Installation Manual
Installation and Appliance Setup

INSTALLER: Leave this manual with party responsible for use and operation.
OWNER: Retain this manual for future reference.

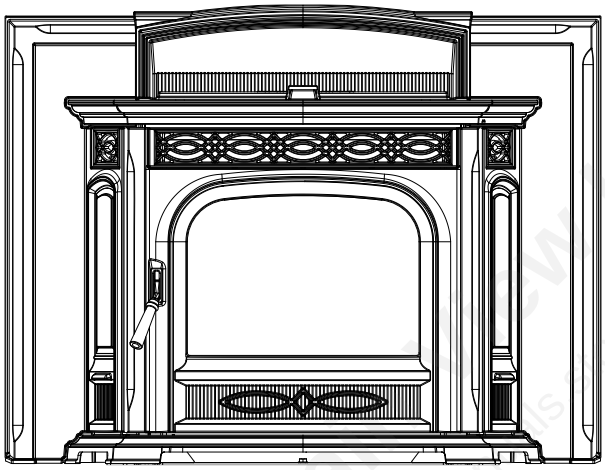
NOTICE: SAVE THESE INSTRUCTIONS

HARMAN®

BUILT TO A STANDARD, NOT A PRICE

Model(s):

Accentra 52i Pellet Insert



⚠ CAUTION

Tested and approved for wood pellets and shelled field corn fuel only. Burning of any other type of fuel voids your warranty.

⚠ CAUTION

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Contact local building or fire officials about restrictions and installation inspection requirements in your area.

⚠ WARNING

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

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

⚠ WARNING

HOT SURFACES!

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

Hot glass will cause burns.

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

Pour obtenir une traduction française de ce manuel, s'il vous plaît contacter votre revendeur ou visitez www.harmanstoves.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 could result in death or serious injury.
- ***CAUTION!*** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- ***NOTICE:*** Indicates practices which may cause damage to the stove or to property.

TABLE OF CONTENTS

➔ **= Contains updated information**

Installation Standard Work 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: _____
Lot/Address: _____
_____

Date Installed: _____
Location of Fireplace: _____
Installer: _____
Dealer/Distributer Ph # _____
Serial Number: _____

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

Appliance Install		**YES**	**IF NO, WHY?**
Required non-combustible board is installed.	(Pg. 4)	☐	_____
Verified clearances to combustible.	(Pg. 10-14)	☐	_____
Unit is Leveled and secured.		☐	_____
Venting/Chimney Section 4 (Pg. 10-19)			
Venting Configuration complies to vent diagrams.		☐	_____
Venting installed, sealed and secured in place with proper clearances.		☐	_____
Exterior wall/roof flashing installed and sealed.		☐	_____
Terminations installed and sealed.		☐	_____
Electrical Section 1 (Pg. 4)			
120 VAC unswitched power provided to the appliance.		☐	_____
Finishing Sections 3 & 4 (Pg. 8-14)			
Combustible materials not installed in non-combustible areas.		☐	_____
Verified all clearances meet installation manual requirements.		☐	_____
Appliance Setup Section 5 (Pg. 20-21)			
All packaging and protective materials are removed.		☐	_____
Accessories installed properly.		☐	_____
Manual bag and all its contents are removed from inside the appliance and given to party responsible for use and operation.		☐	_____
Started appliance and verified that all motors and blowers operate as they should.		☐	_____

Hearth and Home Technologies recommends the following:
Photographing the installation and copying this checklist for your file.
This checklist remains 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)

1 Product Specific and Important Safety Information

A. Appliance Certification

MODEL:	Accentra 52i Pellet Insert
LABORATORY:	OMNI Test Laboratories, Inc
REPORT NO.	135-S-31-2
TYPE:	Pellet Fueled Insert/Supplementary For Residential Use
STANDARD(s):	ASTM E1509-12, ULC-S628-93

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the ASTM E1509-12, ULC-S628-93 & **(UM) 84-HUD**

The Accentra 52i Pellet Insert by Harman® is exempt from Environmental Protection Agency certification under 40 CFR 60.531 by definition [Wood Heater (A) "Air to Fuel Ratio"].

B. Glass Specifications

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

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 pellet vent, Class "PL" connector pipe.

A Harman® Outside Air Kit must be installed in a mobile home installation.

CAUTION

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

WARNING

DO NOT INSTALL IN SLEEPING ROOM.

D. BTU & Efficiency Specifications

Particulate Emissions Rating:	N/A
***BTU Output:**	8,000 - 52,000 / hr
Heating Capacity:	up to 2,300 sq. ft. depending on climate zone
Hopper Capacity:	64.5 lbs
Fuel:	Wood Pellets or Shelled Corn
Shipping Weight:	475 lbs

*BTU output will vary, depending on the brand of fuel you use in your appliance. Consult your Harman® dealer for best results.

E. Non-Combustible Materials Specification

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.
Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750º C** and **UL763** shall be considered non-combustible materials.

F. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or plastered or unplastered shall be considered combustible materials.

G. Electrical Codes

120 VAC, 60 Hz, Start 5.0 Amps, Run 4.0 Amps

NOTE: Some generator or battery back-up systems may not be compatible with the micro-processor electronics on this appliance. Please consult the power supply manufacturer for compatible systems.

***WARNING! Risk of Fire!** Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the below actions.*

DO NOT:

- *Install or operate damaged appliance*
- *Modify appliance*
- *Install other than as instructed by Hearth & Home Technologies*
- *Operate the appliance without fully assembling all components*
- *Overfire*
- *Install any component not approved by Hearth & Home Technologies*
- *Install parts or components not Listed or approved.*
- *Disable safety switches*

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.

2 Getting Started

A. Design and Installation Considerations

1. Appliance Location

NOTICE: *Check building codes prior to installation.*

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

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

Consideration must be given to:

- Safety, convenience, traffic flow
- Placement of the chimney and chimney connector.
- If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.
- Installing an optional outside air kit would affect the location of the vent termination.

Suitable fireplaces for installation:

- Masonry Fireplace
- Existing Factory Built Wood Burning Fireplace
- Harman® Zero Clearance Cabinet

EXCEPTION: Masonry or steel, including the damper plate, may be removed from the smoke shelf and adjacent damper frame if necessary to accommodate a chimney liner, provided that their removal will not weaken the structure of the fireplace and chimney, and will not reduce protection for combustible materials to less than that required by the National Building Code.

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

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

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

Warning! Risk of Fire *Damaged parts could impair safe operation. Do NOT install damaged, incomplete or substitute components.*

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

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

- *Frequently open doors*
- *Central heat outlets or returns*

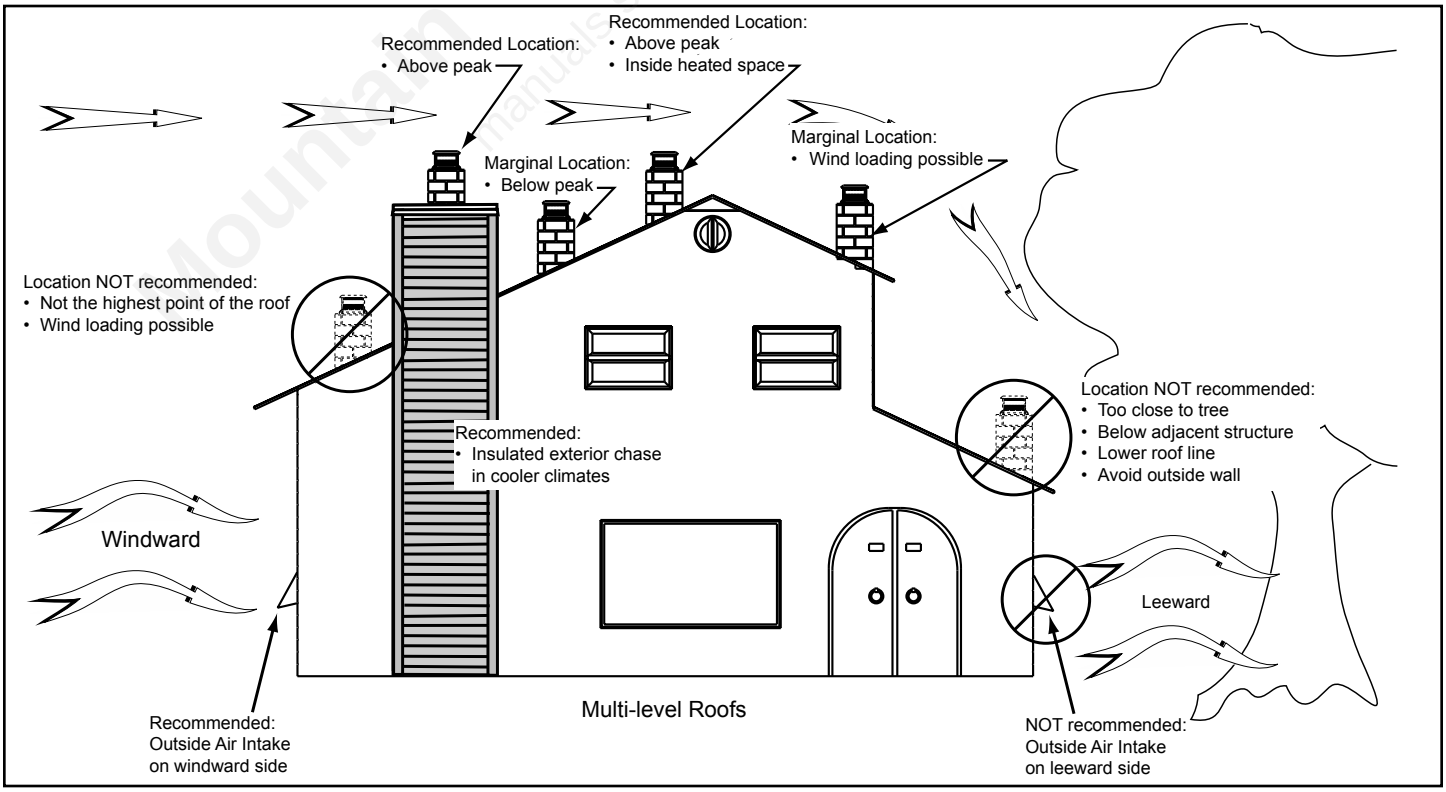


Figure 2.1

B. Tools And Supplies Needed

Tools and building supplies normally required for installation, unless installing into an existing masonry fireplace:

Reciprocating Saw	Gloves
Hammer	Safety Glasses
Phillips Screw driver	Electric Drill & Bits
Tape Measure	
Level	<u>May also need:</u>
Non-Combustible Sealant	Vent Support Straps
Material	Venting Paint

C. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- The vent system components and decorative doors and fronts may be shipped in separate packages.
- If packaged separately, the log set must be installed.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

WARNING! Risk of Fire or Explosion! *Damaged parts could impair safe operation.* ***DO NOT i****nstall damaged, incomplete or substitute components. Keep appliance dry.*

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

- Installation and use of any damaged appliance or vent system component.
- Modification of the appliance or vent system.
- Installation other than as instructed by Hearth & Home Technologies.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

Any such action may cause a fire hazard.

WARNING! Risk of Fire, Explosion or Electric Shock! DO NOT use this appliance if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system that has been under water.

3 Clearances

A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only.

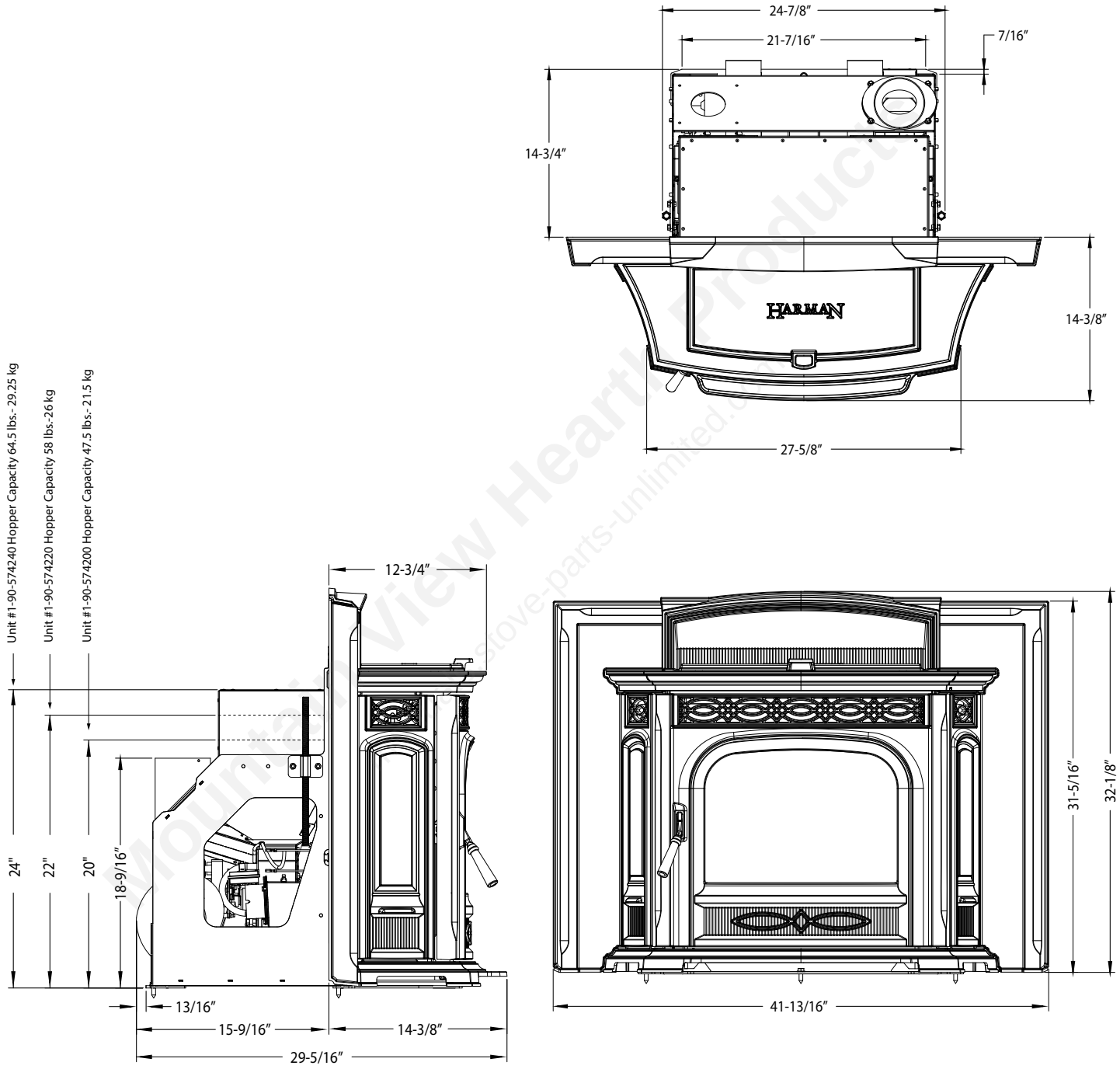


Figure 3.1

B. Clearances to Combustibles & Floor Protection

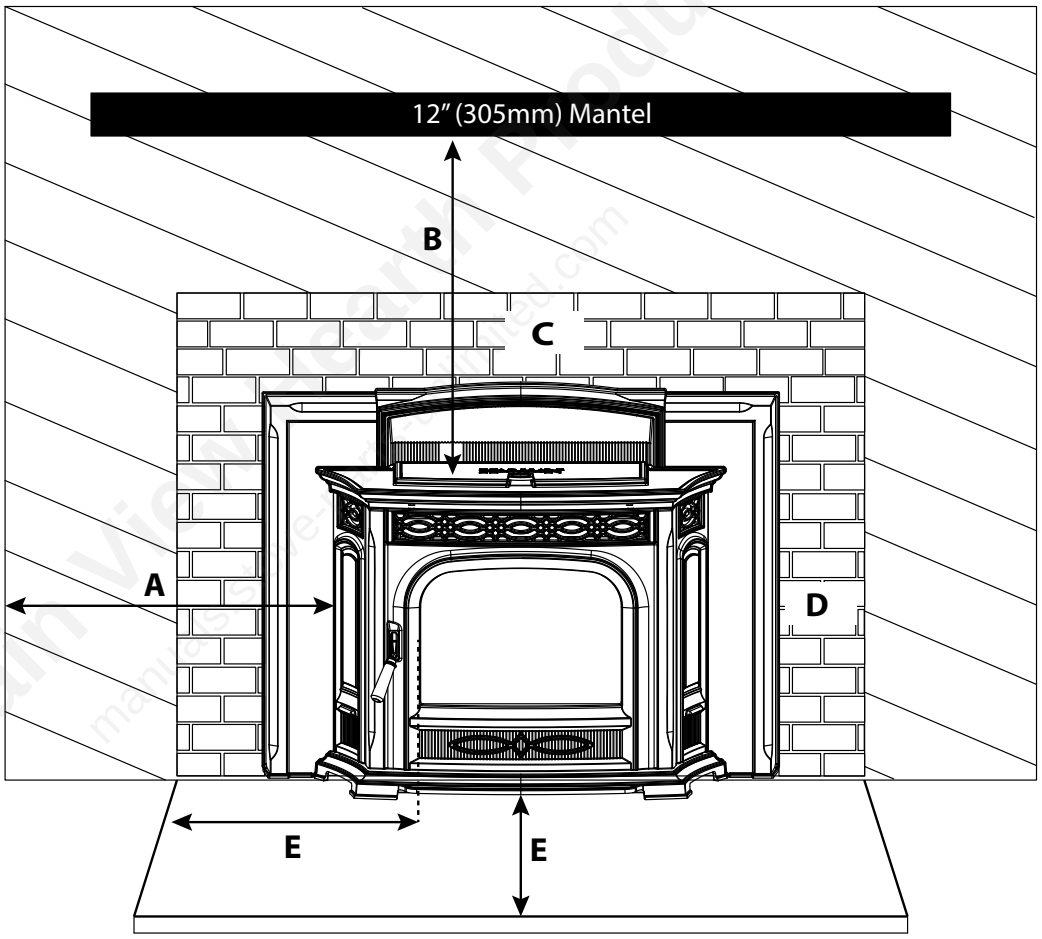
When selecting a location for the appliance it is important to consider the required clearances to walls (see Figure 3.2).

WARNING! Risk of Fire or Burns! *Provide adequate clearance around air openings and for service access. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.*

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

* Floor protection must be used from hearth opening to 6" (152mm) in front of door glass and 6" (152mm) to each side of the stove body OR 8" (203mm) to sides and 18" (457mm) in front (CANADA) to protect combustibles from hot ashes. A minimum size will be 16.5" deep by 30" wide and be made of a non-combustible material or meet UL approval.

A = to sidewall
B = to 12" mantel
C = to 3/4" trim
D = to 3/4" trim
E = floor protection



CLEARANCES:	A	B	*C	*D	E (From Glass)
From Insert Body:	12" (305mm)	12" (305 mm)	0"	0"	6" (152 mm)
*3/4" trim, zero clearance to cast surround					18" 457mm (Canada)

Figure 3.2

4 Termination Location and Vent Information

A. Venting Termination Design

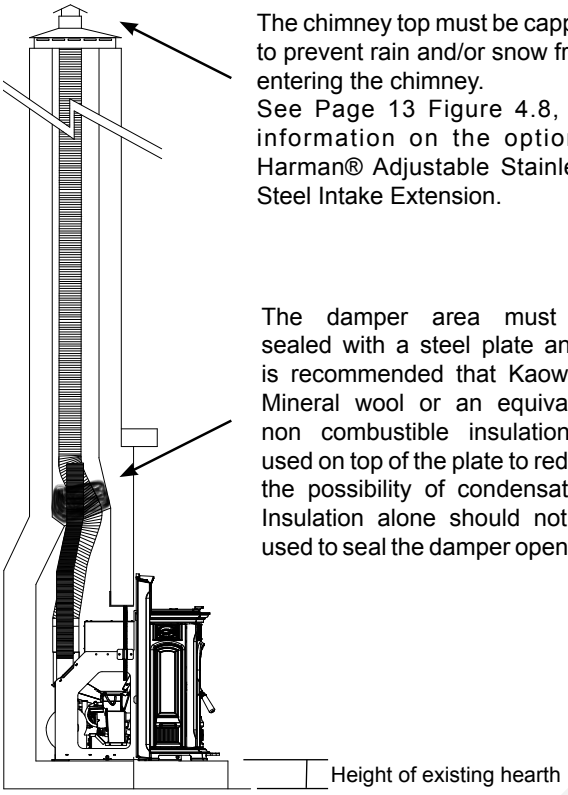


Figure 4.1

#1 Installing into an existing fireplace chimney

This method provides excellent venting with 100% outside air which is the most efficient operation of this unit. This method also provides natural draft in the event of a power failure.

A 4” stainless steel flex pipe is needed for the flue pipe, and 3" aluminum or Stainless Steel Flex Pipe is used for the intake.

⚠ WARNING

CHIMNEY CONNECTOR PIPE MAY NOT PASS THROUGH CONCEALED SPACES INCLUDING AN ATTIC, ROOF SPACE, CLOSET, FLOOR OR CEILING.

⚠ WARNING

DO NOT REMOVE BRICKS OR MORTAR FROM THE EXISTING FIREPLACE.

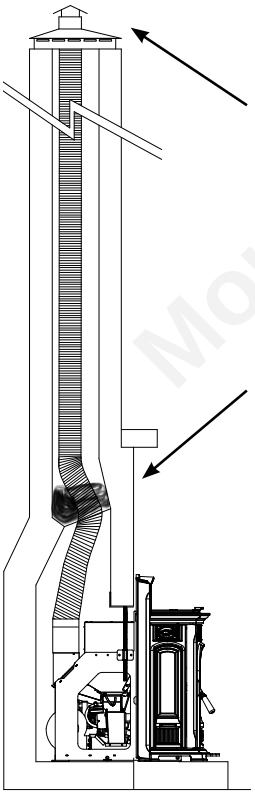


Figure 4.2

#2 Installing into an existing fireplace chimney

This method provides excellent venting for normal operation. This method also provides natural draft in the event of a power failure.

A cap should be installed on the chimney to keep out rain.

Combustion air is provided from the living area and enters the feed system from around the wing and stove body spaces.

⚠ WARNING

DO NOT REMOVE BRICKS OR MORTAR FROM THE EXISTING FIREPLACE.

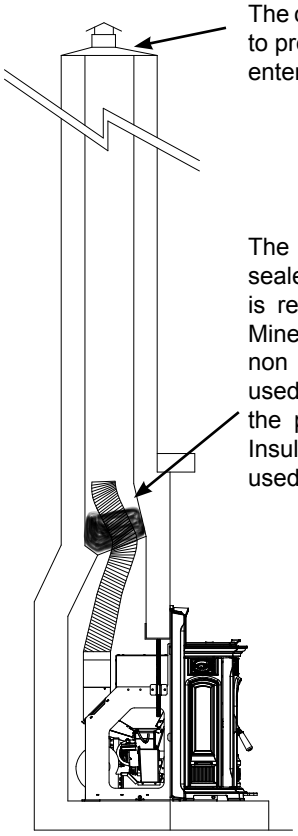


Figure 4.3

#3 Installing into an existing chimney

This method provides excellent venting for normal operation. This method also provides natural draft in the event of a power failure. If the chimney condition is questionable you may want to install a liner as in method #2.

This is the minimum allowed vent pipe using 4" stainless steel flex pipe.

The vent pipe must extend past the damper sealing area by at least 12 inches.

Note: The insulation material must not be allowed to expand to the point that it covers the end of the flex pipe.

The chimney should be capped with any style cap that will not allow rain or snow to enter.

In some places in the US and Canada, it is required that the vent pipe extend all the way to the top of the chimney. Check your local codes.

⚠ WARNING

CHIMNEY CONNECTOR PIPE MAY NOT PASS THROUGH CONCEALED SPACES INCLUDING AN ATTIC, ROOF SPACE, CLOSET, FLOOR OR CEILING.

⚠ WARNING

DO NOT REMOVE BRICKS OR MORTAR FROM THE EXISTING FIREPLACES.

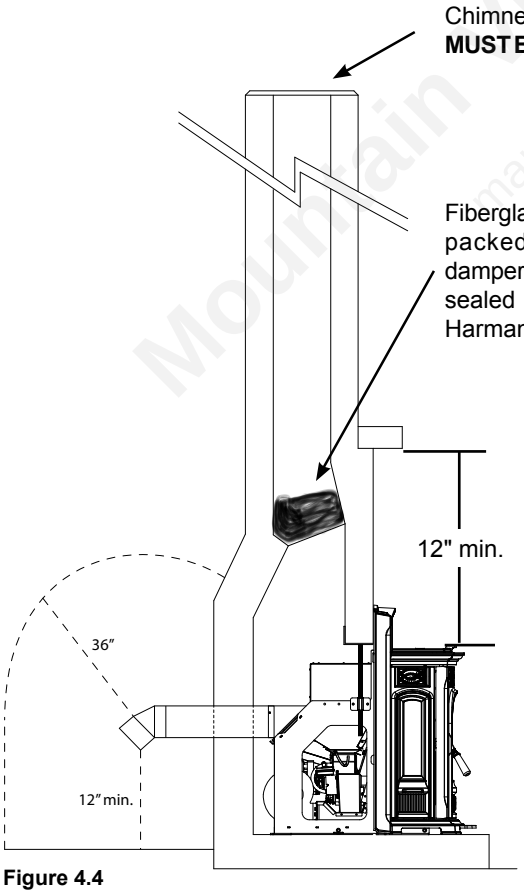
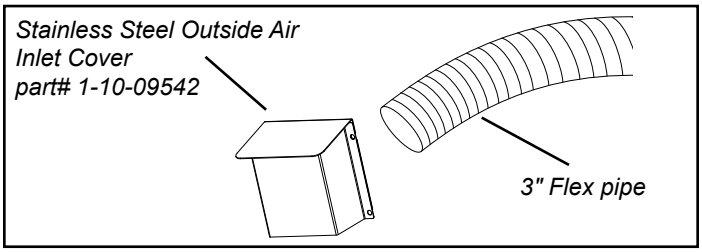


Figure 4.4

#4 Preferred method

This method provides excellent venting for normal operation and in a fireplace with inadequate flue space, or a height of over 30 feet. A 3" or 4" PL vent pipe should be used with the needed swivel flue stub.

NOTE: With a 100% outside air kit the outside air can be installed in the same manner as the flue pipe.



⚠ CAUTION

KEEP COMBUSTIBLES (SUCH AS GRASS, LEAVES, ETC.) AT LEAST 3 FEET AWAY FROM THE FLUE OUTLET ON THE OUTSIDE OF THE BUILDING.

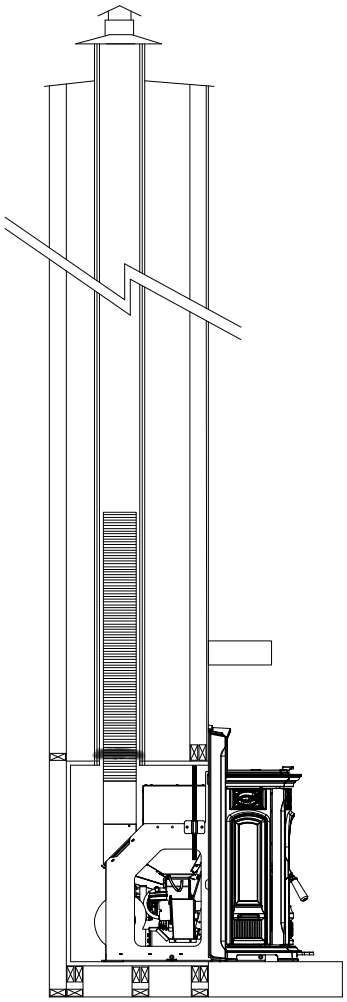


Figure 4.5

Installing the Accentra 52i Pellet Insert into an existing factory built wood burning fireplace

When installing the Accentra 52i Pellet Insert into a factory built wood burning fireplace, the Manufactured Fireplace Installation Kit #1-00-574323 must be used. In addition, several things need to be taken into consideration.

The size of the fireplace opening. Will the unit fit into the opening? Many of these units have metal smoke shields inside the top that can be removed to gain height. Often the side and rear refractory can be removed to gain depth and width. In some circumstances, the front lower lip or grill work may also be removed. Be sure and follow the guidelines in the kit instructions. Because of the special track system, it is also permitted to remove the floor refractory and/or insulation in the bottom of the manufactured fireplace, right down to the outer sheet metal, which must be left in place for floor protection under the insert mounting frame. Floor protection guidelines, as listed on page 8, Figure 3.2 must also be followed.

Note: If the Harman® Accentra 52i Pellet Insert is installed into a factory built wood burning fireplace, this label (Harman® part # 3-90-00675) <u>MUST</u> be attached to the altered fireplace. This label is included in the Manufactured fireplace installation kit.

THIS FIREPLACE HAS BEEN ALTERED TO ACCOMMODATE A FIREPLACE INSERT AND SHOULD BE INSPECTED BY A QUALIFIED PERSON PRIOR TO REUSE AS A CONVENTIONAL FIREPLACE

OPTIONAL HOPPER CONFIGURATIONS FOR SMALLER FIREPLACE OPENINGS:

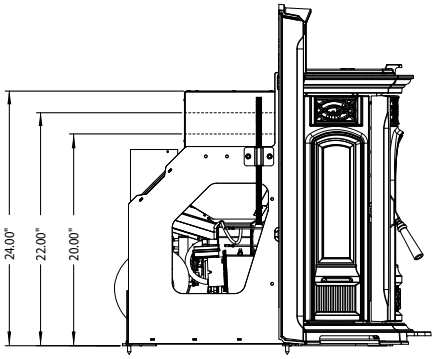
The Harman® Accentra 52i Pellet Insert can be factory built with shorter hopper configurations.

The standard requires a 24" opening. Part #1-90-574240

Option 1: Requires a 22" opening height. Part #1-90-574220

Option 2: Requires a 20" opening height. Part #1-90-574200

Keep in mind the hopper capacities will decrease with the optional heights.



C. Venting & Use of Elbows

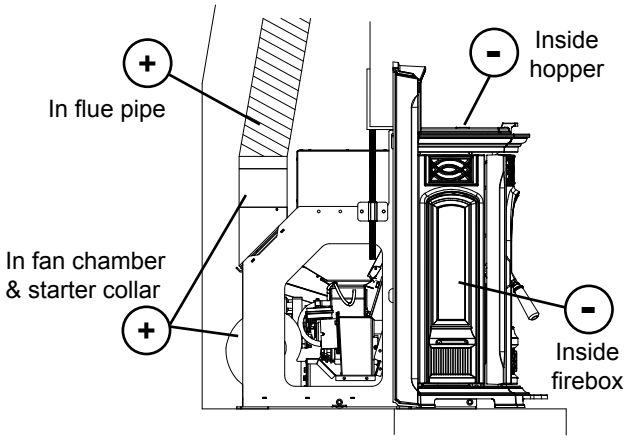


Figure 4.6

A combustion blower is used to extract the combustion gases from the firebox. This causes a negative pressure in the firebox and a positive pressure in the venting system as shown in Figure 4.6. The longer the vent pipe and more elbows used in the system, the greater the flow resistance.

The recommended maximum flue lengths for the Accentra 52i Pellet Insert are as follows:

4" Stainless Steel Flex: 30 Lineal ft. Vertical*

4" PL Vent Pipe:

4" PI Vent Pipe: 30 Lineal ft. Vertical*

4" PI Vent Pipe: 14 ft. Vertical w/1-90° and 4 lineal ft. horizontal*

If additional 4" PL Vent fittings are required, the overall length must be reduced by:

Vertical 90° or T:	2.5'
Vertical 45°:	1.5'
Horizontal 90° or T:	5.0'
Horizontal 45°:	2.5'

3" PL Vent Pipe:

20 Lineal ft. vertical*

8 Lineal ft. vertical w/1-90° & 4 lineal ft. horizontal*

If additional 3" PL Vent fittings are required, the overall length must be reduced by:

Vertical 90° or T:	2.0'
Vertical 45°:	1.0'
Horizontal 90° or T:	4.0'
Horizontal 45°:	2.0'

* Long runs of flex or PL vent pipe installed directly vertical from the flue stub may require more frequent cleaning due to fly ash falling off inside and collecting directly above the combustion blower outlet.

Any use of horizontal venting will require more frequent cleaning. It is the responsibility of the installer to make sure the entire flue configuration is accessible for cleaning.

4" stainless steel flex vent piping is only allowed for use in masonry fireplaces and chimneys or factory built wood burning fireplaces with class A metal chimneys. All pellet vent pipe must be secured together either by means provided by pipe manufacturer or by 3 screws at each joint.

Use only the specified venting components. Use of any other components will void the product warranty and may pose a hazard.

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS APPLIANCE.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.

Minimizing Smoke During Loss of Power Using Battery Back-up

Harman® strongly recommends installing battery back-up to minimize entry of smoke into the room in the event of power loss.

Your pellet/biomass burning appliance relies on a combustion blower to remove exhaust. A power failure will cause the combustion blower to stop. This may lead to exhaust seeping into the room. Vertical rise in the venting may provide natural draft. It is, however, no guarantee against leakage.

There are two Harman® approved battery back-up options for your appliance:

Uninterruptible Power Supply (UPS) UPS battery back-ups are available online or at computer and office equipment stores. Your Harman® appliance with Rev E or later software available beginning in November 2010 may be plugged directly into a Harman® approved UPS:

- The APC (American Power Conversion) model #BE750G and the TrippLite model INTERNET750U are tested and approved. Other brands or models may not be compatible.

When power is lost, a fully charged UPS will power a safe, combustion blower only shut-down. Your appliance will pulse the blower every few seconds to clear exhaust until the fire is out. **NOTE: The UPS provides safe shut-down only. It is not intended for continued operation.**

Your appliance will recognize when power is restored. What happens depends on ESP temperature and whether it is equipped with automatic ignition:

- **In "Automatic" setting,** units equipped with automatic ignition will respond to the set point and ESP temperature and resume normal operation.
- **In "Manual" setting** or for units without automatic ignition:
- If the ESP is cool, the appliance will remain shut down.
- If the fire is out and the ESP is still warm, the feeder may restart. Since the fire is out, the ESP temperature will not rise. The unit will then shut-down, and may flash a six-blink status error. (See ESP error codes)
- If the fire is still burning, it will resume normal operation.

Contact your dealer if you have questions about UPS compatibility with your appliance.

Harman® Surefire 512H Battery Back-up The 512H connects to a 12 volt deep cycle battery that will run your appliance for up to eight (8) hours. It includes a trickle charge feature that keeps your battery charged when power is available. **NOTE: If the power is out for longer than battery life, smoke leakage may still occur unless your stove has been safely shut down.**

CAUTION! Always keep appliance doors and hopper lid closed and latched during operation and during power failures to minimize risk of smoke or burn-back.

CAUTION! Use only Harman® approved battery back-up devices. Other products may not operate properly, can create unsafe conditions or damage your appliance.

D. Outside Air

The outside air kit consists of a Intake Stub, Stub Gasket, Outside Air intake Weldment and hardware. Figure 4.7.

An adjustable chimney intake extension, part #1-00-674104 is available to be used on masonry chimneys only. Figure 4.8.

Additional information and diagrams can be found under the "Venting Termination Design" section of the manual.

To install outside air, use kit part #1-10-574350. Follow the installation instructions provided with the kit.

100% Outside Air Kit - #1-00-574350

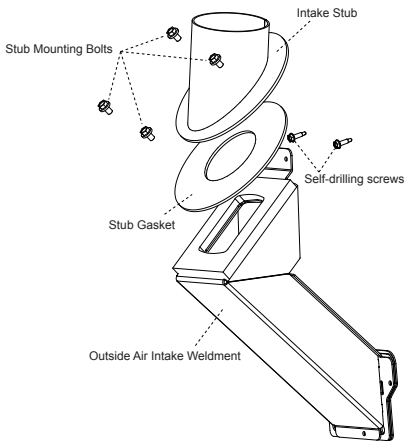


Figure 4.7

Adjustable Chimney Intake Extension Part # 1-00-674104

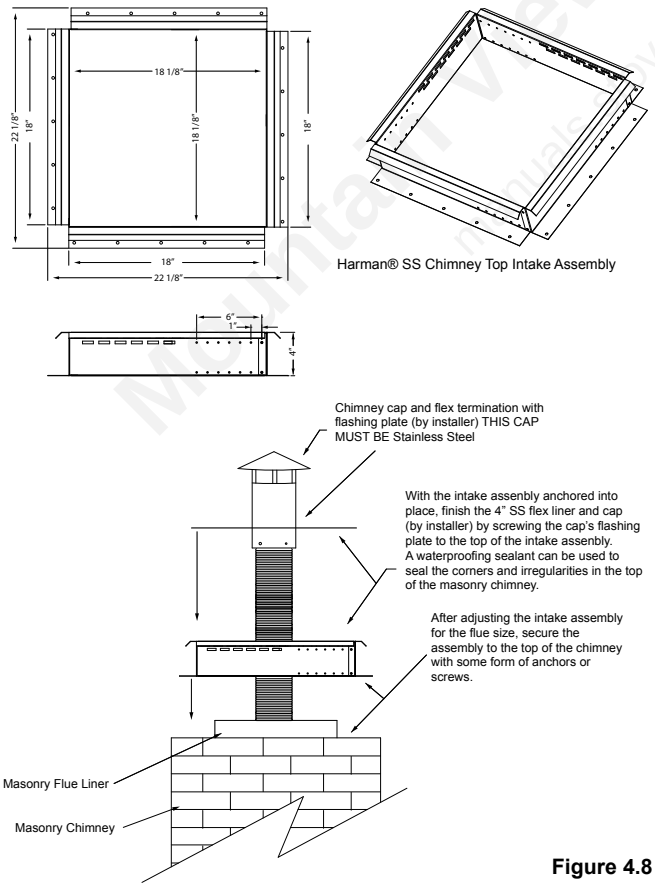


Figure 4.8

E. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance.

- Install through the warm airspace enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind loading.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.

⚠ CAUTION

- 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. Draft

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

Considerations for successful draft include:

- Preventing negative pressure
- Location of appliance and chimney

To measure the draft or negative pressure on your appliance use a magnahelic or a digital pressure gauge capable of reading 0 - 1 inches of water column (W.C.).

The appliance should be running on high for at least 15 minutes for the test.

With the stove running on high you should have a negative pressure equal to or greater than the number given in the chart below. If you have a lower reading than you find on the chart, your appliance does not have adequate draft to burn the fuel properly.

Minimum Vacuum Requirements:	**-.15 in. W.C.**

Prior to installing the flue pipe, connect a draft meter to the stove. (The draft meter must have a minimum range of 0 to 1") Record the first reading. Connect flue pipe to stove and be sure all doors and windows in the home are closed. Record the second draft reading _____. If the second reading is more than .05" lower than the first reading, check for possible restrictions or the need for outside air. For more information on the draft test procedure, refer to the Low Draft Voltage Adjustments section of this manual.

G. Negative Pressure

WARNING! Risk of Asphyxiation! *Negative pressure can cause spillage of combustion fumes and soot.*

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

Causes include:

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

To minimize the effects of negative air pressure:

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

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

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

H. Avoiding Smoke and Odors

Avoiding Smoke and Odors

Negative Pressure, Shut-down, and Power Failure:

T**o reduce the probability of back-drafting or burn-back in the pellet burning appliance during power failure or shut-down conditions, the stove must be able to draft naturally** without exhaust blower operation. Negative pressure in the house will resist this natural draft if not accounted for in the pellet appliance installation.

Heat rises in the house and leaks out at upper levels. This air must be replaced with cold air from outdoors, which flows into lower levels of the house. Vents and chimneys into basements and lower levels of the house can become the conduit for air supply, and reverse under these conditions.

Outside Air:
Hearth & Home Technologies recommend attaching outside air in all installations, especially lower level and main floor locations.

Per national building codes, consideration must be given to combustion air supply to all combustion appliances. Failure to supply adequate combustion air for all appliance demands, may lead to back-drafting of those and other appliances.

When the appliance is side-wall vented: The air intake is best located on the same exterior wall as the exhaust vent outlet and located lower on the wall than the exhaust vent outlet.

When the appliance is roof vented: The air intake is best located on the exterior wall oriented towards the prevailing wind direction during the heating season.

The outside air connection will supply the demands of the pellet appliance, but consideration must be given to the total house demand. House demand may consume some air needed for the stove, especially during a power failure. It may be necessary to add additional ventilation to the space in which the pellet appliance is located. Consult with your local HVAC professional to determine the ventilation demands for your house.

Vent Configurations:

To reduce probability of reverse drafting during shut-down conditions, Hearth & Home Technologies strongly recommends:

- Installing the pellet vent with a minimum vertical run of five feet, preferably terminating above the roof line.
- Installing the outside air intake at least four feet below the vent termination.

To prevent soot damage to exterior walls of the house and to prevent re-entry of soot or ash into the house:

- Maintain specified clearances to windows, doors, and air inlets, including air conditioners.
- Vents should not be placed below ventilated soffits. Run the vent above the roof.
- Avoid venting into alcove locations.
- Vents should not terminate under overhangs, decks or onto covered porches.
- Maintain minimum clearance of 12 inches from the vent termination to the exterior wall. If you see deposits developing on the wall, you may need to extend this distance to accommodate your installation conditions.

Hearth & Home Technologies assumes no responsibility for, nor does the warranty extend to, smoke damage caused by reverse drafting of pellet appliances under shut-down or power failure conditions.

WARNING! DO NOT CONNECT THIS UNIT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

If a rear exit flue configuration is used, with or without outside air, make sure the flue pipe termination clearances are followed as per the manufacturers recommendations.

Vent Pipe

Be sure to use approved pellet vent pipe wall and ceiling pass- through fittings to go through combustible walls and ceilings. Be sure to use a starting collar to attach the venting system to the stove. The starting collar must be secured to the flue stub with at least three screws, and sealed with high temp silicone caulking.

4" stainless steel flex vent piping is only allowed for use in masonry fireplaces and chimneys or factory built wood-burning fireplaces with class A metal chimneys.

Pellet venting pipe (also known as Type PL vent) is constructed of two layers with air space between the layers. This air space acts as an insulator and reduces the outside surface temperature to allow a clearance to combustibles of only 1 inch. The sections of pipe lock together to form an air tight seal in most cases; however, in some cases a perfect seal is not achieved. For this reason and the fact that the Accentra 52i Pellet Insert operates with a positive vent pressure, we specify that the joints also be sealed with silicone.

Where passing through an exterior wall or roof, be sure to use the appropriate pass-through device providing an adequate vapor barrier. Venting manufacturers generally provide these pas-through devices.

Venting Termination Requirments

1. Termination must exhaust above air inlet elevation. It is recommended that at least 60 inches (1524mm) of vertical pipe be installed when appliance is vented directly through a wall. This will create a natural draft, which will help prevent the possibility of smoke or odor venting into the home during a power outage. It will also keep exhaust from causing a nuisance or hazard by exposing people or shrubs to high temperatures. The safest and preferred venting method is to extend the vent vertically through the roof.
2. Distance from doors and opening windows, or gravity or ventilation air inlets into building:
   a. Not less than 48 inches (1219mm) below;
   b. Not less than 48 inches (1219mm) horizontally from;
   c. Not less than 12 inches (305mm) above.
3. Distance from permanently closed windows:
   a. Not less than 12 inches (305mm) below, horizontally from or above.
4. Distance between bottom of termination and grade should be 12 inches (305mm) minimum. This is conditional upon plants in the area, and nature of grade surface. The grade surface must be a non-combustible material (i.e., rock, dirt). The grade surface must not be lawn. Distance between bottom of termination and public walkway should be 84 inches (2134mm) minimum.
5. Distance to combustible materials must be 24 inches (610mm) minimum. This includes adjacent buildings, fences, protruding parts of the structure, roof overhang, plants and shrubs, etc.
6. Termination Cap Location (Home Electrical Service)

- Side-to-side clearance is to be the same as minimum clearance to vinyl inside corners.
- Clearance of a termination cap below electrical service shall be the same as minimum clearance to vinyl soffits.
- Clearance of a termination cap above electrical service will be 12 inches (305mm) minimum.
- Location of the vent termination must not obstruct or interfere with access to the electrical service.

<u>For Canada Only:</u> This Fireplace Insert must be installed with a continuous chimney liner of 4" diameter extending from the fireplace insert to the top of the chimney. The chimney liner must comform to the Class 3 requirements of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

I. Mobile Home Installation

You must use a Harman® Outside Air Kit for installation in a mobile home.

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

⚠ WARNING

Asphyxiation Risk:

NEVER INSTALL INTO A SLEEPING ROOM

Consumes oxygen in the room

⚠ WARNING

Installation must comply with Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24

⚠ CAUTION

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

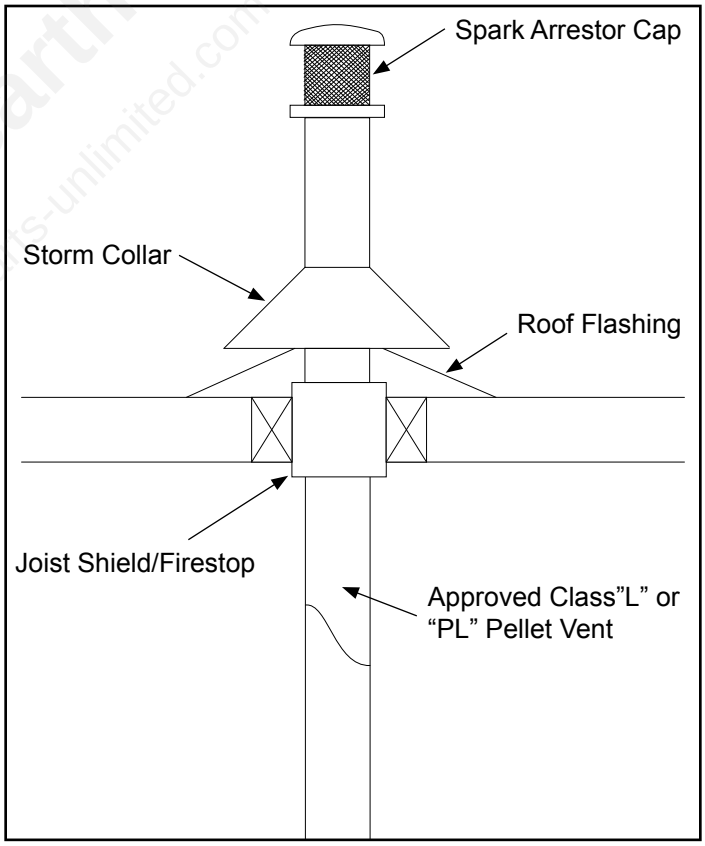
Do NOT cut through:

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

⚠ CAUTION

Never draw outside combutsion air from:

- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.



J. Fire Safety

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

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

⚠ 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.

Or any such action that may cause a fire hazard.

K. Inspect Appliance & Components

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

⚠ WARNING

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.

5 Appliance Set-Up

A. Reducing Weight for Installation

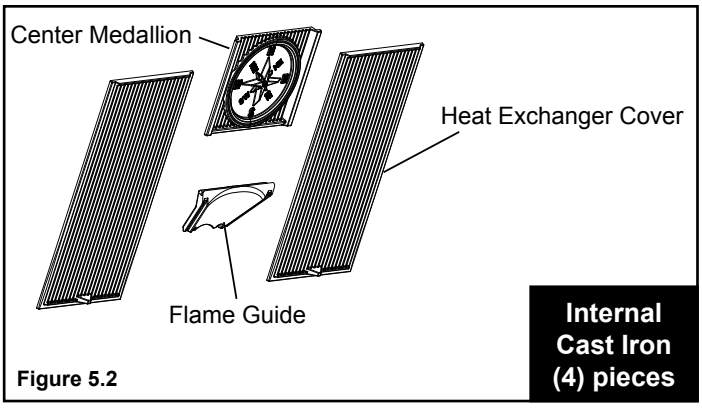


Figure 5.2

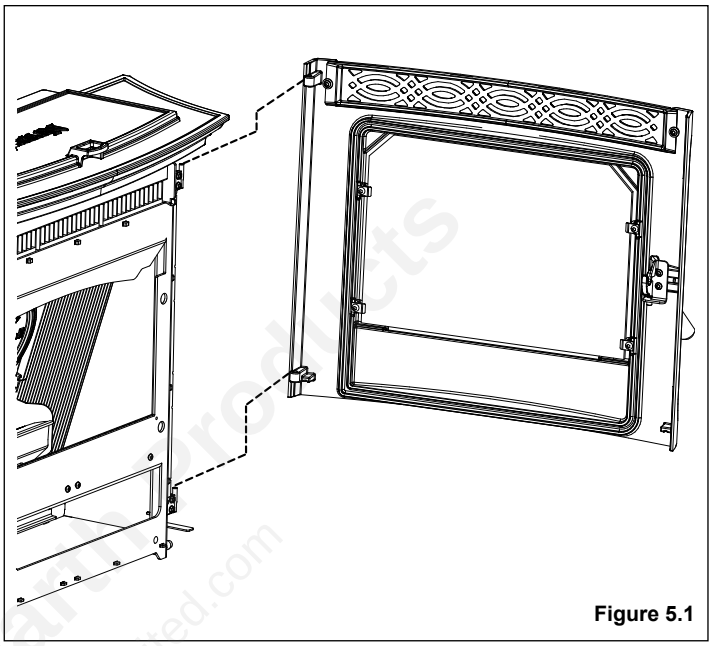
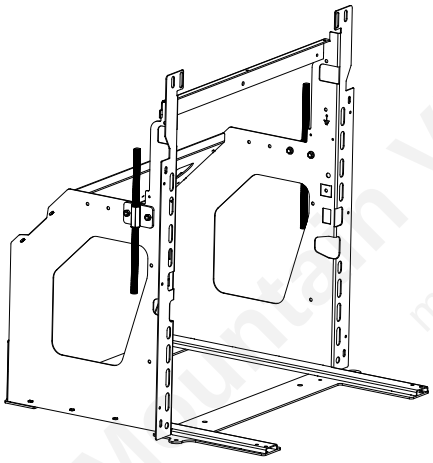
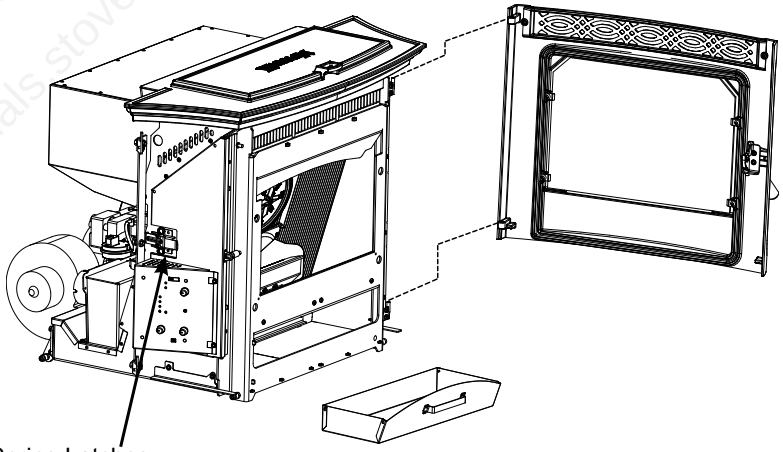


Figure 5.1

1. Remove the front viewing door by swinging it open approximately 90° and lift it upward until it clears the hinge pins. See Figure 5.1.
2. Remove the ash pan
3. Remove the (4) internal pieces of cast iron Figure 5.2. See Figure 5.3 and Figure 5.4 for removal instructions.



Mounting Frame



(2) Spring Latches
(One on each side)

Ash Pan

The drawing above shows the major sub components of the Accentra 52i. Take notice as to where the spring latches are located.

Removing the Center Medallion

1. Lift up on the 2 bottom corners of the medallion until it is higher than the top of the flame guide.
2. Pull the bottom edge of the medallion front approximately 1 inch.
3. Pull downward on the corners of the medallion until the top is released from the retainer that keeps the top aligned when in place. Figure 5.3.

Note: The heat exchanger covers will tilt to the front when the center medallion is removed.

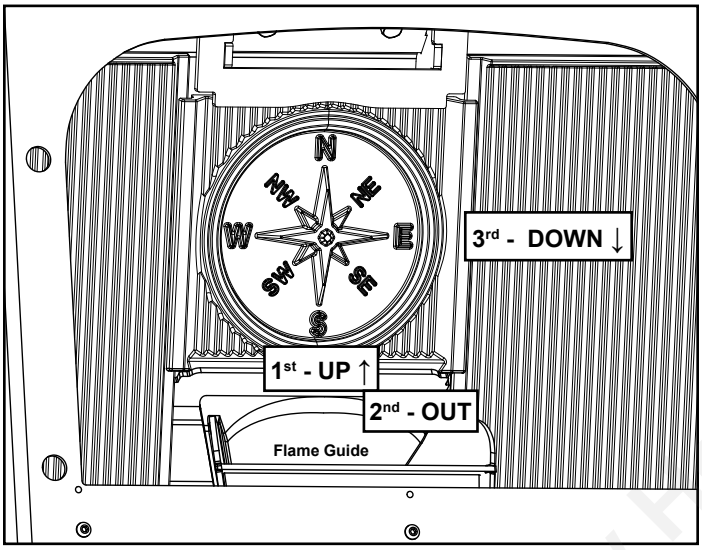


Figure 5.3

Removing the Heat Exchanger Covers

1. Remove cleanout plate assembly by pulling up on the latch located at the bottom right corner of firebox. Figure 5.4
2. Remove the heat exchanger cover by lifting it upward about 1/2 inch and move the bottom edge front until it sits flat on the firebox bottom.
3. Rotate the edge of the heat exchanger closest to the burnpot until it is in front of the burnpot.
4. Tip the top of the heat exchanger toward the middle of the opening until it can be lifted up and out. Figure 5.4a

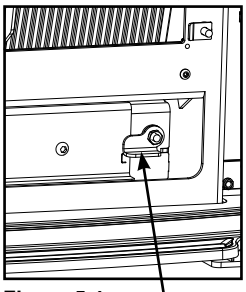


Figure 5.4

Latch

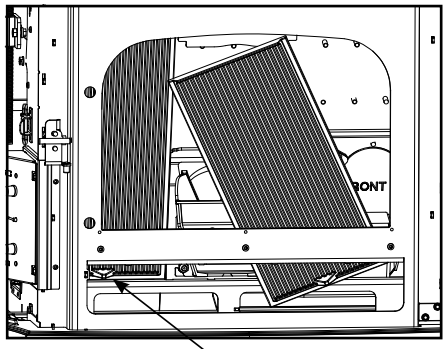


Figure 5.4a

Lifting tab

B. Beginning the Installation

The use of the optional service rail kit (Part #1-00-574354) is highly recommended for installation.

Locate the 3/8” hex head shipping bolts (one per side) that secure the stove to the mounting frame and use a 3/8” socket or nut-driver to loosen and remove these screws; these screws will not be reused and can be discarded. Figure 5.5

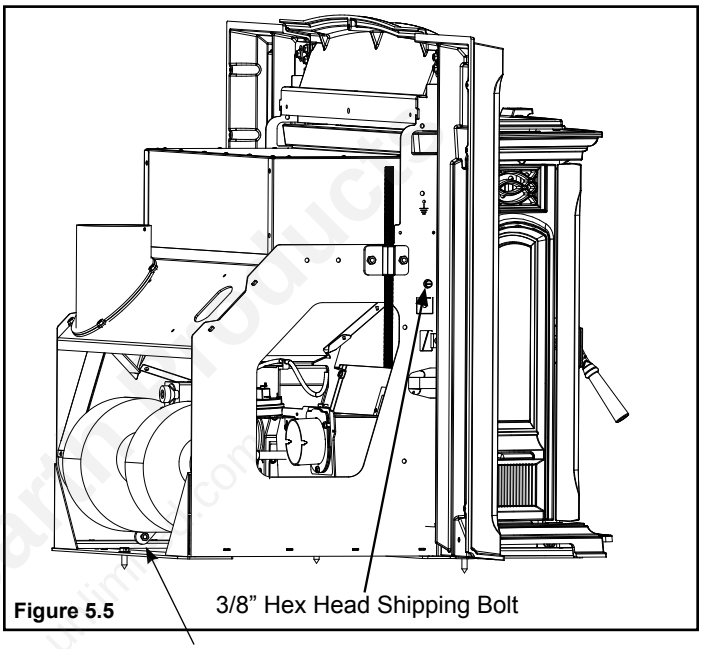


Figure 5.5 3/8” Hex Head Shipping Bolt

NOTE: The Distribution blower extends through the mounting frame in the rear approximately 2". The overall depth of the mounting frame is 15-9/16”, this includes the 2” overhang referenced in Figure 3.1.

Release the spring latches located behind the side cast panels on both sides of the insert and remove insert from frame.

Using (1) ¼”-20 x 3/8” flange bolt, (2) ¼”-20 x 5/8” flange bolt and (2) ¼”-20 nuts, install the left and right surround panels to the mounting frame. Leave these bolts loose until the entire surround assembly has been adjusted for proper clearance.Figure 5.6

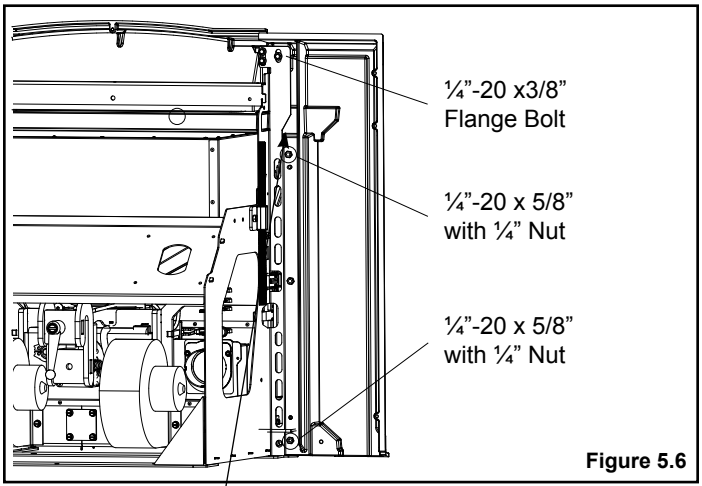


Figure 5.6

Note: The wings mount on the rear side of the mounting frame flange below the notch, and on the front side above the notch.

Next, locate the center top surround section and install four ¼"-20 x ¾" socket threaded studs into the holes shown below using a 1/8" allen wrench. Figure 5.7.

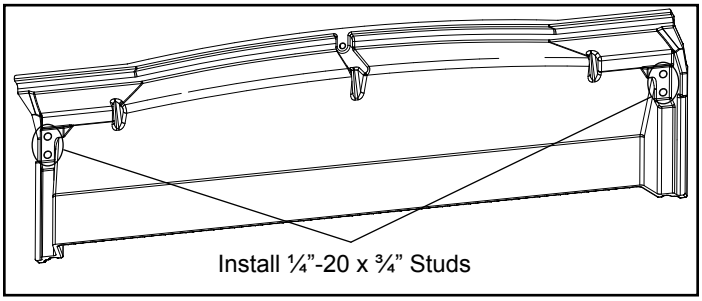


Figure 5.7

Slide the center surround section onto the mounting frame and install a ¼" washer and then a ¼" nut onto each of the four studs. These nuts should remain loose until the entire surround has been installed and adjusted. Figure 5.8.

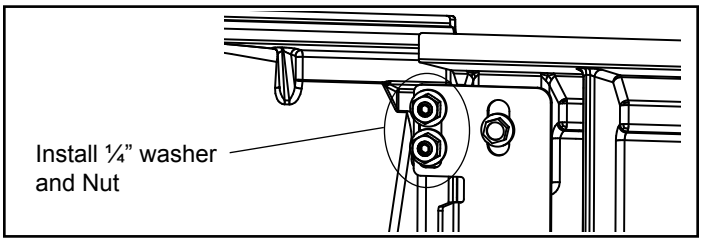


Figure 5.8

Align the top center surround section between the right and left panels and tighten the four ¼" nuts to lock it in place. Now tighten the 3 bolts and nuts on the left and right side panels.

Unbolt the mounting frame from the shipping pallet using a ½" socket on the three lag screws; the lag screws and the pallet will not be reused and can be discarded.

Install the outside air pipe stub [if used], to the mounting frame. Figure 5.9.

There are two different flue pipe stubs available. The unit comes standard with the largest pipe stub.

1. Part #1-00-574034 is for use with 4" PL vent starter pipe and 4" stainless steel flex pipe (Part #1-00-574034).
2. Part #1-00-674039 is for use with 3" PL vent starter pipe and also for use with 3" aluminum flex duct for outside air connections.

The flue stub assembly base is a round plate which allows it to swivel to allow the flue pipe to exit the mounting frame in other positions rather than straight up. Figure 5.10.

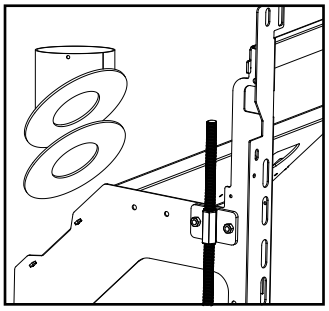


Figure 5.9

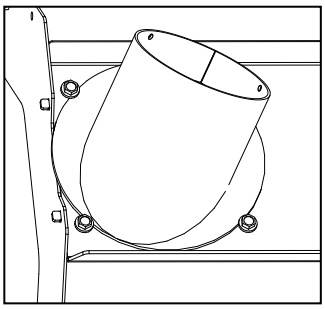


Figure 5.10

Installing Power Cord

The power cord can be installed exiting the left (standard) or right side of the surround. If a right side cord is desired, follow the instructions below.

The cord is located on the left side, standard from Harman®.

To route the cord to the right side:

1. Cut the wire-ties looping the cord to the left. Figure 5.11.
2. Re-route the cord along the top of the steel angle and down the right side.
3. Re-tie (not supplied by Harman®) the wire through the notches provided in the mounting frame. Then down the right side rail.
4. Do not remove the cord retainer, it is made to reach both the right and left sides.

NOTE: The cord retainer MUST BE installed prior to installing a wing extension.

Figure 5.11

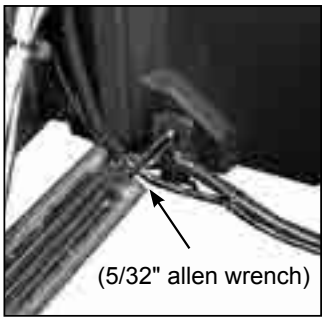


Figure 5.12

With the three wing pieces installed, the cord retainer must be bolted to the bottom rear of the wing. Either left exit (shown in Figure 5.12) or right exit.

At the bottom rear edge of the right and left wing there is a small radius indent for the cord to exit between the wing and the fireplace face.

NOTE: If installing the optional wing extension it must be installed before completing the following steps.

With the surround attached and the power cord installed, install the mounting frame into the opening. Install the (4) 5/16"- 18 leveling bolts into the threaded holes in the bottom pan of the mounting frame and adjust these bolts to insure the frame is level. **NOTE:** Use of all 4 leveling bolts may not be necessary. See Figure 5.13. Tighten the ½" jack bolts against the lintel.

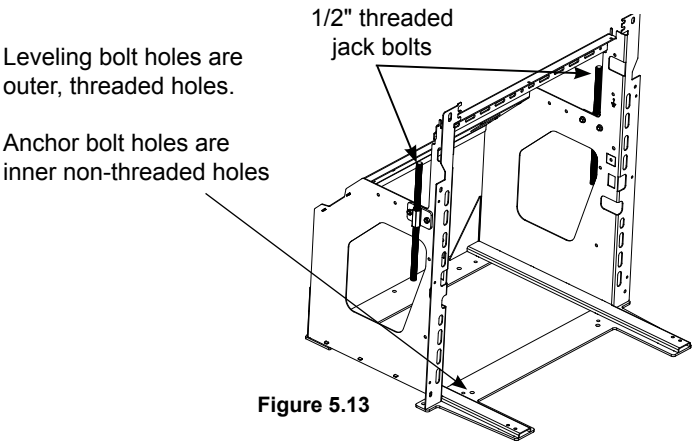


Figure 5.13

Connect the venting system and outside air system [if used], to the pipe stub(s) on the mounting frame, following the procedures detailed in “Section 4: Termination Location and Venting”. If outside combustion air will be used on the unit, be certain to install the Harman® Outside Air Adapter P/N 1-00-574350 onto the unit before installing it into the mounting frame.

Install the optional Service Rail Kit to the mounting frame. Place the unit on the service rail leaving enough room to gain acces to the wiring. Figure 5.14.

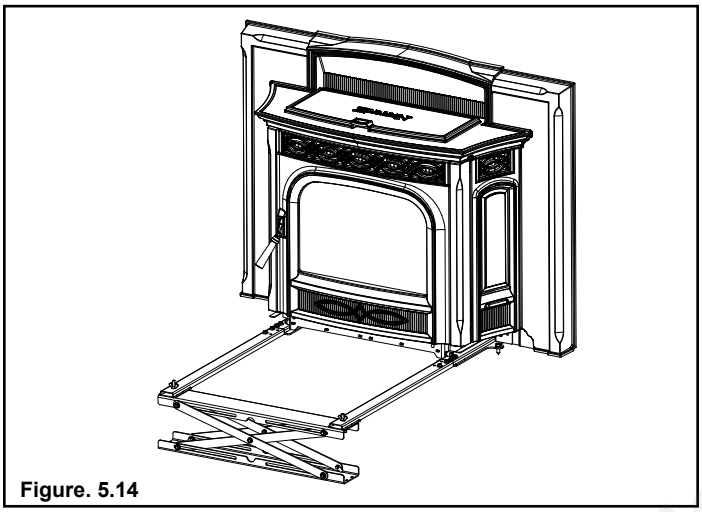


Figure. 5.14

C. Electrical Connection Installation

You must now decide whether to install the room sensor as a wall sensor or as a return air sensor. Harman® highly recommends that the room sensor be installed. If you are installing the room sensor as a wall sensor, this wire is long enough to reach the end of the power cord so the installer can reach past the hearth to the location where the extension wire (18/2 thermostat wire, not supplied by Harman®) can be spliced to go to the wall location chosen for the room sensor.

If the room sensor is used as a return air sensor rather than a room sensor, the long black cable will not be used. The room sensor itself (short black cable with black and red wires) will be connected to the blue twisted wires from the control board.

Note: The stove body must be able to slide out of the frame to the limit of the power cord wires for cleaning and service. Therefore, if the room sensor is connected as a return air sensor, the wire should be connected long enough to allow this, but not too long that it would get tangled or pinched anywhere.

Notice: The male/female connections between the mounting frame and the stove body should always be maintained. Wire-nut or taped splices should never be used.

Connecting the room sensor as a return air sensor
Insert the sensor end of the wire from the rear of the mounting frame through the hole as shown in Figure 5.15.

Figure 5.15

Place the sensor end so that the sensing tip is laying near the ash lip rail. Figure 5.15 & Figure 5.16

Figure 5.16

Connecting the Room Sensor

Connecting the room sensor to the blue twisted wires from the control board:

(2) 3/16 inch male terminals are provided for the ends of the room sensor wires.

They will mate with the female terminals on the blue twisted wires. Figure 5.17

These connections are not polarity specific.

Figure 5.17

Connecting the ground from the mounting frame to the stove body

CAUTION: make sure unit is disconnected from any wall receptical.

Complete the following electrical connections There are 3 connections that must be completed. See Figures 5.18 & 5.19.

The green wire with a female terminal is the stove body ground.

On top of the combustion air inlet box there are 2 male terminal grounds. Figure 5.18.

If service is performed on this stove, this ground connection must be the first one on and the last one off.

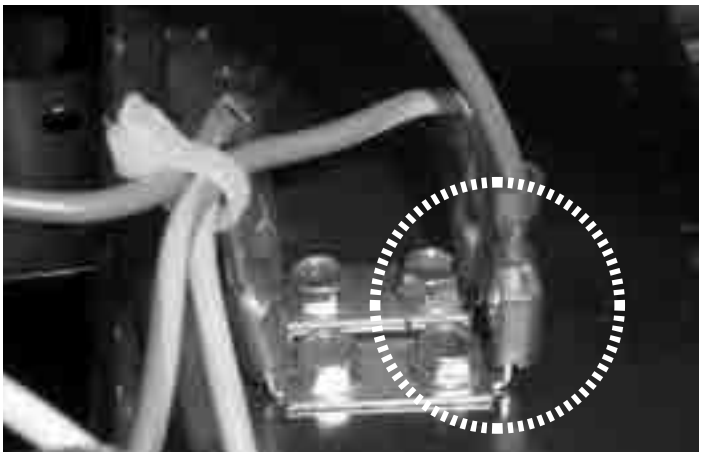


Figure 5.18

Connecting the power cord

The white from the mounting frame connects to the white of the insert body. The black from the mounting frame connects to the brown of the insert body. Figure 5.19.

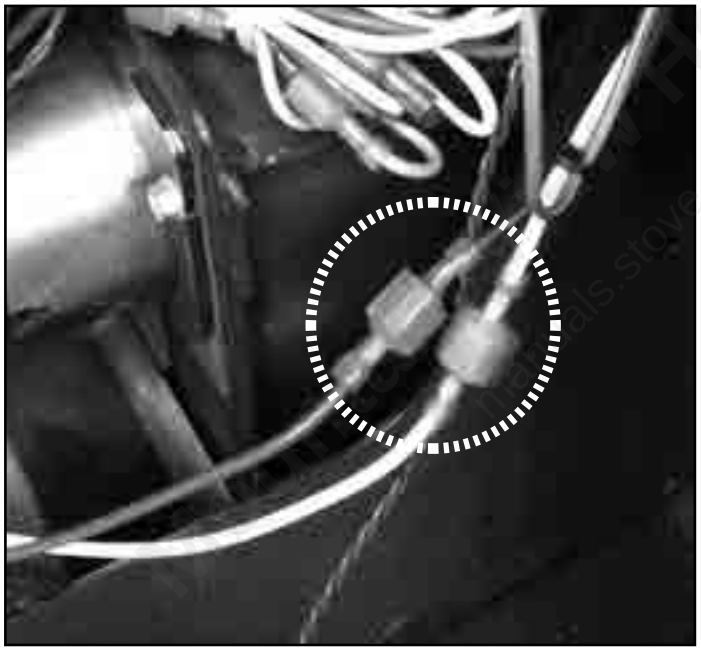


Figure 5.19

⚠ WARNING

ROUTE POWER CORD AWAY FROM THE APPLIANCE. DO NOT RUN CORD UNDER OR IN FRONT OF THE APPLIANCE.

Slide the unit into the mounting frame making sure wires are clear of the frame and stove body. Snap the left and right spring latches to secure the stove and remove the service rail kit. Re-install the heat exchanger covers and medallion.

Install and adjust the side panel magnets onto the cast iron ash lip.

In the hardware pack are (2) magnets and (2) 8-32 x 3/4" bolts and nuts. **NOTE:** Bolt head should be on the underside of the ash lip.

Bolt the magnets through the holes provided in the cast ash lip. Figure 5.20.

Check the fit of the cast ash lip to make sure that it can be slid in and out easily. The cast ash lip can remain in place at this time.

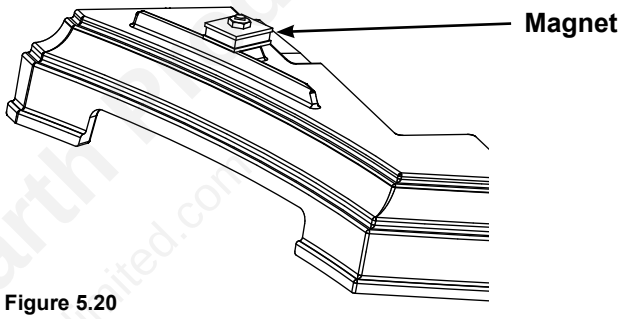


Figure 5.20

A small clearance of about 1/16" is an ideal space between the legs of the ash lip and the hearth. This cast ash lip is a decorative part that does not and should not support any weight. **NOTE:** There are 2 tek screws located in the ash lip rail that can be loosened for adjustment. Figure 5.21.

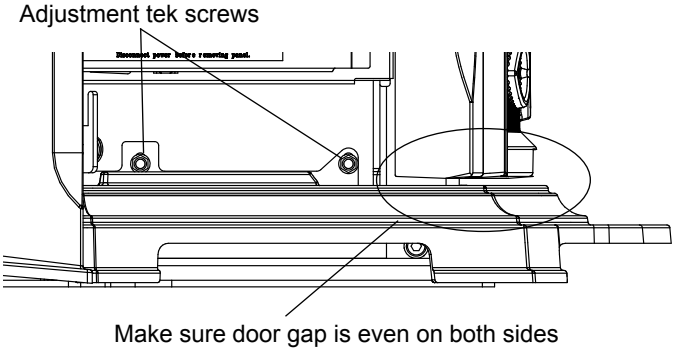


Figure 5.21

Close the cast side panels.

Check the alignment of the top and bottom spacing on the cast side panels. Figure 5.22.

The top and bottom spacing can be adjusted by loosening the 3 bolts and sliding the hinge up or down until the spacing suits.

Due to the use of all cast iron parts, some small amounts of misalignment are expected. Since some parts are angled and some have rounded edges, this misalignment is very seldom noticeable.

It is very important that the cast side panels open and close freely for control board access.

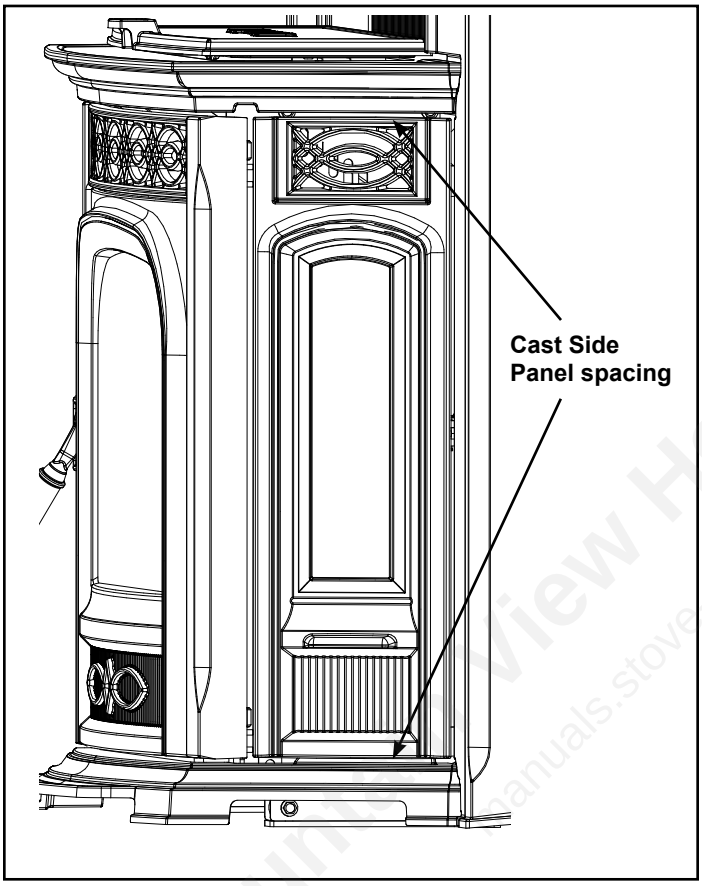


Figure 5.22

D. Reminders

Always disconnect the power cord before the unit is pulled from the mounting frame.

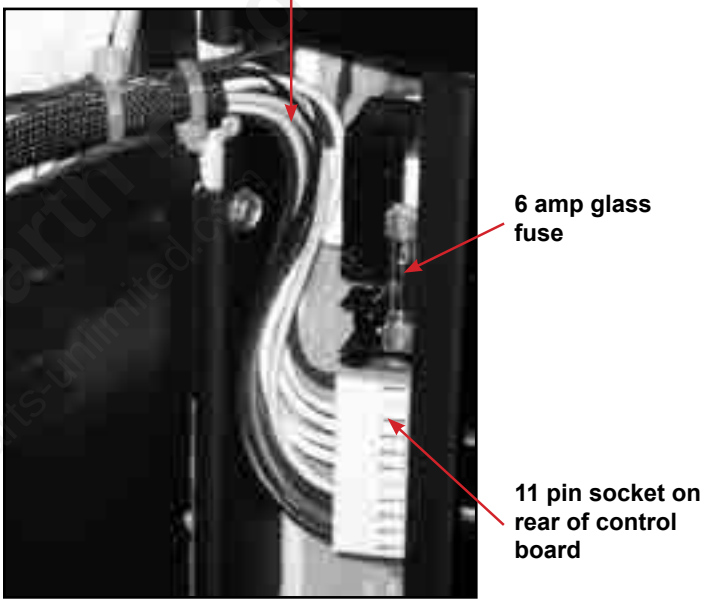
As you can see, the control board is easily accessible from the rear with the body pulled out of the frame, even if it is only pulled out several inches.

Always inspect the wiring harness of the 11 pin socket (large white flat plug where all of the power wires terminate.)

Always inspect the wiring harness where the wires transfer from the control to the rear inside of the body.

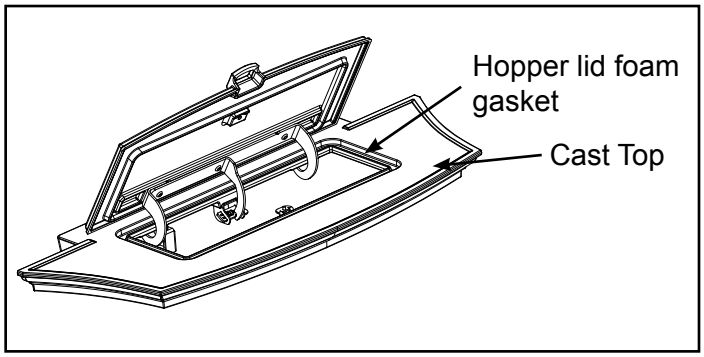
Make sure there are no worn or frayed areas.

Inspect the wiring harness transition area: *This is the area that comes closest to the mounting frame as the unit is slid in and out of the frame.*



Do not allow pellets or sawdust to build up on the hopper lip.

Inspect the hopper lid gasket for damage. A good hopper lid seal is very important for proper operation.



After the installation is completed, but before the first fire is lit, check and record the high and low draft readings.

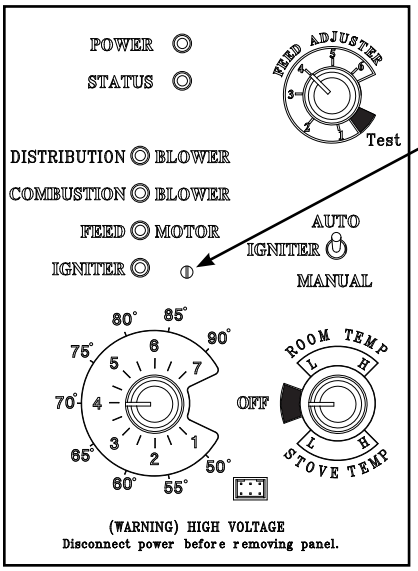
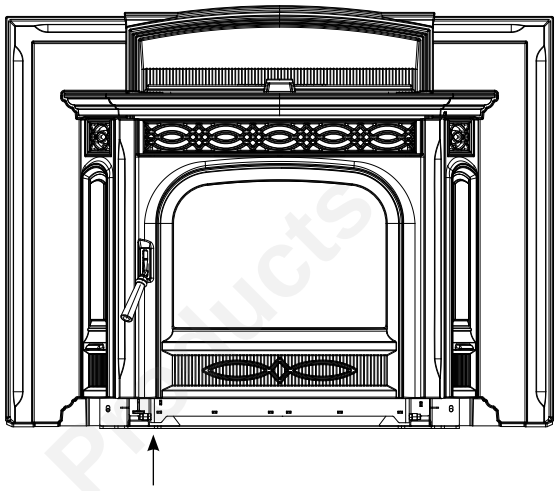


Figure 5.23

Combustion Motor Speed Control
Low draft only set point.
The small straight screwdriver slot is plastic; therefore, the unit can be adjusted while in operation.

Figure 5.24



Draft Meter bolt hole location
The head of the Draft bolt can be accessed from inside the firebox on the left hand side.

E. Low Draft Voltage Adjustment

These units are pre-tested at the factory with exactly 120 VAC, 60 Hz. They are checked and adjusted for firebox tightness, gasket leakage, motor operation and igniter operation. The stove is then factory set at a high adjustment. **NOTE: Low draft adjustment may be required. The factory low draft setting may not be correct for the unit's permanent installation conditions.**

The control board on the Accentra 52i Pellet Insert is equipped with a low draft adjustment port. Located on the control face just to the right of the igniter light. Figure 5.23. This voltage adjustment is provided to allow the unit to be adjusted for the household voltage where the unit is going to be in permanent operation. **NOTE:** The line voltage varies from area to area and often home to home.

The low draft voltage should be adjusted to achieve the most efficient burn on low burn or "maintenance". This voltage adjustment allows the installer to change the low voltage set point approximately 15 volts. This adjustment should be done by the installer during set up because a draft meter reading is **required** to insure proper set up.

If the unit is not adjusted properly, it does not cause a safety concern. If the unit is adjusted too high, only efficiency is lost. If the unit is adjusted too low, the low draft pressure switch will not allow the feeder motor or the igniter to operate.

A simple draft test should be performed after completing the flue pipe installation. Figure 5.24. To record the results for future reference:

1. Plug unit into a 120 VAC, 60 Hz outlet.
2. Close the hopper lid and front view door. Neither pellets or a fire are required for this test. (Cold Stove)
3. With the mode selector in the "OFF" position, turn the feed adjuster to "TEST".
4. Record the high draft_____in. W.C. (Normal is -.30 to -.40) The control will be on the High Draft for a total of 1 minute.
5. After 1 minute, the combustion motor will go down to low draft and the distribution blower will go on high. Allow approximately 15 seconds to pass for the combustion motor to slow before checking the low draft.
6. If the low draft is between -.25 and -.35, record the reading _____ in. W.C. If the reading is higher, slowly turn the set screw counter-clockwise until the draft lowers. If the reading is lower, very slowly turn the set screw clockwise until the draft increases.

NOTE: In some cases, the draft may not go as low as -.35 even with the set screw completely counter-clockwise.

6 Reference Material

A. Safety Reminders

When installing the Harman® Accentra 52i Pellet Insert, respect basic safety standards. Read these instructions carefully before you attempt to install or operate the Accentra 52i Pellet Insert. Failure to do so may result in damage to property or personal injury and may void the product warranty.

Consult with your local building code agency and insurance representative before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections.

CAUTION: This appliance must be vented to the outside.

Due to high temperatures, this stove should be placed out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burn to skin and/or clothing.

Young children should be carefully supervised when they are in the same room as the stove.

Clothing and other flammable materials should not be placed on or near this stove.

Installation and repair of this stove should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning will be required. It is imperative that control compartments, burners, and circulating air passageways of this stove be kept clean.

⚠ WARNING

MOBILE/MANUFACTURED HOME GUIDELINES DO NOT ALLOW INSTALLATION IN A SLEEPING ROOM.

⚠ CAUTION

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

⚠ CAUTION

THE STOVE IS HOT WHILE IN OPERATION.

KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

⚠ WARNING

KEEP COMBUSTIBLE MATERIALS SUCH AS GRASS, LEAVES, ETC. AT LEAST 3 FEET AWAY FROM THE POINT DIRECTLY UNDER THE VENT TERMINATION.

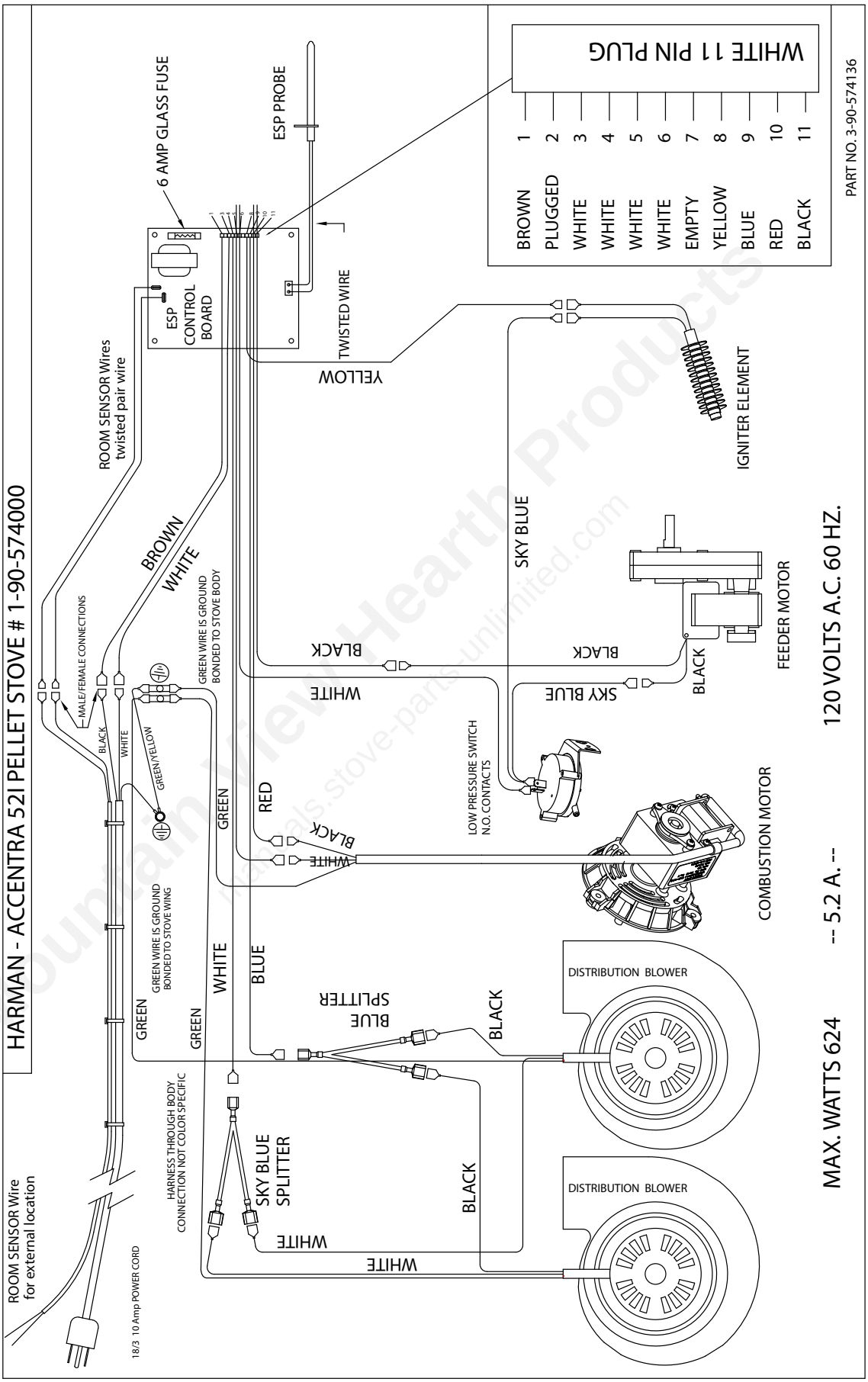
⚠ WARNING

USE OF IMPROPER FUELS, FIRE STARTERS OR ALTERING THE STOVE FOR HIGHER HEAT OUTPUT MAY CAUSE DAMAGE TO THE STOVE AND COULD RESULT IN A HOUSE FIRE. USE ONLY APPROVED FUELS AND OPERATION GUIDELINES

⚠ CAUTION

DO NOT USE MAKESHIFT COMPONENTS OR OTHER COMPROMISES WHEN INSTALLING THIS APPLIANCE.

B. Wiring Diagram



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