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

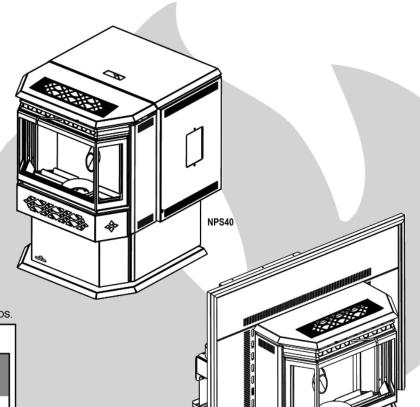


# INSTALLATION AND OPERATING INSTRUCTIONS

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

NPS40
PELLET STOVE HEATER

NPI40 PELLET INSERT HEATER



CERTIFIED FOR CANADA AND UNITED STATES USING ANSI/CSA METHODS

#### SAFETY INFORMATION

## **A**WARNING

PLEASE READ ENTIRE MANUAL BEFORE YOU INSTALL OR USE THIS PELLET BURN-ING 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...





Wolf Steel Ltd., 24 Napoleon Rd., Barrie, ON L4M 4Y8 Canada • (705)721-1212 • fax(705)722-6031 www.napoleonfireplaces.com • ask@napoleon.on.ca

\$10.00 W415-0616 / B / 02.18.08

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#### PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

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

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 fireplace 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 -- i.e., the individual or legal entity (registered customer) whose name appears on the warranty registration card filed with NAPOLEON® -- provided that the purchase was made through an authorized NAPOLEON® dealer and 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 fireplace.

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 drivers, etc.

Any damages to fireplace, 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®.

The bill of sale or copy will be required together with a serial number and a model number when making any warranty claims from your authorized dealer. The warranty registration card must be returned within fourteen days to register the warranty.

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.

## **WARNINGS AND 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.



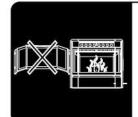
If this heater is not properly installed, a house fire may result.



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 technicican.



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.

## WARNINGS AND SAFETY PRECAUTIONS



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.



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.



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.

### GENERAL INTRODUCTION

#### **GENERAL INSTRUCTIONS**

Thank you for purchasing the Napoleon® 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.

#### PELLET QUALITY

Pellet quality is important, please read the following:

Your Napoleon® 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 pellet, 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.

**CAUTION:** 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 Industries (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 unit may not operate as designed.

We recommend the use of premium grade (1% ash content) for longer stove life and less frequent cleaning.

## **SPECIFICATIONS**

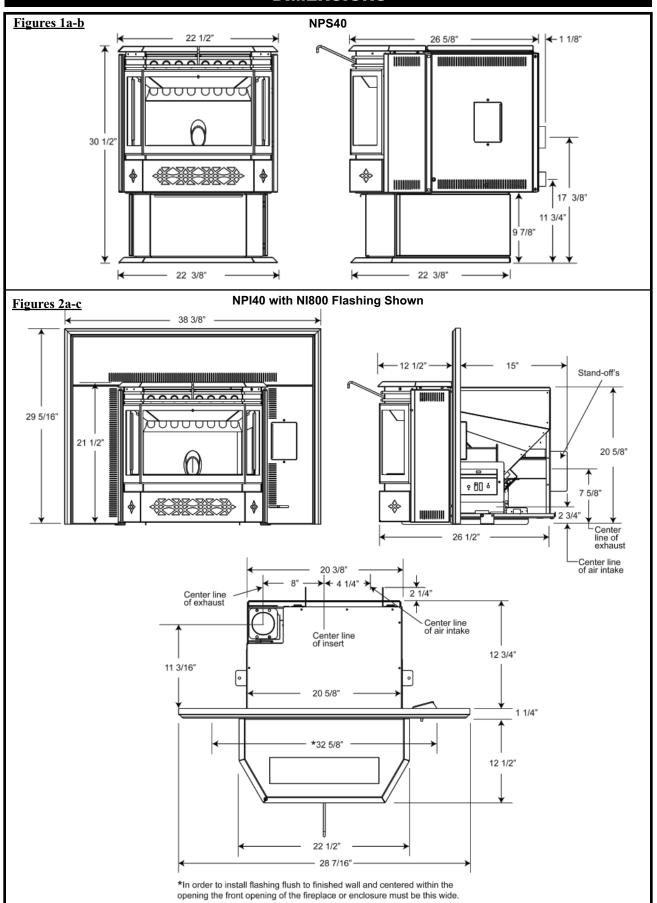
#### **HEATING SPECIFICATIONS**

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 (NPS40), 45 Hours (NPI40)
Hopper Capacity	55 Pounds (NPS40), 45 Pounds (NPI40)

\* 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.

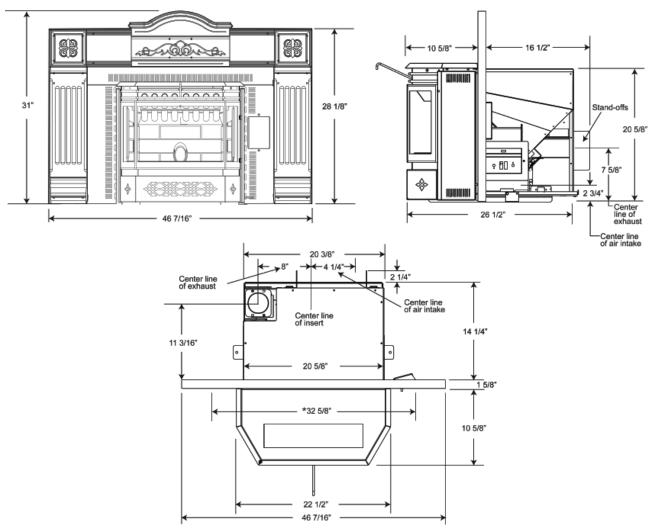
### **DIMENSIONS**



#### **DIMENSIONS CONTINUED**

Figures 3a-c

NPI40 with AK9 Adapter and CISK Flashing Shown

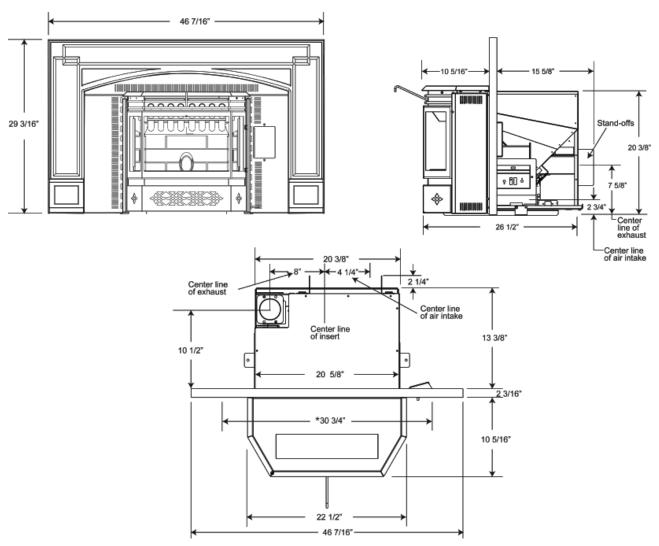


<sup>\*</sup>In order to install flashing flush to finished wall and centered within the opening the front opening of the fireplace or enclosure must be this wide.

#### **DIMENSIONS CONTINUED**

#### Figures 4a-c

NPI40 with AK8 Adapter and GICSK Flashing Shown



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

#### **SPECIFICATIONS** 115 Volts, 3.6 Amps, 60Hz **Electrical Rating** Watts During Start-Up Se-400 (approximately) quence Watts During Operation 180 (approximately) NPS40 Width 22 3/8" NPS40 Height 30 1/2" NPS40 Depth 26 5/8" Weight 210 Pounds **Exhaust Collar** 3" 2" Intake Collar NPS40 Hopper Cap. 55 Pounds NPI40 Hopper Cap. 45 Pounds **EPA** Exempt Burn Rate\*\* 1.0 to 5.0 (Pounds Per Hour) BTU/h\*\* 8500 to 42500 Minimum Fireplace Opening Front: 22 1/2\* W x 20 5/8 H x 14 1/4 D Size Back: 20 3/8 W

#### 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).

## GENERAL INSTALLATION

#### **PLANNING YOUR INSTALLATION**

## **AWARNING**

READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND 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 the oils on the steel, there by minimizing any smell inside the home.

#### HEATER PLACEMENT

Have an authorized Napoleon® 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"

#### INSTALLATION OPTIONS

#### NPS40:

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.

#### <u>NPI40:</u>

The insert can be adapted to vent out the rear or vertically. To install as an insert into an existing masonry fireplace factory built fireplace or a built in combustible enclosure see Insert Installation.

#### **FLOOR PROTECTION REQUIREMENTS**

#### NPS40:

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).

#### <u>NPI40:</u>

In the case of the NPI40, the floor protector must have a R-value of 0.4  $\underline{\text{hr ft}^{2\circ}\text{F}}$ 

BTU

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

#### 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.

#### **BLOWER OVER-RIDE SWITCH:**

Your heater is equipped with a convection blower that circulates hot air into your room. This switch will automatically turn the blower on, when the temperature at the back of the fire box reaches a certain temperature. The blower can cycle from your desired setting to maximum speed depending on the feed rate. When the heater cools back down, the blower will return to the initial setting.

#### **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.

#### **OUTSIDE AIR**

Available from your Napoleon Dealer (114KT) Outside air must not be drawn from an enclosed space (garage, unventilated crawl space).

<u>NOTE</u>: Napoleon® 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 mandatory for a combustible built-in enclosure install for the NPI40.

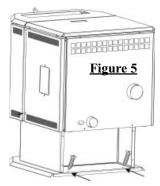
#### **MOBILE HOME**

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).

WARNING: DO NOT INSTALL IN A SLEEPING ROOM.

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



### GENERAL VENTING

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 CHIM-NEY SERVING ANY OTHER APPLIANCE OR HEATER. DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENT-ING SYSTEM OF THIS UNIT.

#### **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.

#### **INSTALLING THE PELLET 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 offset is 10'. Use no more than 180° of elbows (two 90' elbows, or two 45' elbows and one 90' elbow, etc), plus 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 during the appliance shut down or in the event of a power outage.

Horizontal sections must 33' have a 1/4" rise every 12" of travel if longer than 3'. The pellet vent connec-30' tions must be sealed with HI-Temp RTV Silicone and screwed together with at least 3 3/8" long stainless 25' steel screws. Seal each Use 4" diameter "L" vent section by injecting vent if venting in a liberal amount of 500°F this region. (260°C) RTV silicone 20' sealant into the gap. We recommend sealing the outside of the vent connections to permit easier 15' access when servicing. 10 Use 3" or 4". diameter "L" vent if venting 5' in this region. Figure 6 0 5 10'

#### **VENTING THE PELLET HEATER**

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

#### PELLET VENT TERMINATION

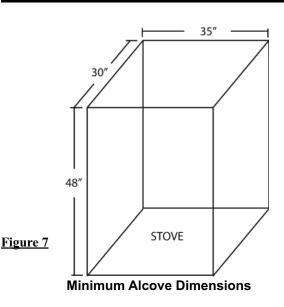
The vent termination must have an approved cap (to prevent water from entering) or a 45° downturn.

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.

#### **ALCOVE INSTALLATION (NPS40 ONLY)**



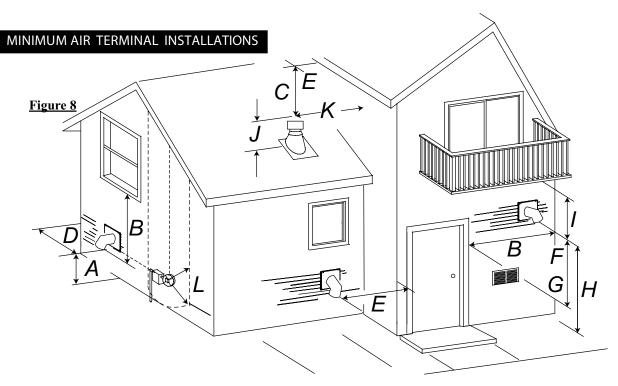


Illustration dimensions are to the center and the exhaust exit point of the vent.

	CLEARANCE	Illustration dimensions are to the center and the exhaust exit point of the vent.	
Α	24 INCHES	Clearance above grade, veranda porch, deck or balcony. (Including Vegetation and Mulch)	
В	48 INCHES	Clearance beside or below any windows or doors that open.	
	12 INCHES*	Clearance above any window or door that opens.	
С	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.	
Ε	3 INCHES	Clearance to an inside combustible corner wall or protruding combustible obstructions ( vent chase, etc.).	
F	9 INCHES	Clearance to a non-mechanical air supply inlet to the building or a combustion air inlet to any other appliance.	
G	3 FEET	Clearance to a mechanical air supply inlet.	
Н	7 FEET**	Clearance above a paved sidewalk or paved driveway located on public property.	
Ι	12 INCHES**	Clearance under a veranda, porch, deck or balcony.	
J	24 INCHES	Clearance above the roof.	
К	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 porpane meter/regulator assembly or mechanical vent.	

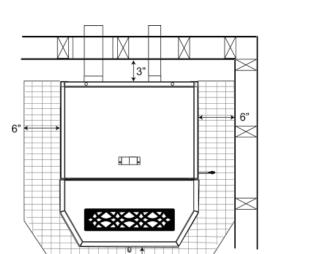
- \* Recommended to prevent condensation on windows and thermal breakage
- \*\* This is a recommended distance. For additional requirements check local codes.

### **NPS40 INSTALLATION**

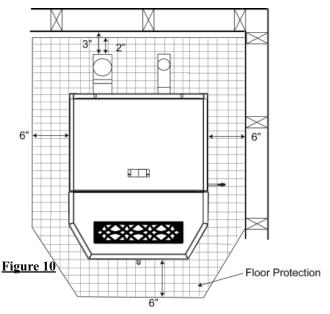
#### MINIMUM CLEARANCE TO COMBUSTIBLES

#### STRAIGHT INSTALLATION

Through the Wall Installations



Interior Vertical Vents

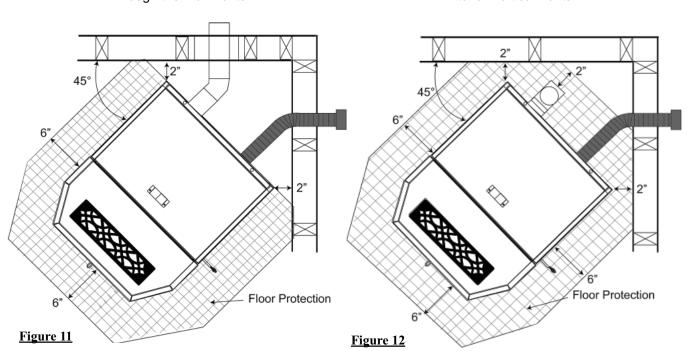


#### **CORNER INSTALLATION**

Floor Protection

Through the Wall Vents

Interior Vertical Vents

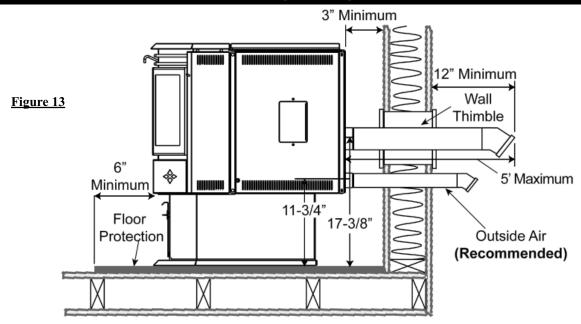


NOTE: If interior vertical pellet vent is used, the clearance to the back wall is determined by the upward-turning elbow or "Tee". It will vary in depth depending on the brand of pellet vent used (it is approximately 5"). Before placing the heater, connect the elbow or "Tee" and allow for the minimum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

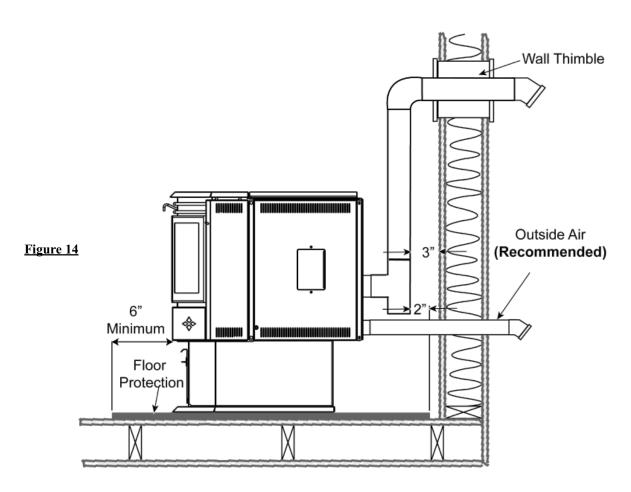
Figure 9

#### **VENTING INSTALLATION EXAMPLES**

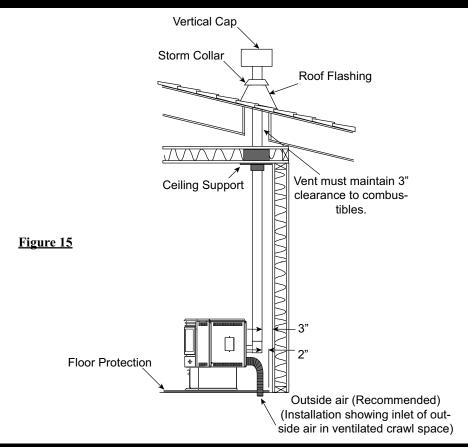
## HORIZONTAL EXHAUST THROUGH WALL INSTALLATION



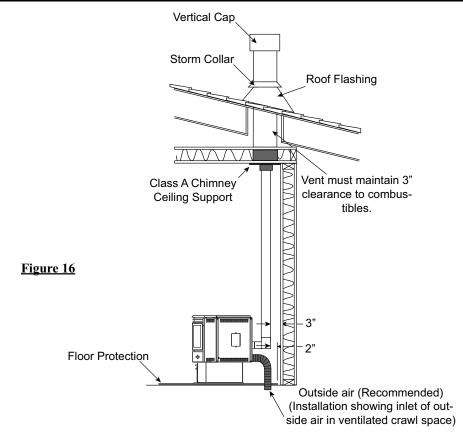
#### THROUGH WALL WITH VERTICAL RISE AND HORIZONTAL TERMINATION INSTALLATION



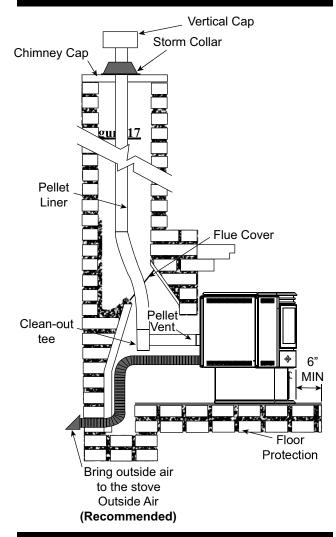
#### **MINIMUM INSIDE VERTICAL CLEARANCES**



#### **CLASS A CHIMNEY RETROFIT**



#### **HEARTH MOUNT INSTALLATION**



#### PRIOR TO INSTALLATION

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

Do not remove bricks or mortar from the fireplace.

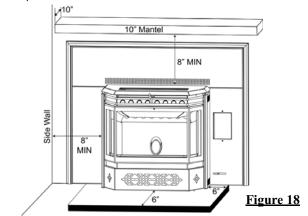
#### **INSTALLATION INTO A MASONRY FIREPLACE**

- 1. Remove the fireplace damper or fasten it permanently open.
- 2. 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.
- 3. If you plan on connecting outside air it is recommended to do so at this time.
- 4. Connect the pellet vent with a clean out tee to the back of the stove. Refer to manufacturer's installation instructions and the "General Venting Section".
- 5. Run a liner down the chimney and connect to tee.
- 6. Position the stove in it's final location.
- 7. Pull the excess length of liner out through the top of the chimney. Trim the excess liner, install the cap and cap the chimney.

## **NPI40 INSTALLATION**

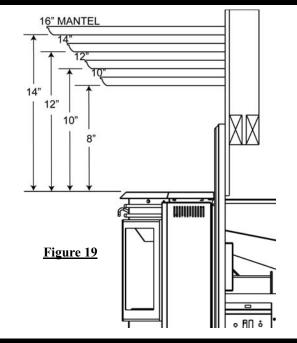
#### MINIMUM CLEARANCES TO COMBUSTIBLES

Side wall to unit	8"
Maximum mantel depth	10"
Mantel to top of unit	8"
Top facing to unit	6 3/8"
Side facing to unit	6"
Floor protection*	6"*



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

#### MINIMUM MANTEL CLEARANCES



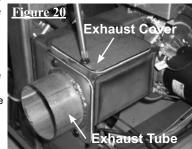
#### **REAR TO TOP VENT CONVERSION INSTRUCTIONS**

**NOTE:** The insert is factory shipped in a rear vent configuration. 1. To vent exit vertically, remove the two screws holding the

exhaust cover. NOTE: Be careful not to damage the

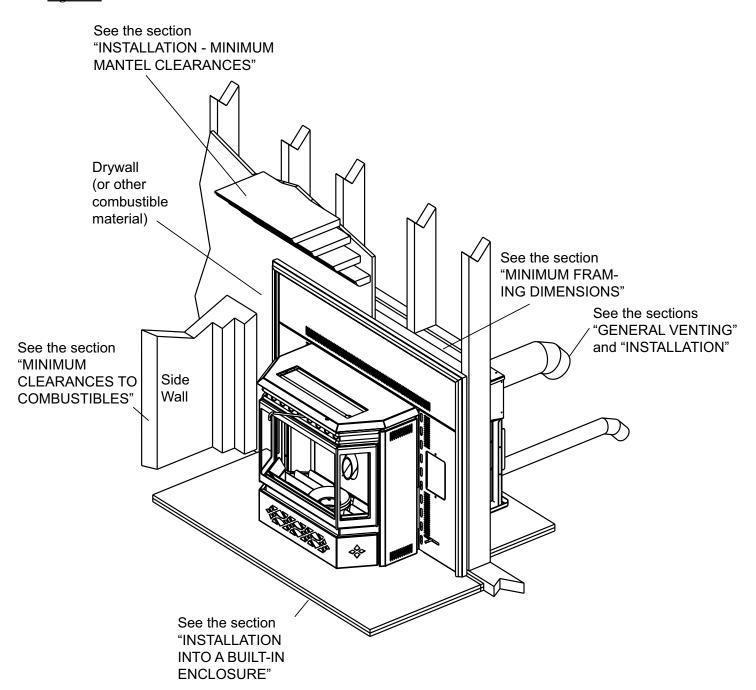
gasket.

- 2. Remove the two screws holding the exhaust tube (NOTE: Be careful not to damage the gasket).
- 3. Attach the exhaust tube and gasket in the vertical position.
- 4. Attach the exhaust cover and gasket over the horizontal exit.



## **NPI40 INSTALLATION OVERVIEW**

#### Figure 21



#### **INSTALLATION INTO A MASONRY FIREPLACE**

#### PRIOR TO INSTALLATION

Stand-offs (See Dimensions on page 7) 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. If necessary, the damper plate may be removed from the smoke shelf, to accommodate the chimney liner. Do not weaken the structure, or reduce the protection for combustible materials to less then that required by the National Building Code

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 insert.

Do not remove bricks or mortar from the fireplace.

Install floor protection if necessary.

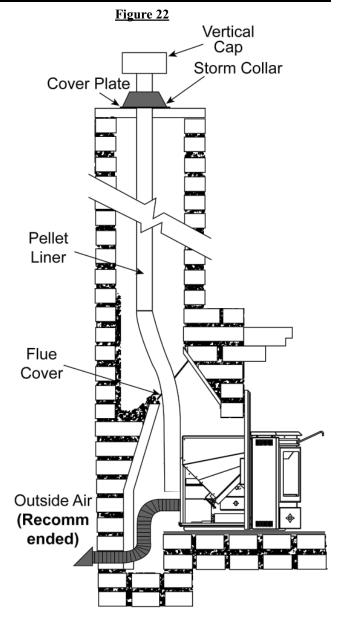
#### **INSTALLATION INTO A MASONRY FIREPLACE**

#### **HORIZONTAL VENT INSTALLATION**

- 1. If you plan on connecting outside air it is recommended to do so at this time.
- 2. A hole must be made in the back of the fireplace to accommodate the pellet vent. Connect the pellet vent to the back of the stove and position in place. Refer to manufacturer's installation instructions and the "General Venting Section".
- 3. Connect the vent cap to vent.

#### **VERTICAL LINER INSTALLATION**

- 1. If you plan on connecting outside air it is recommend to do so at this time.
- 2. Remove the fireplace damper or fasten it permanently open.
- 3. 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.
- 4. Convert the exhaust tube to a vertical application. See "Rear to Top Vent Conversion Instructions" section.
- **5.** Run a liner down the chimney and connect to the exhaust tube. Refer to manufacturer's installation instructions and the **"General Venting Section"**.
- 6. Position the insert in it's final location.
- 7. Pull the excess length of liner out through the top of the chimney. Trim the excess length and cap the vent.



#### **INSTALLATION INTO A FACTORY BUILT (METAL) FIREPLACE**

#### PRIOR TO INSTALLATION

Stand-offs (See Dimensions on page 7) may be removed to fit the insert into the fireplace.

When installing the insert into a factory built fireplace, you must not modify any part that would alter the integrity in any way. Bolted or screwed together pieces (smoke shelf/deflectors) may be removed, but must be able to be re-installed if the insert 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 insert 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 in front and to both sides of the heater.

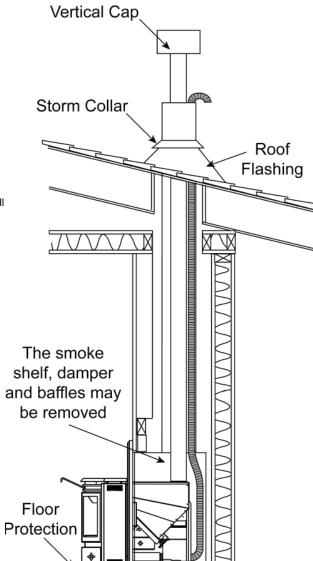
Install floor protection if necessary.

#### **INSTALLATION INTO A MASONRY FIREPLACE**

#### **LINER INSTALLATION**

- 1. If you plan on connecting outside air it is recommended to do so at this time. As illustrated connect the air vent to the back of the insert, flex the vent up through the A vent chimney and bend the vent 180°.
- 2. Remove the fireplace damper or fasten it permanently open.
- 3. Convert the exhaust tube to a vertical application. See "Rear to Top Vent Conversion Instructions" section.
- **5.** Run a liner down the chimney and connect to the exhaust tube. Refer to manufacturer's installation instructions and the *"General Venting Section"*.
- 6. Install flashing. See "NPI Finishing Flashing Installation" section.
- 6. Position the insert in it's final location.
- 7. Pull the excess length of liner out through the top of the chimney. Trim the excess length and cap the vent. Cover the A vent chimney to weatherproof.

#### Figure 23



Do not remove any part that would alter the integrity in any way.

## INSTALLATION INTO A COMBUSTIBLE BUILT-IN ENCLOSURE

#### **MINIMUM FRAMING DIMENSIONS**

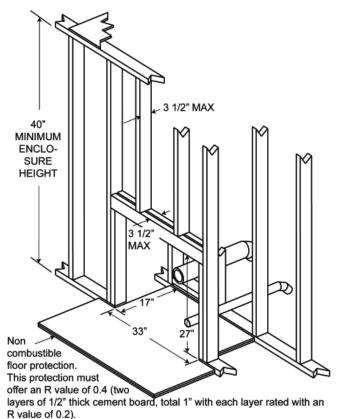
When installing the insert as a "Built-in" heater, it is important to maintain the "Clearances to Combustibles" as illustrated in **Figure 24a-b.** 

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

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

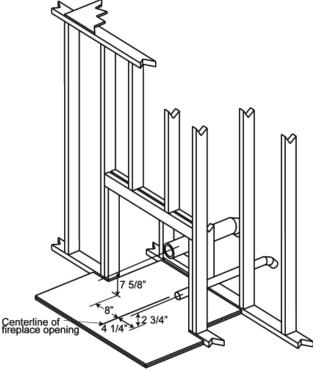
- 1. Install floor protection.
- 2. Frame structure maintaining minimum clearances. Locate and frame openings for both the exhaust and outside air. Outside air is mandatory for "Enclosure" installations.
- 3. Refer to the vent manufacturer's installation instructions and to "General Venting" section. Connect the vent.
- 4. Install flashing. See "NPI40 Finishing Flashing Installation" section
- **5.** Consideration must be taken during installation that removal of the insert is necessary for inspection and annual maintenance. Install the vent cap.

#### Figure 24a



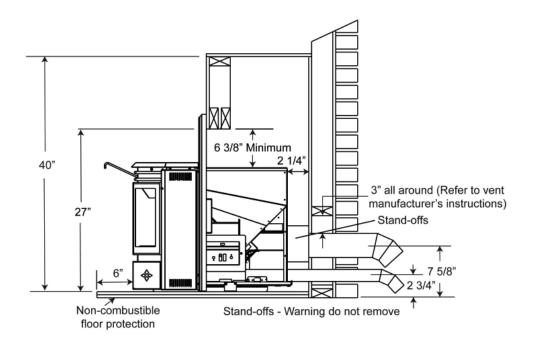
For temperature requirements, the enclosure space around and above the fireplace must be left unobstructed.

Figure 24b



#### **MINIMUM ENCLOSURE CLEARANCES**

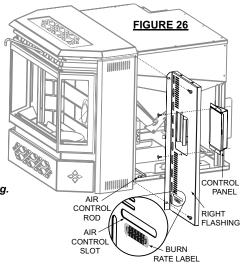
Figure 25



#### **NPI40 FINISHING**

#### FLASHING INSTALLATION

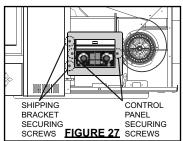
1. Secure the Right Flashing to the right side of the unit using two of the #8 x 1/2" screws. NOTE: Feed the Air **Control Rod** into the Air **Control Slot** on the Right Flashing before securing. (FIGURE 26)

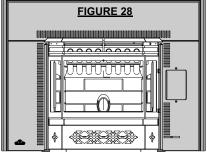


- 2. Twist spring handle (supplied with the heater) onto the air control rod until it hits the stop.
- 3. Remove the two control panel securing screws, discard the screws and shipping bracket. (FIGURE 27)

4. Secure the control panel to the *Right Flashing* using the two #8 x 3/8"

screws. (FIGURE 20) Secure the *Left Flashing* with the remaining #8 x 1/2" screws. (FIGURE 26)

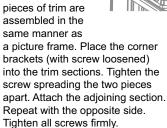




5. Align the holes in the top of the *Right* and *Left Flashing* with those on the bottom lip of the *Top Flashing* and secure from the rear using the four #8-32 x 3/8" screws, washers and nuts. (FIGURE 29)

6. The three

(FIGURE 30)



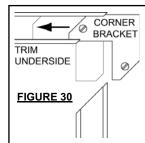
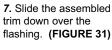
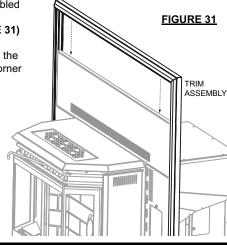


FIGURE 29

TOP FLASHING

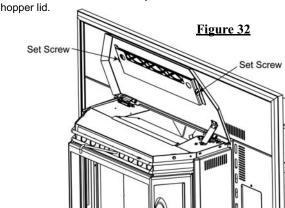


**8.** Affix the logo to the bottom left hand corner of the left flashing.

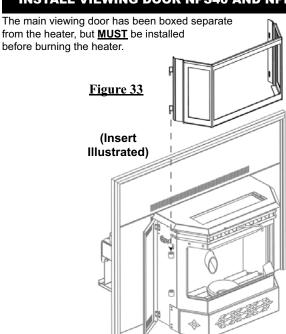


#### **TRIVET NPI40**

The trivet for the NPI40 is attached by two set screws on the inside of the hopper lid.



#### **INSTALL VIEWING DOOR NPS40 AND NPI40**



- 1. Open both side panels, exposing the bushing on the left and the latches on the right.
- **2.** Align the pins on the door to the bushing on the left side of the heater. Lower into place until both bushings touch.
- 3. Engage the latch hooks into the door frame. Snap the rear handle hook to lock the latch closed. W415-0616 / B / 02.18.08

### OPERATING INSTRUCTIONS

The pellet heater can be operated with or without the ring in place over the burn pot. With the ring in place, a more efficient burn will occur, however more finer fly ash will be experienced. It may be necessary to clean the burn pot of ash more frequently.

CAUTION: Never use gasoline, lantern fuel, lighter fluid to start or "freshen-up" a fire in this heater. Keep all such fluids away from heater when in use.

Due to different installation set ups, length and size of venting and fuel quality, the low feed setting from the factory will not always be correct. It may be necessary to experiment with feed rate vs air control. (For example, #2 may be your lowest setting).

Always operate this heater with the door closed.

If this is the first time the heater has started or the heater has run out of pellets, the auger will need to be purged.

Press "START" switch, turn the pellet feed dial to high to fill the auger full of pellets and pull the air control rod all the way out allowing air flow into the fire. If the heater does not reach the required temperature and turns off after 15 minutes, press the start switch again. This time turn the pellet feed dial to low, to prevent over filling the burn pot and continue with the start-up instructions below.

#### **START-UP**

- 1. Press "START" switch
- 2. Rotate the Pellet feed dial rate to optimum
- **3.** Adjust the air control rod to the preferred setting (this position will vary depending on venting configuration and fuel quality).
- **4.** If the heater stops running after approximately 15 minutes, press "START" switch again.

If no ignition is apparent and pellets are building up in the burn pot, remove pellets from the burn pot before restarting.

CAUTION: Heater may be hot.

#### **Blower Speed Dial**

By adjusting the Blower Speed dial you will vary the rate of airflow into the room by varying the speed of the convection blower. When you first start the heater, it should be placed in the "OFF" position in order to heat up the unit as quickly as possible. Once the room has come up to temperature, the control may be set to a comfortable level.

<u>NOTE</u>: The convection blower may cycle to high automatically depending on the setting of the pellet feed rate and the Blower Speed. This is a normal safety feature of the unit. Once the heater has cooled down the blower will return to the set speed.

WARNING: IT IS NOT RECOMMENDED TO BURN THE UNIT ON LOW OR HIGH. THE MOST EFFICIENT SETTING IS 4 (OPTIMUM).

**NOTE:** The flashing amber light corresponds to the auger motor feeding the pellets. Wood pellets of different quality may affect the performance of the heater. If the heater has trouble operating at the ends of it's range, adjust the feed rate accordingly.

Pellet Feed Dial

This switch controls the amount of heat output. The switch has a scale (dial) from 1 through 5. At setting 5 the pellet feed rate is the greatest.



Pellet Feed Dial

Auger Cycle Light

Start switch

Blower Dial

Figure 34

#### **SHUT-DOWN**

To turn your heater off, simply turn the feed dial counter-clockwise until the dial clicks to the "OFF" position. This will stop the feed of pellets. The blowers will continue to run to cool the heater. When cool enough, the heater will shut down. DO NOT unplug unit while combustion blower is operating. This may lead to smoke escaping from the heater into the room.

#### **LIGHTING HEATER MANUALLY**

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

#### CAUTION: Heater may be hot.

- 1. Press the start switch
- 2. Turn feed dial to "Optimum"
- 3. Place a "handful" of pellets into the burn pot.
- 4. Cover with a small amount of approved (non-volatile) fire starter gel.
- 5. Light fire starter with a match and close the viewing door.

CAUTION: 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 then what the feed tube can deliver. Pellets must only be burned within the burn pot.

#### **PROPER PELLET LOADING**

Before loading pellets into the hopper first transfer the pellets from it's original plastic bag to a metal bucket.

**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.

## **GENERAL MAINTENANCE NPS40 AND NPI40**

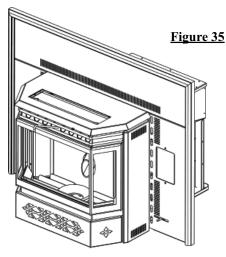
#### **DAILY (WHENEVER USING THE HEATER)**

#### **OPEN MAIN VIEWING DOOR**

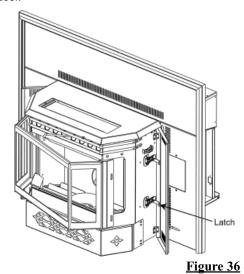
## **▲** WARNING

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

1. Open the side doors on either side of the heater.



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.



#### **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.

#### **INSPECT THE BURN POT**

When burning, the flames should be bright orange with embers jumping from the burn pot.



Figure 37

#### **CLEANING GLASS DOOR**

If the glass is not kept clean, permanent discolouration and/or blemishes may result. If glass should ever crack, it must be replaced using 5mm thick ceramic glass available from your Napoleon Dealer.

DO NOT SUBSTITUTE MATERIALS

DO NOT CLEAN GLASS WHEN HOT

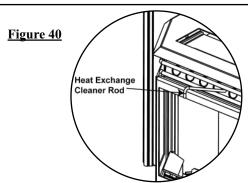
DO NOT use abrasive cleaners to clean glass or plated parts.

DO NOT OPERATE THIS HEATER WITH THE GLASS DOOR OPEN

#### **CLEANING THE HEAT EXCHANGE TUBES**

## **▲** WARNING

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



## **AWARNING**

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. W415-0616 / B / 02.18.08

## DAILY (WHENEVER USING THE HEATER) CONTINUED

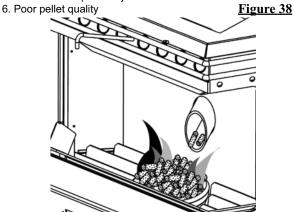
#### MAKE SURE PELLETS ARE NOT PILING UP

If the pellets build up over the burn pot, turn the pellet feed switch to "OFF".

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:

- Feed rate has been set to maximum for an extended period of time. Turn feed rate to optimum.
- The door, glass, or ash pan is open or has an air leak.
- 3. The burn pot requires cleaning.
- 4. The exhaust system requires cleaning.
- 5. The heater requires adjustment.

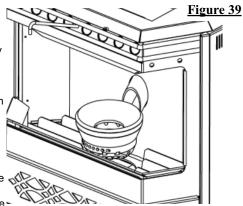


#### **CLEANING THE BURN POT**

## **▲** 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. See Figure 39. 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.



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

#### **VACUUM FIREBOX**

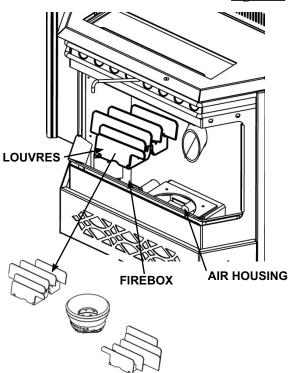
The more frequently you clean out the fly ash, the more efficient your heater will burn.

## **▲** WARNING

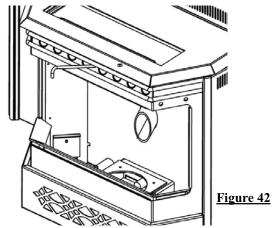
The fire box becomes very hot during operation. Let the heater cool completely before conducting service.

- 1. Open the viewing door. See Figure 35 and 36
- 2. Lift the burn pot out and set aside on a non-combustible surface. See <u>Figure 39</u>. Remove the right and left louvres by lifting the louvres up and out of the firebox setting them on a non-combustible surface.

Figure 41



**3.** Vacuum out the firebox, louvres, air housing and burn pot of all fly ash.



**4.** Replace the louvres and burn pot, latch the viewing door closed and close both side doors.

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

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

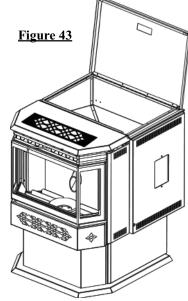
WARNING: Disconnect the power cord prior to conducting service. The following section details extensive maintenance procedures. We strongly suggest these items be carried out by a trained service technician, possibly by a service agreement set up with your dealer.

NOTE: The heater becomes very hot during operation. Let the heater cool completely and disconnect the power cord prior to conducting service.

#### **VACUUM HOPPER**

#### NPS40:

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.



## Cleaning the Optional Plated Surfaces

Fingerprints or other marks left on plated surfaces may become etched in place if they are not wiped clean prior to turning the heater on. Wipe the gold with a non-abrasive cleaning solvent and a soft cloth (make sure the heater is cool). Other cleaners may leave a film that may become etched into the finish.

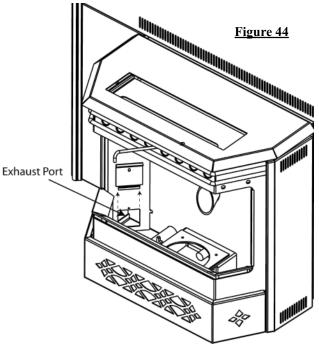
#### **SOOT AND FLY ASH FORMATION**

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.

#### **CLEAN THE VERTICAL EXHAUST DUCT**

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

- Open side door, release the latch and pivot the viewing door wide open. See <u>Figure 35 and 36</u>.
- 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 behind the left and right exhaust manifolds. Once clean, replace the exhaust port doors and secure with the screws.

#### **CLEAN EXHAUST HOUSING (INSERT ONLY)**

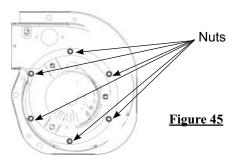
To clean the exhaust blower and exhaust housing, the heater must be pulled out from the fireplace cavity. Remove the venting from the exhaust collar. If installed as a top vent, remove cover plate from the rear of the housing. If installed as a rear vent, remove the cover plate from the top of the housing. Vacuum out the housing back to blower outlet. See **Figure 46**.

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

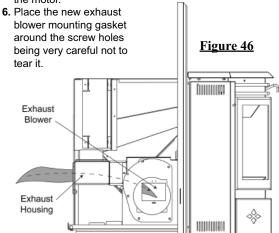
#### **CLEAN THE EXHAUST BLOWER**

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

 Remove the six nuts holding the exhaust blower motor in place.



- 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.
- Start by cleaning the exhaust tube by feeding a brush or rag through the inside of the tube and out the exhaust blower housing.
- Vacuum out the exhaust ports and the blower housing.
- 5. With a bristle brush vacuum, clean the blades of the motor.



7. 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.

#### **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.

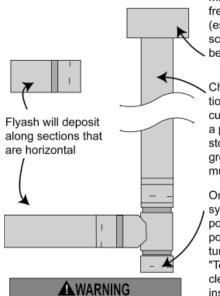
Test the door seal by shutting the door on a piece of paper in various locations. If the paper can be easily slid out, air may be leaking around the door seal. Carefully inspect the door gasket and door catch.

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.

#### **CLEAN THE VENT**



Whenever any portion of the pellet

vent is disconnected, the joints must

be re-sealed with RTV 500°F silicone

sealant.

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 stove). 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.

Figure 47

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

## **NORMAL OPERATING SOUNDS**

00006000

#### **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.



## **Auger Motor**

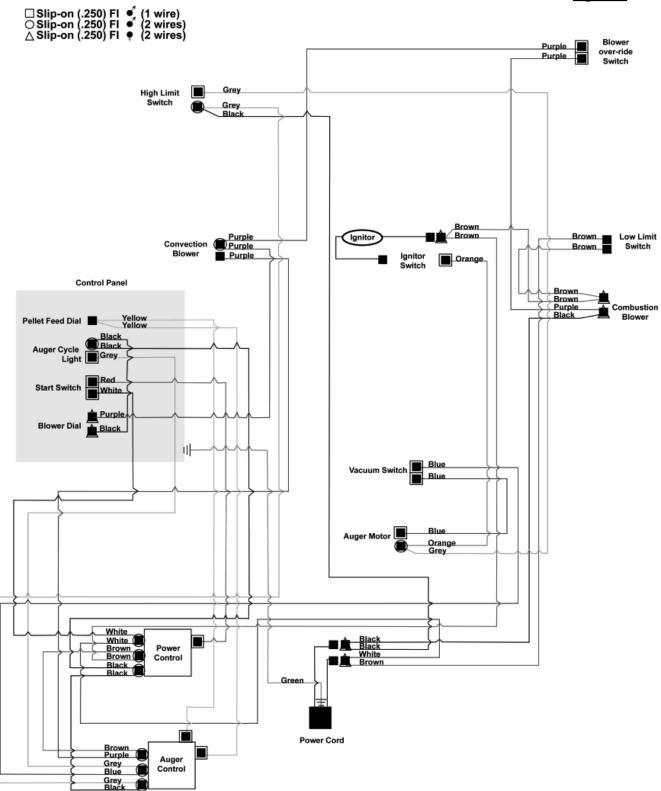
An irregular buzz of the motor running might be heard when pellets are being fed.

#### **Burn Pot**

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

## WIRING DIAGRAM

#### Figure 49



## REPLACEMENTS

Contact your dealer for questions concerning prices and availability of replacement parts. Normally all parts can be ordered through your Napoleon® dealer or distributor.

When ordering replacement parts always give the following in formation:

1. Model and Serial Number of the fireplace

**EXHAUST COLLAR** 

51 W010-1612

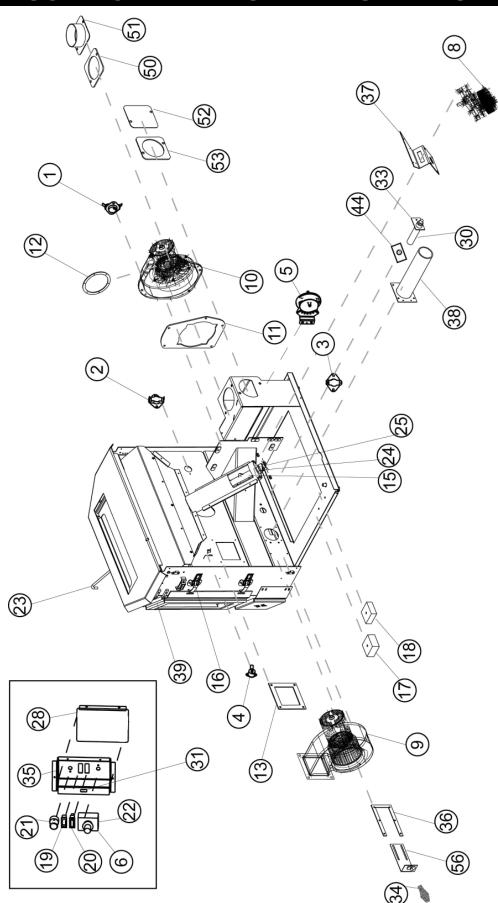
- 2. Installation Date of the fireplace
- 3. Part Number
- 4. Description of part
- 5. Finish

For warranty replacement parts, a photocopy of the original invoice will be required.

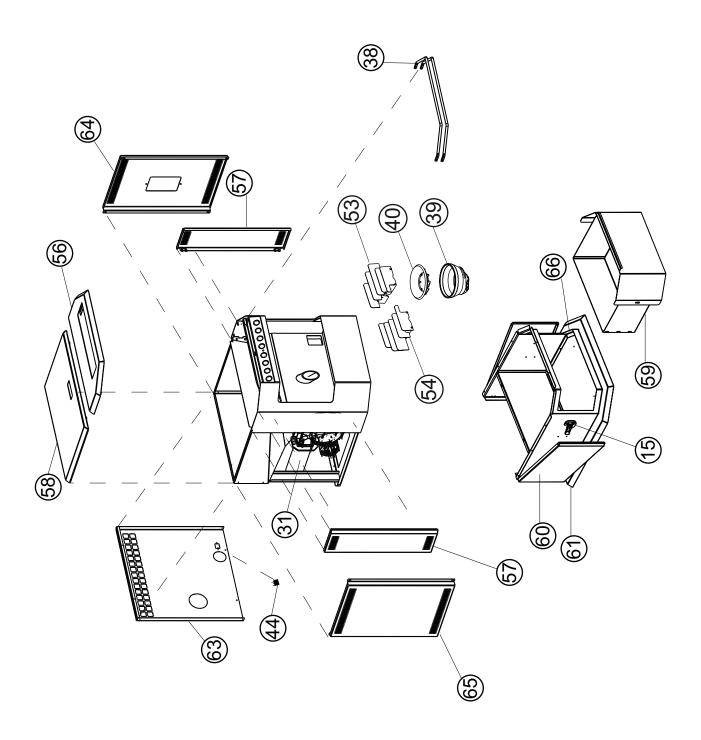
\* Identifies items which are not illustrated. For further information, contact your Napoleon® dealer.

	COMMON	COMPONENTS TO BOTH UNITS	#	PART NO.	DESCRIPTION
			52	W010-0219	EXHAUST COVER
#	PART NO.	DESCRIPTION	53	W290-0122	EXHAUST GASKET
1	W660-0052	LOW LIMIT SWITCH 140°F (80°C)	54	W010-1673	RIGHT LOUVRE ASSEMBLY
2	W660-0053	OVER-RIDE SWITCH 160°F (71°C)	55	W010-1685	LEFT LOUVRE ASSEMBLY
3	W660-0054	IGNITION SWITCH 120°F (60°C)	56	W010-1567	AIR CONTROL
4	W660-0055	HIGH LIMIT SWITCH 200°F (93°C)			NPS40 COMPONENTS
5	W660-0056	VACUUM SWITCH			
6	W380-0020	CONTROL KNOB	57	W010-1508	WELDED TOP ASSEMBLY
7*	W195-0004	POWER CORD	58	W010-1527	SIDE DOOR ASSEMBLY
8	W435-0009	AUGER MOTOR	59	W010-1529	HOPPER DOOR ASSEMBLY
9	W062-0021	CONVECTION BLOWER	60	W010-1667	ASH PAN ASSEMBLY
10	W062-0022	COMBUSTION BLOWER	61	W010-1668	PEDESTAL SIDE DOOR ASSEMBLY
11	W290-0111	COMBUSTION BLOWER MOUNTING GASKET	62	W035-0191	PEDESTAL BASE
12	W290-0120	COMBUSTION BLOWER MOTOR MOUNTING GASKET	63*	W555-0059	AIR CONTROL ROD
13	W290-0113	CONVECTION BLOWER GASKET	64	W475-0482	OUTER REAR PANEL
14*	W255-0020	PRESSURE FITTING TAP	65	W475-0484	OUTER PANEL, RIGHT
15	W570-0107	AUGER SCREW	66	W475-0485	OUTER PANEL, LEFT
16	W390-0002	DOOR LATCH	67	W652-0040	PEDESTAL GASKET
17	W190-0019	POWER CONTROL			
18	W190-0020	AUGER CONTROL			NPI40 COMPONENTS
19	W405-0001	AMBER LIGHT		141040 4070	
20	W660-0058	POWER SWITCH	68	W010-1670	SIDE DOOR ASSEMBLY
21	W660-0063	PELLET FEED SWITCH	69	W010-1671	WELDED HOPPER LID ASSEMBLY
22	W660-0062	VARIABLE SPEED W/O PAL NUT SWITCH	70	W555-0069	AIR CONTROL ROD
23	W555-0061	SCRAPER ROD		C	OMMON ACCESSORIES
24	W105-0012	NYLON BUSHING			
25	W570-0110	SCREW SET	71	W225-0195	DOOR FRAME, BLACK
26*	W750-0163	HARNESS WIRE	71	W225-0195G	DOOR FRAME, GOLD
27*	W385-0334	NAPOLEON® LOGO	71	W225-0195SC	DOOR FRAME, SATIN CHROME
28	W010-1528	CONTROL DOOR	72	GS200-G	TRIVET
29	W475-0555	BOTTOM OI PANEL	72	GS200-SS	TRIVET
30	W720-0089	IGNITOR HOUSING	73	PRPP40	PORCELAIN REFLECTIVE RADIANT PANELS
31	W390-0012	CONTROL PANEL LATCH	74*	114KT	OUTSIDE AIR KIT - 5 FT (2" DIA.)
32	W010-1490	EXHAUST TUBE	75	NP841KT	BRICK, REFRACTORY
33	W357-0004	IGNITOR	76	NPL41	DECORATIVE LOG SET
34*	W325-0042	SMALL BLACK WIRE HANDLE			NDC 40 ACCESSORIES
35	W350-0361	CONTROL HOUSING			NPS40 ACCESSORIES
36	W615-0073	AIR CONTROL SPACER	77*	NPHE-40	HOPPER EXTENSION (INCREASES HOPPER
37	W080-0777	MOTOR BRACKET	11	NFHE-40	CAPACITY FROM 55 LBS TO 100 LBS PELLETS)
38	W010-1491	COMBUSTION AIR TUBE ASSEMBLY			,
39	W030-0022	ACCENT BAR (2)			NPI40 ACCESSORIES
40	W135-0320	CAST, BURN POT			
41	W135-0321	CAST, RING	78	NI800	8" BLACK FLASHING WITH BLACK TRIM
42	W430-0002	MAGNETIC DOOR CATCH ASSEMBLY (2)	79*	GICSK	ARCHED CAST IRON SURROUND
43*	W290-0120	MOTOR MOUNTING GASKET	80	AK8	ADAPTOR KIT (REQ'D FOR GICSK)
44	W290-0119	IGNITION GASKET	81*		CAST IRON SURROUND KIT - BLACK
45	W460-0004	RECEPTACLE	81*		CAST IRON SURROUND KIT - ENAMEL BLACK
46*	W615-0078	SPACER, LATCH	81*		CAST IRON SURROUND KIT - MOJOLICA BROWN
47	W300-0038	GLASS, FRONT	81*		CAST IRON SURROUND KIT - MOJOLICA BLUE
48	W300-0037	GLASS, SIDE	81*		CAST IRON SURROUND KIT - MOJOLICA GREEN
49*	W562-0022	GLASS GASKET	82*	AK9	ADAPTOR KIT (REQ'D FOR CISK)
50	W290-0122	EXHAUST GASKET			
- 4					

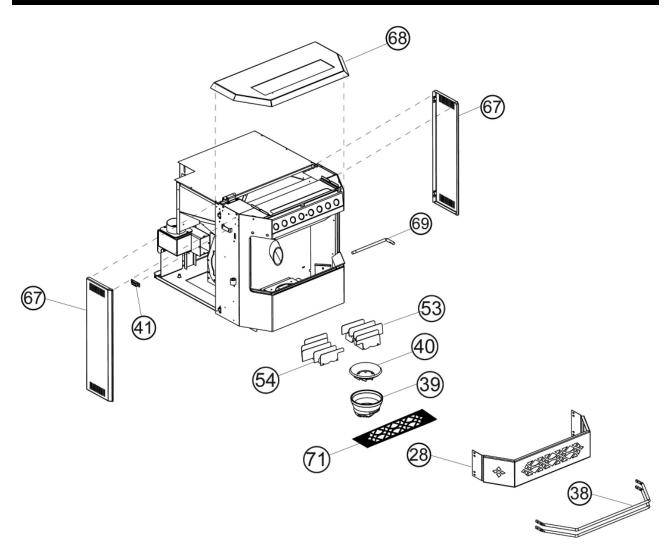
## **COMMON REPLACEMENTS PARTS**



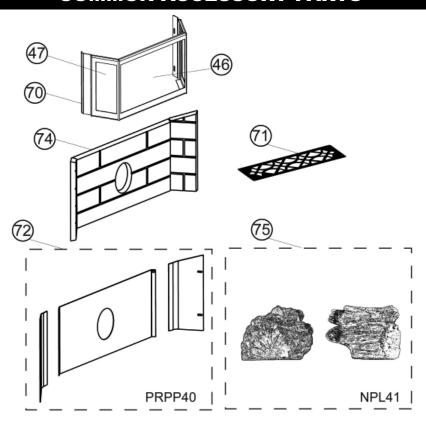
## **NPS40 REPLACEMENTS PARTS**



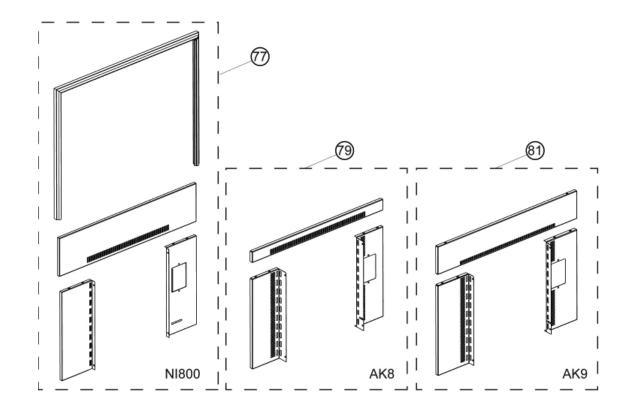
## NPI40 REPLACEMENTS PARTS



## **COMMON ACCESSORY PARTS**



## **NPI40 ACCESSORY PARTS**



## TROUBLESHOOTING

\*NOTE: All troubleshooting 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 dampage to the component. NOTE: Many of the following tests will require that the side panels are removed from the stove 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**

#### The heater will not start

- Make certain there is power to the outlet and that the heater is plugged in.
- With the heater unplugged, examine all connections. Make sure no exposed wires are touching the heater (except the chassis ground wire) and that they are all firmly connected.
- Check the manual reset hi limit switch
- Check the stability and placement of connections against the wiring diagrams in this
- Check that the burn pot is positioned properly.
- Push the "START" switch. If the heater fails to start, unplug the unit.
- Ensure that connections to the power control module are connected.
- Place a jumper wire between the red and white wires that attach to the start switch.
- Plug stove in, if stove starts replace switch.
- Replace the power control if this fails.

CAUTION: Check the ignitor resistance before installing a new start-up timer as it may result in another failure to the new start-up timer due to a short in the ignitor. The proper resistance through the ignitor should be  $30\Omega$  to  $50\Omega$  (±  $3\Omega$ ).

#### Smoke in the room

- Check all gasket seals.
- Vent connections all sealed.
- Unit has failed to reach 140°F within 15 minutes and the blower has shut off.

**NOTE**: A minimal amount of smoke is normal during the start up process.

## is not operating

- The exhaust blower Remove the left side access panel and check all connections against the wiring diagram. For the insert - remove from cavity.
  - Apply 115V AC directly to the exhaust blower and if the motor does not run, replace the blower.
  - If the motor runs, have a dealer check the wire harness.
  - See "The heater will not operate when hot" section
  - Contact your local dealer or a certified technician for service.

#### The ignitor will not light the pellets however everything else in the heater

operates

- Push the burn pot back against the ignitor tube making sure the ignitor lines up to the hole in the burn pot.
- Make certain the air control rod is pushed in to start up position.
- Check all the electrical connections on the 120°F (49°C) temperature sensor located on the exhaust channel.
- Place a jumper wire between the two leads on the 120°F (49°C) temperature sensor and if the ignitor works, replace the sensor.
- If it still fails to light, replace the ignitor.

#### The auger motor is not functioning normally

- Make certain the exhaust blower is operating
- Check the condition of the vacuum hose (located on the left side of the heater). Should not be cracked or torn.
- Check the manual reset button on the 200°F (93°C) temperature sensor. Before re-setting the red button, check for the cause of the over-heating.
- Check that the auger set screw is tight and not slipping.
- If the auger still does not work, then apply 115V AC directly to the auger motor. If it still does not work, replace it.
- Check the auger by bypassing the 200°F (93°) temperature sensor with a jumper wire. If auger works, replace the sensor.
- Check the vacuum sensor by placing a jumper wire between the blue wire and the black wire that are attached to the sensor. If the auger works, test to see if the exhaust blower is producing enough vacuum (may require cleaning).

- If not, replace the vacuum sensor.

## TROUBLESHOOTING CONTINUED

#### **SYMPTOM**

## TEST SOLUTION

Feed rate dial has no effect on the fire (timer control only)

- Secure all connections to the power control module.
- Perform a resistance test to the potentiometer by placing the two test leads from a multi meter into the leads of the potentiometer. The potentiometer should have a range of 850 K $\Omega$  (± 10%).

#### **Potentiometer Readings:**

Full counter-clockwise (switched off) = open circuit, overload or infinite resistance

Low fire ....... 900 KΩ to 1,050 KΩ High fire ...... 56 KΩ to 62 KΩ

If the range is not close or does not vary then replace the potentiometer.

# The convection blower is not functioning normally

- Using the wiring diagram, compare all the connections between the controller, switch, and the convection blower.
- If the convection motor will not run, apply 115V AC to the motor directly. Replace the blower controller if the motor runs. The convection blower has failed if the motor does not run. Replace the blower.
- If the convection blower runs on high at all times (no control with the blower controller), check the connections from the 160°F (71°C) sensor (located on the upper left side on the rear of the fire wall) and convection blower controller to the blower. Disconnect one of the wires from the sensor and if control of the convection blower returns to the blower controller, replace the sensor.
- If the motor is still on high, re-connect the sensor and replace the convection blower controller.

## The heater will not operate when hot

#### General

- Check the hopper for fuel.
- Incorrect air damper setting may cause excessive air to consume the fire too quickly before the next drop of fuel. Therefore leaving the fuel completely unburned in the burn pot and will cause the fuel to burn cold and very slowly. Fuel also may build up and smother the fire.

**NOTE:** The unit may require a change to the vent system or installation of fresh air to correct air to fuel ratio problems.

- Combustion blower failure may occur because it is not turning fast enough to generate the proper vacuum in the fire box. Do a visual check to see if the motor is turning.
- Check vacuum levels in the exhaust channel by bypassing the vacuum switch, then remove the vacuum hose from vacuum switch. When checking the vacuum exhaust place the open end of the vacuum hose on the gauge (readings must be above 0.10" W.C. on low fire). (NOTE: if the motor fails to reach a 0.10" W.C., then replace the combustion blower).
- Poor quality fuel may not produce enough heat to keep the stove burning or operational.
- If the exhaust temperature sensor fails try bypassing the sensor located on the exhaust blower. If the stove operates properly, the unit may require cleaning or a new sensor.
   Contact your local deal for service.
- Unplug the stove, open the left side panel and jump the two brown leads that are attached to the 140°F (60°C) temperature sensor. If the stove operates replace the 140°F (60°C) sensor.

## TROUBLESHOOTING CONTINUED

#### **TEST SOLUTION SYMPTOM** The 200°F (93°) - Reset the sensor and determine whether it was the convection blower or 160°F (71°C) high limit temtemperature sensor failure. Bypass the 160°F (71°C) sensor. Does the convection blower not come on high? If no than replace the blower. perature sensor has tripped The heater will - Disconnect one of the brown wires from the exhaust temperature sensor and if the unit not turn off continues to operate, contact your local dealer for service. - Compare the wiring diagram to the start control module and the connections to the 140°F (60°C) temperature sensor. Check the connections. - Remove one of the brown wires from the 140°F (60°C) temperature sensor. The heater should be shut down right away as long as the start button was not pressed within 15 minutes of this test. If the heater shuts down within 15 minutes, replace the 140°F (60°C) sensor. If the heater does not shut down in 15 minutes, test the switch. - The heater must be cold to test the switch. Pull the plug, then plug the heater back in. If the heater fails to start, replace the switch. The heater keeps - Due to different installation set ups, length and size of venting and fuel quality, the low going out feed setting from the factory will not always be correct. It may be necessary to experiment with feed rate vs air control. (For example, #2 may be your lowest setting). - If the heater goes out and leaves fresh unburned pellets or cigarette-like ashes in the burn pot, the fire is going out before the heater shuts off. - Check to see if the air control rod is in the correct position. - Turn the feed rate up slightly (poor quality pellets will require slightly higher settings).

- venting, etc... - Was there a power failure?
- Contact your local dealer for service
- If the heater goes out and there are no pellets in the liner, the auger is stopping.
- See "The auger motor will not function normally" and "The exhaust blower will not function normally".

- Check to see if the heater needs a more complete cleaning as well as the burn pot,

## build up in the firebox, low heat out put

- **Excessive carbon** Check quality of pellets. Even pellets from the same manufacturer can vary in quality since the materials they use to form pellets may also vary.
  - Moisture content of pellets too high. Pellets must be stored in a dry place. Areas such as a garage are too damp causing pellets to absorb moisture.

## **SERVICE AND MAINTENANCE LOG**

OWNERSHIP RECORDS				
Dealer's Name:				
Dealer's Address:				
City:	State/Province:	Zip Code/Postal Code:		
Serial Number:	Date of Purchase:	Date Installed:		
Notes:				

SERVICE DATE	SERVICE TECHNICIA	N SERVICE DESCRIPTION

NOTES