



**FREESTANDING  
AND INSERT  
PELLET FIRED  
STOVES**

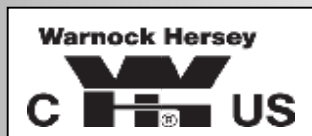


[www.nficertified.org](http://www.nficertified.org)

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



**RETAIN THESE  
INSTRUCTIONS  
FOR FUTURE  
REFERENCE**



# INSTALLATION AND OPERATION MANUAL



**Freestanding Model  
Advantage II-T C FS**



**Freestanding Model  
Advantage II-T C INS**

These appliances must be properly installed and operated in order to prevent the possibility of a house fire. Please read this entire owner's manual before installing and using your pellet stove. Failure to follow these instructions could result in property damage, bodily injury or even death. Contact your local building or fire officials to obtain a permit and information on any installation requirements and inspection requirements in your area.

P/N 775096M, Rev. E, 11/03

## IMPORTANT WARNINGS

**CAUTION:** Read this manual thoroughly before starting installation. For your safety, follow the installation, operation and maintenance instructions exactly without deviation. Failure to follow these instructions may result in a possible fire hazard and will void the warranty. If this appliance is not properly installed, a house fire may result. Contact local building or fire officials about requirements and installation inspection in your area.

- 1. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE CONNECTED TO ANOTHER APPLIANCE.**
- 2. Do not connect this appliance to air ducts or any air distribution system.**
- 3. Do not install a flue damper in the exhaust venting system of this appliance.**
- 4. Do not use class B venting intended for gas appliances as a chimney or connector pipe on a pellet fired appliance.**
- 5. The minimum clearances must be maintained for all combustible surfaces and materials including; furniture, carpet, drapes, clothing, wood, papers, etc. Do not store firewood within this clearance space.**
- 6. INSTALLATION DISCLAIMER - This stoves exhaust system works with negative combustion chamber pressure and a slightly positive chimney pressure. Therefore, it is imperative that the exhaust system be gas tight (air tight, sealed connection) and installed correctly. Since Lennox Hearth Products has no control over the installation of your stove, Lennox Hearth Products grants no warranty, implied or stated for the installation or maintenance of your stove, and assumes no responsibility for any consequential damage(s).**
- 7. Burning any kind of fuel consumes oxygen. If outside air is not ducted to the appliance, ensure that there is an adequate source of fresh air available to the room where the appliance is installed.**
- 8. The stove will not operate using natural draft, nor without a power source for the blower and fuel feeding systems.**
- 9. Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use.**
- 10. CONTINUOUS OPERATION:** When operated correctly, this appliance cannot be overfired. Continuous operation at a maximum burn can, however, shorten the life of the electrical components (blowers, motors, and electronic controls), and is not recommended. Typical approved operation would include running at the low to mid range setting with occasional running on the maximum setting during the coldest periods of the winter. The room air blower speed control should be turned to high when operating the stove on the high heat setting.
- 11. CAUTION: NEVER PUT FINGERS NEAR AUGER.** Pellet fuel is fed to the UltraGrate™ by a screw auger. This auger is driven by a high torque motor.

The auger is capable of doing serious harm to fingers. Keep pellets in the hopper at all times and keep fingers away from auger. The auger can start and stop automatically at any time while the stove is running.
- 12. CAUTION: HOT WHILE IN OPERATION.** An appliance hot enough to warm your home can severely burn anyone touching it. Keep children, clothing and furniture away. Contact may cause skin burns. Do not let children touch the appliance. Train them to stay a safe distance from the unit.
- 13. APPROVED FUEL:** This appliance is designed specifically for use only with pelletized wood fuels only. With its advanced UltraGrate™ technology, this appliance is designed and approved for the burning of wood residue pellets with up to 3% ash content. This appliance is NOT approved to burn cardboard, nut hulls, cherry pits, corn, etc. regardless if it is in pellet form. Failure to comply with this restriction will void all warranties and the safety listing of the stove. Consult with your authorized Lennox Hearth Products dealer for approved pellet fuels.
- 14. FLY ASH BUILD-UP:** For all wood pellet fuel-burning heaters, the combustion gases will contain small particles of fly ash. This will vary due to the ash content of the fuel being burned. Over time, the fly ash will collect in the exhaust venting system and restrict the flow of the flue gases. The exhaust venting system should be inspected regularly and cleaned as necessary.
- 15. SOOT FORMATION:** Incomplete combustion can occur during startup, shutdown, or incorrect operation of the room heater. This can lead to some soot collecting in the exhaust venting system. A precautionary inspection on a regular basis is advisable to determine the necessity of cleaning. The exhaust venting system should be inspected regularly and cleaned as necessary.
- 16. DISPOSING OF ASHES:** Any ashes removed from the pellet stove must be deposited in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, outside of the dwelling pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have been thoroughly cooled.
- 17. SAVE THESE INSTRUCTIONS.**
- 18. See the listing label located in the hopper (or see *Safety / Listing Labels* on page 43).**

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### LISTING / TESTING

Listing: The listing laboratory is ITS (Intertek Testing Services) and the listing mark is Warnock Hersey.

Testing: In accordance with the specifications and procedures listed in UL 1482 / ULC S627 / CSA B366.2M / ULC S628 & ASTM E1509 for solid fuel room heater, report # 5515, 12-91 and ASTM E1509 Report # 476-1244, 3-96. This appliance has been independently tested to UL, ULC and CSA standards. UL 1482 & ULC S627 states requirements for installations as a freestanding room heater, or hearth insert for masonry fireplaces listed to UBC 37 or ULC S628, or factory built (zero clearance) fireplaces listed to UL 127 or ULC S610. The safety-listing label is located on an inside hopper surface of the pellet stove. Please read this safety label carefully. It contains important information about installation and operation of this appliance. This appliance is tested and listed for residential installation according to current national and local building codes as:

- A Freestanding Room Heater –FS
- A Insert Room Heater – INS
- A Manufactured (mobile) Home Heater – FS & INS

### EPA (Environmental Protection Agency)

Status: EPA – Certified to comply with July 1990 particulate emission standards.

**PRODUCT IS SUBJECT TO CHANGE WITHOUT NOTICE.**

### CONGRATULATIONS ON THE PURCHASE OF YOUR NEW PELLET STOVE MANUFACTURED BY LENNOX HEARTH PRODUCTS.

When you purchased your new pellet stove, you joined the ranks of thousands of concerned individuals whose answer to their home heating needs reflects their concern for aesthetics, efficiency and our environment. We extend our continued support to help you achieve the maximum benefit and enjoyment available from your new pellet stove.

It is our goal at Lennox Hearth Products to provide you, our valued customer, with an appliance that will ensure you years of trouble free warmth and pleasure.

Thank you for selecting a Lennox Hearth Products stove as the answer to your home heating needs.

Sincerely,  
All of us at Lennox Hearth Products

### PACKAGING LIST

The assembled pellet stove model Advantage II-T C FS and Advantage II-T C INS are packaged with an accessory package, which contains the following:

- One - Installation and operation instructions manual.
- One - Warranty.
- One - EPA Label.
- One - Colorado compliance certificate
- One - Power cord.
- One - Damper hex wrench
- One - Grate scraper/tool.
- One - Wall thermostat.
- One - Roll of thermostat wire.
- Two - Leveling bolts, 3/8"-16 x 3 1/2" (Insert only)
- One - Ash pan trim cover
- One - Trivet
- One - Control board (Insert)
- One - Video tape
- One - Fireplace warning label (insert only)
- One - Damper rod assembly with tag

### Surround Kit (For Advantage II-T C INS Only)

(Purchased separately, see page 42) kit is packaged with:

- One - Top surround panel.
- One - Left surround panel.
- One - Right surround panel with door.

### Pedestal Kit (For Advantage II-T C FS Only)

(Included with freestanding stove) kit is packaged with:

- One - Pedestal assembly.
- Three -Bolts, 3/8" x 1/2".
- Three -Washers.

### USING THIS MANUAL

Please read and carefully follow all of the instructions found in this manual. Please pay special attention to the safety instructions provided in this manual. The homeowner's *Care and Operation Instructions* included here will assure you have many years of dependable and enjoyable service from your appliance.

## PLANNING YOUR INSTALLATION

### QUESTIONS TO ASK LOCAL BUILDING OFFICIAL

A correct installation is critical and imperative for reducing fire hazards and perilous conditions that can arise when wood pellet burning appliances are improperly installed. The installer must follow all of the manufacturers' instructions.

The installation of this appliance must conform to local codes and applicable state and federal requirements. Familiarity with these requirements before installation is essential. Important considerations to discuss with local building officials include:

1. Applicable codes (i.e. Uniform Mechanical Code, State or Regional Codes).

Electrical codes:

In USA, NEC, ANSI / NFPA 70 – Latest Edition

In Canada, CSA C22.1 – Latest Edition

**Power Supply Requirements** – The power cord must be plugged into a standard, 115 volt, 60 Hz grounded electrical outlet. The approximate power requirement is 362 Watts, and will peak up to 736 Watts for approximately 6 minutes when the self-igniter is operating (it will turn off 2 minutes after flame detection). The power cord must be routed to avoid contact with any of the hot or sharp exterior surface areas of the stove. When installed into a manufactured (mobile) home, the appliance must be electrically grounded to the steel chassis (see page 8, *Manufactured [Mobile] Home Requirements*). These requirements must be met unless otherwise specified by state or local authorities.

**WARNING - ELECTRICAL GROUNDING INSTRUCTIONS: THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG (GROUNDING) PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. DO NOT ROUTE POWER CORD UNDER OR IN FRONT OF APPLIANCE.**

2. Local amendments?
3. Is a permit required - cost?  
You may wish to contact your insurance company to ask if they require this.
4. Is outside combustion air required?
5. Rooms where the installation is not allowed?

### INSTALLATION / MAINTENANCE STANDARDS

*National Fire Protection Association* – The primary NFPA standard that refers to installation and maintenance of pellet appliances and venting is NFPA 211 – Latest Edition: Chimneys, Fireplaces, Vents, and Solid Fuel appliances.

### SELECTING A LOCATION

The design of your home and where you place your stove will determine its value as a source of heat. A pellet stove depends primarily on air circulation (convection) to disperse its heat, and therefore, a central location is often best. There are other practical considerations, which must be considered before a final selection of locations is made.

- ◆ Existing Chimneys
- ◆ Pellet Fuel Storage
- ◆ Aesthetic Considerations
- ◆ Roof Design (rafter locations & roof pitch)
- ◆ Room Traffic
- ◆ Proximity to Combustibles
- ◆ Electrical Wiring

The installation of this stove will require some research. Once your options are determined, consult with your local building department who will be able to give you the necessary installation requirements for your area (Is a building permit required? Rooms where installation may not be allowed, etc.).

**WARNING: CHECK ALL LOCAL BUILDING AND SAFETY CODES BEFORE INSTALLATION. THE INSTALLATION INSTRUCTIONS AND APPROPRIATE CODE REQUIREMENTS MUST BE FOLLOWED EXACTLY AND WITHOUT COMPROMISE. ALTERATIONS TO THE STOVE ARE NOT ALLOWED. DO NOT CONNECT THE STOVE TO A CHIMNEY SYSTEM SERVING ANOTHER STOVE, APPLIANCE, OR ANY AIR DISTRIBUTION DUCT. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL VOID THE MANUFACTURERS WARRANTY.**

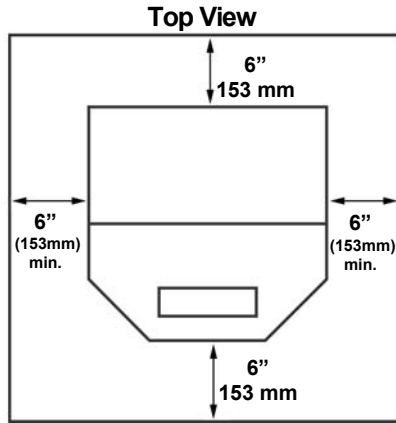
### SMOKE DETECTORS

Since there are always several potential sources of fire in any home, we recommend installing smoke detectors. If possible, install the smoke detector in a hallway adjacent to the room (to reduce the possibility of occasional false activation from the heat produced by the stove). If your local code requires a smoke detector be installed within the same room, you must follow the requirements of your local code. Check with your local building department for requirements in your area.

# PLANNING YOUR INSTALLATION

## FLOOR PROTECTION – Advantage II-T C FS

(For USA and Canada) This appliance requires 3/8" (10 mm) minimum non-combustible floor protection designed for solid fuel burning appliances having a thermal conductivity of  $k = .84$  BTU in/ft or equivalent. If the floor protection is to be stone, tile, brick, etc., it must be mortared or grouted to form a continuous non-combustible surface (See *Using Alternate Material As Floor Protector* below).



If a chimney connector extends horizontally over the floor, protection must cover the floor under the connector and at least 2" (51 mm) to either side. The floor protector must fully cover the area beneath the appliance and extend 6" to the front, 6" to the sides, and up to 6" from the back (see illustration above and following note).

**\*Note: When installed at clearances less than 6", the floor protection is only required to extend to the wall.**

## FLOOR PROTECTION / HEARTH EXTENSION USING ALTERNATE MATERIAL AS FLOOR PROTECTOR (also see *Floor Protection* above for freestanding models and *Hearth Requirements*, page 8 for the insert model)

The hearth pad or alternate material used as a floor/hearth protector must be constructed of a durable noncombustible material having an equal or better thermal conductivity value (lower  $k$  value) of  $k = .84$  BTU / IN FT<sup>2</sup> HR °F or a thermal resistance that equals or exceeds  $r = 1.19$  HR °F FT<sup>2</sup> IN/BTU with a minimum thickness of 3/8". With these values, determine the minimum thickness of the alternate material required using the formula(s) and the table shown here (see chart - *Approved Alternate Materials for Floor/Hearth Protection*).

Note: Any noncombustible material having a minimum thickness of 3/8" (10 mm) whose  $k$  value is less than .84 or whose  $r$  value is more than 1.19 is acceptable. If the alternate material used has a higher  $k$  value or lower  $r$  value will require a greater thickness of the material used. In some cases, if the  $k$  value is less or the  $r$  value higher, a thinner material may be used.

### Methods of determining floor protection equivalents:

To determine the thickness required for the alternate material when either the  $k$  value or  $r$  value is known, use either the  $k$  formula or  $r$  formula:

Example: Durock™ Cement is to be used for the floor protection. How thick must this material be? The following formulas give the means of determining minimum thickness required.

$T_M$  = minimum thickness required for alternate material  
 $k_M$  =  $k$  value per inch of alternate material  
 $T_L$  = minimum thickness of listed material  
 $r_M$  =  $r$  value per inch of alternate material

Using the  $k$  formula:

$$\text{Minimum thickness of alternate material} = \frac{\text{k-value (per Inch) of alternate material}}{\text{k-value (per inch) of listed material}} \times \text{Specified min. thickness of listed material}$$

$$T_M \text{ (inches)} = \frac{k_M}{.84} \times T_L$$

$$T_M \text{ (inches)} = \frac{1.92}{.84} \times .375 \text{ (3/8")}$$

Answer using  $k$ :  $2.29 \times 0.375" = 0.858 = \sim 7/8"$   
 7/8" thickness (minimum) Durock™ Cement will be required.

Using the  $r$  formula:

$$T_M \text{ (inches)} = \frac{1.19}{r_M} \times T_L$$

$$T_M \text{ (inches)} = \frac{1.19}{.52} \times .375 \text{ (3/8")}$$

Answer using  $r$ :  $2.29 \times 0.375" = 0.858 = \sim 7/8"$   
 7/8" thickness (minimum) Durock™ Cement will be required.

At times it is important to know what combination of materials are acceptable for use as floor protection. The "R values" are used to determine acceptable combinations of materials because "R values" are additive where  $r$  and  $k$  values are not.

$$\text{"R value"} = \frac{1}{k} = r \times \text{thickness of material used}$$

Example: Given that the required "R value" for a suitable floor protector used must be equal to or greater than "R" =  $r \times T_L = 1.19 \times .375 = .45$ .

### Listed Material

	Thermal Values		Specified Minimum Thickness
	k (per inch)	r (per inch)	$T_L$
Listed Material →	.84	1.19	3/8" (.375)

### Approved Alternate Materials for Floor/Hearth Protection (\*\*)

Alternative Materials ↓	Thermal Values		* Minimum Thickness
	k (per inch)	r (per inch)	$T_M$
Kaowool M Board	.47	2.13	* 3/8"
Micore 160™	.35	2.86	* 3/8"
Micore 300™	.46	2.18	* 3/8"
Durock™ Cement	1.92	.52	7/8"
Hardibacker™	1.95	.51	7/8"
Hardibacker 500™	2.30	.44	1 1/8"
Cultered Stone	2.82	.35	1 5/8"
Hearthstone™			
Wonderboard	3.23	0.31	1 1/2"
Face brick	9.00	0.11	4 1/8"
Common brick	5.00	0.20	2 1/4"
Cement mortar	5.00	0.20	2 1/4"
Ceramic tile	12.5	.08	5 5/8"
Marble	~20.0	~.05	9"

Note: To convert inches to millimeters divide by .03937.

\* After minimum thickness is calculated, the thickness can be no less than 3/8" (.375" / 10mm).

(\*\*) If the floor protector to be used is a noncombustible material and is NOT listed on the chart above, the manufacturer of the material must provide either the listed  $k$ -value per inch or  $r$ -value per inch and the minimum acceptable thickness will need to be calculated per instructions on this page.

## PLANNING YOUR INSTALLATION

*Clearances to combustibles are determined from testing to applicable standards for allowable heat transfer. The clearances allowed as shown here, do not take into account operation or serviceability requirements.*

### CLEARANCES

**Advantage II-T C FS** - Standard residential or manufactured (mobile) home installation. These appliances require the following minimum clearances to combustibles:

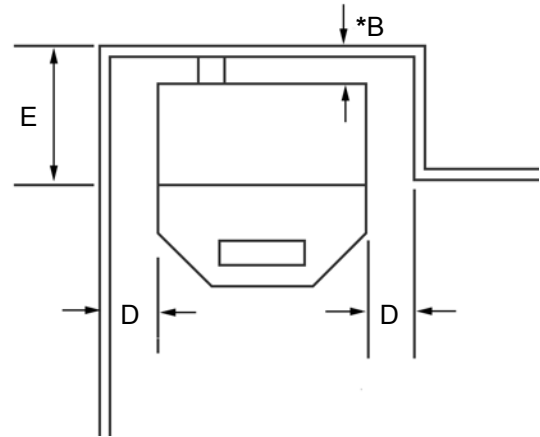
### MINIMUM CLEARANCES TO COMBUSTIBLES

Advantage II-T C FS	Manufactured (Mobile) Home or Residential Installation	
	Horizontal Flue – Directly Through Wall inch / millimeter	Interior Vertical Flue inch / millimeter
A - Sidewall to unit	◆6" / 153 mm	◆6" / 153 mm
B – Backwall to unit	*2" / 50 mm	9" / 230 mm
C – Sidewall to unit Corner	*2" / 50 mm	*2" / 50 mm
D - Alcove to Fuel Hopper	6" / 150 mm	6" / 150 mm
E – Max. Depth of Alcove	●16" / 406 mm	●16" / 406 mm
F – Flue to Wall	n / a	3" / 77 mm
◆ Measured to fuel hopper ● Alcove Requirements – Minimum Height 50" / 127 cm Minimum Width 36" / 966 mm Maximum. Depth 16" / 406 mm		

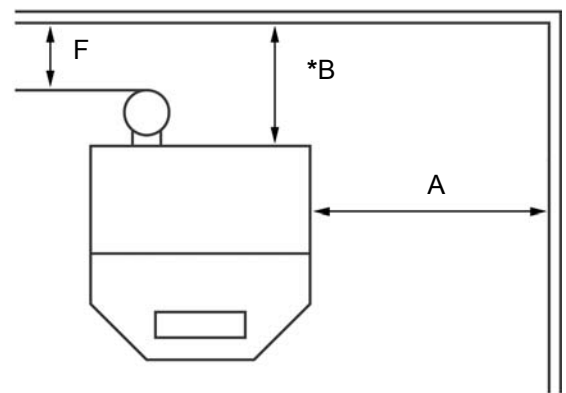
- Minimum clearances specified may not allow for ease of operation and maintenance (please take this in to account when planning the installation). If installed to the minimum clearances, removal of the appliance may be necessary for servicing.
- Recommended clearance zone from the front of the appliance to combustibles is 4 feet minimum.

\* The certified back wall clearance as shown on the listing label is 1" (see Safety / Listing Label) but for proper hopper lid operation in corner and parallel installations a 2" clearance is required.

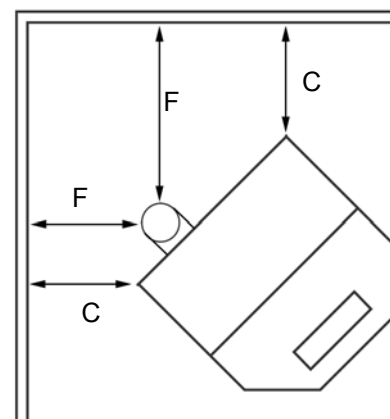
Alcove - Advantage II-T C FS



Parallel Wall - Advantage II-T C FS



Corner - Advantage II-T C FS



## PLANNING YOUR INSTALLATION

### MASONRY AND FACTORY BUILT FIREPLACES

The model Advantage II-T C INS is approved for installation into a solid fuel burning fireplace, either a masonry fireplace (built to UBC 37 or ULC S628 standards) or an approved factory-built / zero clearance fireplace (built to UL 127 or ULC S610 standards). (see pages 19 through 20 for additional information on venting).

#### Dimensions Into a Fireplace

Height	20 1/4" / 515 mm
Width	30 1/4" / 768 mm
Depth w/Tee	18 3/8" / 467 mm
Depth-DV thru Masonry Wall	12 1/2" / 318 mm

Recommended clearance zone from the front of the appliance to combustibles is 4 feet minimum.

**CAUTION:** The fireplace in which the Advantage II-T C INS is to be installed must be thoroughly cleaned if it has been used to burn wood or synthetic logs. Have the chimney and all inside surfaces of the fireplace brushed and vacuumed so that no soot, embers, or loose combustion deposits can be drawn into the heat circulation blower and blown into the living area. If any portion of the chimney system shows signs of structural or mechanical weaknesses, such as: cracks, leaky joints, corroded or warped surfaces, the faulty portion must be repaired or replaced prior to installing this appliance.

**IMPORTANT:** When installing model Advantage II-T C INS into a factory built fireplace or heatform, the air flow within and around the fireplace shall not be altered by the installation of the insert (i.e. DO NOT BLOCK louvers or cooling air inlet or outlet ports, circulating air chambers in a steel fireplace liner or metal heat circulator). The factory built firebox must accept the insert without modification other than removing bolted or screwed together pieces such as smoke shelf / deflectors, ash lips, screen or door tracks and damper assemblies. Any fireplace component, which is removed, must be retained so they can be reinstalled to restore the fireplace to its original operating condition. The removal of any part must not alter the integrity of the outer shell of the pre-engineered fireplace cabinet in any way. A Warning Label (provided with appliance) must be installed in the fireplace firebox so that it shall be visible upon removal of the fireplace insert (see *Fireplace Warning Label*, below). Use RTV high Temperature Silicone as an adhesive to affix the warning label.

#### Fireplace Warning Label

**Provided in accessory package (insert only)**

THIS FIREPLACE HAS BEEN ALTERED TO ACCOMMODATE A **FIREPLACE INSERT** AND SHOULD BE INSPECTED BY A QUALIFIED PERSON PRIOR TO RE-USE AS A CONVENTIONAL FIREPLACE.

### HEARTH / FLOOR PROTECTION - Advantage II-T C INS

In the USA and Canada, the area below and directly in front of the Advantage II-T C INS must be an approved fireplace hearth or protected by a non-combustible hearth / floor protector with a minimum thickness of 3/8" which has a thermal conductivity of k (per inch) = .84 or lower value (better thermal protection) or resistance of r (per inch) = 1.19 or higher value. See *Floor Protection / Hearth Extension Using Alternate Material as Floor Protector* on page 5 which explains minimum thermal protection requirements.

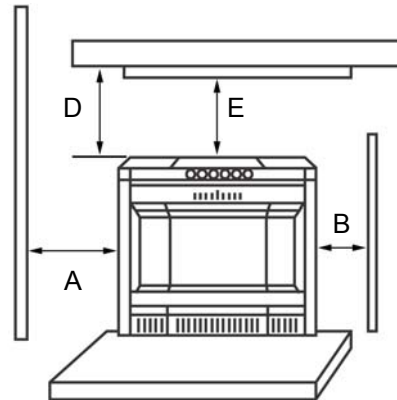
The protected area must extend 6" to the front of the face of the Advantage II-T C INS.

### MINIMUM CLEARANCES TO COMBUSTIBLES

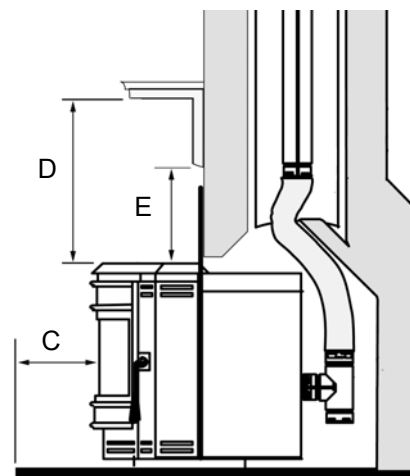
#### Masonry and Factory Built Fireplaces

	inches / millimeters
A - Insert to side wall	6" / 150 mm
B - Insert to side trim	1" / 25 mm
C - Hearth extension	6" / 150 mm
D - Insert to mantel	18" / 457 mm
E - Insert to top trim	1" / 25 mm

Front View



Side View



## PLANNING YOUR INSTALLATION

### MANUFACTURED (MOBILE) HOME INSTALLATION

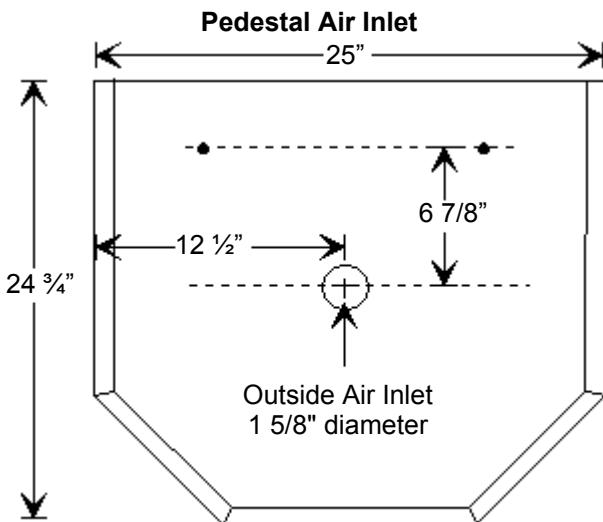
Freestanding Model – Advantage II-T C FS

In addition to the standard installation instructions, the following instructions may be required by local, state or federal building codes:

- Stove must be permanently bolted to the floor.
- An outside air inlet must be provided for combustion and be unrestricted while unit is in use. Use a galvanized or stainless steel pipe for the duct (the outside air inlet on the stove is 1 5/8" diameter).
- Stove must be permanently electrically grounded to the steel chassis of the home. The location selected for ground attachment to the stove must be dedicated for this purpose.
- See pages 13 through 18 for additional information on venting requirements.
- Do not install appliance in a sleeping room.
- The structural integrity of the manufactured home floor, walls, ceiling and roof must be maintained.

NOTE: The grounding of this product, at installation, must comply with NFPA-70 standards, CSA C22.1 in Canada, as well as any local codes.

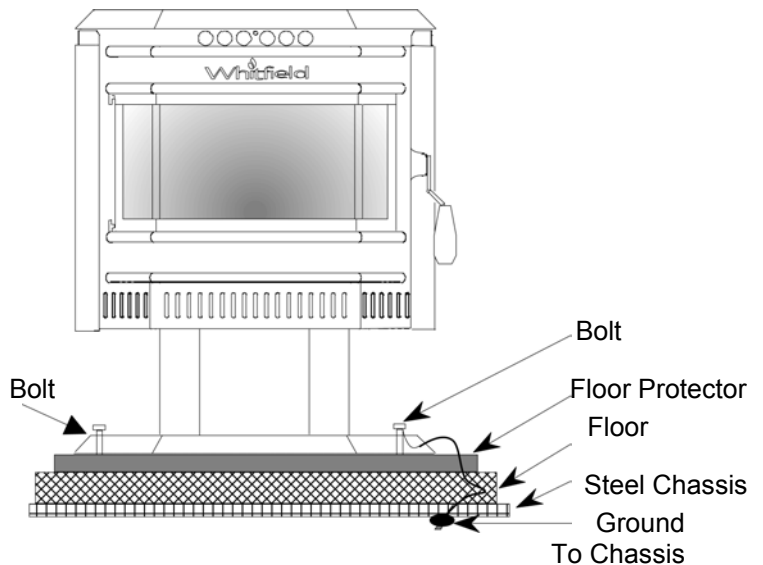
#### Model – Advantage II-T C FS



### MANUFACTURED (MOBILE) HOME EXHAUST VENT PIPE INSTALLATION GUIDELINES

Use only "PL" pellet vent pipe listed to UL 641 and ULC S609. The pipe should extend at least 3 feet above the part of the roof through which it passes. The top of the pipe should be at least 2 feet above the highest required elevation of any part of the manufactured (mobile) home within 10 feet of the pipe (see page 14, *Manufactured [Mobile] Home Chimney Height Requirements*).

If the exhaust vent exits the manufactured (mobile) home at a location other than the roof, and exits at a point 7 feet or less above the ground level on which the manufactured (mobile) home is positioned, a guard or method of enclosing the pipe shall be provided at the point of exit for a height of up to 7 feet. The openings, if any, in this guard shall not allow a 3/4" rod to pass through. A 1/2" rod could pass through but should not be able to touch the pipe when inserted through the opening a distance of 4 inches.





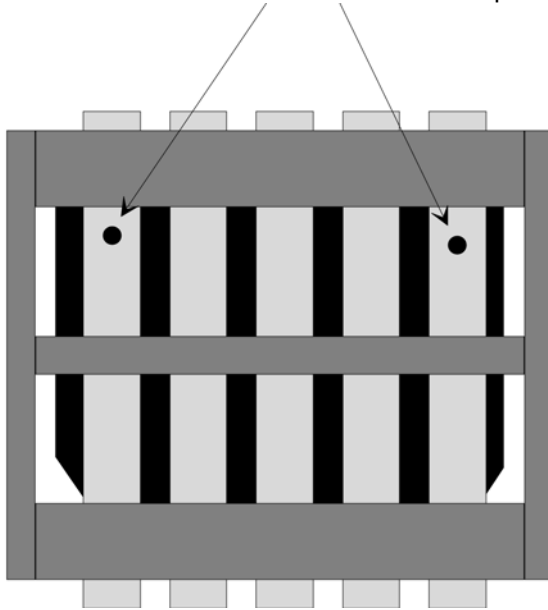
## INSTALLATION

### REMOVING APPLIANCE FROM PALLET

1. After removing the packaging from the stove, lift the hopper lid, and remove all pre-packaged items that were shipped in the hopper. Next, open the stove door and remove all pre-packaged items.
2. Using a 9/16" socket or open end wrench, remove the bolts which secure stove to pallet. The bolts are located on the underside of the wooden pallet.

#### Underside of Pallet

Remove the two bolts from underneath the pallet.



NOTE: Bolts may be used in manufactured (mobile) home installation to permanently secure stove to floor (see previous page).

### ASH PAN COVER ASSEMBLY

Remove the ash pan cover trim from hopper. Remove polyfoam wrapping and press into place as shown in illustration below. The ash pan cover trim has two magnets attached which will secure it in place.



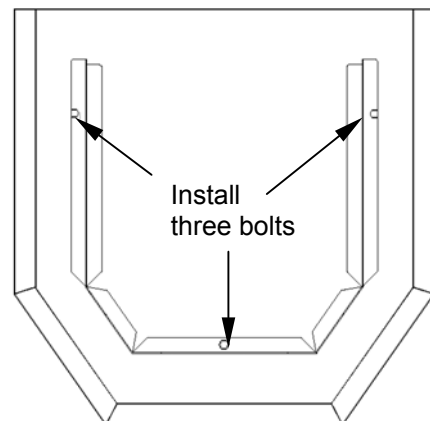
Ash Pan Cover

### INSTALLING PEDESTAL TO BODY

If your stove is a freestanding model, secure the pedestal to the stove body as follows:

1. Remove the pedestal from the box and place it beside the stove body.
2. Lift the stove onto the pedestal base.
3. Install the three bolts and washers provided through the holes in the mounting flange of the pedestal and into the threaded pressed nuts in the stove bottom.
4. Tighten the fasteners using a socket or wrench.

#### Pedestal – Top View



Attach stove to pedestal by inserting three bolts (provided with pedestal kit)

## INSTALLATION

### INSTALLATION CHECK LIST

It is strongly recommended that you have an authorized Lennox Hearth Products dealer install your stove. If you install your stove yourself, you should review your installation plan with an authorized Lennox Hearth Products dealer. Improper installation may void your warranty.

#### Check list:

Check off each item as you proceed with the installation process.

- Read the ENTIRE stove installation section first
- Read the Insert or Freestanding section (whichever applies).
- Determine the appropriate measurements and locations for your installation.
- Follow the general installation directions under Stove Installation and the installation section appropriate to your stove.
- Be sure to pre-fit all items before you install, fasten, or set up the stove permanently.

#### Prior to lighting your stove:

- Review the *Important Warnings* section (page 2).
- Review *Fuel Specifications* (page 25).
- Review and follow instructions in the Care and Operation Section (pages 21 to 25).
- Plug power cord connector into corresponding connector on the back of appliance (see illustrations on page 12 showing connector locations).  
Note: Advantage II-T C INS – Route power cord behind side surround panel.

#### After you have begun operation of your stove:

- Review the routine cleaning / maintenance information.
- Enjoy the warmth from your new Lennox Hearth Products pellet stove!

#### Advantage II-T C Insert

It is important to level the appliance. In some installations such as a recessed firebox floor (if the existing fireplace floor is lower than the hearth), install the 2 leveling bolts (3/8-16 x 3 1/2" long) into the 2 threaded holes at the rear base of the Advantage II-T C INS. Adjust bolts until appliance is level.

## INSTALLATION

### INSTALLING SURROUND ASSEMBLY - Advantage II-T C INS (to be done after venting system is installed)

The surround kit (purchased separately) comes with a set of metal panels that enclose the fireplace opening when fitted together. Put the surround assembly together according to the following instructions (ref. see illustration below).

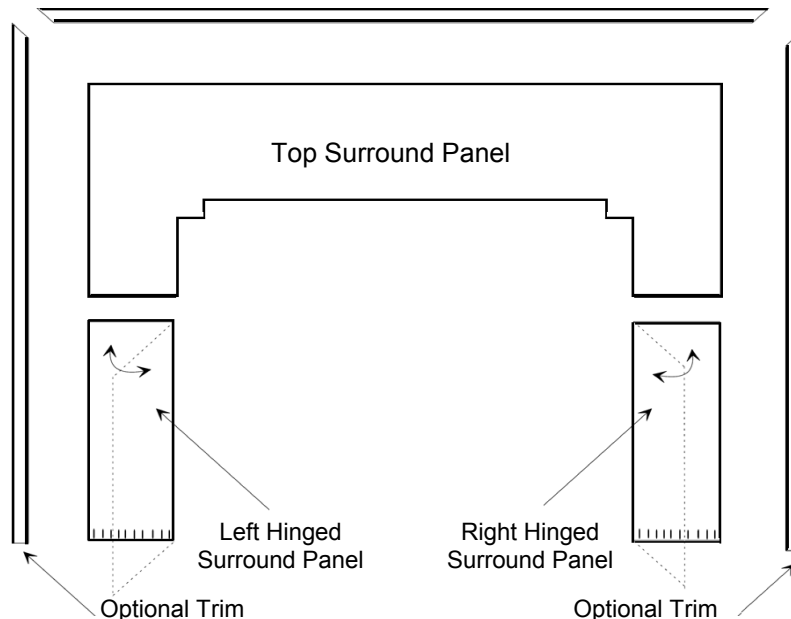
1. Remove panels from package.
2. Verify that you have all three panels and a package with “pop” rivets and #8 self-tapping screws. If you do not have a “pop” rivet tool, you should arrange to buy or borrow one for this installation.
3. Set the stove on the hearth so that the rear of the stove is accessible to complete all pipe connections.
4. Verify that the hopper cover is all the way to the front and open as high as your fireplace opening will allow. Secure the hopper cover with at least two #8 screws on all three sides. Tip: Spreading the side panels slightly may be necessary to complete this step.
5. Place four rivets and your “pop” rivet tool beside the stove and line up the right side panel (with control door) with the holes in the side of the stove. (When the side panel is properly installed, the hinge flange will be to the rear of the stove.) Attach the panel to the stove with four “pop” rivets.
6. Secure the left side surround panel to the stove using the procedure described in step #5.
7. Before proceeding further, check pipe connections to ensure that all joints are sealed with high-temperature RTV silicone and properly secured. Refer to detailed venting instructions on pages 16, 19 and 20.
8. The stove may now be pushed into the fireplace cavity to within 1 1/2” of the face of the fireplace.
9. Set the top surround panel in place over the two side panels. Carefully slide the panel downward into the “U” clips

attached to the back of the Advantage II-T C INS. Tip: Be careful to align the notched cutouts in the top surround panel with the stove side panels. Adjust side to side if necessary to align with the surround side panels.

10. Unwrap the control board carefully without touching any electrical components. Holding the sides of the control board, lower the bottom edge into the slot in the bottom of the control door opening. Install the control board onto the right side panel (with door) using the #8 hex head screw provided.
11. Connect the wiring harness from the Advantage II-T C INS into corresponding connector on control board.
12. Check the Advantage II-T C INS placement in the fireplace. To reposition, open the door and make any needed adjustment by pulling forward and then pushing sideways. Once the unit has been centered to your satisfaction, close the door and push the Advantage II-T C INS back into place so the surround is flush with the face of the hearth. Tip: Before completing this step, verify that the control board will not hit the edge of the fireplace opening.

**If using the optional gold surround trim, remove the trim from its packaging and place the piece with the two mitered ends along the top panel. Place the two remaining side pieces on the surround so that the mitered ends align. Cut the non-mitered ends of the shroud trim with scissors, if necessary.**

**In factory built and masonry fireplaces, a means must be provided to prevent room air passage to the chimney cavity of the fireplace. This may be accomplished by sealing the damper area around the chimney liner or pipe.**



# INSTALLATION

## THERMOSTAT INSTALLATION:

**NOTE: Always Disconnect Power Before Performing The Thermostat Installation.**

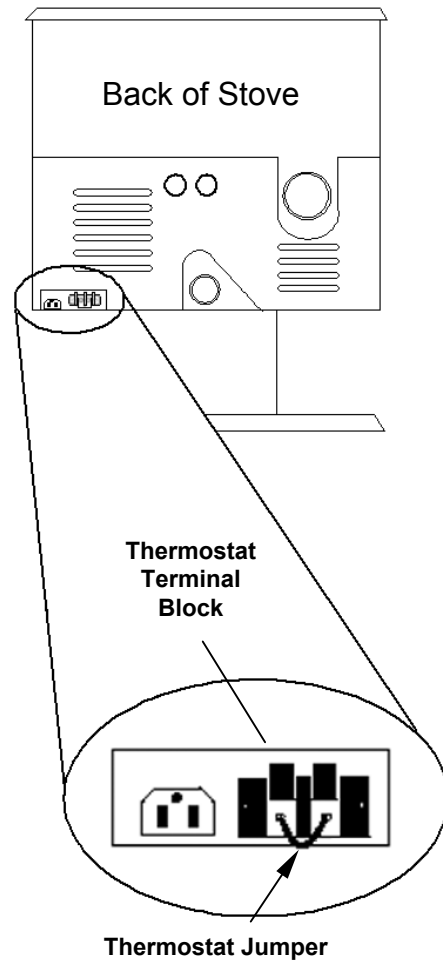
A 24 volt wall thermostat and 20 feet of 18-gage thermostat wire is included in your stove's accessory package. It is recommended that the thermostat and thermostat wire be installed by an authorized Lennox Hearth Products dealer.

### Installation Steps:

1. Unplug stove power cord from the wall outlet.
2. Locate the thermostat terminal block on the back of the stove.
3. Loosen the two terminal screws on the terminal block and remove jumper.
4. Connect the two wires from your thermostat to the terminals (one per terminal). Ensure that the purple wires from the harness remain connected to the terminal block and tighten the terminal screws. Make sure the wires are firmly connected to the thermostat.
5. Plug in the stove and you are ready to operate with your thermostat!

**IMPORTANT: IF THE WALL THERMOSTAT PROVIDED IS NOT USED, THE JUMPER IS REQUIRED FOR THE STOVE TO OPERATE**

Rear View of Advantage II-T C FS



## INSTALLATION

### VENTING REQUIREMENTS

It is recommended that only an authorized dealer install your pellet stove. The specified installation requirements must be followed to ensure conformity with both the safety listing of the appliance and local building codes. All clearances, installation instructions and precautions specified by the vent manufacturer must be followed.

**Selecting a Location (Freestanding Models)** - Review the appliance clearance requirements before installing the venting system (see page 6). Position the appliance far enough away from walls to allow adequate room for servicing. Choose the appliance location with the least amount of interference with the house framing, plumbing, wiring, etc.

**Preferred Vent Configuration** - For the best performance, we recommend a vent run design which runs vertically and terminates above the roofline. This design will allow natural draft to improve the flow of flue gases and will aid in combustion and stove performance.

**Type of Pipe** - This stove requires type "PL" vent pipe (pellet vent pipe, sometimes referred to as "L-Vent pellet vent"), listed to UL 641 or ULC S609. Connect the pellet vent pipe or the "tee" to the flue collar using a minimum of three screws and seal as specified in "Pipe / Liner Joint Requirements" on this page. Do not use class B gas chimney or single wall chimney as a substitute.

**Size of Pipe** - These pellet appliances are approved for use with the following vent sizes: 3" (75mm) standard, or 4" (100mm), see page 15 - for determining correct size vent). When 4" pipe is used: for horizontal vent installations use a 3" (75mm) to 4" (100mm) adapter - available from vent manufacturer. For vertical installations use a 3" (75mm) to 4" (100mm) "tee" - available from vent manufacturer.

Note: If installation requires in excess of 11 feet (3 1/3 meter) of pipe, it is recommended that 4" (100 mm) pipe be used.

**Offsets** - In every installation, a single or double clean-out "tee" is recommended for every ninety-degree offset (this tee will help collect ash residue and will allow for routine cleaning without the need to disconnect sections of pipe). Note: Offsets and horizontal runs accumulate fly ash and soot which reduces the exhaust flow and performance of the stove.

Total Offsets in venting system should not exceed 270° total in direction change.

**Horizontal Runs** - The maximum total horizontal run must not exceed 10 feet (3.1 meters).

Horizontal run of pipe requires 1/4" (7 mm) rise per foot.

**Pipe Clearances / Requirements** - See pipe manufacturers instructions for installation of venting components and clearances. Follow pipe manufacturers installation precautions for passing pipe through a combustible wall or ceiling (i.e. use an approved thimble). Note: Pellet vent pipe requires 3" (75mm) clearance from outside of pipe unless otherwise specified by vent manufacturer - all diameters: 3" (75mm) and 4" (100mm). A support bracket must be installed every 4' (1.2m) of pellet vent pipe on the exterior wall of the house unless otherwise specified by vent manufacturer.

**Pipe / Liner Joint Requirements** - All pipe joints must be secured with a minimum of 3 screws. ALL horizontal joints must be sealed gas tight (air tight, sealed connection). Use RTV high temperature silicone or Interam to provide a complete seal at the flue collar and on all joints.

**Connection to Masonry Chimney through a Wall (Freestanding Models)** - Be sure to verify the construction of a masonry chimney, as it may have combustible framing.

**Approved liner when relining Masonry or Factory Built Fireplaces is 2100HT (degree F.) liner listed to UL 1777 or ULC S635.**

**Connection to an Existing Class A Chimney (Freestanding Models)** - A chimney adapter can be used to make the connection from 3" (75mm) or 4" (100mm) pellet vent pipe (listed to UL 641 or ULC S609) to existing UL chimney system. Verify with the pipe manufacturer that your pipe brands will interconnect.

**Horizontal-Vent Installations** - On all horizontal-vent installations (short, horizontal runs with no vertical pipe); care should be taken when choosing a location for terminating the vent. It is not recommended to directly vent the exhaust on the prevailing wind side of the house. It is recommended that when an appliance is vented directly through a wall, a minimum of 8' (2.5m) of vertical pipe should be installed to create some natural draft. This will reduce the possibility of smoke or odor entering the dwelling during appliance shutdown or loss of power.

## INSTALLATION

### VENT TERMINATION

Do not terminate vent in an enclosed or semi-enclosed area such as: carports, garage, attic, crawl space, under a deck, porch, narrow walkway, closely fenced area, or any location that can build up a concentration of fumes such as a stairwell, covered breezeway etc.

Vent surfaces can get hot enough to cause burns if touched. Adults should supervise children when they are in the area of a hot stove. Non-combustible shielding or guards may be required.

**Termination Cap:** The termination of the outside chimney of the pellet stove shall be located in accordance with the following:

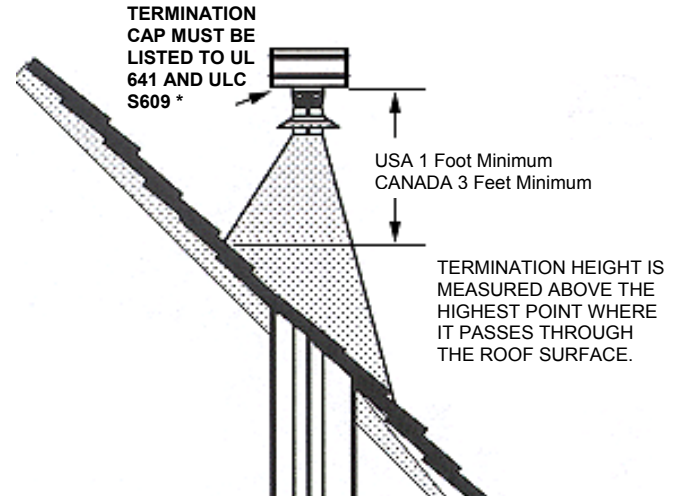
- A. Higher than 3' (.92m) above any forced air inlet (air conditioner, etc.) located within 10' (3m).
- B. Not less than 4' (1.2m) below, 4' (1.2m) horizontally from or 1' (3.1m) above any gravity air inlet (door, window, etc.) which flue gases could re-enter the dwelling.
- C. Not less than 2' (.6m) from combustible materials such as an adjacent buildings, fences, protruding parts of the structure, roof overhang, plants and shrubs, etc. and not less than 7' (2.1m) above grade when located adjacent to the public sidewalks (access). The final termination of the exhaust system must be configured so that flue gases do not jeopardize the safety of people passing by, overheat combustible portions of nearby structures or enter the dwelling.
- D. Not less than 3' (.92m) below an eave (maximum overhang of 3' (.92m) or any construction that projects more than 2" (51mm) from the plane of the wall.
- E. The distance from the bottom of termination to grade is 12" (305mm) minimum. This is conditional upon plants and nature of grade surface: Be careful to choose a location for the vent termination which does not expose people or shrubs to high heat from the exhaust gases. The exhaust gases are not hot enough to ignite grass, plants and shrubs located in the vicinity of the termination although they should be a minimum of 3' (.92m) away. The grade surface under the termination must not be a lawn.
- F. Since sparks may escape from the exhaust pipe of any stove, use caution when positioning the vent pipe. Refer to pipe manufacturer's instructions when installing and terminating the exhaust. The vent pipe should be horizontal and never run the pipe in a downward direction (recommend a 1/4" (7mm) rise per foot horizontal).

#### Notes:

- It is not recommended to terminate exhaust vent on the prevailing wind side of the house.
- It is not recommended using a termination cap with a screen (fly ash can collect in a screen resulting in blockage).

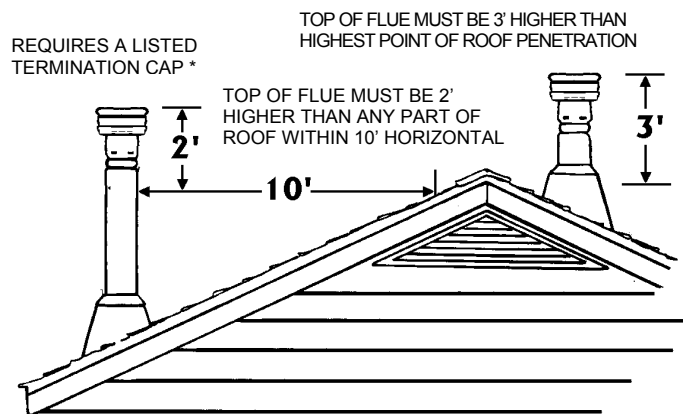
### Site Built Residential Home Chimney Height Requirements

The vent termination height required is - USA, 1-foot minimum; Canada 3-feet minimum above the roof penetration point as illustrated below (Ref. USA - National Standard, NFPA 211, Clause 7-4.1 and Canada National Standard CSA B365-01, Clause 5.6). Check with your local building official for additional requirements for your area.



### Manufactured (Mobile) Home Chimney Height Requirements

The chimney must extend 3' (.92m) above the level of roof penetration and a minimum of 2' (.61m) higher than any roof surface within 10' (3m) (see below). Check with your local building officials for additional requirements for your area.



To pass inspection in nearly any jurisdiction, the chimney must meet both safety and exhaust flow requirements. The (3' by) 2' by 10' rule applies to both masonry and factory built chimneys.

**\* Ref. NFPA 211 Clause 7 – 4.1.2, Vents installed with a listed cap shall terminate in accordance with the terms of the cap's listings.**

# INSTALLATION

## DETERMINING SIZE OF PIPE TO INSTALL

To determine what diameter pipe to use in an installation (3" or 4"), first find the "equivalent pipe length" using the following guidelines, then plot this figure and the altitude on the chart.

Fill out the installation chart, and calculate your total equivalent pipe length. After you have the total equivalent pipe length, use the *Pipe Selection Chart* below to determine if your installation requires 3" or 4" exhaust pipe.

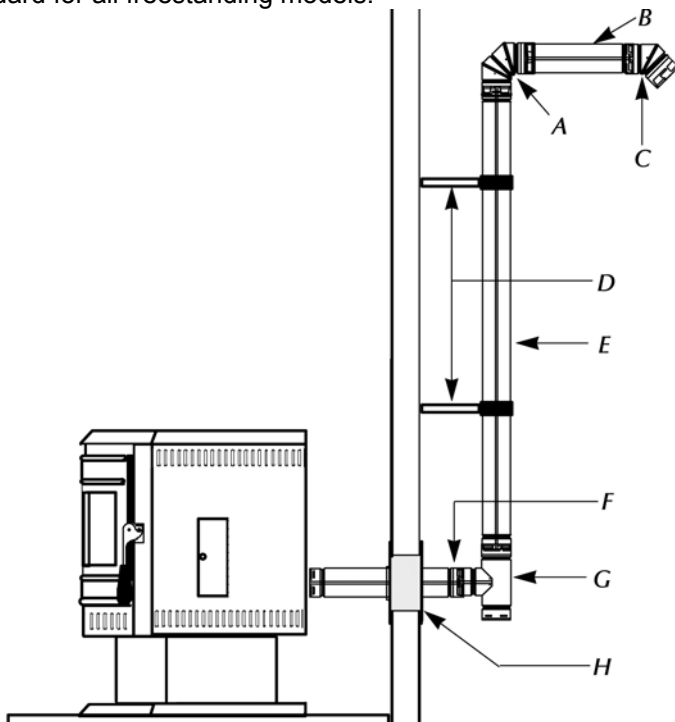
### INSTALLATION CHART

Type of Pipe	# of Elbows or Feet of pipe		Equivalent Feet	Total Equivalent Feet
90° Elbows / Tee (A & G)		x	5 Ft. (1.5m)	
45° Elbows (C)		x	3 Ft. (1m)	
Horizontal (B & F)		x	1 Ft. (.3m)	
Vertical (E)		x	.5 Ft. (.15m)	

- A- 90 Degree Elbow
- B- 1' Horizontal Pipe
- C- 45 Degree Elbow
- D- Standoff Braces
- H- Wall Thimble

- E- 8' Vertical Pipe
- F- 2' Horizontal Pipe
- G- 90 Degree Tee

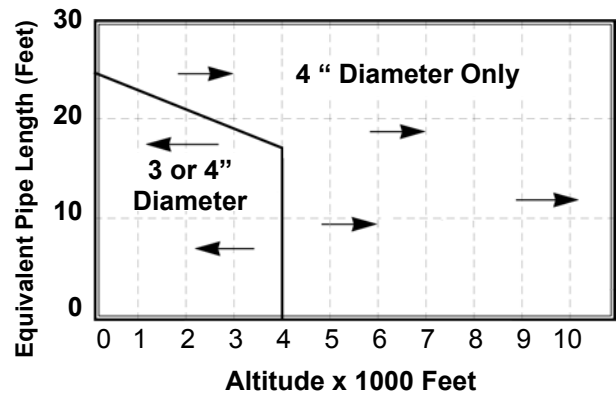
NOTE: All equivalent pipe styles shown below are standard for all freestanding models.



### SAMPLE INSTALLATION CHART

Type of Pipe	# of Elbows or Feet of pipe		Equivalent Feet	Total Equivalent Feet
90° Elbows / Tee (A & G)	2	x	5 Ft. (1.5m)	10 (3m)
45° Elbows (C)	1	x	3 Ft. (1m)	3 (1m)
Horizontal (B & F)	3	x	1 Ft. (.3m)	3 (1m)
Vertical (E)	8	x	.5 Ft. (.15m)	4 (1.2m)
				Total = 20

### PIPE SELECTION CHART



# INSTALLATION

## INSTALLING YOUR FREESTANDING PELLET STOVE Standard Horizontal Vent Installation

**All PL Venting Components must be listed to UL 641 or ULC S609**

1. Locate the proper position for the listed type "PL" wall thimble. Avoid cutting wall studs when installing your pipe. Use a saber saw or keyhole saw to cut the proper diameter hole through the wall to accommodate the wall thimble. Use extreme caution to avoid cutting into power lines within the wall of the home. The hole size will depend on the brand of pellet vent that you are using. Install the wall thimble in the hole.
2. ALL INTERLOCKING PIPE CONNECTIONS WITH-IN THE ROOM MUST BE SEALED WITH HIGH TEMPERATURE RTV AND SECURED WITH A MINIMUM OF 3 FASTENERS PER CONNECTION. Position the stove approximately 12" (305 mm) from the wall on the floor pad. Push the "PL" pipe through the wall thimble. Squeeze a bead of high temperature silicone (RTV) sealer around the end of the machined portion of the 3" (76mm) pipe connector on the back of the stove. Firmly push on a section of "PL" pipe until inner pipe liner pushes into the bead of RTV sealer.
3. Push the stove with pipe attached towards the wall (the pipe will go through the wall thimble). Do not position the back of the stove closer than 2" (51mm) from the wall (see clearances, page 6). Note: Greater back wall clearance will improve the ease of serviceability of the stove.

4. Install listed type "PL" 45 degree elbow with optional rodent screen or cap (recommended) on outside end of pipe. The rodent screen should be no less than 1/2" (13 mm) mesh and may clog with soot and ash if left unattended during the burn season.

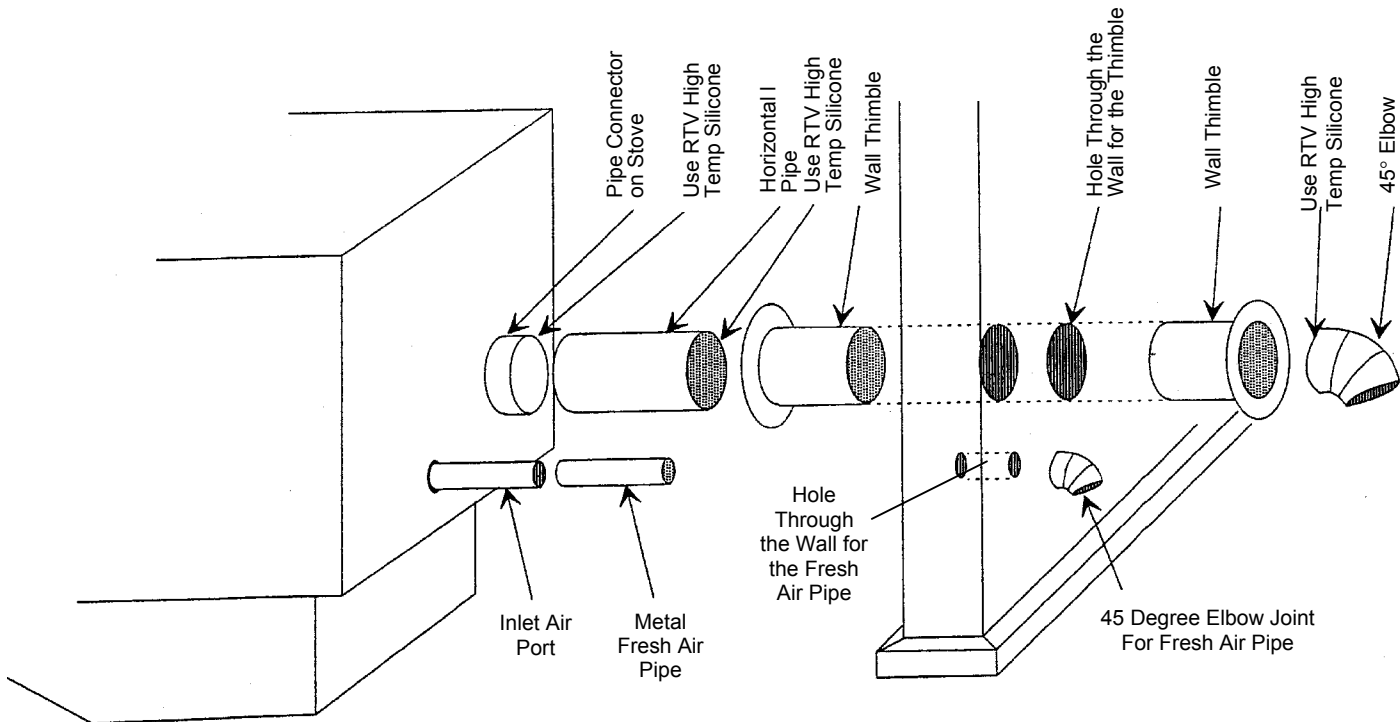
NOTE: The end of the exhaust pipe must extend a minimum of 12" (305 mm) from the outside of the building.

5. If the installation includes a source of outside combustion air; cut a separate hole through the wall for the fresh air tube. Use a galvanized or stainless steel pipe for the duct. The minimum size for the duct shall be not less than 50% of the cross sectional flue area. Connect outside air pipe to air inlet on stove. This tube must be terminated with a 45 degree elbow or hood.

### NOTES:

Combustion air may also be drawn from a vented crawl space under the home.

All joints for connector pipe are required to be fastened with at least three screws. If vented horizontally, joints shall be made gas-tight (air tight, sealed connection) in a manner as specified on this page (see instruction #2). Install vent at clearances specified by the vent manufacturer.



Note: Greater back clearance will improve the ease of serviceability of the stove.



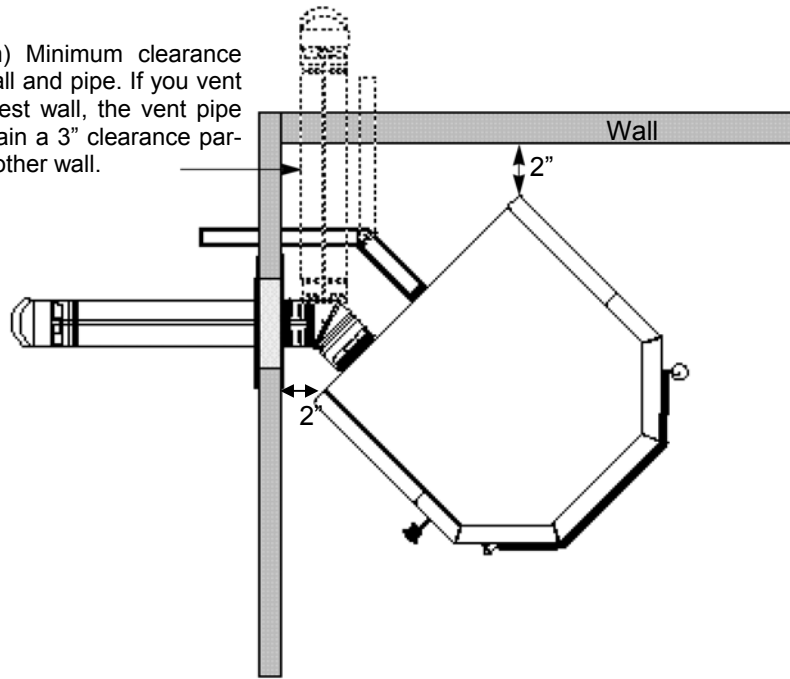
# INSTALLATION

## Standard Horizontal Installation Configurations

### Advantage II-T C FS\* Corner Through the Wall

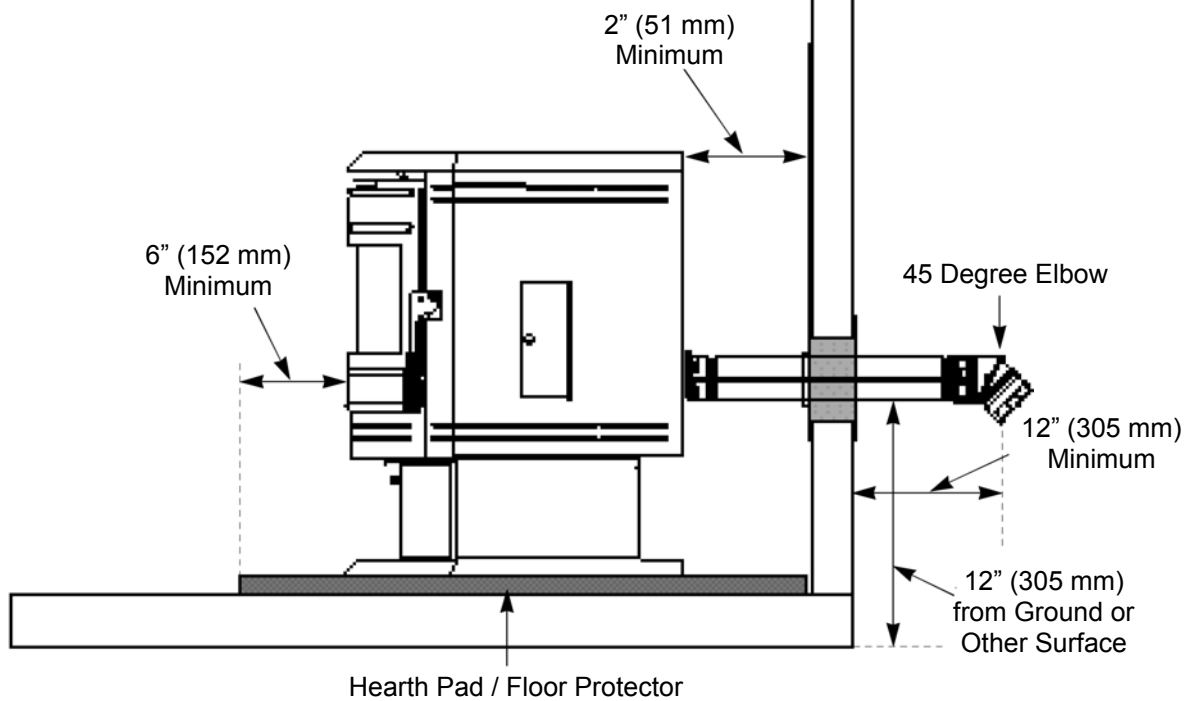
Top View Illustration

3" (75 mm) Minimum clearance between wall and pipe. If you vent to the furthest wall, the vent pipe must maintain a 3" clearance parallel to the other wall.



### Advantage II-T C FS Horizontal Vent Through the Wall

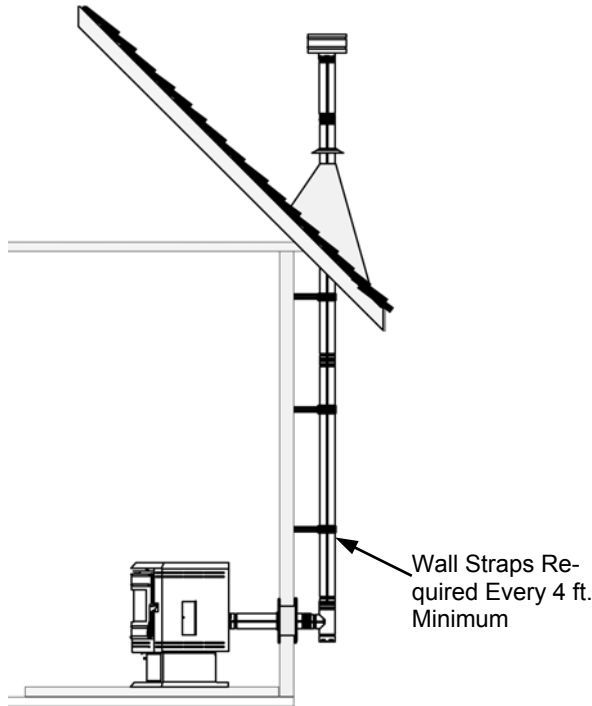
Horizontal Vent Through the Wall  
Side View Illustration



# INSTALLATION

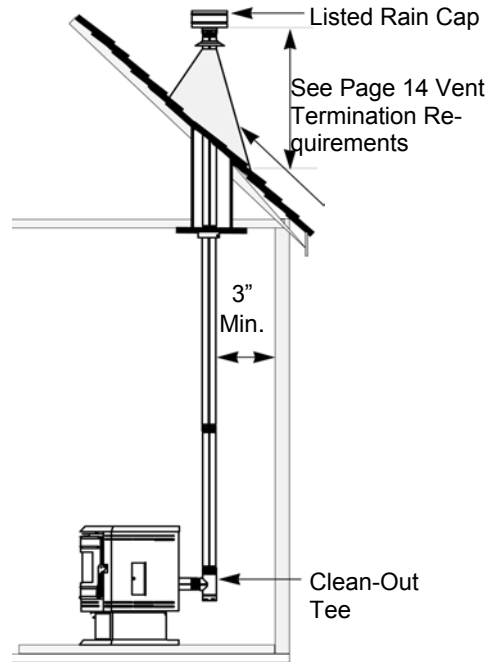
**Standard Vertical Installation Configurations - Model: Advantage II-T C FS** - These freestanding models may be connected to an existing unused flue or by installing type "PL" vent pipe (listed to UL 641 & ULC S609). If a liner is run all the way to the top of the existing chimney, the existing flue should be sealed with a steel plate. Start a vertical run with a Tee at the back of the stove. Other options are illustrated below. *Note: See page 13 for Vent Termination Requirements.*

**Exterior Vertical Vent**

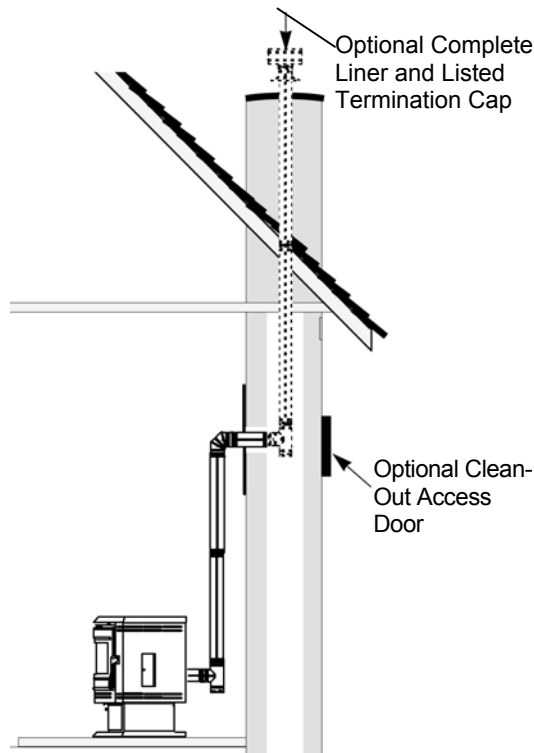


**Preferred Installation – Vertical Vent Through the Roof**

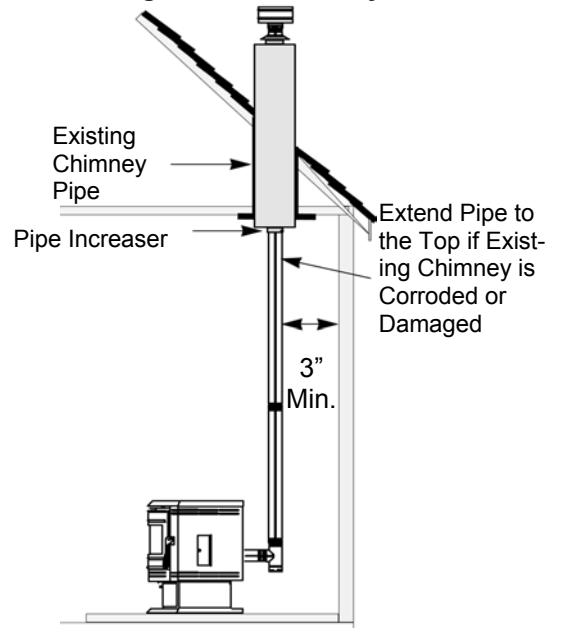
*This venting configuration allows for the best stove performance. The vertical pipe promotes natural draft and with the chimney inside the dwelling, the flue gases stay warm, thus rising at a consistent rate.*



**Vertical Vent Into A Masonry Flue**



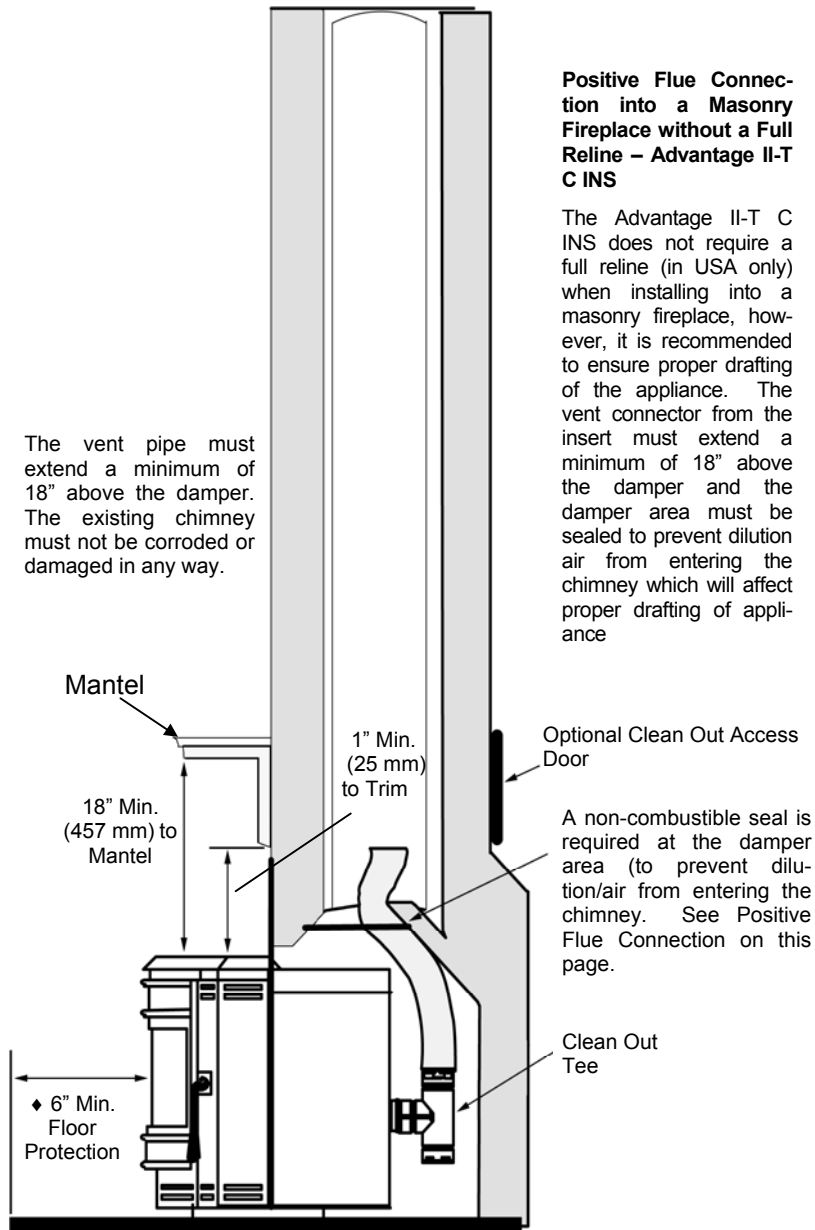
**Interior Vertical Vent into an Existing Class A Chimney**



## INSTALLATION - ADVANTAGE II-T C INS

**IMPORTANT-** Make sure the chimney and firebox are clean and free of soot and ashes before installation begins. Failure to do so may result in the transfer of soot into the room by way of the Room Air Blower.

### Positive Flue Connection without a Full Reline (not allowed in Canada)



#### Positive Flue Connection into a Masonry Fireplace without a Full Reline – Advantage II-T C INS

The Advantage II-T C INS does not require a full reline (in USA only) when installing into a masonry fireplace, however, it is recommended to ensure proper drafting of the appliance. The vent connector from the insert must extend a minimum of 18" above the damper and the damper area must be sealed to prevent dilution air from entering the chimney which will affect proper drafting of appliance

### (USA Only) Venting Into an Existing Chimney

This pellet insert may be installed into a masonry fireplace (built to UBC 37 or ULC S628 standards) or a factory built fireplace (built to UL 127 or ULC S610 standards) as illustrated on this page. When installing into a masonry chimney, it is recommended that the exhaust vent be extended to the top of the chimney as shown on the following page. However, if the vent pipe does not extend to the top of the chimney, the vent must extend a minimum of 18" above the damper. You must seal the damper area so that the air / exhaust in the chimney cannot communicate with the air in the fireplace firebox (this is a positive flue connection. See the following instructions for one method of sealing flue).

### (USA & Canada) Direct Connection / Positive Flue Connection

In Canada, this appliance requires a full reline when installing into a masonry fireplace. In the USA, as a minimum the vent connector from the insert flue outlet must extend a minimum of 18" above the damper and the damper area must be sealed to prevent dilution air from entering the chimney which will affect proper drafting of appliance.

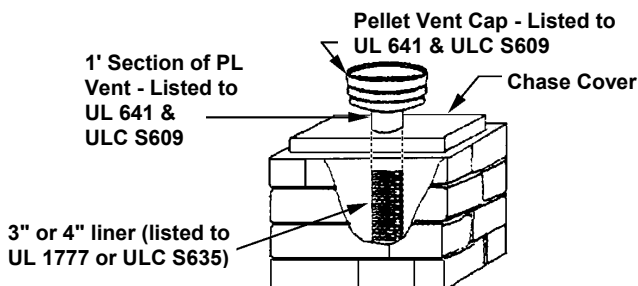
*See the following instructions for acceptable methods for sealing chimney throat.*

### Approved Methods of Achieving a Positive Flue Connection

A qualified installer should evaluate the existing fireplace to determine the best method for achieving a positive flue connection between the vent pipe or liner and the chimney. The most common method for achieving a positive flue connection in masonry fireplaces is to secure a seal-off plate (i.e. 22-gage sheet steel) in the fireplace throat using masonry screws. Other acceptable methods include packing non-combustible material (i.e. rockwool) around the vent pipe or using a flue adapter. Whatever "seal off" method is used must effectively seal the area to prevent room air passage to the chimney cavity of the fireplace.

### VENT TERMINATION WHEN LINER IS USED.

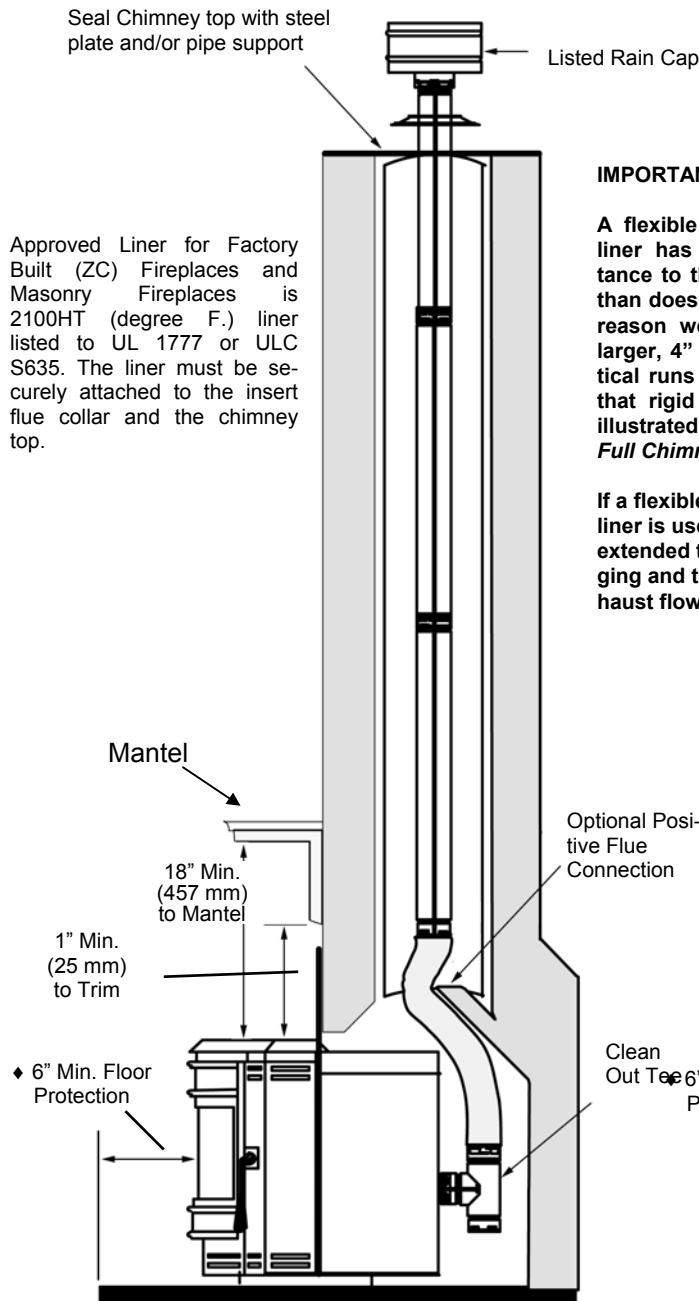
A section of pellet vent pipe (listed to UL 641 or ULC S609) is required at the top where exposed to the elements (see illustration below).



# INSTALLATION

## INSTALLING ADVANTAGE II-T C INS (CONTINUED)

### Full Chimney Reline Recommended for All Chimney Installations



Approved Liner for Factory Built (ZC) Fireplaces and Masonry Fireplaces is 2100HT (degree F.) liner listed to UL 1777 or ULC S635. The liner must be securely attached to the insert flue collar and the chimney top.

### Horizontal Vent Through Masonry Chimney Structure

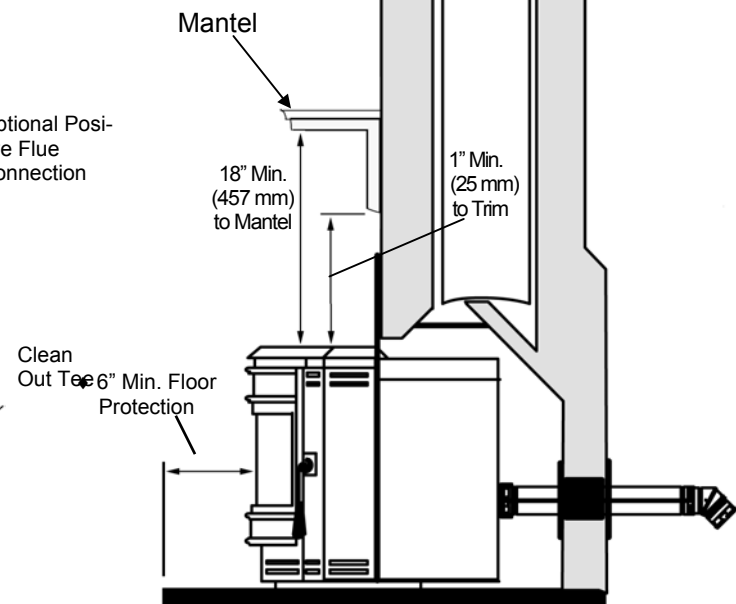
**IN CANADA – Installing as a Horizontal Vent is NOT allowed. The fireplace chimney must be fully lined.**

#### IMPORTANT NOTES:

A flexible corrugated chimney liner has much greater resistance to the flow of flue gases than does a rigid liner. For this reason we recommend that a larger, 4" liner be used on vertical runs exceeding 15 feet or that rigid venting be used as illustrated on this page (see *Full Chimney Reline*).

If a flexible corrugated chimney liner is used, it must be fully extended to eliminate any sagging and to improve the exhaust flow.

USA – The insert may be installed as a Horizontal Vent (through chimney structure) in Masonry Fireplaces if local code permits.



- ◆ USA & Canada – Requires an approved noncombustible hearth or floor protector, 3/8" / (10 mm) millboard or equivalent (k = .84, r = 1.19) to extend 6" / 150 mm to the front of the glass door.

- Do not block opening at front of insert (below door).

## CARE AND OPERATION

### CONTROL BOARD OPERATION

**Start Button** – The push button Start Button activates the room air and the exhaust blowers. If the exhaust temperature does not reach operating temperature within 30 minutes, the stove will automatically shut down. The blowers can be restarted by pushing the Start Button again.

**Auger On/Off Button** – The Auger On/Off Button activates the fuel feed (auger motor) only. The light located just above the button will blink when the auger is turning. The Start Button has to be activated to give power to the Auger On/Off Button. When the Auger On/Off Button is pressed a second time, the pellet feed will stop and the blowers will continue to operate until the stove has cooled sufficiently.

**Heat Output Button** – When not using a wall thermostat, the Heat Output Button provides the ability to burn at five separate settings. The Heat Output Button regulates the fuel feed setting and the combustion air supply simultaneously.

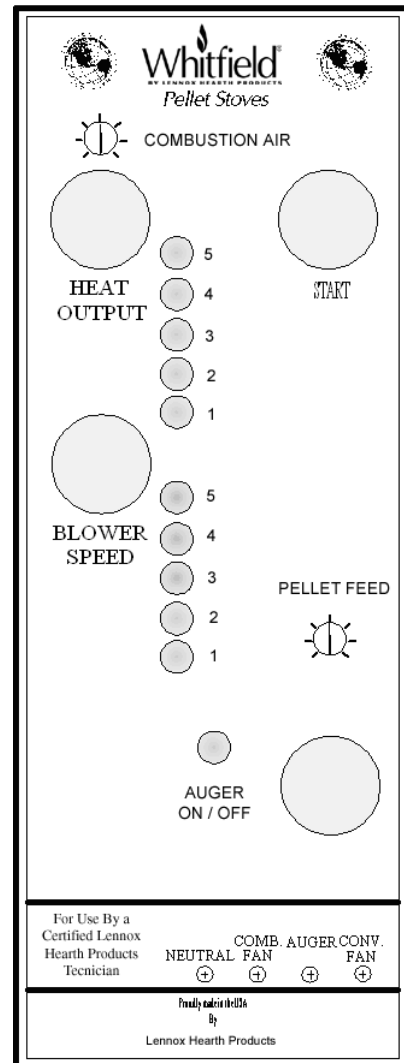
**Blower Speed Button** – The Blower Speed Button controls the speed of the Room Air Blower. Pressing this button will increase or decrease the amount of heat exiting the stove. THE BLOWER SPEED MUST BE AT THE MAXIMUM #5 SETTING WHEN THE HEAT OUTPUT BUTTON IS ON THE #5 POSITION.

**Combustion Air Trim** – The Combustion Air (exhaust blower) Trim is located just above the Heat Output Selector button. Turning the Trim Control counterclockwise will decrease the amount of combustion air entering the UltraGrate™. The Trim Control is factory set at the (0) position.

**Auger Trim Control** – The Pellet Feed (Auger Trim) Control is located just above the Auger On/Off Button. Turning the Trim Control counterclockwise will decrease the amount of fuel delivered to the UltraGrate™. Turning the control clockwise will increase the amount of fuel delivered to the UltraGrate™. The trim control is factory set at the (0) position.

**NOTE:** The trim controls should be adjusted for the proper flame as a last resort. Always adjust the damper control first. See *Damper Operation*, on page 23.

Control Board



## CARE AND OPERATION

### Fuel Delivery Rate

The Heat output button manages the fuel delivery rate by controlling the amount of time the auger motor will run (Settings:

1 = Low, 2 Medium Low, 3 Medium, 4 Medium High, 5 High).

### PRE-LIGHTING INSTRUCTIONS

During an initial start-up, or in the case where the hopper has run out of fuel, it will be necessary to prime the auger feed system.

#### To prime the auger feed tube:

1. Fill the hopper with recommended pellet fuel and plug the stove into the wall outlet.
2. Press the START button on the control board to turn on both blowers (the room air blower and exhaust blower will run at start up settings or position #3). Press the AUGER ON/OFF button on the control board to start the fuel feed. Next, press the Heat output button to position #5 (maximum feed rate).
3. Look through the combustion chamber door and when you see the first pellets dropping into the UltraGrate™, the auger is then fully primed. It will take 10 to 15 minutes to prime the auger.
4. Once the auger is primed, press the AUGER ON/OFF button to turn off auger.

### STARTING YOUR PELLETT STOVE

1. Make sure the auger is primed (see Pre-Lighting Instructions above), then simply push the Start button on the control board to activate the igniter.
2. Press the AUGER ON/OFF button to the "ON" position.
3. While the pellets will ignite on any heat output setting, it is recommended that the Heat Output be set to position #3. Pellets will start feeding into the UltraGrate™ and should begin to ignite in approximately seven minutes. The self-igniter will automatically shut off after fifteen minutes.
4. After the pellets are burning well, press the HEAT OUTPUT selector to the desired setting. Combustion air and the pellet fuel feed rate will adjust automatically as the HEAT OUTPUT selector button is pressed. The flame should be bright yellow in color and there should be no evidence of soot formation at the top of the flame. Press the BLOWER SPEED control to increase or decrease the desired amount of room air from your stove.
5. If operating your stove with the wall thermostat, adjust the HEAT OUTPUT selector button to the desired demand mode (#2 through #5 on the HEAT OUTPUT selector button). Next, adjust the wall mounted thermostat to the desired heat and your stove will automatically switch between a demand mode and a pilot mode.

### GENERAL OPERATING CONSIDERATIONS

**Proper Burn Characteristics:** Your flame should be bright yellow under normal operation. If your flame becomes reddish/orange, your stove probably needs routine maintenance. Excessive amounts of fly ash build-up in the UltraGrate™, clinkers in the UltraGrate™, or leakage of air if the UltraGrate™ is not properly seated, will starve the fire for air. (See **ROUTINE MAINTENANCE** for information on cleaning the stove). If the problem persists, review the trouble-shooting section at the end of this manual.

**Pellet Feed:** The pellet feed system is designed to handle a wide range of pellet sizes. Different pellets can feed at considerably different rates. If the stove will not stay lit at the minimum fuel feed setting, those particular pellets may not be feeding fast enough. If this happens, adjust the damper rod (on the side of the stove) in or out to achieve a proper burn.

**Pellet Size:** You may notice a difference in the burn if you change pellet fuel sizes. The bigger the pellet, the slower it will feed and vice versa.

**Long Burn Time:** The stove may be safely operated on a continuous basis, but it is recommended that it be turned down overnight or when the room is vacated for long periods of time.

### TURNING OFF YOUR PELLETT STOVE

Press the AUGER ON/OFF button to the "OFF" position. This will turn the auger motor off and pellets will stop feeding. Both blowers will continue to operate for a period of time (up to 45 minutes) until the exhaust temperature cools sufficiently. The blowers will automatically turn off at that point.

### Lighting Procedure Without Igniter: Start-up procedure when Fastfire™ igniter has failed or been removed and not replaced.

If your automatic ignition system should ever need trouble-shooting, repair or replacement, please contact your authorized Lennox Hearth Products dealer. Your stove can be lit manually without using the automatic igniter in such cases by following the procedure below.

Continued on next page...

## CARE AND OPERATION

Continued from last page...

1. Place a recommended fire starter (see your dealer for appropriate fire starter in your area) in the UltraGrate™ and put a handful of pellets on top of the starter. **DO NOT USE FLAMMABLE LIQUIDS TO START YOUR STOVE.**
2. Light the fire starter in the UltraGrate™ with a match and close the door. Press the heat output selector button to position 3.
3. After approximately 10 seconds, press the START button. You will notice that the fire will become active and there will be air coming from the heat exchanger tubes.
4. After the pellets in the UltraGrate™ are burning sufficiently (red hot coals), press the AUGER ON/OFF button: this will activate the auger motor and pellets will begin to feed into the UltraGrate™. our blower motors will continue to operate.
5. After the pellets are burning well, press the HEAT OUTPUT selector to the desired setting. Combustion air and the pellet fuel feed rate will adjust automatically as the HEAT OUTPUT selector button is pressed. The flame should be bright yellow in color and there should be no evidence of soot formation at the top of the flame. Press the BLOWER SPEED control knob to increase or decrease the desired amount of convection air from your stove.

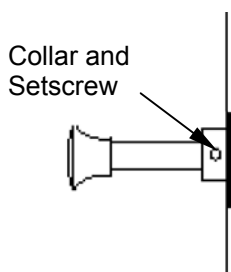
If operating your stove with a wall thermostat, adjust the heat output selector button to the desired demand mode (#2 through #5 on the HEAT OUTPUT selector button). Next, adjust the wall mounted thermostat to the desired heat and your stove will automatically switch between a demand mode and a pilot mode.

### DAMPER OPERATION

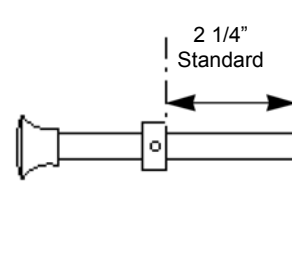
The Damper Rod is preset at 2 1/4" which is proper for the average installation. In some cases the damper may need to be adjusted from the standard setting.

**Adjustment Procedure:** Loosen setscrew on set collar (see illustrations on this page), then adjust in 1/4" increments until optimum combustion air flow is achieved. For less air push in and for more air pull out. After adjustment, position set collar against side panel and tighten setscrew.

**Damper In (less air)**



**Damper Out (more air)**



The damper rod located on the lower left-hand side of the stove will not need to be manually adjusted every time you turn the fuel feed rate up or down. However, the damper allows the air-to-fuel ratio to be “fine tuned.” The proper air setting will vary from stove to stove depending on installation configuration, altitude and type of fuels being burned.

There is a “break-in” period for all Advantage II-T C stoves. It is important to understand and make note of the following items when you first light your stove:

- During the first day or two of operation, it may appear that the flame pattern is somewhat short and vigorous. This is due to the “break-in” period of the auger motor.
- During this period, the auger motor will gradually speed up its rotation cycle as the gearbox wears in. This will correspondingly increase the fuel feed rate. The flame pattern will grow accordingly, and the damper rod may need to be pulled out slightly to compensate.
- **DO NOT ADJUST THE CONTROL BOARD INTERNAL SETTINGS AT THE TIME OF INSTALLATION!** All adjustments to compensate for burn characteristics should be done with the damper on the left-hand side of the stove by moving it in or out slightly 1/4" at a time.

When your new stove is installed; the exhaust should be hooked up, the stove plugged in and the fire started. Check for proper operation at all heat output settings (#1 - #5). Look for a brisk yellow flame with no black tips.

Continued on next page...

## CARE AND OPERATION

Continued from last page...

Any adjustments for combustion air should be made at the damper by varying the spacing between the side of the stove and the inside of the damper set collar. The factory setting on the damper, as noted above, should correspond with the model you have.

If the fire goes out on the #1 setting, you will want to decrease the combustion airflow. Loosen the set collar and push the damper in by 1/4" intervals. Tighten the collar at its new position (2 1/2" – 2 3/4").

If the fuel is building up in the UltraGrate™ at the higher heat output settings, you will want to increase the amount of available combustion air. Loosen the set collar on the damper rod and pull the damper out. Do this 1/4" at a time. Tighten the collar at its new position (1 3/4" – 2").

After making any adjustment to the damper set collar, pull the damper rod out fully and re-check the dimension between the stove side panel and the inside of the set collar.

**NOTE: If the proper flame cannot be achieved with the damper control, adjustment of the trim controls may be necessary. See Control Board Operation on Page 21 for information.**

### DAMPER ADJUSTMENT GUIDELINE

**Lack of Combustion Air:** By opening the damper, this will increase combustion air delivery. Symptoms of insufficient combustion air include; unburned fuel, lazy smoky or red / orange flame, excessive ash or soot, excessive buildup on glass.

Contributing factors:

- High Altitude – Lack of oxygen
- Restrictive Venting (elbows, horizontal runs, cold external chimneys, etc.).
- Dirty / Poor Quality Fuel.

Note: Excessive amounts of fly ash built-up in the UltraGrate™, clinkers in the UltraGrate™ or leakage of air (if the UltraGrate™ is not properly seated) will starve the fire for air. See *Routine Maintenance*, on pages 26 through 30 for information on cleaning the stove.

**Excessive Combustion Air:** By closing the damper, this will reduce combustion air delivery. Symptoms of excessive air include; fuel burns too quickly (results in smoking or smoldering pellets), white to yellow flame, etc. If the damper is open too much, the burning pellets will lift off the UltraGrate™ and fly up into the air much like popping corn does.

Contributing factor:

- Venting system providing excessive draft.

**Correct Combustion Air / Proper Burn Characteristics:** When the damper is correctly set, the burning pellets should move (wiggle) around slightly and the flame should be bright yellow.

### AUTOMATIC SAFETY FEATURES

#### Power Outage:

During a power outage, the stove will shut down safely. It will not automatically restart when power is resumed unless the exhaust temperature is still hot enough. A small amount of smoke may leak from the top of the window glass, the hopper and from the exhaust air intake, if the stove is vented horizontally with no vertical pipe. This will not persist for more than 3 to 5 minutes and will not be a safety hazard. **It may set off your smoke alarm.**

To re-light the stove, follow the normal procedure for starting your stove.

Note: If the area in which you live is prone to frequent power outages, it is recommended that a minimum of 8 feet (2 1/2 meters) of vertical vent pipe be included in a freestanding installation to induce a natural draft in the event of a power failure.

#### Overheating:

A high temperature switch will automatically shut down the stove if it overheats. The stove will need to be manually re-lit. Allow up to 45 minutes cooling time before re-lighting. Keep enough convection air (room air blower) going through stove to keep it cooling properly, this will ensure long life of the stove. If the overheating continues, contact your authorized Lennox Hearth Products dealer for more information.

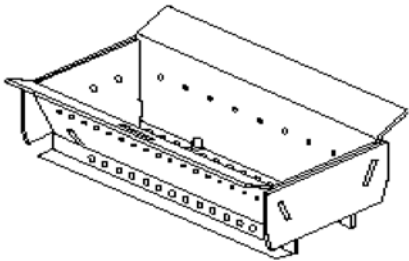


## CARE AND OPERATION

### FUEL

**Clinkering** - Silica (or sand) in the fuel, along with other impurities, can cause clinkering. A clinker is a hard mass of silica formed in the burning process. Clinkering is a function of the fuel, (not the stove), but adversely affects the performance of the stove by blocking off the air passages in the UltraGrate™. Even a P.F.I. approved pellet fuel may tend to clinker. A clinker can be removed from the UltraGrate™ and placed in the ash pan with the use of the grate scraper / ash pan tool furnished with your stove. See Routine Maintenance (on pages 26 through 30) for more information on cleaning.

UltraGrate™



**Ash** - The frequency of removal of the ash and maintenance performed on the stove is directly proportional to the ash content of the fuel and the operation duration of your pellet stove. Low ash fuel may allow longer intervals between cleaning, however, a stove burning high ash fuel may need to be cleaned as often as everyday.

PLEASE NOTE: Lennox Hearth Products has no control over the manufacturing of pellet fuel and will not be held responsible for poor stove performance or any damage caused by poor quality pellet fuels.

**Fuel Feed Rates** - Different brands of pellets will feed at varying rates due to their size and density (length and diameter). This may require a slight adjustment in the damper control (see pages 23 through 24).

**Fuel Specifications** - Using the UltraGrate™ burn system, this appliance has been designed to burn wood residue pellets with up to 3% ash content. Agricultural pellets (i.e.... Corn, alfalfa etc.) are not permitted to be burned in the stove. Dirty fuel will adversely affect the performance of the stove.

Caution: The use of unapproved, dirty, wet and / or high salt content fuel will void the warranty!

Wood pellets manufactured to the pellet fuels institute (P.F.I.) certification standard are available in two grades, Standard and Premium. The primary difference between the two is the ash content of the pellets.

The P.F.I., specification for standard grade & premium grade residential pellet fuel is as follows:

- CHLORIDES (Salt): Less than 300 p.p.m.
- BULK DENSITY: 40 lb. / Cu. Ft. minimum
- MOISTURE CONTENT: 8% maximum
- ASH CONTENT: < 3% maximum (standard grade) < 1% maximum (premium grade)
- FINES: 0.5% maximum through a 1/8" screen
- BTU CONTENT: Minimum 8200 BTU per pound.

**Pellet Feed / Pellet Size** - The pellet feed system is designed to handle a wide range of pellet from .23" to .35" in diameter and up to 1.5" in length. Different pellets may feed at considerably different rates. You may notice a difference in the burn if you change pellet fuel sizes. The longer the pellet, the slower it will feed and vice versa. If the stove will not stay burning at the minimum fuel feed setting, those particular pellets may not be feeding fast enough. If this happens, reduce the amount of combustion air by adjusting the damper. See page 23 and 24.

**Long Burn Time** - When operated correctly, this appliance cannot be overfired. Continuous operation at a maximum burn can, however, shorten the life of the electrical components (blowers, motors, and electronic controls), and is not recommended. Typical approved operation would include running at the low to mid range setting with occasional running on the maximum setting during the coldest periods of the winter. The blower speed control should be turned to high when operating the stove on the high heat setting. A lower heat setting is recommended for overnight operation or when the room is vacated for long periods of time.

## ROUTINE MAINTENANCE

Inspect your stove or insert at minimum frequency stated until you establish a minimum frequency required for your installation (frequency will vary depending upon fuel BTU value / ash content, usage, and misc. installation variables).

### ROUTINE CLEANING

Stove will need to be shut off and cooled enough to handle before routine cleaning is performed. All ash removal and cleaning should be done while stove is cold. **Always disconnect power before doing any routine cleaning.**

#### Proper Disposal of Ashes

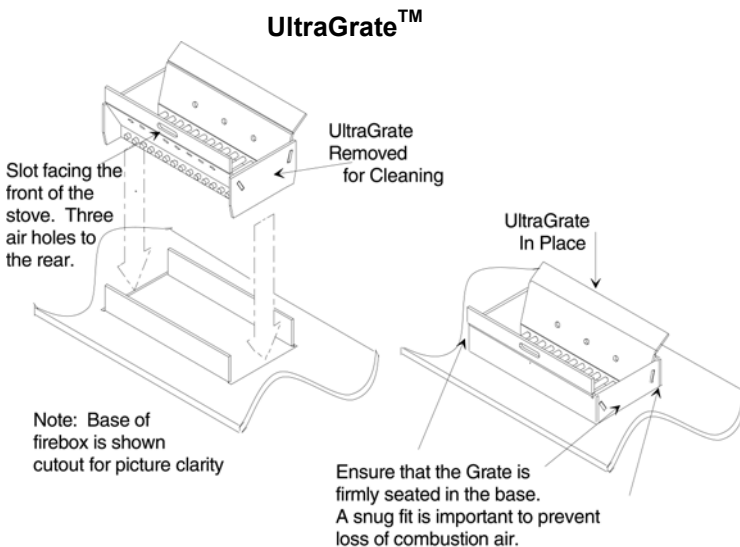
Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground well away from all combustible materials pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed,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

The following areas need to be inspected during Routine Cleaning:

- UltraGrate™
- Ash Pan
- Ash Trap and Baffles
- Heat Exchange Tubes
- Exhaust Passages and Vent Pipe

#### UltraGrate™

The UltraGrate™ should be inspected periodically to assure that the air holes have not become clogged with ash or clinkers. The UltraGrate™ can easily be cleaned with the grate scraper tool, or it can be removed for cleaning. It is very important to monitor the ash build up under the UltraGrate™, as excessive amounts of ash will block combustion air from entering the UltraGrate™, causing pellets to pile-up in the UltraGrate™. The ash build-up under the UltraGrate™ is easily dumped into the ash pan by pulling out the ash slide weekly as shown below. The UltraGrate™ cleaning procedure is the same for all models.

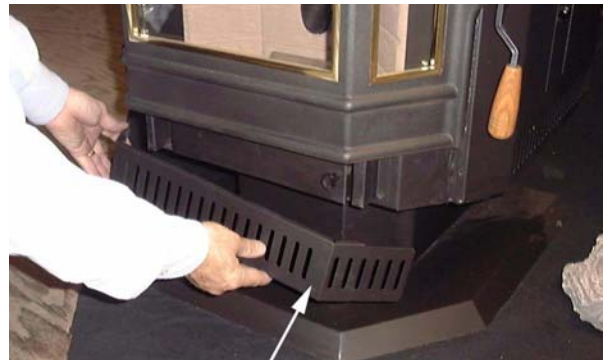


**Minimum Frequency of 1 day – 2 weeks**

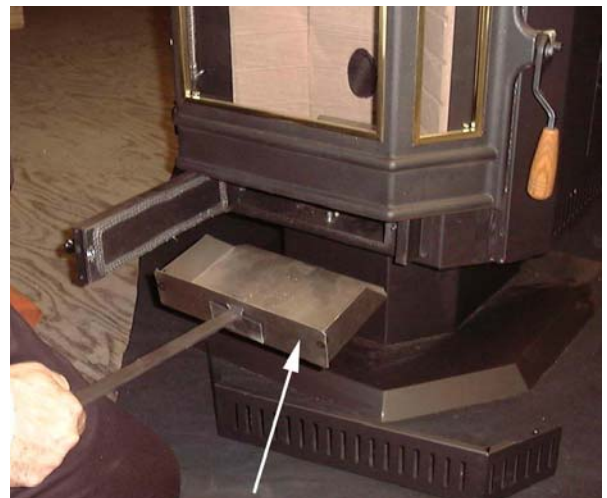
#### ASH PAN (Advantage II-T C FS)

The ash pan will have to be emptied periodically, depending on the amount of fuel consumed. To access follow steps one through four:

1. Open the glass door, then, using the ash pan / grate scraper tool, lift the UltraGrate™ out and sweep the top ash into the pan below.
2. Remove the ash pan cover located below the door by pulling forward until magnets release.
3. Pull the ash pan door knob and swing open.
4. Remove the ash pan using the ash pan / grate scraper tool. (See picture below)
5. Place ashes into a non-combustible container. When finished, close the glass door and slide the ash pan back into the stove and close the ash pan door. Re-install ash pan trim piece.



**Pull Forward To Remove Ash Pan Cover**



**Open Ash Pan Door and Remove Ash Pan Using The Ash Pan / Grate Scraper Tool**

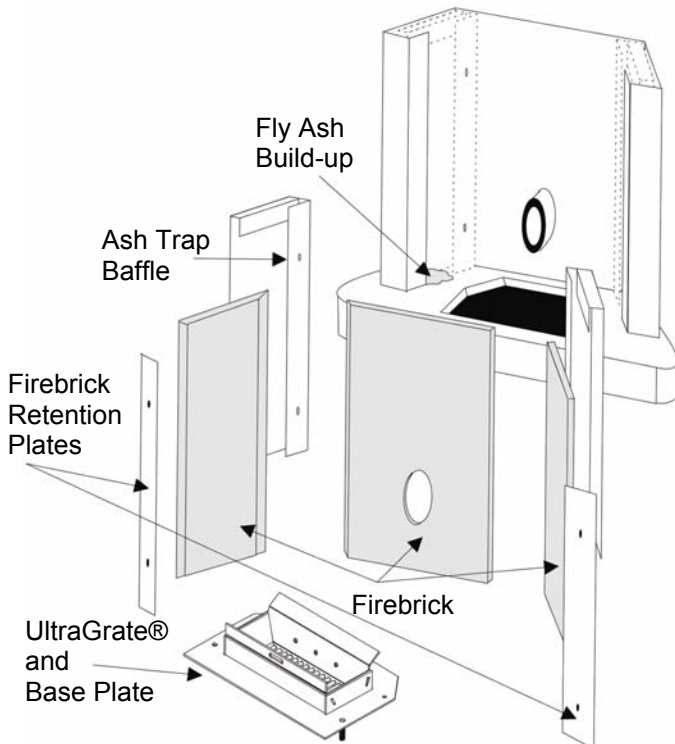
**Minimum Frequency of 2 days – 2 weeks**

## ROUTINE MAINTENANCE

### ASH TRAP AND BAFFLES

Access to the ash trap baffles (behind the two side firebricks) is obtained by loosening the screws that hold the Brick Retention Plates in place and lifting the clips away from the stove. After the clips have been removed, remove the side bricks first, then the center firebrick. Thoroughly clean out the areas where ash has collected behind the firebrick. The amount of time between cleanings will be directly related to the ash content of the pellet fuel being burned. Excessive ash build up in the baffle area behind the brick panels will restrict the exhaust passages and cause less combustion air to enter the firebox, which can lead to poor performance and a "dirty burn".

Handy Hint: After the first 10-20 bags of fuel, you may want to remove the firebrick and determine the rate at which the fly ash is building up within the Stove. Contact your dealer for more information.

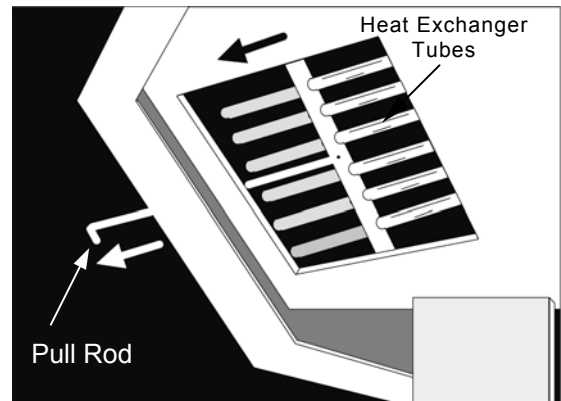


### HEAT EXCHANGER TUBES

**ONLY CLEAN HEAT EXCHANGER TUBES AFTER STOVE HAS COOLED DOWN.**

A rod located above the combustion chamber door is used for cleaning the tubes. Use the ash pan / grate scraper tool to grab this rod and pull out and in several times (see picture below). This will clean the fly ash off the heat exchanger tubes. If your stove was recently turned off, the rod may still be hot.

### Use Ash Pan / Grate Scraper Tool To Pull And Push Rod For Ash Removal From Heat Exchanger Tubes

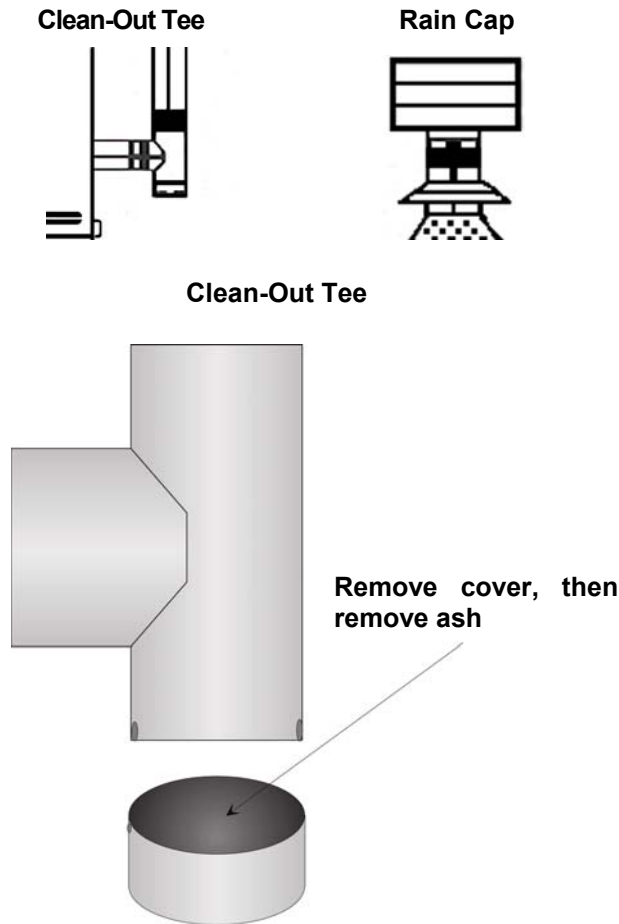


**Minimum Frequency of 2 days – 2 weeks**

## ROUTINE MAINTENANCE

### EXHAUST PASSAGES AND VENT PIPE (All Models)

Inspect frequently and clean when necessary. Fly ash will accumulate at all bends in the exhaust system. Note: Large amounts of fly ash build-up will create a lack of combustion air. Removing the clean out tee cap on vertical installations will allow an inspection of the ash build-up in the clean out tee and will help you to decide how frequently more extensive cleaning must be performed.



**Minimum Frequency of 1-2 months**

### DOOR ROPE GASKET (All Models)

The condition of the rope gasket around the door and windows should be checked periodically and replaced or repaired if necessary. A one-inch strip of paper may be used to perform a test of the integrity of the door seal. Close the door on the paper in at least eight points (see illustration, "Door Rope Gasket"). It is normal to feel only a slight amount of friction. The door gasket does not need to be "tight" in all areas, since a small amount of leakage is not hazardous or detrimental to the performance of your stove.

#### Door Rope Gasket

(check seal at points indicated by arrows)



#### Minimum Frequency of 3 months to 1 year

*Visually inspect gasket often. If it becomes frayed or damaged it should be replaced.*

### CREOSOTE REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining.

When ignited this creosote makes an extremely hot fire. The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a creosote buildup has occurred.

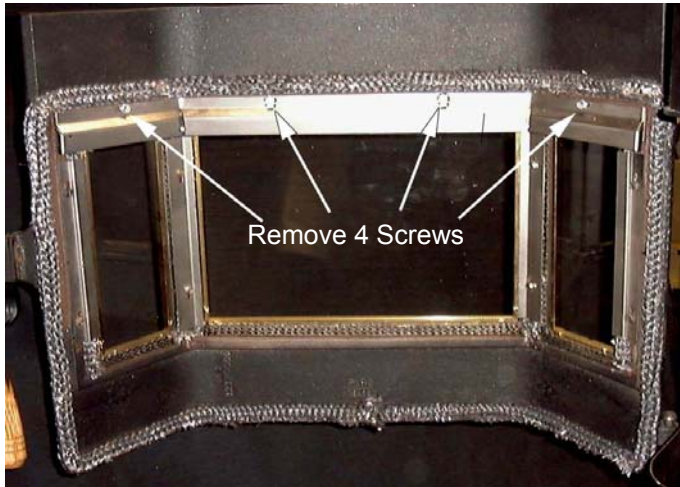
If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

## ROUTINE MAINTENANCE

### WINDOW WASH

Periodically remove four screws which secure the window wash bracket to the door frame, using a 1/4" socket. Lift out the window wash bracket, and set aside. Using a small brush, sweep out all debris buildup from behind the window wash bracket. After all debris has been removed re-attach the window wash bracket.

#### Remove Window Wash Bracket



Sweep Away Debris from Behind Window Wash Bracket.

Minimum Frequency of 1 year

### REAR STOVE COMPARTMENT (All Models)

The rear stove compartment should be cleaned periodically (a minimum of once a year). DISCONNECT ELECTRICAL CORD PRIOR TO CLEANING STOVE. Any household dust, pet hair or sawdust should be vacuumed or wiped out of the rear compartment of the stove, room air blower, and combustion blower (paying special attention to vacuuming out the intakes of both blowers). The electrical components should be wiped clean.

### OPENING SIDE PANELS

**Advantage II-T C FS** – For right hand side panel open the glass door, locate the 2 screws at front edge and remove using a 5/16" nut driver. Repeat procedure for left hand side panel with door closed. Reinstall screws to prevent panel from opening accidentally!

**Advantage II-T C FS – Opening Side Panels**  
(Remove the 2 screws indicated by arrows in following picture)  
**Remove Side Panel Screws**



#### Swing Door Open



## ROUTINE MAINTENANCE

### SMALL AREA PAINT TOUCH-UP

The stove body is painted with a quality high-temperature stove paint. Use only Stove Paint, Part # 70K99. Do not touch-up your stove with any other paint. Using one small piece of 320 grit sand paper and lightly sand the blemish so that the edges are “feathered” or smooth to the touch between the painted and bare surfaces. Do not let the sand paper gum up with paint, as this will cause scratches on the metal surface. If there are any scratches, use 600 grit sandpaper instead. Mask off surfaces you do not want painted. Paint lightly over the bare surface first as this will act as an undercoat. Then paint over a larger area in smooth even strokes to blend.

### MOTOR LUBRICATION

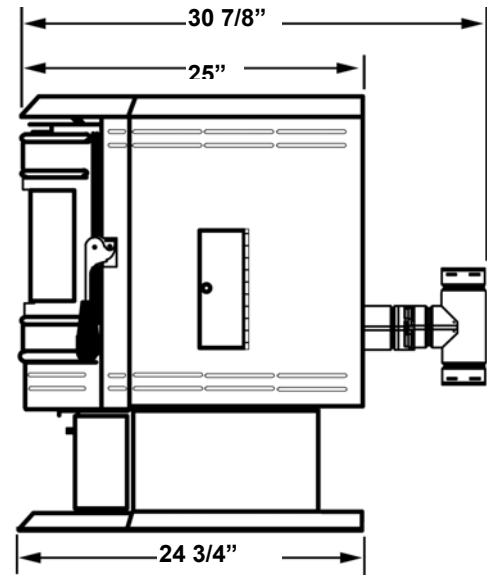
**Room Air Blower:** The room air blower is permanently lubricated by the manufacturer. Do not apply oil to any part of the blower, doing so may cause damage.

**Exhaust Blower:** The exhaust blower requires lubrication every 6 months or yearly, depending on use, with not more than two drops of 30 weight, SAE, nondetergent oil at the two lubrication points on blower.

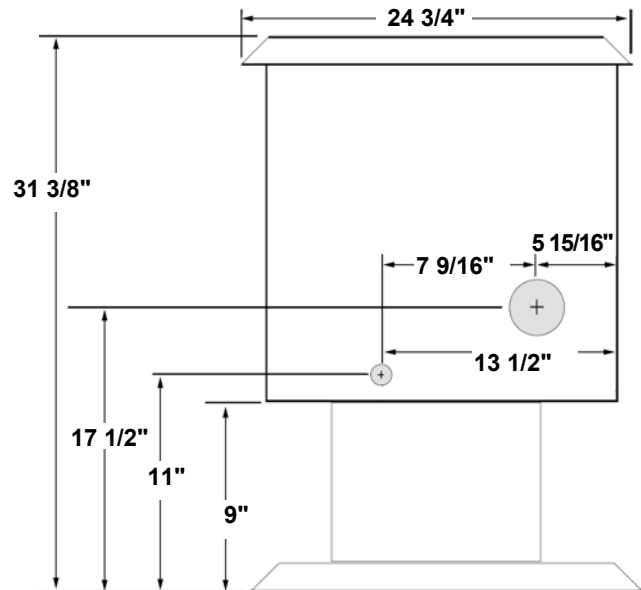
## SPECIFICATIONS - Advantage II-T C FS

Flue Size	3" Standard
Width, Overall	24 3/4"
Depth, Overall	25" (26" to flue outlet)
Depth, Overall w / 3" tee	30 7/8"
Height	31 3/8"
Floor to Rear Flue Center	17 1/2"
Facing Back of Unit, outside edge on right to center of rear flue outlet	5 15/16"
Floor to Rear Outside Air Inlet	11"
Facing Back of Unit outside edge on right to center of air inlet	13 1/2"
Floor Protection Requirements	+ 6" Front & Sides & up to * 6" for the Back
Standard Features	Fastfire™ Self Igniter Wall Thermostat (wire included)
Hopper Capacity	70 lbs.
Burn time	◆ 15.5 - 54 hours
Fuse, Control Board Fuse, Igniter	5 Amp, 250 volt, 3AG * 6 Amp, 250 VAC *
Heat Input (Max.)	◆ 11,000 - 38,000 BTU / hr
Emissions	◆ 2.3 gr / hr (varies w / size and type of fuel) EPA Certified
Ship Weight	225 lbs.
Room Air Blower	150 CFM; 1.5 Amps, 3000 rpm
Auger Motor	1 RPM; .55 Amps
Exhaust Blower	95 CFM: .95 Amps, 3000 rpm
Options	Log Set Gold Trivet

SIDE VIEW ILLUSTRATION



BACK VIEW ILLUSTRATION



**Note: Dimensions shown are approximations only (+/- 1/4")**

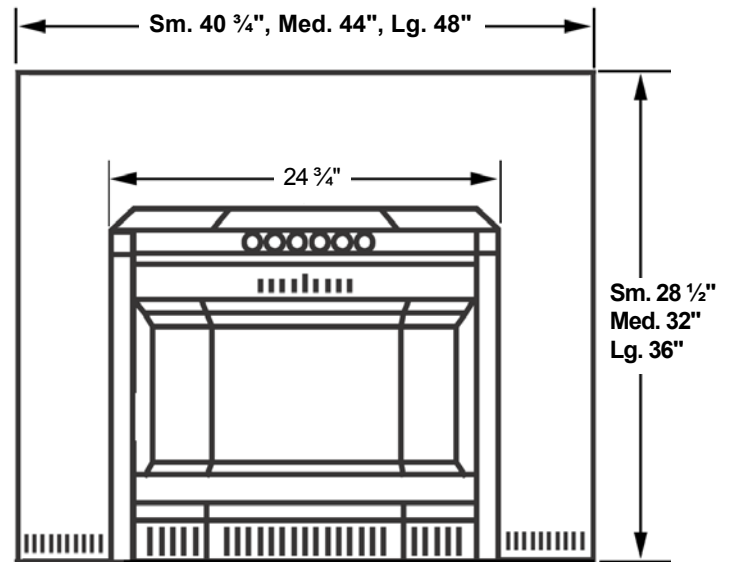
+ **Non-combustible thermal rated floor protection must be used when installed on carpet (see *Floor Protection*, page 5). When installed at clearances less than 6", the floor protector is only required to extend to the wall.**

◆ **Fuel delivery and burn times will vary depending on size and type of fuel used. Estimated heat input based on fuel value of 8400 BTU per lb. Fuses are rated as fast blow.**

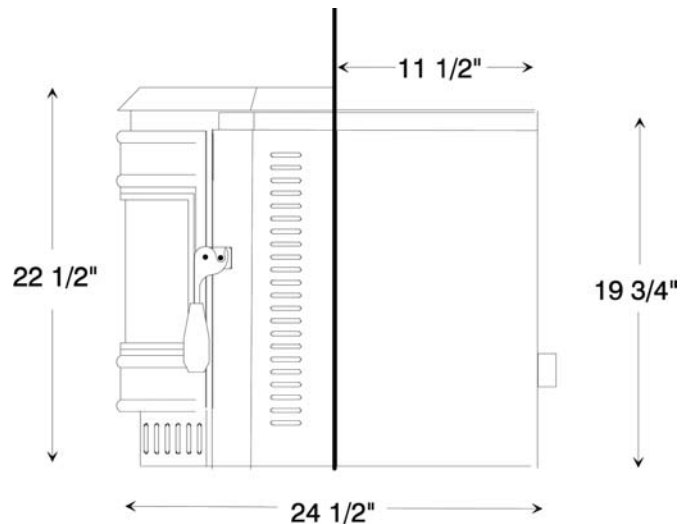
## SPECIFICATIONS - Advantage II-T C INS

Flue Size	3" Standard
Width, Overall front (w/o surround)	25"
Width, Overall back (w/o surround)	24 1/4"
Depth, Overall (w/o surround)	24 3/4"
Height, rear (w/o surround)	19 3/4"
Height, front (w/o surround)	22 3/4"
Floor to Rear Flue Center	8 1/2"
Fireplace Face to Rear Flue Outlet Center (3" tee)	17 3/8"
Dimensions into Fireplace	
Minimum Height	20 1/8"
Minimum Width @ Front (extends back 1 1/2")	32"
Minimum Width @ Back	24 5/8"
Minimum Depth	17 3/4"
Facing Back of Unit, Right Outside Edge of Unit to Center of Rear Flue Outlet	5"
Floor to Rear Outside Air Inlet	1 5/8"
Facing Back of Unit, Right Outside Edge of Unit to Center of Air Inlet	13"
Floor Protection Requirements	Front: • 6"
Standard Features	Fastfire™ Self Igniter Wall Thermostat (wire included)
Hopper Capacity	60 lbs.
Burn time	◆ 13-46 hours
Fuse, Control Board Fuse, Igniter	5 Amp, 250 VAC * 6 Amp, 125 volt *
Heat Input (Max.) Emissions	◆ 11,000-38,000 BTU / hr ◆ 2.3 gr / hr (varies w/size and type of fuel) EPA Certified.
Ship Weight	200 lbs.
Auger Motor	1 RPM; .55 Amps
Room Air Blower	150 CFM; 1.5 Amps
Exhaust Blower	95 CFM: .95 Amps, 3000 rpm
Options	Log Set Gold Trivet Surround Trim Kit, Gold

**FRONT VIEW**



**SIDE VIEW**



**Note: Dimensions shown are approximations only (+/- 1/4")**

- An approved fireplace hearth or hearth extension is required 6" to the front of the door. The hearth extension / floor protector used must be thermal rated (k = .84, r = 1.19). See *Floor Protection*, page 5.
- ◆ Fuel delivery and burn times will vary depending on size and type of fuel used. Estimated heat input based on fuel value of 8400 BTU per lb.
- \* Fuses are rated as fast blow.



## COMPONENT DEFINITIONS

### AIR WASH

To inhibit buildup of soot on the door glass, air is delivered to the glass through an air wash system located in the doorframe surrounding the glass.

### AUGER

It transfers the fuel down the burner tube into the firepot.

### AUGER MOTOR

Motor specifications are: .4 Amp, 1 rpm (revolutions per minute). It drives the auger to deliver fuel to firepot.

### BLOWER, ROOM AIR (CONVECTION)

The blower function is to transfer the heat from the appliance to heat the room air.

### BLOWER, EXHAUST (DRAFT INDUCER/COMBUSTION)

It has a radial impeller to deliver more air to the firepot. It pulls air into the firepot by creating a negative pressure. This is done by extracting the exhaust gases out of the firebox and pushing the exhaust downstream to the flue exit.

### DISCS, INLET & CONVECTION HIGH LIMIT

#### DISC, HIGH LIMIT (L250-30F, N / C)

There are 2 of these discs on this model. If a temperature reaches 250° F., the high limit auto reset will “trip” and stop the flow of electricity to the auger motor. The discs will not automatically reset until it has cooled below 220° F).

**Disc for Room Air Blower** – This disc is located on the Room Air Blower jacket and is designed to detect an overfire condition.

**Disc for Combustion Air Inlet** – This disc is located on the combustion air inlet and is designed to

detect reversed flow. If negative pressure in the dwelling (i.e. An extremely tight house which may not supply adequate combustion and ventilation air) causes the exhaust to pull back from the combustion air inlet, the heat from the exhaust will result in heat activation of this disc.

#### DISC, LOW LIMIT (Ceramic, F140-30F, N / O\*)

This disc is designed to shut down the stove (auger motor and both blowers) if it does not sense the heat of a fire.

### HOPPER

The hopper is where the pellets are stored.

### HEAT OUTPUT BUTTON

This is the main power button, which controls power to the feed system auger motor and Exhaust Blower. It has 5 feed rate settings, which controls the burn rate.

### PRESSURE SWITCH

The Positive Pressure Switch is located on the Exhaust housing and is designed to shut down the auger motor in the event of flue blockage. Some other possible causes are as follows:

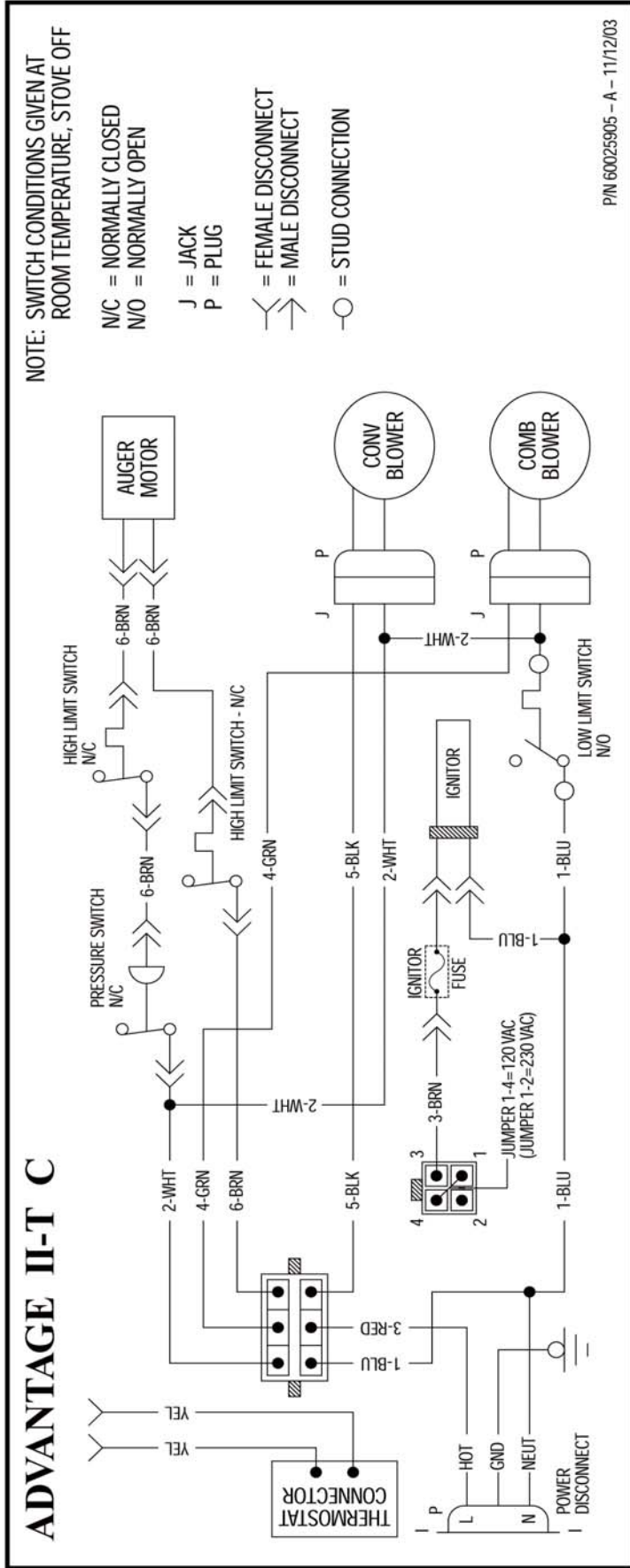
- ◆ The venting system is obstructed.
- ◆ High altitude or other misc. environmental conditions affecting exhaust flow.
- ◆ Improper venting system.

### ULTRAGRATE™

Burn grate receptacle in firebox where pellets are delivered by auger motor system and burned.

- \* N / C = Normally Closed
- N / O = Normally Open

# WIRING DIAGRAM



P/N 60025905 - A - 11/12/03

## TROUBLESHOOTING Qualified Technicians Only

### Unplug Appliance Before Performing Any Troubleshooting or Maintenance

PROBLEM	CAUSE(S)	SOLUTIONS
1. Fire burns with a lazy orange flame. Pellets build up in the UltraGrate™ and the window gets sooted up.	There is insufficient combustion air.  Fuel feed rate is too high.	Remove any clinkers or ash from the bottom of the UltraGrate™ that might be obstructing the primary air holes. Change to a better grade of fuel if necessary. Check that the damper has been opened enough for the amount of fuel feed. Check that the heat exchange tubes are not coated with ash. Check ash build up behind the side firebricks. Clean if necessary. Check gasket seal around the door. Use a thin strip of paper, 1 in. wide. Open the door and close it on the paper strip. A slight friction should be felt when the paper strip is pulled. Repeat this process at various locations around the door gasket. Replace the door gasket if necessary. Check for blockage in the air inlet tube, exhaust pipe and termination. Clean as necessary. Have your authorized Lennox Hearth Products dealer check your combustion blower. Have your authorized Lennox Hearth Products dealer adjust the fuel feed rate on the control board.
2. Fire goes out or stove shuts down automatically	Stove has run out of fuel. Pellets are not feeding. The high limit temperature switch has tripped.  There is too much combustion air for the amount of fuel.  The fuel feed rate is too low.  Low Limit disc is not locked in.	Refill hopper. See <i>Pellets will not feed</i> on following page. Allow stove to cool for 1 hour and re-light. If the stove has been operating at a medium to high burn rate and the Room Air Blower has been turned down low then the Exhaust Blower should be turned up higher. If this problem persists (particularly at lower burn rates) then the high limit disc should be replaced by your authorized dealer. Adjust the damper to reduce combustion air flow. Check that the ash pan is latched in the correct position and check the gasket seal around the ash pan door in the same manner as above. Replace the ash pan door gasket if necessary. Relight stove with a higher setting on fuel control (it may not be possible to operate the stove on the minimum setting due to the wide range of fuel feed rates with different pellets. The fuel feed rate trim can be adjusted to compensate for variations in fuel (call your authorized Lennox Hearth Products dealer adjust the fuel control). Insufficient heat is reaching the low limit disc (improper damper adjustment or lack of maintenance may cause) or disc is defective.
3. Stove runs for 30 minutes then shuts down. Or Stove shuts down when operated at lower feed rate settings.	The exhaust gas is not up to temperature. The low limit disc is not operating correctly (stuck in open position) The wires to the low limit disc (on exhaust blower housing) are loose or disconnected.	Press start button and re-light stove if necessary. Have your authorized Lennox Hearth Products dealer replace the low limit disc. Check wires and connections. Make sure there are good connections between all wires and their terminals.

## TROUBLESHOOTING *Qualified Technicians Only*

### Unplug Appliance Before Performing Any Troubleshooting or Maintenance

PROBLEM	CAUSE(S)	SOLUTIONS
4. Pellets will not feed.	<p>The hopper is empty.</p> <p>The auger motor or circuit board, air inlet high limit switch or pressure switch may be defective. The pressure switch tap or hose may be blocked.</p> <p>Back pressure in venting tripping pressure switch.</p> <p>Thermostat is in stand-by mode.</p> <p>Thermostat wires disconnect.</p> <p>High limit switch may have been tripped.</p> <p>Self-aligning bearings in auger motor may be misaligned.</p> <p>Auger is Jammed</p> <p>Auger Motor Setscrew is loose.</p> <p>Pressure switch is sensing back pressure in the vent system and shutting off the auger motor.</p>	<p>Refill hopper.</p> <p>Check to be sure that there is no blockage in the pressure tap or hose. Have your authorized Lennox Hearth Products dealer diagnose the problem and clean or replace any necessary parts.</p> <p>If new installation check for excessive 90° bends, long horizontal runs or excessive vertical run of 3" pipe. Possibly change to 4" pipe. If older installation check for excessive ash accumulation in pipe or other obstructions. Clean out pipe.</p> <p>Check to see if thermostat is set too low or if sun is shining directly on thermostat.</p> <p>Re-install wires.</p> <p>Allow stove to cool. Increase convection blower setting.</p> <p><u>Gently</u> tap the auger motor.</p> <p>Unplug stove. Remove the rear inspection panel (freestanding model). Hold auger motor gearbox in both hands and rock it back and forth to release the auger. If this is unsuccessful, then contact your authorized Lennox Hearth Products dealer.</p> <p>Tighten setscrew.</p> <p>Remove left side panel (freestanding model) and locate the orange rubber hose that attaches the pressure switch to the exhaust blower. Disconnect the rubber hose from orifice on blower housing. If the auger starts to feed, the pressure switch is sensing back pressure. After test, reconnect hose to blower (NEVER operate the appliance with hose removed). Clean venting system and exhaust flow passages as outlined in Routine Maintenance section of this manual. Note: Multiple elbows are more susceptible to collecting ash resulting in restriction</p>
5. Blowers will not shut off after the fuel has been switched off and the stove has cooled down.	The low limit disc has failed in the closed position.	Have your authorized Lennox Hearth Products dealer replace the low limit disc.
6. Blowers will not operate when the start button is depressed.	<p>There is no power to the stove.</p> <p>There is no power to the control board.</p>	<p>Check that the stove is plugged in to the wall outlet. Ensure that there is power to the outlet (test by plugging in a lamp into same outlet).</p> <p>Check to see if your circuit breaker has tripped.</p> <p>Check the wire connections on the high limit disc and control board.</p>
7. One or both blowers shut off for no apparent reason.	Both the room air blower and the exhaust blower have an over-heat protector (high limit disc) built into them. If the temperature of the blower motor exceeds the high limit temperature, then the motor shuts down.	Ensure the room air blower is adjusted to a setting at least as high as or higher than the fuel fee setting. If the blower motor continues to shut down, clean blower intake (see Routine Maintenance). If this does not correct the problem, replace the blower.
8. Stove will not light.	<p>The igniter element may have failed.</p> <p>There are not enough pellets in the UltraGrate™.</p> <p>Improper damper setting.</p>	<p>Check igniter element fuse in rear stove compartment. Call your authorized Lennox Hearth Products dealer. See alternate manual lighting procedure</p> <p>Prime the feed system (see <i>Starting Your Pellet Stove</i> on page 22).</p> <p>Adjust damper (see page 23 <i>Damper Operation</i> and page 24 <i>Damper Adjustment Guidelines</i>).</p>

## TROUBLESHOOTING *Qualified Technicians Only*

### Unplug Appliance Before Performing Any Troubleshooting or Maintenance

PROBLEM	CAUSE(S)	SOLUTIONS
9. There is soot or fly ash in the house.	<p>The window is being cleaned or ash pan removed when the stove is operating.</p> <p>There is leakage at the joints between the Exhaust Blower connection or exhaust pipe connections. This will be evidenced by dust on the impeller of the Room Air Blower, and in the heat exchanger area.</p> <p>For a fireplace insert installation: if the existing fireplace opening was not thoroughly cleaned and painted before the insert was installed, then the Room Air Blower may be picking up the fireplace dust, soot or ash and blowing it into the house.</p> <p>The vacuum cleaner is leaking.</p>	<p>Turn down the Room Air Blower or turn off stove before cleaning to prevent dispersion of ash and soot into the room.</p> <p>Seal leaks in the exhaust system using high temperature RTV Silicone sealer (silicone should be at room temperature).</p> <p>Pull insert away from fireplace opening. Thoroughly clean the fireplace firebox (recommend painting with latex or spray paint to hold down the finer particles. Wear a protective mask when painting in enclosed spaces).</p> <p>DO NOT use a standard household vacuum or "shop vac" as the filters will leak the fine particles of ash. Clean the stove with an approved ash vacuum <b>ONLY</b>.</p>
10. Blinking red lights on control board LED's.	Thermostat circuit in not closed.	<p>If a wall thermostat is <u>not</u> installed, a jumper is required between the 2 thermostat terminals (see page 12). If the jumper is missing contact your authorized Lennox Hearth Products dealer.</p> <p>The wall thermostat (if used) is defective or there is a break in the connections or thermostat wire.</p>

## REPLACEMENT PARTS LIST

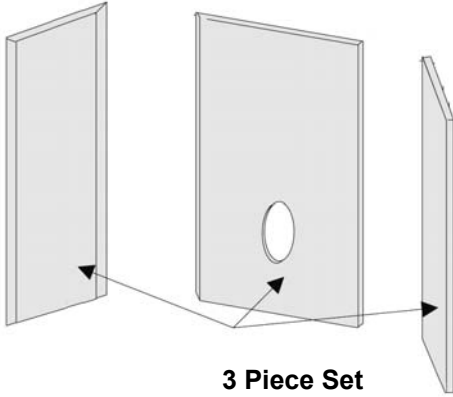
<b>Door Parts</b>	
12140510	Bracket, Door Hinge
12151505	Bracket Kit, Window Wash
12150500	Door Assembly, Complete, Advantage II-T C- Black (3 pc)
61057100	Gasket Kit, Door Rope (WP2/WP4; 1/2" round; 7 ft.; firm)
61057201	Gasket Kit, Glass (WP2; 10 feet; 5/8", black with adhesive)
12146400	Glass, Center (13" x 9") (with gasket)
12146401	Glass, Side (4.3" x 9") (with gasket)
12054200	Handle Kit, Oak Door (WP2/WP4) – 2 per pkg.
12150507	Hinge Pin, Door (WP2/WP3; 5/16" x 1-1/2") – 2 per pkg.
12054500	Latch Kit, Door (with Oak Handle) – Black
12140102	Retainer, Brick (Right and Left)
<b>Body Components</b>	
12055205	Clip for Brass Glass Trim – 12 per pkg.
12145200	Trim Kit, Brass (for Center Glass)
12145202	Trim Kit, Brass (For Side Glass, left and right side)
12155000	Trivet, WP2 – Black Painted
12252003	Advantage II-T C Pedestal
<b>Electrical Parts</b>	
12156009	Blower, Exhaust (Teardown, Complete)
52L02	Blower, Room Air
12055912	Control Board Kit
12147705	Disc, High Limit (Bakolite, L250-30F; 60T21) – 3 per pkg.
12057601	Disc, Low Limit (Ceramic F140-30F) – 3 per pkg.
12155908	Fuse, Control Board (3.5 amp, Fast blow, 250 vac, 12 per pkg.)
12055908	Fuse, Igniter (6 amp, Fast blow, 12 per pkg.)
12155907	Fuse, In-Line Holder With Fuse
12056003	Hose, Pressure Switch, WP2 (orange; silicone; 1/4" dia. X 4.5") – 3 per pkg.
12150213	Igniter Cartridge (probe, 380W. 3.3 A)
12040003	Igniter Cartridge, 6 pack
12046300	Auger, Motor (drives pellet feed auger)
12058820	Power Cord with Molded End, Detachable (8 ft.; 52L17)
12145903	Pressure Switch Kit (FS6460-910; red label; shuts off auger if exhaust becomes blocked)
16050205	Thermostat, Wall, Honeywell (wire not included)
12158811	Wiring Harness, WP2
<b>Auger System Components</b>	
12152202	Auger Kit (auger and set collar/screw)
12041300	Collar, Auger (includes set screw)
61050003	Gasket, Auger End Plate (Neoprene) – 5 per pkg.
12153900	Plate, Auger End (w/nylatron bushing)
<b>Ash Pan Door, Ash Trap Baffles &amp; Related Parts</b>	
12156500	Ash Pan
12157600	Door Assembly, Ash Pan – Black
61057204	Gasket Kit, Ash Pan (3/8" x 1/8" x 10')
12055500	Scraper Tool, Ash Pan/Grate
12150606	Trim, Ash Pan with Magnets – Black

## REPLACEMENT PARTS LIST

<b>Freestanding Only Parts</b>	
12251405	Lid with Hinge, Hopper (Freestanding) - Black
12254000	Panel, EZ Open, Left Side - Black
12256000	Panel, EZ Open, Right Side – Black
12255001	Panel, Top, FJS, Black
12252900	Trim Kit, Brass (for Side Panel, WP2 – Freestanding) – 2 per pkg.
<b>Insert Only Parts</b>	
12351405	Lid with Hinge, Hopper (Insert) – Black
12354000	Panel, EZ Open, Left Side (Insert) – Black
12355000	Panel, EZ Open, Right Side (Insert) – Black
12351401	Panel, Top Front – Black
12352901	Trim Kit, Brass (for Side Panel – Insert) – 2 per pkg.
<b>Miscellaneous Parts</b>	
12150003	Accessory Package
12141920	Baffle Kit, Ash Trap (Left and Right)
12151307	Collar, Damper Rod
61050003	Gasket, Auger End Plate - (5 per pkg.)
61057210	Gasket, Exhaust Blower Mounting (1/8" lytherm) – 5 per pkg.
61057203	Gasket, Room Air Blower, 5 per pkg. (neoprene rubber gasket)
12154201	Handle, Damper (3 per pkg.)
12151308	Plate Kit, Damper (use with 12151306 Damper Rod Kit)
12151306	Rod Kit, Damper (1/4" rod; includes Allen wrench)
12100906	Rod, Heat Exchange Scraper
12120011	Video
<b>Firebox Parts</b>	
12146500	Firebrick Set (brick pattern; all 3 panels)
12051263	UltraGrate™, 10 Rod

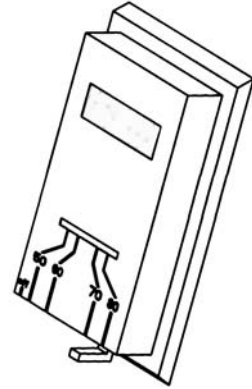
# REPLACEMENT PART DIAGRAMS

**Firebrick Kit**



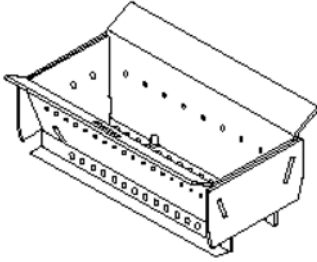
**3 Piece Set**

**Wall Thermostat Kit**

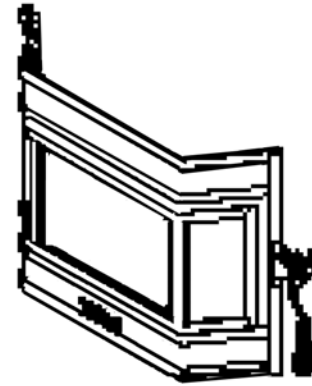
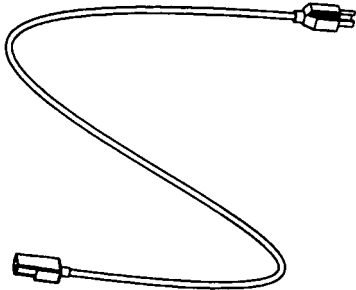


**Door Assembly**

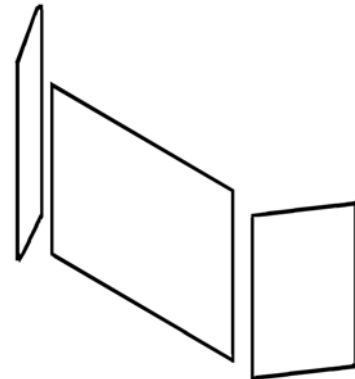
**UltraGrate™ Kit**



**Power Cord Kit**



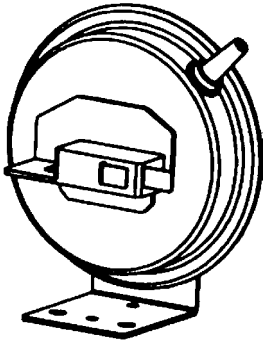
**Glass**  
(Order each pc. separately. Gasket Included)



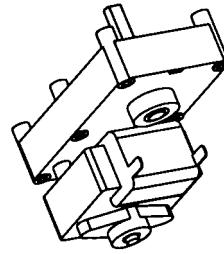


# REPLACEMENT PART DIAGRAMS

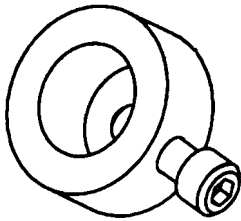
**Pressure Switch Kit**  
(hose not included)



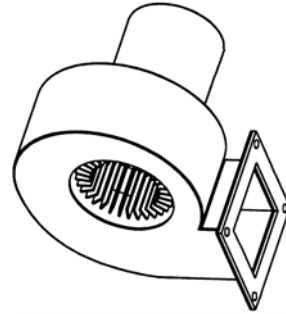
**Auger Motor**



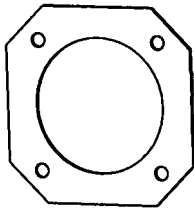
**Auger Set Collar**



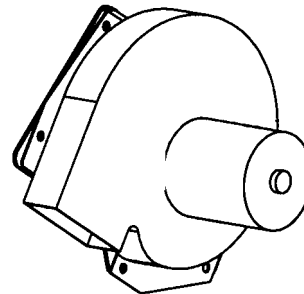
**Room Air Blower**



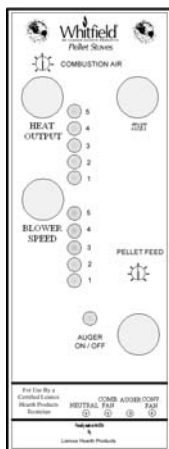
**Auger End Plate Gasket**



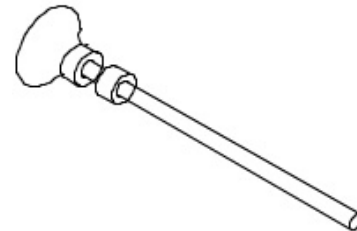
**Exhaust Blower**



**Control Board**



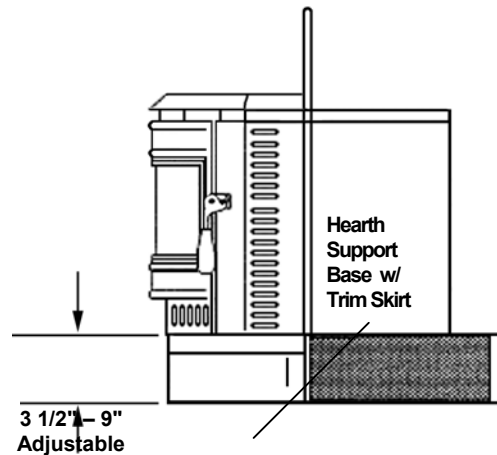
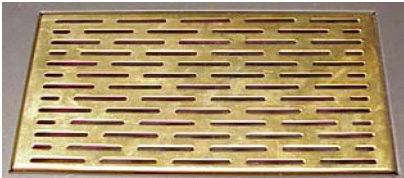
**Damper Rod**



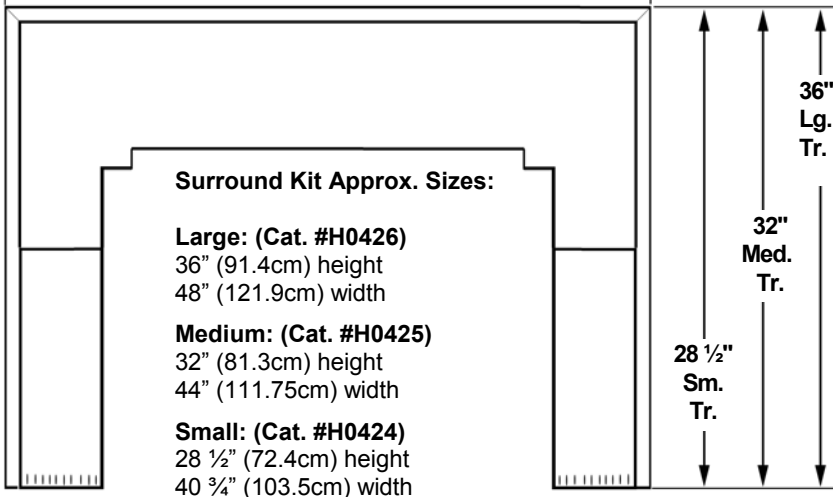
# OPTIONAL ACCESSORIES LIST AND DIAGRAMS

Catalog #	Model	Description	Stove Model
H0423	TKAIIT-G	Trivet, Gold	All
70K99	TSPK-B	Touch-up Spray Paint Kit, Flat Metallic Black	All
H0424	SKSAIIT	Surround Kit, Small, 28 1/2" x 40 3/4", Black	Insert
H0425	SKMAIIT	Surround Kit, Medium, 32" x 44", Black	Insert
H0426	SKLAIIT	Surround Kit, Large, 36" x 48", Black	Insert
H0427	STKSAIIT-G	Surround Trim Kit, Small, 28 1/2" x 40 3/4", Gold	Insert
H0428	STKMAIIT-G	Surround Trim Kit, Medium, 32" x 44", Gold	Insert
H0429	STKLAIIT-G	Surround Trim Kit, Large, 36" x 48", Gold	Insert
H0452	HEK-AIIT	Hearth Extension Support Kit (for elevated hearths)	Insert
H0430	DLS-AIIT	Log Set	All

**Gold Trivet  
(Cat. # H0423)**



**Surround Kits & Trim Kits**



**Log Set  
(Cat. #H0430)**





**ADVANTAGE II-T C: EPA LABEL & COLORADO COMPLIANCE LABEL**

**COLORADO WOODSTOVE COMPLIANCE CERTIFICATE**

**PARTICULATES (Avg) 2.3 grams/hour**  
**CARBON MONOXIDE (Avg) 7.4 grams/hour**

**COLORADO STANDARDS USING THE OREGON TEST METHOD**

	<b>PARTICULATE</b>	<b>CARBON MONOXIDE</b>
<b>PHASE II (After 7/1/88)</b>	<b>12 grams/hr</b>	<b>200 grams/hr</b>

**HEAT OUTPUT RANGE: 10800 BTUs/hr to 36900 BTUs/hr**  
**HEAT OUTPUTS DURING TESTS: 10800, 14200, 20000, 36900 BTUs/hr**

**MANUFACTURED BY: LENNOX HEARTH PRODUCTS**

**MODEL TYPE: II-T C**  
**DESIGN NO.: ADVANTAGE**

**Performance may vary from test values depending on actual home operating conditions and the altitude at which the stove is operated.**

60027502 Rev. B

Manufactured by: **LENNOX HEARTH PRODUCTS** Model: Advantage II-T C

**US ENVIRONMENTAL PROTECTION AGENCY**

MEETS EPA PARTICULATE MATTER (SMOKE) CONTROL REQUIREMENTS FOR NONCATALYTIC WOOD HEATERS BUILT ON OR AFTER JULY 1, 1990.

**SMOKE**

**THIS MODEL**

0 (Grams Per Hour) 8.5

**EFFICIENCY**

50% 60% 70% 80% 90% 100%

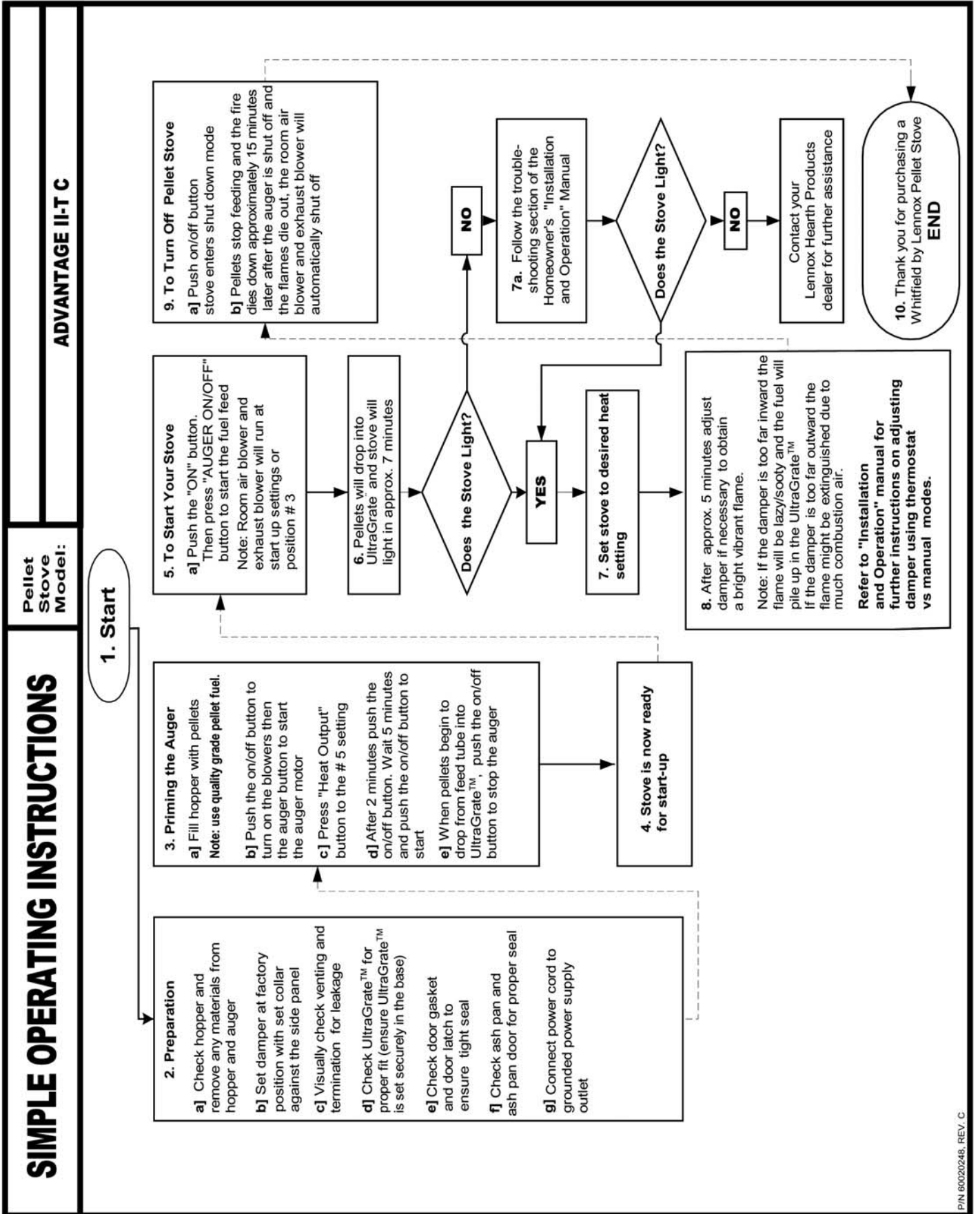
**Wood heaters with higher efficiencies cost less to operate.**  
**\*(NOT TESTED FOR EFFICIENCY. THE VALUE INDICATED IS FOR SIMILAR NONCATALYTIC WOOD HEATERS.)**

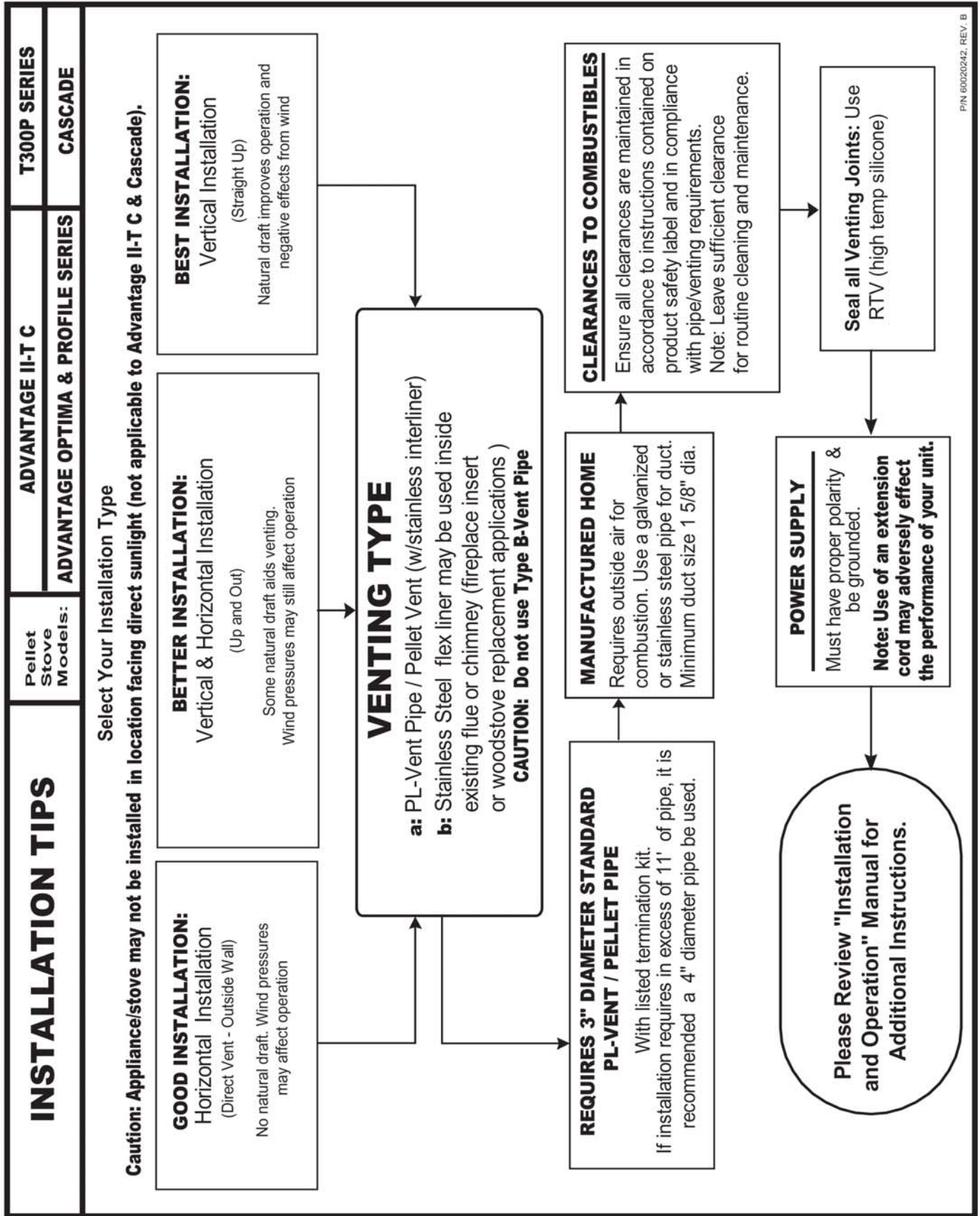
**HEAT OUTPUT**  
**9,000 to 37,800 Btu/Hr**

**Use this to choose the right size appliance for your needs.**  
**ASK DEALER FOR HELP.**

**This wood heater will achieve low smoke output and high efficiency only if properly operated and maintained. See owner's manual.**

60027501 Rev. A





# OWNERSHIP RECORDS

Dealer's Name:		
Dealer's Address:		
City:	State:	Zip Code:
Serial Number:	Date of Purchase:	Date Installed:

Notes:


SERVICE AND MAINTENANCE LOG		
Service Date	Service Technician	Service Description

***LENNOX***<sup>®</sup>

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**HEARTH PRODUCTS**  
**1110 West Taft Avenue**  
**Orange, CA 92865**

[www.PelletKing.com](http://www.PelletKing.com)