

INSTALLER: LEAVE THIS MANUAL WITH THE APPLIANCE  
CONSUMER: RETAIN THIS MANUAL FOR FUTURE REFERENCE

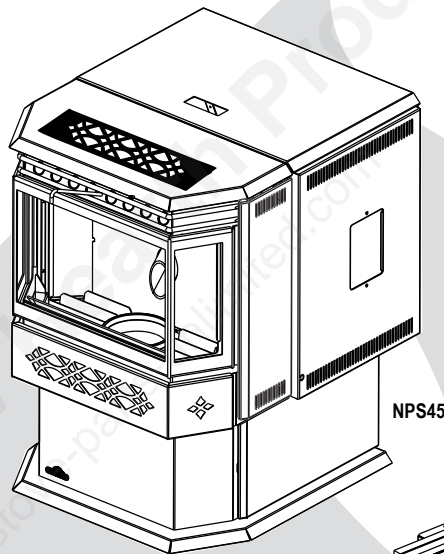


# INSTALLATION AND OPERATING INSTRUCTIONS

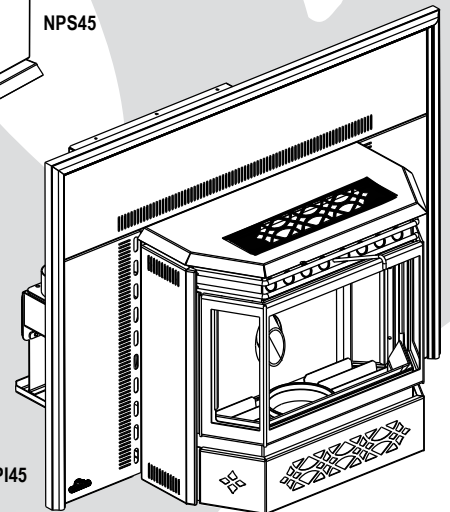
THIS HEATER HAS BEEN TESTED TO ASTM E 1509, UL 1482, ULC S627.

**NPS45**  
PELLET STOVE HEATER

**NPI45**  
PELLET INSERT HEATER



NPS45



NPI45

## SAFETY INFORMATION

### **! WARNING**

PLEASE READ ENTIRE MANUAL BEFORE YOU INSTALL OR USE THIS PELLET BURNING HEATER. If the heater is not properly installed, a house fire may result causing personal injury or loss of life.

- Contact local building or fire officials about restrictions and installation inspection requirements in your area.
- This heater is hot while in operation. Keep children, clothing and furniture away. Contact may cause skin burns.
- Do not start a fire with chemicals or fluids such as gasoline, engine oil, etc...



APPLY SERIAL NUMBER LABEL FROM CARTON



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Before installation, consult with the authority having jurisdiction (building department, fire department etc...) to determine if there is the need to obtain a permit.


**NOTE: Changes, other than editorial, are denoted by a vertical line in the margin.**

# 1.0 INTRODUCTION


## 1.1 WARNINGS & SAFETY PRECAUTIONS




Do Not operate the heater if you smell smoke coming from the heater. Turn the Pellet Feed dial to "OFF", monitor your heater, and call a trained technician



Before installing this heater, contact the local building or fire authority and follow their guidelines. Notify your insurance company of this heater as well.




Do not start a fire with chemicals or fluids such as gasoline, engine oil, etc.




The exhaust system must be completely airtight and properly installed. It is recommended that the pellet vent joints be sealed with a minimum 500°F (260°C) silicone sealant. Install according to the vent manufacturers instructions.




Do not unplug the heater if you suspect a malfunction. Turn the Pellet Feed dial to "OFF" and monitor your heater.




If this heater is not properly installed, a house fire may result.




Never try to repair or replace any part of the heater unless instructions are given in this manual. All other work should be done by a trained technician.




Your heater requires periodic maintenance and cleaning. Failure to maintain your heater may lead to smoke spillage in your home.



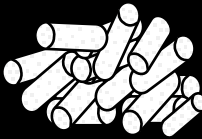
The viewing door and ashpan must be closed and latched during operation.



Allow the heater to cool before performing any maintenance or cleaning. Ashes must be disposed in a metal container with a tight lid and placed on a non-combustible surface well away from the home or structure.



Never block free airflow through the open vents of the unit. Do not operate the heater if the flame becomes dark and sooty or if the burnpot overfills with pellets. Turn the Pellet Feed dial to "OFF" and periodically inspect the heater.



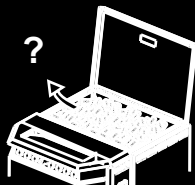
The heater is designed and approved for pelletized wood fuel only. Any other type of fuel burned in this heater will void the warranty and safety listing.



During a power outage this heater will not operate. If a power outage does occur, check the heater for smoke spillage and open a window if any smoke spills into the room.



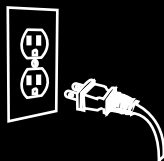
This heater must be connected to a standard 115 V., 60Hz grounded electrical outlet. Do not use an adapter plug or sever the grounding prong. Do not route the electrical cord underneath, in front of, or over the heater.



Keep foreign objects out of the hopper.



When installed in a mobile home, the heater must be bolted to the floor, have outside air, and **NOT BE INSTALLED IN THE BEDROOM** (Per H.U.D. requirements). Check with local building officials.



Disconnect the power cord before performing any maintenance.  
NOTE:  
Turning the Pellet Feed dial to "OFF" does not disconnect all power to the heater.



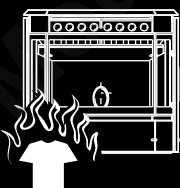
The exhaust system should be checked and cleaned once a year minimum for any build-up of soot or creosote.

Operating Manual

Do not throw this manual away. This manual has important operating and maintenance instructions that you will need at a later time. Always follow the instructions in this manual.



This heater can become very hot, you **MUST** wear heat resistant gloves when cleaning or handling this heater.



Combustible materials such as firewood, wet clothing, etc. placed too close can catch fire. Objects placed in front of the heater must be kept a minimum of 48" from the front face of the heater.

## **WARNING**



**HOT GLASS WILL CAUSE BURNS.  
DO NOT TOUCH GLASS UNTIL COOLED.  
NEVER ALLOW CHILDREN TO TOUCH GLASS.**



At no point should you use firewood or firelogs in this heater. The use of which could cause a house fire.

## 1.2 WARRANTY

NAPOLEON® Pellet Heaters are manufactured under the strict Standard of the World Recognized ISO 9001 : 2000 Quality Assurance Certificate.

NAPOLEON® products are designed with superior components and materials, assembled by trained craftsmen who take great pride in their work. The complete heater is thoroughly inspected by a qualified technician before packaging to ensure that you, the customer, receives the quality product that you expect from NAPOLEON®.

### NAPOLEON® PELLET HEATERS PRESIDENT'S LIFETIME LIMITED WARRANTY

The following materials and workmanship in your new NAPOLEON® Pellet Heater are warranted against defects for as long as you own the heater. This covers: the pellet hopper, outer shell, ceramic glass (thermal breakage only) and ash drawer.

The combustion chamber and heat exchanger are warranted against defects for a period of five years. All other wearable parts and electrical components such as blowers, thermal switches and burn pot are covered and NAPOLEON® will provide replacement parts free of charge during the first year of the limited warranty.

Labour related to warranty repair is covered free of charge during the first year. Repair work, however, requires the prior approval of an authorized company official. Labour costs to the account of NAPOLEON® are based on a predetermined rate schedule and any repair work must be done through an authorized NAPOLEON® dealer.

### CONDITIONS AND LIMITATIONS

NAPOLEON® warrants its products against manufacturing defects to the original purchaser only. Registering your warranty is not necessary. Simply provide your proof of purchase along with the model and serial number to make a warranty claim. Provided that the purchase was made through an authorized NAPOLEON® dealer your heater is subject to the following conditions and limitations:

This factory warranty is non-transferable and may not be extended whatsoever by any of our representatives.

The Pellet Heater must be installed by an authorized service technician or contractor. Installation must be done in accordance with the installation instructions included with the product and all local and national building and fire codes.

This limited warranty does not cover damages caused by misuse, lack of maintenance, accident, alterations, abuse or neglect.

Operating heater on high for extended periods of time, is neglect. Parts installed from other manufacturers will nullify this warranty.

This limited warranty further does not cover any scratches, dents, corrosion or discoloring caused by excessive heat, abrasive and chemical cleaners nor chipping on porcelain enamel parts, nor any venting components used in the installation of the heater.

In the first year only, this warranty extends to the repair or replacement of warranted parts which are defective in material or workmanship provided that the product has been operated in accordance with the operation instructions and under normal conditions.

After the first year, with respect to the President's Limited Lifetime Warranty, NAPOLEON® may, at its discretion, fully discharge all obligations with respect to this warranty by refunding to the original warranted purchaser the wholesale price of any warranted but defective parts).

After the first year, NAPOLEON® will not be responsible for installation, labour or any other costs or expenses related to the reinstallation of a warranted part, and such expenses are not covered by this warranty.

Notwithstanding any provisions contained in the President's Limited Lifetime Warranty, napoleon's responsibility under this warranty is defined as above and it shall not in any event extend to any incidental, consequential or indirect damages.

This warranty defines the obligations and liability of NAPOLEON® with respect to the NAPOLEON® pellet heater and any other warranties expressed or implied with respect to this product, its components or accessories are excluded.

NAPOLEON® neither assumes, nor authorizes any third party to assume, on its behalf, any other liabilities with respect to the sale of this product. NAPOLEON® will not be responsible for: over-firing, downdrafts, spillage caused by environmental conditions such as rooftops, buildings, nearby trees, hills, mountains, inadequate vents or ventilation, excessive venting configurations, insufficient makeup air, or negative air pressures which may or may not be caused by mechanical systems such as exhaust blowers, furnaces, clothes dryers, etc.

Any damages to heater, combustion chamber, heat exchanger, brass trim or other component due to water, weather damage, long periods of dampness, condensation, damaging chemicals or cleaners will not be the responsibility of NAPOLEON®.

Regular cleaning of the fine ash generated during the operation of this heater is a necessary part of maintaining your pellet heater.

Failure of any components, which is attributed to poor maintenance, is not warrantable and will not be covered by this policy.

NAPOLEON® reserves the right to have its representative inspect any product or part thereof prior to honouring any warranty claim.

All specifications and designs are subject to change without prior notice due to on-going product improvements. NAPOLEON® is a registered trademark of wolf steel ltd. Patents U.S. 5.303.693.801 - can. 2.073.411, 2.082.915. © wolf steel ltd.

### 1.3 DIMENSIONS

#### 1.3.1 NPS45

FIGURE 1.3.1a

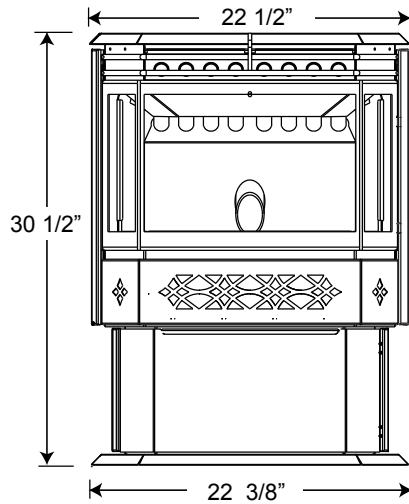
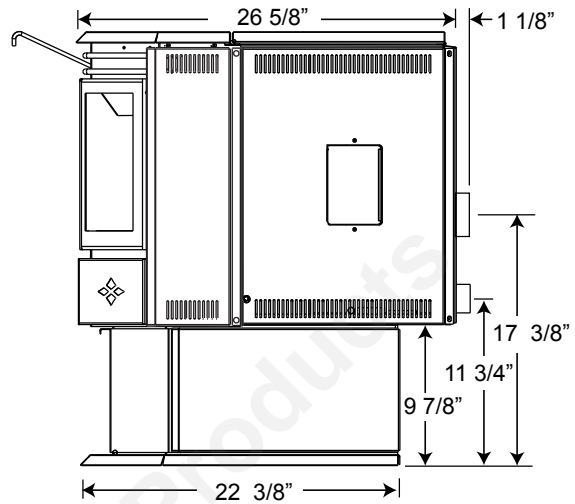


FIGURE 1.3.1b



#### 1.3.2 NPI45 COMPLETE WITH NI800 FLASHING

FIGURE 1.3.2a

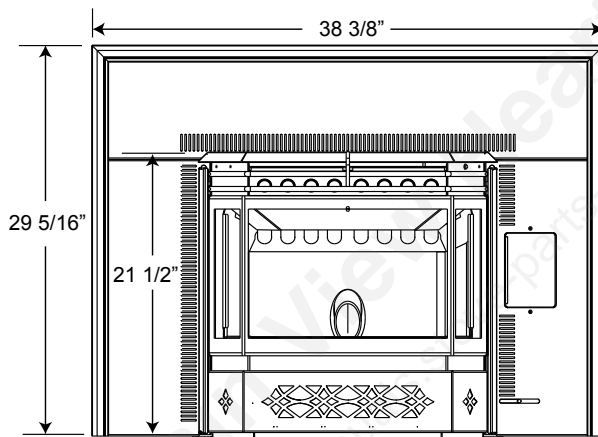


FIGURE 1.3.2b

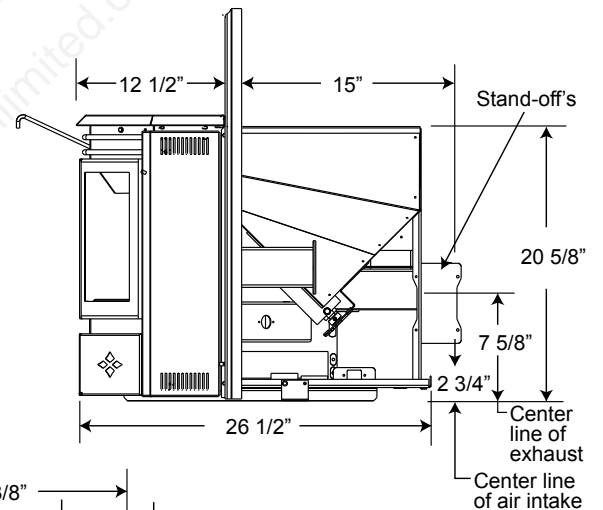
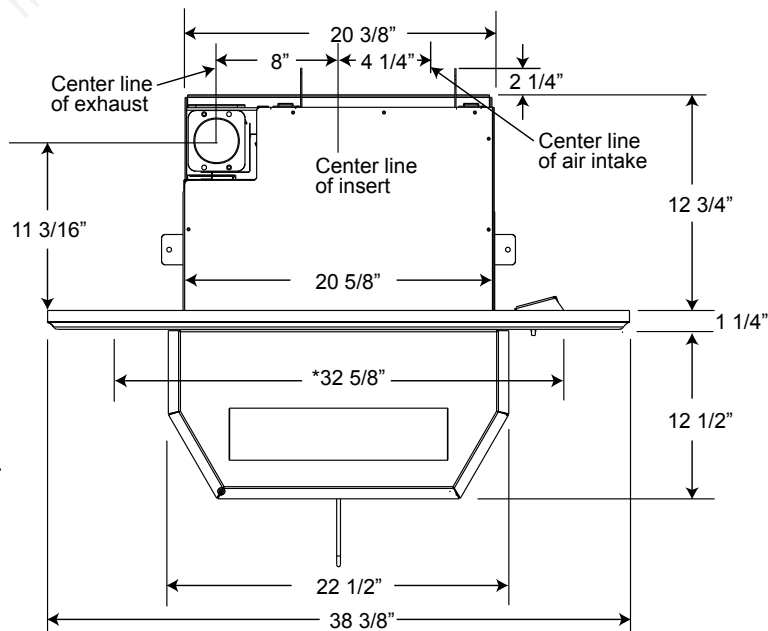


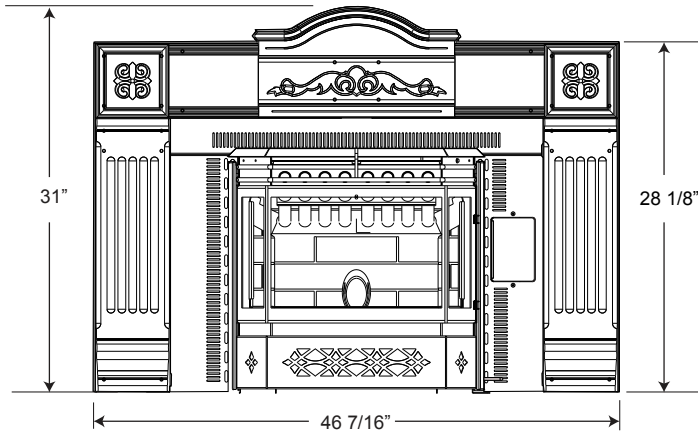
FIGURE 1.3.2c



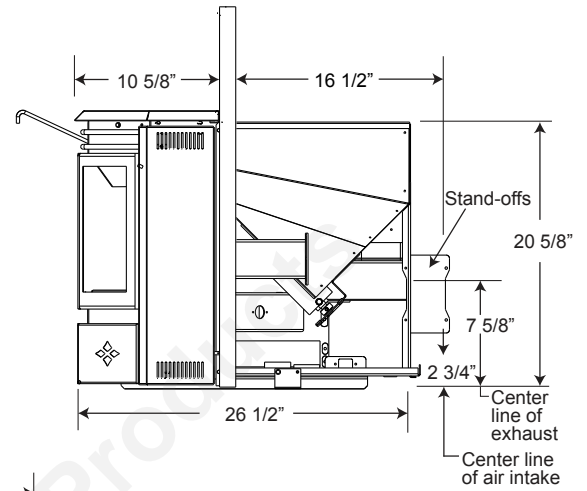
\*In order to install flashing flush to a finished wall and centered within the opening the front opening of the fireplace or enclosure must be this wide.

**1.3.3 NPI45 COMPLETE WITH AK9 ADAPTER AND CISK FLASHING**

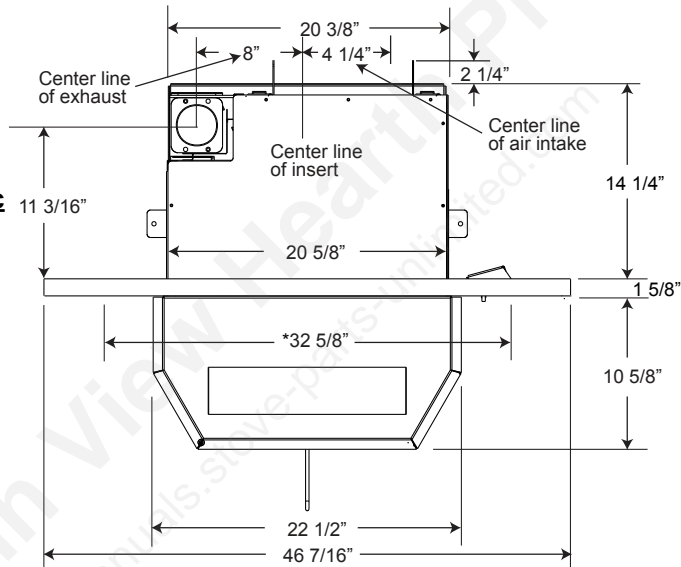
**FIGURE 1.3.3a**



**FIGURE 1.3.3b**



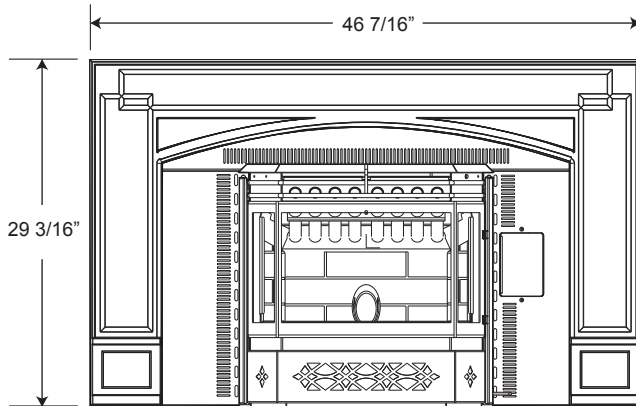
**FIGURE 1.3.3c**



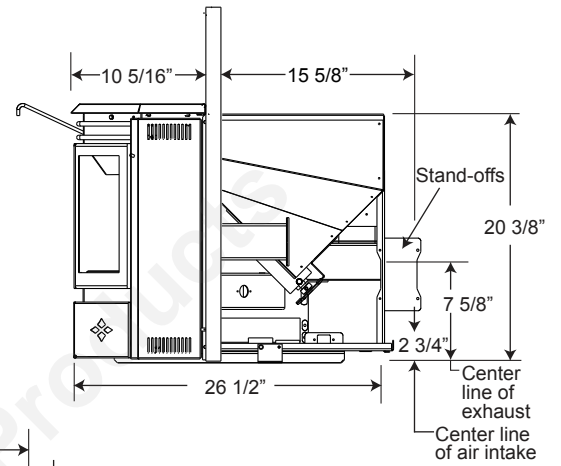
\*In order to install flashing flush to a finished wall and centered within the opening the front opening of the fireplace or enclosure must be this wide.

### 1.3.4 NPI45 COMPLETE WITH AK8 ADAPTER AND GICSK FLASHING

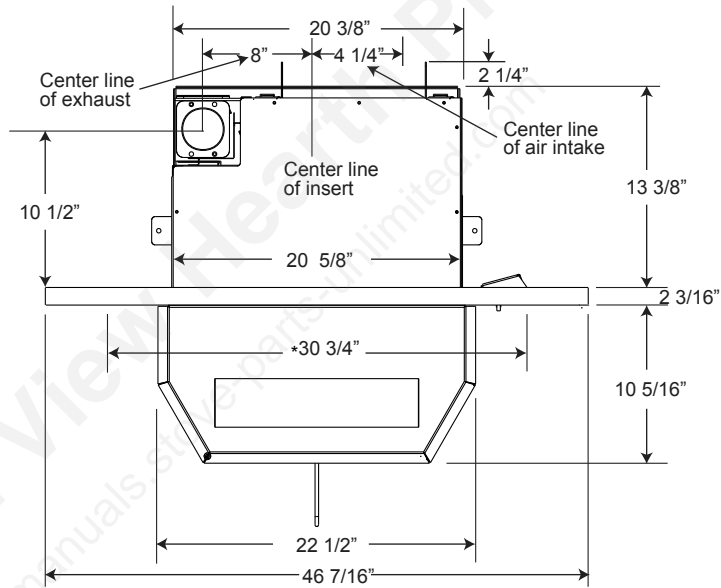
**FIGURE 1.3.4a**



**FIGURE 1.3.4b**

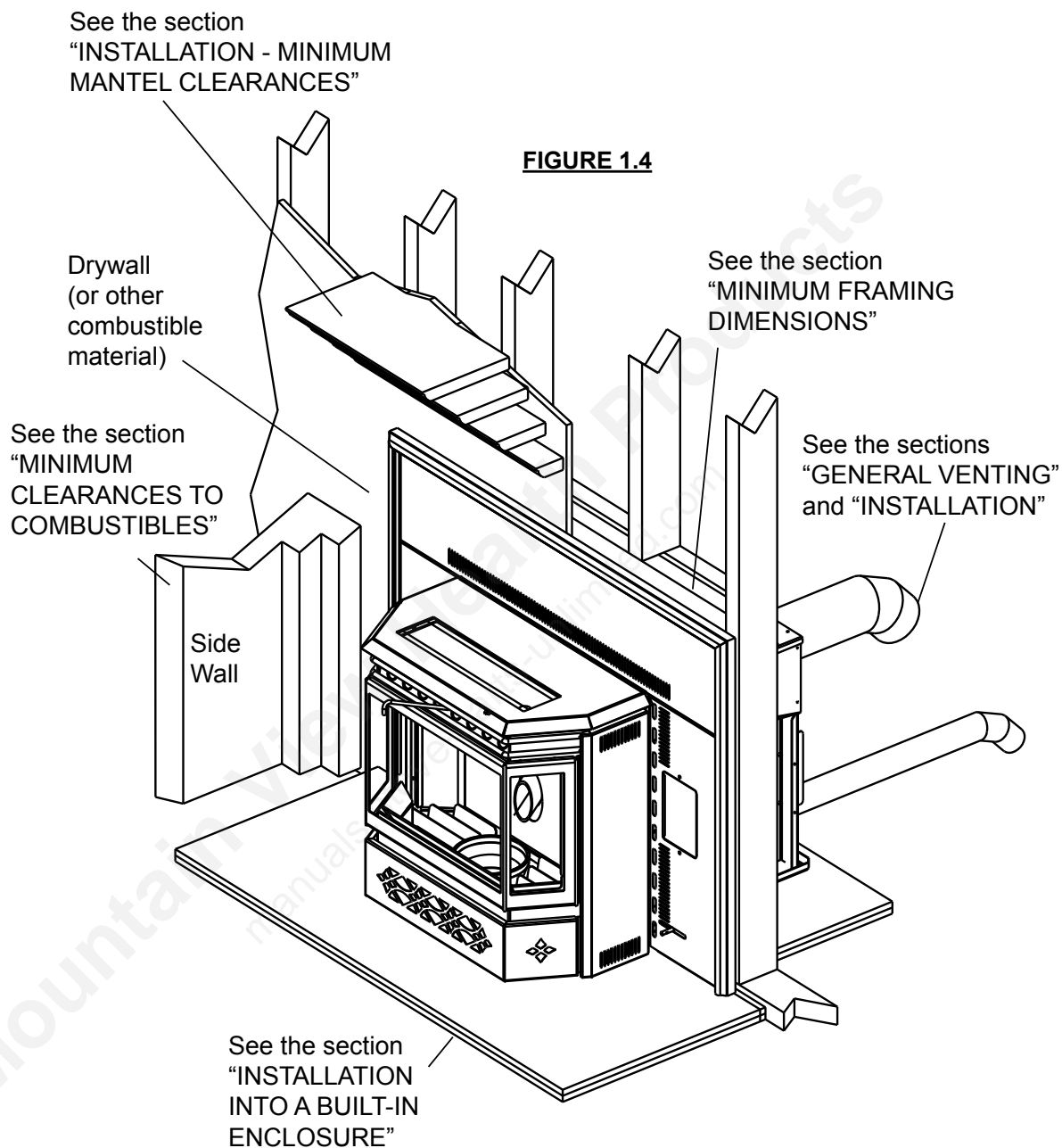


**FIGURE 1.3.4c**



\*In order to install flashing flush to a finished wall and centered within the opening the front opening of the fireplace or enclosure must be this wide.

## 1.4 INSTALLATION OVERVIEW



## 2.0 GENERAL INFORMATION

Thank you for purchasing the Wolf Steel Ltd. Pellet Heater. This heater is designed for use with Pelletized Wood Only.

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.

Keep this manual handy for future reference.

This Pellet Heater, when installed, must be electrically grounded in accordance with the local codes, or in the absence of local codes, use the current CSA C22.1 Canadian Electrical Code in Canada or the ANSI/NFPA 70 National Electrical Code in the United States.

This heater will not operate using natural draft or without a power source for the blower systems and fuel feed system.

The protective wrap on plated parts is best removed when the assembly is at room temperature but this can be improved if the assembly is warmed, using a hair dryer or similar heat source.

### 2.1 PELLET QUALITY

Pellet quality is important, please read the following:

Your Wolf Steel Ltd. Pellet Heater has been designed to burn premium hard or soft wood pellets only. Do not use any other type of fuel such as fire logs or fire starting pellets, as this will void the warranties stated in this manual.

The performance and heat output of the pellet heater is directly related to the quality and moisture of the pellets. Store pellets in a cool dry area to prevent moisture absorption.

#### WARNING

**It is important to select and use only pellets that are dry and free of dirt or any impurities such as high salt content. Dirty fuel will adversely affect the operation and performance of the unit and will void the warranty. The Pellet Fuel Institute (P.F.I.) has established standards for wood pellet manufacturers. We recommend the use of pellets that meet or exceed these standards. Ask your dealer for a recommended pellet type.**

#### P.F.I. PELLET STANDARDS:

Fines (fine particles)	1% maximum through a 1/8" screen
Bulk Density	40 pound per cubic foot minimum
Size	1/4" to 5/16" diameter, 1/2" - 1 1/2" long maximum
Ash Content	1% maximum (Premium grade)
	3% maximum (Standard grade)
Moisture Content	8% maximum
Heat Content	Approximately 8200 BTU per pound minimum

If the fuel does not comply to this standard the heater may not operate as designed. We recommend the use of premium grade (1% ash content) for longer heater life and less frequent cleaning.

## 2.2 HEATING SPECIFICATIONS

Approximate Maximum Heating Capacity (in square feet)*	800 to 2000 Sq. Feet
Burn Rate (Pounds per Hour)**	1.0 to 5.0
Maximum Burn Time on Low Burn**	55 Hours (NPS45), 45 Hours (NPI45)
Hopper Capacity	55 Pounds (NPS45), 45 Pounds (NPI45)
* Heating capacity will vary depending on the home's floor plan, degree of insulation, and the outside temperature. It is also affected by the fuel size, quality, and moisture level.	
** Small pellets will increase or decrease the stated burn rates and burn times. Differences of plus or minus 20% depending on fuel quality may occur.	

## 2.3 SPECIFICATIONS

Electrical Rating	115 Volts, 3.6 Amps, 60Hz	
Watts During Start-Up Sequence	400 (approximately)	
Watts During Operation	180 (approximately)	
NPS45 Width	22 3/8"	
NPS45 Height	30 1/2"	
NPS45 Depth	26 5/8"	
Weight	210 Pounds	
Exhaust Collar	3"	
Intake Collar	2"	
NPS45 Hopper Capacity	55 Pounds	
NPI45 Hopper Capacity	45 Pounds	
EPA	Exempt	
Burn Rate**	1.0 to 5.0 (Pounds Per Hour)	
BTU/h**	8500 to 42500	
Minimum Heater Opening Size	Front: 22 1/2* W x 20 5/8 H x 14 1/4 D	Back: 20 3/8 W

\* In order to install flashing flush to finished wall and centered within the opening the front opening of the heater or enclosure must be 32 5/8" wide.

## 2.4 SAFETY FEATURES

**HIGH LIMIT SWITCH:** Your heater is equipped with a high limit switch. In the event that the temperature of the heater approaches an unsafe operating temperature, this switch will shut down the pellet feed, which will eventually shut down the unit. If this happens, it is important to find out why the unit overheated. Contact your local dealer.

**LOW LIMIT SWITCH:** This switch will automatically shut down the heater if the fire goes out or fails to light within 15 minutes.

**HOPPER DOOR INTERLOCK:** Your heater is equipped with a micro switch in the hopper assembly that will disable the auger when the hopper door is opened. Closing the door enables the auger, allowing pellets to feed again.

**VACUUM SWITCH:** This switch will sense lack of air flow through the heater and shut down the pellet feed. This lack of flow could be caused by a blocked vent.

**POWER FAILURE:** In the event of a power failure, the heater will shut down. Once power is restored, the heater will re-start, unless the convection air temperature has gone above the high limit switch setting. If this happens, contact your local dealer.

## 2.5 EPA COMPLIANCE

This heater is EPA exempt from Phase II requirements, but has been tested for emissions using EPA test methods by Warnock Hersey.



We recommend that our pellet hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Pellet Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).



## 3.0 INSTALLATION PLANNING

### ! WARNING

Read entire manual before you install or use this heater. Failure to follow the instructions may result in property damage, bodily injury or even death.

Check with local building officials for any permits required for installation of this pellet heater and notify your insurance company before proceeding with installation.

Before installing we recommend placing the heater outside and load 5 pounds of pellets inside the hopper. Plug the heater in and let it run on HIGH until the pellets run out. This will cure the paint and burn off most of the oils on the steel, thereby minimizing any smell inside the home.

### 3.1 HEATER PLACEMENT

Have an authorized dealer install the heater. If you install the heater yourself, have your dealer review your installation plans and/or installation.

Draw out a detailed plan of the installation including dimensions and verify the dimensions with the requirements listed in this manual.

For built-in enclosures, when determining the location of the heater, locate the wall studs (for horizontal penetrations). You may wish to adjust the heater position slightly to ensure the vent does not intersect with a framing member. Heater must be positioned so that no combustibles are within, or can swing within (e.g. drapes, doors), 48" of the front of the heater.

If the heater is placed in a location where the ceiling height is less than 7' above the base of the heater, the installation must follow the requirements in the section "Alcove Installations Requirements".

### 3.2 INSTALLATION OPTIONS

#### NPS45:

To install in a Residential or Mobile Home see the section "*Mobile Home Requirements*".

For alcove installations see the section "*Alcove Installation Requirements*".

For horizontal vent or vertical vent see the section "*General Venting*".

See the section "*Outside Air*" for this option.

#### NPI45:

The insert can be adapted to vent out the rear or vertically.

To install as an insert into an existing masonry heater factory built heater or a built in combustible enclosure see Insert Installation.

### 3.3 FLOOR PROTECTION REQUIREMENTS

#### NPS45:

The heater must be installed on a non-combustible floor protector extending the full depth of the heater and extending a minimum 6" in front and on either side (minimum .018" thick - 26 gauge).

The floor protector must extend under and 2" beyond each side and rear of a "Tee" (if used).

#### NPI45:

In the case of the NPI45, the floor protector must have a R-value of  $0.4 \frac{\text{hr ft}^2\text{°F}}{\text{BTU}}$

### 3.4 OUTSIDE AIR

Available from your Authorized Dealer (114KT)

Outside air must not be drawn from an enclosed space (garage, unventilated crawl space).

**NOTE: Wolf Steel Ltd. strongly suggests using outside air for all residential installations, especially for those that are energy efficient, air-tight homes.**

Outside air supply must not be over 15' long.

Outside air vents must be made with 1 3/4" diameter or larger metal or aluminum duct with a metal screen attached to the end to keep out rodents (P.V.C. or other materials may not be used).

The outside air inlet must not be above or within 12" of the chimney termination, must have a rain cap or down-turned elbow to prevent the water from entering and be located so that it will not become plugged by snow or other material.

Outside air is required for all combustible built-in enclosure installations.

### 3.5 MOBILE HOME

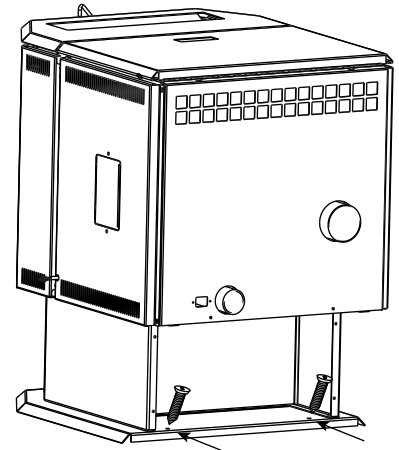
#### **! WARNING**

**Do not install in a sleeping room.**

**The structural integrity of the manufactured home floor, wall, and ceiling roof must be maintained.**

Installation into a manufactured home or mobile home should be installed in accordance with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, in the United States or the Mobile Home Standard, CAN/CSA Z240 MH Series, in Canada.

The heater must be grounded to the steel chassis of the mobile home (Some states do not require this; check with your local building department).



**FIGURE 3.6**

## 4.0 GENERAL VENTING

### ! WARNING

Pellet vent must maintain a minimum 3" clearance to any combustible (install vent at clearances specified by the vent manufacturer).

Do not connect the pellet vent to a vent or chimney serving any other appliance or heater.

Do not install a flue damper in the exhaust venting system of this unit.

### 4.1 TYPE OF VENT

Must be an approved 3" or 4" diameter Type "L" or "PL" vent, vented to the outside or connect the vent to a factory built type "A" chimney using an adaptor; and/or stainless steel chimney liner for masonry fireplace installations. Use 4" diameter vent if vent or liner height is over 15' or if installation is over 4,000' above sea level.

### 4.2 INSTALLING THE PELLETT VENT

The vent must have a support bracket every 5' when on the exterior wall. To achieve optimum performance, keep vent runs as short as possible, especially on horizontal installations.

**MAXIMUM VENTING:** Maximum venting height is 33'. Maximum horizontal vent run is 10'. Use no more than 180° of elbows (two 90° elbows, or two 45° elbows and one 90° elbow, etc), excluding the tee and the termination.

**VENT INSTALLATION:** Termination must exhaust above the air inlet elevation, and parallel or above the exhaust output of the pellet appliance. It is recommended that at least 3' of vertical pipe be installed to create some natural draft. This is to help prevent the possibility of smoke or odour entering the home during the appliance shut down or in the event of a power outage. Horizontal sections must have a 1/4" rise every 12" of travel if longer than 3'.

The pellet vent connections must be sealed with HI-Temp RTV Silicone and screwed together with at least 3-3/8" long stainless steel screws. Seal each vent section by injecting a liberal amount of 500°F (260°C) RTV silicone sealant into the gap. We recommend sealing the outside of the vent connections to permit easier access when servicing.

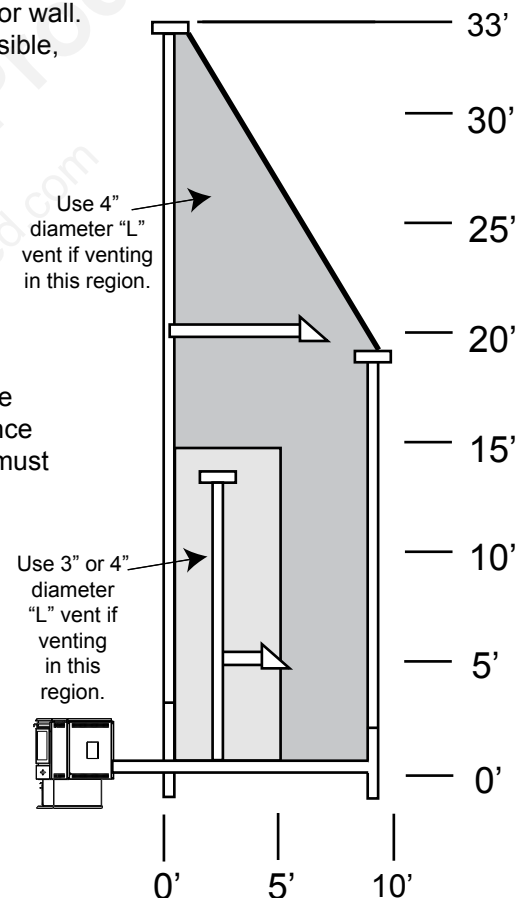


FIGURE 4.2

### 4.3 VENTING THE PELLETT HEATER

Use an approved wall thimble when passing the vent through walls and a ceiling support / firestop spacer when passing the vent through ceilings (maintain a 3" clearance to any combustibles).

### 4.4 PELLETT VENT TERMINATION

The vent termination must have an approved cap (to prevent water from entering) or a 45° downturn.

If the termination is located on a windy side of the house, a shield is recommended to prevent soot from building up on the side of the house.

Horizontal terminations must protrude 12" from the wall, vertical terminations require a minimum 24" above the highest point that it penetrates through the roof.

Depending on pellet quality, vent configuration and air settings, black soot may occur on the terminal wall.

TP - GENERAL VENTING\_PELLETT  
 TP - TYPE OF VENT\_PELLETT  
 TP - INSTALLING\_PELLETT VENT  
 TP - VENTING PELLETT HEATER  
 TP - PELLETT VENT TERMINATION

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### 4.5 MINIMUM AIR TERMINAL LOCATION CLEARANCES

FIGURE 4.7

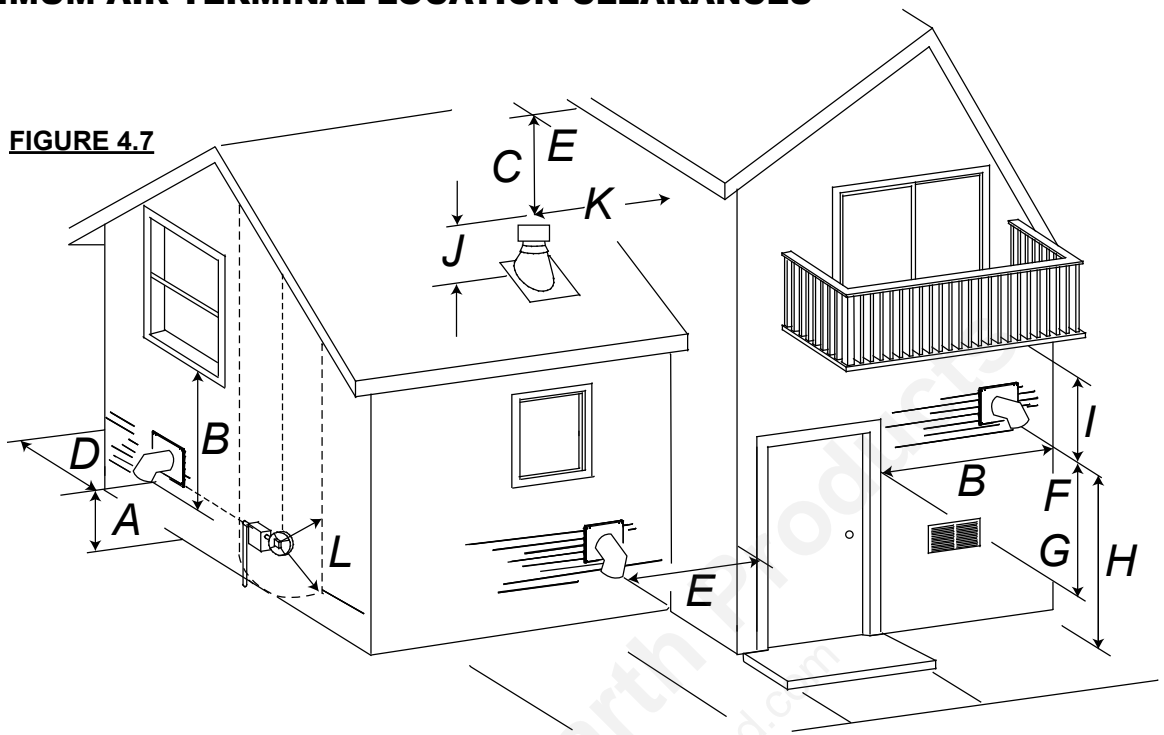


Illustration dimensions are to the center and the exhaust exit point of the vent.

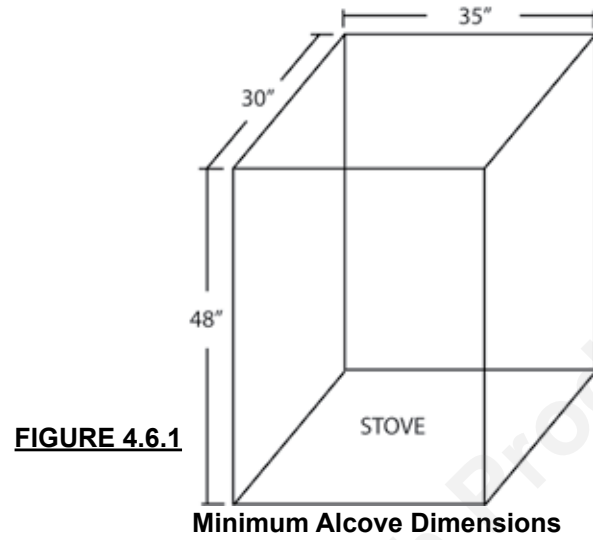
CLEARANCE		
A	24 INCHES	Clearance above grade, veranda porch, deck or balcony. (Including Vegetation and Mulch)
B	48 INCHES	Clearance beside or below any windows or doors that open.
	12 INCHES*	Clearance above any window or door that opens.
C	18 INCHES	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet from the centerline of the terminal.
D	0 INCHES	Clearance to an outside corner wall.
E	3 INCHES	Clearance to an inside combustible corner wall or protruding combustible obstructions ( vent chase, etc.).
F	48 INCHES	Clearance to a non-mechanical air supply inlet to the building or a combustion air inlet to any other appliance.
G	48 INCHES	Clearance to a mechanical air supply inlet.
H	7 FEET**	Clearance above a paved sidewalk or paved driveway located on public property.
I	12 INCHES**	Clearance under a veranda, porch, deck or balcony.
J	24 INCHES	Clearance above the roof.
K	2 FEET	Clearance from an adjacent wall including neighbouring buildings.
L	3 FEET within a height of 15 FEET above the meter/regulator assembly	Clearance to each side of center line extended above natural gas or propane meter/regulator assembly or mechanical vent.

\* Recommended to prevent condensation on windows and thermal breakage

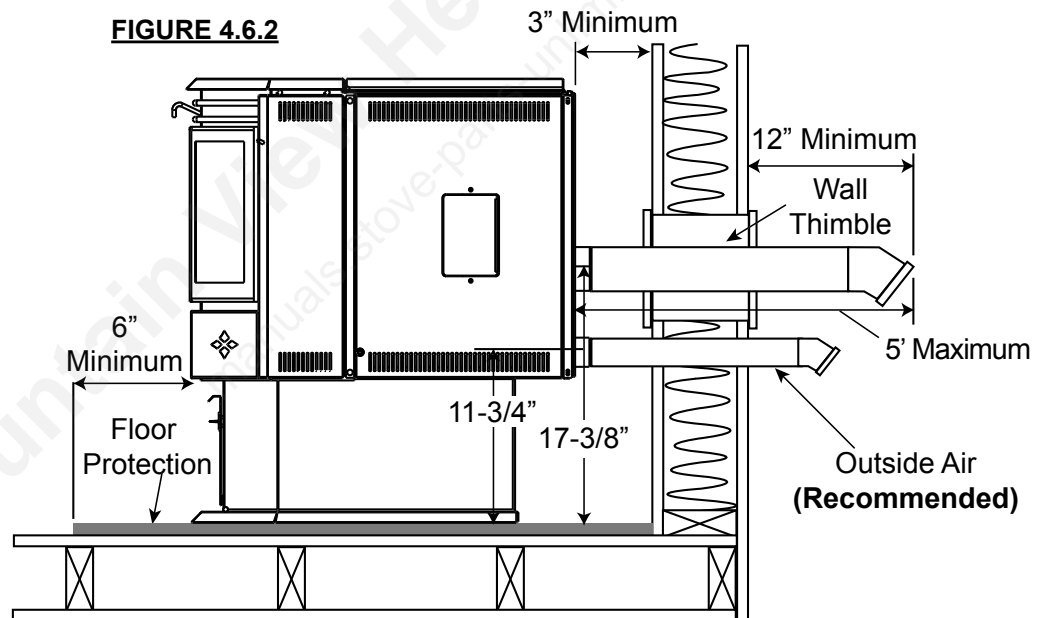
\*\* This is a recommended distance. For additional requirements check local codes.

## 4.6 STOVE VENTING INSTALLATION EXAMPLES

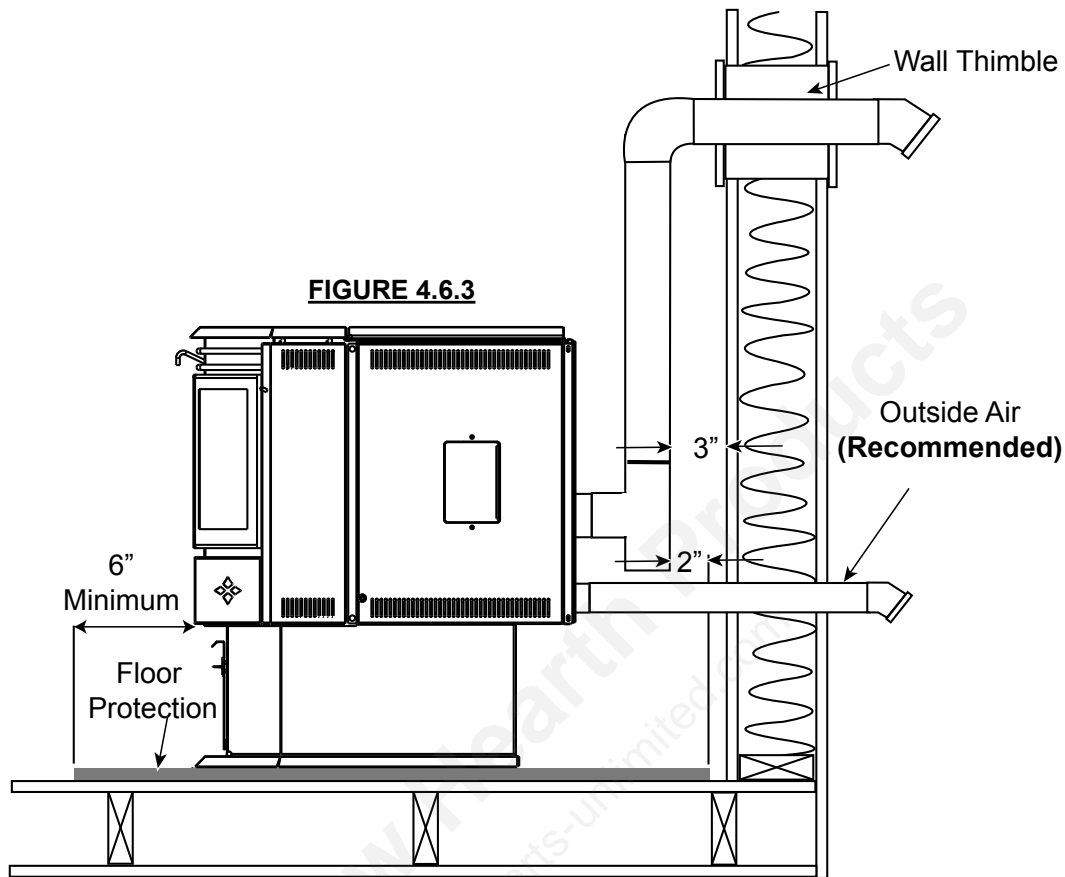
### 4.6.1 ALCOVE INSTALLATION



### 4.6.2 HORIZONTAL EXHAUST THROUGH WALL INSTALLATION

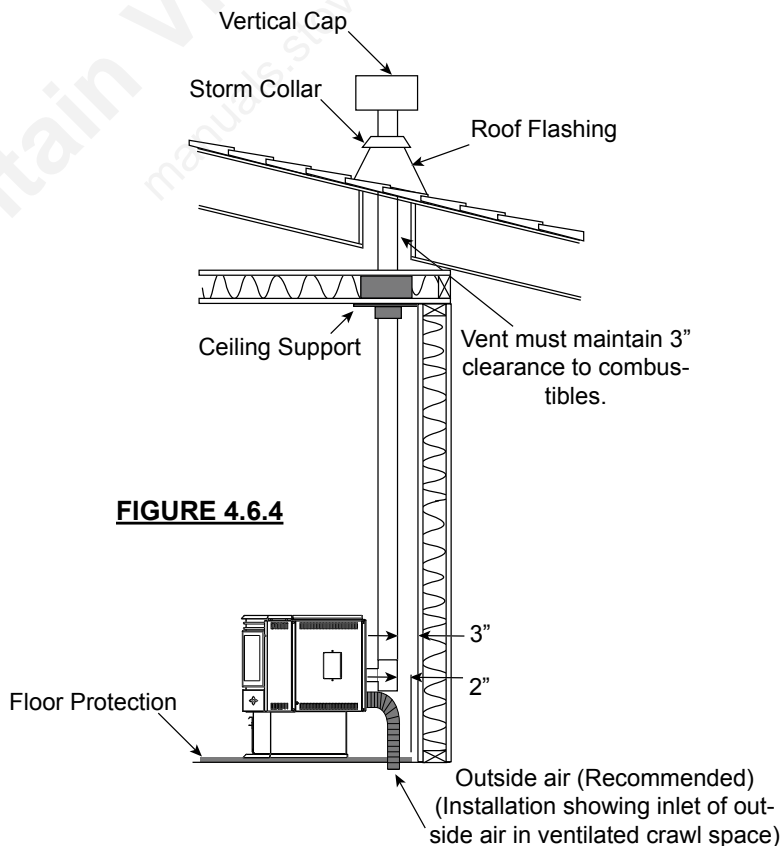


**4.6.3 THROUGH WALL WITH VERTICAL RISE AND HORIZONTAL TERMINATION**



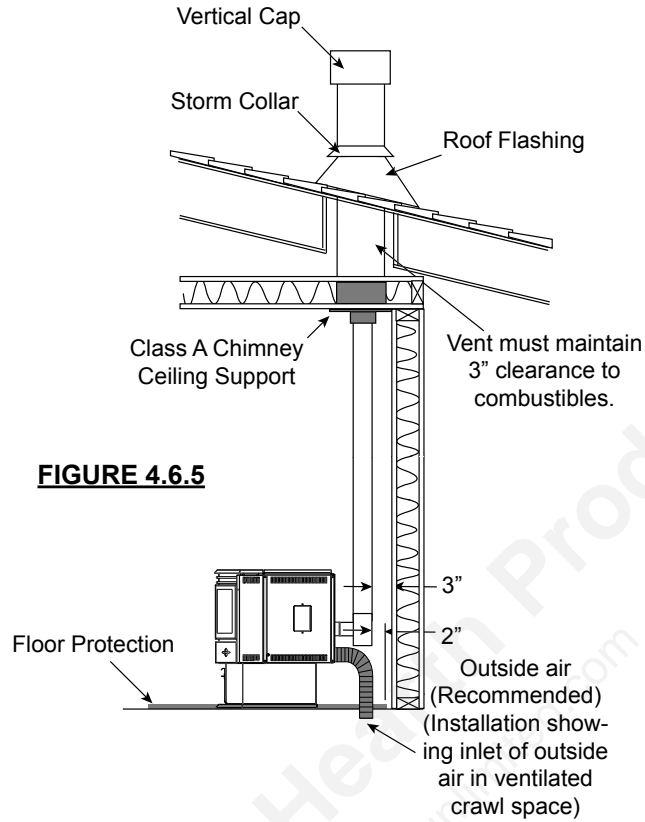
**FIGURE 4.6.3**

**4.6.4 MINIMUM INSIDE VERTICAL CLEARANCES**



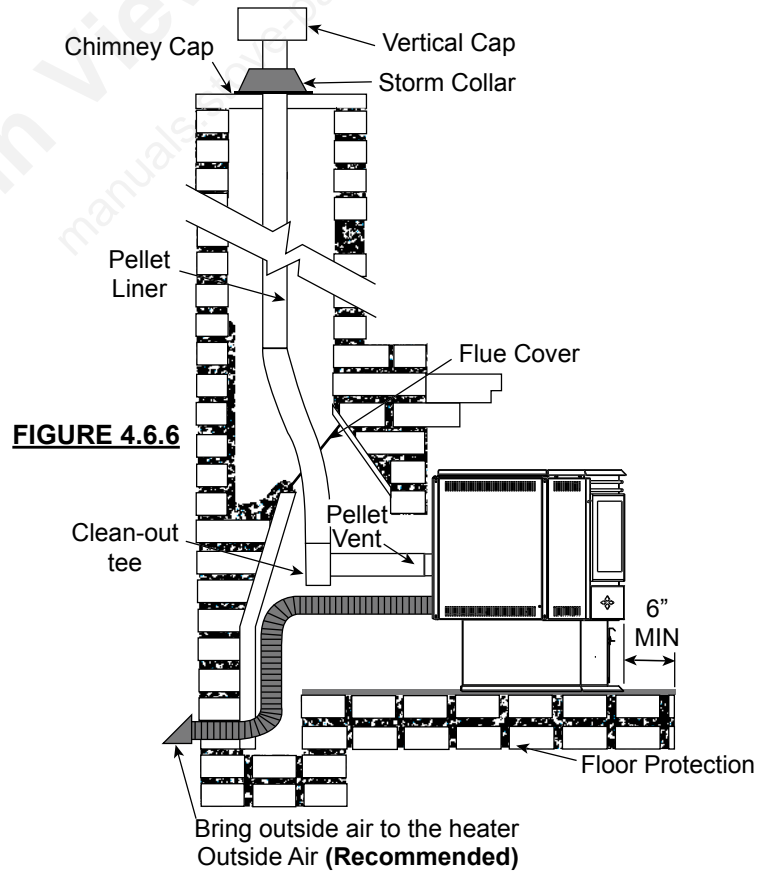
**FIGURE 4.6.4**

### 4.6.5 CLASS A CHIMNEY RETROFIT



**FIGURE 4.6.5**

### 4.6.6 HEARTH MOUNT INSTALLATION



**FIGURE 4.6.6**

#### 4.6.7 INSTALLATION INTO A MASONRY HEATER

### WARNING

**Do not remove bricks or mortar from the fireplace.**

#### **Prior to installation:**

When installing into a masonry fireplace, do not remove any bricks or masonry. Do not weaken the structure, or reduce the protection for combustible materials to less than that required by the National Building Code.

Bolted or screwed together pieces (smoke shelf / deflectors) may be removed, but must be able to be re-installed if the heater was removed.

External trim pieces, which do not affect the operation of the fireplace, may be removed provided they are available to be re-installed in event the heater is removed.

A warning label must be attached to the back wall of the fireplace stating that "This fireplace has been altered to accommodate a fireplace insert and must be re-inspected by a qualified person prior to re-use as a factory built fireplace".

A non-combustible hearth must cover the flooring underneath, as well as extend a minimum of six inches in front and to both sides of the heater.

Clean all ashes out of the inside of the fireplace. Make sure that the chimney and fireplace are free of cracks, loose mortar, creosote deposits, blockage or other signs of deterioration. If necessary, have any repair work done by a qualified professional before installing the heater.

- A. Remove the fireplace damper or fasten it permanently open.
- B. Measure the throat of the fireplace and mark this shape on a piece of 24 gauge sheet metal (flue cover). Cut a hole sized for the pellet liner to lie directly below the fireplace flue opening. Allow two inches of material for a flange on all sides and cut to these measurements. Bend down the flanges. If you have never done this before, it might be a good idea to make a cardboard pattern and test it first. Fasten this flue cover in position as high as possible with two masonry screws per side through the flanges into the fireplace.
- C. If you plan on connecting outside air it is recommended to do so at this time.
- D. Install floor protection if necessary.
- E. Connect the pellet vent with a clean out tee to the back of the stove. Refer to manufacturer's installation instructions and see the "GENERAL VENTING" section.
- F. Run a liner down the chimney and connect to tee.
- G. Position the heater in it's final location.
- H. Pull the excess length of liner out through the top of the chimney. Trim the excess liner, install the cap and cap the chimney.

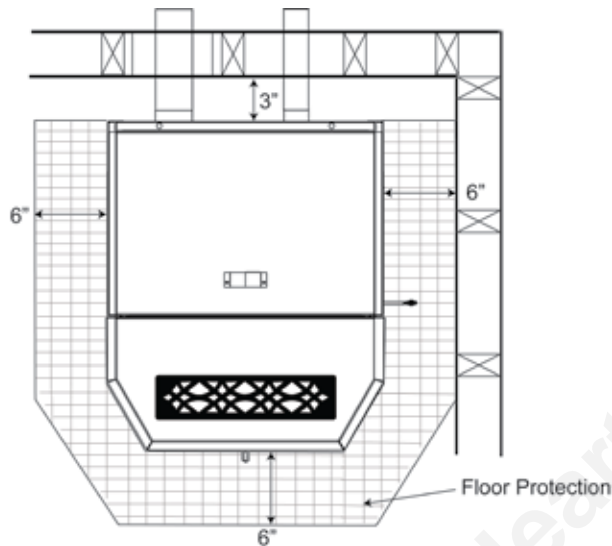
## 5.0 STOVE INSTALLATION

### 5.1 MINIMUM CLEARANCE TO COMBUSTIBLES

#### 5.1.1 STRAIGHT INSTALLATION

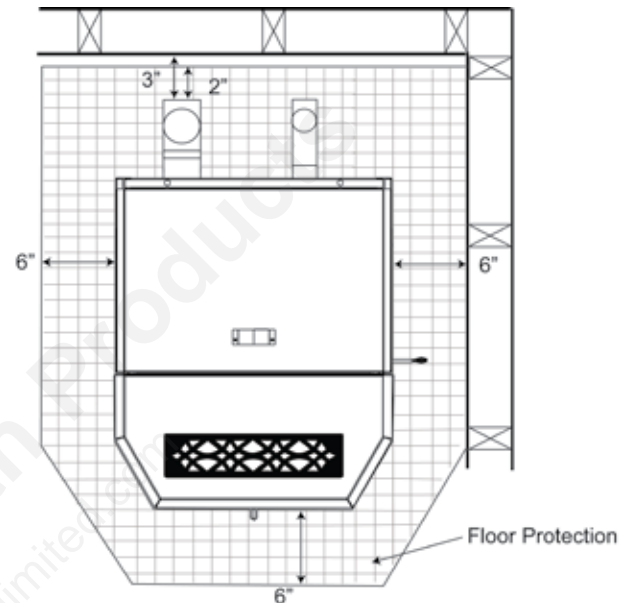
Through the Wall Installations

**FIGURE 5.1.1a**



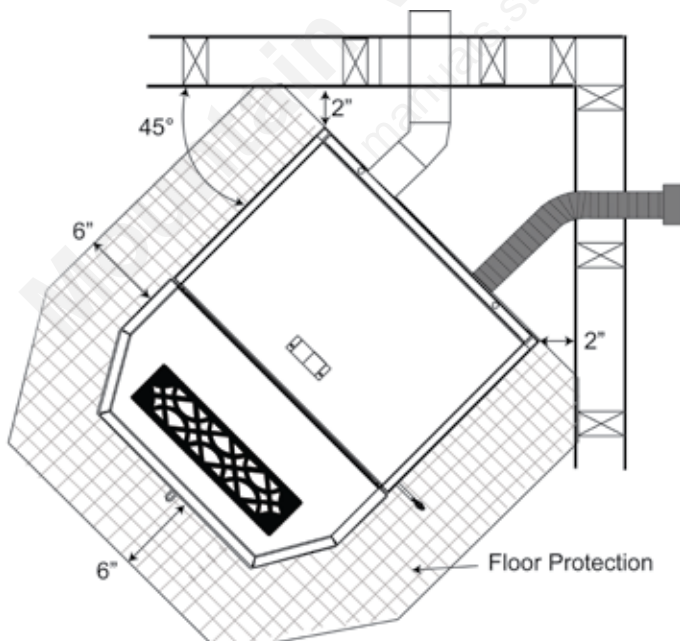
Interior Vertical Vents

**FIGURE 5.1.1b**



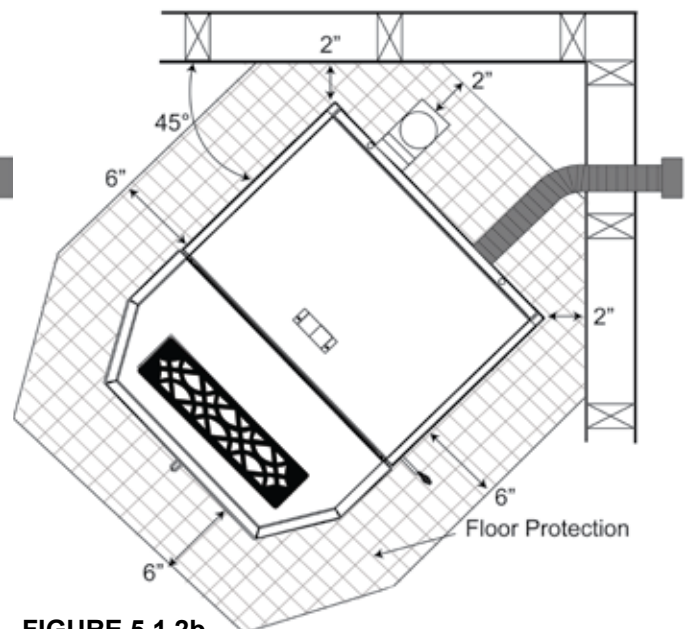
#### 5.1.2 CORNER INSTALLATION

Through the Wall Vents



**FIGURE 5.1.2a**

Interior Vertical Vents



**FIGURE 5.1.2b**

**NOTE:** If interior vertical pellet vent is used, the clearance to the back wall is determined by the upward-turning elbow or "Tee". It will vary in depth depending on the brand of pellet vent used (it is approximately 5"). Before placing the heater, connect the elbow or "Tee" and allow for the minimum 3" clearance to the combustible wall.

## 6.0 INSERT INSTALLATION

### 6.1 MASONRY HEATER INSTALLATION

#### ⚠ WARNING

Do not remove bricks or mortar from the fireplace.

#### **Prior to installation:**

Stand-offs may be removed to fit the insert into the fireplace.

When installing the insert into a masonry fireplace, do not remove any bricks or masonry. Do not weaken the structure, or reduce the protection for combustible materials to less than that required by the National Building Code. Bolted or screwed together pieces (smoke shelf / deflectors) may be removed, but must be able to be re-installed if the heater was removed.

External trim pieces, which do not affect the operation of the fireplace, may be removed provided they are available to be re-installed in event the heater is removed.

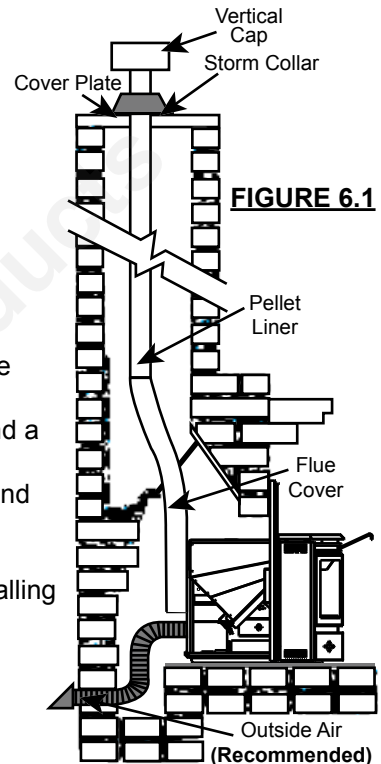
A warning label must be attached to the back wall of the fireplace stating that "This fireplace has been altered to accommodate a fireplace insert and must be re-inspected by a qualified person prior to re-use as a factory built fireplace".

A non-combustible hearth must cover the flooring underneath, as well as extend a minimum of six inches in front and to both sides of the heater.

Clean all ashes out of the inside of the fireplace. Make sure that the chimney and fireplace are free of cracks, loose mortar, creosote deposits, blockage or other signs of deterioration.

If necessary, have any repair work done by a qualified professional before installing the heater.

- A. Remove the fireplace damper or fasten it permanently open.
- B. Measure the throat of the fireplace and mark this shape on a piece of 24 gauge sheet metal (flue cover). Cut a hole sized for the pellet liner to lie directly below the fireplace flue opening. Allow two inches of material for a flange on all sides and cut to these measurements. Bend down the flanges. If you have never done this before, it might be a good idea to make a cardboard pattern and test it first. Fasten this flue cover in position as high as possible with two masonry screws per side through the flanges into the fireplace.
- C. If you plan on connecting outside air it is recommended to do so at this time.
- D. Install floor protection if necessary.
- E. Connect the pellet vent with a clean out tee to the back of the insert. Refer to manufacturer's installation instructions to see "REAR TO TOP VENT CONVERSION INSTRUCTIONS" section and the "GENERAL VENTING" section.
- F. Run a liner down the chimney and connect to tee.
- G. Position the insert in it's final location.
- H. Pull the excess length of liner out through the top of the chimney. Trim the excess liner, install the cap and cap the chimney.



## 6.2 FACTORY BUILT (METAL) HEATER INSTALLATION

### Prior to installation:

Stand-offs may be removed to fit the insert into the fireplace.

Do not weaken the structure, or reduce the protection for combustible materials to less than that required by the National Building Code. Bolted or screwed together pieces (smoke shelf / deflectors) may be removed, but must be able to be re-installed if the heater was removed.

External trim pieces, which do not affect the operation of the fireplace, may be removed provided they are available to be re-installed in event the heater is removed.

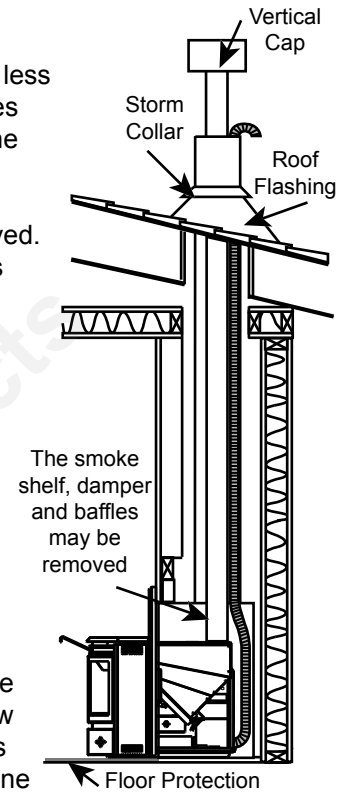
A warning label must be attached to the back wall of the fireplace stating that "This heater has been altered to accommodate a fireplace insert and must be re-inspected by a qualified person prior to re-use as a factory built fireplace".

A non-combustible hearth must cover the flooring underneath, as well as extend a minimum of six inches in front and to both sides of the heater.

Clean all ashes out of the inside of the heater. Make sure that the chimney and fireplace are free of cracks, loose mortar, creosote deposits, blockage or other signs of deterioration.

If necessary, have any repair work done by a qualified professional before installing the heater.

- A. Remove the fireplace damper or fasten it permanently open.
- B. Measure the throat of the fireplace and mark this shape on a piece of 24 gauge sheet metal (flue cover). Cut a hole sized for the pellet liner to lie directly below the fireplace flue opening. Allow two inches of material for a flange on all sides and cut to these measurements. Bend down the flanges. If you have never done this before, it might be a good idea to make a cardboard pattern and test it first. Fasten this flue cover in position as high as possible with two masonry screws per side through the flanges into the heater.
- C. If you plan on connecting outside air it is recommended to do so at this time.
- D. Install floor protection if necessary.
- E. Connect the pellet vent with a clean out tee to the back of the insert. Refer to manufacturer's installation instructions to see "REAR TO TOP VENT CONVERSION INSTRUCTIONS" section and the "GENERAL VENTING" section.
- F. Run a liner down the chimney and connect to tee.
- G. Position the insert in it's final location.
- H. Pull the excess length of liner out through the top of the chimney. Trim the excess liner, install the cap and cap the chimney.



**FIGURE 6.2**

## 6.3 INSTALLATION INTO A COMBUSTIBLE ENCLOSURE

### ! WARNING

The stand-offs located on the back of the insert must not be removed when installing the insert into a built-in combustible enclosure.

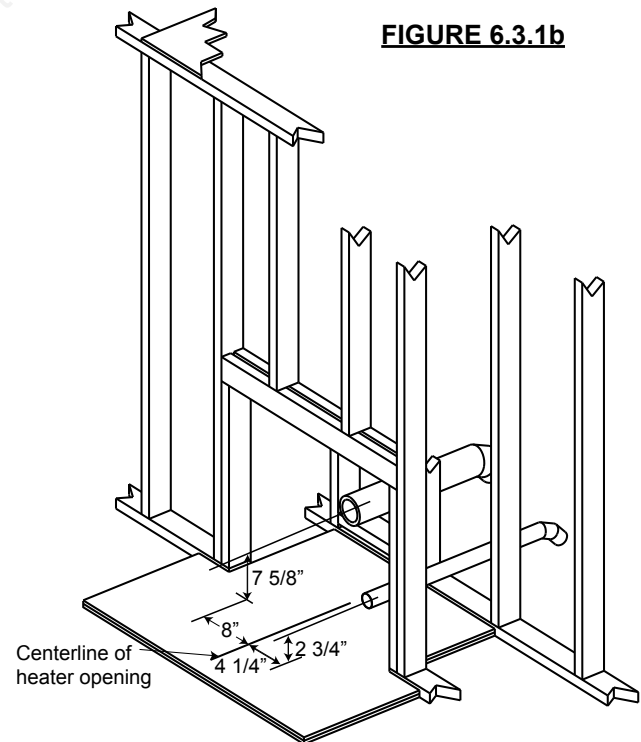
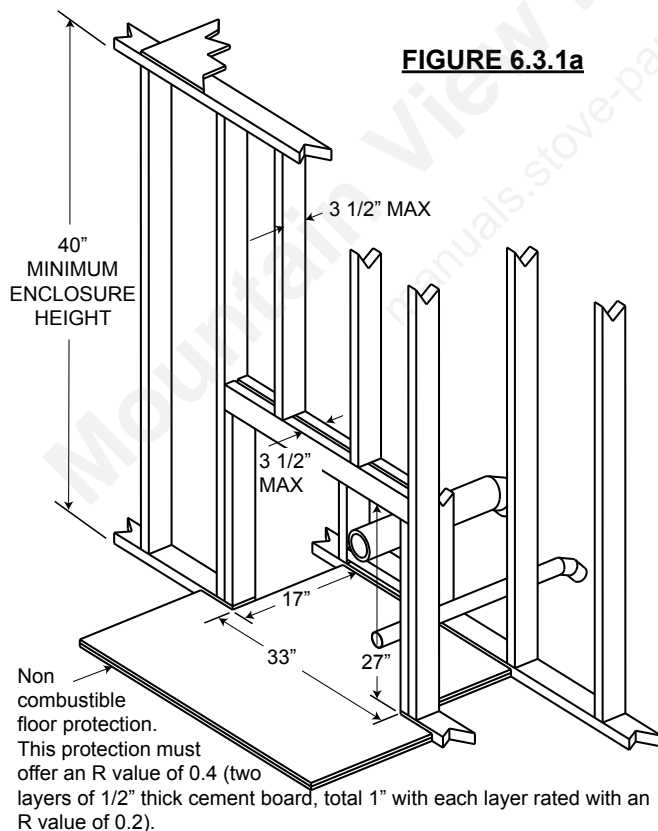
Outside air is mandatory for a combustible built-in enclosure install.

When installing the insert as a "Built-in" heater, it is important to maintain the clearances to combustibles, see "MINIMUM CLEARANCE TO COMBUSTIBLES" section.

A non-combustible hearth must cover the flooring underneath, as well as, a minimum of six inches in front and to both sides of the heater.

### 6.3.1 FRAMING

- A. Install floor protection.
- B. Frame structure maintaining minimum clearances. Locate and frame openings for both the exhaust and outside air. Outside air is mandatory for "Enclosure" installations.
- C. Refer to the vent manufacturer's installation instructions and to "GENERAL VENTING" section. Connect the vent.
- D. Install flashing. See "NPI45 FINISHING - FLASHING INSTALLATION" section.
- E. Consideration must be taken during installation that removal of the insert is necessary for inspection and annual maintenance. Install the vent cap.

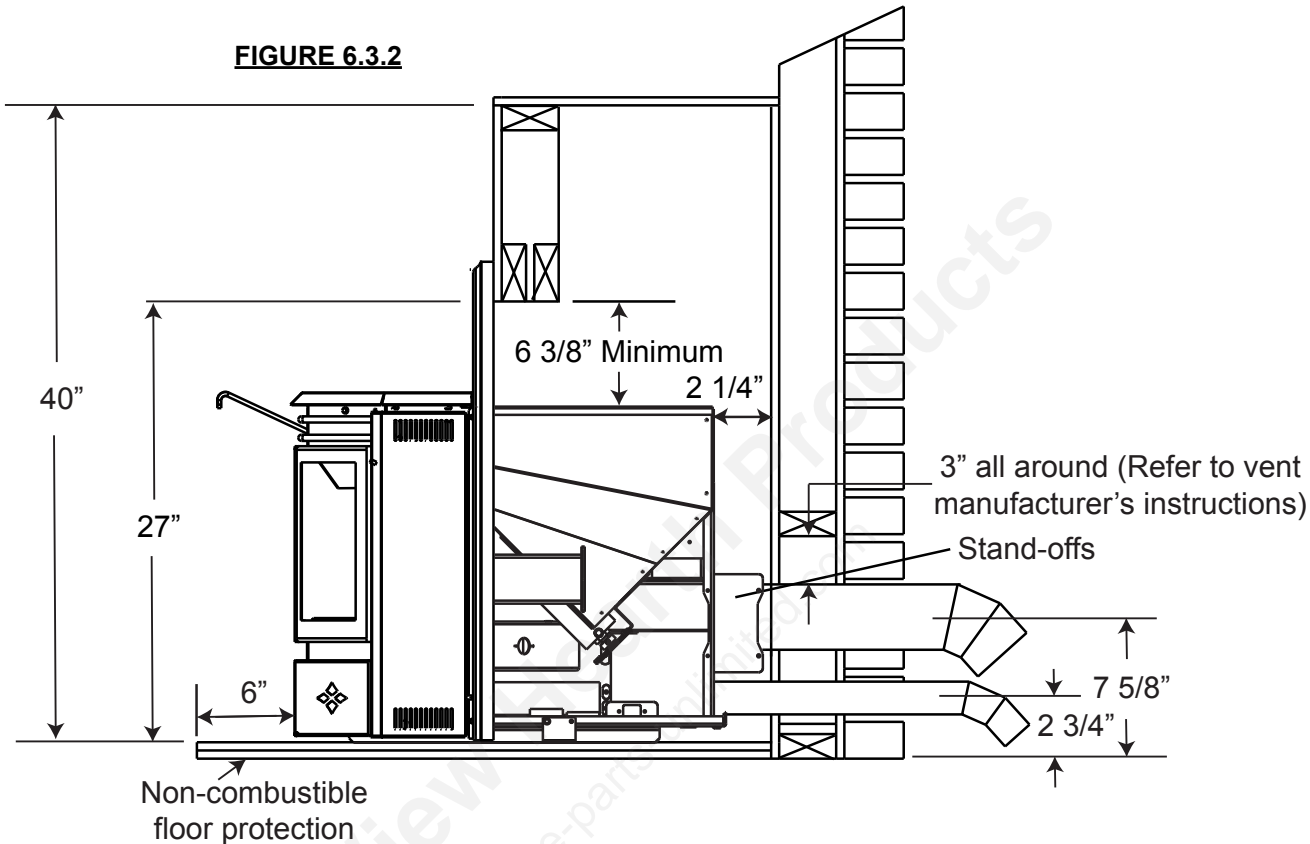


For temperature requirements, the enclosure space around and above the heater must be left unobstructed.

### 6.3.2 MINIMUM ENCLOSURE CLEARANCES

**! WARNING**

The stand-offs located on the back of the insert must not be removed when installing the insert into a built-in combustible enclosure.

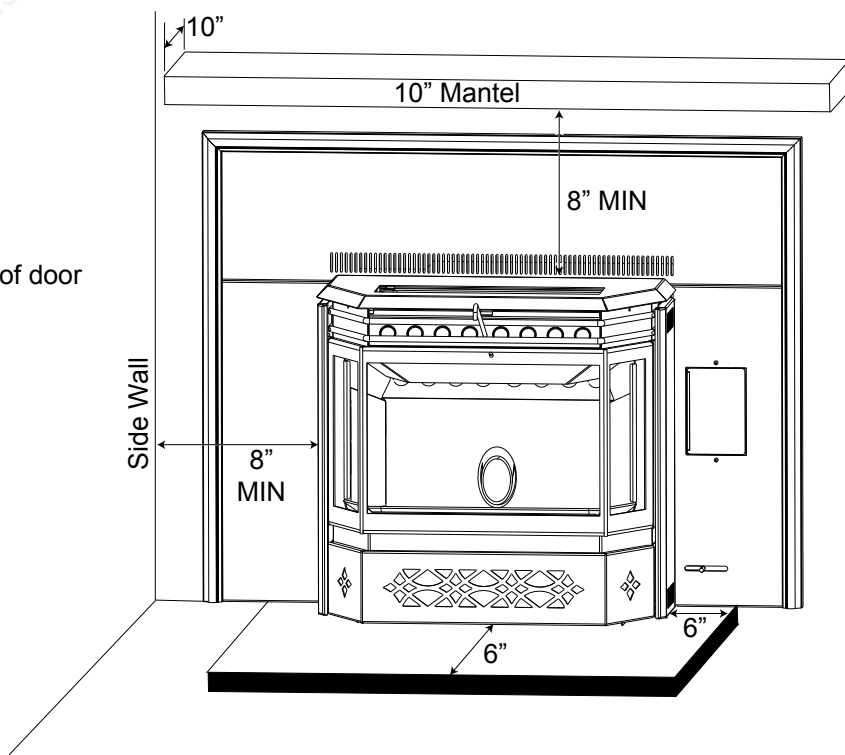


### 6.3.3 MINIMUM CLEARANCE TO COMBUSTIBLES

Side wall to heater	8"
Mantel to top of heater	8"
Top facing to heater	6 3/8"
Side facing to heater	6"
Floor protection*	6"*

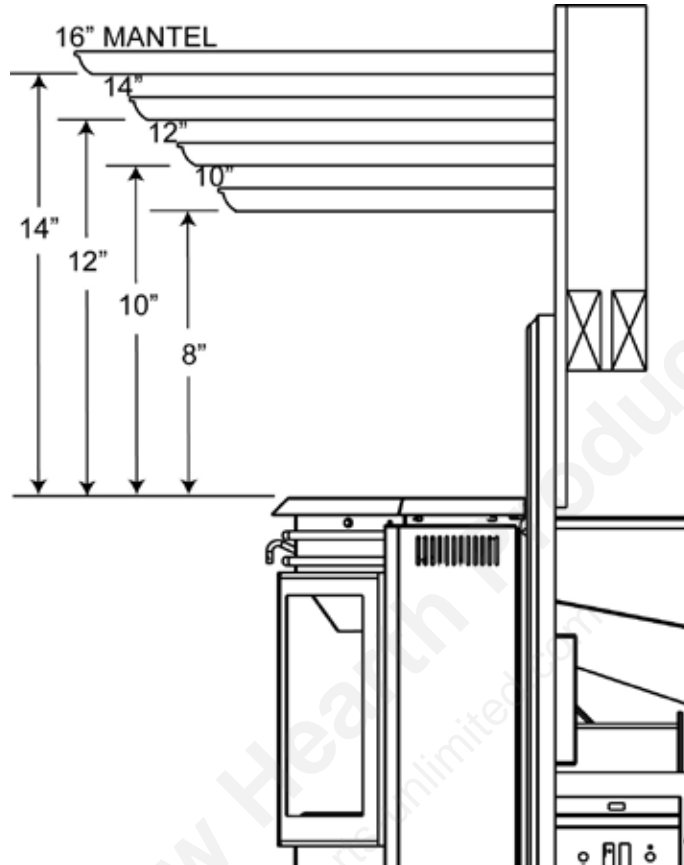
\* Floor Protection: Minimum 6" in front of door and to either side.

**FIGURE 6.3.3**



### 6.3.4 MINIMUM MANTEL CLEARANCES

**FIGURE 6.3.4**

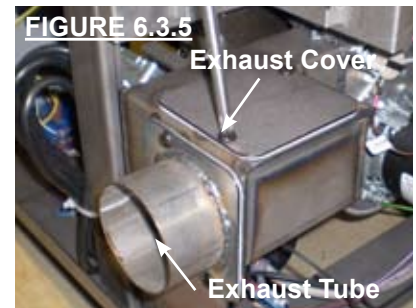


### 6.3.5 REAR TO TOP VENT CONVERSION INSTRUCTIONS

**NOTE:** The insert is factory shipped in a rear vent configuration. Be careful not to damage the gasket.

If installing 4" diameter vent vertically, it will be necessary to start with a 12" section of 3" diameter vent to clear the hopper, then increase to 4" diameter vent.

- A. To vent exit vertically, remove the two screws holding the exhaust cover.
- B. Remove the two screws holding the exhaust tube.
- C. Attach the exhaust tube and gasket in the vertical position.
- D. Attach the exhaust cover and gasket over the horizontal exit.



## 7.0 INSERT FINISHING

### 7.1 FLASHING INSTALLATION

- 7.1.1 Secure the Right Flashing to the right side of the heater using two of the #8 x 1/2" screws.

**NOTE:** Feed the Air Control Rod into the Air Control Slot on the Right Flashing before securing.

- 7.1.2 Twist spring handle (supplied with the heater) onto the air control rod until it hits the stop.

- 7.1.3 Remove the two control panel securing screws, discard the screws and shipping bracket.

- 7.1.4 Secure the control panel to the right Flashing using the two #8 x 3/8" screws. Secure the Left Flashing with the remaining #8 x 1/2" screws.

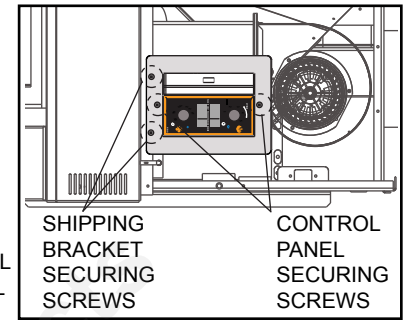
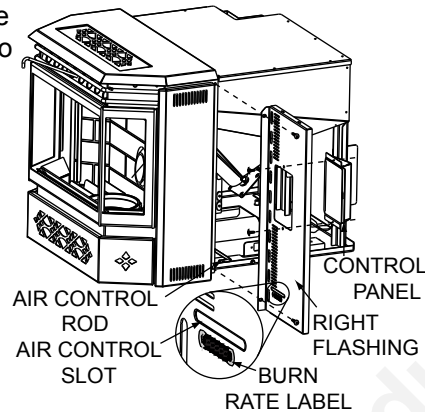
- 7.1.5 Align the holes in the top of the right and left Flashing with those on the bottom lip of the Top Flashing and secure from the rear using the four #8-32 x 3/8" screws, washers and nuts.

- 7.1.6 The three pieces of trim are assembled in the same manner as a picture frame. Place the corner brackets (with screw loosened) into the trim sections. Tighten the screw spreading the two pieces apart. Attach the adjoining section. Repeat with the opposite side. Tighten all screws firmly.

- 7.1.7 Slide the assembled trim down over the flashing.

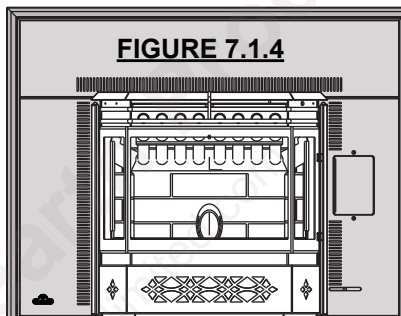
- 7.1.8 Affix the logo to the bottom left hand corner of the left flashing.

**FIGURE 7.1.1**

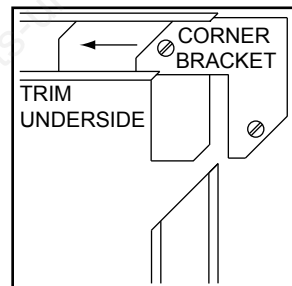
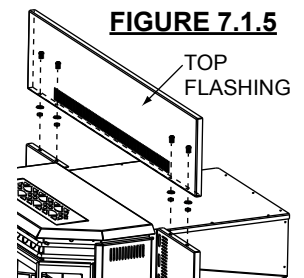


**FIGURE 7.1.3**

**FIGURE 7.1.4**

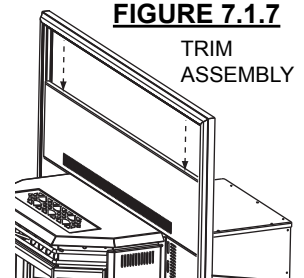


**FIGURE 7.1.5**



**FIGURE 7.1.3**

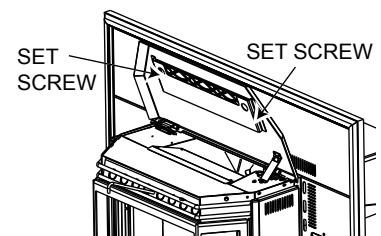
**FIGURE 7.1.7**



### 7.2 TRIVET INSTALLATION

The trivet for the insert is attached by two set screws on the inside of the hopper lid.

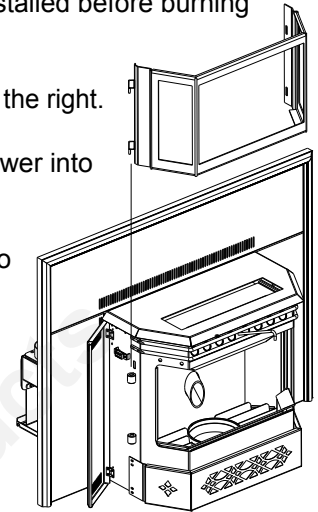
**FIGURE 7.2**



### 7.3 INSTALLING VIEWING DOOR

The main viewing door has been boxed separate from the heater, but **MUST** be installed before burning the heater.

- 7.3.1 Open both side panels, exposing the bushing on the left and the latches on the right.
- 7.3.2 Align the pins on the door to the bushing on the left side of the heater. Lower into place until both bushings touch.
- 7.3.3 Engage the latch hooks into the door frame. Snap the rear handle hook to lock the latch closed.



**FIGURE 7.3.2**

INSERT ILLUSTRATED

## 8.0 OPERATING INSTRUCTIONS

### 8.1 PROPER PELLETT LOADING

Before loading pellets into the hopper first transfer the pellets from it's original plastic bag to a metal bucket. Keep in mind that the auger stops when the lid is opened. If the lid is opened for several minutes, the fire may extinguish.

**NOTE:** If the pellets are kept in the plastic bag, the bag may come in contact with the heater causing the bag to melt and the pellets to spill.

**DO NOT** load pellets into the hopper if they have been exposed to moisture. Moisture can cause pellets to swell and cause blockage in the feed system. Thoroughly dry pellets before placing into hopper.

### 8.2 PRE-START CHECK

Before installing this heater we recommend a "PRE-BURN" inspection to help burn off the odors that are associated with the first burn. If possible, move the heater outside and add approximately 5 lbs of pellets into the hopper. Plug the power cord into a typical wall receptacle.

The heater is equipped with a control board that has been shipped in manual mode.

When first starting a new pellet heater, or when you completely empty the hopper of pellets you can press and hold the auger feed button to get the pellets into the burn pot quicker.

- 8.2.1 Press the ON / OFF button:  
Both blowers come on at line voltage. After 15 seconds the convection blower will shut off.
- 8.2.2 The green "POWER" button will flash indicating that the start-up cycle has begun. The red "HEAT" light comes on at setting #1.
- 8.2.3 The auger comes on and runs for approximately 3 minutes.
- 8.2.4 The igniter comes on and will stay on until proof of fire determined by the heater temperature.
- 8.2.5 Approximately 5 minutes after commencing the start-up cycle the auger will start feeding at level #1 until proof of fire.

**NOTE:** Flame should appear in the burn pot within 3 to 7 minutes from commencing the start-up cycle. The start-up cycle should end in approximately 12 to 15 minutes. At this point adjustments to feed rate can be made or the heater will revert to the previous setting.

**If proof of fire is not established in 15 minutes, the heater will shut down and will need to be turned back on again. If the heater shuts down, empty the pellets from the burn pot and restart.**

### 8.3 LIGHTING HEATER MANUALLY

<b>! WARNING</b>
Heater may be hot.
Other than placing a handful of pellets in the burn pot for lighting manually, never feed pellets through the glass viewing door. An "OVERFIRE" condition could occur, if more pellets enter the firebox than what the feed tube can deliver. Pellets must only be burned within the burn pot.

Your heater can be lit manually without using the automatic igniter by following the procedure below.

- 8.3.1 Press the ON / OFF button.
- 8.3.2 Place a "handful" of pellets into the burn pot.
- 8.3.3 Cover with a small amount of approved (non-volatile) fire starter gel.
- 8.3.4 Light fire starter with a match and close the viewing door.

### 8.4 LIGHTING INSTRUCTIONS

After filling the hopper with pellets, switch the control to manual so that you have full control of the heater until you have familiarized yourself with its functions.

Do not try to operate your heater with the ash pan drawer, viewing door or hopper lid open. Safety switches will disable the pellet feed auger.

- 8.4.1 Push the ON / OFF button to initiate the start-up cycle.
- 8.4.2 Once the start-up cycle has ended (approximately 12 to 15 minutes) adjustments can be made to the control.

**NOTE:** If the heater shuts off, empty the pellets from the burn pot and repeat steps 1 and 2.

### 8.5 CONTROLS

**FIGURE 8.5**

The diagram shows the control panel for a Napoleon heater. It features several indicators and controls:

- RED LIGHTS:**
  - Solid:** Indicates set feed rates. When making fan adjustment, the light will indicate fan speed temporarily and return to heat setting.
  - Flashing:** Indicates an operation failure.
- HEAT ADJUSTMENT:** Increases or decreases the heat level.
- AUGER FEED:** Speed feeding of pellets into the burn pot.
- GREEN LIGHT:**
  - Solid:** Normal operating mode.
  - Flashing:** Start-up or shut down cycle.
- AMBER LIGHT:** When on, the auger is turning.
- OPERATING MODE:** Sets the heaters operating mode.
- FAN ADJUSTMENT:** Increases or decreases the speed of the convection fan.
- ON / OFF:** Used to turn the heater on or off.

The control panel includes buttons for FAN, HEAT, AUGER FEED, ON/OFF, and a MODE selector (AUTO, T-STAT, MANUAL). It also features indicator lights for FAN, HEAT, AUGER, and POWER. The Napoleon logo and 'QUALITY FIREPLACES Award Winning Products' are visible at the bottom.

**AUTO / T-STAT / MANUAL**

This switch is used to select the operating mode.

**MANUAL:** Sliding the switch down to manual will allow you to manually select the heat and blower settings. In manual mode the heater will run at your desired settings indefinitely, until you manually turn the heater off or the heater runs out of pellets.

**T-STAT:** If you would like to have your heater operate using a thermostat, slide the switch to the middle position (T-STAT). In T-STAT mode the remote thermostat will control the heat output by alternating between the lowest heat level and the preset heat level. When the thermostat setting is satisfied the heater will default to the lowest heat level.

**AUTO:** Slide the switch to the top position (AUTO). Similar to T-STAT mode, auto operates using a thermostat. The difference being if the thermostat does not call for heat in a 60 minute period the heater will turn off completely. When the thermostat does call for heat, it will initiate a start-up cycle. This operating mode is recommended for the spring and fall season, as the heater is only required periodically.

**ON / OFF**

Use this button to turn the heater on and off.

**HEAT**

Pressing the heat up arrow (red) will increase the heat level one setting. Pressing the heat down arrow (white) will decrease the heat level one setting. During start-up the power light will flash green and these buttons will not respond. The red lights at the top left of the control will indicate the heat setting 1 through 5.

**FAN**

Pressing the fan up arrow (red) will increase the fan speed one setting. Pressing the fan down arrow (white) will decrease the fan speed one level. While adjusting the fan speed, the red lights will temporarily indicate the fan speed then flash back to the heat level.

**AUGER**

Pressing and holding this button will turn the auger, speeding the feed of pellets into the burn pot. This is convenient when using the heater for the first time or when you have completely emptied the hopper and need to restart the heater.

**8.5.1 CONTROL ADJUSTMENTS****FEED TRIM**

Both the combustion fan speed and the feed rate have been factory set but may need to be adjusted (trimmed) on site. Due to the variables (i.e. vent size and length, pellet quality), the factory settings may not be correct for every installation. To help keep the flame from extinguishing on the minimum heat level, the feed rate can be trimmed when in normal operation (after start-up cycle). Depress and hold the auger button while you push the heat up or down buttons. This will slightly increase the amount of fuel being fed into the burn pot. When trimming the feed rate, the LED's will display the factory setting (#3 light) with the ability to increase up two levels (#4 and #5 light) or decrease (#2 and #1 light) the length of time between the auger feed cycle.

**FAN TRIM**

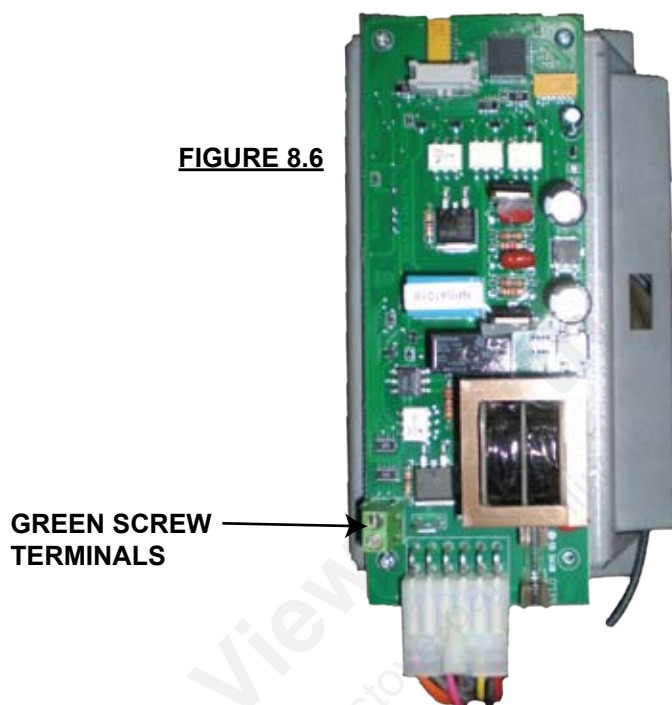
Similar to the feed rate, it may be necessary to trim the speed of the combustion blower. Due to specific installations, it may be necessary to increase or decrease the amount of air moving through the burn pot to achieve maximum efficiency. When in normal operation depress and hold the auger feed button. Similar to the feed trim the LED's indicate what setting the trim feature is set to (#3 light is the factory setting). To adjust the flow, push the fan up or down buttons while depressing the auger feed button.

## 8.6 INSTALLING A THERMOSTAT

An optional millivolt thermostat is available to help keep the room temperature constant.

**NOTE:** The thermostat must be installed by a qualified installer.

- 8.6.1 Disconnect the power supply.
- 8.6.2 Remove the right side panel to gain access to the rear of the control panel.
- 8.6.3 Strip and connect the thermostat wires to the green screw terminals on the back of the control panel.



**NOTE:** The control must be in either T-STAT or AUTO to control the heater with a thermostat.

## 9.0 GENERAL MAINTENANCE

### 9.1 DAILY (WHENEVER USING THE HEATER)

#### 9.1.1 OPEN MAIN VIEWING DOOR

### ⚠ WARNING

The front of the heater becomes very hot during operation. Let the heater cool completely before conducting service.

- A. Open the side doors on either side of the heater.
- B. On the right side of the heater are two latches. Release the latches by pulling the rear handle forward and disengaging the hook from the door frame. Swing open the viewing door.

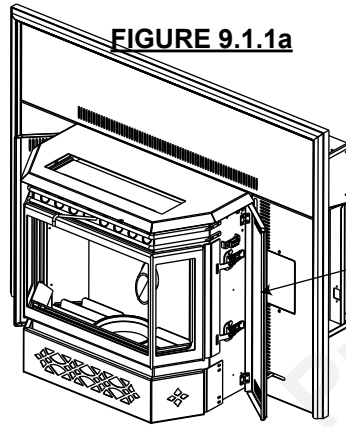


FIGURE 9.1.1a

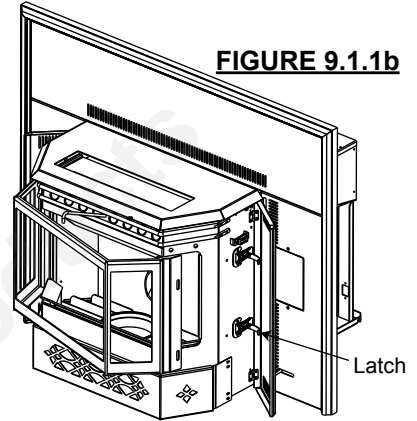


FIGURE 9.1.1b

#### 9.1.2 DISPOSAL OF ASHES

Ashes should be placed in a metal container with a tight fitting lid. The container should be placed on a non-combustible floor, well away from combustible materials, pending final disposal. If ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders are thoroughly cooled.

#### 9.1.3 INSPECT THE BURN POT

When burning, the flames should be bright orange with embers jumping from the burn pot. If not see "MAKE SURE PELLETS ARE NOT PILING UP" or "CLEANING THE BURNPOT" sections.

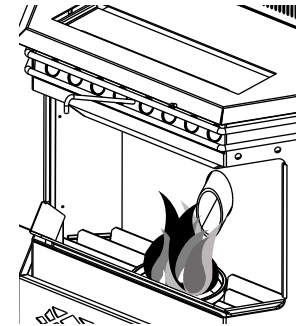


FIGURE 9.1.3

#### 9.1.4 CLEANING GLASS DOOR

If the glass is not kept clean permanent discoloration and / or blemishes may result. Normal operation of your pellet heater will produce a build-up on the glass that should be wiped off daily. However, poor quality pellets or extended burning on the low setting will cause the glass to "smoke up" faster.

Refer to "REPLACEMENT PARTS" section to find out what this product is equipped with and the thickness of the glass. Use only replacement glass available from your Authorized dealer.

#### DO NOT CLEAN GLASS WHEN HOT!

If necessary, clean the glass with a soft cloth or paper towel. You could use "wood stove" glass cleaner to remove heavy build-up.

Do not operate the heater with broken glass, as leakage of flue gases may result.

#### 9.1.5 CARE OF PLATED PARTS

If the appliance is equipped with plated parts, you must clean fingerprints or other marks from the plated surfaces before operating the appliance for the first time. Use a glass cleaner or vinegar and towel to clean. If not cleaned properly before operating for the first time, the marks can cause permanent blemishes on the plating. After the plating is cured, the fingerprints and oils will not affect the finish and little maintenance is required, just wipe clean as needed.

**NOTE:** The protective wrap on plated parts is best removed when the assembly is at room temperature but this can be improved if the assembly is warmed, using a hair dryer or similar heat source.

### ⚠ WARNING



HOT GLASS WILL  
CAUSE BURNS.  
DO NOT TOUCH GLASS  
UNTIL COOLED.  
NEVER ALLOW CHILDREN  
TO TOUCH GLASS.

## 9.1.6 CLEANING THE HEAT EXCHANGER TUBES

### ! WARNING

The front edge of the hopper lid becomes very hot, do not touch the area below the handle.

This rod becomes very hot during operation. Wait till heater has cooled completely or you must wear heat resistant gloves when cleaning or handling this heater.

With the heater cool (or wearing heat resistant gloves), slide the heat exchange cleaner rod up and down several times to prevent the build up of ash on the heat exchange tubes.

Keep the viewing door closed so the fly ash does not enter the room.

**NOTE:** More frequent cleaning may be required depending upon pellet quality.

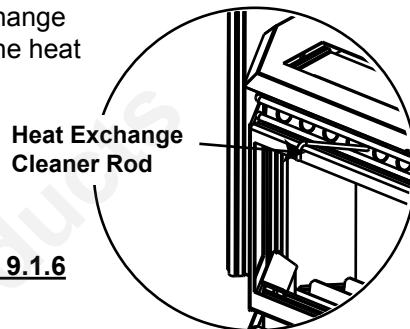


FIGURE 9.1.6

## 9.1.7 MAKE SURE PELLETS ARE NOT PILING UP

If the pellets build up over the burn pot, push the ON / OFF button (the green light should start flashing). Once the heater has completed its shut down cycle (green light goes out). You may start troubleshooting.

If the flames seem to be coming only from the sides, or are orange/black, turn the heater off and check for build up of pellets.

### The most likely causes are:

- A. Feed rate has been set to maximum for an extended period of time.  
Turn feed rate down to feed #3 or #4.
- B. The door, glass, or ash pan is open or has an air leak.
- C. The burn pot requires cleaning.
- D. The exhaust system requires cleaning.
- E. The heater requires adjustment.
- F. Poor pellet quality

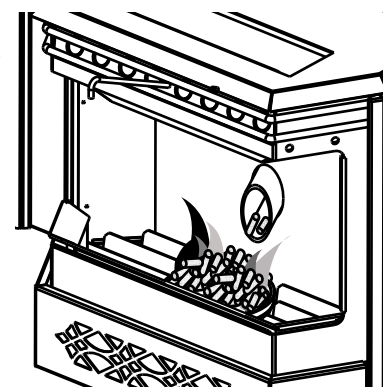


FIGURE 9.1.7

## 9.1.8 CLEANING THE BURN POT

### ! WARNING

Make certain the heater has fully cooled (approximately 25 minutes) before opening the door and conducting service.

To clean the burn pot, open the door and knock away any debris on the burn pot. If severely clogged, remove the burn pot to gain better access. If removing the burn pot set aside on a non-combustible surface. Once removed, discard all material that has accumulated in the burn pot.

Make certain that all openings are clear of any build up of ash from the ledge below the burn pot.

Re-install the burn pot ensuring it sits level in the heater. Also must ensure the ignitor and the burn pot locating notch line up when reinstalling the burn pot.

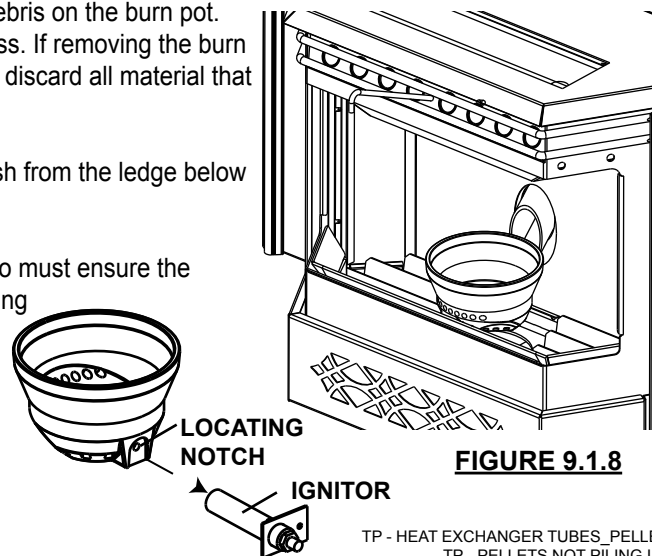


FIGURE 9.1.8

TP - HEAT EXCHANGER TUBES\_PELLET  
TP - PELLETS NOT PILING UP  
TP - CLEANING BURN POT\_PELLET

## 9.2 BI-WEEKLY (OR EVERY 10 BAGS OF PELLETS)

### 9.2.1 VACUUM FIREBOX

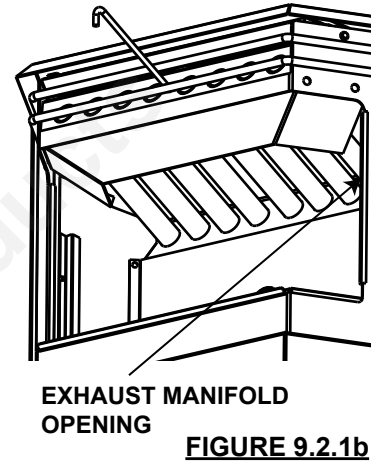
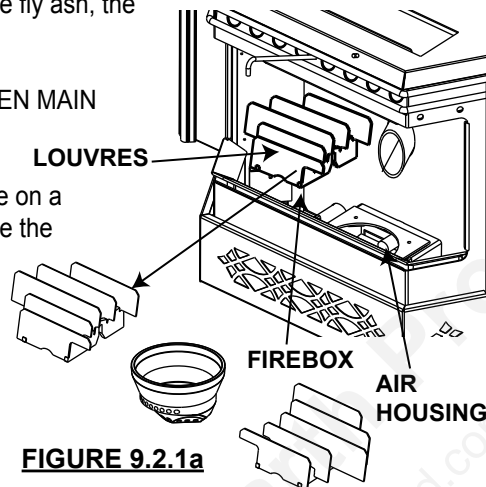
#### ⚠ WARNING

The firebox becomes very hot during operation. Let the heater cool completely before conducting service.

The more frequently you clean out the fly ash, the more efficient your heater will burn.

A. Open the viewing door. See "OPEN MAIN VIEWING DOOR" section.

B. Lift the burn pot out and set aside on a non-combustible surface. Remove the right and left louvres by lifting the louvres up and out of the firebox setting them on a non-combustible surface.



## 9.3 SEMI-ANNUALLY (OR EVERY TWO TONS OF PELLET)

#### ⚠ WARNING

The firebox becomes very hot during operation. Let the heater cool completely before conducting service.

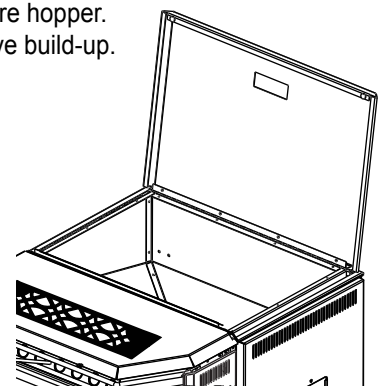
Disconnect the power cord prior to conducting service.

The following section details extensive maintenance procedures. We strongly suggest these items be carried out by a trained service technician, possibly by a service agreement set up with your dealer.

**NOTE:** More frequent cleaning may be required depending on pellet quality.

### 9.3.1 VACUUM HOPPER

Run the heater until the pellets run out, then open the hopper and vacuum out the entire hopper. The dust and any other debris near the bottom should be removed to prevent excessive build-up.



### 9.3.2 SOOT AND FLY ASH FORMATION

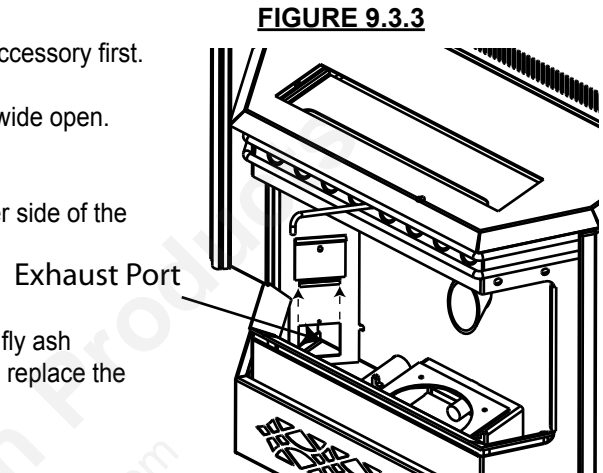
The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of the flue gases. Incomplete combustion occurs during startup, shutdown, or incorrect operation of the room heater will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once every year to determine if cleaning is necessary.

### 9.3.3 CLEAN THE VERTICAL EXHAUST DUCT

If the PRPP40 or the brick kit NP841KT is in place, remove that accessory first.

- A. Open side door, release the latch and pivot the viewing door wide open. Next, remove the left and right louvre assemblies.
- B. Remove the one screw on each exhaust port located on either side of the fire box. Remove the exhaust port doors and set aside on a non-combustible surface.

Insert a vacuum into the exhaust port holes and remove as much fly ash as possible from the left and right exhaust manifolds. Once clean, replace the exhaust port doors and secure with the screws.



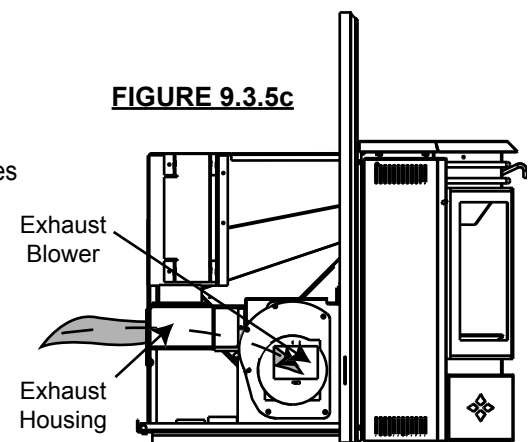
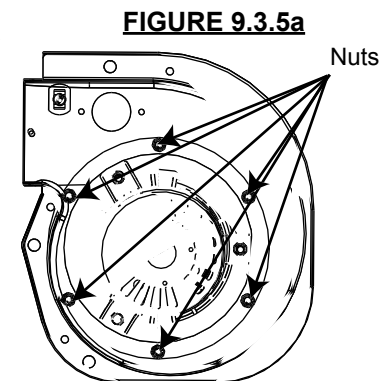
### 9.3.4 CLEAN EXHAUST HOUSING (INSERT ONLY)

To clean the exhaust blower and exhaust housing, the heater must be pulled out from the heater cavity. Remove the venting from the exhaust collar. If installed as a top vent, remove cover plate from the rear of the housing. If installed as a rear vent, remove the cover plate from the top of the housing. Vacuum out the housing back to blower outlet.

### 9.3.5 CLEAN THE EXHAUST BLOWER

**NOTE:** Do not attempt this maintenance without a replacement exhaust blower motor mounting gasket.

- A. Remove the six nuts holding the exhaust blower motor in place.
- B. Pull the motor out being careful not to damage the wiring, unplug the two wires that are connecting the motor and gently set aside. (The pieces of gasket may be discarded.)
- C. Start by cleaning the exhaust tube by feeding a brush or rag through the inside of the tube and out the exhaust blower housing.
- D. Vacuum out the exhaust ports and the blower housing.
- E. With a bristle brush vacuum, clean the blades of the motor.
- F. Place the new exhaust blower mounting gasket around the screw holes being very careful not to tear it.
- G. Re-attach the wiring to the motor and place it back on to the housing, taking care that the side of the motor does not tear the gasket and then re-attach the nuts.



TP - SOOT AND FLY ASH\_PELLET  
 TP - VERTICAL EXHAUST DUCT\_PELLET  
 TP - EXHAUST BLOWER\_PELLET

### 9.3.6 CHECK ALL SEALS

Check for air leaks around the door, glass, and ash pan and replace gaskets as required.

Air leaks into the firebox will decrease the heater's performance greatly, leading to excessive soot, inefficient burning, and may even cause a malfunction.

Test the door seal by shutting the door on a piece of paper in various locations. If the paper can be easily slid out, air may be leaking around the door seal. Carefully inspect the door gasket and door catch.

Inspect the door gasket to make sure it is fully attached. Heater gasket cement can be used to re-attach if necessary. If the door gasket is worn or flattened, replace.

Check the door to make sure it latches correctly. The latch should engage with a slight amount of resistance, yet not be too difficult.

If the glass is cracked, replace.

### 9.3.7 CLEAN THE VENT

#### ! WARNING

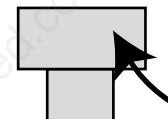
Whenever any portion of the pellet vent is disconnected, the joints must be re-sealed with RTV 500°F silicone sealant.

Vent system should be cleaned using chimney sweep brushes. We recommend this be done by a qualified chimney sweep.

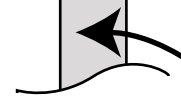
FIGURE 9.3.7



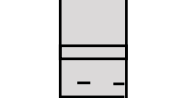
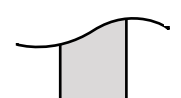
Flyash will deposit along sections that are horizontal



Make sure the cap is free of debris (especially if it has a screen that could become blocked).



Check the vent sections for creosote accumulation (indicating a poorly burning heater). Accumulation greater than 1/4" must be removed.



On vertically vented systems, the dirtiest portion is often the point where the vent turns upwards (ex. the "Tee"). Remove the clean vent cover and inspect and clean if necessary.

### 9.3.8 IN THE EVENT OF A JAMMED AUGER

#### ! WARNING

Disconnect the power cord prior to conducting service.

Occasionally damp fuel or foreign objects could get jammed in the auger screw. When this occurs it will be necessary to empty the hopper and/or remove the screw from the hopper assembly.

Start by emptying the pellets from the hopper. Sometimes the object causing the screw not to turn will be visible once the hopper has been emptied. If it is necessary to remove the screw start by removing both of the side panels and the rear panel. Locate the auger motor, remove the set screw that secures the motor to the auger screw. Remove the two hex bolts from the auger housing which will allow the auger screw to slide out. After you have removed the shaft, inspect it for bent flights, burrs, or broken welds. Remove any foreign material that might have caused the jam. Also, check the auger tube for signs of damage such as burrs, rough spots, or grooves cut into the metal that could have caused a jam.

TP - SEALS\_PELLET  
TP - CLEAN VENT\_PELLET  
TP - IN THE EVENT OF A JAMMED AUGER

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## 10.0 NORMAL OPERATING SOUNDS

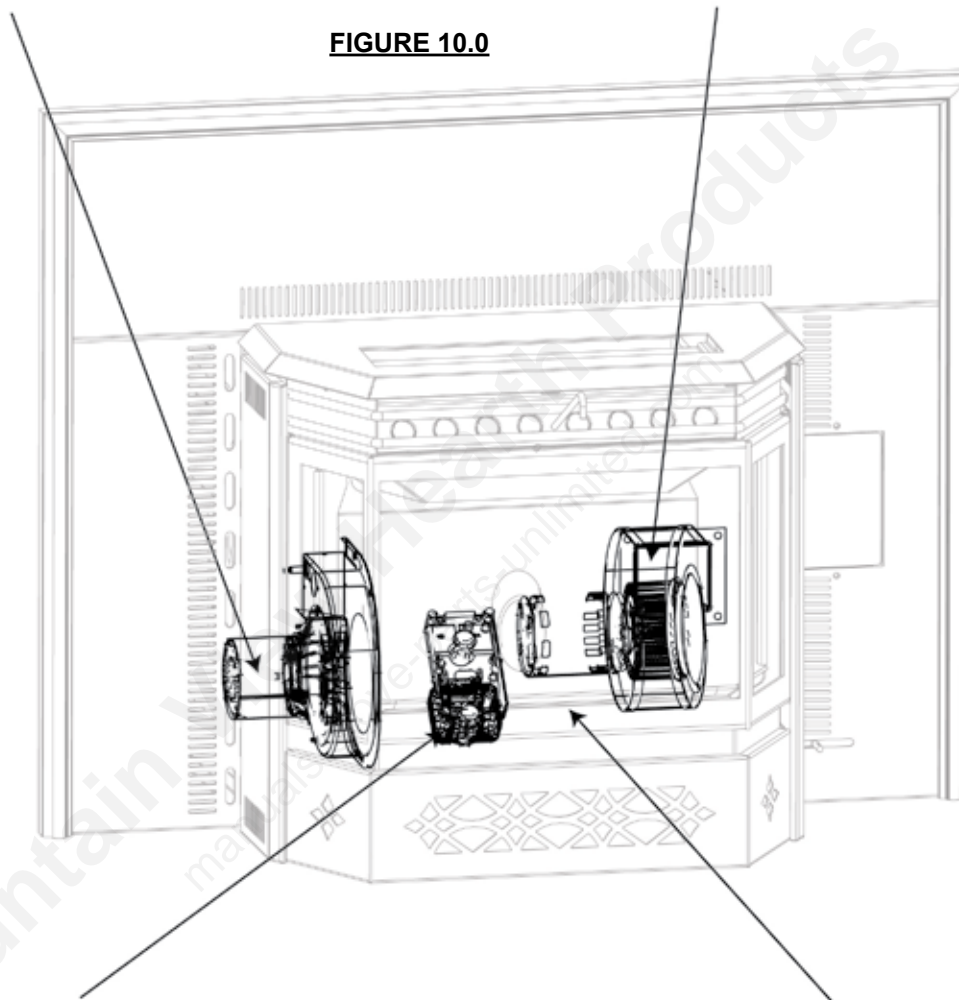
### Exhaust Blower

The flow of exhaust gases may create a low-pitched hum. As the pellet feed rate is altered this sound will change.

### Convection Blower

A low hum might be heard due to the high efficiency fan, especially on high. As the fan dial is turned this noise will change.

**FIGURE 10.0**



### Auger Motor

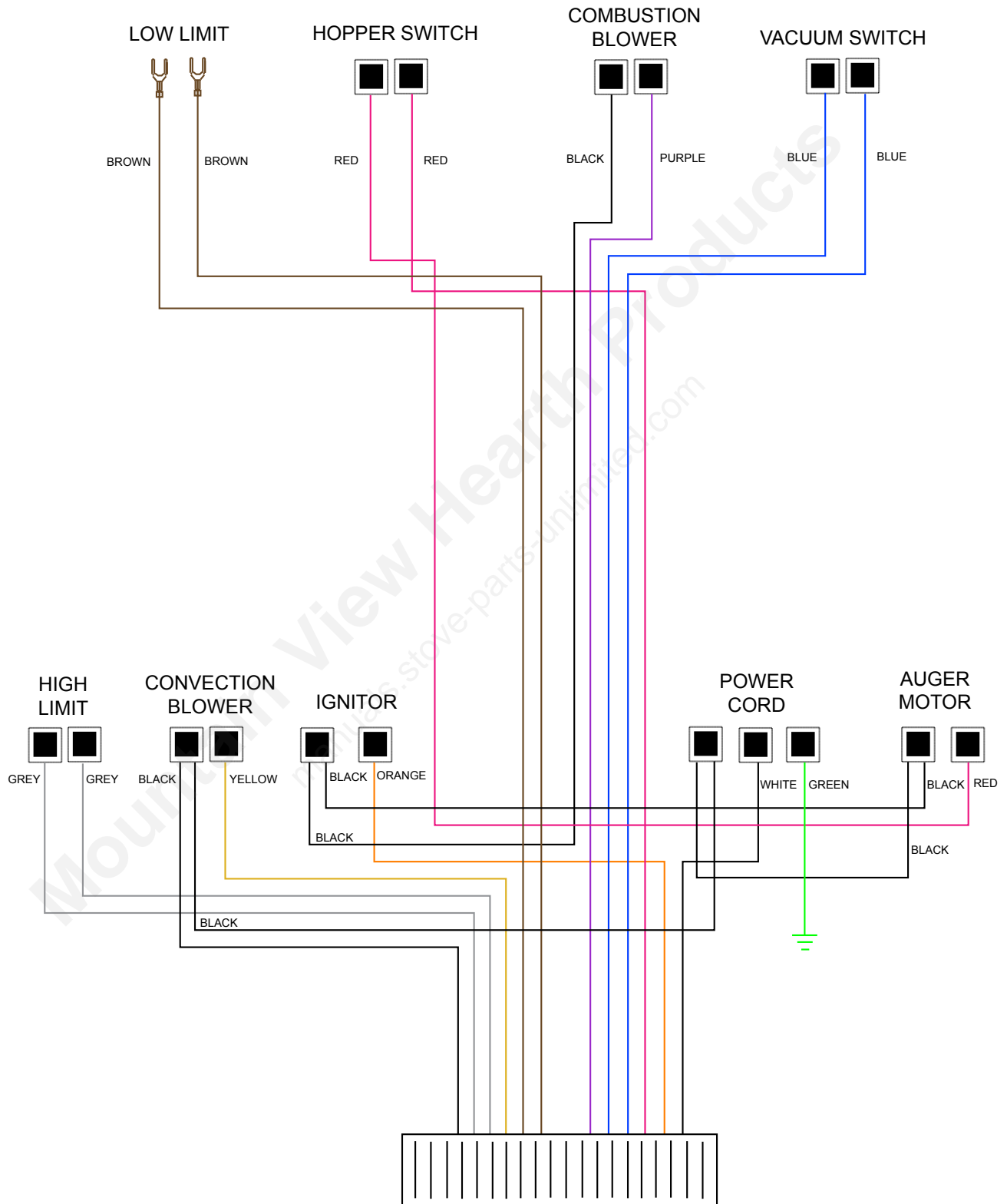
An irregular buzz of the motor running might be heard when pellets are being fed.

### Burn Pot

A light clicking sound might be heard as the pellets are fed into the burn pot.

# 11.0 WIRING DIAGRAM

FIGURE 10.0



## 12.0 REPLACEMENTS

Contact your dealer or the factory for questions concerning prices and policies on replacement parts. Normally all parts can be ordered through your Authorized dealer / distributor.

**FOR WARRANTY REPLACEMENT PARTS, A PHOTOCOPY OF THE ORIGINAL INVOICE WILL BE REQUIRED TO HONOUR THE CLAIM.**

When ordering replacement parts always give the following information:

- Model & Serial Number of heater
- Installation date of heater
- Part number
- Description of part
- Finish

### **WARNING**

Failure to position the parts in accordance with this manual or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

**\* IDENTIFIES ITEMS WHICH ARE NOT ILLUSTRATED. FOR FURTHER INFORMATION, CONTACT YOUR AUTHORIZED DEALER.**

### COMMON COMPONENTS TO BOTH HEATERS

REF	PART NO.	DESCRIPTION
1	W660-0052	LOW LIMIT SWITCH 140°F (80°C)
2	W660-0055	HIGH LIMIT SWITCH 200°F (93°C)
3	W660-0056	VACUUM SWITCH
4*	W195-0004	POWER CORD
5	W435-0009	AUGER MOTOR
6	W062-0021	CONVECTION BLOWER
7	W062-0022	COMBUSTION BLOWER
8	W290-0111	COMBUSTION BLOWER MOUNTING GASKET
9	W290-0120	COMBUSTION BLOWER MOTOR MOUNTING GASKET
10	W290-0113	CONVECTION BLOWER GASKET
11*	W255-0020	PRESSURE FITTING TAP
12	W570-0107	AUGER SCREW
13	W390-0002	DOOR LATCH
14	W555-0061	SCRAPER ROD
15	W105-0012	NYLON BUSHING
16	W570-0110	SCREW SET
17*	W750-0215	HARNESS WIRE
18*	W385-0334	NAPOLEON® LOGO
19	W010-1528	CONTROL DOOR
20	W475-0555	BOTTOM OI PANEL
21	W720-0089	IGNITOR HOUSING
22	W390-0012	CONTROL PANEL LATCH
23	W010-1490	EXHAUST TUBE
24	W357-0004	IGNITOR
25	W010-1528	CONTROL DOOR ASSEMBLY
26	W350-0361	CONTROL HOUSING
27	W080-0932	MOTOR BRACKET
28	W010-1491	COMBUSTION AIR TUBE ASSEMBLY
29	W030-0022	ACCENT BAR (2)
30	W135-0320	CAST, BURN POT
31	W430-0002	MAGNETIC DOOR CATCH ASSEMBLY (2)
32*	W290-0120	MOTOR MOUNTING GASKET
33	W290-0119	IGNITION GASKET

**COMMON COMPONENTS TO BOTH HEATERS**

REF	PART NO.	DESCRIPTION
34	W460-0004	RECEPTACLE
35*	W615-0078	SPACER, LATCH
36	W300-0038	GLASS, FRONT
37	W300-0037	GLASS, SIDE
38*	W562-0022	GLASS GASKET
39	W290-0122	EXHAUST GASKET
40	W010-1612	EXHAUST COLLAR
41	W010-0219	EXHAUST COVER
42	W290-0122	EXHAUST GASKET
43	W010-1673	RIGHT LOUVRE ASSEMBLY
44	W010-1685	LEFT LOUVRE ASSEMBLY

**NPS45 COMPONENTS**

REF	PART NO.	DESCRIPTION
45	W010-1508	WELDED TOP ASSEMBLY
46	W010-1527	SIDE DOOR ASSEMBLY
47	W010-1529	HOPPER DOOR ASSEMBLY
48	W010-1667	ASH PAN ASSEMBLY
49	W010-1668	PEDESTAL SIDE DOOR ASSEMBLY
50	W035-0191	PEDESTAL BASE
51	W475-0482	OUTER REAR PANEL
52	W475-0484	OUTER PANEL, RIGHT
53	W475-0485	OUTER PANEL, LEFT
54	W652-0040	PEDESTAL GASKET
56	W660-0083	SWITCH, HOPPER
56	W750-0216	WIRE, JUMPER (TGTT)

**NPI45 COMPONENTS**

REF	PART NO.	DESCRIPTION
57	W010-1670	SIDE DOOR ASSEMBLY
58	W010-1671	WELDED HOPPER LID ASSEMBLY
59	W555-0069	AIR CONTROL ROD
60	W660-0084	SWITCH, HOPPER
61	W750-0216	WIRE, JUMPER (TGTT)

**COMMON ACCESSORIES**

REF	PART NO.	DESCRIPTION
62	W225-0195	DOOR FRAME, BLACK
62	W225-0195G	DOOR FRAME, GOLD
62	W225-0195SC	DOOR FRAME, SATIN CHROME
63	GS200-G	TRIVET
63	GS200-SS	TRIVET
64	PRPP40	PORCELAIN REFLECTIVE RADIANT PANELS
65*	114KT	OUTSIDE AIR KIT - 5 FT (2" DIA.)
66	NP841KT	BRICK, REFRACTORY
67	NPL41	DECORATIVE LOG SET

**NPS45 ACCESSORIES**

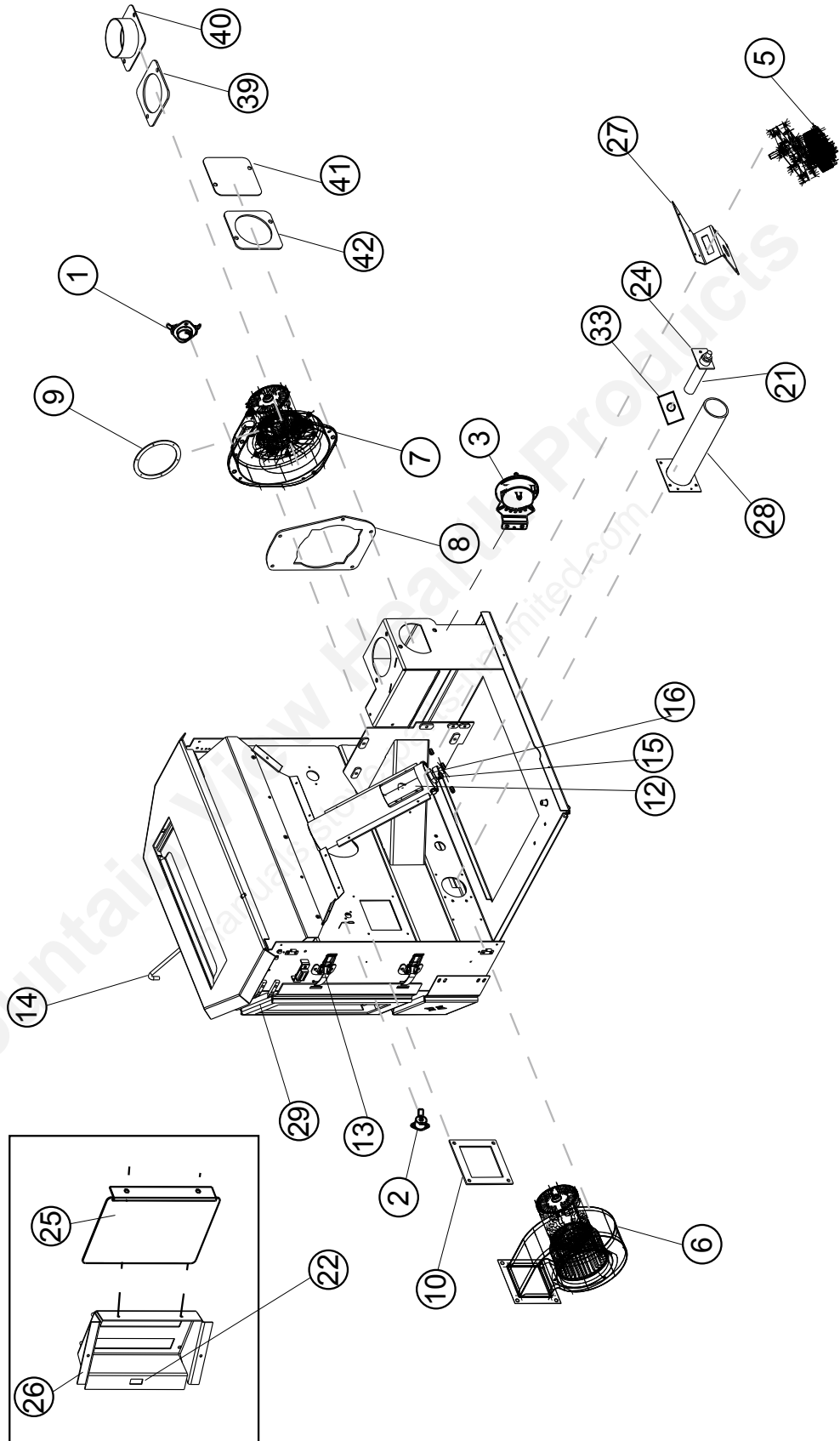
REF	PART NO.	DESCRIPTION
68*	NPHE-40	HOPPER EXTENSION (INCREASES HOPPER CAPACITY FROM 55 LBS TO 100 LBS PELLETS)

**NPI45 ACCESSORIES**

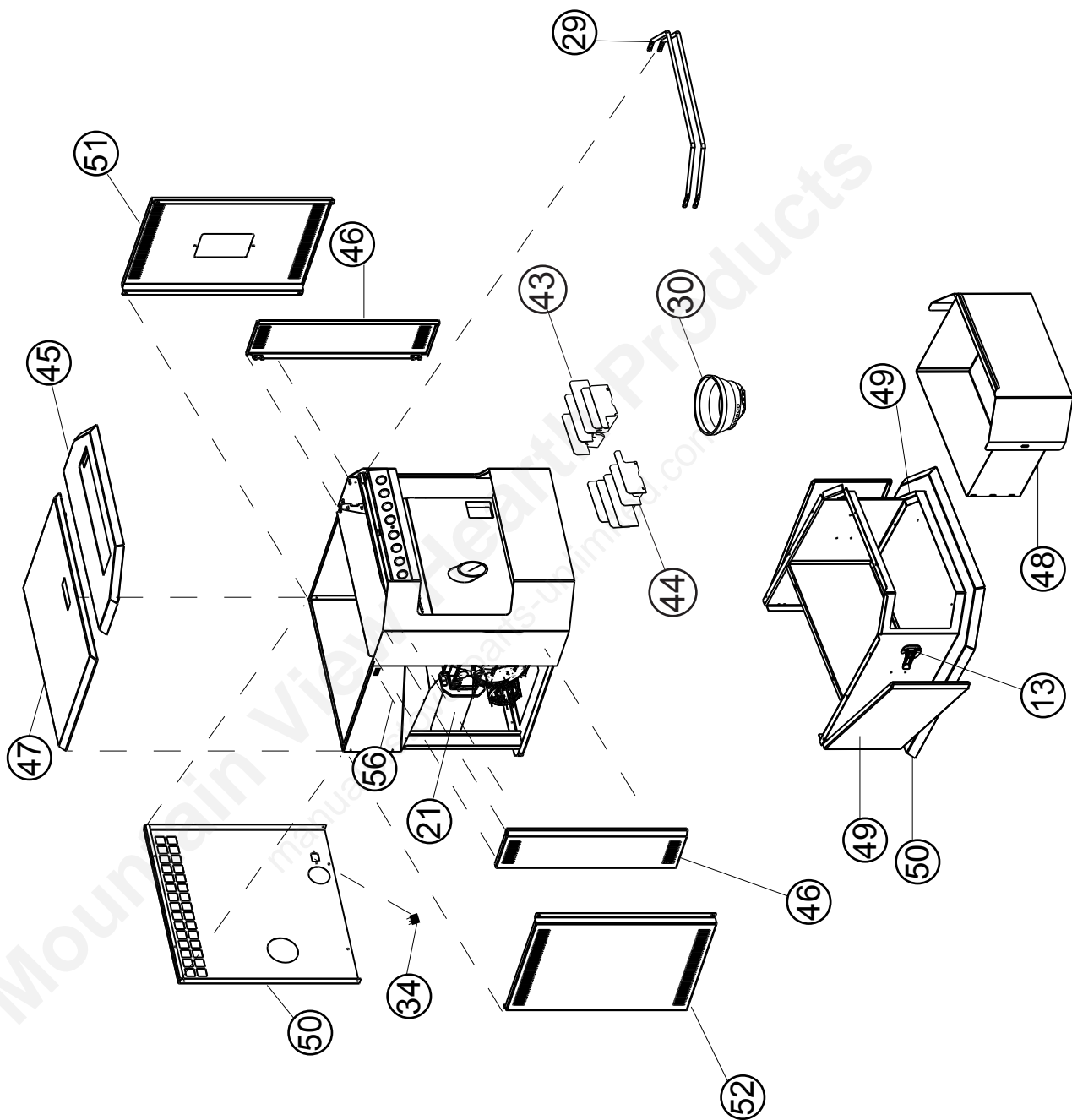
REF	PART NO.	DESCRIPTION
69	NI800	8" BLACK FLASHING WITH BLACK TRIM
70*	GICSK	ARCHED CAST IRON SURROUND
71	AK8	ADAPTOR KIT (REQ'D FOR GICSK)
72*	CISK	CAST IRON SURROUND KIT - BLACK
72*	CISKK	CAST IRON SURROUND KIT - ENAMEL BLACK
72*	CISKN	CAST IRON SURROUND KIT - MOJOLICA BROWN
72*	CISKB	CAST IRON SURROUND KIT - MOJOLICA BLUE
72*	CISKF	CAST IRON SURROUND KIT - MOJOLICA GREEN
73*	AK9	ADAPTOR KIT (REQ'D FOR CISK)

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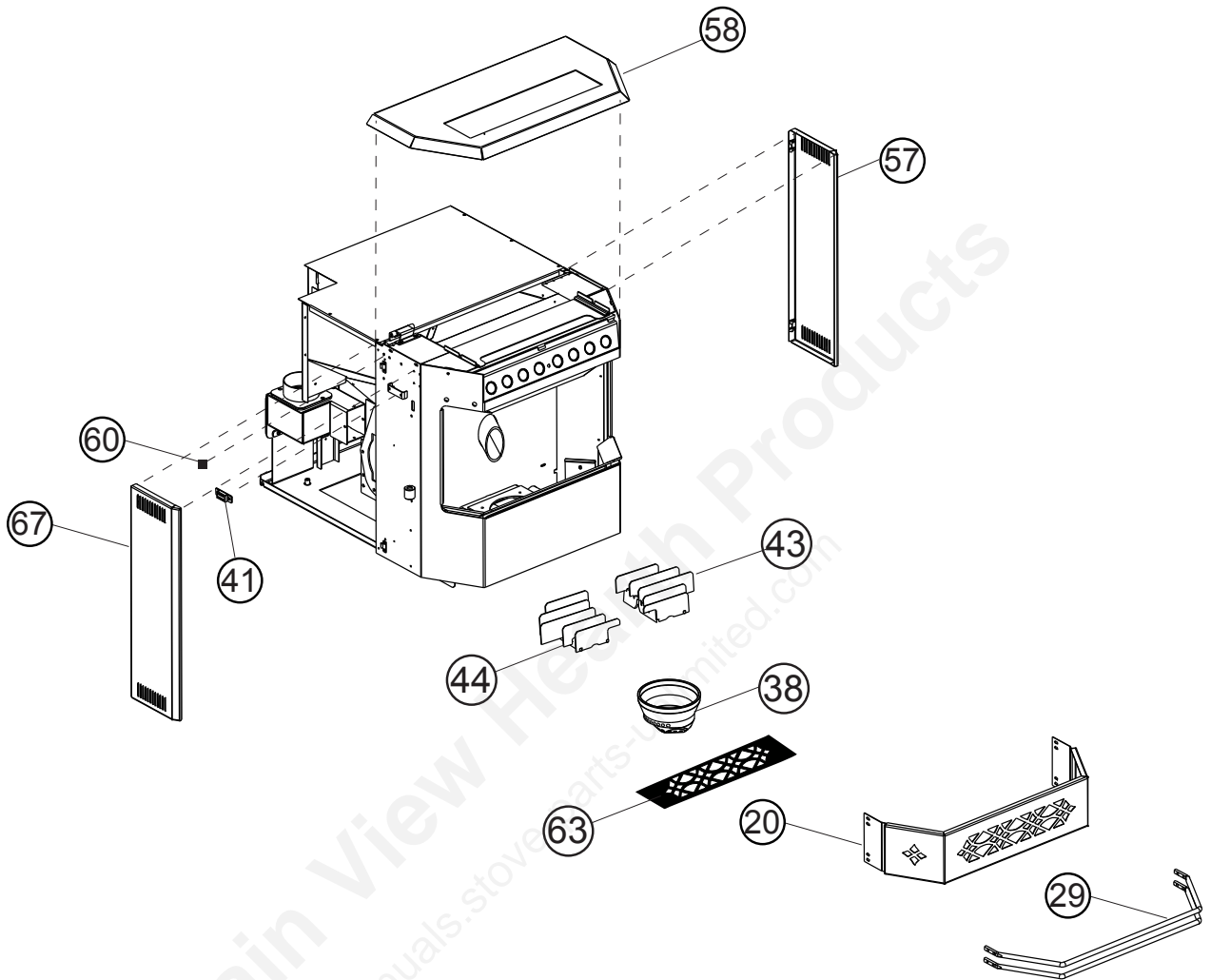
12.1 COMMON REPLACEMENT PARTS



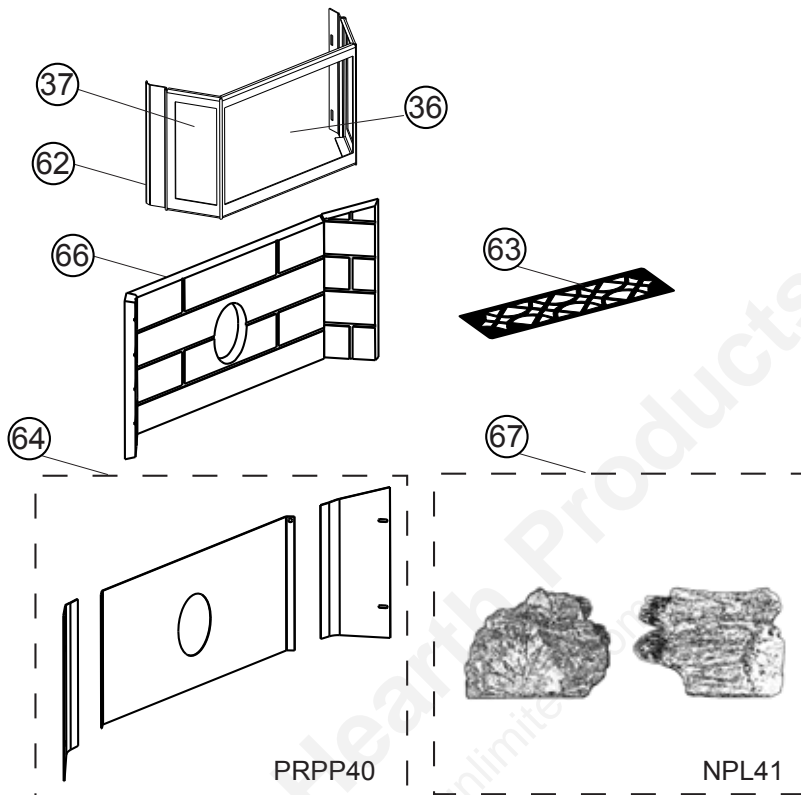
12.2 NPS45 REPLACEMENT PARTS



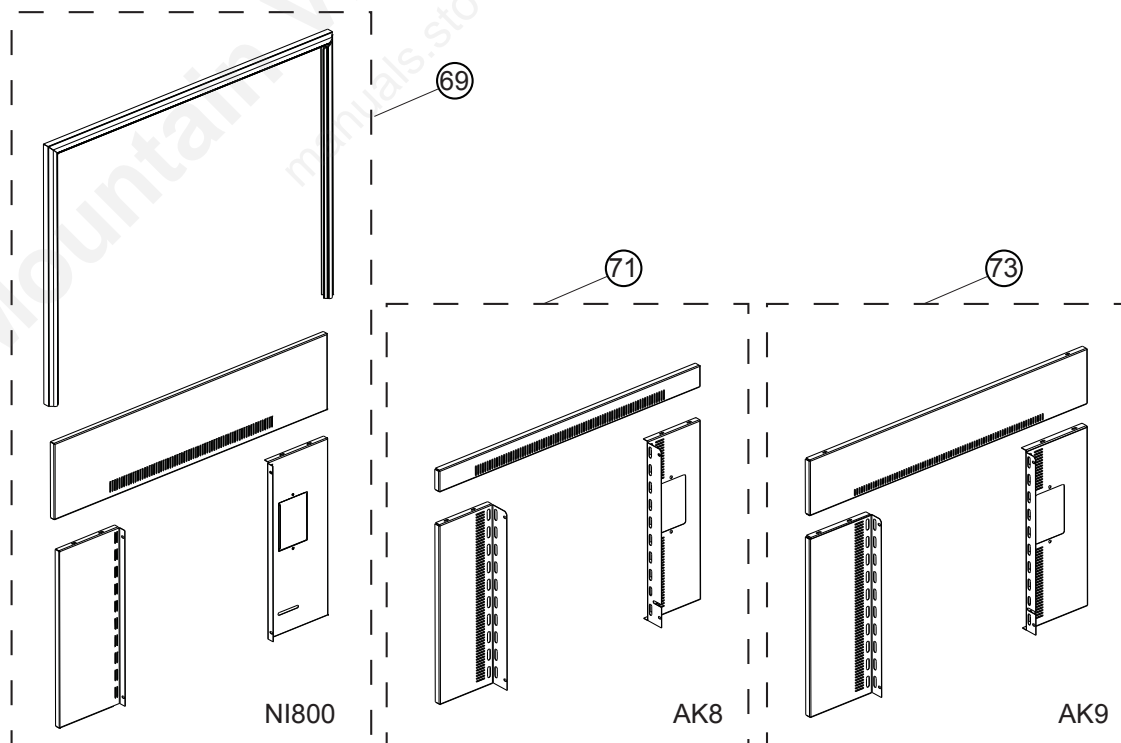
12.3 NPI45 REPLACEMENT PARTS



**12.4 COMMON ACCESSORY PARTS**



**12.5 NPI45 ACCESSORY PARTS**



## 13.0 FREQUENTLY ASKED QUESTIONS

Before calling a service technician, read the following guide for answers to frequently asked questions.

**Q. When I first light the heater, pellets were not feeding and the heater turned off?**

- A. When first starting this heater or when you completely empty the hopper of pellets, the auger feed screw is empty. If proof of fire has not been established the heater will turn off. Simply push the ON / OFF button again.

**Q. My heater stopped and the #2 red light (feed light) is flashing?**

- A. The flashing red light indicates a vacuum switch alarm. There are several issues that may cause this alarm.
1. The main door is open.
  2. The ash drawer is open.
  3. The vacuum switch is defective.
  4. The combustion fan is not running.
  5. The vent system is plugged.

**Q. My heater stopped and the #3 red light (feed light) is flashing?**

- A. The flashing red light indicates a low limit failure (proof of fire). Usually this alarm is caused by running out of fuel. Check to see if there are pellets in the hopper. This switch will automatically reset.

**Q. My heater stopped and the #4 red light (feed light) is flashing?**

- A. The flashing red light indicates a high limit failure. This is a manual re-set switch but should be done by a qualified technician once the cause of failure has been determined.

**Q. Why is my glass getting so dirty?**

- A. It is normal for the glass on a pellet burning heater to accumulate a tan colour build-up of fly ash. Burning on the low settings will produce a darker colour. A heavy dark build-up could indicate a problem.

**Q. Sometimes I notice a flashing green light on the control board. Why does this happen?**

- A. The green ON / OFF light will flash when the heater is in start-up or shut down and stay solid during normal operation.

## 14.0 TROUBLESHOOTING

ALL TROUBLE SHOOTING PROCEDURES SHOULD BE CARRIED OUT BY QUALIFIED TECHNICIANS OR INSTALLERS.

**CAUTION:** When checking connections, installing jumper wires (for test purposes only) or replacing components, unplug heater from the receptacle to prevent electrical shock or damage to the components.

**NOTE:** Many of the following tests will require that the side panels are removed from the heater or the insert be removed from its cavity to access the components. Before troubleshooting always confirm that all components are clean and free of ash build up.

SYMPTOM	TEST SOLUTION
<b>HEATER SHUTS OFF AND THE #2 LIGHT FLASHES</b>	
Vacuum hose or fittings are blocked.	- Unhook the air hose from the vacuum switch and blow through it. If air flows freely, the hose and tube are fine. If air will not flow through the hose, use a wire coat hanger to clear the blockage.
The air inlet, burnpot, interior combustion air chambers, combustion blower, or exhaust pipe are blocked with ash or foreign material.	- Follow all cleaning procedures in the maintenance section of the manual.
The firebox is not properly sealed.	- Make sure the door is closed and that the gasket is in good shape. If the ash door has a latch, make sure the ash door is properly latched and the gasket is sealing well.
Vent pipe is incorrectly installed.	- Check to make sure the vent pipe installation meets criteria in the manual.
The vacuum switch wire connections are bad.	- Check the connectors that attach the blue wires to the vacuum switch.
The gray wires are pulled loose at the connector on the wiring harness.	- Check to see if the blue wires are loose at the connector.
Combustion blower failure.	- With the heater on, check to see if the combustion blower is running. If it is not, you will need to check for power going to the combustion blower. It should be at 115 volts. If there is power, the blower is defective. If there is not, see the next step.
Control board not sending power to combustion blower.	- If there is no current going to the combustion blower, check all wire connections. If all wires are properly connected, you have a defective control board.
Control board not sending power to vacuum switch.	- There should be a 5-volt current (approximately) going to the vacuum switch after the heater has been on for 30 seconds.
Vacuum switch has failed (very rare).	- To test the vacuum switch, you will need to disconnect the air hose from the body of the heater. With the other end still attached to the vacuum switch, very gently suck on the loose end of the hose (you may want to remove the hose entirely off the heater and the vacuum switch first and make sure it is clear). If you hear a click, the vacuum switch is working. BE CAREFUL, TOO MUCH VACUUM CAN DAMAGE THE VACUUM SWITCH.

**SYMPTOM****TEST SOLUTION****HEATER SHUTS OFF AND THE #3 LIGHT FLASHES**

The hopper is out of pellets.	- Refill the hopper.
The hopper lid open.	- Close the hopper lid.
The burnpot is not seated completely into the burner housing.	- Ensure the burn pot locating notch engages with the ignitor and that the burn pot sits flat.
The burnpot holes are blocked.	- Remove the burnpot and thoroughly clean it.
The air inlet, the interior chambers, or exhaust system has a partial blockage.	- Follow all cleaning procedures in the maintenance section of the manual.
The auger shaft is jammed.	- Start by disconnecting the power supply and emptying the hopper. - The auger shaft may be jammed. For more information see "IN THE EVENT OF A JAMMED AUGER" section.
The auger motor has failed.	- Remove the auger motor from the auger shaft and try to run the unit. If the motor will turn, the shaft is jammed on something. If the motor will not turn, the motor is defective.
The low limit switch has malfunctioned.	- Temporarily bypass the low limit switch by disconnecting the two brown wires and connecting them together with a short piece of wire. Then plug the heater back in. If the heater comes back on and works, you need to replace the low limit switch. This is for testing only. DO NOT LEAVE THE SWITCH BYPASSED. Your blowers will never shut off and if the fire went out the auger will continue to feed pellets until the hopper is empty if you leave the low limit switch bypassed.
The fuse on the control board has blown.	- Remove the control board. If the fuse appears to be defective, replace it with a 5 Amp 250 Volt fuse. Plug the heater back in and try to run the unit.
The control board is not sending power to the low limit switch or other auger system components.	- There should be a 5-volt (approximately) current going to the low limit switch after the heater has been on for 10 minutes.

**HEATER FEEDS PELLETS, BUT WILL NOT IGNITE**

Blockage in igniter tube or inlet for igniter tube.	- Find the igniter housing on the backside of the firewall. The air intake hole is a small hole located on the side of the housing. Make sure it is clear. Also, look from the front of the heater to make sure there is not any debris around the igniter element inside of the igniter housing.
The burnpot is not seated completely into the burner housing.	- Ensure the burn pot locating notch engages with the ignitor and that the burn pot sits flat.
Defective igniter.	- Put power directly to the igniter. Watch the tip of the igniter from the front of the heater. After about 2 minutes the tip should glow. If it does not, the igniter is defective.
The control board is not sending power to the igniter.	- Check the voltage going to the igniter during startup. It should be at full current (115 volts). If the voltage is lower than full current, check the wiring. If the wiring checks out good, the board is defective.

**SYMPTOM****TEST SOLUTION****SMOKE SMELL COMING BACK INTO THE HOME**

There is a leak in the vent pipe system.

- Inspect all vent pipe connections. Make sure they are sealed with RTV silicone that has a temperature rating of 500°F or higher. Also, seal joints with UL-181-AP foil tape. Also, make sure the square to round adapter piece on the combustion blower has been properly sealed with the same RTV.

The gasket on the combustion blower has deteriorated.

- Inspect both gaskets on the combustion blower to make sure they are in good shape.

**CONVECTION BLOWER SHUTS OFF AND COMES BACK ON**

The convection blower is overheating and tripping the high limit switch.

- Try lubricating the convection blower. Also, clean any dust off of the windings and fan blades. If oiling the blower does not help, the blower may be defective.

Electronic control panel malfunction.

- Test the current going to the convection blower. If there is power being sent to the blower when it is shut off, then the control board is fine. If there is NO power being sent to the blower when it shuts off during operation, then you have a bad control board.

**HEATER WILL NOT FEED PELLETS BUT AUGER LIGHT COMES ON**

Fuse on control board blew.

- Remove the control board. If the fuse appears to be defective, replace it with a 5 Amp 250 Volt fuse. Plug the heater back in and try to run the unit.

High limit switch has tripped or is defective.

- Wait for the heater to cool for about 30-45 minutes. It should now function normally. If not use the manual to locate the high limit switch. To test if the switch is bad, you can bypass it as described previously for the high limit switch.

Bad auger motor.

- Remove the auger motor from the auger shaft and try to run the unit. If the motor will turn, the shaft is jammed on something. If the motor will not turn, the motor is defective.

Auger jam.

- Start by emptying the hopper.
- The auger shaft may be jammed. For more information see "IN THE EVENT OF A JAMMED AUGER" section.

Loose wire or connector.

- Check all wires and connectors that connect to the auger motor, high limit switch and the Molex connector.

Defective control board.

- If the fuse is good, the wires and connectors check out good and high limit switch did not trip, test for power going to the auger motor. If there is not a full current going to the auger motor when the fuel feed light is on, you have a defective control board.

**GLASS SOOT'S UP AT A VERY FAST RATE  
FLAME IS LAZY, DARK AND HAS BLACK TIPS  
AFTER HEATER HAS BEEN ON FOR A WHILE, THE BURNPOT OVERFILLS**

Heater or vent pipe is dirty, which restricts airflow through the burnpot.

- Follow all cleaning procedures in the maintenance section of the manual.

Vent pipe installed improperly.

- Check to make sure the vent pipe has been installed according to the criteria in the manual.

Burnpot holes are blocked.

- Remove the burnpot and thoroughly clean it.

Blockage in air intake pipe.

- Visually inspect the air intake pipe that leads into the burnpot for foreign material.

SYMPTOM	TEST SOLUTION
Circuit board malfunction.	- Time the fuel feed light at each setting (after the heater has completed the start-up cycle). If the auger motor runs constantly, the board is defective.
Bad pellets (applies to GLASS SOOT'S UP AT A VERY FAST RATE only).	- The brand of pellets or the batch of pellets that are being used may be of poor quality. If possible, try a different brand of pellets. You might also want to try a brand that is made from a different type of wood (softwood vs. hardwood). Different woods have different characteristics when being burned.
The trim setting on the low feed rate is too low. (applies to GLASS SOOT'S UP AT A VERY FAST RATE only).	- Press and hold the auger feed button and the heat up to increase the low feed rate setting. If the 1 and 3 are on, the heater is currently on the lowest setting. If only the 1 light is on, the heater is in the default setting. If the 1 and 4 lights are on, the heater is in the high trim setting for the low feed rate. If the heater is being burned on one of the two lower settings, advance to the next trim setting and try burning the heater.
<b>HIGH LIMIT SWITCH KEEPS TRIPPING</b>	
The convection blower is overheating and tripping the high limit switch.	- Clean any dust off of the windings and fan blades. If cleaning the blower does not help, the blower may be defective.
Power surge or brown out situation.	- A power surge, spike or voltage drop could cause the high limit switch to trip. Check to see if a surge protector is being used on the heater. If not it is highly recommended.
High limit switch is malfunctioning.	- If the other items check out ok, replace the high limit switch.



