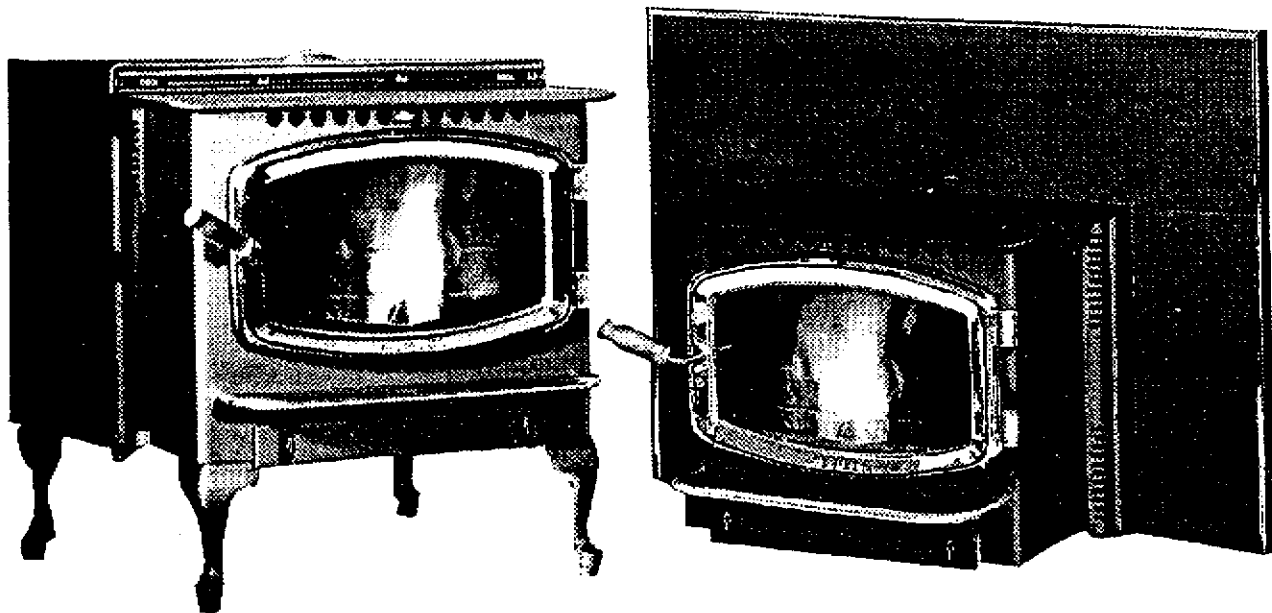


# AVALON

## OWNER'S MANUAL

**Preparation, Installation, Operation & Maintenance**

**KEEP THIS MANUAL**  
**July, 1993**



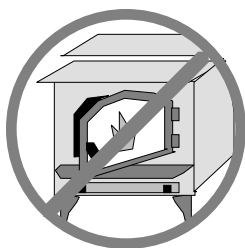
**Model 900 PS - Pellet Stove**  
**Model 900 PI - Pellet Insert**



Manufactured By:

**Travis Industries, Inc.**

10850 117th Place N.E. • Kirkland, WA 98033 © Copyright 1993 T.I.



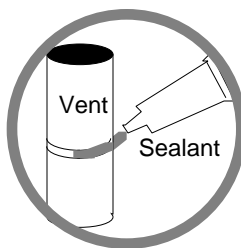
- The viewing door and ashpan must be closed and latched during operation.
- Never block free airflow through the open vents of the unit.



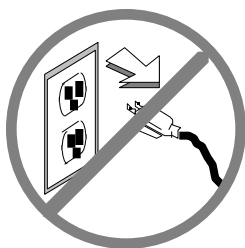
- Contact your local building officials to obtain a permit and information on any installation restrictions or inspection requirements in your area. Notify your insurance company of this heater as well.



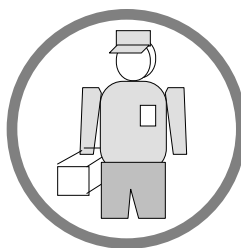
- Gasoline or other flammable liquids must never be used to start the fire or "Freshen Up" the fire. Do not store or use gasoline or other flammable liquids in the vicinity of this heater.



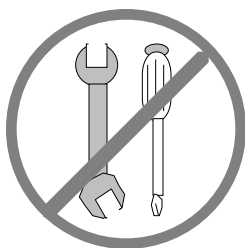
- The exhaust system **must** be completely airtight and properly installed. The pellet vent joints must be sealed with RTV 500° F. (260° C.) silicone sealant.



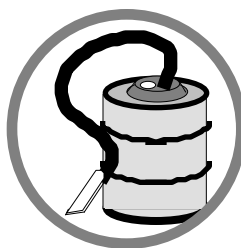
- Do not unplug the heater if you suspect a malfunction. Turn the POWER switch to "OFF" and periodically inspect the heater.



- This unit must be properly installed to prevent the possibility of a house fire. The instructions must be strictly adhered to. Do not use makeshift methods or compromise in the installation.



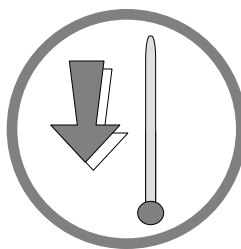
- Never try to repair or replace any part of the heater unless instructions are given in this manual. All other work should be done by a trained technician.



- Your heater requires periodic maintenance and cleaning (see "Maintaining Your Heater"). Failure to maintain your heater may lead to smoke spillage in your home.



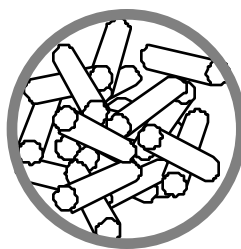
- Do not operate the heater if you smell smoke coming from the heater. Turn the POWER switch to "OFF", monitor your heater, and call your dealer.



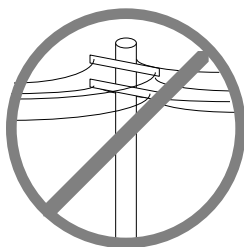
- Allow the heater to cool before carrying out any maintenance or cleaning. Ashes must be disposed in a metal container with a tight lid and placed on a non-combustible surface well away from the home or structure.



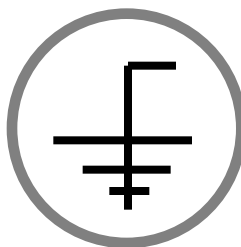
- Do not set the controls so the firepot overfills with pellets during operation. Turn the BURN RATE to "OFF" and periodically inspect the heater (see "Running Your Heater").



- This 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.



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



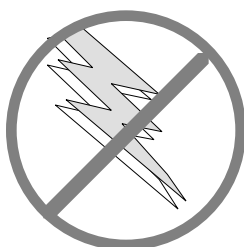
- This heater must be connected to a standard 115 V., 60 Hz grounded electrical outlet. Do not use an adapter plug or sever the grounding plug. Do not route the electrical cord underneath, in front of, or over the heater.



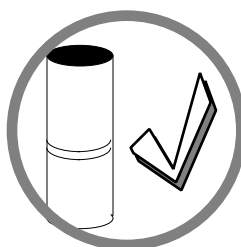
- Keep foreign objects out of the hopper.



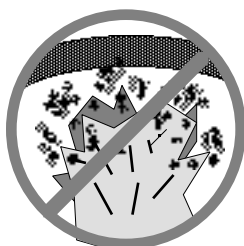
- When installed in a mobile home, the heater must be bolted to the floor, have outside air, and not be installed in the bedroom (Per H.U.D. requirements). Check with local building officials.



- Remove the power cord and make sure the heater has completely cooled before performing any maintenance. NOTE: Turning the POWER switch to "OFF" does not disconnect all power to the heater.



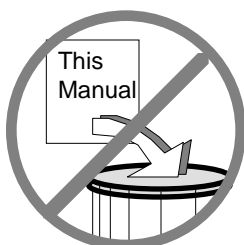
- The exhaust system should be checked twice a year minimum for any build-up of soot or creosote.



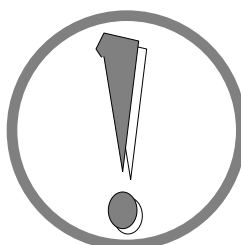
- Use the AIR CONTROL knob to keep the flame from becoming sooty (smoky). See the section "Running Your Heater " for instructions on properly using the AIR CONTROL.



- Use the AIR CONTROL knob to keep the flame brisk and yellow. See the section "Running Your Heater" for instructions on properly using the AIR CONTROL.



- 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.



- **Travis Industries, Inc. grants no warranty, implied or stated, for the installation or maintenance of your heater, and assumes no responsibility of any consequential damage(s).**

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**A WORD ABOUT THIS MANUAL**

This manual uses symbols on the left side of the page to highlight information outside of the direct subject matter. This information can be very helpful when learning about your new heater. The three symbols used in this manual are listed below.

**HINT:**

Information that makes a procedure or task easier, but is not necessary.

**WARNING:**

This is a smoke warning – failure to heed this warning may lead to smoke entering your home.

**NOTE:**

This is a pellet note. Because pellets vary from bag to bag, and because they have a large impact on your heater's operation, this additional information was included in this manual.

## Installation Options:

- Freestanding
- Freestanding in an Alcove
- Freestanding in a Mobile Home
- Masonry Fireplace Insert
- Factory-Built (Z.C.) Fireplace Insert
- Built-In Insert (requires a floor shield)

## Features:

- Convenient Operating Controls
- Wide Range of Heat Output
- Huge Hopper for Long Burning
- Quiet Operation
- Easy to Clean and Maintain
- Durable Stainless Steel Firepot
- Tough Auger System
- Optional Self-Ignition System

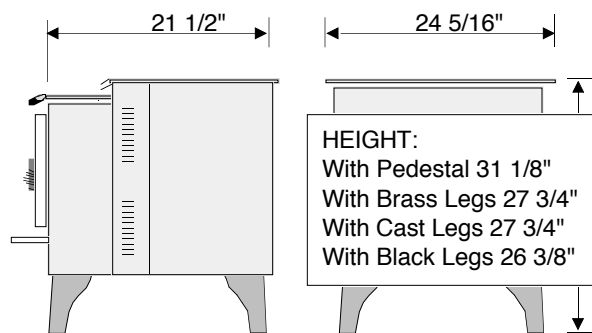
## Heating Specifications:

	900 PS	900 PI
Approximate Maximum Heating Capacity (in square feet)*	800 to 2000	800 to 2000
Burn Rate (Pounds per Hour)**	1.2 to 4.7	1.2 to 4.7
Maximum Burn Time on Low Burn**	30 Hours	40 Hours
Hopper Capacity	40 Pounds	50 Pounds

\* 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.

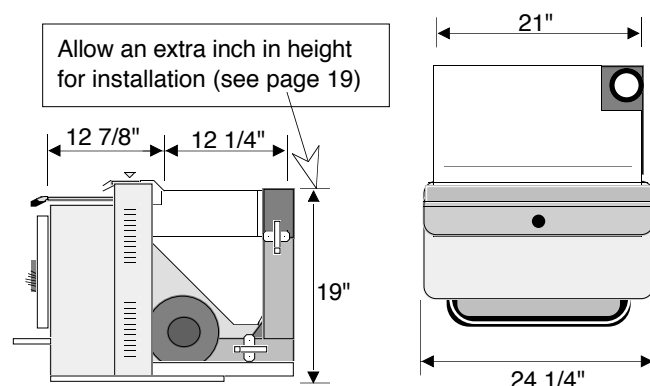
## 900 PS Dimensions



Flue Opening Diameter = 3" (Both)

Weight = 240 Pounds

## 900 PI Dimensions



Weight = 230 Pounds

## Electrical Specifications:

Electrical Rating:	115 Volts, 3.6 Amps, 60 Hz
Watts While Using Self-Ignition System:	400
Watts During Operation (Approximately):	180

## Fuel:

The unit is designed to operate using 1/4 inch diameter wood pellets that comply with the standards set by the Association of Pellet Fuel Industry (density of at least 40 lbs. per cubic foot, 1/4" to 5/16" diameter, length no greater than 1 1/2", 8200 BTU's/lb., moisture under 8% by weight, ash under 1% by weight, and salt under 300 parts per million). If the fuel does not comply to this standard, the unit may not operate as designed. If the pellets are larger than 1/4 inch diameter the heater may need adjustments; consult with your dealer.

**Emissions:** 0.8 Grams Per Hour (EPA Exempt) – Tests conducted by E.E.M.C. Laboratory

**BEFORE YOU BEGIN**

**READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW 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.

**PLANNING THE INSTALLATION****HINT:**

We suggest that you have an authorized Travis Industries dealer install your heater. If you install the heater yourself, your authorized dealer should review your plans for installation.

Before installing the stove, make a detailed sketch of the installation with all the dimensions listed. Double-check all of the dimensions with the requirement sections of this manual to assure yourself of a proper installation. The list below outlines the requirements that will most likely affect your planning decisions.

<u>Stove Placement</u>	<ul style="list-style-type: none"> <li>• Stove must be placed so that no combustibles are within, or can swing within (e.g. drapes, doors), 36" of the front of the heater</li> <li>• If the stove is placed in a location where the ceiling height is less than 7', it must follow the requirements in the section "Alcove Installation Requirements"</li> <li>• Rear and side clearances are determined by heater orientation (straight vs. corner) and the pellet vent route (see "Stove Placement Requirements")</li> </ul>
<u>Pellet Vent Route</u>	<ul style="list-style-type: none"> <li>• Pellet vent must maintain a minimum 3" clearance to any combustible</li> <li>• No more than 180° of elbows (two 90° elbows, or two 45° &amp; one 90° elbow, etc.) NOTE: The center flue adapter is considered a 90° elbow</li> <li>• Maximum 33' length if vertical only</li> <li>• Maximum 10' horizontal length if vertical rise is 25' or less'</li> <li>• Maximum 4' horizontal length if vertical rise is 30' to 25'</li> </ul>
<u>Pellet Vent Diameter</u>	<ul style="list-style-type: none"> <li>• If the pellet vent is over 15' in total vertical length use 4" diameter</li> <li>• If the pellet vent is over 4' in total horizontal length use 4" diameter</li> <li>• If the heater is installed at an altitude over 4000' use 4" diameter</li> <li>• Otherwise, use 3" or 4" diameter</li> </ul>
<u>Pellet Vent Type</u>	<ul style="list-style-type: none"> <li>• Must be Type "L" pellet vent (except hearth stove installations – see that section) - <b>or</b> - connect the vent to a factory built type "A" chimney (adapter required)</li> </ul>
<u>Floor Protection</u>	<ul style="list-style-type: none"> <li>• Minimum size of 24 5/16" wide by 27 1/2" deep (6" in front, 0" on sides and back)</li> <li>• Must be non-combustible and at least .018" thick (26 gauge)</li> </ul>
<u>Mobile Home Requirements</u>	<ul style="list-style-type: none"> <li>• Outside air is required</li> <li>• The heater must be bolted to the floor (Some states do not require this; check with your local building department)</li> <li>• 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)</li> </ul>
<u>Outside Air</u>	<ul style="list-style-type: none"> <li>• Required for mobile homes</li> <li>• Must not be drawn from an enclosed space (garage, unventilated crawl space)</li> <li>• Travis Industries strongly suggests outside air for all residential installations, especially for those that are energy efficient, air tight homes.</li> </ul>



**WARNING:** During a power outage there is a possibility of some smoke entering the room if an outside air connection is not used.

## STOVE PLACEMENT REQUIREMENTS



**HINT:** REDUCING CLEARANCES - Clearances may be reduced by methods specified in NFPA 211, listed wall shields, pipe shields, or other means approved by local building or fire officials.

The stove must be placed so all of the requirements below are met:

- Heater must be placed so that no combustibles are within, or can swing within, 36" of the front of the heater (e.g. drapes, doors)
- Heater and floor protection must be installed on a level, secure floor

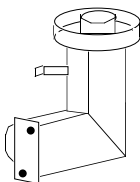
STRAIGHT INSTALLATION (see the illustration below)

- A 9" clearance from the heater to the sidewall
- B\* 3" clearance from the heater to the backwall **and** the pellet vent must maintain the clearance outlined in clearance C below
- C\* The pellet vent must maintain a 3" clearance to any wall except when passing through an approved thimble.

CORNER INSTALLATION (see the illustration below)

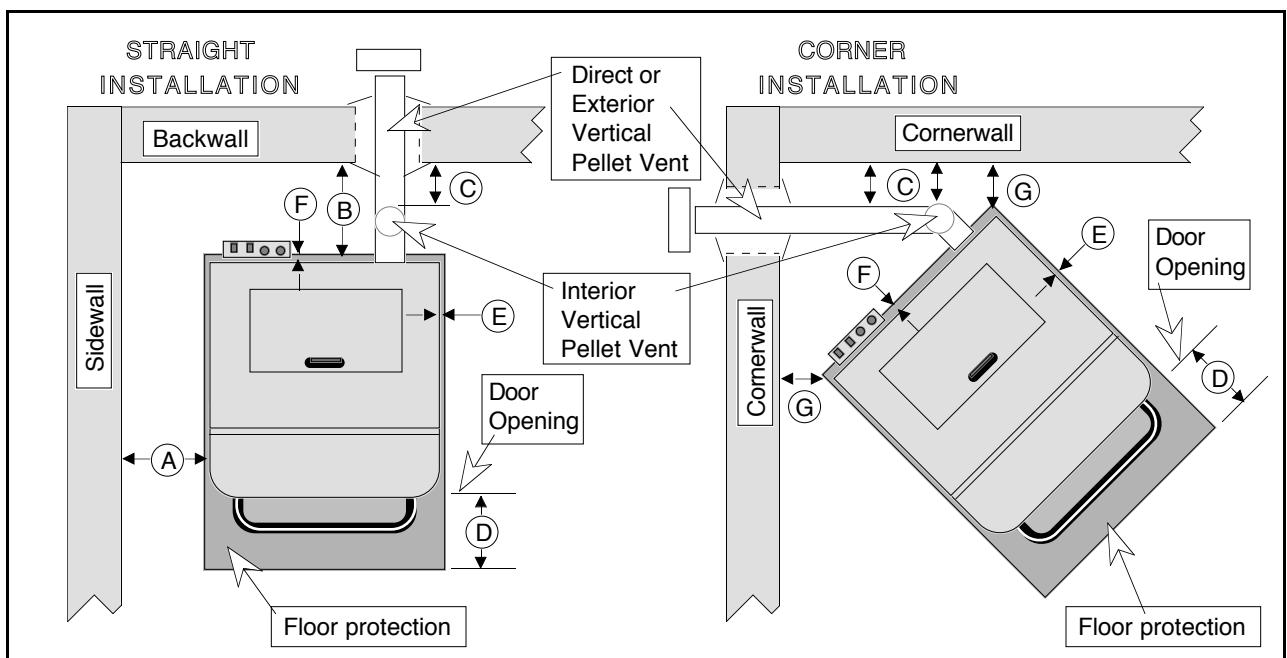
- C\* The pellet vent must maintain a 3" clearance to any wall except when passing through an approved thimble.
- G\* 2" from the rear corner of heater to the cornerwall

- \* If an interior vertical pellet vent is being used, the clearance to the backwall is determined by the upward-turning elbow or "Tee". It will vary in depth depending on the brand of pellet vent used. Before establishing the heater placement, connect the elbow or "Tee" and measure off the 3" clearance to the backwall to establish the heater position.



The **center flue adapter** allows the stove to be located closer to the backwall (measurement "B") when using an interior vertical pellet vent. For corner installations, the adapter must maintain a 3" clearance to the cornerwall. For straight installations the following dimensions can be used to determine the heater location:

DIAMETER OF VENT:	3"	6"
BACKWALL TO STOVE MAY BE A MIN. OF:	7"	9"



**FLOOR PROTECTION REQUIREMENTS** (See the illustration on the previous page)

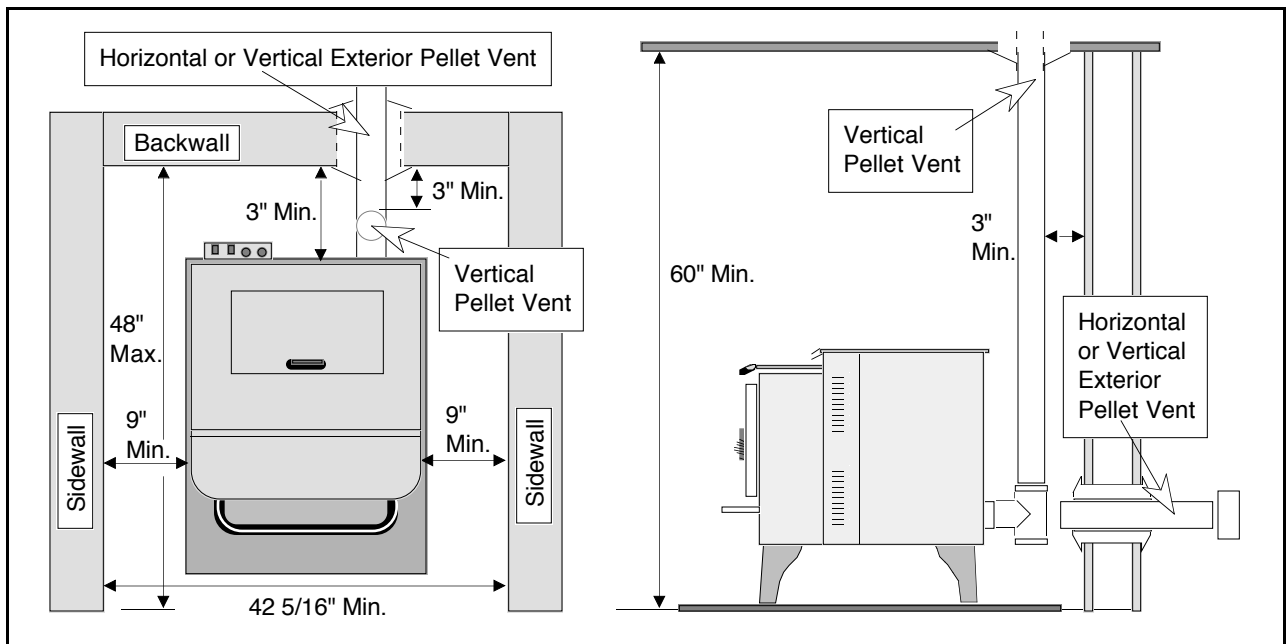
The heater must be installed with floor protection that meets the following requirements:

- Made of a non-combustible material at least .018" thick (26 gauge)
- Extend under and 2" to each side of a chimney "Tee" if one is used
- D Must extend 6" in front of the heater (measured from door opening)
- E Must cover the area underneath the heater and 0" to each side (Min. 24 5/16" wide)
- F Must cover the area underneath the heater and 0" to the rear (Min. 27 1/2" deep)

**ALCOVE INSTALLATION REQUIREMENTS**

Whenever the pellet stove is placed in a location where the ceiling height is less than 7' tall, it is considered an alcove installation. Because of the reduced height, the special installation requirements listed below must be met.

- Minimum height is 60"
- Minimum width is 42 5/16"
- Maximum depth is 48"
- Minimum clearance of 9" on each side and 3" on back

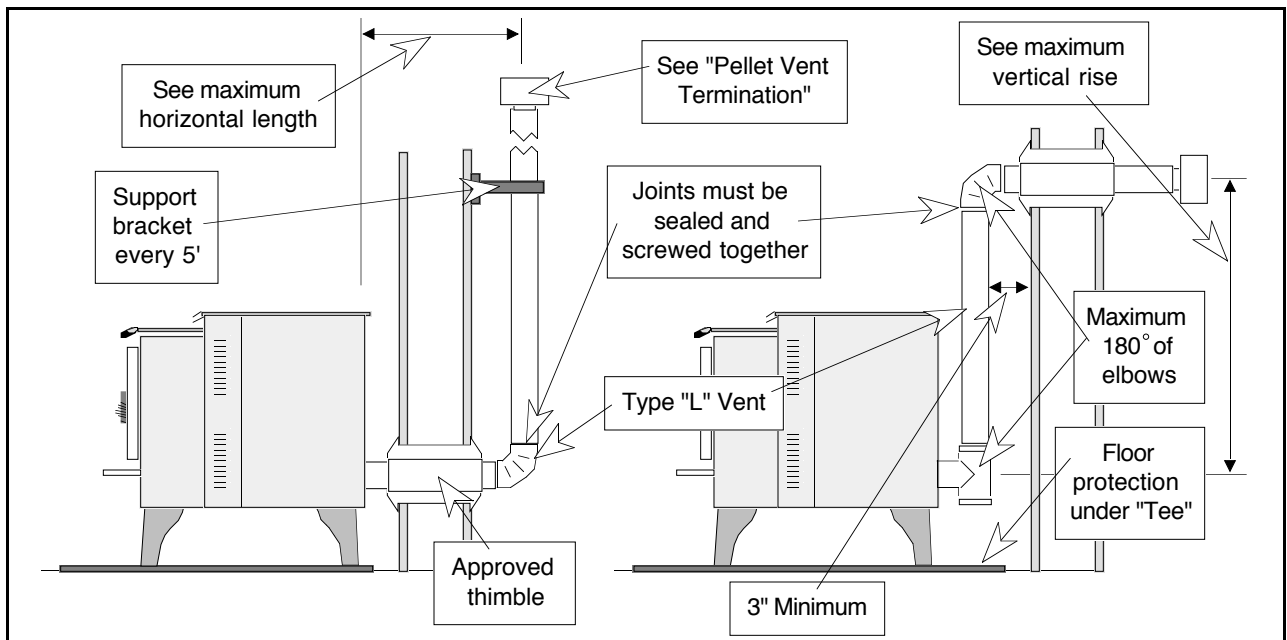
**PELLET VENT REQUIREMENTS**Pellet Vent Type

- Must be Type "L" (except for masonry fireplace installations) - **or** - connect the vent to a factory built type "A" chimney (adapter required)
- If the pellet vent is over 15' in total vertical length use 4" diameter (use adapter)
- If the pellet vent is over 4' in total horizontal length use 4" diameter (use adapter)
- If the heater is installed at an altitude over 4000' use 4" diameter (use adapter)
- Otherwise, use 3" or 4" diameter
- Follow the manufacturer's installation instructions for precautions required for passing vent through a combustibile wall or ceiling (i.e. use an approved thimble).
- Must have a support bracket every 5' of pellet vent when exterior



## Pellet Vent Installation Options

- Minimum 3" clearance to any combustible
- No more than 180° of elbows (two 90° elbows, or two 45° & one 90° elbow, etc.)  
NOTE: The Center Flue Adapter is the same as a 90° elbow.
- Maximum 33' rise if vertical only
- Maximum 10' length if horizontal only
- Maximum 10' horizontal length if vertical rise is 25' or less
- Maximum 4' horizontal length if vertical rise is 30' to 25'
- Do not connect the pellet vent to a vent serving any other appliance or stove

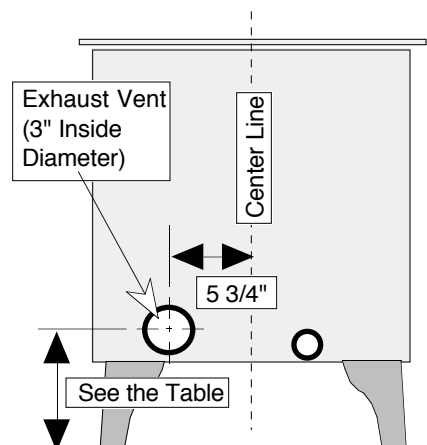


## Installing the Pellet Vent

- Pellet vent connections must be screwed together with sheet metal screws and sealed airtight with 500° F. RTV silicone

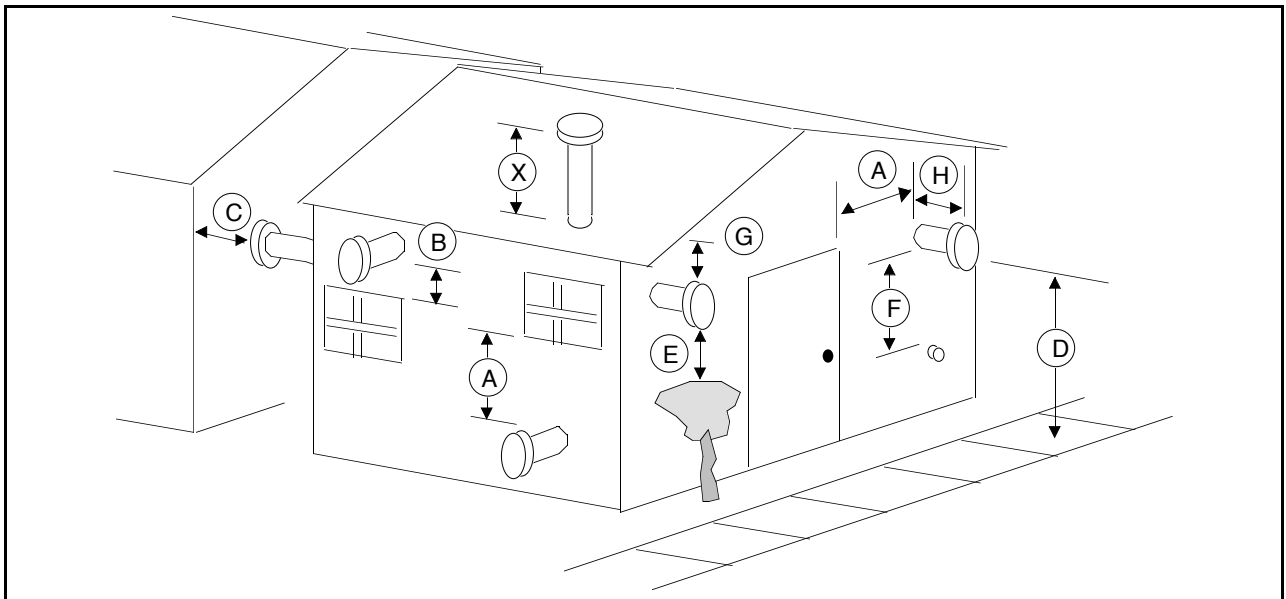
- The pellet vent connects to the exhaust vent 5 3/4" from the center of the stove and the distance listed below for the type of legs or pedestal used (see the illustration to the right):

Pedestal	13 1/8"
Brass Legs	9 3/4"
Cast Legs	9 3/4"
Black Legs	8 3/8"



Pellet Vent Termination (See the illustration below)

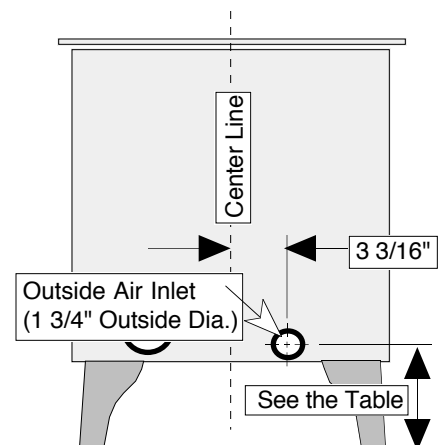
- Must have an approved cap (to prevent water from entering) or a 45° downturn
  - If the termination is located on a windy side of the house, an approved house shield is recommended to prevent soot from building up on the side of the house
  - Must not be located where it will become plugged by snow or other material
- A Minimum 4' clearance below or beside any door or window that opens
- B Minimum 1' clearance above any door or window that opens
- C Minimum 2' clearance from any adjacent building
- D Minimum 7' clearance above any grade when adjacent to public walkways
- E Minimum 2' clearance above any grass, plants, or other combustible materials
- F Minimum 3' clearance from any forced air intake of any other appliance
- G Minimum 2' clearance below eaves or overhangs
- H Minimum 1' clearance horizontally from combustible wall
- X Must be a minimum of 2' above the roof



## OUTSIDE AIR REQUIREMENTS

- **Required for mobile homes**
- Must not be drawn from an enclosed space (garage, unventilated crawl space)
- Must not be over 15' long
- 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 combustible materials may not be used)
- The outside air connects to the outside air inlet 3 3/16" from the center of the stove and the distance listed below for the type of legs used (see the illustration to the right):

Pedestal	13 1/4"
Brass Legs	9 7/8"
Cast Legs	9 7/8"
Black Legs	8 1/2"



## Outside Air Requirements (Continued)

- Must not terminate above or within 1' of the chimney termination
- Must have a rain cap or down-turned elbow to prevent water from entering
- Must be located so that it will not become plugged by snow or other material
- Travis Industries strongly suggests outside air for all residential installations, especially for those that are energy efficient, airtight homes



**WARNING:** During a power outage there is a possibility of some smoke entering the room if an outside air connection is not used.

## PELLET STOVE INSTALLATION

The following pages detail the six different installations available for the Avalon 900 PS pellet stove. The drawings used for each type of installation detail most, but not all, of the requirements necessary for a safe installation. The section "Stove Requirements" details the rest of the installation requirements. The six types of installations available are listed below along with considerations important to the installation:

### Installation Type

### Installation Considerations

Horizontal Corner

3" Clearance to Pellet Vent

Horizontal

3" Clearance to Pellet Vent

Interior Vertical

"Tee" or Elbow Determines Rear Clearance

Exterior Vertical

Penetrates Wall Directly Behind Stove

Vertical Using Existing Factory Built Chimney

Uses Existing Type "A" Chimney

Hearth Stove

Uses Existing Masonry or Z.C. Chimney

Prior to installing your stove make a detailed plan with dimensions to double-check them against the requirements. When ready to install, first follow the instructions in the section "Preparation for Installation" below. Then follow the order of installation detailed in the type of installation being used.

### Preparation for Installation

- Check for damage to the exterior of the stove (dents should be reported, scratches can be fixed by applying touch up paint).
- Check the interior of the firebox. Make sure the firebrick refractory is not cracked and that the firepot holder and ash trap doors are in place.
- Any optional equipment being used for this pellet stove should be installed (see the section "Optional Equipment"). The stove must use legs or a pedestal. If using a center flue adapter, we suggest installing it at this point (these components affect the location where the pellet vent connects to the heater).



**HINT:** We suggest starting the heater outside and burning it for two hours to cure the paint before it is placed in the home.

### Horizontal Corner Installation

The horizontal corner installation is often used because it takes up very little space. Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.



**HINT:**

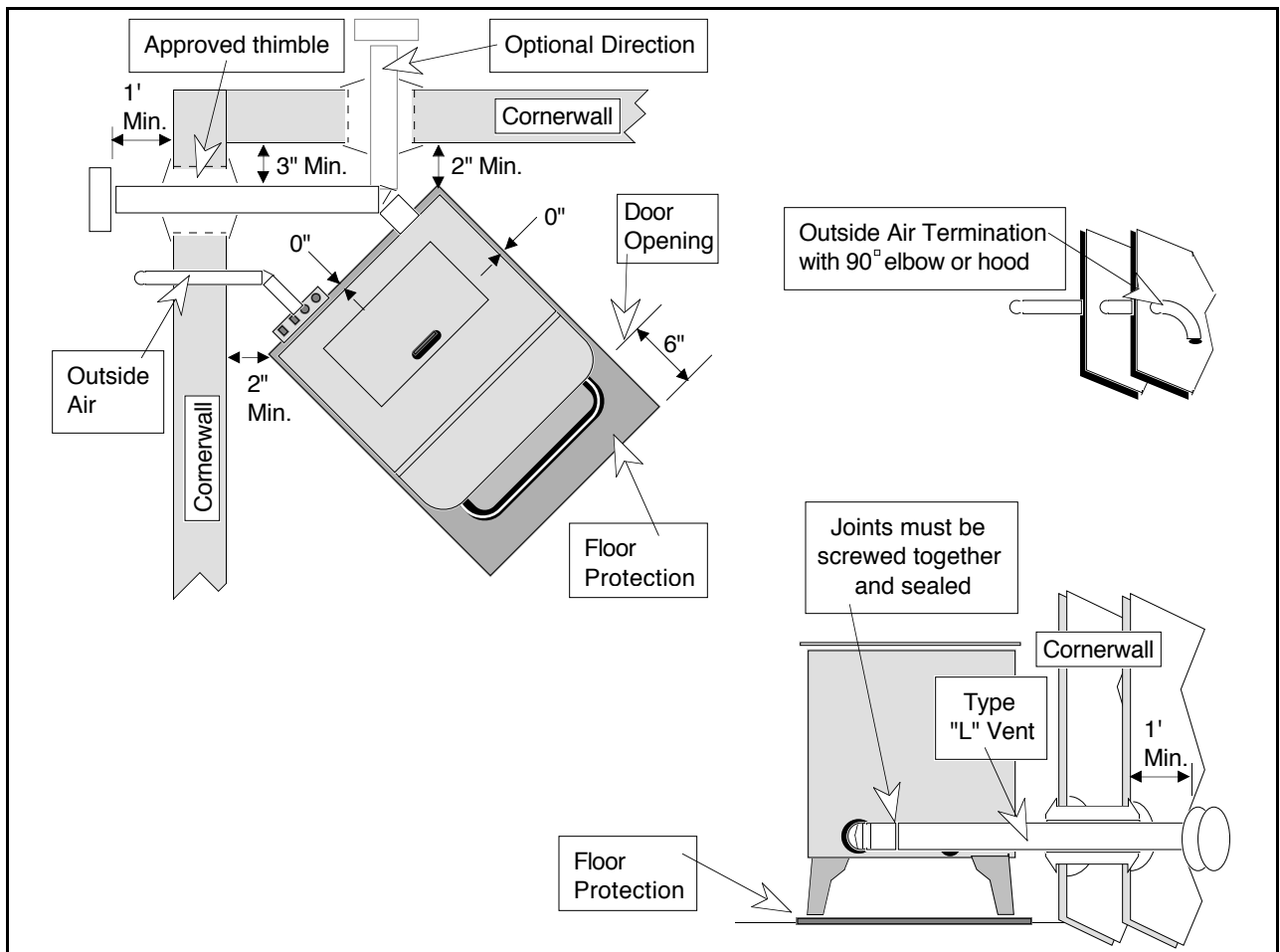
Make sure to carefully plan the pellet vent route so that it always maintains a 3" clearance to combustibles.

- A Install the floor protection.
- B Install the pellet vent. Make sure to follow the pellet vent manufacturer's instructions for passing the vent through combustible walls. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).



**WARNING:** Because this type of installation does not have any vertical rise to create draft, we recommend using outside air with this type of installation.

- C Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- D Read the section "Operating the Heater" prior to plugging in the stove and operating.



## Horizontal Installation

The horizontal installation minimizes the amount of pellet vent needed by passing the pellet vent through the wall with a thimble. Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.



### HINT:

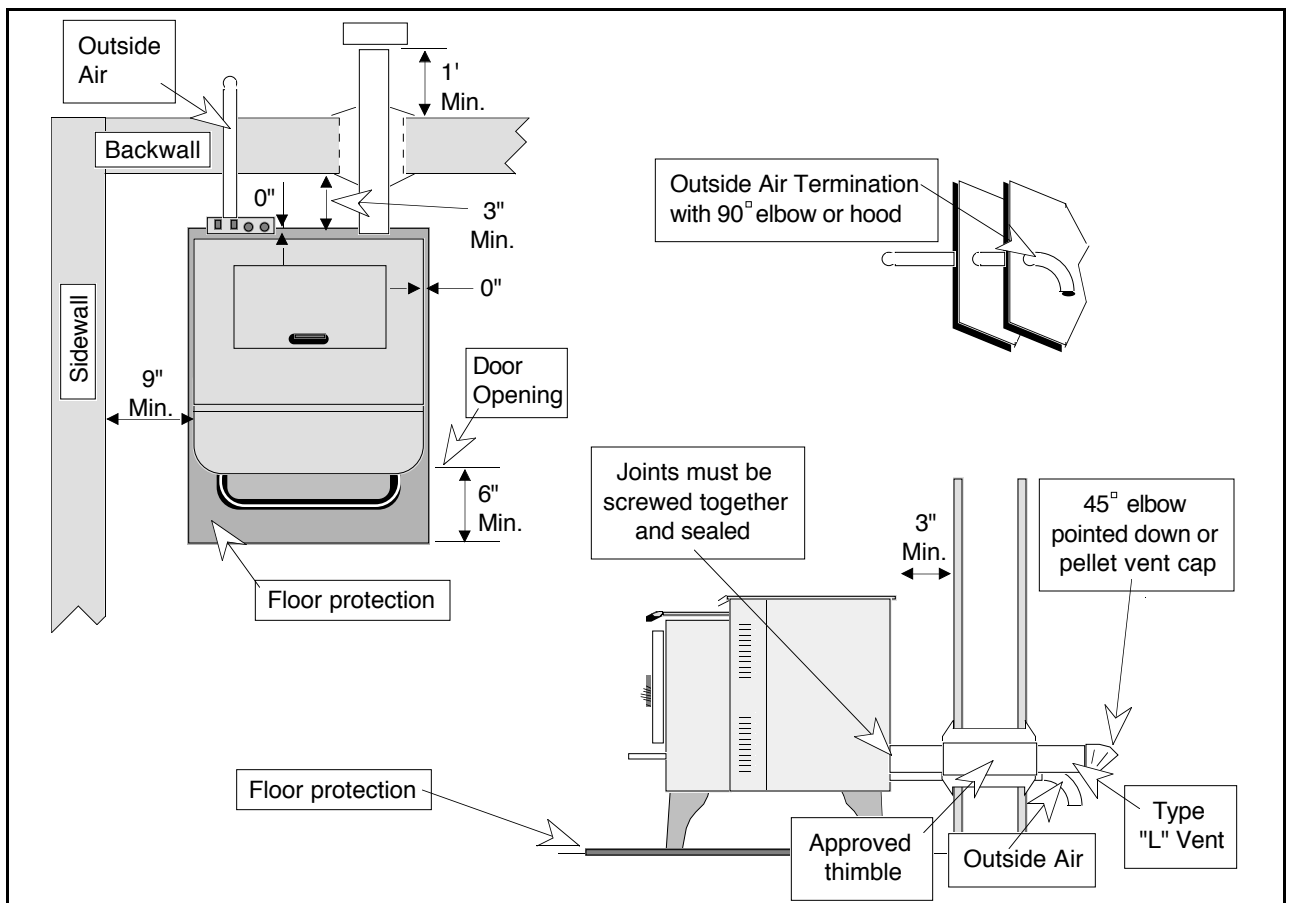
Make sure to carefully plan the pellet vent route so that it always maintains a 3" clearance to combustibles.

- A Install the floor protection.
- B Install the pellet vent. Make sure to follow the pellet vent manufacturer's instructions for passing the vent through combustible walls. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).



**WARNING:** Because this type of installation does not have any vertical rise to create draft, we recommend using outside air with this type of installation.

- C Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- D Read the section "Operating the Heater" prior to plugging in the stove and operating.



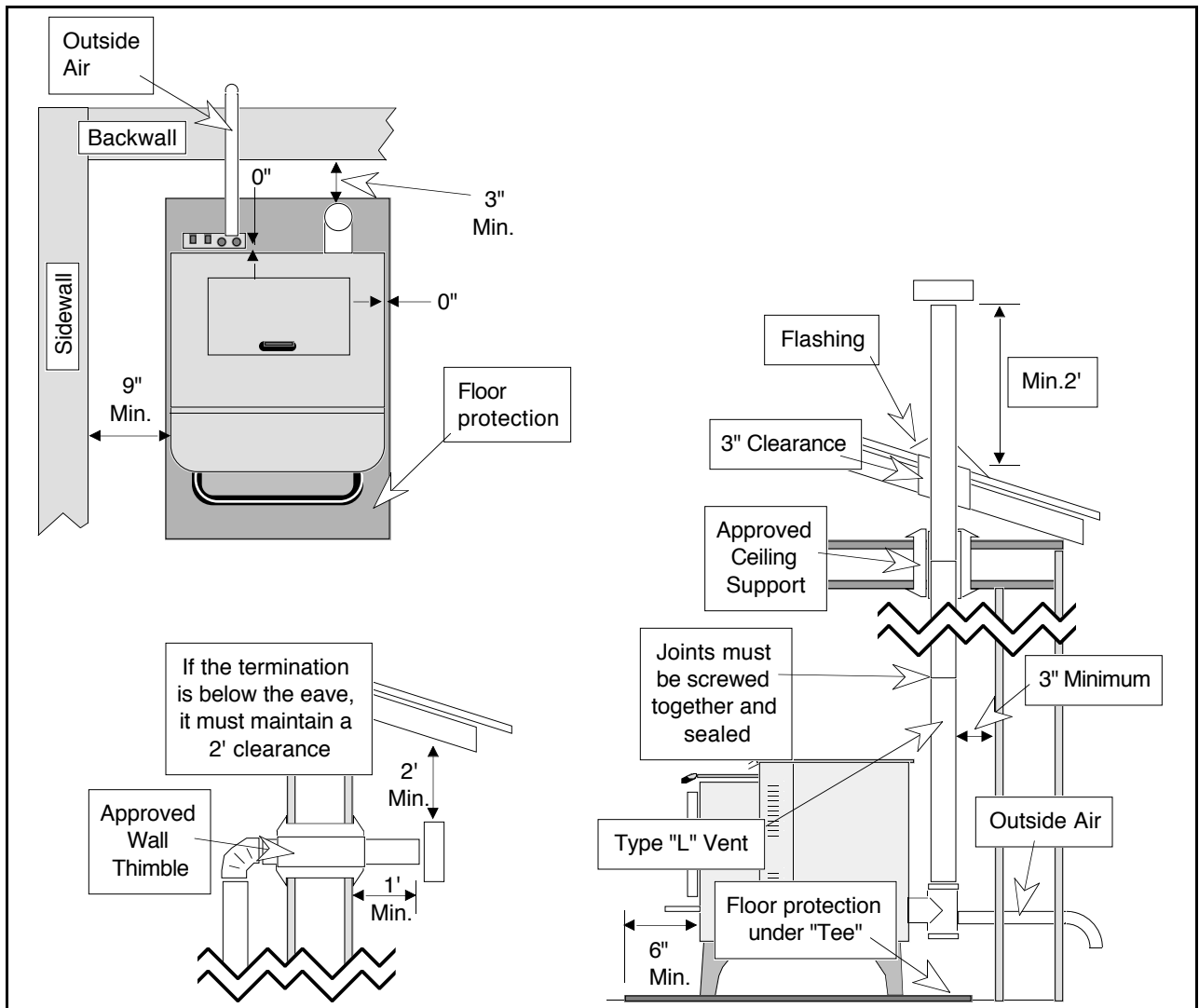
**Interior Vertical Installation**

The interior vertical installation requires an elbow, "Tee", or center flue adapter. It is important to take into consideration the depth of the elbow, "Tee", or center flue adapter when determining the placement of the stove. Elbows and "Tee's" vary in depth among manufacturers and affect the minimum 3" pellet vent clearance to the backwall. For improved rear clearance, use the Travis Industries center flue adapter (available at your dealer). Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.

**HINT:**

Install the elbow, "Tee", or center flue adapter before you start the installation so that an accurate measurement can be made for the distance between the stove and the backwall.

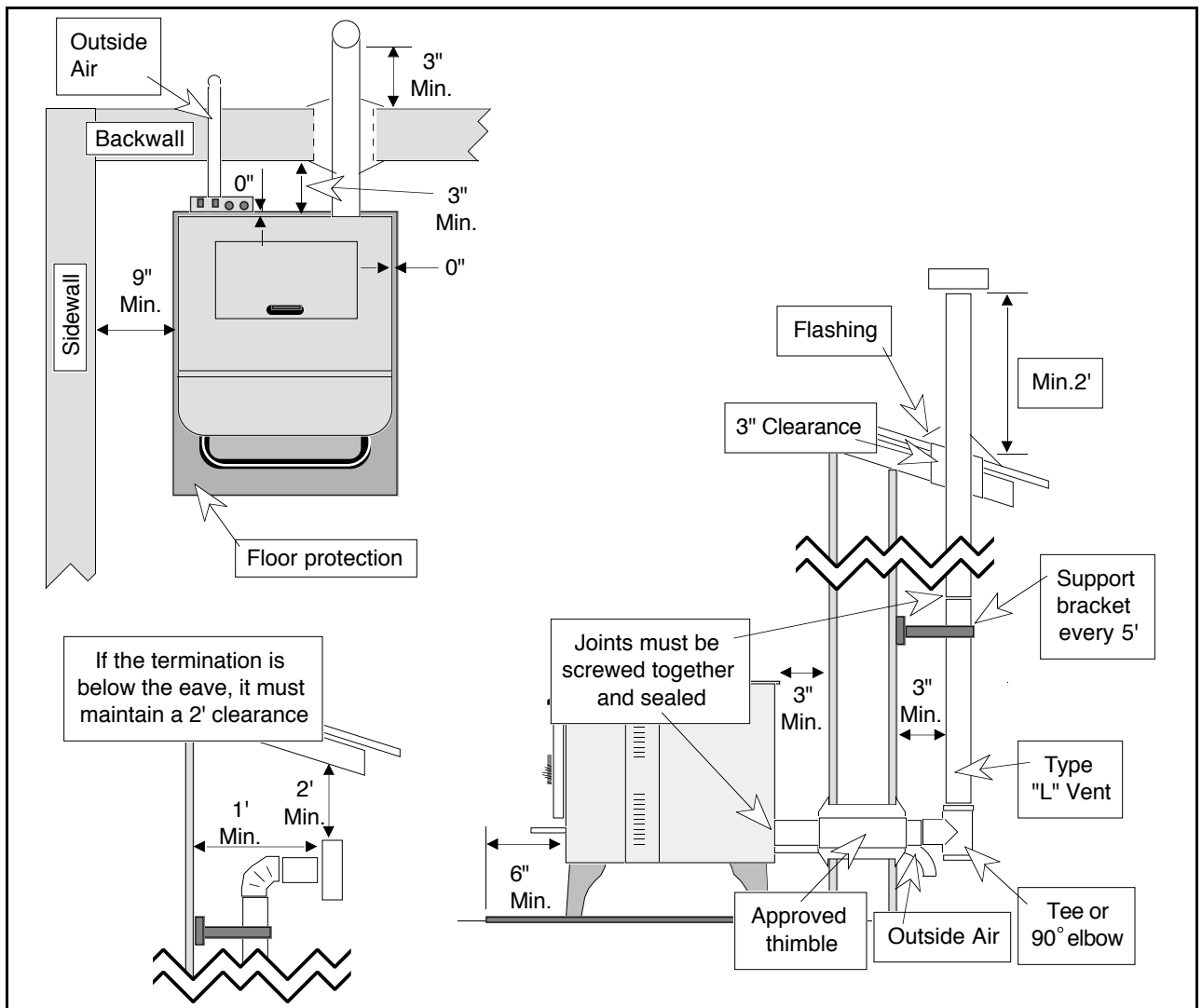
- A Install the floor protection.
- B Install the pellet vent (it must maintain a 3" clearance). The pellet vent may pass through the ceiling and roof before termination or turn sideways and terminate along an outside wall (see the illustration below). Make sure to follow the pellet vent manufacturer's instructions for passing the vent through combustible walls, ceilings, or roofs. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).
- C Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- D Read the section "Operating the Heater" prior to plugging in the stove and operating.



## Exterior Vertical Installation

This type of installation utilizes natural draft while concealing the vent outside. Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.

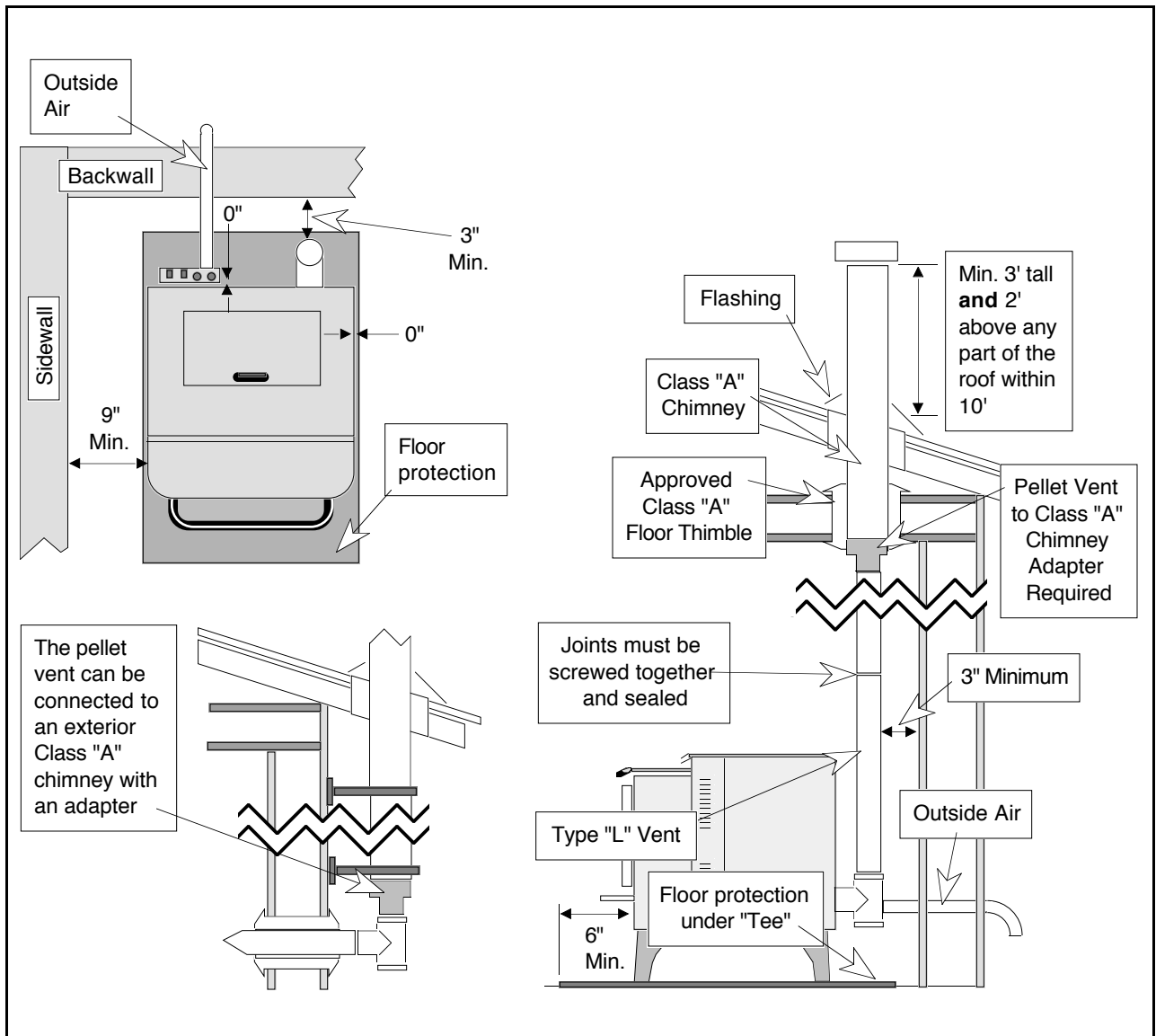
- A Install the floor protection.
- B Install the pellet vent. The pellet vent may pass through the roof before termination or turn sideways and terminate along an outside wall (see the illustration below). Make sure to follow the pellet vent manufacturer's instructions for passing the vent through combustible walls or roofs. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).
- C Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- D Read the section "Operating the Heater" prior to plugging in the stove and operating.



**Vertical Installation into Existing Factory Built (Class "A") Chimney**

This type of installation utilizes an existing class "A" chimney to vent the flue gases. An adapter must be used to connect the pellet vent to the chimney. All of the pellet vent sections, the adapter, and the chimney must all be sealed to prevent flue gases from entering the room. Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.

- A Inspect the existing class "A" chimney for any damage or deterioration. Use RTV 500° F. silicone to seal all of the chimney joints.
- B Install the floor protection.
- C Install the chimney to pellet vent adapter to the chimney. Install the pellet vent. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).
- D Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- E Read the section "Operating the Heater" prior to plugging in the stove and operating.





## Hearth Stove Installation (Uses existing masonry or Z.C. fireplace)

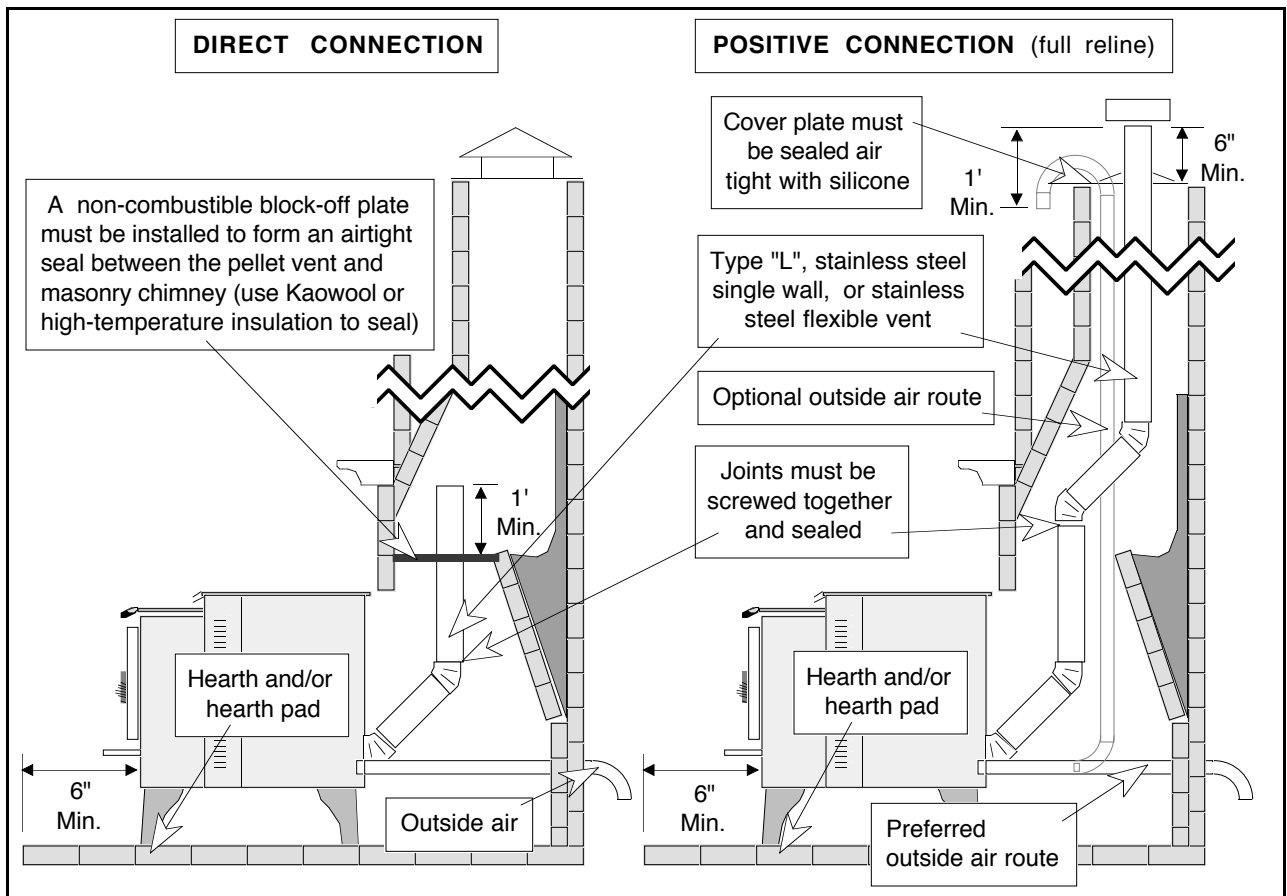
When installing the stove into an existing masonry or Z.C. fireplace (called a "Hearth Stove" installation), there are two options for routing the pellet vent. Both options allow the use of either type "L" pellet vent, stainless steel single wall liner, or flexible stainless steel liner.

**NOTE: Z.C. (Metal) fireplaces require a positive connection installation.**

- The first option is a **direct connection**. It relies upon a non-combustible block-off plate at the damper location to form an air tight seal between the flue gases and the masonry chimney. It must be sealed with Kaowool or high-temperature insulation. The pellet vent must extend a minimum of 1' above the block-off plate or to the first flue tile if the chimney has a tile lining.
- The second option is a **positive connection** (also called a complete reline). An air tight cover plate is required at the top of the masonry chimney (use 500° F. RTV silicone to seal). A positive connection is recommended because it is easier to clean.

Make sure to follow all of the requirements listed in the section "Stove Requirements" as well as those listed below in the illustration. The steps below detail the order of installation.

- Inspect the existing fireplace for any damage or deterioration. Repair any damage before proceeding. If installing in a Z.C. fireplace, remove the damper to allow the pellet vent to pass through the chimney.
- Install the floor protection.
- Install the pellet vent. Screw together all pellet vent joints and seal. Install the outside air connection (if applicable).  
NOTE: No modification to the Z.C. firebox is allowed.
- Place the pellet stove in position and attach the pellet vent and outside air connection (if applicable). Screw together and seal the pellet vent connection to the stove.
- Read the section "Operating the Heater" prior to plugging in the stove and operating.



## BEFORE YOU BEGIN

**READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW 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.

## PLANNING THE INSTALLATION



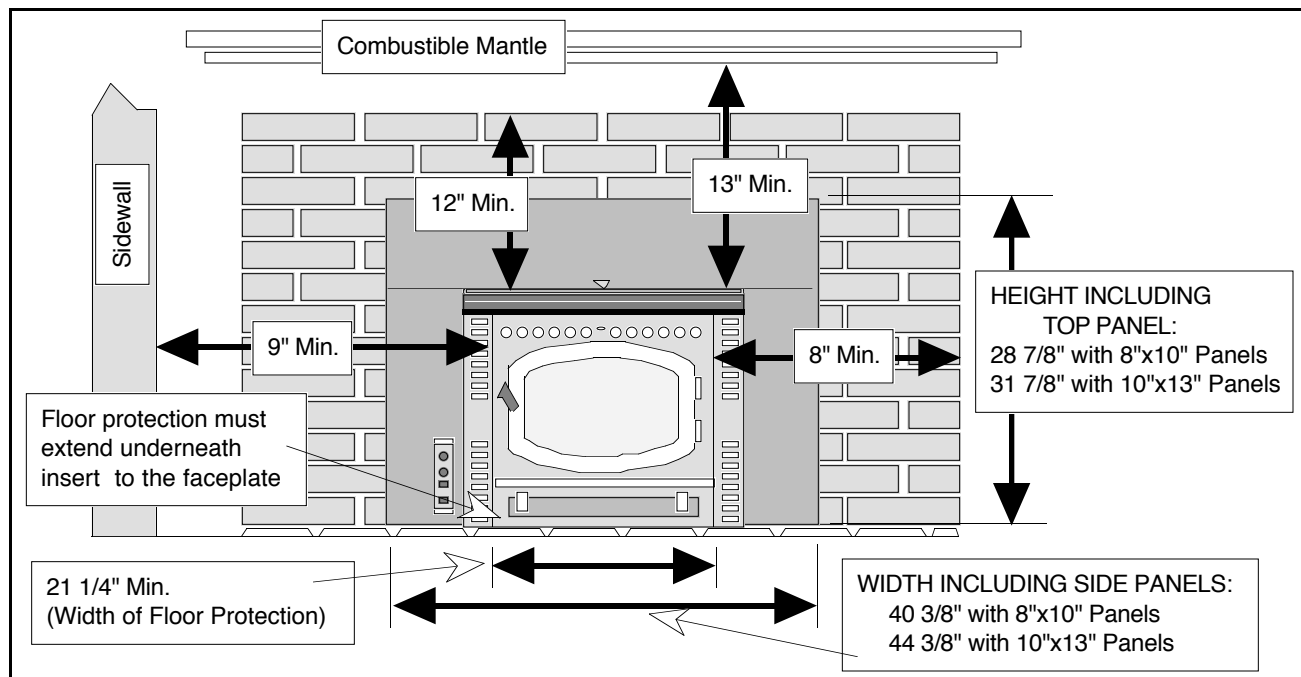
### HINT:

We suggest that you have an authorized Travis Industries dealer install your heater. If you install the heater yourself, your authorized dealer should review your plans for installation.

The Avalon 900 PI insert was designed to be installed into an existing masonry or zero-clearance (metal) fireplace, or built directly into the wall (see the section "Built-In Installation"). The requirements listed below are required for every type of installation and must be followed. In addition, each type of installation has unique requirements that must be met besides the requirements listed below. Hence, it is very important to **follow the requirements listed in the section "Insert Requirements" and the installation instructions specific to the type of installation being used.** Make a sketch of your installation including dimensions before installing to double-check against the requirements listed.

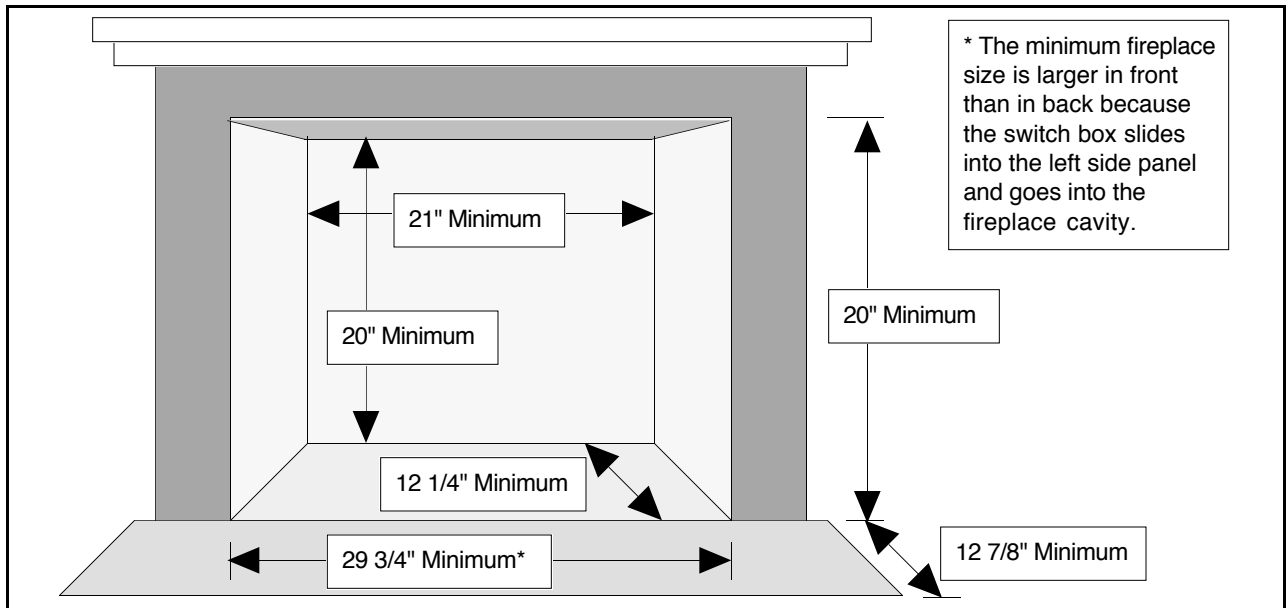
## INSERT PLACEMENT REQUIREMENTS (See the illustration below)

- The insert must be placed so that no combustibles are within, or can swing within (e.g. drapes, doors), 36" of the front of the heater
- Insert and floor protection must be installed on a level, secure floor
- The insert must maintain a 9" clearance to sidewalls
- The non-combustible side facing must extend 8" from the side of the insert
- The non-combustible top facing must extend 12" above the top of the insert
- The combustible mantle must be at least 13" above the top of the insert



## INSERT SIZE REQUIREMENTS

### For ZC and Masonry Fireplaces



### For Built-In Installations

See the section "Built-In Installation" for details on size requirements for this type of installation.

## HEARTH REQUIREMENTS (See the illustration above)

- Built-in Installations require a floor shield, which meets the hearth requirement
- Must extend below the insert on all sides (Min. 21 1/4" wide)
- Must be non-combustible and at least .018" thick (26 gauge)

## PELLET VENT REQUIREMENTS

**NOTE:** Built-In installations have special pellet vent requirements that exceed the requirements listed below (see the section "Built-In Installation").

- Stainless steel single wall, type "L", or stainless steel flexible vent must be used for masonry fireplaces or zero-clearance (metal) installations, built-in installations require type "L" pellet vent
- Must not connect to a vent serving any other appliance or stove
- All pellet vent connections must be screwed together with sheet metal screws and sealed airtight with 500° F. RTV silicone
- Must have an approved cap (to prevent water from entering)
- No more than 180° of elbows (two 90° elbows, or two 45° & one 90° elbow, etc.)
- Maximum 33' length if vertical only
- Maximum 10' horizontal length if vertical rise is 25' or less
- Maximum 4' horizontal length if vertical rise is 30' to 25'

### Pellet Vent Diameter

- If the pellet vent is over 15' in total vertical length use 4" diameter
- If the pellet vent is over 4' in total horizontal length use 4" diameter
- If the heater is installed at an altitude over 4000' use 4" diameter
- Otherwise, use 3" or 4" diameter

## OUTSIDE AIR REQUIREMENTS

- Must not be drawn from an enclosed space (garage, unventilated crawl space)
- 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 combustible materials may not be used)
- Must not terminate above or within 1' of the chimney termination
- Must have a rain cap or down-turned elbow to prevent water from entering
- Must be located so that it will not become plugged by snow or other material
- Travis Industries strongly suggests outside air for all residential installations, especially for those that are energy efficient, air tight homes



**WARNING:** During a power outage there is a possibility of some smoke entering the room if an outside air connection is not used.

## INSERT INSTALLATION

This section details the three types of installations that may be utilized with the Avalon 900 PI and the pre-installation procedures that will aid in installation. The drawings used for each type of installation detail most, but not all, of the requirements necessary for a safe installation. Read the section "Insert Requirements" for additional requirements.

### Preparation for Installation

- Check for damage to the exterior of the stove (dents should be reported, scratches can be fixed by applying touch up paint).
- Check the interior of the firebox. Make sure the firebrick refractory is not cracked and that the firepot holder and ash trap doors are in place.
- All optional equipment being used for this pellet insert should be installed after installation with the exception of the optional pellet ignition system which should be installed before installation (see the section "Optional Equipment").

**NOTE: PANELS ARE REQUIRED WHEN INSTALLING THE 900 PI PELLET INSERT.**



**HINT:** We suggest starting the heater outside and burning it for two hours to cure the paint before it is placed in the home.

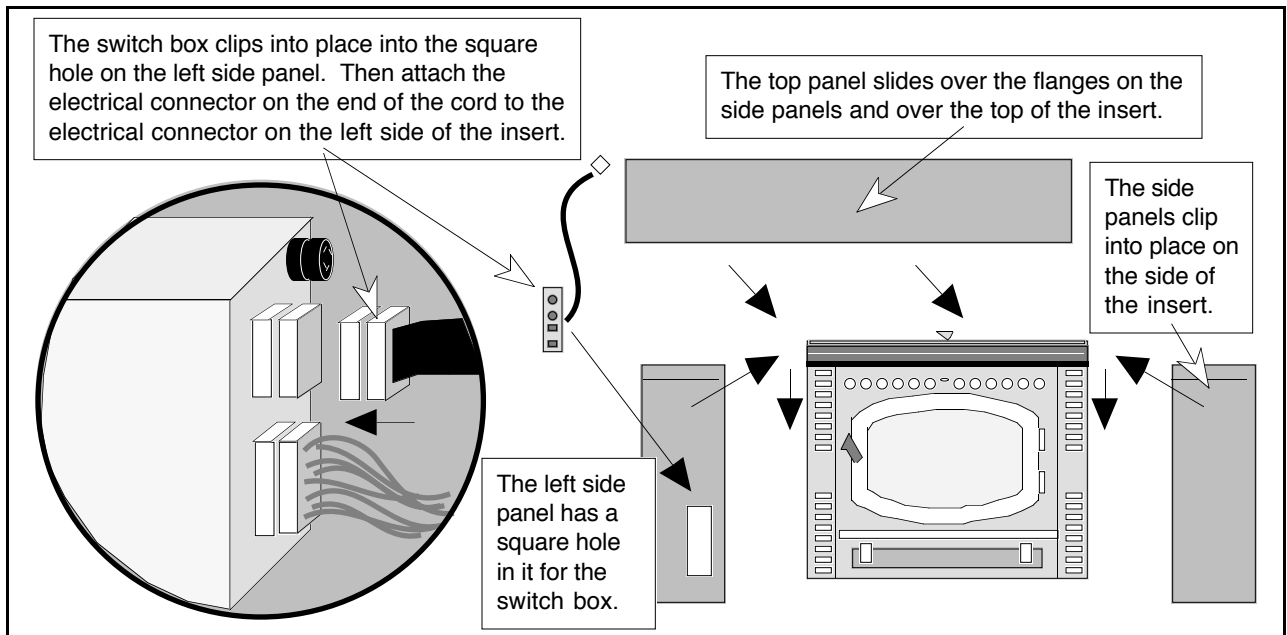
### Installing the Panels, Trim, and Switch Box

The panels for the 900 PI are purchased separately from the pellet insert and are available in three sizes. The table below details the finished size of the panels once they are installed. Make sure to purchase the panels that will cover the fireplace opening in both height and width.

<u>Size of Panels</u>	<u>Height</u>	<u>Width</u>
8" x 10"	28 7/8"	40 3/8"
10" x 13"	31 7/8"	44 3/8"

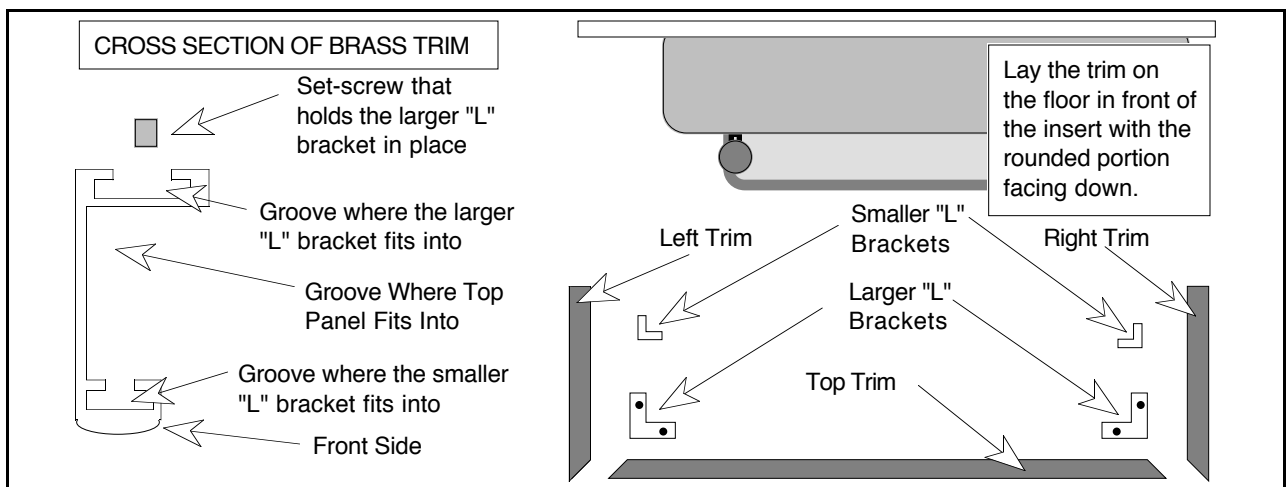
The panels should be installed after the insert is in place and connected to the pellet vent. First route the power cord out of the fireplace so it exits through the lower outside front corner of the fireplace opening (do not route the power cord under the unit). Place the side panel with the square hole in it along the left side of the insert and slide it into place. Repeat for the right side. The panels are notched and simply clip onto the sides of the unit (see the illustration on the following page). Unwrap the switch box (shipped inside the firebox of the heater) and clip it into the left side panel. Make sure the power switch is at the top when installed. Then attach the electrical connector on the end of the cord from the switch box to the electrical connector on the left side of the insert towards the rear (see the illustration on the following page).

## Installing the Panels, Trim, and Switch Box (Continued)



The top panel then slides over the flanges on the side panels and over the top of the insert.

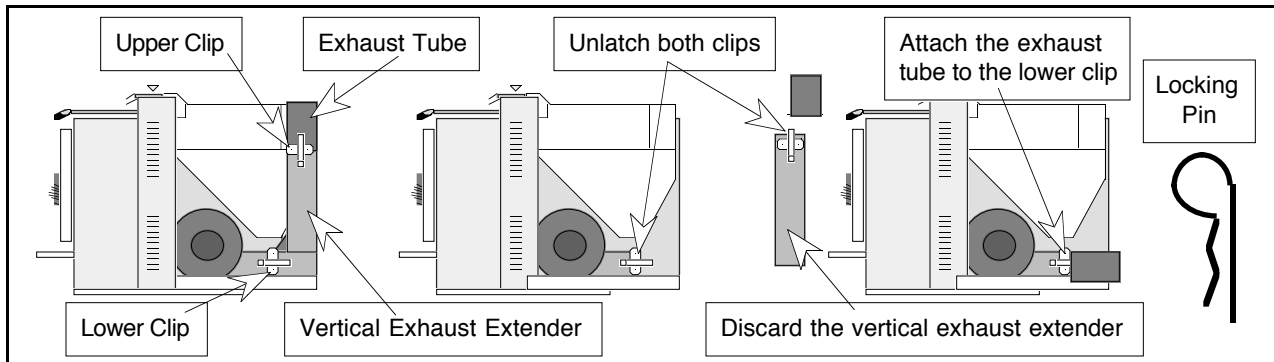
**NOTE: The panels have a 3/8" standoff to keep the panels spaced off the fireplace facing. This space is needed to allow air to flow into the fireplace. Do not remove this standoff or seal the space between the panel and the facing.**



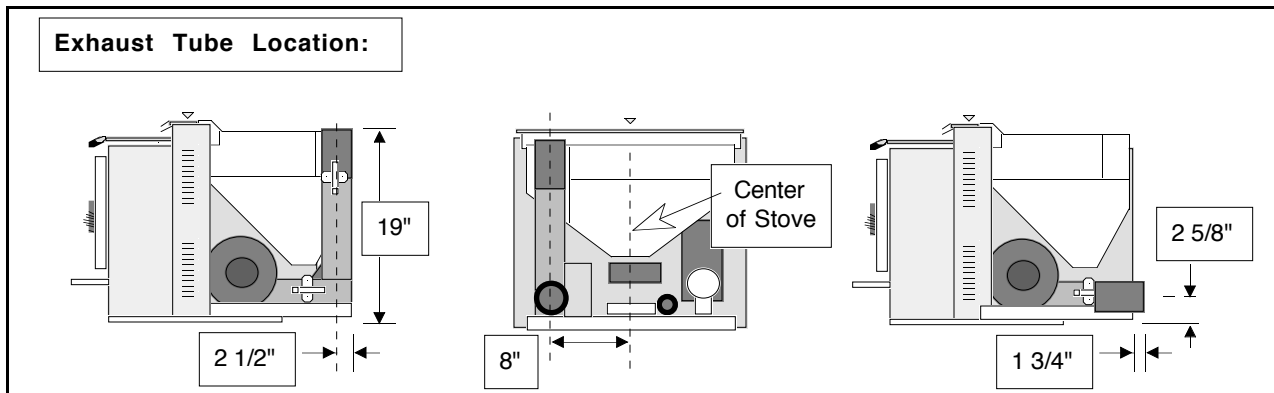
After the panels are in place, the trim can then be installed. Place the rounded edge of the trim that will be facing outwards when installed face down (see the illustration above). Insert one small and one large "L" bracket leg into the grooves in the 45° cut end of each side piece. Slide the other leg of each "L" bracket into the groove in each end of the top piece. With a screwdriver, tighten the set-screw into the larger "L" brackets, insuring that the 45° cuts are butted together to form a neat joint. Pick up the brass trim and slide it over the panels until the bottom of the trim is flush with the bottom edge of the side panels.

**Exhaust Tube Specifications**

The Avalon 900 PI is shipped with a vertical exhaust tube, but it can be adjusted to vent horizontally (i.e., for built-in installations using a horizontal vent). To vent horizontally, unlatch the upper and lower clips on the right side of the insert (remove the locking pins first), and remove the exhaust tube and vertical exhaust extender. Discard the vertical exhaust extender. Attach the exhaust tube with the lower clip, making sure the lower gasket is properly aligned, and re-insert the locking pin.



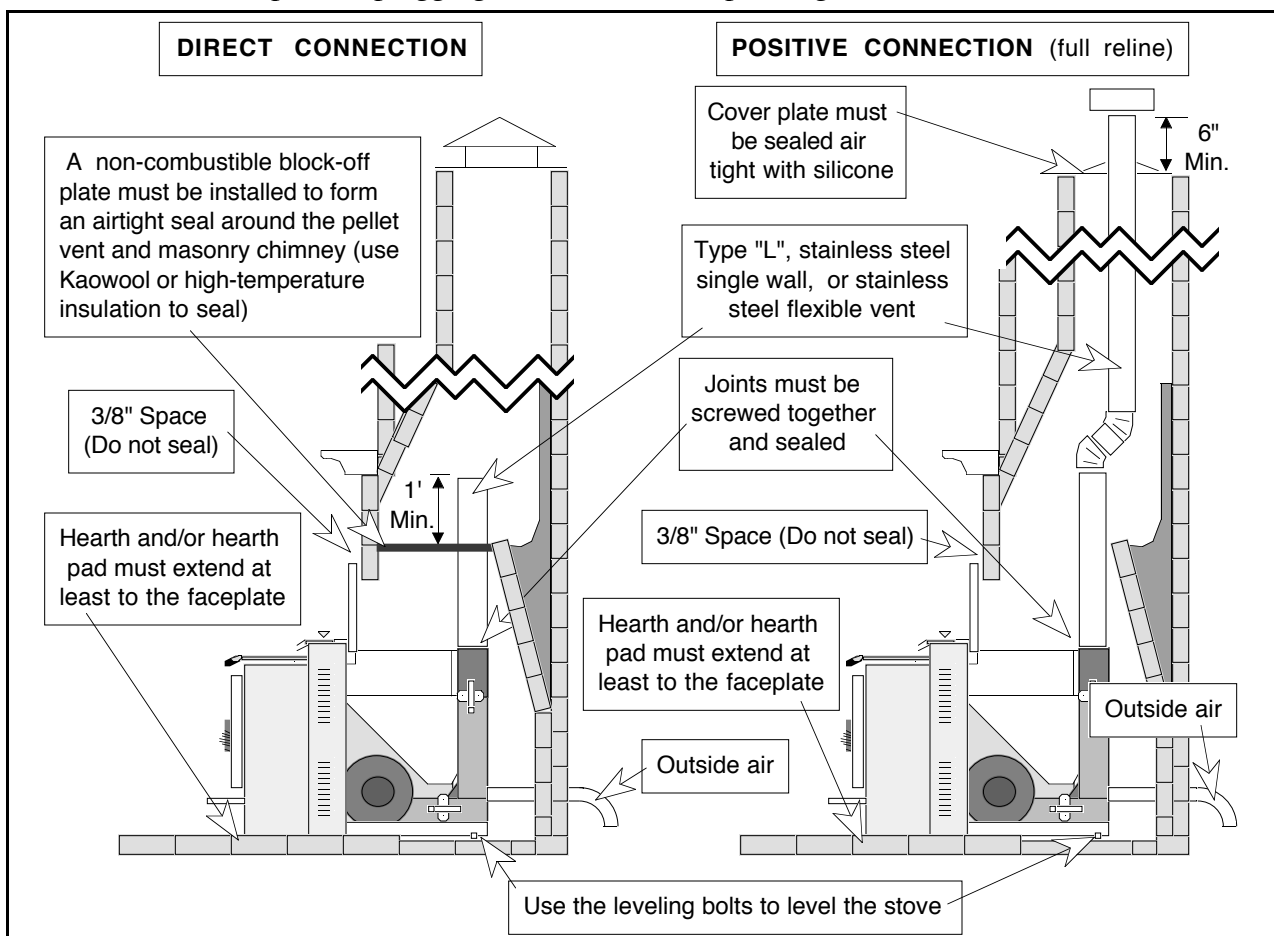
The illustration below details the exhaust tube location for the vertical and horizontal exhaust tube configuration.



## Installation into a Masonry Fireplace

The pellet insert can be installed into a masonry fireplace with either a direct or positive connection (full reline). Make sure to follow all of the requirements listed in the section "Insert Requirements" as well as those listed below. The steps below detail the order of installation.

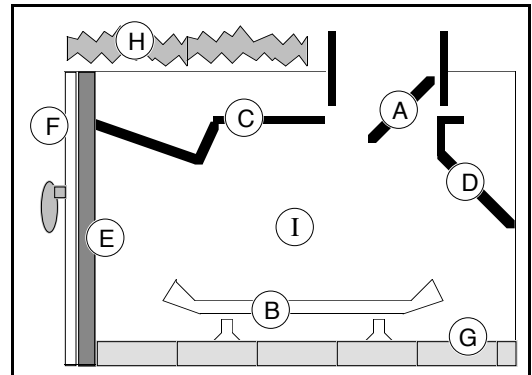
- A Clean the fireplace with a wire brush or scraper and inspect the fireplace cavity and chimney. Repair any crack or other damage before proceeding. Paint the fireplace cavity with a latex paint to eliminate the possibility of odors from the fireplace being circulated into the house by the pellet insert.
  - B Install the pellet vent, making sure to seal all joints. The direct connection requires a block-off plate made of non-combustibles that is sealed with kaowool or high temperature insulation. The positive connection requires a cover plate at the top of the chimney sealed with silicone. Take into consideration the optional exhaust vent configurations (horizontal or vertical). Install the outside air connection (if applicable).
  - C Install the optional igniter if it is being used. If the fireplace is stepped down, insert two leveling bolts (included with the owner's pack) into the threaded nuts at the bottom rear of the baseplate. Then adjust the bolts to the same height the fireplace is stepped down to.
  - D Place the insert into the fireplace. The outside air connection may need to be attached before the insert is fully in place.
- NOTE: Do not pick the insert up by the hopper or any other internal component.**
- E Attach the pellet vent to the insert by reaching over the top or to the right of the insert. Screw the pellet vent to the exhaust tube and seal the joint.
  - F Install the panels and brass trim to complete the installation. Read the section "Operating the Heater" prior to plugging in the insert and operating.



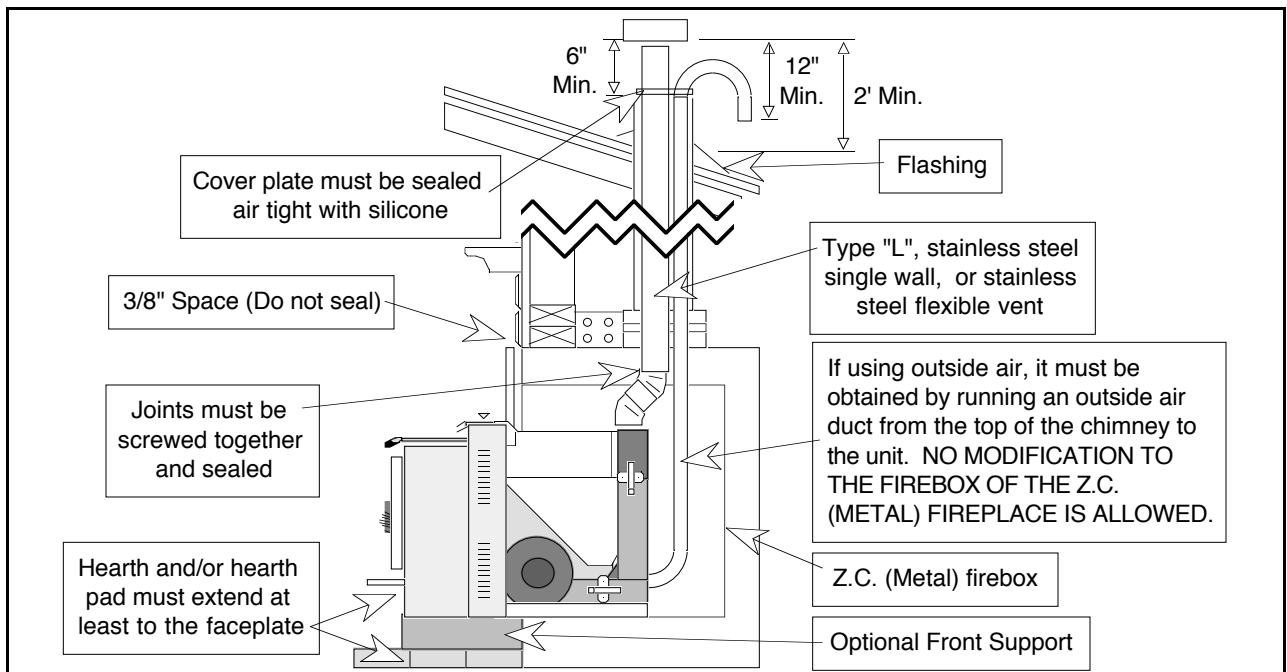
### Installation into a Zero Clearance (Metal) Fireplace

The pellet insert can be installed into a zero clearance (metal) fireplace with a positive connection (full reline). Make sure to follow all of the requirements listed in the section "Insert Requirements" as well as those listed below. The steps below detail the order of installation.

- A Clean the zero clearance fireplace and repair any damage before proceeding. The illustration to the right labels the various parts of a typical zero clearance fireplace. The damper (A) and grate (B) **must** be removed. The smoke shelf (C), internal baffles (D), metal screen (E), glass screen or doors (F) **may** be removed (if applicable). The masonry lining (G), insulation (H), and any structured rigid frame members (metal sides, floor, door frame, face of the fireplace, etc. – (I)) **may not** be removed.



- B Install the pellet vent through the existing chimney, making sure to seal all joints. A cover plate is required at the top of the chimney and must be sealed with silicone. Take into consideration the optional exhaust vent configurations (horizontal or vertical) when installing the vent. Install the outside air connection (if applicable).
- C Install the optional igniter if it is being used. If the fireplace is stepped down, insert two leveling bolts (included with the owner's pack) into the threaded nuts at the bottom rear of the baseplate. Then adjust the bolts to the same height the fireplace is stepped down to. If the fireplace is elevated, follow the directions for using the optional front support in the section "Optional Equipment" or use a pair of front legs if the height is correct.
- D Place the insert into the fireplace. The outside air connection may need to be attached before the insert is fully in place.
- NOTE: Do not pick the insert up by the hopper or any other internal component.**
- E Attach the pellet vent to the insert by reaching over the top or to the right of the insert. Screw the pellet vent to the exhaust tube and seal the joint.
- F Install the panels and brass trim to complete the installation. Read the section "Operating the Heater" prior to plugging in the insert and operating.

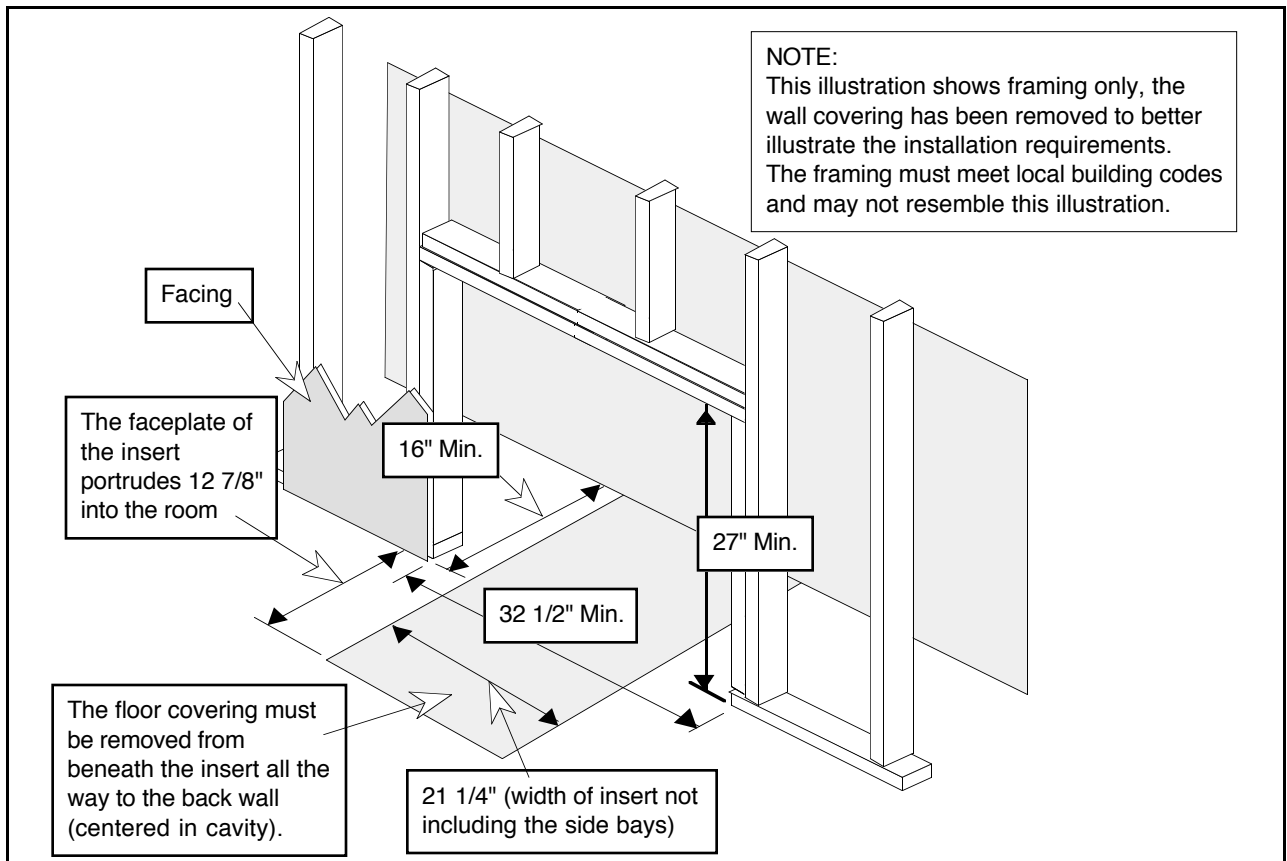




## Installation as a Built-In Heater

The pellet insert can be installed as a built-in heater with the use of type "L" vent and requires the Travis Industries floor shield. You may frame around the insert or use existing framing as long as there is enough room. Because this type of installation is complicated, we strongly recommend that a Travis Industries dealer installs it. The steps below detail the order of installation.

- A Prepare the area for placement of the built-in heater. If existing framing is used, clear out a cavity to meet the minimum size shown in the illustration below. If framing is being installed, make sure it meets the requirements listed below. Remove any carpeting or other floor covering from the floor where the floor shield and insert will rest. To make installation of the flue and insert easier, we recommend doing any framing and wall covering last (make sure the plans are correct!).

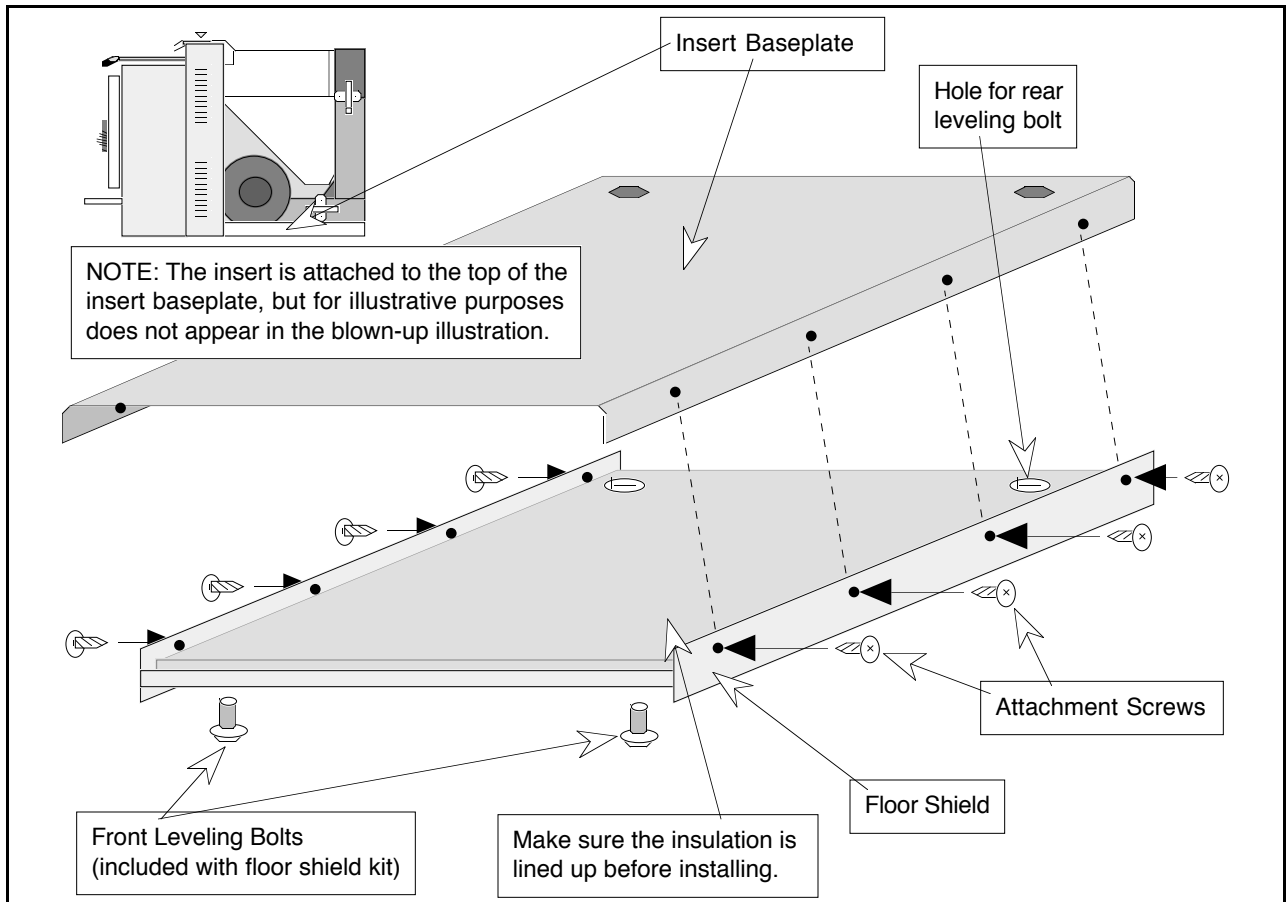


- B **Install the pellet vent following all the requirements listed in the section "Pellet Vent Requirements" in the stove section of this manual (pages 8 through 10).** The built-in installation follows the same pellet vent requirements as a freestanding stove because it does not use an existing chimney. The most important elements of these requirements are listed below:

- Minimum 3" clearance to any combustible
- Follow the manufacturer's installation instructions for precautions required for passing vent through a combustible wall or ceiling (i.e. use an approved thimble).
- Must have a support bracket every 5' of pellet vent when exterior
- Maximum 10' length if horizontal only
- If the pellet vent is routed upwards, the vent configuration must be vertical
- If the pellet vent is routed horizontally, the vent configuration must be horizontal.

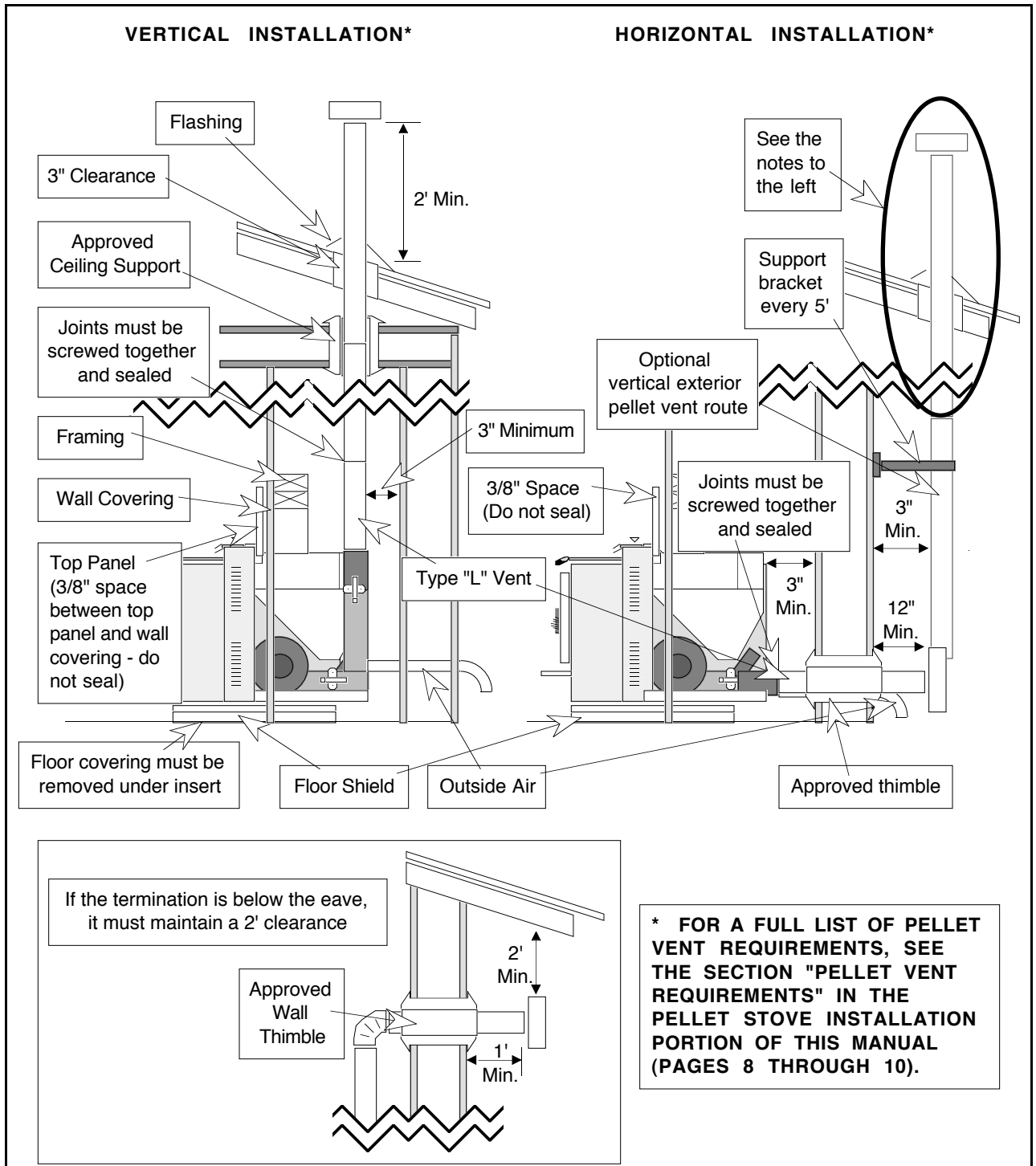
## INSERT INSTALLATION (CONT.)

- C The next step is to install the floor shield kit (see the illustration below). Prop up the front of the insert approximately one foot. Remove the front and rear leveling bolts if they were installed. Place the floor shield underneath the insert and line up the holes on the floor shield with the holes in the insert baseplate, making sure the insulation included with the floor shield stays in place. Insert four screws (included with the floor shield) through the floor shield and then screw them into the insert baseplate. These screws are self-tapping. Repeat for the opposite side. If the front leveling bolts are needed, insert the two leveling bolts included with the floor shield kit into the nuts on the floor shield. If the rear leveling bolts are needed, insert the two leveling bolts included with the insert through the floor shield and into the insert.



- D Install the outside air connection (if applicable).
- E If the optional igniter is being used, make sure to install it now.
- F The next step is to complete the wall that the insert is placed into. The non-combustible facing must be installed to meet the requirements (non-combustible facing must extend a minimum of 12" above the heater). Many installers prefer the 'look' of masonry around the pellet insert and will build the insert around either tile or brick. If the installation uses masonry, make sure to include the depth of the masonry into the installation plans.
- NOTE: The 10" panel set is the smallest panel set large enough to cover the built-in cavity.**
- G Place the insert in its final location, making sure it is centered and that it maintains a 3" minimum clearance to the back wall. Make sure that all the floor covering (i.e. carpeting, vinyl floor) has been removed from underneath the insert. Attach the pellet vent and outside air tube. NOTE: Do not pick the insert up by the hopper or any other internal component. All joints of the pellet vent must be screwed together and sealed.

- H Install the panels and brass trim to complete the installation. Included with the floor shield kit are two pairs of side panels. The set that are flat are used, the bent pair can be discarded. Attach the side panels to the side bays by placing them with the magnetic strip side up against the side bay. Read the section "Operating the Heater" prior to plugging in the insert and operating.



## BEFORE YOU BEGIN

**READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW HEATER. FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.**

Before starting your first fire make sure you have read the section titled **Safety Precautions**. Any questions should be referred to your dealer. There are two things you will need to know before you start your first fire:

### PRIMING THE AUGER

The first time you start your heater, **or** if you completely run out of pellets, the auger will need to be primed by turning the heater on and turning the BURN RATE to "HIGH" for fifteen minutes. This will allow the pellets to feed up the auger and start to fall into the firepot before you start the heater. After this "priming" the stove can be started normally.

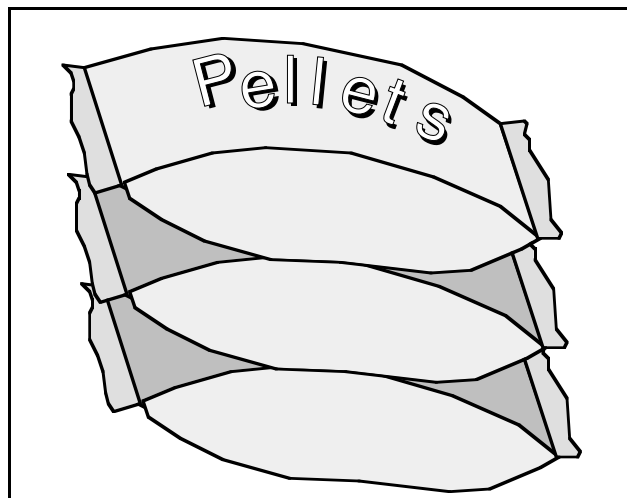
### PAINT CURING

The first time your heater gets up to temperature you will smell the paint on the outside of the heater curing. This is normal. We recommend that you first fire your heater outside or leave all of the windows open for a few hours during the first fire.

## A WORD ABOUT PELLETS

Your heater was designed to burn wood pellets only. There are some facts you should know before you buy pellets. The paragraphs below detail the information you should know.

With the surge in popularity of pellet heaters came the tremendous increase in pellet demand. Because pellets are made from wood by-products, pellet manufacturing is dependent upon the supply of these by-products and the quality found therein. Unfortunately, this surge in pellet manufacturing has led to a decline in the quality of the raw materials used to produce the pellets.

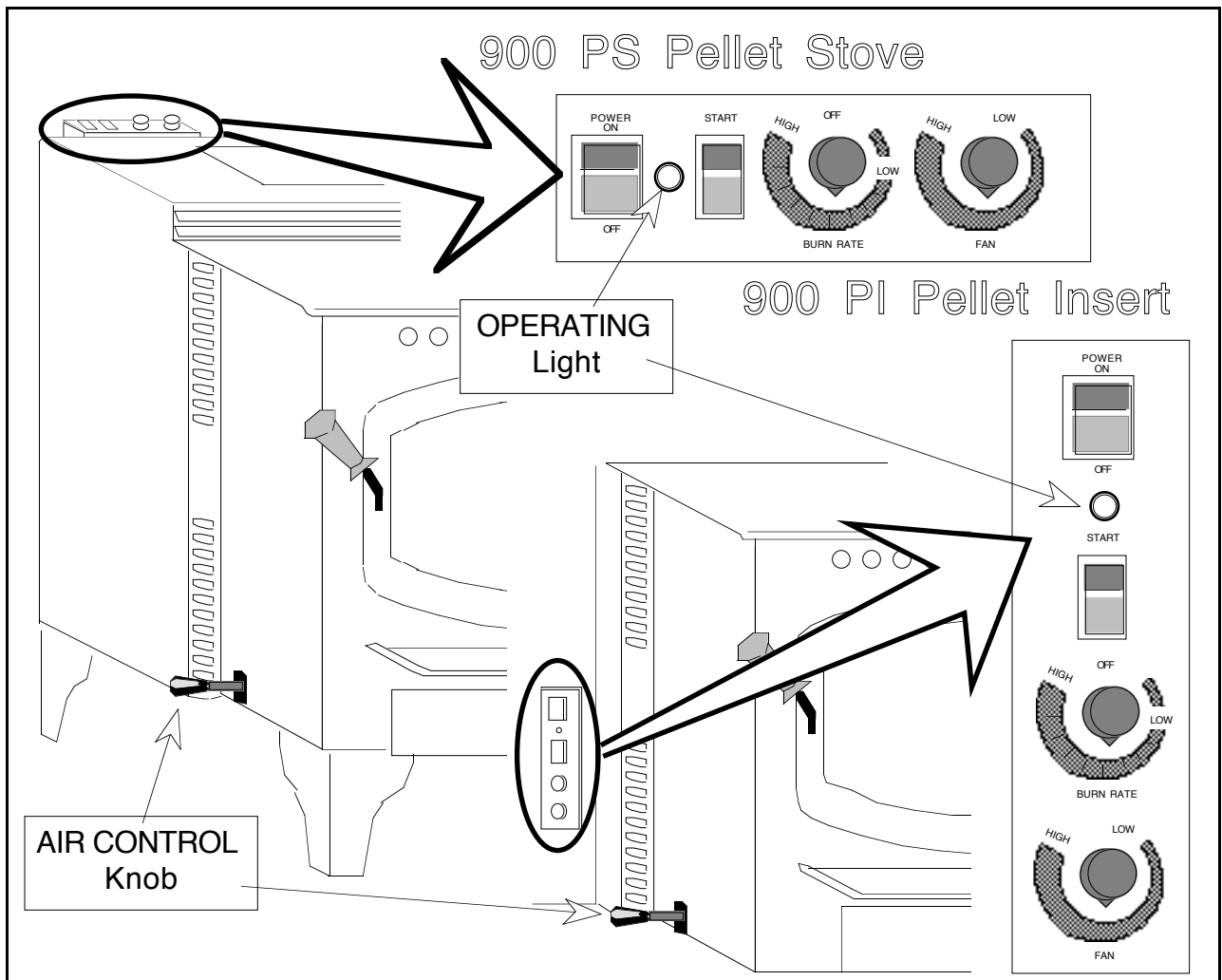


Ideally, pellets should have a very low moisture, ash, dirt, and salt content. Some pellets do not. Pellets should have a consistent diameter of 1/4", 5/16", or 7 mm. Pellets should also be no longer than 1 1/2" long. Some pellets are longer. There is no real pellet monitoring agency, so you must monitor pellet quality yourself.

### We Suggest:

Buy only 3 bags of pellets before you purchase a large amount. Burn the pellets in your pellet heater and check for these signs of poor quality pellets: clinkers develop in the air holes on the bottom of the firepot (see the section "Maintenance Instructions"); the auger jams for no apparent reason, and when the hopper is cleaned out, the auger runs again; there is more than one-half cup of sawdust in the bottom of the bag of pellets; or, the pellets don't burn well on a low BURN RATE, and it seems the AIR CONTROL has to be pulled out all the way for the pellets to burn (a sign of wet or dirty pellets). It is best to check one brand of pellets versus another to see the difference first-hand. The Association of Pellet Fuel Manufacturers has set the following standards for pellets: density of at least 40 lbs. per cubic foot; 1/4" to 5/16" diameter; length no greater than 1 1/2"; 8200 BTU's/lb.; moisture under 8% by weight; ash under 1% by weight; and, salt under 300 parts per million.

## LOCATION OF CONTROLS - SEE EXPLANATION BELOW



### POWER Switch

This control is used to turn the stove on and off.



**WARNING:** Do not unplug the heater to turn it off. This heater relies upon electricity to push the flue gases out the pellet vent – unplugging it may lead to smoke in your room.

### OPERATING Light

This light indicates that the stove is in operation. It will not turn on until the POWER switch is on and the START switch is pressed. It will not turn off until the POWER switch is turned off and the heater has cooled off.

### START Switch

This control starts the heater. It will need to be pressed each time the heater is re-started.

### BURN RATE Dial

This dial controls the amount of pellets that are fed into the firepot and hence the amount of heat. This dial must be used in conjunction with the AIR CONTROL to operate the heater correctly.



**HINT:** Adjust the BURN RATE and AIR CONTROL together. The higher the BURN RATE the farther out the AIR CONTROL should be.

### FAN Dial

This dial controls the amount of heated air that is blown out of the heat exchange tubes above the door. Generally, the higher the BURN RATE the higher the FAN dial should be set.

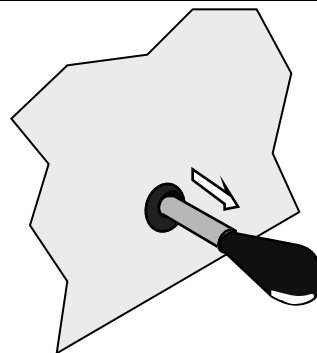
### AIR CONTROL Knob

This controls the amount of air entering the firepot (see the Hint above).  
**Out is more air, in is less air.**

**STARTING YOUR HEATER**

**(MAKE SURE THE AUGER IS PRIMED - PAGE 28)**

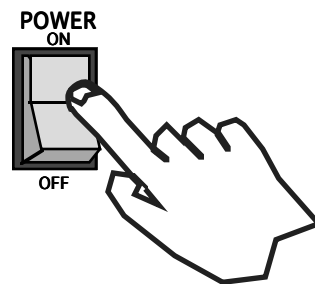
- A Pull the AIR CONTROL all the way out to the fully open position.



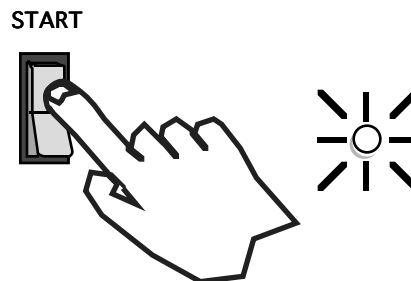
- B Turn the BURN RATE to a "Medium" setting.



- C Press the POWER button to "ON".

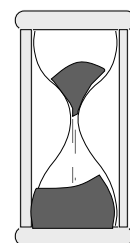


- D Press the START switch. You will see the light next to the POWER button turn on and pellets start dropping into the firepot. The heater will self-start in 5 to 7 minutes.



- E Wait fifteen minutes for the heater to get up to temperature before adjusting the controls.

**15  
minutes**



## RUNNING YOUR HEATER

Your pellet heater is a high efficiency heater designed to burn over a wide range of heat output. This wide range of heat output, along with the different variety of pellets, requires the operator to know how to adjust the heater to achieve the most efficient burn.

### Step 1: Adjust the BURN RATE

After the heater has run for 15 minutes, the BURN RATE dial can be adjusted to suit the amount of heat needed. The higher the BURN RATE is set, the faster the pellets will feed into the firepot and the more heat you will receive. The exact amount of heat will vary according to the type of pellets you are using.



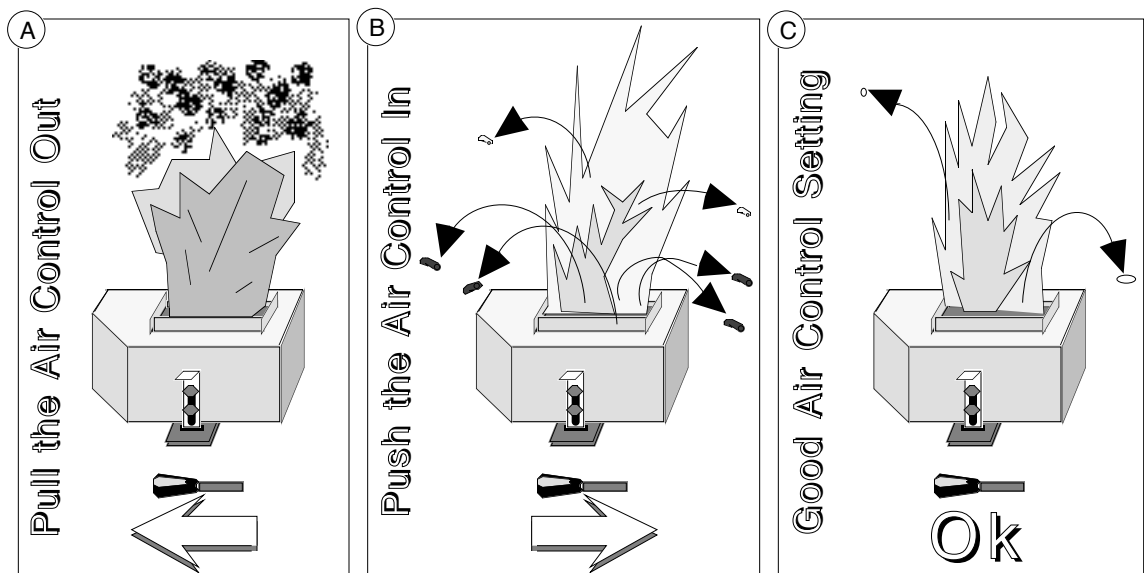
**NOTE:** Pellets vary in the amount of heat they give off and the speed in which they feed. Drier, cleaner pellets give off more heat. Smaller length pellets feed faster than long pellets.

After the BURN RATE is set, the AIR CONTROL will need to be checked.

### Step 2: Adjust the AIR CONTROL

The AIR CONTROL adjusts the amount of air entering the firepot. It is extremely important to adjust it correctly. It must be adjusted every time the BURN RATE is changed or when using different pellets. With the BURN RATE set to a particular setting, look into the firepot and check the flame. Ideally, the pellets should be agitating slightly, with an occasional ember flying up and a bright, jagged, yellow flame.

- » *If the pellets aren't moving and no embers are jumping out of the firepot, and the flame is dark orange with black tips (see drawing "A" below), pull the AIR CONTROL out 1/2". Check again.*
- » *If the pellets are moving vigorously with many burning pellets are jumping out of the firepot (see drawing "B" below) push the AIR CONTROL in 1/2". Check again.*
- » *If the pellets are moving slightly with some embers jumping out of the firepot, and the flame is bright, jagged, and yellow, (see drawing "C" below) the AIR CONTROL is set correctly. Generally, the higher the BURN RATE, the farther out the AIR CONTROL must be set.*



**NOTE:**

Every bag of pellets you use may be different. Certain pellets will be heavier and won't want to move around in the firepot. Some pellets will be wet, and take longer to burn. While other pellets will be "dirtier" and produce a darker smoke. Pellets will even vary from bag to bag. If uncertain on where to set the AIR CONTROL, **it is best to pull the AIR CONTROL out too far then to push it in too far.**

**HINT:**

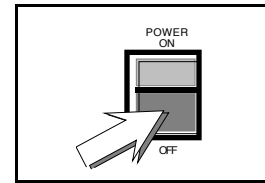
Generally, the label on the AIR CONTROL should be showing RED on HIGH, ORANGE on MEDIUM, and YELLOW on LOW.

## Step 3: Adjust the FAN Dial

The Fan dial controls the amount of heated air that is blown out of the heat exchange tubes above the door. Generally, the higher the BURN RATE the higher the FAN dial should be set.

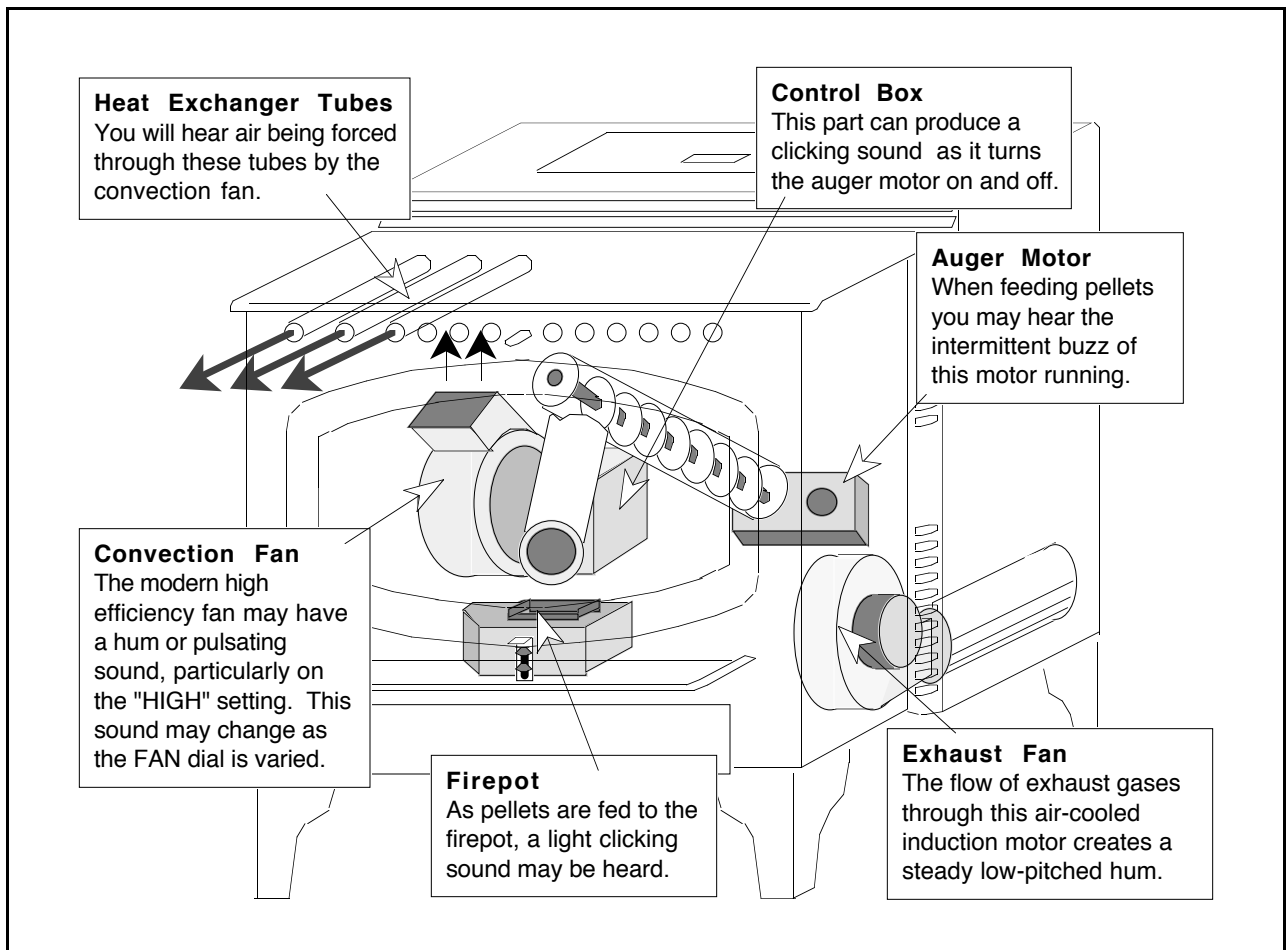
## TURNING OFF THE HEATER

To turn the heater off, switch the POWER button to "OFF".

**WARNING:**

Do not unplug the heater to turn it off. This heater relies upon electricity to push the flue gases out the pellet vent – unplugging it may lead to smoke in your room.

## NORMAL OPERATING SOUNDS





## MAINTENANCE SCHEDULE

Your heater requires periodic maintenance to run. The steps involved with maintenance are usually quick and easy. Look through this maintenance schedule and plan accordingly.



**WARNING:** Failure to maintain your heater will lead to a restricted combustion air system, which may lead to smoke spillage into the room.

### Daily Maintenance (when the heater is in use):

- Check the Firepot (Clean if Necessary)
- Check the Ashpan for Flyash (Clean if Necessary)

### Weekly Maintenance:

- Clean the Heat Exchanger Tubes
- Clean the Firebox and Glass
- Clean the Ash Traps

### 1,000 Pound Maintenance (every 25 Bags):

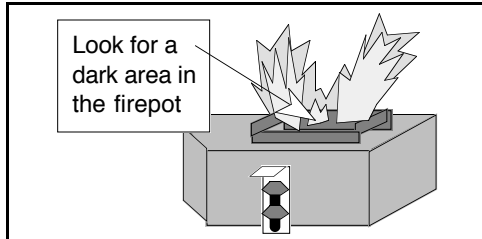
- Clean the Hopper and Auger Tube

### 6,000 Pound or Yearly Maintenance (depends upon pellet quality)

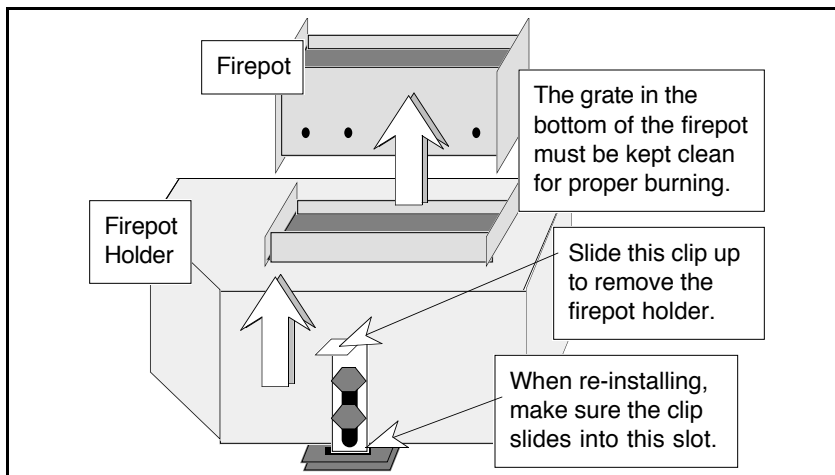
- Clean the Exhaust Ducts
- Exhaust Blower
- Convection Blower
- Pellet Vent

## MAINTENANCE INSTRUCTIONS

### Check the Firepot (Clean if Necessary)



At least once a day while the heater is in use, look down into the firepot and check for any dark areas where the pellets refuse to light or glow. If this occurs, you will need to turn the heater off and remove any buildup on the firepot holes. You may find a piece of hardened ash that covers the holes in the firepot (a clinker) that will need to be removed. When replacing the firepot, make sure you insert it correctly, otherwise air will go around the firepot instead of through it.



To clean the firepot, first slide the clip on the firepot holder up and pull the firepot and holder out of the heater. The firepot can be slid out of the firepot holder (make sure to re-install it in the same position) for cleaning. Make sure all of the holes in the grate on the bottom of the firepot are clean. Clean out any flyash in the firepot holder before re-installing.



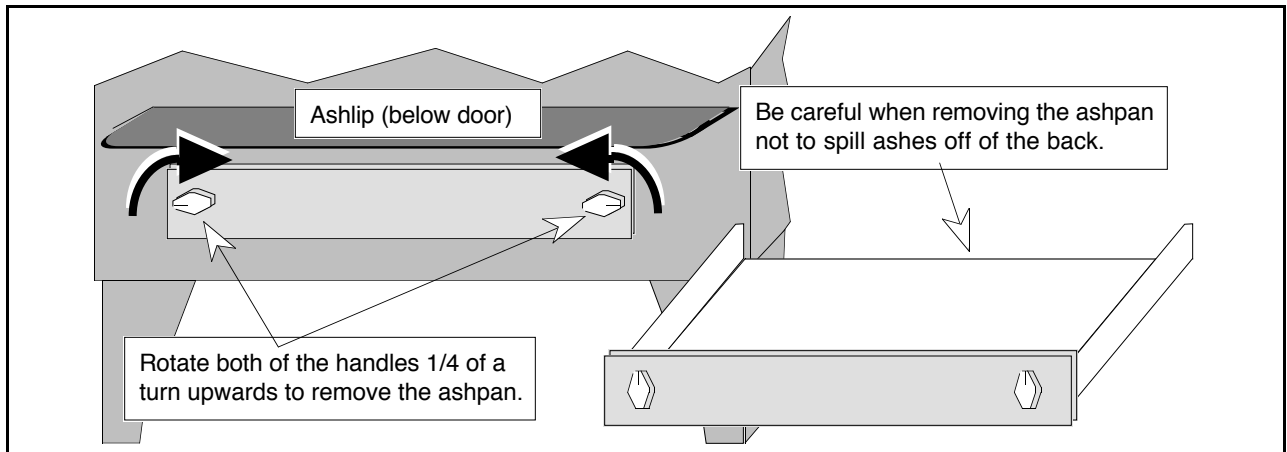
**HINT:** If clinkers build up every day in your heater, you will want to check for air leaks (See the section "Air Leaks") and your pellets (See the section "A Word About Pellets"). Also, clinkers build up more often at a low BURN RATE than at a high BURN RATE.

**Check the Ashpan for Flyash**

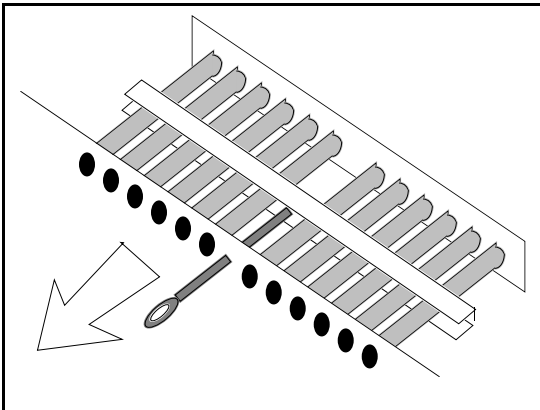
At least once a day while the heater is in use, look down through the window and check for flyash buildup in the ashpan. If you see more than 1" of flyash, turn the heater off, wait for it to cool and empty the ash. To empty the ashpan, turn both of the handles located under the ash lip 1/4 turn so the lines on the knobs are pointing up. Then pull the ashpan out, tilting it forward to prevent ash from spilling off the back. Store the ash in an air tight metal container placed on a non-combustible surface until thoroughly cooled before disposing.

**NOTE:**

Certain pellets produce more ash than others. After a couple of days you should know when you will need to clean the ashpan.

**WARNING:**

When re-attaching the ashpan, make sure it is fully inserted before turning the knobs 1/4 of a turn outwards. If there is not an air tight seal, there may be smoke spillage into the room.

**Clean the Heat Exchanger Tubes**

At least once a week the heat exchanger tubes should be cleaned. With the door closed, push the built in cleaner located above the door back and forth a couple of times. Wear a glove or use the tool included with this heater if the handle is hot. You should see flyash falling from the roof of the firebox. After cleaning, you may wish to brush any loose flyash into the ashpan. Cleaning the heat exchangers allows for better heat transfer.

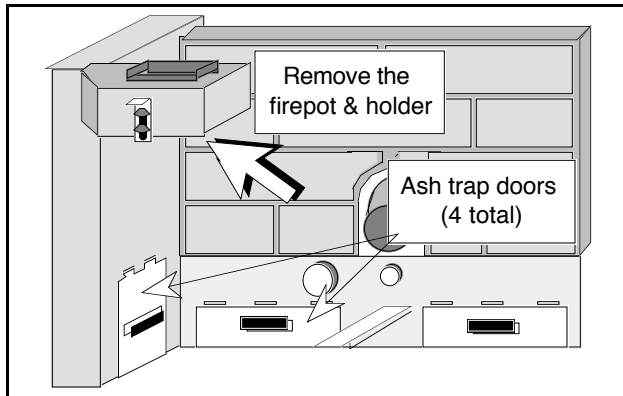
**Clean the Firebox and Glass**

At least once a week the firebox will need cleaning to remove flyash that may build up around the firepot and hamper efficient burning. If there is an optional log set, remove the log set and brush it clean of flyash. Then brush all flyash off of the firebrick refractory and off the walls of the firebox. When done brushing off the flyash, clean out the flyash built up in the ashpan. The glass should be cleaned with a non-abrasive glass cleaner. This will increase the amount of light and heat given off by the heater, as well as add to its attractiveness.

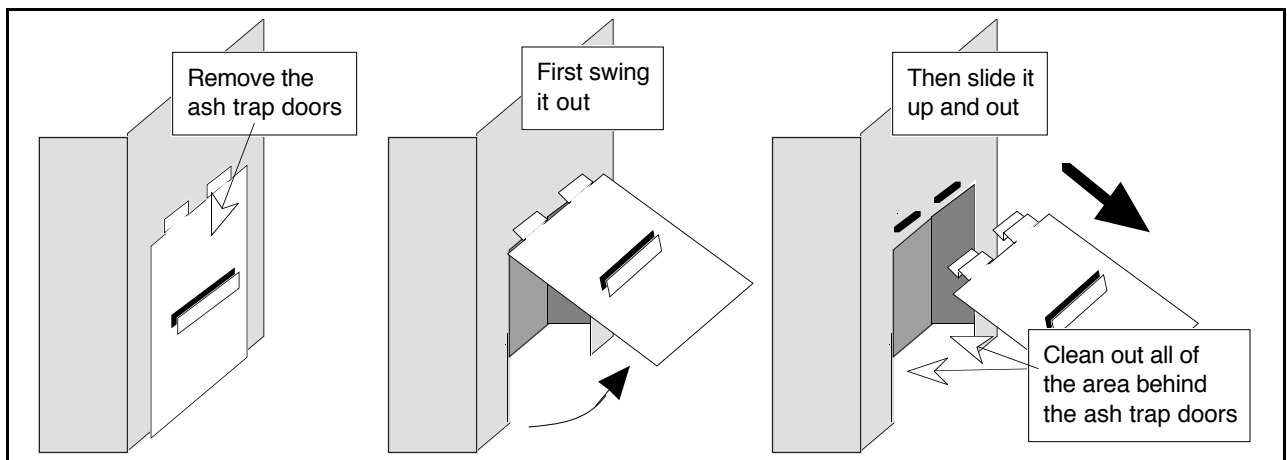
**HINT:**

We **STRONGLY SUGGEST** you buy a vacuum built specifically for cleaning pellet heaters. These vacuums are fire-resistant and make cleaning much easier. Because your heater is more efficient when kept clean, this vacuum will pay for itself in fuel costs.

## Clean the Ash Traps



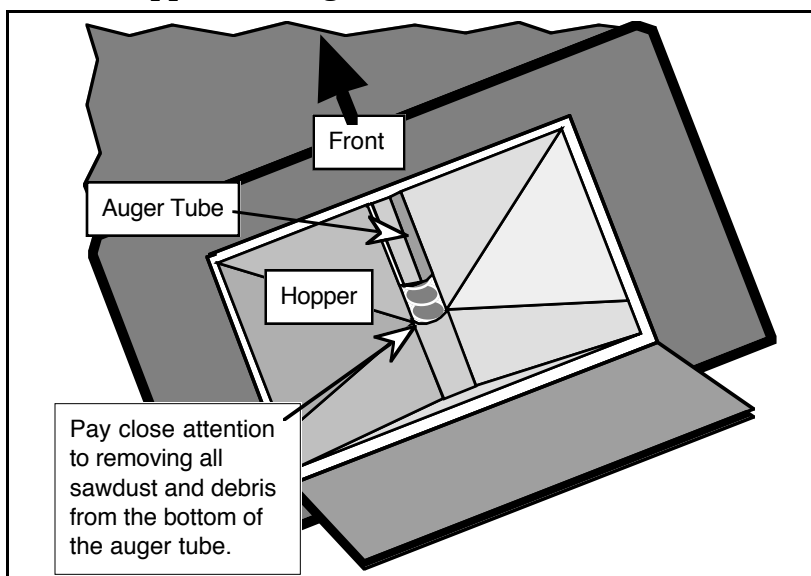
At least once a week the ash traps should be cleaned. They are used to catch the flyash before the exhaust gases exit the firebox. The ash trap doors provide access to the ash traps for flyash removal. First remove the firepot and holder and empty the ashpan. Locate the four ash trap doors located along the bottom of the firebox. Remove them by swinging them out and sliding them up and out. All the flyash behind the doors can then be cleaned out. Use a vacuum cleaner to remove the flyash or brush the flyash onto the floor of the firebox and remove from there. Make sure the ash trap doors lay flat against the surrounding metal when re-installed.



### HINT:

The more often you clean out the flyash, the more efficient your heater will burn.

## Clean the Hopper and Auger Tube



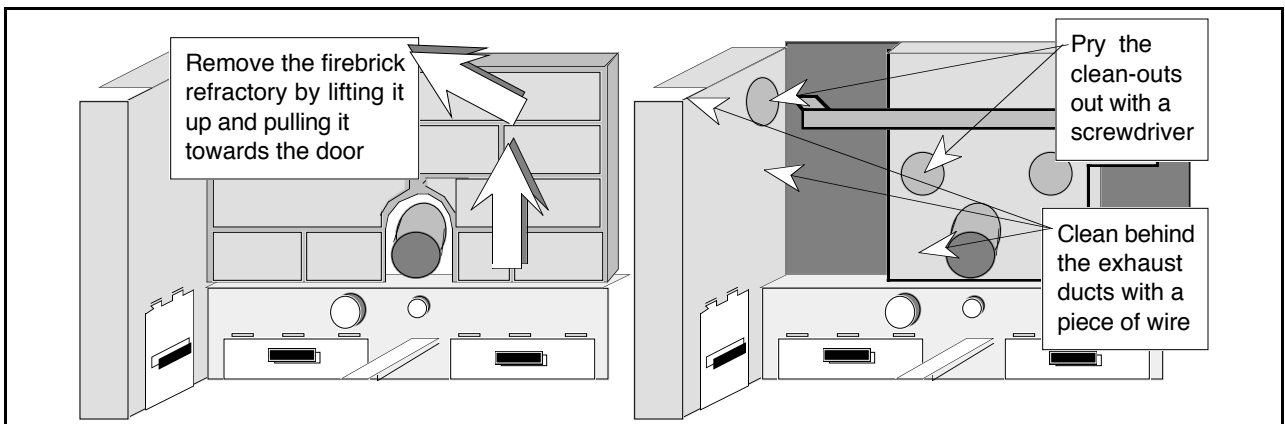
The hopper and auger tube should be cleaned every 1,000 pounds of pellets burned. If you notice more than 1/2 cup of sawdust in the bottom of a bag of pellets, the hopper and auger should be cleaned every 500 pounds of pellets burned. Vacuum around the hopper and in the exposed portion of the auger tube. Pay close attention to getting any sawdust or debris out of the bottom of the auger tube. For inserts, accessing the hopper is more difficult. Use an extension on the vacuum to remove all debris.

**HINT:**

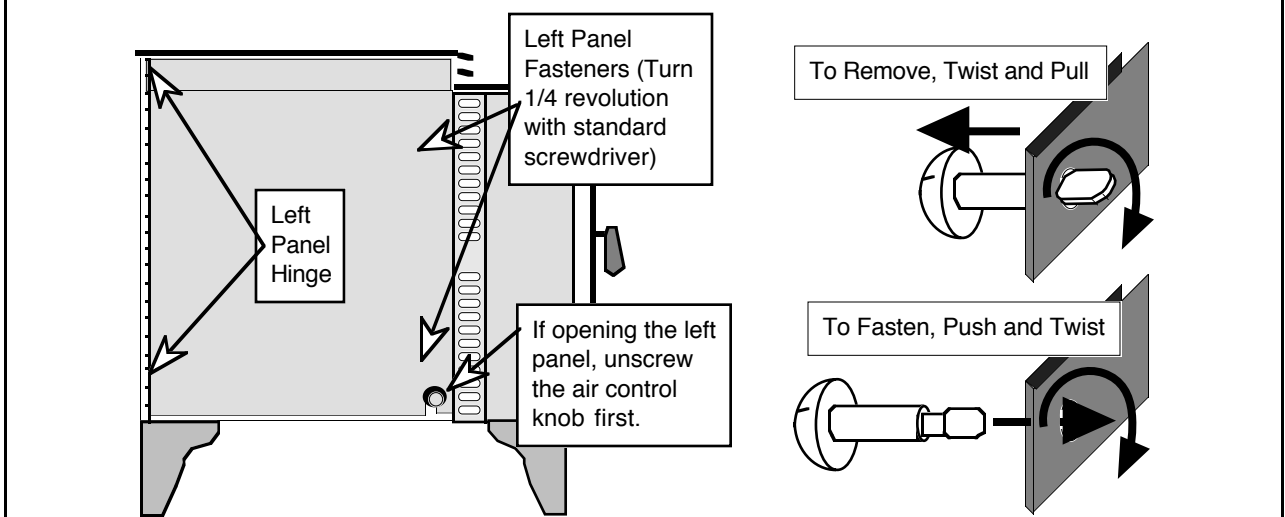
This following sections detail difficult maintenance procedures that we strongly suggest be carried out by a **TRAINED SERVICE TECHNICIAN**, possibly by a service agreement set up by the dealer.

**Clean the Exhaust Ducts**

The exhaust ducts are located inside the firebox and are used to transfer heat. Every 6,000 pounds of fuel the flyash and soot from behind the exhaust ducts will need to be removed (perhaps more often depending on pellet quality). Remove the ash trap doors by following the directions in the section "Clean the Ash Traps". Remove the firebrick refractory by lifting it up and away from its holder on the back of the firebox. This will expose the two clean-outs on the back wall of the firebox. Remove these clean-outs, as well as the clean-outs on each side, by prying loose with a screwdriver. Tap against the exhaust ducts to remove the loose flyash first. Then brush away any soot or flyash that has built up behind the exhaust ducts. Use a piece of wire to reach the areas inside the exhaust ducts that are hard to reach. The soot and flyash will fall down to the ashtap area. Vacuum out all of the flyash and soot. Replace the clean-outs, firebrick refractory, and firepot holder when finished cleaning.

**ACCESSING INTERNAL COMPONENTS****FOR STOVES:**

The internal components on a pellet stove are accessed by opening either of the hinged side panels. Before opening the panels, turn the stove off and let it cool for one hour. Remove the power cord from the electrical panels. For the left side panel the air control knob must be unscrewed. Open either of the side panels by taking a standard screwdriver and turning the two fasteners one-quarter turn. These fasteners hold the panel in place, and only need to be turned slightly to release. Then swing the panel back on the hinge. To re-attach, turn the fasteners one-quarter turn while pressing them against their sockets.

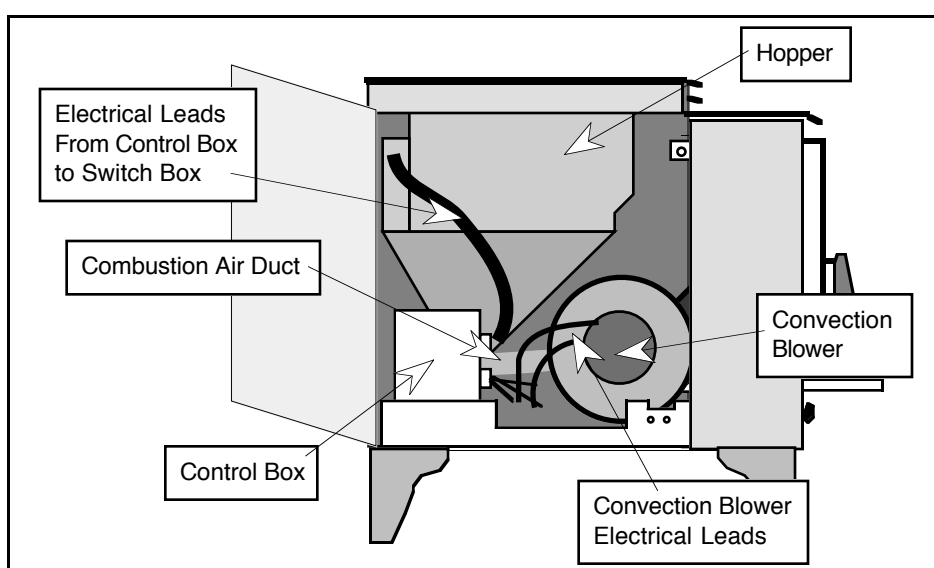


## FOR INSERTS:

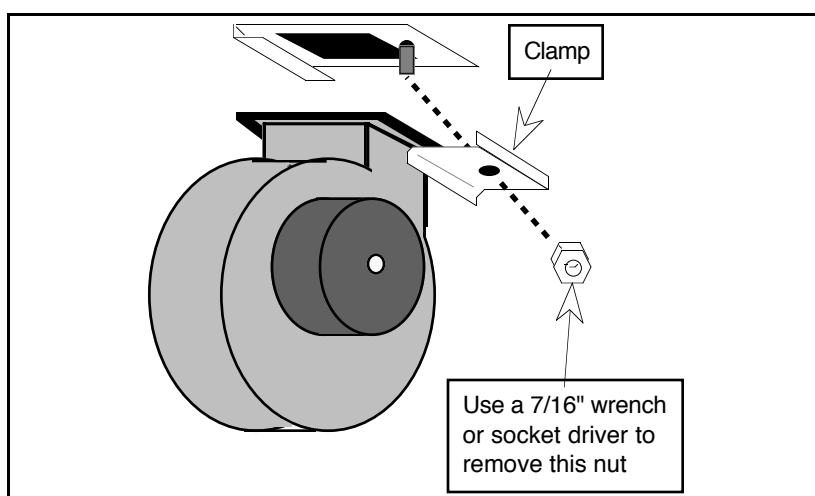
The internal components on either side of the insert are accessed by pulling the insert out of the fireplace. Turn the insert off and let it cool for one hour. Remove the power cord from the electrical socket. Lift off the brass trim around the surround panels and then slide off the top surround panel. Reach in above the insert and disconnect the pellet vent where it attaches to the insert (make sure to re-seal with RTV 500° F. silicone). Put down a piece of cardboard on the hearth to prevent scratching. Then remove the door and draw the insert out by pulling from the door opening (pulling from the hopper area may damage the insert). With the insert drawn out onto the hearth the internal components can be accessed. Follow these directions in reverse order to re-install the insert.

## Convection Blower

The convection blower pushes air through the heat exchanger tubes, transferring heat from within the firebox to the room. Over time it will collect dirt and need cleaning.



The first step is to open the left side panel (follow the directions in the section "ACCESSING INTERNAL COMPONENTS"). Disconnect the two power leads going to the convection blower. The orientation of these two wires does not matter when re-attaching them.

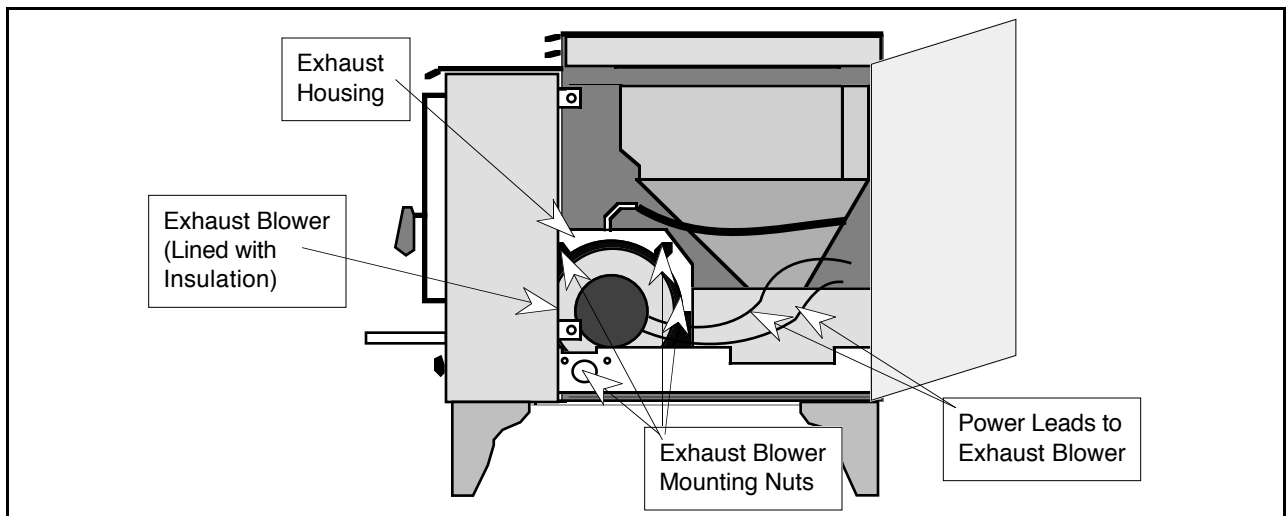


Use a 7/16" socket wrench to remove the single nut located at the top of the convection blower. The convection blower can now be pulled out of the unit for cleaning. Clean off any dirt that has attached to the intake screen on the blower. Tap against the blower to dislocate any dirt from inside the blower and shake the dirt out. Check the impeller blade and brush off any dust or soot. If it is damaged, replace the blower. Follow the directions in reverse order to re-attach the convection blower.

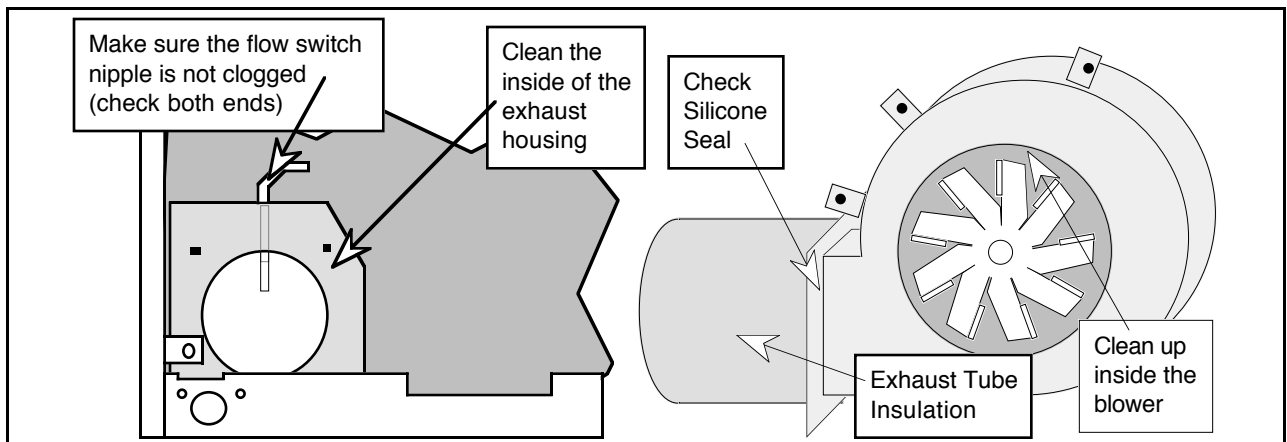
**Exhaust Blower**

The exhaust blower pulls the combustion air through the heater and pushes the flue gases out the pellet vent. It collects soot and must be cleaned every 3 tons of fuel burned. Follow the directions in "ACCESSING INTERNAL COMPONENTS" for accessing the right side. For stoves, remove the pellet vent connection at the back of the stove (make sure to re-seal with RTV 500° F. silicone).

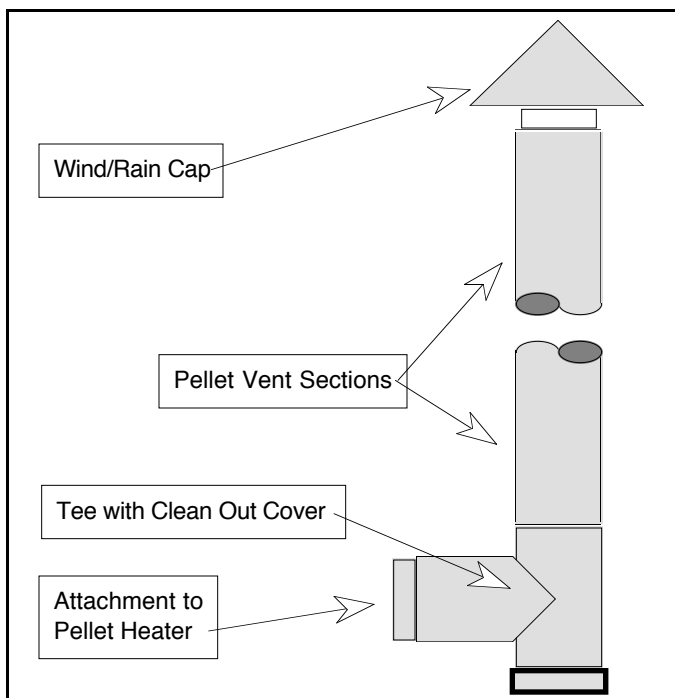
Make sure the heater is unplugged, then disconnect the two power leads going to the exhaust blower. The orientation of these two wires does not matter when re-attaching them. Use a 3/8" nut driver to remove the four mounting nuts that hold the exhaust blower in place. Three of the nuts are located on top of the exhaust blower while one is on the lower left and can only be accessed through a hole in the base. Remove the insulation surrounding the exhaust blower. Tilt the exhaust blower outwards and slide towards the side to remove. With the exhaust blower removed, check the gasketing that insulates the connection between the exhaust blower and the exhaust housing. Replace the gasket if it has deteriorated. Follow the directions in reverse order to re-attach the exhaust blower. Make sure to re-seal the pellet vent connections with RTV 500° F. silicone.



Once the exhaust blower is removed, place it so the side that holds the gasket is up. Check the impeller blades for any damage and replace if necessary. Clean the inside of the blower, making sure to get the soot up inside the blower. Check the silicone seal where the blower connects to the exhaust tube. Use RTV 500° F. silicone to reseal the joint. Use a new exhaust gasket if the existing one is torn or significantly worn.



## Pellet Vent



Check the pellet vent for soot and creosote build-up, and have it cleaned by a certified chimney sweep if necessary.

The wind/rain cap should be cleared of any dirt or debris. The pellet vent sections should be inspected for soot and creosote build-up. Any build-up over 1/4" must be removed.

On stoves the dirtiest portion is often the point where the vent turns upwards. The elbow, center flue adapter, or "Tee" section on vertical pellet vent systems has the most build-up. Fortunately, the "Tee" and center flue adapter have a built in clean out cover. Simply remove the cover and vacuum out. While open, use a flashlight to look up the pellet vent to check for build-up.

On inserts the dirtiest portion is often the portion where the pellet vent turns upward. Fortunately, this portion can often be accessed by unclipping the vertical exhaust extender (see "Insert Installation").



### HINT:

The more often you clean out the pellet vent, the more efficient your heater will burn. Furthermore, you will reduce the chance for any smoke spillage due to a clogged pellet vent system.



### WARNING:

Failure to clean the pellet vent system will lead to smoke spillage into the room. Furthermore, whenever any portion of the pellet vent is disconnected, the joints must be sealed with RTV 500° F. silicone sealant.

<b>Problem:</b>	<b>Possible Cause:</b>	<b>Don't Call for Service Until You:</b>
<b>Heater won't start (Operating light won't turn on)</b>	Heater not plugged in..... Power button not turned "ON" or start button pressed.. Power supply cut..... Fuse blown.....	Plug the heater in See "Starting Your Heater" Check household fuse/breaker See "Fuse Blown" below
<b>Firepot overfills on startup</b>	Fire starter was lit with the BURN RATE on "HIGH".. Fire starter did not fully ignite..... AIR CONTROL was not pulled out after the BURN RATE was set to "HIGH".....	See "Starting Your Heater" See "Starting Your Heater" See "Starting Your Heater"
<b>Fire starter extinguishes soon after lighting</b>	Heater was not turned on and the start button pressed.. AIR CONTROL was pulled all the way out while the fire starter was just starting to burn.....	See "Starting Your Heater" See "Starting Your Heater"
<b>Lazy and dark orange flame with black smoke</b>	AIR CONTROL is set too low..... Firepot is plugged..... Pellets are bad..... Exhaust ducts are clogged..... Air leak..... Exhaust system is clogged.....	See "Operating Your Heater" See "Check the Firepot"* See "Poor Quality Pellets" below See "Clean the Exhaust Ducts"* See "Air Leaks" below See "Exhaust Blower" *
<b>Exhaust is smoky, but the flame is okay</b>	Heater was just started..... Pellets are bad.....	This may occur and is not unusual See "Poor Quality Pellets" below
<b>Firepot overfills with pellets</b>	AIR CONTROL is too far in..... Firepot is plugged..... Air leak..... Exhaust ducts are clogged..... Exhaust system is clogged.....	See "Operating Your Heater" See "Check the Firepot"* See "Air Leaks" below See "Clean the Exhaust Ducts"* See "Exhaust Blower"*
<b>Pellets not feeding</b>	Auger not primed..... Pellets have run out..... Power button not turned "ON" or start button pressed.. Power supply cut..... Fuse blown..... Auger flight jammed..... Power outage..... Pellet Vent Blocked.....	See "Starting Your Heater" Refill hopper with pellets See "Starting Your Heater" Check the household fuse/breaker See "Blown Fuse" below See "Jammed Auger" below Wait until power is restored See "Safety Features" below
<b>Smoke smell in room (Do not unplug, flip the POWER switch to "OFF")</b>	Momentary power outage..... Flue not sealed..... Automatic safety feature has shut off stove..... Flue system on insert version not fully sealed.....	This is normal - see "Safety Features" See "Installation Instructions" See "Safety Features" below See "Installation Instructions"
<b>Heater turned off when hopper is full</b>	Power outage..... Automatic safety feature has shut stove off..... Auger jammed.....	See "Safety Features" See "Safety Features" See "Jammed Auger" below
<b>Fire goes out on low burn.</b>	AIR CONTROL too far out..... Air leak.....	See "Operating Instructions" See "Air Leaks" below
<b>Auto-Ignition System does not start the heater.</b>	Burn Rate set too low..... AIR CONTROL in too far.....	See "Starting Your Heater" See "Operating Your Heater"

\* In the section "Maintenance Instructions" starting on page 33.



## Air Leaks

If air leaks into the firebox from the door or ashpan not properly closing, the amount of air flowing through the pellets will decrease. A good way to simulate an air leak is to open the door just a crack while the heater is burning. You will notice that the flame gets very lazy and the brightness decreases. Your efficiency with an air leak is very poor, flyash will increase, and the glass generally becomes dirty. If your heater has a lazy, smoky flame or the pellets are stacking up in the firepot and the AIR CONTROL is all the way open, you should first check for a plugged firepot and then for an air leak.

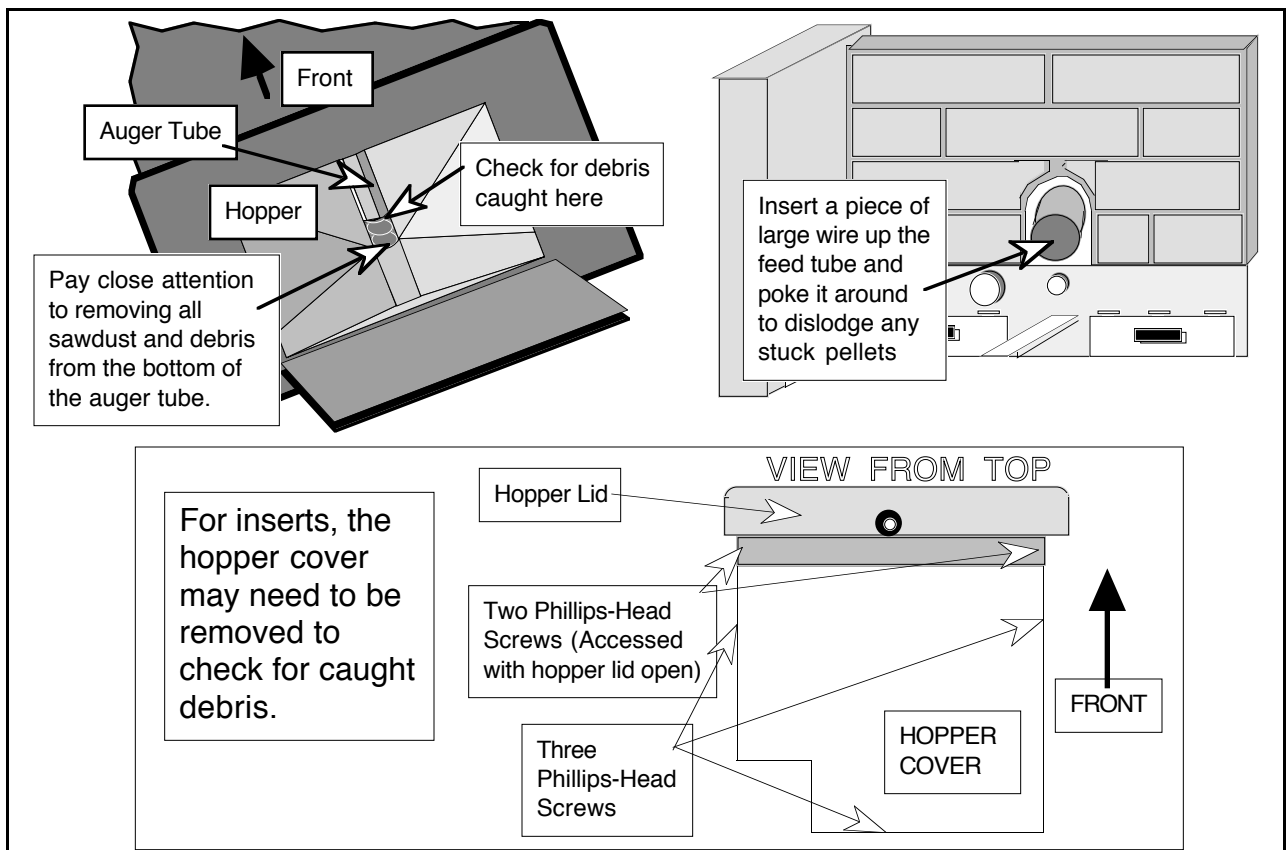
Check the following two areas for an air leak.

**Ashpan** Check the ashpan seal by pushing against it on either side to see if it rocks. If your ashpan can rock, you may need a new ashpan gasket. Another way to test the seal is to run a lit match around the perimeter of the ashpan while the heater is running. If there is an air leak, the flame will bend towards the leak.

**Door** To check the door seal, inspect the gasket around the door to see if it seals against the face of the heater. If it does not, the door may need to be aligned or the door gasket may need to be replaced. Another way to test the seal is to run a lit match around the perimeter of the door while the heater is running. If there is an air leak, the flame will bend towards the leak.

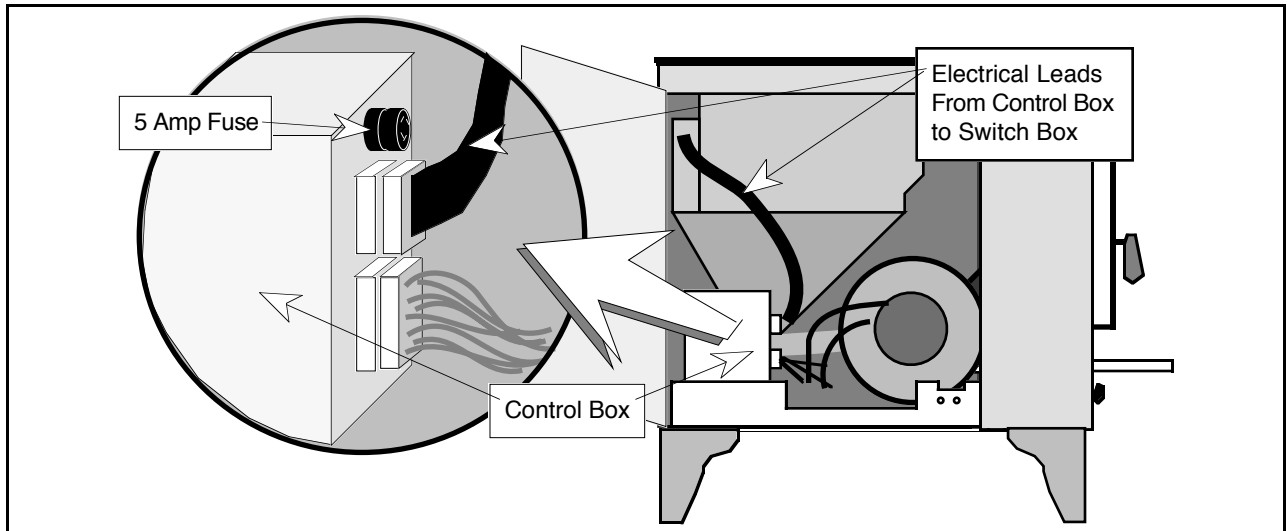
## Jammed Auger

Augers can jam when an especially long and hard pellet gets caught, if the pellets are allowed to back-up the feed tube, or if a piece of debris is allowed into the hopper (a nail or screw especially). To check if the auger is jammed, clean and vacuum out the hopper. Turn the heater on and turn the BURN RATE to "HIGH". Look into the hopper and check to see if the auger is turning. If it is not, it could be jammed. Check for debris (e.g.: a screw or nail) caught at the mouth of the auger tube opening. On inserts the hopper cover may need to be removed to check for debris. If there is nothing there, insert a piece of large wire up the feed tube and poke it around to dislodge any pellets stuck pellets.



### Fuse Blown

Make sure the heater is fully cooled and **unplugged**. Check the fuse by opening the left side panel (see the section "ACCESSING INTERNAL COMPONENTS" in the maintenance portion of this manual) and pulling out the fuse located on the control box. If the fuse has blown, it means a short has occurred, and your dealer should be called. Do not operate your heater until the reason for the blown fuse has been determined and fixed. It may have been a simple power surge or it may be a dangerous short inside your heater.



### Poor Quality Pellets (also see the section "A Word about Pellets")

Check for poor quality pellets by burning different brands (usually 3 bags will give you a good indication). High quality pellets will not only burn better, but produce more heat. The extra cost for high quality pellets is worth it.

Bags of pellets should never be left uncovered outside. The plastic bag around the pellets should not be considered air or water tight. Pellets are usually thoroughly dried before bagging. So if the bag is exposed to damp conditions, the pellets will actually absorb water from the air.

### Safety Features

Your heater has built in safety systems which may shut the heater off even though the heater has pellets and the POWER button is "ON".

**Power Outages.** During a power outage the heater will shut down unless the power outage is just momentary, in which case it will remain on if there is sufficient heat to keep burning.

**Overheating.** If your heater overheats the auger will shut off and no longer feed pellets. This will allow the heater to cool down safely. The heater will not restart until it has cooled sufficiently. If this happens frequently, turn the unit off and consult with your dealer to determine the problem.

**Blocked Flue or Down Draft.** This heater is equipped with a draft sensor. If a restriction or back draft occurs, the heater will automatically shut itself off. If the restriction or back draft is momentary, it will automatically resume operation. If the restriction is permanent, the heater will not start until the restriction is fixed.

## How this Pellet Heater Works

This pellet heater is a combination of four systems working together to burn pellets and transfer the heat to your room. Your heater will only burn when there is an acceptable amount of air, pellets, and heat present in the firepot. Air is supplied through the Combustion Air/Exhaust System. Pellets are supplied through the Pellet Feed System. Heat comes from combustion and is transferred to the room through the Convection Heat System. The last system is the Safety System. If any one of these systems does not work right, your heater will not operate correctly. When troubleshooting any problem with your stove, it is easiest to determine which system is working incorrectly and then go through each component of that system until the problem is found. The tables below lists the major components of each system and tips for troubleshooting your heater (see the illustration below for each component's location and appearance).

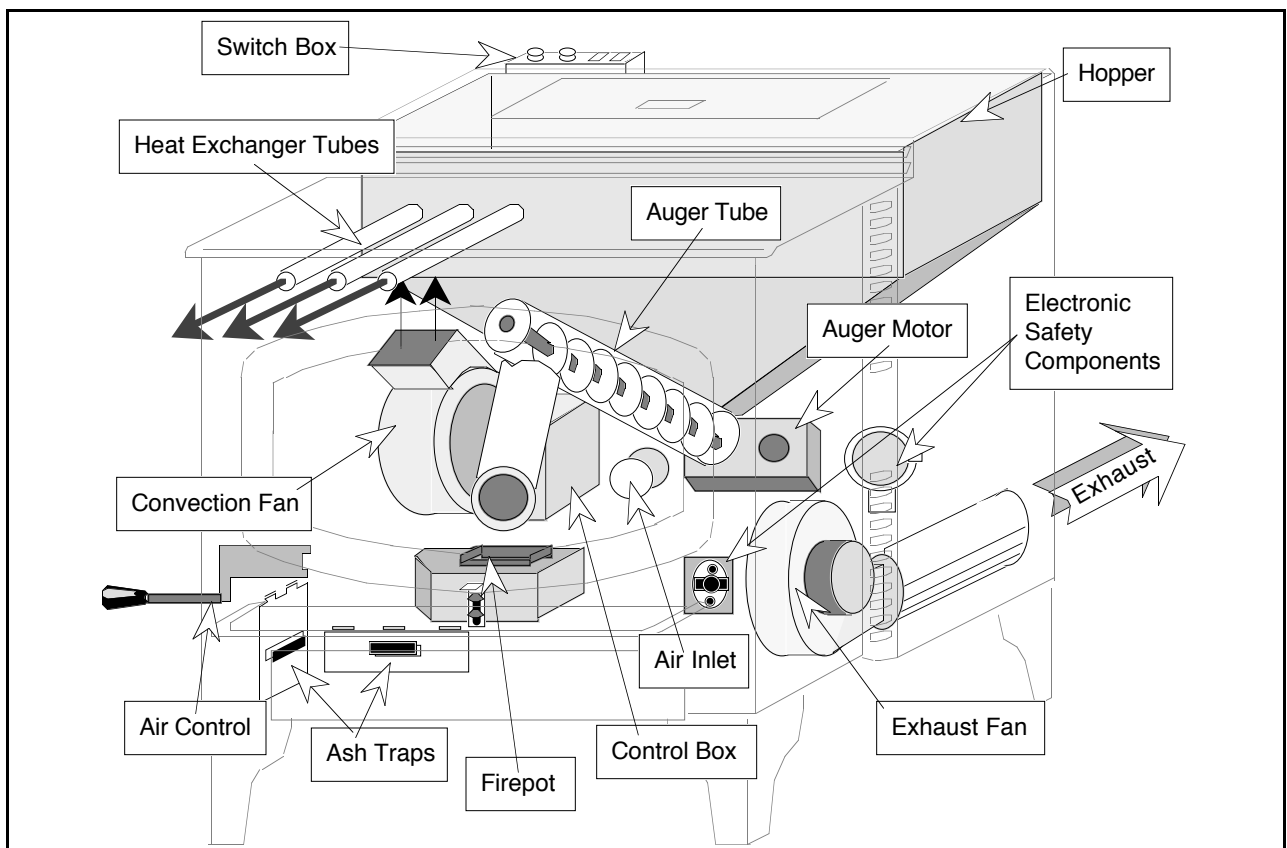
### Combustion Air/Exhaust System

Consists of:	Purpose:	Troubleshooting Tips
Air Inlet	Provides air for combustion	Aluminum duct not crushed or blocked
AIR CONTROL	Adjusts the amount of air going to the firepot	Slides in and out
Firepot	Hold pellets during combustion	Holder on correctly, no clinkers, no air leaks
Ash Traps	Trap flyash	Cleaned out and on correctly
Exhaust Blower	Pull air through firepot and push flue gases out flue	Cleaned out



#### HINT:

This system is the hardest to troubleshoot and crucial to the heater's operation. It must be air-tight through the entire chain of components. The most common problem is an air leak into the firebox. This will rob air from the firepot, making combustion incomplete (leading to more soot, more smoke, less heat, and over-feeding).



**Pellet Feed System**

Consists of:	Purpose:	Troubleshooting Tips
Hopper	Stores pellets	Debris caught in mouth of auger tube
Auger Motor	Turns the spiraled auger flight	Not user serviceable*
Auger Tube	Pushes pellets to feed tube	See the section "Jammed Auger"
Switch Box	Determines the feed rate	Not user serviceable*
Control Box	Turns the auger on and off	Not user serviceable*

**Convection Heat System**

Consists of:	Purpose:	Troubleshooting Tips
Convection Blower	Pushes air into heat exchanger tubes	Cleaned out
Heat Exchanger Tubes	Draws the heat off of the fire	Not user serviceable*
Switch Box	Determines the convection blower speed	Not user serviceable*

**Electronic Safety System**

Consists of:	Purpose:	Troubleshooting Tips
Electronic Safety Components	Turns the heater off for a blocked flue or overheating	Not user serviceable* (see the section "Automatic Safety Features")

**HINT:**

This system is of utmost importance. Components should only be serviced by trained technicians. Call your dealer if there are any questions.

\* These components can only be tested by replacing with a new component.

**Replacement Parts**

Ashpan	Ashpan Gasket
Ashpan Handle	Auger Motor
Auto-Ignition System Assembly	Ceramic Log with Bracket
Control Box	Convection Blower
Door Gasket	Door Handle
Exhaust Blower	Exhaust Blower Gasket
Exhaust Tube Gasket (Inserts Only)	Firebrick Refractory
Firepot	Flow Switch
Flow Switch Tube	Glass
Glass Gasket	Fuse (5 Amp Quick-Blow)
Switch Box -- Freestanding	120° F. Snap Disk SPDT - N.C. (System)
Switch Box -- Insert	200° F. Snap Disk SPST - N.C. (Hopper)
120° F. Snap Disk SPST - N.O. (Convection Blower)	

To register your TRAVIS INDUSTRIES, INC. Limited Lifetime Warranty, complete the enclosed warranty card and mail it within ten (10) days of the appliance purchase date to: TRAVIS INDUSTRIES, INC., 10850 117th Place N.E., Kirkland, Washington 98033. TRAVIS INDUSTRIES, INC. warrants to the original purchaser that the AVALON pellet appliance be defect-free in material and workmanship from the date of purchase as follows:

**YEAR 1-COVERAGE: PARTS & LABOR -**

1. Stove body, igniter, auger flight, auger tube, auger bearings, all other component parts & all accessories are covered for one year (ceramic glass, refractory brick and logs are covered for thermal breakage only). Cost of any warranted component parts and labor to replace or repair warranted component parts are covered. The cost of the dealer service call or travel time is not covered. Paint & gasketing material are excluded from coverage.
2. One-way freight allowance on pre-authorized repair done at factory is covered.
3. In cases where stove must be removed from home for repairs, a partial cost of re-installation of stove is covered (pre-authorization required).

**YEAR 2-COVERAGE: PARTS & LABOR -**

1. Stove body, igniter, auger flight, auger tube, auger bearings and all other component parts are covered (ceramic glass, refractory brick and logs are covered for thermal breakage only). Cost of any warranted component parts and labor to replace or repair warranted component parts are covered. The cost of the dealer service call or travel time is not covered. All accessories, electrical components, paint & gasketing material are excluded from coverage.
2. One-way freight allowance on pre-authorized repair done at factory is covered.
3. In cases where stove must be removed from home for repairs, a partial cost of re-installation of stove is covered (pre-authorization required).
4. Any of the above excluded component parts may be purchased at 30% discount off suggested list price.
5. New or replacement accessories are not available at discount prices.

**YEARS 3-5-COVERAGE: PARTS & LABOR -**

1. Stove body, auger flight, auger tube and all other component parts are covered. Cost of any warranted component parts and labor to replace or repair warranted component parts are covered. The cost of the dealer service call or travel time is not covered. All accessories, igniter, electrical components, ceramic glass, firebrick & logs, paint, and gasketing material are excluded from coverage.
2. Any of the above excluded component parts may be purchased at 30% discount off manufacturer's suggested list price (plus any shipping and handling charges from your local dealer).
3. New or replacement accessories are not available at discounted prices.
4. One-way freight allowance on pre-authorized repair done at factory is covered.
5. No re-installation coverage.

**YEARS 6 & ON-COVERAGE -**

1. The original purchaser can buy stove component parts at 30% discount off suggested retail (plus any shipping & handling charges from your local dealer) as long as you own the appliance (but a maximum of 5 years after Travis Industries discontinues the designated model).
2. The solid brass door is warranted to not warp, crack or peel for as long as you own the appliance. This warranty does not cover tarnishing of the brass finish. Overfiring or neglect can cause permanent discoloration not covered under warranty (See Owner's Manual for proper care).
3. The stainless steel "Forge" burn pot is warranted against "burn through" for as long as you own the unit (shipping and handling are not covered).
4. Auger tube and auger flight are warranted against defects in material or workmanship for as long as you own the unit.
5. New or replacement accessories not available at discounted prices.
6. No coverage on stove body, component parts or labor.
7. No freight allowances or re-installation coverage.

**CONDITIONS & EXCLUSIONS**

1. This new AVALON pellet appliance must be installed by a competent authorized service contractor. It must be installed and operated at all times in accordance with the installation and operation instructions spelled out in the Owner's Manual. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.
2. This warranty is nontransferable, and is made to the ORIGINAL purchaser, provided that the purchase was made through an authorized AVALON dealer.
3. Discoloration and some minor movement of certain parts is normal and not a defect and, therefore, not covered under warranty. Overfiring of this appliance can cause serious damage not covered under warranty and it is the responsibility of the installer to ensure that the appliance is burning as per rating tag at time of installation.
4. The warranty as outlined within this document does not apply to the chimney components or other non-Travis accessories used in conjunction with the installation of this product. If in doubt, contact your Authorized AVALON retailer before installation. Travis Industries will not be responsible for...
  - a. Down draft or smoke spillage caused by environmental conditions such as nearby trees, buildings, roof tops, hills or mountains.
  - b. Inadequate ventilation or negative air pressure caused by mechanical systems such as furnaces, fans, clothes dryers, etc.
5. Exclusions to this Limited Lifetime Warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, damage incurred while the unit is in transit, alteration, or act of God.
6. This limited warranty excludes damage caused by normal wear and tear, such as paint discoloration or chipping, worn or torn gasketing, firebrick & logs breaking, etc. Also excluded is damage to the unit caused by abuse, improper installation, modification of the unit or the use of fuel other than wood pellets. Damage to the solid brass finish caused by fingerprints, scratches, items melted to the face, or other external material left on the solid brass or from the use of abrasive cleaners is not covered in this warranty.
7. TRAVIS INDUSTRIES, INC. is free of liability for any damages caused by the appliance, as well as inconvenience expenses and material. Incidental or consequential damages are not covered by this warranty. In some states, the exclusion of incidental or consequential damage may not apply.
8. This warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the AVALON pellet appliance without the express written permission of TRAVIS INDUSTRIES, INC. and bearing a TRAVIS INDUSTRIES, INC. label of approval.
9. Any statement or representation of AVALON products and their performance contained in AVALON advertising, packaging literature, or printed material is not part of this limited warranty.
10. This warranty is automatically voided if the appliance's serial number has been removed or altered in any way. Only the original purchaser of An Avalon appliance is covered by this warranty. If the appliance is used for commercial purposes, it is excluded from this warranty.
11. No dealer, distributor, or similar person has the authority to represent or warrant AVALON products beyond the terms contained within this warranty. TRAVIS INDUSTRIES, INC. assumes no liability for such warranties or representations.
12. **THIS LIMITED LIFETIME WARRANTY IS THE ONLY WARRANTY SUPPLIED BY TRAVIS INDUSTRIES, INC., THE MANUFACTURER OF THE APPLIANCES. ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, ARE HEREBY EXPRESSLY DISCLAIMED AND PURCHASER'S RECOURSE IS EXPRESSLY LIMITED TO THE WARRANTIES SET FORTH HEREIN.**

**IF WARRANTY SERVICE IS NEEDED...**

1. If you discover a problem that you believe is covered by this warranty, you MUST REPORT it to your AVALON dealer WITHIN 30 DAYS, giving them proof of purchase, the purchase date, and the model name and serial number.
2. Travis Industries has the option of either repairing or replacing the defective component.
3. If your dealer is unable to repair your appliance's defect, he may process a warranty claim through TRAVIS INDUSTRIES, INC., including the name of the dealership where you purchased the appliance, a copy of your receipt showing the date of the appliance's purchase, and the serial number on your appliance. At that time, you will be asked to ship your appliance, freight charges prepaid, to TRAVIS INDUSTRIES, INC. TRAVIS INDUSTRIES, INC., at its option, will repair or replace, free of charge, your Avalon appliance if it is found to be defective in material or workmanship within the time frame stated within this limited warranty. TRAVIS INDUSTRIES, INC. will ship your appliance, freight charges (first five years) prepaid by TRAVIS INDUSTRIES, INC., to your regional distributor, or dealership.
4. Check with your dealer in advance for any costs to you, when arranging a warranty call. Dealers may require you to pay a service or trip charges for any warranty work. This charge can vary from store to store.

**WARNING—DO NOT REMOVE OR COVER THIS LABEL**

Listed Pelletized  
Solid Fuel Burning Appliance  
Also for Use in Mobile Homes  
Model: 900-PS

Serial No:

I.C.B.O. No. NER-QA 219

Report No: 5820 (MAY 1991)

Tested to: UL1482/ULC S627/CSA B366.2/ASTM E-91 Draft

Maximum Input Rating: 5.0 lbs/hr-2.27 kg/hr

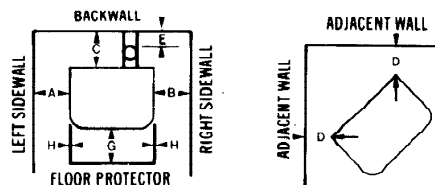
Electrical Rating: 115 V, 60 Hz, 3 Amp

This pellet fired appliance has been tested and listed for use in manufactured homes in accordance with Oregon Administrative Rules 814-23-900 through 814-23-909.

Install and use only in accordance with the installation and operating instructions. Contact local building or fire officials about restrictions and installation inspection in your area. Use only listed 3 in./75 mm or 4 in./100 mm diameter listed type "L" Vent complete with components. See manufacturer's installation instructions for precautions required for passing a vent through a combustible wall or ceiling. Do not connect this appliance to a vent serving another appliance.

**Minimum Clearance to Combustible Materials (Measured to Stove Top)**

		Interior Vertical Flue Installation	Horizontal Through the Wall Installation
Left Sidewall	A	9 in/225 mm	9 in/225 mm
Right Sidewall	B	9 in/225 mm	9 in/225 mm
Backwall	C	11 in/280 mm	3 in/ 75 mm
Corner	D	2 in/ 50 mm	2 in/ 50 mm
Flue Vent	E	3 in/ 75 mm	3 in/ 75 mm



Maximum alcove depth 48 in/1220 mm, min ceiling height 60 in/1525 mm.

Combustible floor must be protected by a non-combustible material, extending to the front (G) 6 in/150 mm and to the sides (H) 0 in/0 mm.

For use with 1/4 in/6 mm to 5/16 in/7 mm diameter pelletized wood fuels only.

Replace glass only with 5 mm ceramic glass.

Do not route power cord beneath heater. The space beneath the heater must not be obstructed. Outside combustion air is mandatory for mobile home installation. Do not obstruct combustion air openings. Operate only with viewing door and ash removal tray tightly closed. Keep all furnishings well away from heater.

**WARNING - DO NOT REMOVE OR COVER THIS LABEL**  
Listed Pelletized Solid Fuel Burning Appliance  
For use in masonry/factory built (ZC) fireplaces/zero clearance  
(built-in) installations.

Serial No. WH-

Warnock Hersey



**AVALON**  
WOODSTOVES™

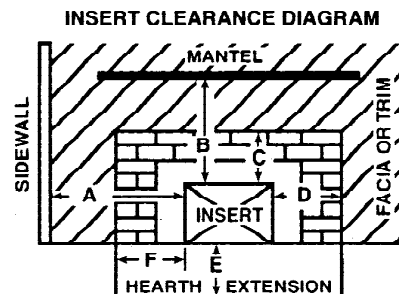
Model: 900-PI

Electrical Rating: 115 V, 60 Hz, 3 Amp

Report No: 6254 (JULY 1991) Tested to: UL 1482/ASTM/ULC S628

Maximum Input Rating: 5.0 lbs./hr-2.27 kg/hr

Install and use only in accordance with the installation and operating instructions. Contact local building or fire officials about restrictions and installation inspection in your area. Do not remove bricks or mortar from masonry fireplace or alter factory built fireplace.

**Minimum Clearance to Combustible Materials (Measured from insert Top)**

Adjacent Sidewall	A	9 in/230 mm
Mantle	B	13 in/330 mm
Top Facing	C	12 in/305 mm
Side Facing	D	8 in/205 mm

Combustible floor beyond hearth extension must be protected by a non-combustible material, extending 0 in/0 mm (E) to the front and 0 in/0 mm (F) to the sides of door opening.

Components Required for Masonry Fireplace Installation: Direct flue connection.

Components Required for Factory Built Fireplace Installation: Listed 3 in/75 mm or 4 in/100 mm diameter flue liner.

Components Required for Zero Clearance (Built-in) Installation: Floor Shield Kit No. 99300140. Minimum Framing Dimensions: Height 27 in., width 32 1/2 in., Depth 16 in. See owner's manual for complete installation requirements regarding this type of installation.

For use with 1/4 in/6 mm to 5/16 in/7 mm diameter pelletized wood fuels only.

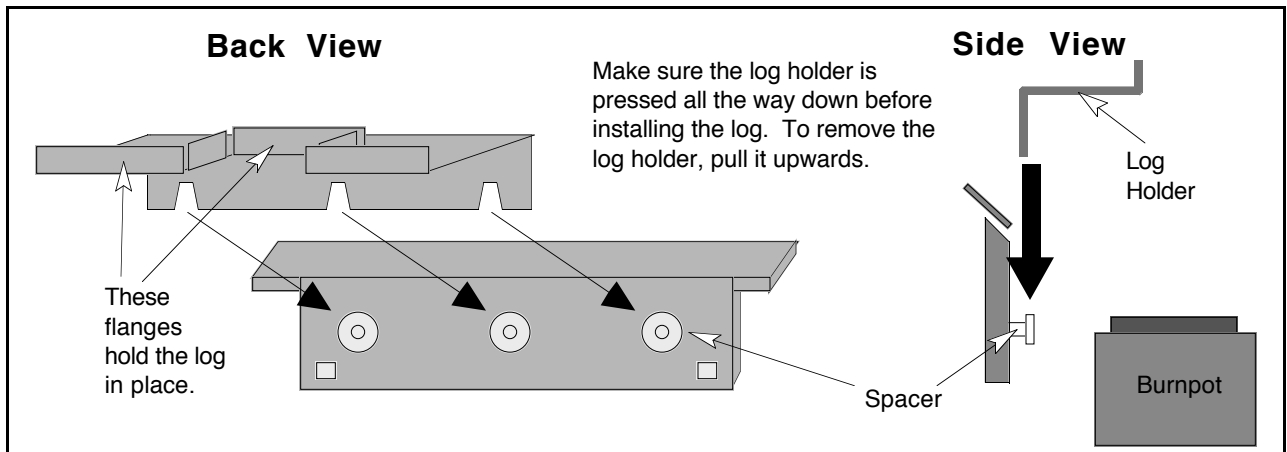
Replace glass only with 5 mm ceramic glass.

Do not route power cord beneath heater. The space beneath the heater must not be obstructed. Do not obstruct combustion air openings. Operate only with viewing door and ash removal tray tightly closed. Keep all furnishings well away from heater.

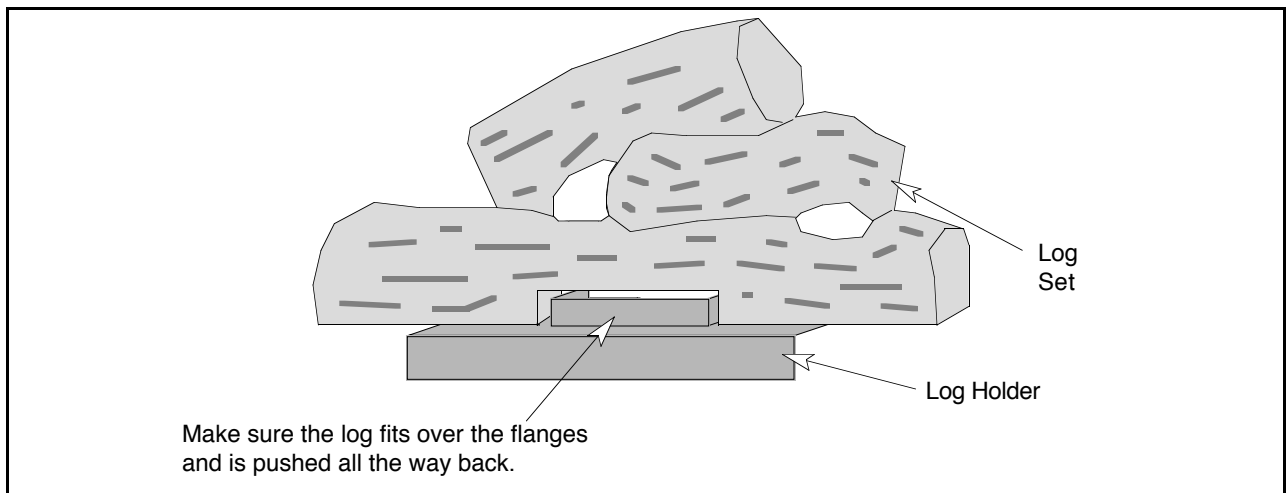
## CERAMIC LOG SET

The log set is included as standard equipment to make the pellet heater appear more like a wood stove (it is designed for aesthetic purposes only and is not required). The instructions below detail its installation.

1. The log is placed on a log holder at the front of the firebox. This holder slides into place. Before installing the log, make sure the holder is properly located.



2. The log is shipped with the heater. Remove the log from its wrapping and place it on the log holder (see the illustration below).



**HINT:**

Inspect the flames after installing the log set. If the flames are sooty, try re-adjusting the log so the flames can flow around and through the log set with less resistance. This will cut down the amount of flyash and soot inside the pellet stove.

**NOTE:**

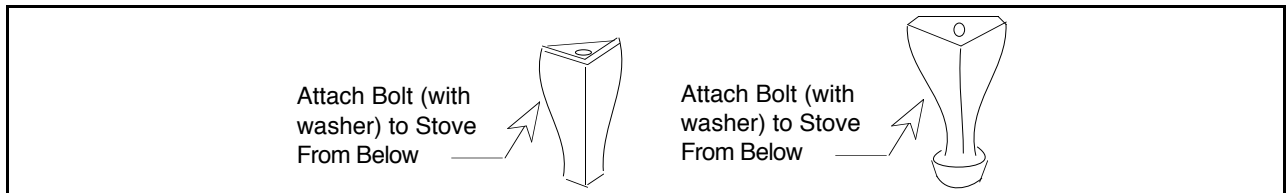
Remove the log set when cleaning the heater or inspecting the burn pot (remove the log holder if necessary).

## STOVE LEGS

There are three different stove legs available for your pellet stove: cast brass; cast black; and, black steel. The instructions for installing the legs are the same for each type of leg.

Raise the stove by inserting some pieces of lumber in the middle of the stove to a height of about 8". Line up the hole in the top of the leg with the threaded bolt hole in each corner of the stove bottom. Using a 9/16" open end or socket wrench, fasten the leg to the stove with the supplied attachment bolts and washers, making sure the legs are flush with the corners of the stove.

Unscrew the leveling bolts enough so the stove will rest on the upper tips, not the metal portion of the legs. Lower the stove down.

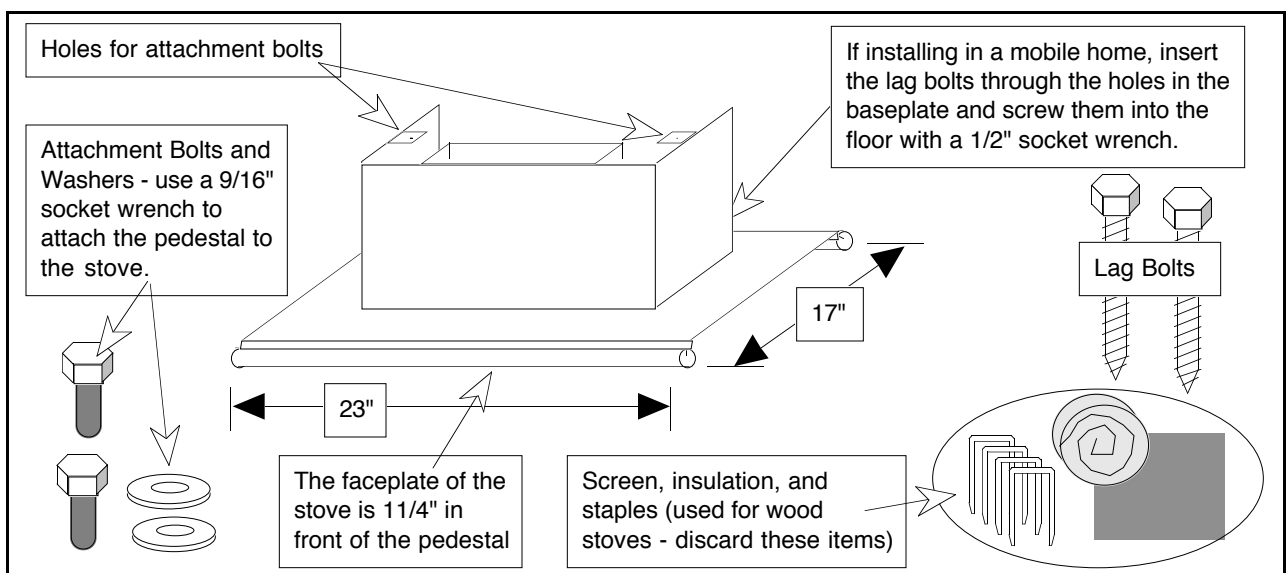


To level the stove, lift the stove up and unscrew each leveling bolt the appropriate amount. The rubber tips of the leveling bolts will tear if they are adjusted while weight is applied to them.

## PEDESTAL

Unpack the box containing the pedestal and check for any damage. Report any damage to your dealer.

Slide the wood trim included with the pedestal on to the front and back edge of the pedestal so it lines up from side to side. Place the pedestal in place and lift the stove on top of it. Line up the threaded bolt holes in the bottom of the stove with the two holes on the tabs on the inside edge of the pedestal (see the illustration below). Using a 9/16" socket wrench, fasten the pedestal to the stove with the supplied bolts and washers. If installing in a mobile home, the pedestal will need to be attached to the floor. Insert the two included lag bolts through the pedestal base and screw them into the floor with a 1/2" socket wrench.



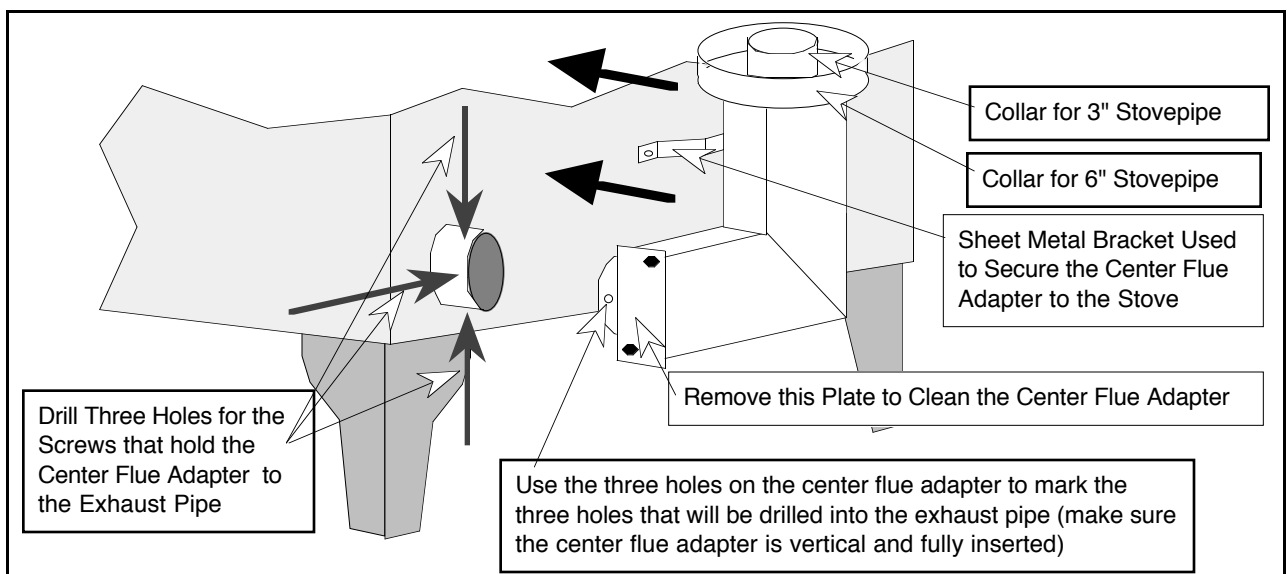
**NOTE:** Replace the two front bolts that hold the "hold-down brackets" into the baseplate after the metal brackets have been removed -- This prevents air from entering through these holes.



## CENTER FLUE ADAPTER

The center flue adapter is an optional item used to center the pellet vent on the pellet stove. It allows for a more compact installation than using offsets on the pellet vent. To install the center flue adapter, follow the directions below.

1. When determining the final position of the stove, take into consideration the location of the center flue adapter once it is installed. It is best to install the center flue adapter before determining the location of the stove, making the final alignment with the pellet vent more accurate. The center flue adapter allows for the use of 3" pellet vent or 6" singlewall or doublewall stovepipe. Use the appropriate collar for the vent type used.
2. Insert the center flue adapter onto the pellet stove and align it so the length of the adapter is vertical. On the center flue adapter where it connects to the exhaust pipe there are three holes on the outward, top, and bottom side. Make a mark on the exhaust tube where these holes line up. Make sure the pipe adapter is all the way against the exhaust pipe and properly aligned when making these marks. Take the center flue adapter off and drill a 9/64" hole where each of the three marks were placed on the exhaust pipe.
3. Apply a high-temperature silicone sealant (type 500 degree RTV) around the outside perimeter of the exhaust pipe near the end and slide the center flue adapter into place. Attach the center flue adapter to the exhaust pipe by sliding it into place and screwing in the three sheet-metal screws through the center flue adapter and into the holes that were drilled in step 4. Inspect the connection between the exhaust pipe and center flue adapter for an airtight seal. Apply more high-temperature silicone sealant if necessary.
4. The center flue adapter has a sheet metal bracket used to secure the center flue adapter to the stove. It attaches to the back of the stove in two locations. Drill the 9/64" holes in the back of the stove. Drill only enough to penetrate the first layer of metal. Screw in the remaining two sheet-metal screws with a phillips-head screwdriver.
5. The center flue adapter can now be attached to the vent. Make sure to seal the connection between the center flue adapter and vent with a high-temperature silicone sealant (type 500 degree RTV).



**INSERT FRONT SUPPORT**

The insert front support is used to support the insert when installed in a raised masonry or zero clearance fireplace. The instructions below detail its installation.

Packing List:

- Support
- 2 Screws (for Support Extension)

- Support Extension
- 2 Leveling Bolts and Nuts

1. Remove the ashpan and prop the insert up. Remove the two bolts located underneath the front corners of the insert with a 9/16" open end wrench (these bolts are connected to the brackets used during shipping). Slide the tabs on the support into the space underneath the insert (see the illustration to the right). Attach the support to the insert with the bolts.
2. Screw the two nuts into the two leveling bolts (included with the insert front support kit). Insert the leveling bolts into the lower brackets on the support and adjust them to the approximate height required. Place the insert in position and adjust the leveling bolts to the required height and lock the bolts in position by tightening the nuts against the support.
3. Place the support extension around the support so that it covers the gap between the support and the floor. Use a 5/16" nut driver to attach the screw through the elongated hole on the extension and into the hole on the support.

