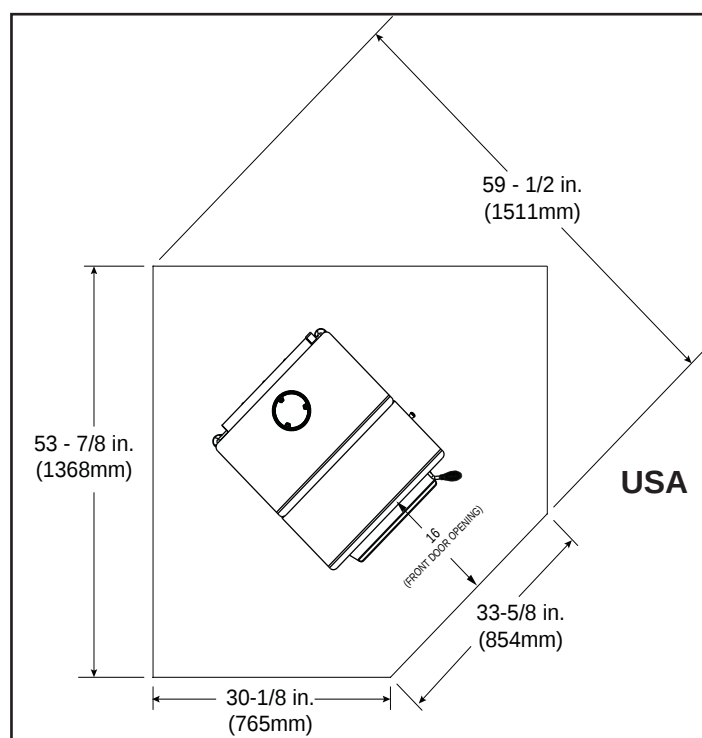


Figure 21.3

Figure 21.4

G. Outside Air Kit Installation

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

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

Included in kit: Termination cap, (2) wire ties, flex adapter, and fasteners

Items Needed for Installation (not supplied)

- 4 inch flex aluminum pipe, or if using alternate material, then it shall be made from durable, non-combustible, heat resistant material up to 350°F (177°C). Cut the pipe to the required length for your installation.
 - Phillips head screwdriver
 - Silicone sealant
 - Drills and saws necessary for cutting holes through the wall or flooring in your home
1. Remove all materials from packing box.
 2. Using a #2 Phillips screwdriver attach the flex adapter to the appliance using 4 screws. **Figure 22.1**
 3. For floor installation remove circular “knock-out” in the base of the pedestal.
 4. **Floor & Rear Installation:** Cut a 4 inch (102mm) hole in outside wall or floor to accommodate outside air piping. Use 4 inch (102mm) aluminum metal flex or rigid piping to directly connect outside air to appliance intake. Use the supplied termination cap with a rodent screen. Seal between the wall (or floor) and the pipe with silicone to prevent moisture penetration.

5. **Floor Installation Alternative:** In some instances you may not be able to install the flex pipe as show in **Figure 22.2**.

If that is the case, use the cover plate and sealing rope supplied with the pedestal kit as shown in **Figure 22.2**. The goal is to seal the pedestal so no room air can leak into the pedestal and for cold air infiltration.

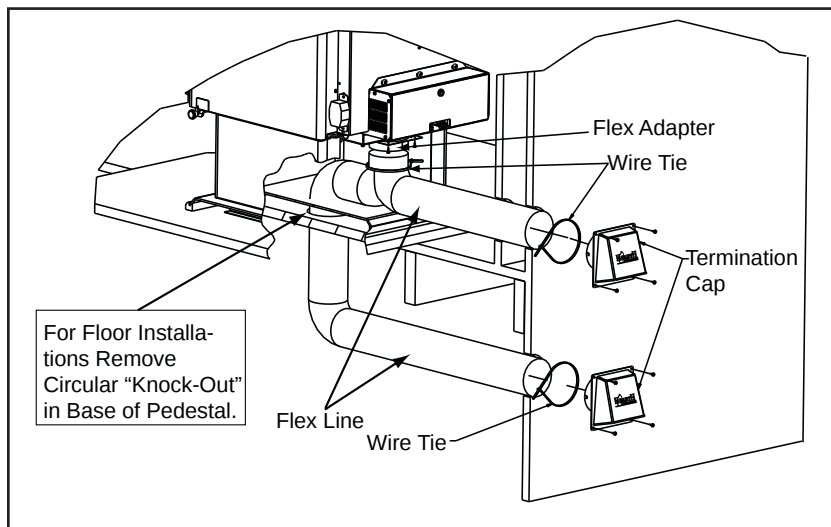


Figure 22.1 - Floor & Rear Installation

⚠ 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.

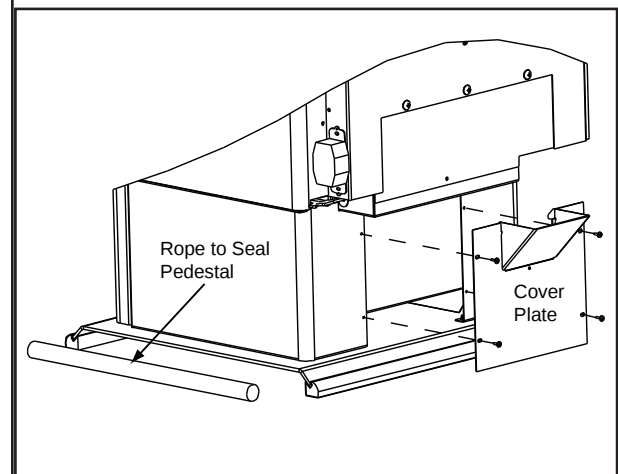


Figure 22.2 - Floor Installation Alternative

H. Blower (Optional)

1. Align holes in mounting flange of blower with bolt holes in appliance. Blower should be positioned at bottom of rear outer skin as shown in **Figure 23.1**.
2. Insert and tighten bolts supplied with the kit, securing blower onto outer wall of appliance.
- 3 Place the bracket containing the snap disc and magnet under the bottom left rear corner as shown in **Figure 23.1**.

See pages 15 and 21 for detailed operating instructions for the blower and snap disc.



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.

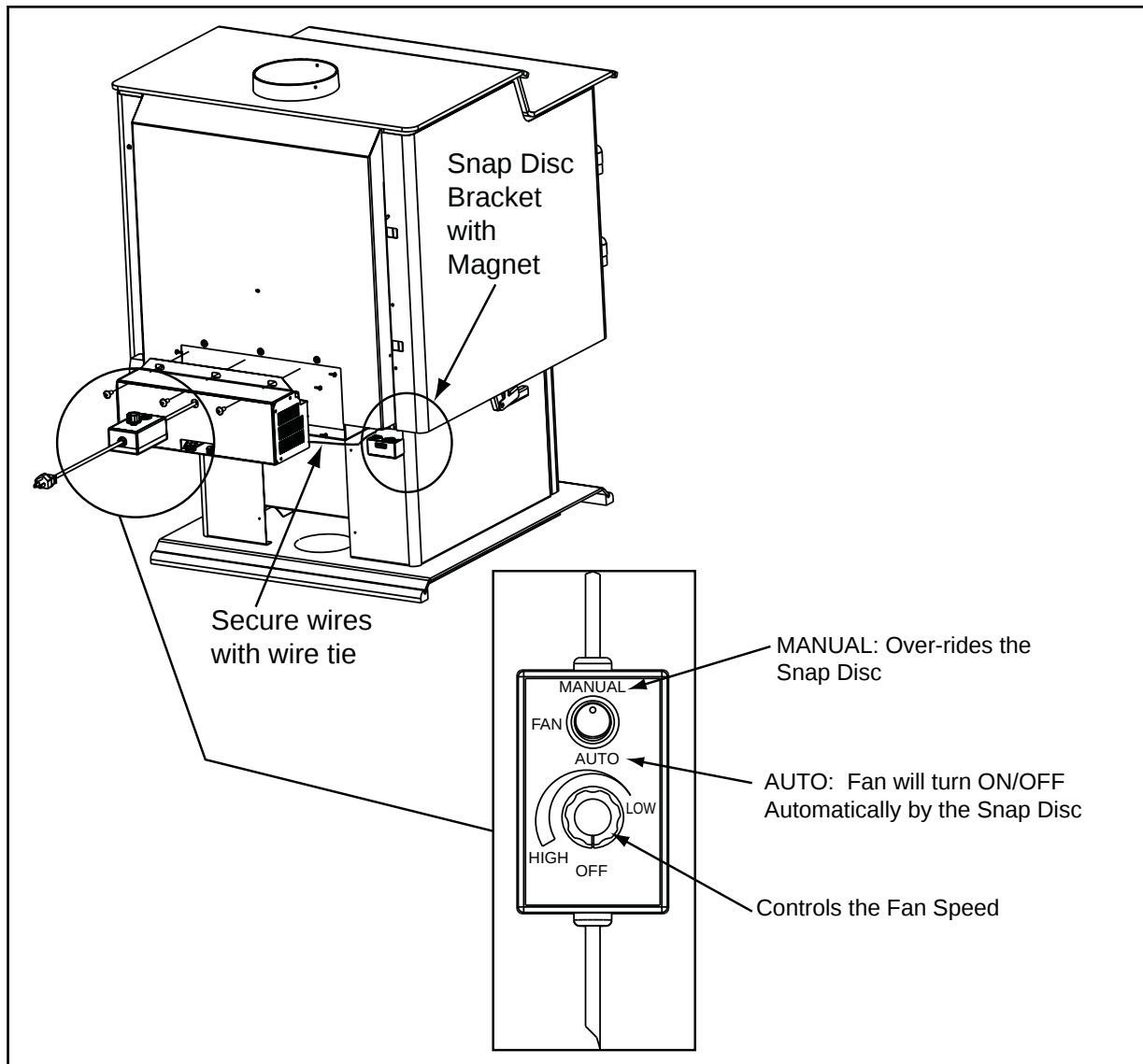


Figure 23.1

6 Mobile Home Installation

You must use a Quadra-Fire Outside Air Kit Part OAK-ACC (depending on floor installation) for installation in a mobile home.

1. An outside air inlet must be provided for combustion. See **page 22** for installation information.
2. Appliance must be secured to the mobile home structure by bolting the pedestal through hearth pad and into floor.
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 (stove 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 unit 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.

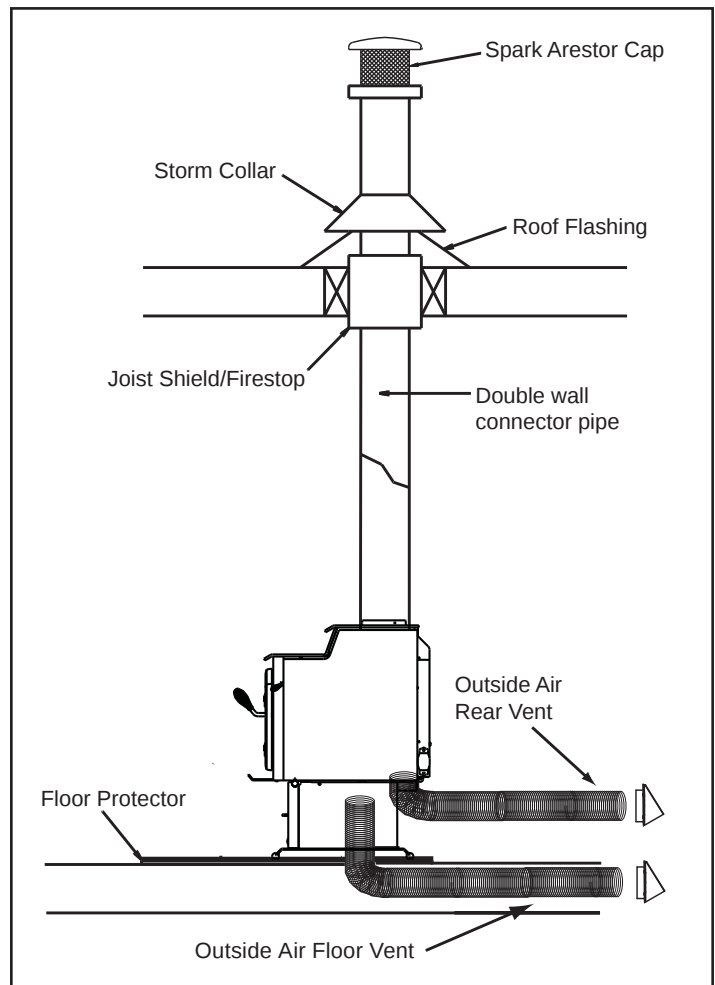


Figure 24.1

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

QUADRA-FIRE® Service Parts

57ST-ACC

Beginning Manufacturing Date: April 2009

Ending Manufacturing Date: Active

IMPORTANT: THIS IS DATED INFORMATION. Parts must be ordered from a dealer or distributor. **Hearth and Home Technologies does not sell directly to consumers.** Provide model number and serial number when requesting service parts from your dealer or distributor.



Stocked
at Depot

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	
ACCESSORIES				
	Blower Assembly		BK-ACC	
	Blower Control Box W/Switch		SRV7000-194	Y
	Component Pack		7033-051	
	Magnet Round		SRV7000-140	Y
	Snap Disc Bracket Assembly		7033-036	
	Snap Disc, # 1, Convection Blower		SRV230-0470	Y
	Speed Control Only (Rheostat)		842-0370	Y
	Wire Harness (Blower)		7033-262	
	Blower, Convection	Blower Only	812-4900	Y
	Outside Air Kit, Floor & Rear		OAK-ACC	
	Outside Air Collar Assembly		7033-039	
	Outside Air Shield		33271	Y
FASTENERS				
	Avk Rivnut Repair Kit - 1/4-20 & 3/8-16 Rivnut Tools		RIVNUT-REPAIR	Y
	Nut, Ser Flange Small 1/4-20	Pkg of 24	226-0130/24	Y
	Screw, Pan Head Philips 8-32 X 3/8	Pkg of 40	225-0500/40	Y
	Screw, Sheet Metal #8 X 1/2 S-Grip	Pkg of 40	12460/40	Y
	Washer, 1/4 Sae	Pkg of 24	28758/24	Y



NOTHING BURNS LIKE A QUAD

CONTACT INFORMATION

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

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

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.

