

Owner's Manual

Installation and Operation

This unit has been retired. Service parts pages within have been removed. For replacement parts, please refer to the individual service parts list located on the brand website.

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

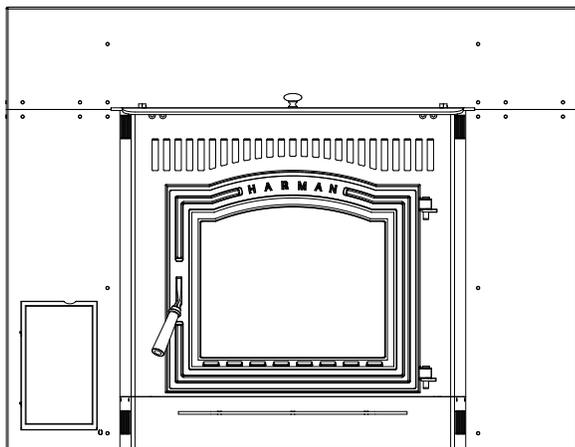
NOTICE: SAVE THESE INSTRUCTIONS

HARMAN®

BUILT TO A STANDARD, NOT A PRICE

Model(s):

P35i Pellet Insert



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.

CAUTION

Tested and approved for wood pellets only burning of any other type of fuel voids your warranty. When burning higher ash content pellets more frequent cleanings may be required.

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 appliance or to property.

TABLE OF CONTENTS

1 Welcome

- A. Congratulations 3

2 Listing and Code Approvals

- A. Appliance Certification 4
- B. Mobile Home Approval 4
- C. Glass Specifications 4
- D. Electrical Rating 4
- E. BTU & Efficiency Specifications 4

3 Special Warnings and Notes

- A. Carbon Monoxide Warnings & Considerations 5
- B. California 5
- C. Other Safety Considerations 5

4 Getting Started

- A. Design, Installation & Location 6
- B. Fire Safety 6
- C. Component Locator 7
- D. Pre-Use Checklist 8

5 Dimensions and Clearances

- A. Appliance Dimensions 9
- B. Clearances to Combustibles 10
- C. Floor Protection 10
- D. Minimum Fireplace Opening Requirements 10
- E. Mantel Projections 10
- F. Factory Built Fireplace 11

6 Vent Information

- A. Vent Termination Requirements 12
- B. Avoiding Smoke and Odors 13
- C. Venting Requirements & Restrictions 14
- D. Existing Fireplace Installation 15
- E. Rear Venting 16
- F. Zero Clearance Cabinet 16

7 Mobile Home - (US Only)

- A. Mobile Home Installation 17

8 Appliance Set-Up

- A. Unpacking Stove 18
- B. Control Board Installation 19
- C. Securing the Mounting Frame 19
- D. Routing the Power Cord 19
- E. Installing the Venting 20
- F. Installing the Body Into the Frame 20
- G. Room Sensor Installation 20
- H. Flame Guide Extension 21

9 Operating Instructions

- A. Fire Safety 22
- B. Fuel and Fuel Storage 22
- C. General Operating Information 23
- D. Before Your First Fire 25
- E. Draft Test Procedure 25
- F. Starting a Fire in "Automatic" Mode 26
- G. Maintaining a Fire 26
- H. Shut-Down Procedure 26

10 Service & Maintenance

- A. Shut-Down Procedure 27
- B. General Information 27
- C. Quick Reference Maintenance 28
- D. General Maintenance Procedure 29
- E. Motors & Components 33

11 Reference Materials

- A. Wiring Diagram 37
- B. Loss of Power 38
- C. Emergency Manual Ignition 38
- D. Troubleshooting 39
- E. Custom Surround Sizes 40
- F. Warranty Policy 44

➔ = Contains updated information

1 Welcome

A. Congratulations

Hearth & Home Technologies welcomes you to our tradition of excellence! By choosing a Harman® appliance, you have become part of a long standing family committed to meeting the heating needs of consumers with the most distinctive, powerful and responsible home heating products available.

The P35i Pellet Insert has brilliant features in an elegant package, giving you up to 35,000 BTU when you need it, automatically. Aside from the regular, simple cleaning process, you need only set your desired room temperature, keep the hopper full, and the ash pan empty. With the P35i, you will notice even heat throughout your zone and a level of convenience you never thought possible. The P35i takes advantage of Harman® 35+ years of stove design, technology and manufacturing. Output is managed by a microprocessor that senses the room temperature and the fire temperature with two thermistor probes and then determines the best feed rate for your heating demand. The platinum combination is Harman® Patented Pellet Pro™ Feeder system, and ESP Control which have been developed to their highest state. These features work together to allow amazing heat output with little regard for fuel quality.

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance.

Thank you for choosing Harman®.

HARMAN®
A division of
Hearth & Home Technologies
352 Mountain House Road
Halifax, PA 17032
www.harmanstoves.com

When This Room Heater Is Not Properly Installed, a House Fire May Result. To Reduce The Risk Of Fire, Follow The Installation Instructions. Contact Local Building Or Fire Officials About Restrictions And Installation Inspection Requirements In Your Area.

**This label is located on the inside of the hopper lid.
Please record your serial number for future reference.**



MODEL / MODÈLE: "P35I PELLET INSERT"
Room Heater Pellet Fuel Burning Type
SUITABLE FOR MOBILE-HOME INSTALLATION
This pellet burning appliance has been tested and listed for use in Manufactured Homes in accordance with OMB 814-23-900 through 814-23-909

Serial No. **HF** **BARCODE LABEL**

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIAL
ÉCARTS MINIMUM DE SÉCURITÉ

Location	Inches	Millimeters
A Insert to combustible sidewall	13	330
B Surround top to face trim	0	0
C Surround side to face trim	1	25
D Insert top to (max) 1/2" mantel	12	305

Non-combustible floor protector. La protégere lire constituée de matériau non-combustible.

Location	Clearance
E Window opening	1/2"
F Window sill	1/2"

DO NOT OBSTRUCT
NE PAS ENCOMBRER

DO NOT REMOVE THIS LABEL
NE PAS ENLEVER CETTE ÉTIQUETTE

CAUTION: HOT WHILE IN OPERATION. KEEP CHILDREN AND CLOTHING AWAY. CONTACT MAY CAUSE SKIN BURNS. SEE NAMEPLATE AND INSTRUCTIONS. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIALS A CONSIDERABLE DISTANCE AWAY FROM THIS APPLIANCE. KEEP HOPPER LID CLOSED DURING OPERATION. FAILURE TO DO SO MAY RESULT IN EMISSION OF PRODUCTS OF COMBUSTION FROM THE HOPPER UNDER CERTAIN CONDITIONS. MAINTAIN HOPPER SEAL IN GOOD CONDITION. DO NOT OVERFILL THE HOPPER.

AVERTISSEMENT: CHAUD - NE PAS TOUCHER. TENIR LES ENFANTS ET LES VÊTEMENTS À L'ÉCART. RISQUE DE BRÛLURE. VOIR INSTRUCTIONS SUR LA PLAQUE. LAISSER UNE DISTANCE SUFFISANTE ENTRE L'APPAREIL ET LES MEUBLES OU AUTRES OBJETS À RISQUE. N'UTILISER CET APPAREIL QUE LORSQUE LE COUVERCLE DE LA TREMIE EST BIEN FERMÉ. IGNORER CETTE CONSIGNNE PEUT ENTRAÎNER DES ÉMANATIONS DE PRODUITS ISSUS DE LA COMBUSTION À TRAVERS LA TREMIE DANS CERTAINES CONDITIONS - VEILLER AU BON ÉTAT DU JOINT DE LA TREMIE - NE PAS EXCÉDER LA CAPACITÉ DE LA TREMIE.

HARMAN®

US ENVIRONMENTAL PROTECTION AGENCY
Certified to comply with 2015 particulate emission standards. Not approved for sale after May 15, 2020.
Certifié conforme aux normes 2015 d'émission de particules. Non approuvé pour la vente après le 15 mai 2020.

Date of Manufacture / Date de fabrication:
2018 2019 2020 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Manufactured by / Fabriqué par: Hearth and Home Technologies 352 Mountain House Road, Halifax PA 17032

2 Listing and Code Approvals

A. Appliance Certification

MODEL:	P35i Pellet Insert
LABORATORY:	OMNI Test Laboratories, Inc
REPORT NO.	135-S-25-6.2
TYPE:	Solid Fuel Room Heater / Fireplace Insert
STANDARD(s):	ASTM E 1509-12, ULC-S628-93, EPA Method 28 & 5G

The P35i Pellet Insert is certified to comply with 2015 particulate emission standards. Not approved for sale after May 15, 2020.



NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the **ASTM E1509-2004, ULC S628-93, (UM) 84-HUD**

B. Mobile Home Approved

This appliance is approved for Installation in mobile/ manufactured homes. 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 must never be installed in a room designated for sleeping. The unit must have provisions for an outside air source when installed in a mobile home.

C. Glass Specifications

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

D. Electrical Rating

120 VAC, 60 Hz, 3.6 Amps (Start-up); avg. 1.5 Amps (Normal Run)

E. BTU & Efficiency Specifications

EPA Certification Number:	964-14
EPA Certified Emissions:	1.5 g/hr
*LHV Tested Efficiency:	78%
**HHV Tested Efficiency:	69.5%
***EPA BTU Output:	9,600 - 28,800
****BTU Input	12,800 - 38,400
Vent Size:	4 Inch
Hopper Capacity:	41 Lbs (19-1/2" Hopper) 62 Lbs (23-1/2" Hopper)
Fuel	Wood Pellet

* *Weighted average LHV efficiency using data collected during EPA emissions test.*

***Weighted average HHV efficiency using 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.*

*****Based on the maximum feed rate per hour multiplied by approximately 8,600 BTU's which is the average BTU's from a pound of pellets.*

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

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.

3 Special Warnings and Notes

A. Appliance Certification

Carbon monoxide, referred to as CO, is a colorless, odorless gas that is produced during combustion of solid fuels. **CO is toxic and can be fatal.**

Even though this stove is designed to be as safe as possible, it is recommended that you **install a CO detector**. This is true for oil, gas, or wood burning products as well.

CO is not specifically heavier or lighter than air. Therefore, it is best to install the detector at table top level rather than on the ceiling like a smoke detector.

CO detectors are very sensitive and may sound an alarm for fumes other than CO or CO from sources other than the stove such as a car or lawn mower exhaust.

If the alarm sounds

1. Increase house ventilation by opening windows or doors.
2. Make sure the stove doors and hopper lid are closed and latched.
3. Check stove for electrical power and normal operation.
4. Check vent for possible blockage or down-draft.
5. Check for false alarm.

B. California



WARNING

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

C. Other Safety Considerations

Never use gasoline, lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or “freshen up” a fire in this heater. Keep all such liquids well away from the heater while it is in use.

Installation and repair of this stove should be done by a competent and qualified professional. We recommend that the stove be inspected before use and at least annually by a qualified service person. Periodic cleaning is required throughout the heating season and at the end of each winter for the stove to work efficiently.

NEVER CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

SPECIAL NOTE:

DUE TO ASH BUILDUP, IT IS STRONGLY RECOMMENDED TO HAVE YOUR STOVE PROFESSIONALLY CLEANED AND SERVICED ANNUALLY. THIS INCLUDES ALL PARTS OF THE STOVE, AND THE VENTING SYSTEM.

DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.



WARNING

THIS WOOD HEATER HAS A MANUFACTURER-SET MINIMUM LOW BURN RATE THAT MUST NOT BE ALTERED. IT IS AGAINST FEDERAL REGULATIONS TO ALTER THIS SETTING OR OTHERWISE OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN THIS MANUAL.

Connect the power cord to a 120 VAC, 60 Hz grounded receptacle. (A surge protector is recommended to protect the control board.) Be sure the polarity of the outlet the stove is plugged into is correct.

4 Getting Started

A. Design, Installation & Location Considerations

1. Appliance Location

Consideration must be given to safety, convenience, traffic flow, and the fact that the appliance will need to be vented to the outside. **This appliance may only be installed into an existing masonry or manufactured wood-burning fireplace or using the optional zero-clearance cabinet to build into a newly constructed chase.** It is a good idea to plan your installation on paper. Use exact measurements for clearances and floor protection, before actually beginning the installation.

Maintain specified vent clearance to combustible requirements listed by the vent manufacturers instructions and all appliance clearances as listed in this manual.

Check with your local building code agency before you begin your installation. Local codes may supersede the test laboratories specifications. Always obtain any required permit(s) so that insurance protection benefits cannot be unexpectedly cancelled. If any assistance is required during installation, please contact your dealer.

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

2. Room Sensor Location

The room sensor's location will have some effect on the appliance's operation. When the sensor is located close to the appliance, it may require a higher setting to keep the rest of the house comfortable. If the sensor is located in an adjacent room, or farther away from the stove, you will notice higher temperatures near the appliance.

CAUTION

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

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



B. Fire Safety

Maintain the designated clearances to combustibles. Insulation must not touch the chimney. You must maintain the designated air space around the chimney. This space around a chimney is necessary to allow natural heat removal from the area. Insulation in this space will cause a heat buildup, which may ignite wood framing. **NOTE: Clearances may only be reduced by means approved by the regulatory authority having jurisdiction.**

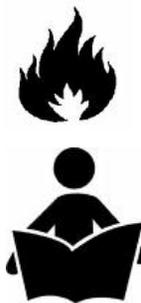
To provide reasonable fire safety, the following should be given serious consideration:

1. Install at least one smoke detector on each floor of your home. Detectors should be located away from the heating appliance and close to 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 practiced evacuation plan, consisting of at least two escape routes.
4. A plan to deal with a hopper fire as follows:

In the event of a hopper fire:

- a. Turn appliance to "OFF".
- b. **Be sure hopper lid is closed and latched.**
- c. Notify Fire Department.
- d. Do NOT pour water in the hopper.
- e. **Never** pull the plug or otherwise disconnect the power supply to kill a fire.

WARNING

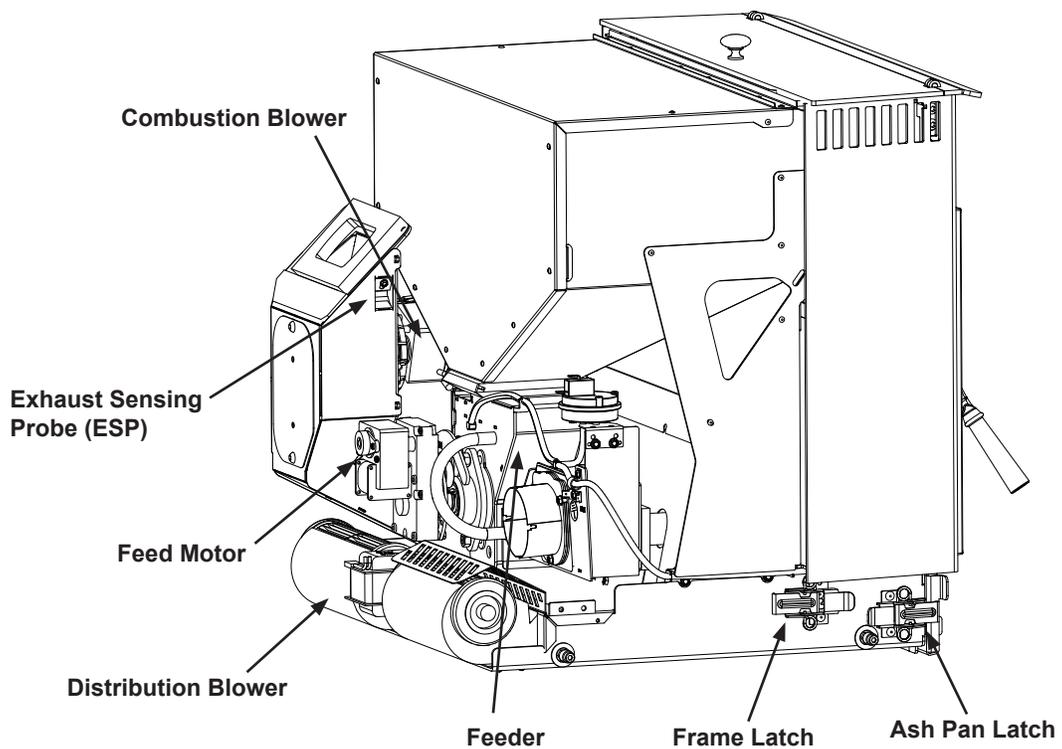
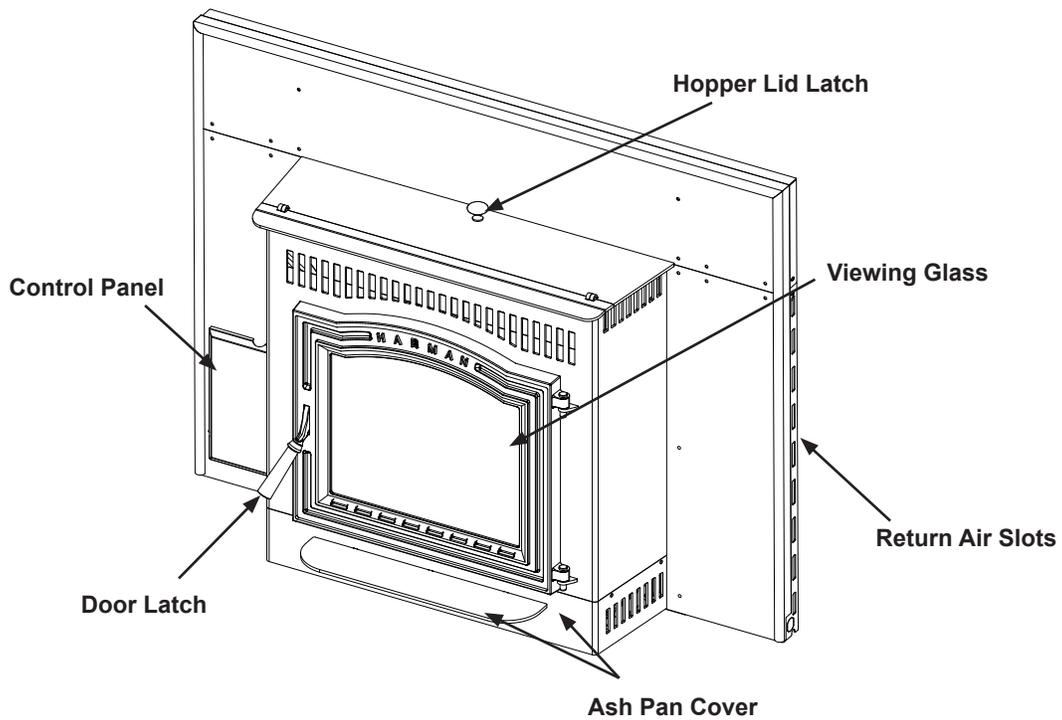


Fire Hazard

- Do not operate appliance before reading and understanding the operating instructions.
- Failure to operate properly may cause a house fire.

C. Component Locations

Do Not allow finish materials to block the air flow through the return air slots.



D. Pre- Use Check List

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: _____
Model: _____

Date Installed: _____
Location of Stove: _____
Installer: _____
Dealer/Distributor 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

Required non-combustible floor protection
Verified clearances to combustibles.
Unit is Leveled and secured.

YES

IF NO, WHY?

Venting/Chimney

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

120 VAC unswitched power provided to the appliance.
Check outlet with multi-meter for proper voltage. (115-120 VAC)
Record voltage reading: _____

Appliance Setup

All packaging and protective materials are removed
Accessories installed properly
Manual bag and all it's 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.
Checked draft using a Manometer. Record readings: _____

Hearth and Home Technologies recommends the following:

Photographing the installation and copying this checklist for your file.

This checklist remain visible at all times on the appliance until the installation is complete.

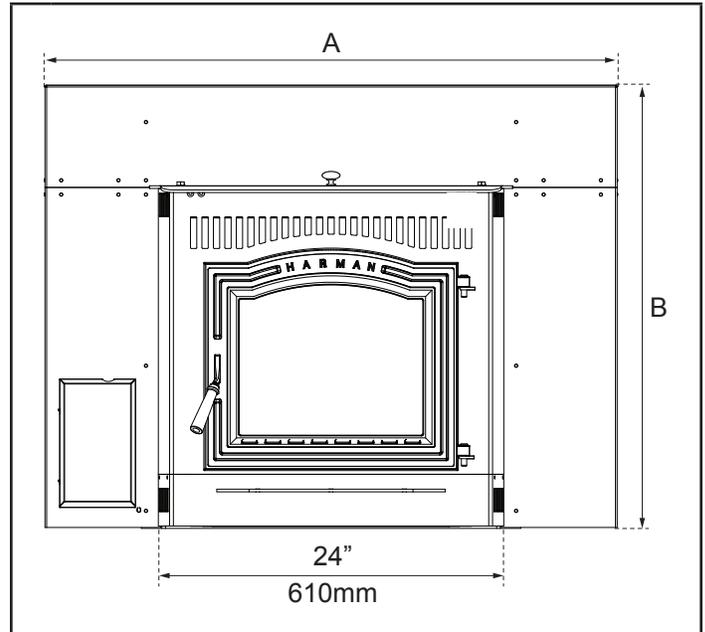
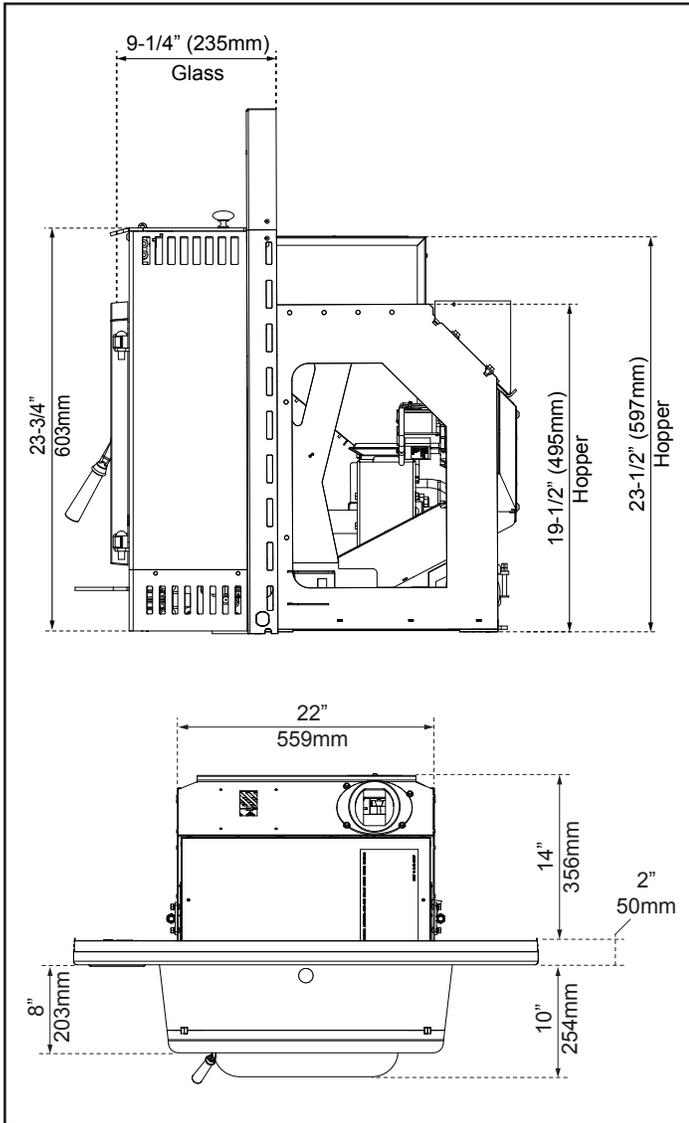
Comments: Further description of the issues, who is responsible (Installer/Builder/Other Trades, etc.) and corrective action needed _____

Comments communicated to party responsible _____ by _____ on _____
(Builder / Gen Contractor) (Installer) (Date)

04/17

5 Dimensions and Clearances

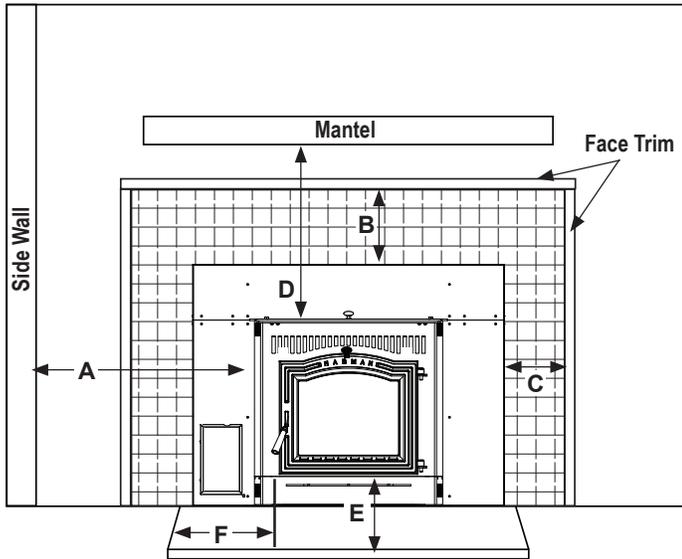
A. Appliance Dimensions



	Standard Surround #1-00-774221	Oversized Surround #1-00-774250
A	40" (1016 mm)	46" (1168 mm)
B	31" (787 mm)	34" (864 mm)

B. Clearances to Combustibles - Masonry or Manufactured Fireplace

THE CLEARANCES SPECIFIED ARE FOR YOUR SAFETY! THESE CLEARANCES MAY ONLY BE REDUCED BY MEANS APPROVED BY THE REGULATORY AUTHORITY.



Location	Inches	Millimeters
A Insert to combustibleside wall	13	330
B Surround top to face trim	0	0
C Surround side to face trim	1	25
D Insert top to (max) 12" mantel	12	305

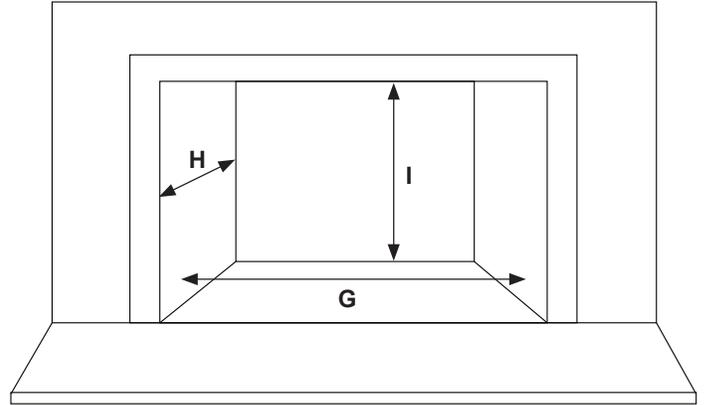
C. Floor Protection Requirements

Location	Inches	Millimeters
E Door opening to front	6	152
F Door opening to side	6	152

Hearth extension must be of a non-combustible material. It must extend beyond the appliance according to the measurements listed.

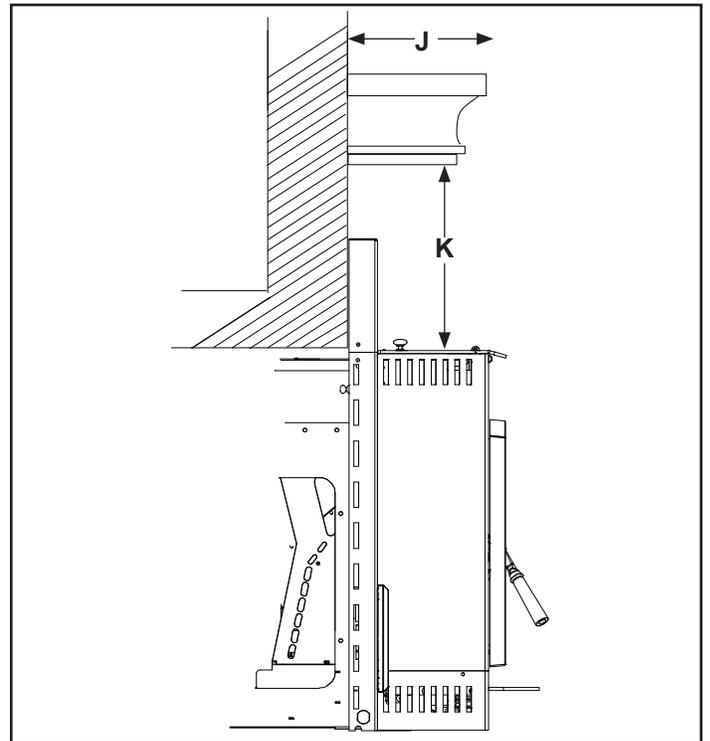
Minimum Size Hearth Extension is 16" Deep By 32" Wide.

D. Minimum Opening for Masonry and Manufactured Fireplaces



Location	Inches	Millimeters
G Minimum Width	24	609
H Minimum Depth	14-1/2	368
I Minimum Height #1-70-774235	23-1/2	597
I Minimum Height #1-70-774195	19-1/2	495

E. Mantel Projections



The Maximum mantel depth (J) is 12" (305mm) with a minimum vertical height (K) of 12" (305mm).

F. Factory Built Fireplace Installation

When installing the P35i Insert into a factory built wood burning fireplace, several things need to be taken into consideration.

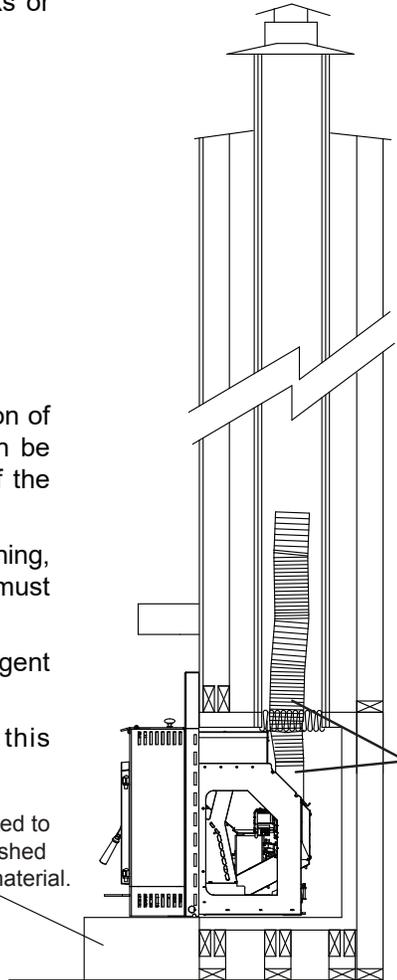
The size of the fireplace opening. Will the unit fit into the opening? Some of the factory built fireplaces have metal smoke shields inside the top that can be removed to gain height. Keep in mind that anything removed from the factory built fireplace must be attached to the fireplace with a metal wire. Floor protection guidelines, as listed previously, must also be followed.

The manufactured fireplace may not be altered beyond the exceptions listed below. Never remove masonry bricks or mortar from an existing fireplace.

The following modifications are permissible:

- Removal of the damper or lock in open position
- Removal of refractory panels
- Removal of smoke shelf or baffle
- Removal of andirons or ember catchers
- Removal of log grate
- Removal of view screen or curtain
- Removal of doors
- External trim pieces, that 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.
- If the hearth extension is lower than the fireplace opening, the portion of the insert extending onto the hearth must be supported.
- Final approval of this type of installation is contingent upon the authority having jurisdiction.
- Kit #1-00-674205 must be used when using this installation method.

Hearth must be constructed to the proper height and finished with a non-combustible material.



IN CANADA: This fireplace insert must be installed with a continuous chimney liner of a minimum 4" diameter extending from the insert to the top of the chimney. The chimney liner must conform 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.

When using single-wall venting or flex, this section of venting must be wrapped with a non-combustible insulation to prevent excess temperatures within the fireplace and on the fuel hopper.

Note: If the Harman® P35i Insert is installed into a factory built wood burning fireplace, this label (Harman® part # 3-90-00675) MUST be attached to the altered fireplace.

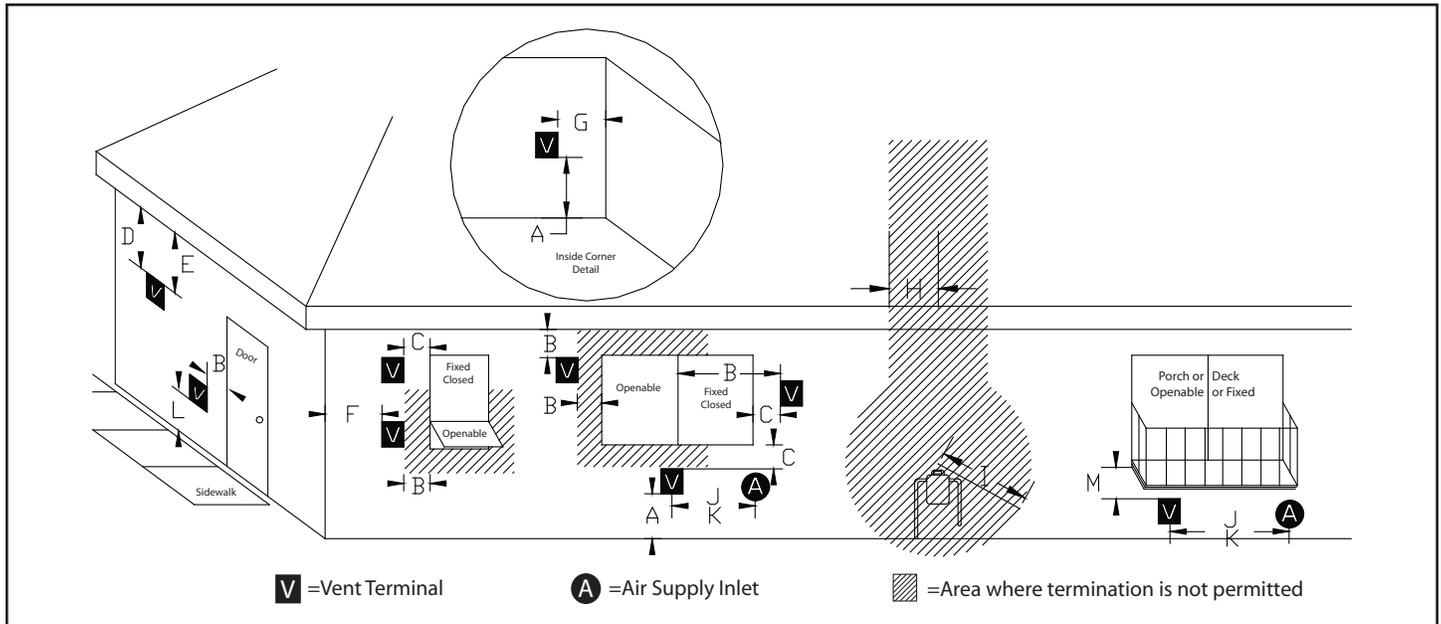
● THIS FIREPLACE HAS BEEN ALTERED TO ACCOMODATE A FIREPLACE INSERT AND SHOULD BE INSPECTED BY A QUALIFIED PERSON PRIOR TO REUSE AS A CONVENTIONAL FIREPLACE. ●

Additionally, the firebox floor of the ZC Wood or Gas Fireplace may be removed down to the outer metal shell of the fireplace if kit 1-00-574305 is used. The kit includes installation instructions and all materials needed to remove the firebox floor and still maintain a safe, compliant installation. Be certain to contact local code enforcement officials before beginning any modifications, as they may not be reversible in many cases.

6 Vent Information

A. Vent Termination Requirements

Chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor or ceiling.



WARNING: Venting terminals must not be recessed into a wall or siding.

NOTE: Only PL or L vent pipe wall pass-throughs and fire stops should be used when venting through combustible materials.

NOTE: Always take into consideration the affect the prevailing wind direction or other wind currents will cause with flyash and /or smoke when placing the termination.

In addition, the following must be observed:

- A. The clearance above grade must be a minimum of 12".
- B. The clearance to a window or door that may be opened must be a minimum of 48" to the side and 48" below the window/door, and 12" above the window/door. **(with outside air installed, 9" to side and below)**
- C. A 12" clearance to a permanently closed window is recommended to prevent condensation on the window.
- D. The vertical clearance to a ventilated soffit located above the terminal within a horizontal distance of 2 feet (607mm) from the center-line of the terminal must be a minimum of 18".
- E. The clearance to an unventilated soffit must be a minimum of 12".
- F. The clearance to an outside corner is 11" from center of pipe.
- G. The clearance to an inside corner is 12".
- H. A vent must not be installed within 3 feet (914mm) above a gas meter/regulator assembly when measured from the horizontal center-line of the regulator.

- I. The clearance to service regulator vent outlet must be a minimum of 6 feet.

- J. The clearance to a non-mechanical air supply inlet to the building or the combustion air inlet to any other appliance must be a minimum of 48".

- K. The clearance to a mechanical air supply inlet must be a minimum of 10 feet. **(with outside air installed, 6 feet)**

- L. The clearance above a paved sidewalk or a paved driveway located on public property must be a minimum of 7 feet.

- M. The clearance under a veranda, porch, deck or balcony must be a minimum of 12". **(B. also)**

NOTE: The clearance to vegetation and other exterior combustibles such as mulch is 36" as measured from the center of the outlet or cap. This 36" radius continues to grade or a minimum of 7 feet below the outlet.

Certain Canadian and or Local codes or regulations may require different clearances.

A vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings.

Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor.

See NFPA 211 for more installation clearance reductions when using outside air.

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

B. Avoiding Smoke and Odors

Negative Pressure, Shut-down, and Power Failure:

To 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.

The outside air kit consists of a flue stub pipe, fiberglass gasket, silicone gasket, intake box and a section of flex pipe.

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

To install outside air, use kit part number 1-00-774280. Follow the installation instructions provided with the kit.

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" 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.

Do not connect this unit to a chimney flue servicing another appliance.

NOTE: The restriction of not venting more than one appliance to the same flue applies to the *U.S.* specifically. While it is not recommended that you use the same chimney for more than one appliance, in *Canada* certain exceptions may be made. Be sure to contact your building code inspection official to see if this option is allowed in your area, and to find out the specific requirements for such an installation.

Do not connect this unit to any air distribution duct or system.

C. Venting Requirements & Restrictions

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. The longer the vent pipe and more elbows used in the system, the greater the flow resistance.

The recommended maximum flue lengths for the P35i Insert are as follows:

4" Flex Pipe:

Maximum 30 Ft. Vertical

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.

The unit comes standard with a 4" pipe stub.

- Part #1-00-574034 is for use with 4" PL vent starter pipe and 4" stainless steel flex pipe (Part #1-00-574034).

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.

WARNING! RISK OF FIRE!

- Only LISTED type L or PL Pellet venting components may be used.
- NO OTHER type of venting materials or components may be used.
- Substitute or damaged vent components may impair safe operation.

WARNING! RISK OF INJURY OR PROPERTY DAMAGE!

- Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage.
- Read and Refer to your owner's manual.
- For assistance or additional information, consult a qualified installer, service agency or your dealer.

IN CANADA: This fireplace insert must be installed with a continuous chimney liner of a minimum 4" diameter extending from the insert to the top of the chimney. The chimney liner must conform 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.

D. Existing Fireplace Installation:

The damper area must be sealed with a steel plate and it is recommended that Kaowoll, mineral wool, or an equivalent non-combustible insulation be placed on top of the sealed area to reduce the possibility of condensation. Insulation alone should not be used to seal the damper opening. For quick and easy installation, purchase the steel Harman Block Off Plate, 1-00-25625.

You will also need to wrap the venting section between the insert frame and the damper sealing plate. This is to prevent overheating of the fireplace cavity, which may cause damage to the insert's motors and other electrical components.

The connector pipe should extend through the sealing plate and smoke chamber and into, or beyond the first flue tile.

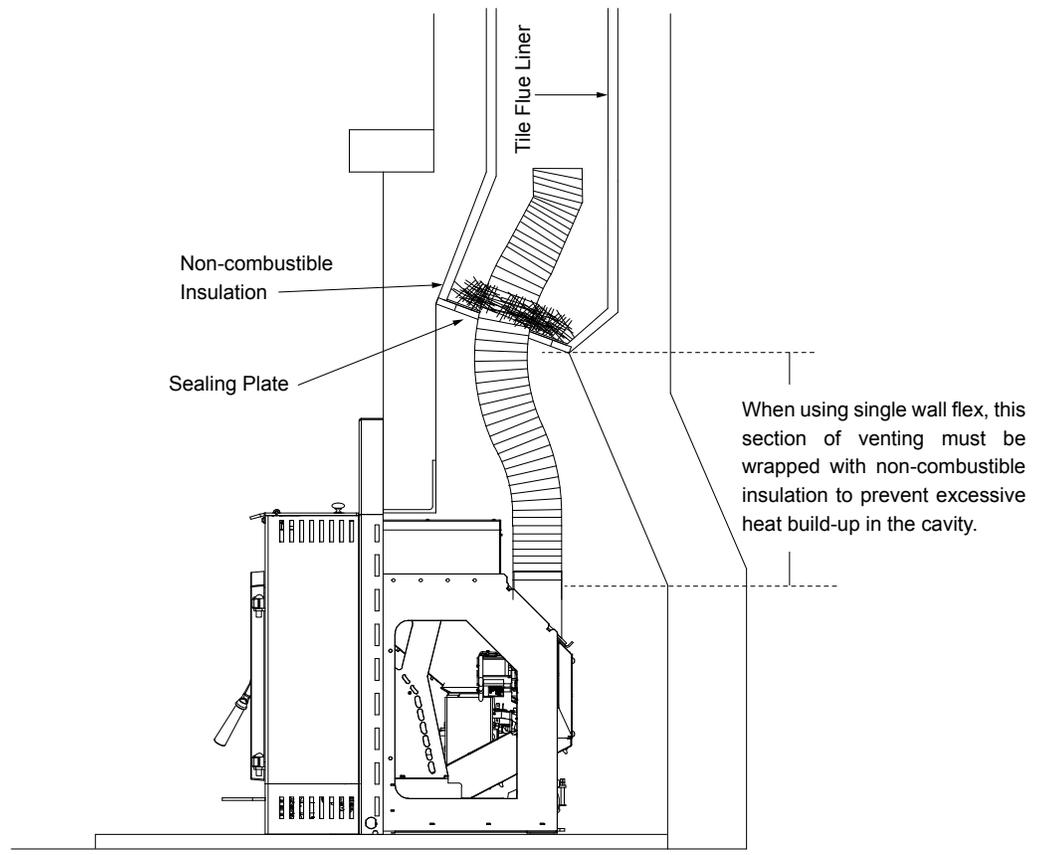
IN CANADA: This fireplace insert must be installed with a continuous chimney liner of a minimum 4" diameter extending from the insert to the top of the chimney. The chimney liner must conform to the Class 3 requirements of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

Be sure to design the venting so that it can be easily cleaned.

Check with your local authority having jurisdiction to determine if this venting method is acceptable. Some Provincial, State, or Local codes may require a full liner run to the top of the chimney. Be sure and check your local regulations before planning the installation. In this method, the proper flashing and rain cap are also required.

 WARNING	
	Fire Risk.
	Inspect Chimney <ul style="list-style-type: none">• Masonry chimney must be in good condition• Meets minimum of NFPA 211 standard• Factory-built chimney must meet requirements of UL103 HT

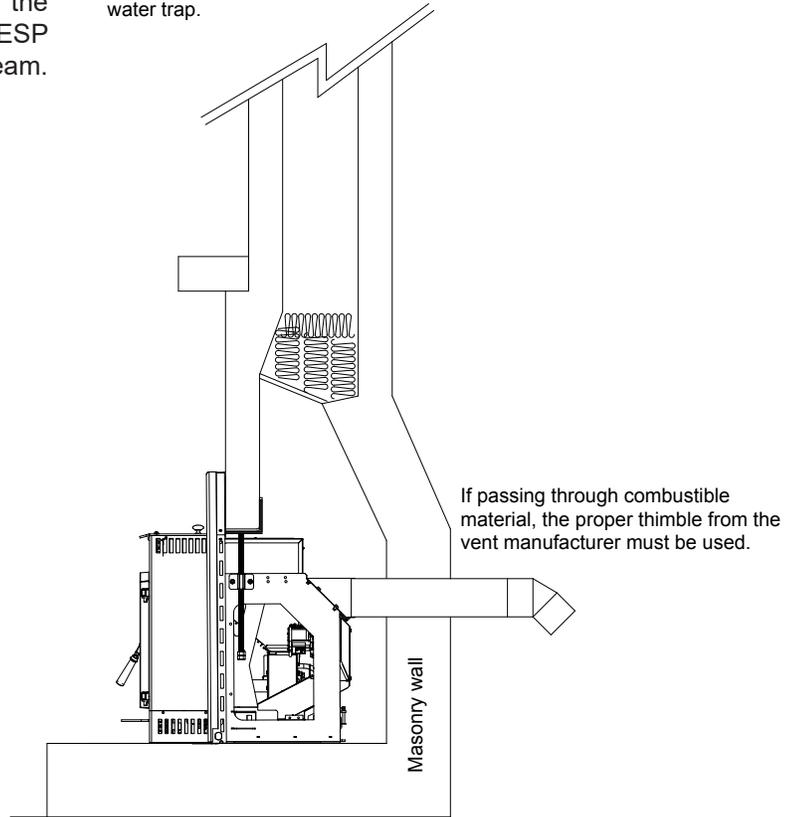
When venting in this configuration, a rain cap and proper flashing must be installed on the top of the chimney to prevent flooding and damage.



E. Existing Fireplace, Rear Vent:

NOTE: When installed in a rear vent configuration, the maximum BTU may be reduced due to elevated ESP temperatures associated with the horizontal exhaust stream.

The top of the chimney must also be sealed. Otherwise, it can become a nesting area or a water trap.

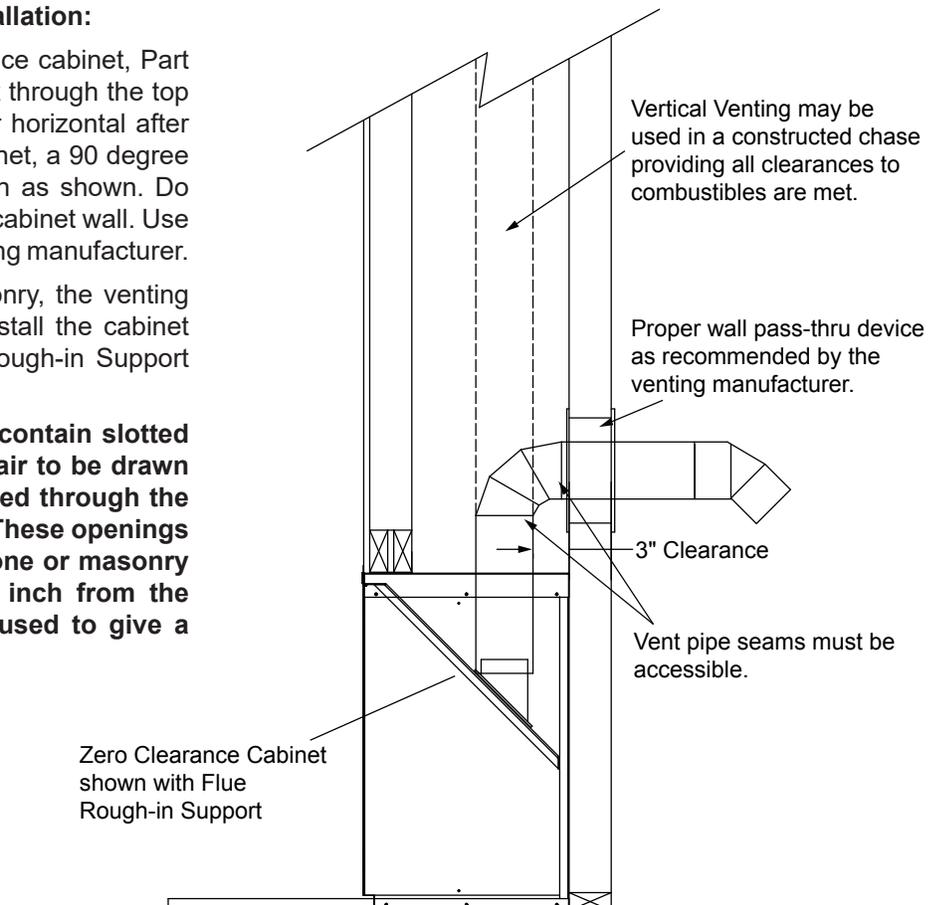


F. Optional Zero Clearance Cabinet Installation:

If installing using the optional zero clearance cabinet, Part #1-00-774257, the venting will need to exit through the top of the cabinet. The vent can be vertical or horizontal after leaving the cabinet. Once clear of the cabinet, a 90 degree elbow can be installed for rear termination as shown. Do not allow vent pipe seams to fall within the cabinet wall. Use proper wall thimble as supplied by the venting manufacturer.

If finishing the interior with stone or masonry, the venting can be installed without the appliance. Install the cabinet and secure the venting using the Flue Rough-in Support #1-00-774283.

Notice the side edges of the surround contain slotted openings. These openings allow room air to be drawn into the rear of the cabinet and circulated through the heat exchange and back into the room. These openings can not be blocked. If finishing with stone or masonry keep the masonry a minimum of one inch from the sides of the surround. Mortar can be used to give a more finished look.



7 Mobile Home

A. Mobile Home Installation

Outside Air Kit #1-00-774280 Must be used for installation in a mobile home.

1. An outside air inlet must be provided for combustion air, and must remain clear of leaves, debris, ice, and/or snow. The outside air path must be unrestricted while the appliance is in operation.
2. The combustion air intake system must be of metal construction. It must permit zero-clearance to combustible materials, and contain a rodent screen.
3. The appliance must be secured to the mobile home structure by bolting it to the floor. Use the correct length lag-bolts through the same holes that secured the appliance to the shipping pallet.
4. The appliance must be properly grounded to the frame of the mobile home using a minimum of 8 AWG copper solid or stranded, insulated or bare wire or equivalent.
5. All clearances to combustibles and floor protection requirements must be followed.
6. Follow the vent manufacturer's instructions when installing in a mobile home. Use silicone or equivalent to create an effective vapor barrier where the chimney or other component penetrates to the exterior of the mobile home.
7. Installation shall be in accordance with the Manufactured Home and Safety Standard (HUD) CFR 3280, Part 24.
8. The appliance must never be installed in a room designated for sleeping.
9. The space heater must be connected to a factory built chimney conforming to CAN/ULC-S629. Maximum 8 inch diameter. Chimney must be removable to allow transport of mobile home.

WARNING

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

WARNING

Never install in a room intended for sleeping.

CAUTION

Maintain structural integrity of mobile home:

- **Floor, wall, ceiling and/or roof.**

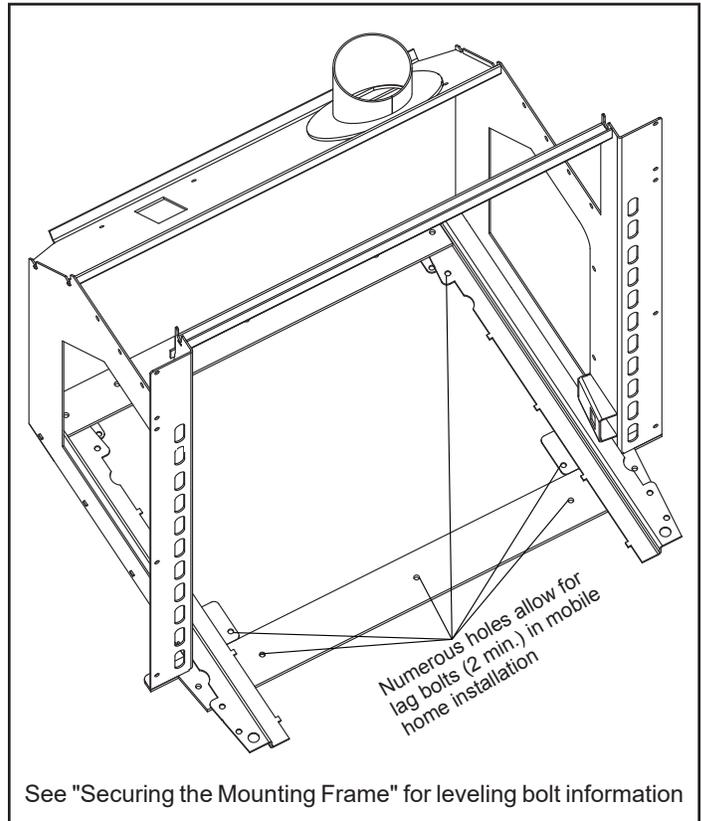
Do **NOT** cut through:

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

CAUTION

Never draw outside combustion air from:

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



There are a few holes in the bottom of the insert mounting frame which can be used for lag bolts. Use at least two of these holes for securing the appliance to the fireplace floor in a mobile home installation. The installer will need to determine and obtain the properly sized lag bolts and masonry anchors.

8 Appliance Set-Up

A. Unpacking Stove

Once the box is removed, the unit will need to be removed from the skid.

Remove the ash pan cover from unit to uncover the spring latches that hold the unit to the mounting frame, Figure 8.1.

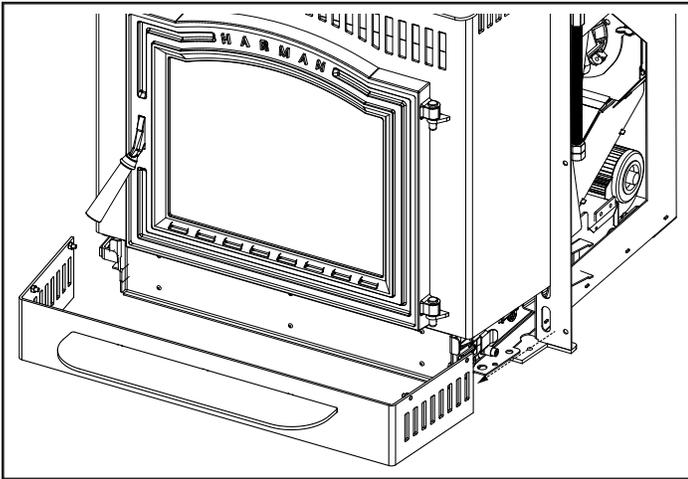


Figure 8.1 - Remove ash pan cover.

Unlatch the spring latch located on both the right and left hand side to release the unit from the mounting frame, Figure 8.2.

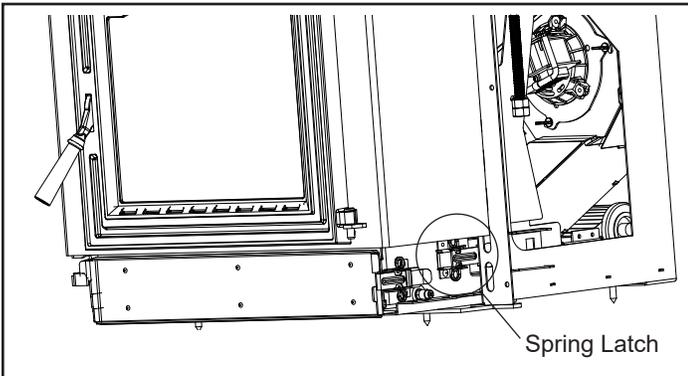


Figure 8.2 - Unlatch spring latch.

Once spring latches are unlatched and pulled away from the frame, firmly grab the stove and pull it toward you and out away from the frame. Set unit to the side, Figure 8.3. **Note: This may take 2 people to achieve.**

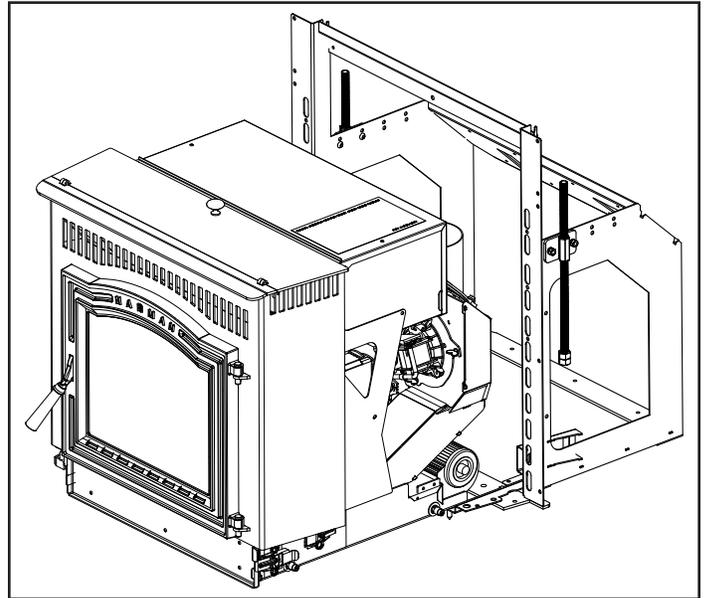


Figure 8.3 - Pull unit away from the mounting frame.

Now that the unit is removed you can now remove the mounting frame from the skid. To do this simply remove (4) 5/16-18 Hex head bolts. Figure 8.4.

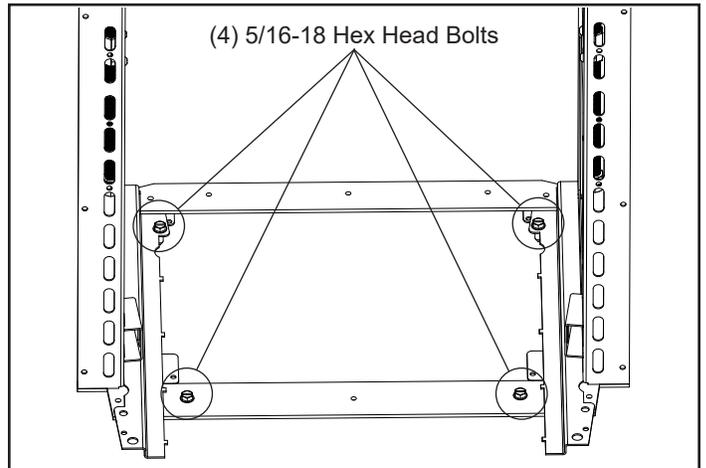


Figure 8.4 - Remove (4) 5/16-18 Hex Head Bolts

Now that the mounting frame is removed from the skid you can now install the surround panels. **Note:** Installation instructions for the surround are located inside the box with the surround panels.

B. Control Board Installation

The control board is packaged in a static resistant bag. Use care when handling, hold the control board only by the edges.

Using (4) #10 sheet metal screws located in the hardware pack, install the control door hinge and control board assembly to the left side wing surround, Figure 8.5.

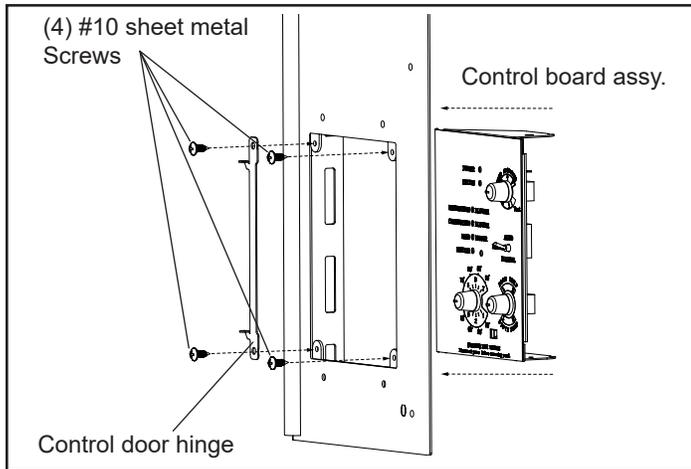


Figure 8.5 - Install control board assembly.

C. Securing the Mounting Frame

The mounting frame is the anchor for the appliance. If the frame is not secured properly, shifting will occur when sliding the insert in or out.

The stove is supplied with (4) 5/16-18 Hex Head bolts located in the hardware pack for leg levelers. These bolts should be threaded down through the holes to raise the frame corners as needed to make the frame level as needed, Figure 8.6.

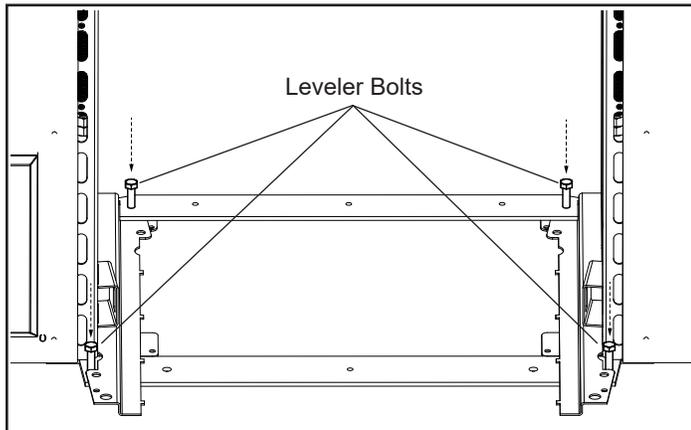


Figure 8.6

Install the coupler nut weldments to the frame in the hole location that suits your needs with the (4) 1/4-20 x 5/8 flange screws and nuts and 1/2" jack bolts. Install the mounting frame into the opening and adjust these bolts to insure the frame is level, Figure 8.7.

Note: The use of all 4 leveling bolts may not be necessary. Tighten the 1/2" jack bolts against the lintel.

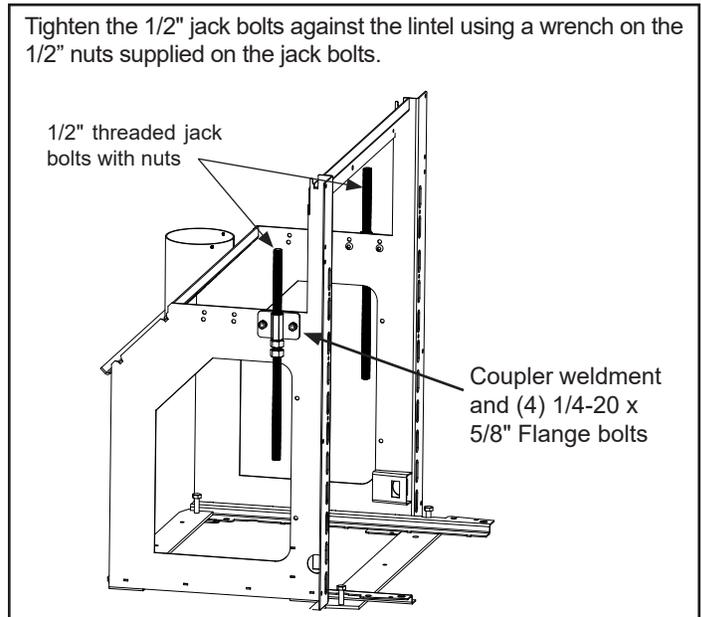


Figure 8.7 - Install jack bolts

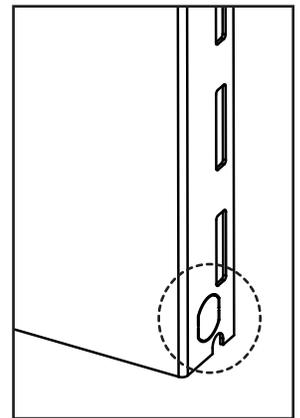
D. Routing the Power Cord

When choosing an electrical supply outlet, be sure the polarity is correct, and that the supplied voltage is within the range of 117 to 123 Volts. Surge protection is also recommended to protect the control board software in the event of a surge or spike.

Once the outlet location is decided, you'll need to install and route the power cord.

Remove the power cord from the ash pan.

At the bottom of each of the side surround panels is a knockout for the cord retainer. Remove the appropriate knockout and feed the loose wire end of the power cord into the hole. If your cord needs to exit from the right side, route the cord up the side and over the top of the mounting frame and back down the left side. Use the two hooks on the top corners of the mounting frame to secure the cord. Attach a star washer, the ground wire ring terminal, a second star washer, the ring terminal from the ground wire jumper to the bottom stud of the left surround panel. Using a pliers, compress the cord clamp and push it into the hole.



WARNING

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

Connecting Wiring Harness

In a large fireplace opening, you may have plenty of space for the control board to remain attached. For a smaller fireplace opening, you'll likely need to remove the control board to route it through the side of the mounting frame and out through the control opening.

Follow these steps;

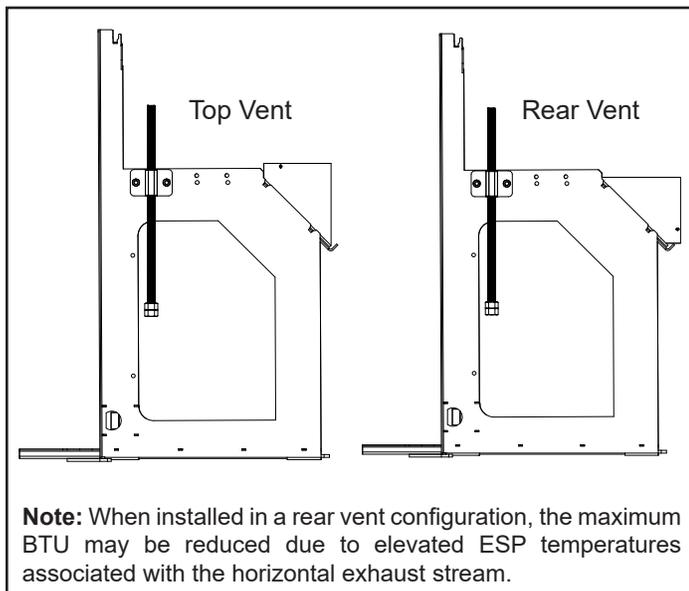
- Feed the harness wires and the ESP wire through the opening in the mounting frame and out through the control opening in the surround panel.
- Holding the control board outside the opening in the surround panel, re-attach the harness plug and the ESP wire.
- After determining the location of the Room Sensor (See next Section), Attach it to the two male spade terminals near the top of the control board.

NOTE: These connections are not polarity specific.

- From the power cord, attach the green ground wire to the grounding post located on the feeder air intake snout.
- The black wire from the power cord gets attached to the short brown wire from the control harness
- The white wire from the power cord will attach to the short white wire on the control harness.
- Install the control panel into the surround; Right side first, then tilt in the left side.
- Secure using the four black machine screws included with the surround.

E. Installing the Venting

The flue collar on the rear of the mounting frame is designed to pivot. Loosen the four mounting bolts and adjust the angle of the collar as needed, Figure 8.10.



Note: When installed in a rear vent configuration, the maximum BTU may be reduced due to elevated ESP temperatures associated with the horizontal exhaust stream.

Figure 8.10

F. Installing the Body into the Mounting Frame

Attach the female terminal of the ground jumper wire to the ground tab located next to the air intake, Figure 8.11.

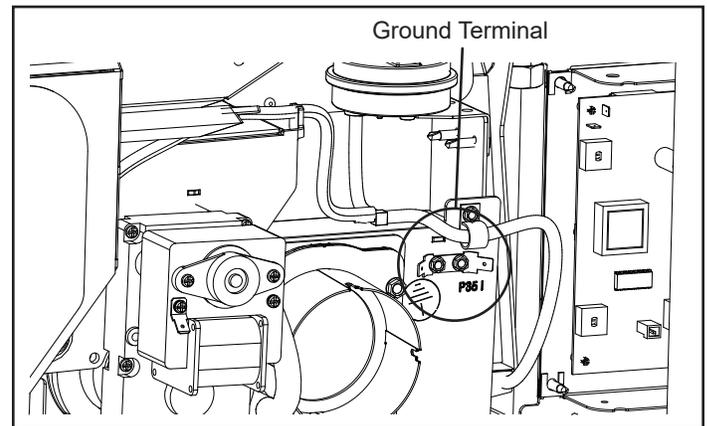


Figure 8.11

The rollers on either side of the insert body will ride on the rails of the mounting frame. Once the body is all the way in, hook and close the spring latches located on each side of the unit to secure the stove body to frame, Figure 8.12.

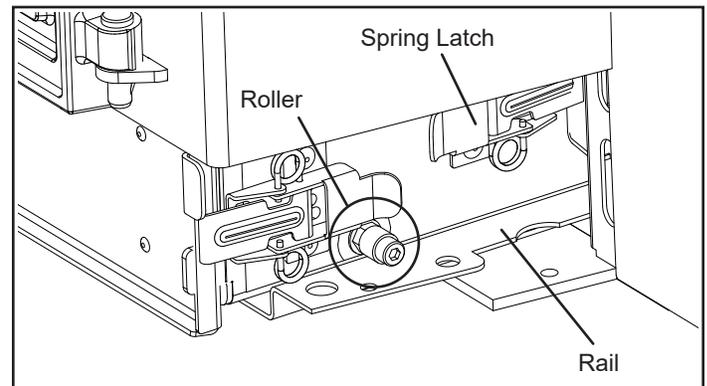


Figure 8.12

G. Room Sensor Installation

Although not required, it is recommended that the room sensor be connected in every installation. Using a minimum size 18 gauge wire, you may splice in an additional length, to extend the room sensor. The following are typical locations for the room sensor;

- On an interior wall next to or in place of a typical wall thermostat.
- On the leg of a coffee table or end table in your favorite sitting location.
- Sticking out through the punched hole at the lower right corner of the control panel.

Note: When installing the room sensor externally, limit the distance from the stove to 25 feet or less.

Once the location has been decided, run the wiring to the control panel. You'll need to remove the two terminals from the end of the sensor cable and replace them with the two smaller terminals from the hardware bag. Plug the terminals into the control board. These connections are not polarity specific.

Note: If the room sensor is located too close to the appliance, or in a direct path of the distribution air, You may need to elevate the temperature setting to maintain a comfortable temperature level throughout the heated space.

See Section "E. Draft Test Procedure" under Operating Instructions.

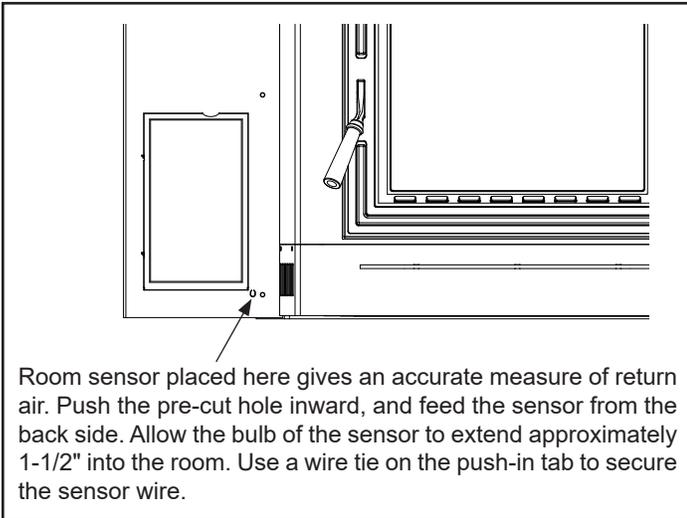


Figure 8.13

H. Flame Guide Extension

Once the flame guide is installed the Flame Guide Extension should be installed by sliding it in behind the flame guide as shown below. Notice the bend points away from the Heat Exchanger.

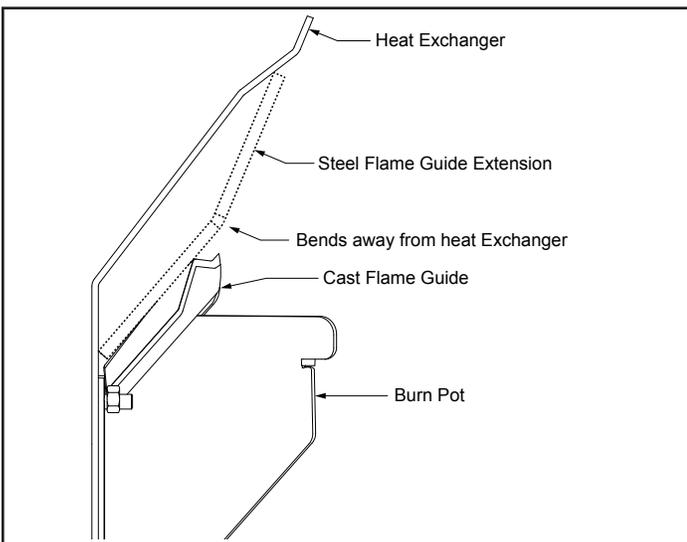


Figure 8.14

9 Operating Instructions

A. Fire Safety

You can never be too cautious when it comes to fire safety. Please give serious consideration to the following:

- Install at least one smoke detector and CO detector on each level of the home.
- Locate detectors away from the appliance and close to the sleeping quarters.
- Follow the manufacturer's guidelines on placement and installation as well as maintaining regularly.
- Place a Class A fire extinguisher nearby to contend with small fires.
- In the event of a fuel hopper fire:
 - Evacuate the house immediately.
 - Notify the Fire Department.

B. Fuel and Fuel Storage

Pellet fuel quality can fluctuate. This appliance is designed to burn a wide variety of pellet fuel, giving you the freedom to choose the most economical fuel in your area.

Hearth & Home Technologies strongly recommends that you choose a fuel that is recognized by the Pellet Fuels Institute (PFI).

Pellet fuels are made from sawdust, or other wood fibers. The source material determines the ash and heat content. Higher ash content fuel, or Standard Grade, may contain bark, leaves, stems, or other by-products. Higher ash may not mean more or less heat value, but it will require more maintenance and cleaning. Low ash content fuel, or Premium Grade, is made from only the cleanest sawdust. Cleaning and maintenance are greatly reduced while typically higher heat value is experienced.

APPROVED FUELS

- **Wood Pellets** - Any grade of wood or biomass pelletized fuel. Pellets should be either 1/4" or 5/16" (6 - 8mm) in diameter, and no more than 1-1/2" (38mm) in length.

 WARNING
"NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP " A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IN USE".

 WARNING
BURNING COLORED PAPER, CARDBOARD, SOLVENTS, TRASH AND GARBAGE 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 FOLLOW ONLY THESE OPERATION GUIDELINES.

STORAGE

Fuel should be stored in a dry area, preferably indoors, and well away from the appliance clearance area.

 CAUTION
Tested and approved for use with wood pellets ONLY . Burning of any other fuel will void your warranty.

NOTICE
Hearth & Home Technologies is not responsible for stove performance or extra maintenance required as a result of using fuel with higher ash or mineral content.

C. General Operating Information

The P35i's ESP control will maintain an output level to fit your temperature demands. There are two modes of operation; "Constant Burn" mode, where the control will maintain a specified constant temperature, regardless of the surrounding environment temperature conditions, Or "Room Temp" mode, where the control will adjust the rate of burn to meet a specified room temperature setting. You also have the choice of Automatic or Disabled ignition. Regardless of the mode selected, operation is controlled by both, exhaust temperature- being reported by the ESP (Exhaust Sensing Probe), and the microprocessor control board.

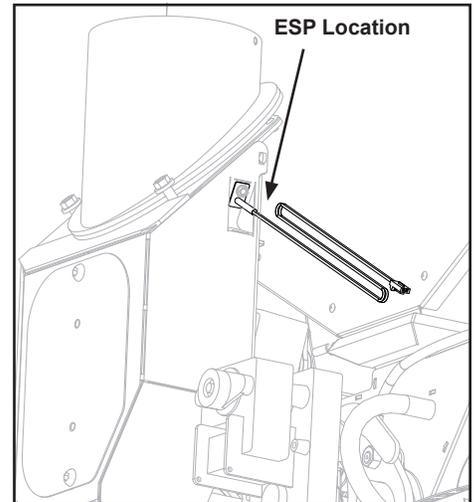
We'll discuss these control devices and their functions now.

ESP (Exhaust Sensing Probe)

The ESP is a tiny thermistor located in the exhaust stream. The probe changes its thermal resistance based on minute changes in temperature, which is monitored by the control board and used to determine the need for changes in the burn rate to meet the temperature demand.

Control Board

As stated previously, the control board is a microprocessor, which means it has the ability to "think" and adjust itself based on both, reported temperatures and demand temperature. The control board will also flash a code sequence on the Status light if an error is detected.



Power Light

Indicates power to the control.

Status Light

Will be lit in either "Constant Burn" or "Room Temp" mode when pointer is not within off position band except after normal shut down. Blinks to indicate errors detected.

Indicates power to distribution blower.

Indicates power to combustion blower.

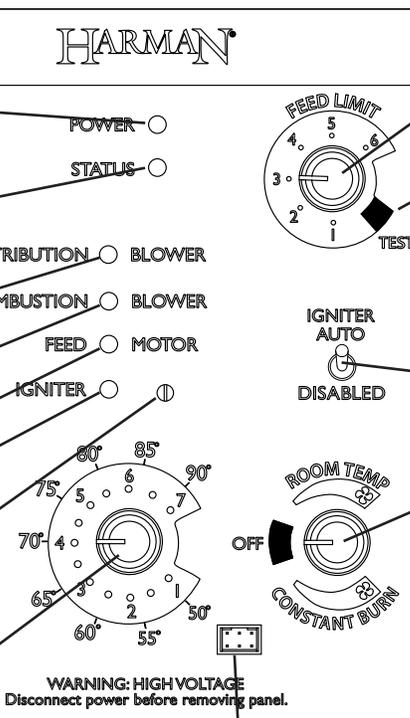
Indicates power to the feed motor.

Indicates power to the igniter.

Low Draft Adjustment Screw (see page 26)

Temp dial

Allows you to adjust the room temperature in "Room Temp" Mode using the outer scale marked in degrees Fahrenheit. It also allows you to adjust the stove temperature while in "Constant Burn" Mode using the inner scale marked from 1 to 7.



Feed Limit

Sets the maximum feed rate.

Test

Runs all motors at full speed for one minute to check operation. Afterwards the combustion blower will remain on low burn voltage.

Igniter switch

Set to appropriate Start-Up mode.

Mode Selector

Allows you to choose between "Room Temp" Mode, "Constant Burn" Mode, or OFF. Also allows you to vary the distribution blower speed by turning the knob to the high or low side of each mode.

Distribution Blower speed adjustment range. L = low

H = high

Variable speed anywhere between L and H; although as the stove temperature goes up, so does the low end of the scale.

Dealer Diagnostic Port

For dealer maintenance only. Requires special DDM monitor supplied to Harman® Dealers exclusively.

Feed Limit Adjustment

The Control board runs on a one minute timer cycle. Each minute, the board is thinking ahead to what it needs to do for the next minute to maintain or achieve the demanded temperature. What you are setting on the Feed Limit dial is the maximum amount of feed time, per minute, that you'll allow.

The control board will make its own determination of how long to run the feeder, **UP TO** the maximum, as set on the dial. For instance, a number 4 setting on the Feed Limit will allow a maximum of 40 seconds per minute of feed. If the room temperature is satisfied, with only feeding 20 seconds, then that is all the control board will run the feeder. When heating a large area, the number 4 setting is usually adequate, however, fuel quality may dictate a higher or lower setting. If you see unburned or burning fuel being pushed off of the grate during a high demand period, the feed rate is set too high. Ideally, you'll want to see about an inch of ashes in front of the burning fuel during a peak demand period. When the appliance is located in a smaller room or area, the Feed Limit may need to be kept at a lower setting of #2 or #3, to maintain a fire with less frequent shut-down and ignition cycles. Always allow a minimum of fifteen minutes between making any adjustments to the feed rate.

Note: Since the control board is feeding as needed, only adjust the feed rate while maximum demand is occurring. (Constant Burn Mode, with a temp dial setting of #7 will create maximum demand.)

Mode Selection

Room-Temp mode is the ideal mode of operation if you wish to maintain a comfortable temperature in the room. As the outdoor temperature fluctuates, the control will adjust the feed rate to maintain the desired temperature setting in the room. For best results, be sure the room sensor is located away from drafty areas and not positioned on the floor or near an exterior wall.

Constant Burn mode is more of a manual method of operation. The stove will run at a constant heat output, regardless of surrounding air temperature. Note that on the coldest days, your indoor heated space will be cooler than on the warmer days. The only real benefit to this mode of operation is that you'll be able to know exactly how long a hopper full of fuel will last, because the consumption is going to stay relatively the same.

Temperature Dial

The temperature dial is a dual purpose dial. In Room-Temp mode, you select the room temperature you want the stove to maintain at the room sensor probe. This is marked in Fahrenheit scale from 50 to 90 degrees. In Constant Burn mode, you select a temperature setting based on the #1 - 7 with 1 being a minimum burn and 7 being a maximum burn rate.

Blower Speed Adjustment

The mode selector is also marked with a L to H scale in each mode. This is a variable speed control for the distribution blower. **L** is the low setting, and **H** is the high setting. It is important to note that the blower will not come on until the ESP reaches a specific temperature, to ensure that cold air is not being blown out into the room. Also, the speed of the blower, when set on lower speeds, will automatically increase as the temperature of the stove increases.

Igniter Auto Mode Switch

The toggle switch for the igniter is a two position switch. Select from either Igniter Auto or Disabled.

Igniter Auto - Will automatically start the fire in either Constant Burn or Room Temp mode.

Constant Burn: The ignition mode will start the fire one time only. Since Constant Burn maintains a constant output, the fire will never go out to need re-ignited.

Room Temp: The ignition mode will start the first fire. Then, if the room temperature is satisfied, the fire will go out. Once the room cools, the ignition mode will start another fire, and so on. This mode provides fully automatic temperature control.

Disabled - The fire must be started manually using starting gel or other manufactured fire starter.

Disabled - With the igniter switch in the MANUAL position, the igniter is disabled.

Constant Burn: The fire would need to be started manually, and will maintain a constant output based on the temperature setting.

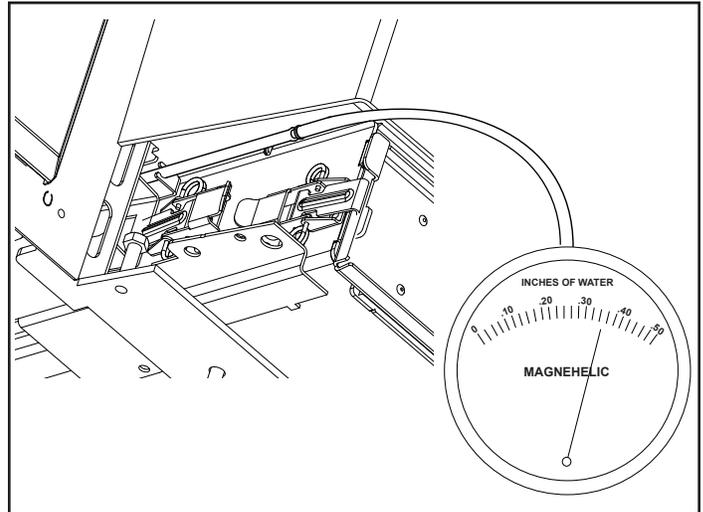
Room Temp: The fire would need to be started manually. The control will adjust output to maintain a constant room temperature, however it will not allow the fire to go out. If the room temperature is satisfied, the control will adjust to the minimum burn rate and hold there until the room temperature decreases.

D. Before Your First Fire

- Be sure the appliance is installed properly and that all safety requirements have been met. Pay particular attention to the clearances to combustibles, floor protection and the venting instructions.
- Test your smoke detector(s) and CO detector(s) to the specifications of the manufacturer.
- Double check that the ash pan and internal firebox are empty.
- Be sure to read this entire manual.

E. Draft Test Procedure

- Remove ash pan cover and locate draft tube on the left hand side of the unit above the spring latch as shown to the right.
- Remove the tube cap from the silicone tubing and Insert the draft meter hose into the draft tube.
- Be sure the meter is capable of a scale between 0 and 1 inch Water Column. Zero the meter if necessary, and be sure it is set up to read in negative pressure.
- Be sure the ash pan, door, and hopper lid are all closed and latched.
- Turn the Feed Limit dial to "Test" mode.
- During the first minute of test, the combustion blower will be on high. Record the high draft reading here _____-W.C. The high draft should be above -0.5" W.C. but no higher than -1" W.C.
- After a minute, the combustion blower will go to low speed. Here you want to see a reading between -0.30" and -0.35". If necessary, adjust the draft voltage using the low draft adjustment screw on the control board (See Page 24). Clockwise will increase the draft and counter-clockwise will decrease it.
- Once set, record the low draft reading here: _____-W.C.
- Be sure and turn off of "Test" mode. Disconnect the draft meter and return the tube cap onto the draft tube.



WARNING

TESTED AND APPROVED FOR USE WITH WOOD PELLETS ONLY. USE OF ANY OTHER TYPE OF FUEL WILL VOID THE APPLIANCE WARRANTY.

WARNING



"NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IN USE".

The optimal method of operation is in Room Temp mode, with the Ignition switch set to Automatic.

F. Starting a Fire - "AUTOMATIC"

1. With the mode selector in the "Off" position, and the Feed Limit **NOT** on "Test", plug the power cord into a properly grounded receptacle.
2. Fill the hopper with DRY fuel.
3. Turn the Feed Limit dial to "Test". This will run the feed motor for one minute. If you begin to see fuel entering the burn pot, you can stop the test cycle. Return to #4 or #5 to start out.
4. Position the Igniter switch to Igniter Auto.
5. Turn the mode selector dial to the desired mode. This will start the combustion blower, feeder, and igniter operating. **If Room Temp is selected, be sure to turn the temperature dial above the current room temperature.**
6. After the initial feed cycle is typically when you'll begin to see sparks, smoke, or flames.

Keep Hopper Lid, Ash Pan, and Fire viewing doors closed while in operation. Maintain all door seals and gaskets in good condition. Replace gaskets when necessary using parts obtained through your Harman® dealer.

G. Maintaining the Fire

Once the Distribution Blower begins operation, your fire is well established. Now, you can make any desired adjustments to the temperature dial. Remember, in Constant Burn, the temperature dial uses the inner portion of the scale (#1 thru 7). In Room Temp, select the desired temperature in Fahrenheit from 50° to 90°.

The flames should appear brisk and bright. If you see deep orange and lazy flames, it is usually an indication that the burn pot needs to be cleaned. Refer to the Maintenance Section of this manual.

WARNING! RISK OF FIRE! Keep combustible materials, gasoline, and other flammable vapors or liquids clear of this appliance.

- Do **NOT** store flammable materials in the vicinity of this appliance.
- DO NOT BURN COLORED PAPER, CARDBOARD, SOLVENTS, TRASH, GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.
- DO NOT USE CHEMICALS OR FLUIDS TO START A FIRE.

Keep all such liquids well away from the heater while it is in use, combustible materials may ignite!

H. Shut-Down

During operation in Room Temp / Igniter Auto mode, the appliance will shut down naturally when demand is met or exceeded. In other modes of operation, the unit will shut-down only if or when it runs out of fuel.

To kill or stop a fire, turn the mode selector dial to "OFF". The shut down cycle will slow or stop the feeder to gradually cool the fire and ensure that all of the exhaust gases are safely expelled before stopping the combustion blower. This not only ensures removal of all smoke and gases, it also keeps the fire from attempting to travel into the fuel storage hopper. For this reason; Hearth & Home Technologies recommends installing a battery back-up in areas where frequent power outages are experienced.

NEVER ATTEMPT TO EXTINGUISH A FIRE BY PULLING THE PLUG OR OTHERWISE DISCONNECTING THE ELECTRICITY SUPPLY.

The best way to extinguish a fire, especially at the end of the heating season, is to simply allow it to run out of fuel.

10 Service & Maintenance

When properly maintained, your stove will give you many years of trouble-free service. **Contact your dealer** to answer questions regarding proper operation, trouble-shooting and service for your appliance. Visit www.harmanstoves.com to find a dealer. We recommend annual service by a qualified service technician.

Note: Do not use a household vacuum to clean the stove. We recommend that you use a shop vacuum that is equipped with a fine dust filter called a HEPA filter or a vacuum specially made for fly ash and soot. **USING A VACUUM WHICH IS NOT EQUIPPED WITH A FINE DUST FILTER WILL BLOW FLY ASH AND SOOT OUT INTO THE ROOM.**

NOTE: THE STOVE MUST BE COMPLETELY OUT BEFORE YOU VACUUM THE STOVE. LIVE PELLET EMBERS, IF SUCKED INTO THE VACUUM, WILL LIGHT THE VACUUM ON FIRE AND MAY ULTIMATELY CAUSE A HOUSE FIRE.

A. Proper Shutdown Procedure

 CAUTION	
	Shock and Smoke Hazard
	<ul style="list-style-type: none">• Turn unit to the off position, let appliance completely cool and combustion blower must be off. Now you can unplug appliance before servicing.
	<ul style="list-style-type: none">• Smoke spillage into room can occur if appliance is not cool before unplugging.• Risk of shock if appliance not unplugged before servicing appliance.

Follow the detailed instructions found in this section for each step listed in the chart below.

B. General Information

Types of Fuel

The type of fuel you are burning will dictate how often you have to clean your burnpot.

If the fuel you are burning has a high dirt or ash content, it may be necessary to clean the burnpot more than once a day.

Dirty fuel will cause clinkers to form in the burnpot. A clinker is formed when dirt, ash or a non-burnable substance is heated to 2000°F (1093°C) and becomes glass-like.

C. Quick Reference Maintenance Chart

Frequency	Cleaning Procedure	Safety Measures	Tips
Daily	Scrape Burn pot	Wear flame resistant gloves ³	Vigorous, strong scraping specifically near neck of burn pot. Scrape every time you add pellets or at least every 3 bags of fuel. ²
Weekly	Empty Ash Pan	Wear protective gloves. ¹ Put ashes into a steel non-combustible container with tight fitting lid outside.	Unit does not need to be turned off. Reduce to low burn during removal.
	Clean the Glass	Stove must be turned off and cold.	
Monthly	Scrape & Vacuum Heat Exchanger	Stove must be turned off and cold.	Use provided scraper. Scrape back and sides of firebox.
	Brush & vacuum the distribution fan	Stove must be turned off, cold and unplugged from power supply.	Use provided paint brush. This should be done approximately every 25 bags. ²
	Inspect Hopper lid gasket for damage		Replace gasketing if frays, tears or other visible damage to gasket. This should be done approximately every 50 bags. ²
	Clean Igniter	Stove must be turned off, cold and unplugged from power supply. Wear protective gloves. ¹ Put ashes into a steel non-combustible container with tight fitting lid outside.	Use provided paint brush. Vacuum loose ash from around igniter and inside burn pot.
Stove MUST be turned off, cold and unplugged from power supply for Yearly Cleaning.			
Yearly ⁴	Brush & vacuum the combustion fan and venting/exhaust path	Wear protective gloves. ¹ Put ashes into a steel non-combustible container with tight fitting lid outside.	Use provided paint brush to brush fan blades. *Use flue brush to clean venting being careful not to damage the ESP. ²
	Inspect door gasket		Replace gasketing if frays, tears or other visible damage to gasket.
	Brush & vacuum venting system	Wear protective gloves. ¹ Put ashes into a steel non-combustible container with tight fitting lid outside.	

* A flue brush of appropriate size and length may need to be purchased for proper maintenance.

1. Protective gloves will help prevent skin abrasion while working on steel surfaces.
2. Frequency of cleaning depends largely on fuel type. Lower quality pellets require most frequent cleaning.
3. Flame resistant gloves will help protect your skin from potential contact with heat or flames.
4. Yearly cleaning is also known as a Total Clean. This requires completing all the Daily, Weekly, Monthly and Yearly maintenance mentioned. This should be done before you begin burning the unit each heating season.

D. General Maintenance Procedures

1. Burn Pot Grate Cleaning

- **Frequency:** Daily to Weekly *
- **By:** User

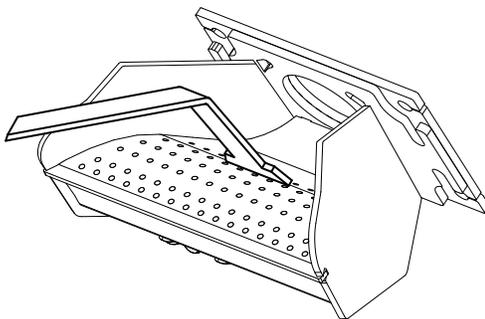
Wear Leather Gloves To Prevent Skin Burns!

This procedure can be done with a fire burning. It is recommended that you turn the temperature dial down approximately one half hour before to allow some cooling of the fire.

Open the front door by lifting upward on the latch handle, then swing the door open. Using the scraper tool provided with your appliance, scrape any cool or spent ashes from in front of the fire off the front of the grate to the ash pan. Next, scrape downward into the burn pot, under the burning fuel to remove any carbon deposits. Pay particular attention to the corners on each side of the auger, as this is generally the first place to see accumulation. You do not want to scrape the fire out of the pot, you just want to clean the holed surface underneath the fire. Any loosened material will be pushed off of the grate into the ash pan as burning resumes. Close the door when finished, and return your temperature dial to the desired setting.

With the fire out and burn pot cold, use the supplied allen wrench to remove any build-up that may have accumulated in the holes of the burn pot grate. Simply push the allen wrench down through each hole ensuring it is clear of any build-up paying attention not to damage the igniter element in the process.

* Depending on fuel quality and the quantity of fuel consumed, the interval between scraping will vary. If you see orange and lazy flames, it is a good indicator of the need for scraping.



2. Ash Removal From Firebox

- **Frequency:** Weekly / depending on fuel and/or ash buildup.
- **By:** User

Wear Leather Gloves To Perform

The fire MUST be out and cool for safe ash removal.

The scraper tool can be used to knock any ash accumulation into the ash pan.

Frequent cleaning of ash from the firebox will help to slow the accumulation of ash in the exhaust and venting system.

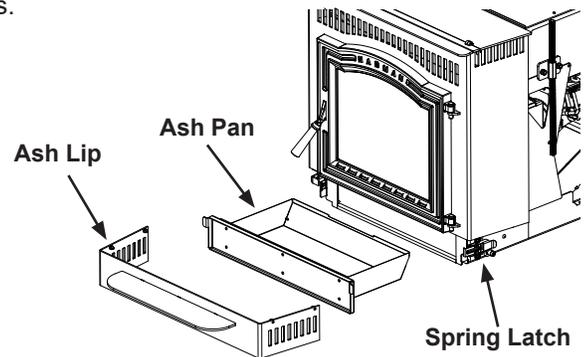
3. Emptying the Ash Pan

- **Frequency:** Biweekly / as needed
- **By:** User

Wear Leather Gloves To Perform

The fire MUST be out and cool for safe ash removal.

- a. Remove the ash pan cover by grasping the ash lip and slide forward.
- b. Open the lower spring latch on each side to release the ash pan.
- c. Slide the ash pan straight out.
- d. Empty into a non-combustible container and slide the ash pan straight into the stove.
- e. Secure the ash pan by hooking and closing the spring latches.



4. Disposal of Ashes

- **Frequency:** As needed
- **By:** User

Ashes must be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Do not use the ash container for other debris or yard waste.

WARNING! RISK OF FIRE! Keep combustible materials, gasoline and other flammable vapors and liquids clear of the appliance.

- Do **NOT** store flammable materials in the vicinity of the appliance.
- Do **NOT** use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in this appliance.

Keep all such liquids well away from the heater while it is in use, as combustible materials may ignite.

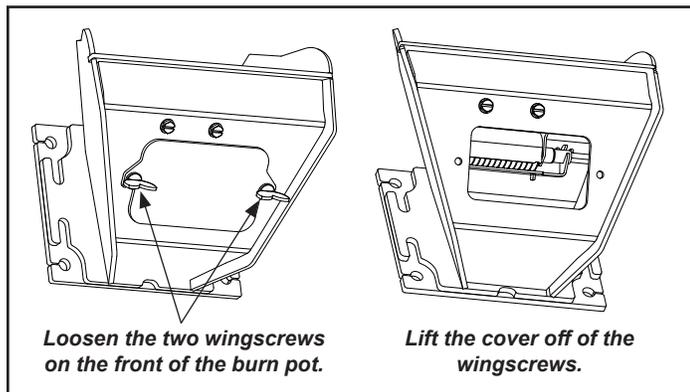
WARNING! RISK OF FIRE!

Do **NOT** store fuel:

- Within the required clearance areas of the appliance.
- Within the space required for fueling or ash removal.

5. Cleaning Area Beneath Burn Pot Grate

- **Frequency:** Monthly or more frequently depending on fuel quality and/or ash buildup.
- **By:** User



- Loosen the two wingscrews located on the front of the burn pot housing.
- Lift the cover off of the wingscrews and set aside.
- Using your ash-vac, remove any ashes or debris from the air chamber.
- You can tap on the igniter, located above the cleanout hole. This will help to remove any accumulation on the igniter element.
- Re-install the cleanout cover and tighten the wingscrews. Be sure that the cover is completely covering the hole, as air leakage here may lead to incomplete combustion or poor ignition.

5. Cleaning Heat Exchanger & Exhaust

- **Frequency:** Monthly or after each ton of fuel is burned.
- **By:** User

It is recommended that you use a vacuum that is designed for ash, as ashes may block conventional vacuum filters.

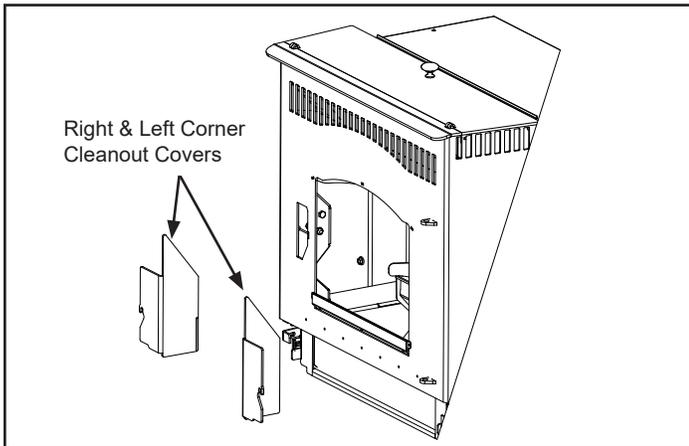
NOTICE: For optimal performance of your pellet burning appliance, you must perform regular cleaning and maintenance as directed in this manual. Not doing so will result in:

- Poor performance
- Smoke spillage into the room
- Overheating of components

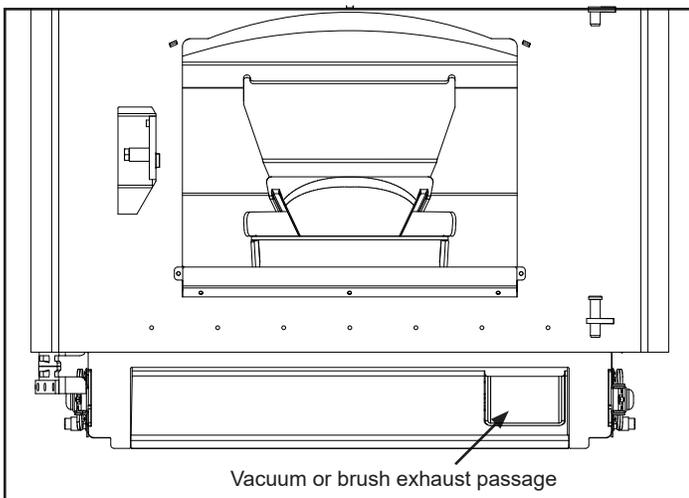
Failure to perform regular cleaning on your pellet burning appliance will void the warranty.

- Make sure the fire is out and cool. Disconnect power cord prior to servicing.
- Scrape the majority of ashes into the ash pan. Begin with the back and roof above the burn pot.
- Scrape the ashes from both sides, into the ash pan.

- d. Un-latch and remove the ash pan. Dispose of the ashes in a metal container with a tight fitting lid.
- e. Remove the two (2) corner cleanout covers by removing the wing-screws (one per).

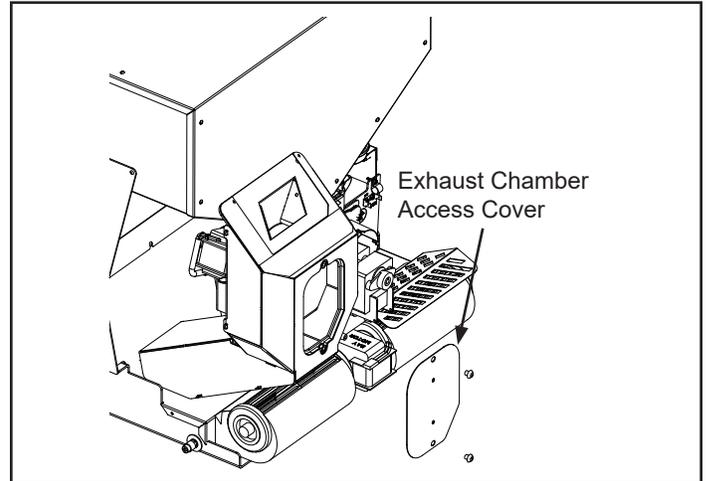


- f. Brush or vacuum the remaining ash from the firebox.
- g. Guide the vacuum hose upward into the exhaust passage in the right rear corner of the firebox.
- h. You can now return all pieces inside the firebox and close the door.

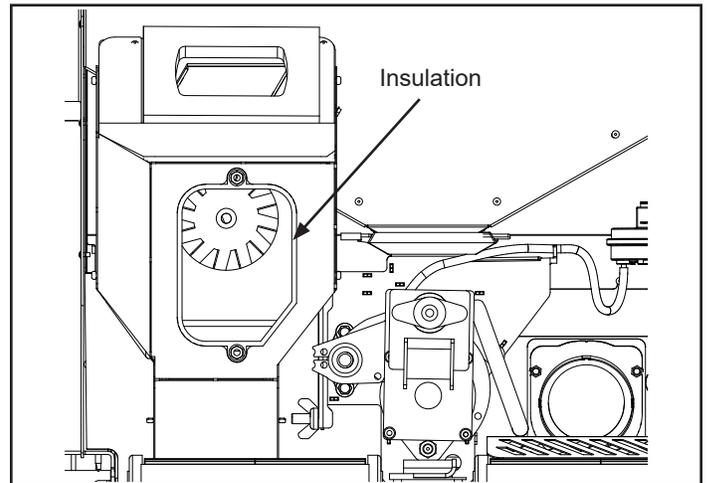


- i. Release the spring latches and slide the insert body out onto the hearth or onto the service rail kit, if purchased.
- j. Remove the exhaust chamber access cover on the right rear of the insert.

- k. With this cover removed, you can vacuum the paddle fan and the inside of the chamber. Be careful not to bend the blades on the paddle fan.



- i. Before re-installing the access cover, make sure the insulation between the two layers is in tact.



6. Inspect / Clean Hopper

- **Frequency:** Whenever run to empty
- **By:** User

Whenever the hopper is empty, inspect and remove any large amounts of sawdust or fines. Although this finer material will mostly feed through with the fuel, large quantities of sawdust may restrict feeder flow.

7. Cleaning the Door Glass

- **Frequency:** As needed / Weekly
- **By:** User

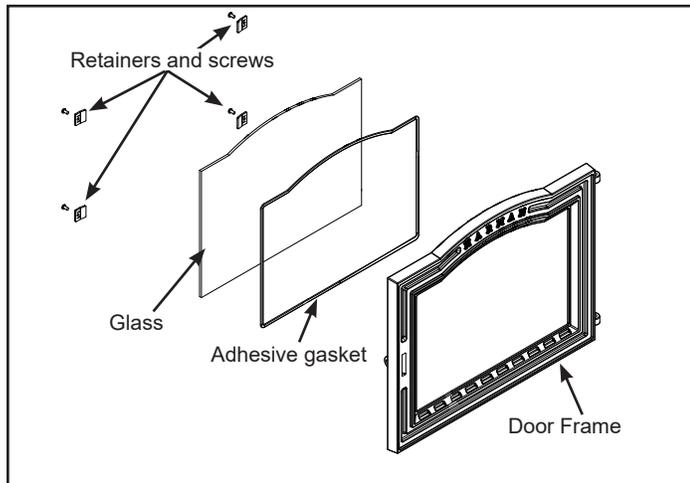
Whenever the view of the fire is obstructed, or weekly, clean the glass using a soft cloth dampened with standard household glass cleaner.

Never spray glass cleaner directly onto hot glass. Apply the cleaner to the cloth then wipe the glass.

Inspect the glass and sealing gasket. Replace gasket as needed. Do not operate the stove with a broken glass. Replacement glass, which is mirrored ceramic glass, should be obtained through your Harman® dealer.

To replace a broken glass; first be sure to carefully remove the broken glass and any remaining shards or pieces. With the door laying on a flat surface, lay the gasketed glass panel onto the door and be sure it is properly fitted into the channel. Lay the glass retainer clips in place near each corner, and secure them using the 3/8" screws. Be sure to tighten each screw equally so you don't create a pressure point on the glass.

NEVER OPERATE THIS APPLIANCE WITH THE GLASS DOOR REMOVED, CRACKED, BROKEN, OR SCRATCHED.



CAUTION

Handle glass with care.

When cleaning door glass;

- Avoid striking, scratching, or slamming glass.
- Do NOT Clean Glass When Hot.
- Do NOT use abrasive cleaners.
- Inspect gasket, replace if necessary.

8. Venting and Chimney System

- **Frequency:** Yearly or more frequently depending on ash build-up.
- **By:** Service Technician / Chimney Sweep

Soot and Fly Ash: Formation & Need for Removal

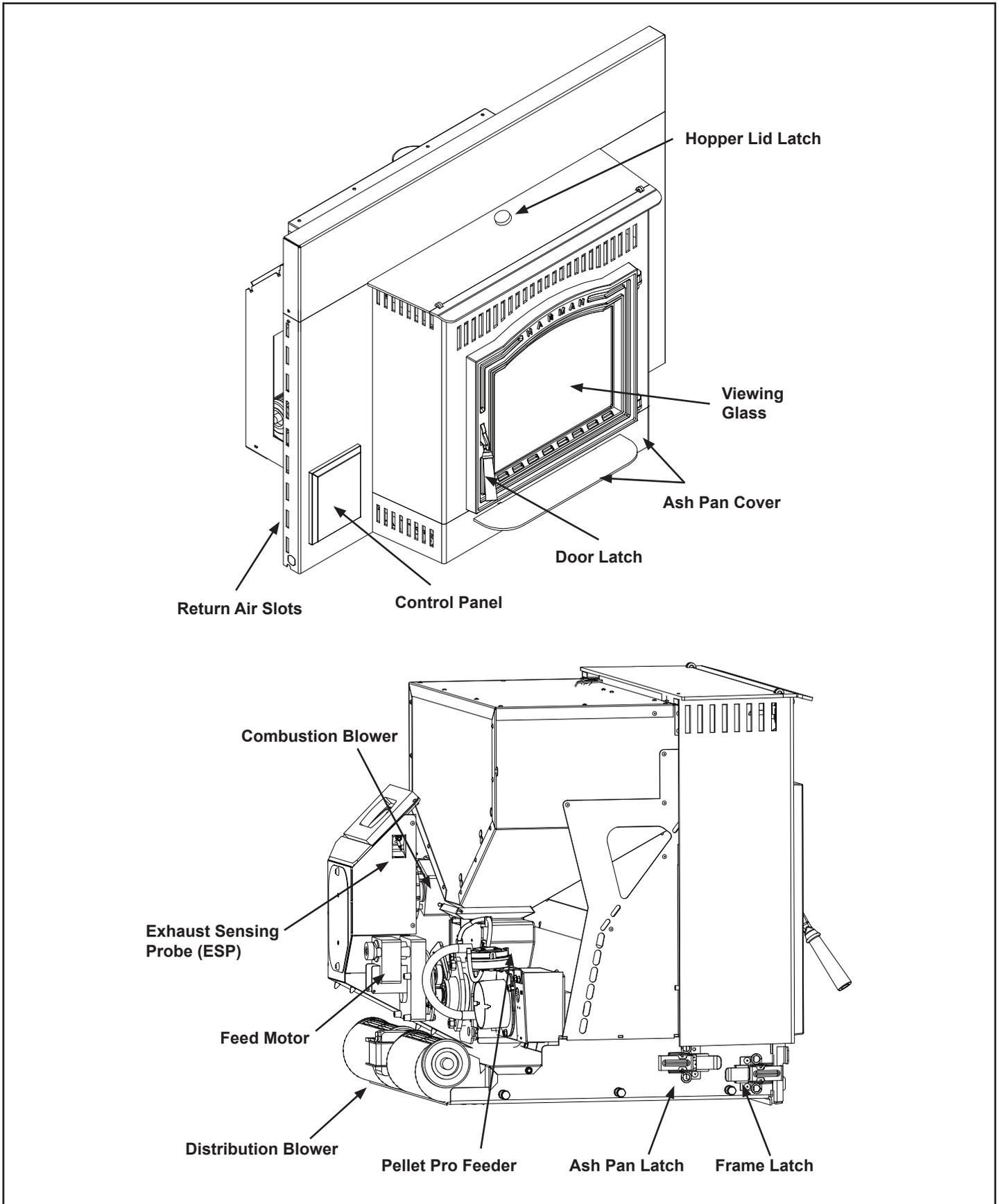
The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of exhaust gases.

During periods of incomplete combustion, which may occur during start-up, shut down, or when operated incorrectly, the fly ash may actually lead to soot formation in the venting system.

The venting system will need to be cleaned at least once per year, or more often depending on the quality of the fuel being used. Horizontal sections of vent pipe are especially prone to soot formation, as ash will accumulate more quickly.

The chimney and venting system should be inspected periodically throughout the heating season to determine if a creosote buildup has occurred. If a significant layer of creosote has accumulated (3mm or more) it should be removed to reduce the risk of a chimney fire.

E. Motors & Components



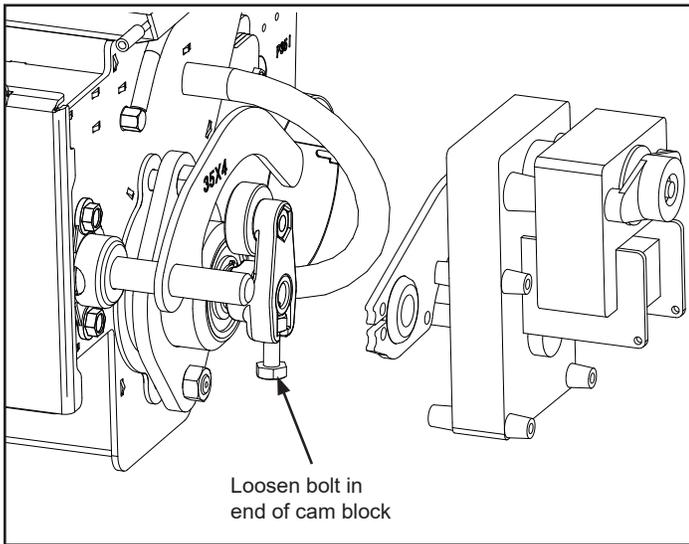
1. **Feed Motor**

Requires no lubrication.

Keep the motor windings free of dust. Can be wiped clean or vacuumed.

To remove feed motor:

- Slide the insert body out of the mounting frame.
- Between the feed motor and the feeder body, you'll see the cam block with a bearing that actuates the pusher arm.
- With a 7/16" wrench, loosen the hex-head bolt in the end of the cam.
- With the bolt loosened, the feed motor and its mounting bracket will pull straight out of the auger shaft.



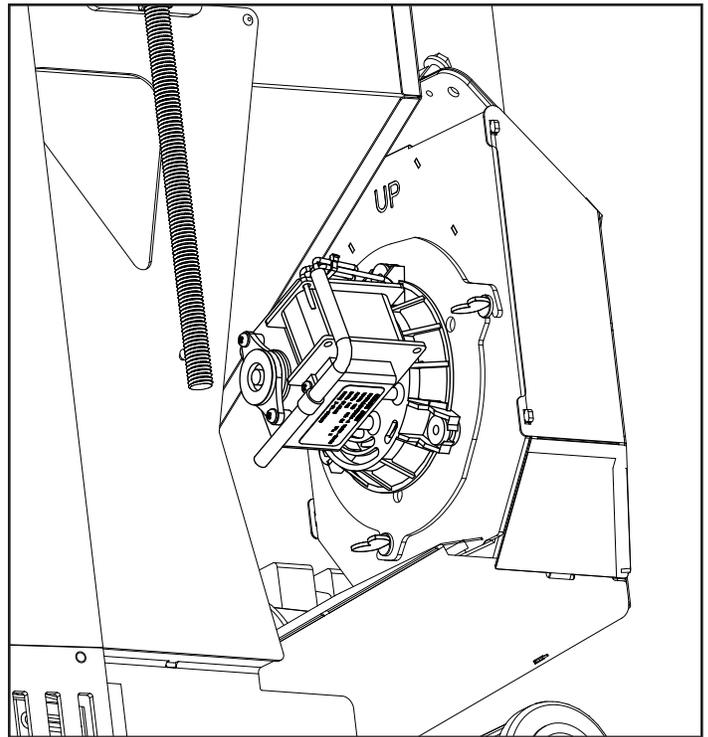
2. **Combustion Blower**

Requires no lubrication.

Keep the motor windings free of dust. Can be wiped clean or vacuumed.

To remove combustion blower:

- Slide the insert body out of the mounting frame.
- Locate the combustion blower motor in the back right corner.
- Loosen 3 wing screws and turn the blower and mounting plate 1/4 turn.
- Lower the motor and paddle fan out of the blower housing.

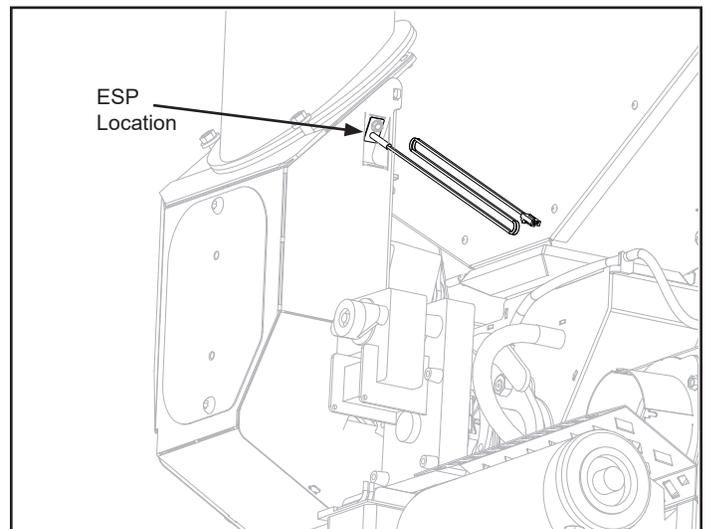


3. **ESP- (Exhaust Sensing Probe)**

Remove and wipe clean with a soft cloth and glass cleaner or alcohol.

To remove the probe:

- Slide the insert body out of the mounting frame.
- The probe is installed on the side of the exhaust chamber.
- With a 1/4" socket or driver, remove the screw that attaches the probe.
- Pull the probe out of it's mounting hole.



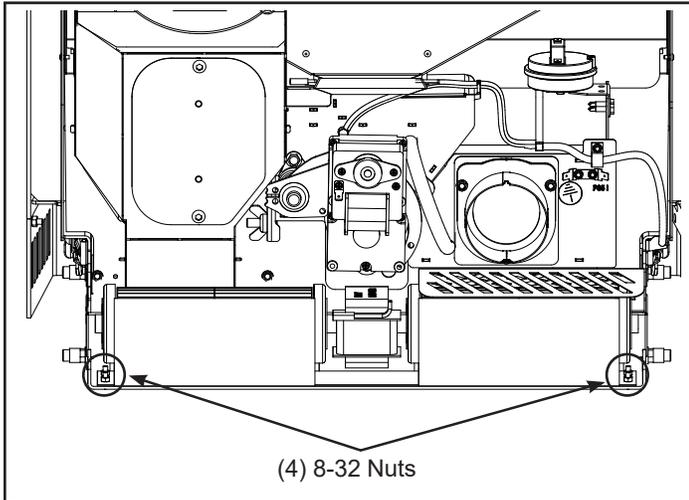
4. Distribution Blower

Requires no lubrication.

Keep the motor windings and squirrel cage fan free of dust.
Can be wiped clean or vacuumed.

To remove distribution blower:

- Slide the insert body out of the mounting frame.
- Locate the blower in the back of the unit. You'll need to tilt the unit forward for easy access.
- Remove 8 tek screws using a 5/16" driver or wrench.



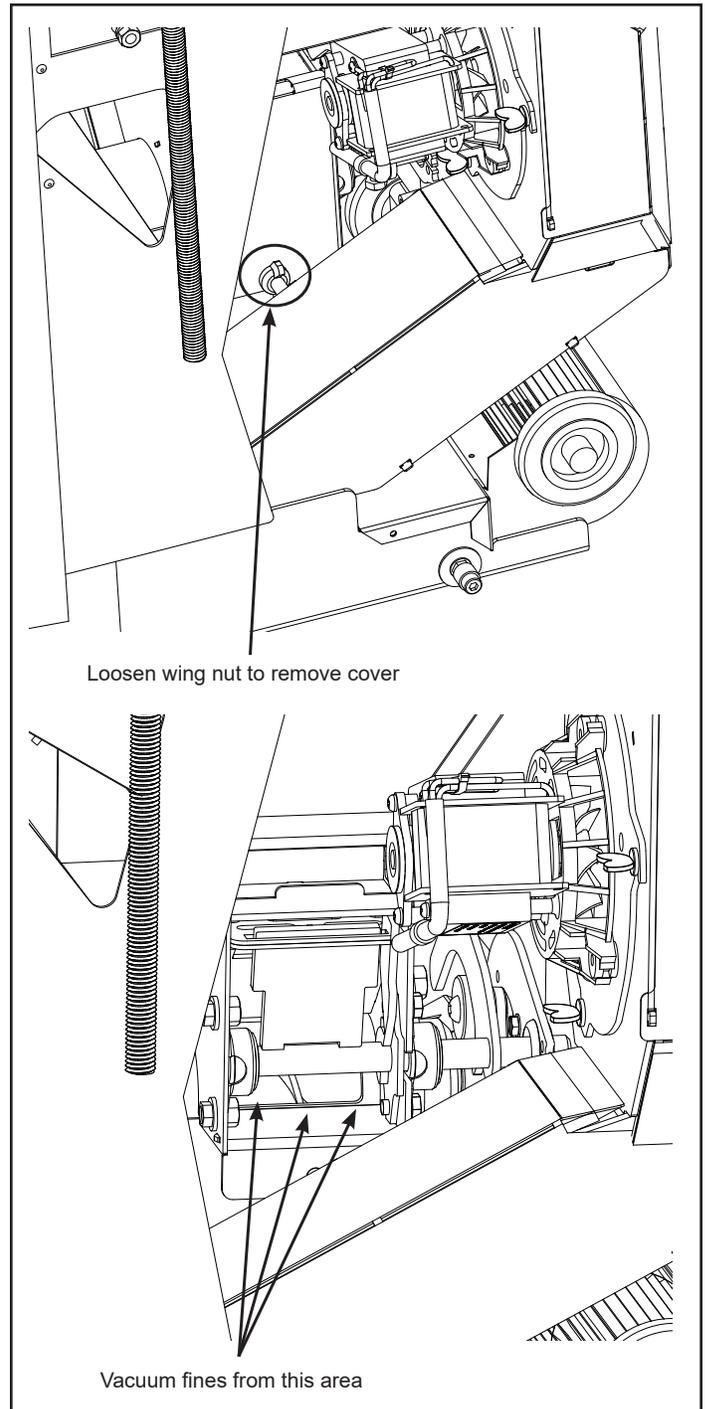
5. Feeder Body

Wipe or vacuum to clean.

Use a vacuum to remove fines and sawdust.

To access feeder cleanout;

- Slide the insert body out of the mounting frame.
- Locate the feeder cover from the right side of the unit.
- Loosen the wing nut approximately 3/4 of the way out on the stud.
- Pull out on the bottom of the cover then lift upward to remove.
- Notice the deflector shield is sitting loose in the feeder. It can be removed by rolling it from under the pusher arm shaft. Just be sure it is repositioned properly.
- When re-installing cover, tighten the wing nut hand tight only.



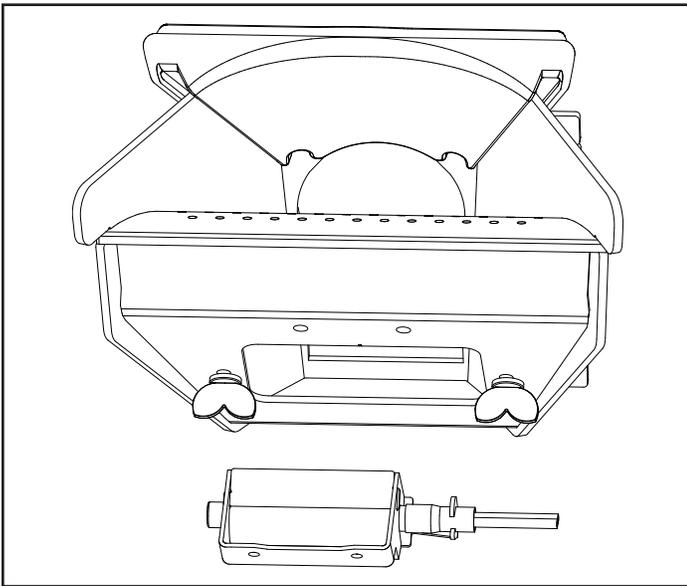
6. Igniter

Vacuum to clean.

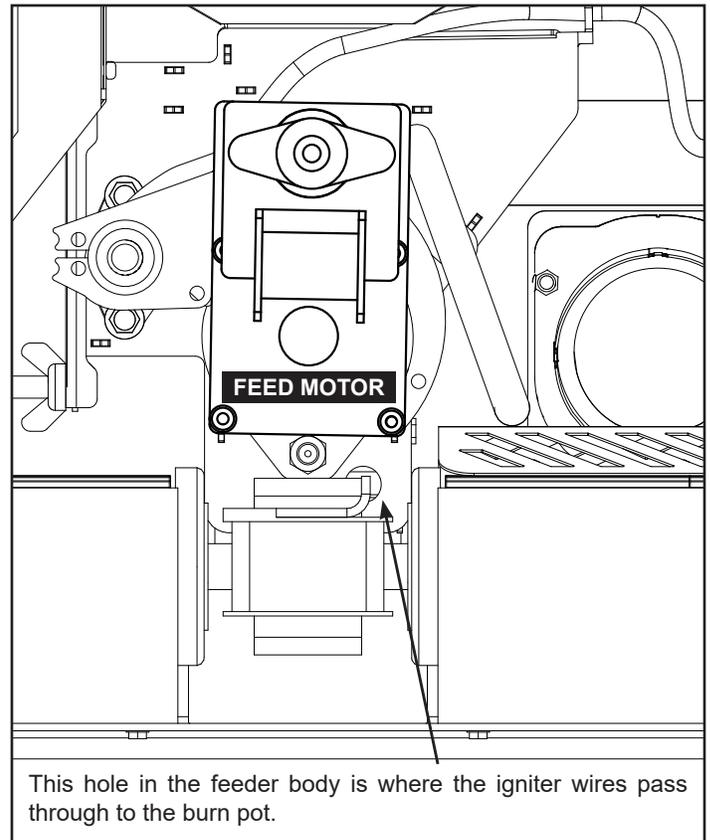
Whenever cleaning burn pot air chamber.

To remove igniter:

- Loosen wing screws and remove cover on front of burn pot.
- Using a 5/16" wrench, remove the two black screws above the cleanout. The igniter and bracket are now free.
- Slide the insert body out of the mounting frame.
- Locate the pale blue and yellow wires entering at the bottom of the feeder body.
- Remove wire ties as needed to loosen the igniter wires.
- Pull the igniter and bracket out from the front until the wire disconnects are accessible.
- When installing igniter, reverse these steps and be sure that the plastic coated wires are pulled all the way to the rear of the feeder.
- Re- tie all wires clear of all hot or moving parts.



This shows the igniter and bracket removed from the burn pot. Missing in the illustration is the wires from the igniter which run through the burn pot air chamber. Only the first few inches of the wires are insulated for high temperatures. These insulated wires are all that can be inside the feeder or burn pot.

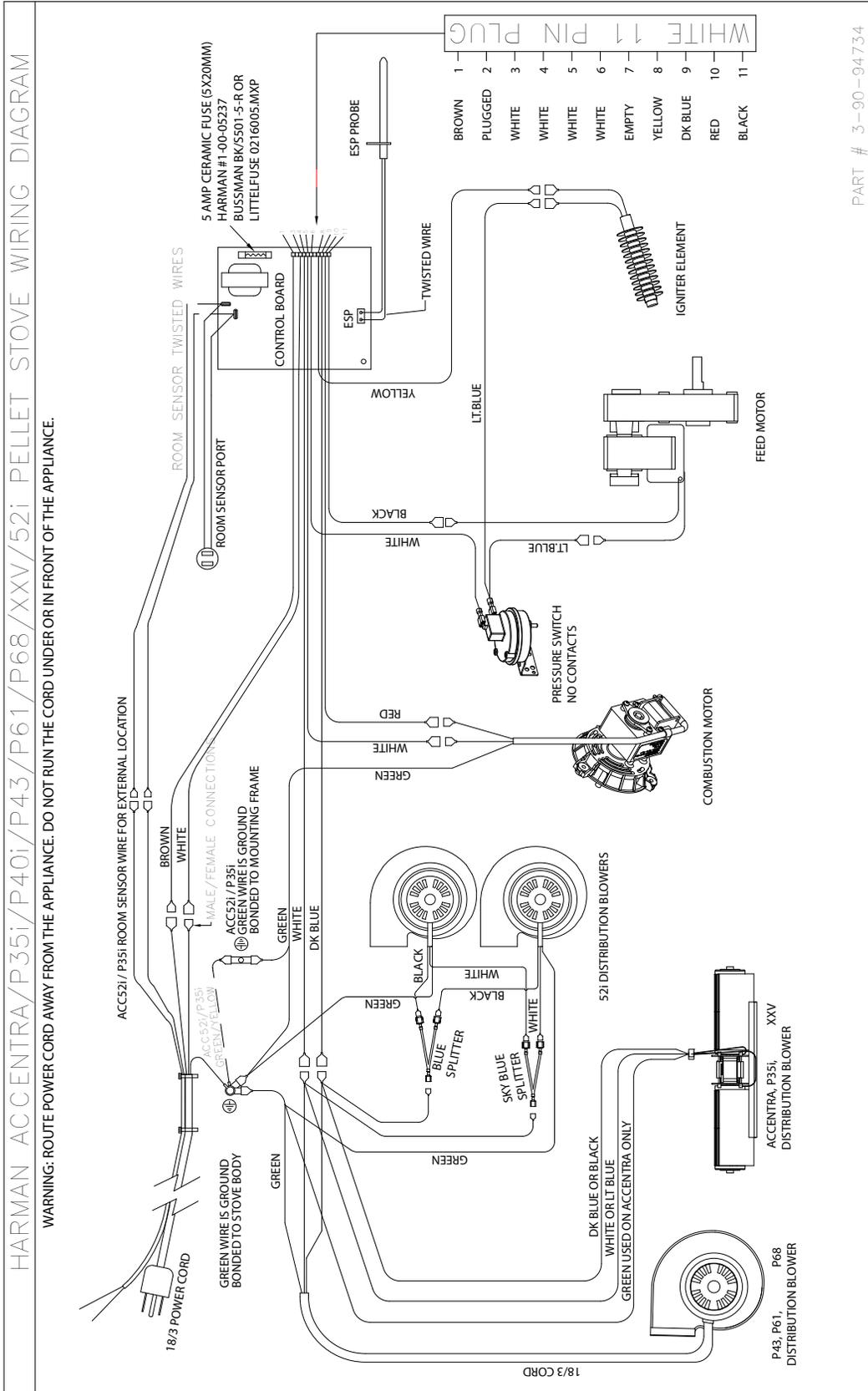


This hole in the feeder body is where the igniter wires pass through to the burn pot.

11

Reference Materials

A. Wiring Diagram



B. Loss of Power

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 is one Harman® approved UPS option for your appliance:

Uninterruptible Power Supply 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:

- **TrippLite model INTERNET750U** is 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.**

- A Inverter/Charger 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.

For an approved Inverter/Charger refer to www.harmanstoves.com.

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

- In **“Automatic” Mode**, units equipped with automatic ignition will respond to the set point and ESP temperature and resume normal operation.
- In **“Idle” Mode**, 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.

WARNING

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

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.

C. Emergency Manual Ignition

Harman® pellet stoves and inserts should be lit using the automatic ignition system. This is the safest and most reliable way for igniting the unit. In the event the automatic igniter is not functioning, the steps below may be followed to manually light the stove or insert in the “Constant Burn” mode. Manual lighting is for emergency purposes only, and the igniter should be repaired or replaced as soon as practical.

WARNING

Only use firestarter commercially marketed for pellet stoves and inserts, including wax coated wood chips, pellet starter gel and pellet igniter blocks. Use of any other type of firestarter is prohibited.

To avoid serious injury or death read and follow manufacturer’s warning and instructions for use of firestarter. Use of firestarter is only permitted when performing a cold start.

Never attempt to manually light a stove or insert that has been operated recently and is not at room temperature. If automatic ignition was attempted, be sure to give the stove or insert at least 30 minutes or longer to cool to room temperature.

Be sure that the stove or insert is in the “Igniter - Disabled” mode of operation.

Once all the precautions have been taken, follow these steps:

1. Turn the Mode Selector to “OFF”.
2. Fill burn pot with pellets, only half way. (Do Not Over Fill).
3. Add firestarter to pellets following manufacturer’s instructions.
4. Light pellet gel with a match, and close the door, turn Mode Selector to Constant Burn. Operation will begin when the fire reaches the proper temperature.

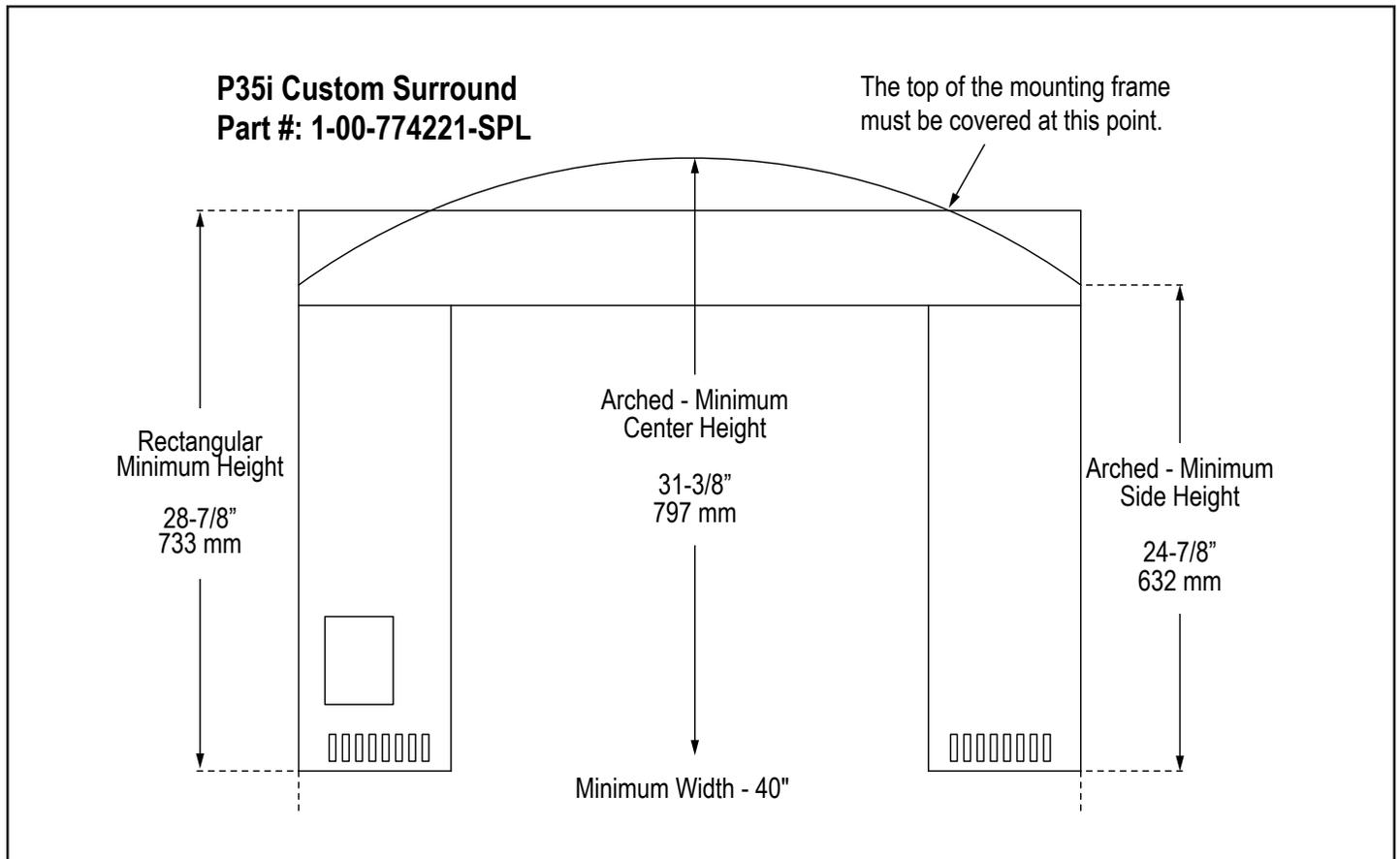
D. Troubleshooting

With proper installation, operation, and maintenance, your appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in proper diagnosis and repair. This guide is intended for qualified service technician use only.

Error Message	Possible Cause	Corrective Action
2-Blinks; Open feed control	Pressure switch, Hopper switch	Check doors / Check connections / Replace pressure switch or Hopper Switch
3-Blinks; Poor ESP Signal	Broken, Wire or connection	Check connection / Replace Probe
	Exhaust temperature has gone out of range multiple times.	Clean exhaust - possible soot or creosote accumulation near ESP.
4-Blinks; Poor room sensor signal	Broken Sensor, wire or connection	Check connections / Replace sensor
5-Blinks; Failed ignition	No fuel in hopper	Add fuel
	Door, hopper lid, or ash pan open	Close all doors and check seals
	Poor draft / weak combustion blower	Perform draft test, clean exhaust, replace blower if necessary.
	Fuel feed restriction	Check operation in "Test" mode. Clear obstruction
	Blocked airflow / Ignition failure	Open burn pot cleanout to access igniter - clean Check igniter, replace if necessary
6-Blinks; Poor combustion	No fuel in hopper	Add fuel
	Door, hopper lid, or ash pan open	Close all doors and check seals
	Poor draft / weak combustion blower	Perform draft test, clean exhaust, replace blower if necessary
	Fuel feed restriction	Check operation in "Test" mode, Clear obstruction
Symptom	Possible Cause	Corrective Action
Low volume or no fuel feed	No fuel in hopper	Add fuel
	Door, hopper lid, or ash pan open	Close all doors and check seals
	Poor draft / weak combustion blower	Perform draft test, clean exhaust, replace blower if necessary
	Fuel feed restriction	Check operation in "Test" mode, Clear obstruction
	Failed feed motor	Replace motor if necessary
No Distribution Blower	Fire isn't hot enough for blower operation	Increase temperature setting
	Disabled / Constant Burn	When operating in Disabled / Constant Burn Mod, the blower will not run below a #3 setting on the temperature dial. Increase temperature setting
	Failed motor or connection- "Test" mode	Check connections / Replace blower
Low heat output, or room temperature doesn't match thermometer or other readings	Feed Limit too low	Set Feed Limit at #4 or higher
	Room sensor location different than thermometer location	Room sensor reports the room air temperature to the control board. Move sensor location or adjust set pint accordingly.
	Excessive ash buildup on heat exchanger or in the exhaust	Clean exhaust, firebox and heat exchanger thoroughly

E. Custom Size Surround

This diagram shows the minimum dimensions of a custom fit surround panel, part number 1-00-774221-SPL. Note that arched surrounds can only be made flat. Therefore, the intake air slots, normally in the sides of the surround, are moved to the face. Rectangular surrounds can be made flat if desired, and they will also have the intake slots in the face.



F. Warranty Policy

Hearth & Home Technologies LIMITED LIFETIME WARRANTY

Hearth & Home Technologies, on behalf of its hearth brands (“HHT”), extends the following warranty for HHT gas, wood, pellet and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage for consumers begins at the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/distributor, whichever occurs earlier. However, the warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term “Limited Lifetime” in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood and pellet appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting					Components Covered
Parts	Labor	Gas	Pellet	Wood	Electric	Venting	
1 Year		X	X	X	X	X	All parts including handles, external enameled components and other material except as covered by Conditions, Exclusions, and Limitations listed
2 years			X	X			Igniters, Auger Motors, Electronic Components, and Glass
		X					Electrical components limited to modules, remotes/wall switches, valves, pilots, blowers, junction boxes, wire harnesses, transformers and lights (excluding light bulbs)
		X		X			Molded Refractory Panels, Glass Liners
3 years			X				Firepots, burnpots, mechanical feeders/auger assemblies
5 years	1 year	X					Vent Free Burners, Vent Free Logs
			X	X			Castings, Medallions and Baffles
6 years	3 years			X			Catalyst - Limitations Listed
7 years	3 years		X	X			Manifold tubes, HHT Chimney and Terminations
10 years	1 year	X					Burners, logs and refractory
Limited Lifetime	3 years	X	X	X			Firebox and heat exchanger, FlexBurn® System (engine, inner cover, access cover and fireback)
1 Year	None	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions and limitations on the next page

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- This warranty is only valid in the country in which the HHT authorized dealer or distributor that sold the appliance resides.
- Contact your installing dealer for warranty service. If the installing dealer or distributor is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.
- Limited Catalyst Warranty
 - o For wood burning products containing a catalyst, the catalyst will be warranted for a six-year period to the original purchaser at the site of original installation. The purchaser must provide the name, address, and telephone number of the location where the product is installed, proof of original purchase date, date of failure, and any relevant information regarding the failure of the catalyst.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period are not covered. These parts include: paint, wood and pellet gaskets, firebricks, grates, flame guides, batteries and the discoloration of glass.
- Expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operation instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth connections or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to the appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired, operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, deformation/warping of interior cast iron structure or components, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

