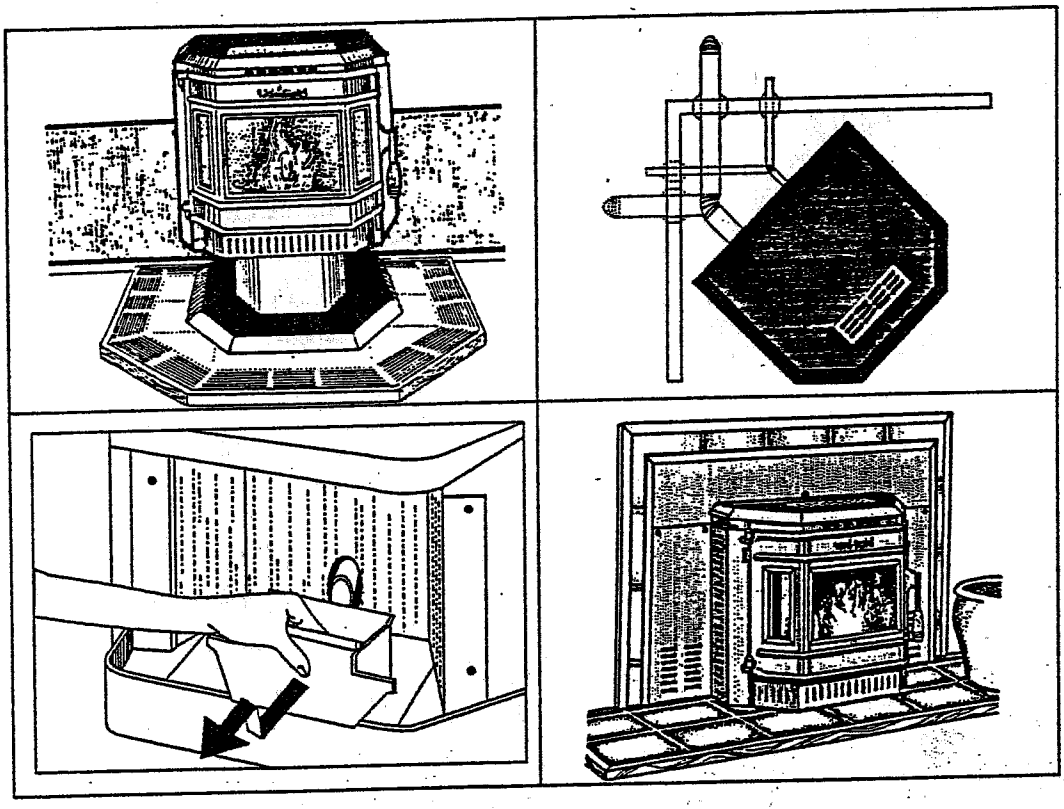
Whitfield



Advantage II–T Pellet Stove

Owner's Manual

Manufactured in the U.S.A.
by
Pyro Industries, Inc.
Everett, Washington

Wood Pellet Fueled Freestanding and Fireplace Insert Stoves

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OWNER'S MANUAL

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Please note: Not all drawings are drawn to scale. Use the drawings in this manual as a guideline only. Refer to the text of manual for installation instructions, specifications and requirements.

SAFETY NOTICE

THIS STOVE MUST BE PROPERLY INSTALLED IN ORDER TO PREVENT THE POSSIBILITY OF A HOUSE FIRE. FOR YOUR SAFETY, THE INSTALLATION INSTRUCTIONS MUST BE STRICTLY ADHERED TO. CONTACT YOUR LOCAL BUILDING OFFICIALS TO OBTAIN A PERMIT AND INFORMATION ON ANY INSTALLATION RESTRICTIONS AND INSPECTION REQUIREMENTS IN YOUR AREA.

INSTALLATION DISCLAIMER

THIS STOVE'S EXHAUST SYSTEM WORKS WITH NEGATIVE COMBUSTION CHAMBER PRESSURE AND A SLIGHTLY POSITIVE CHIMNEY PRESSURE. THEREFORE, IT IS IMPERATIVE THAT THE EXHAUST SYSTEM BE AIRTIGHT AND INSTALLED CORRECTLY. SINCE PYRO INDUSTRIES, INC., HAS NO CONTROL OVER THE INSTALLATION OF YOUR STOVE, PYRO INDUSTRIES, INC., GRANTS NO WARRANTY, IMPLIED OR STATED FOR THE INSTALLATION OR MAINTENANCE OF YOUR STOVE, AND ASSUMES NO RESPONSIBILITY FOR ANY CONSEQUENTIAL DAMAGE(S).

DETAILED SAFETY PRECAUTIONS

Fuel - The Whitfield "Advantage II-T" is designed and approved for the burning of pelletized, bio-mass fuel only. The burning of solid fuel in other than pellet form is not permitted. Failure to comply with this restriction will void all warranties and the safety listing of the stove.

Cleaning - There may be some build-up of dust and smaller quantities of soot or creosote in the exhaust vent over the burn season. Although this will be minimal under correct operation, a precautionary inspection (and cleaning if needed) on a regular basis is advisable.

Continuous Operation - Under correct operation, the Whitfield "Advantage II-T" cannot be over-fired. Continuous operation at a maximum burn can, however, shorten the life of the electrical components (blowers, motors, and electronic controls), and is not recommended.

Liquid Flammables - Gasoline or other flammable liquids must NEVER be used to start or "freshen up" the fire. Keep all such liquids well away from the stove at all times.

Ashes - Any ashes removed from the Whitfield "Advantage II-T" must be deposited in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible surface pending final disposal.

Power - The appliance is provided with an 8 foot, grounded electrical cord. This cord should be connected to a standard, 110 volt, 60 Hz electrical outlet. The approximate power requirement is 200 watts. The power supply cord must be routed to avoid contact with any of the hot or sharp exterior surface areas of the stove. In addition, all Whitfield "Advantage II-T" stoves that are installed in a mobile home must be electrically grounded to the steel chassis and bolted to the floor in compliance with and according to H.U.D. requirements.

Soot Formation - Burning with insufficient combustion air will result in the formation of soot, which will be deposited in the flue, the heat exchanger, and when the stove vents through the wall, it will stain the outside of the house. This is a hazardous situation in addition to being inefficient and a wasteful use of pellets. Check your stove frequently, and adjust as required.

Auger - Pellet fuel is fed to the burn pot by an auger. This auger is driven by a high torque motor. The auger is capable of doing serious harm to fingers. Keep pellets in hopper at all times and keep fingers away from auger. The auger can start unexpectedly when the stove is running.

Smoke Detector - A smoke detector MUST be installed in the vicinity of the stove.

Please Note: Disconnect Power Before Doing ANY Routine Maintenance

SAFETY TESTING

In accordance with the specifications and procedures listed in UL 1482 for solid fuel room heaters, the Whitfield "Advantage II-T" pellet stove has been independently tested and listed by Warnock Hersey, an accredited testing laboratory (by ICBO & Standards Council of Canada). UL 1482 states requirements for installation as a freestanding room heater, or hearth insert for masonry or metal (zero clearance) fireplaces. The safety listing label is located inside the hopper, on the lid. Please read this safety label carefully. It contains important information about installation and operation of your Whitfield Pellet Stove. This Owner's Manual is provided to you to supplement, not replace or update, the information contained on the safety label. Note that your stove's serial number is located on this label. Your stove's serial number is preceded by a "WH-".

This appliance is designed specifically for use only with pelletized fuels. It is tested and listed for residential installation according to current national and local building codes as:

- Freestanding Room Heater
- Hearth Insert when installed on the hearth of, or into a masonry or factory built fireplace
- A Built-in Heater
- A Mobile Home Heater

Note: This stove is not intended for use in commercial installations.

The stove will not operate using natural draft, nor without a power source for the blower and fuel feeding systems. The appliance is provided with an exhaust connector for a 3 inch type "PL" double wall vent pipe with stainless steel inner liner, or single wall, stainless steel rigid or flexible pipe.

WHITFIELD "ADVANTAGE II-T" PELLET STOVE SAFETY LABEL

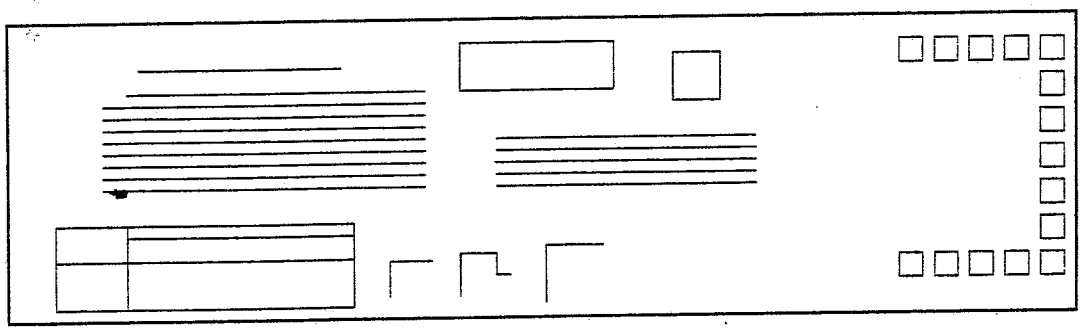


Figure 1 - Stove Safety Label

Whitfield pellet stoves and fireplace inserts are safety tested and listed by Warnock Hersey Professional Services, Ltd.; ICBO #TL-116, NER-QA-219.

PELLETS - IMPORTANT: PLEASE READ

GENERAL INFORMATION

The Whitfield "Advantage II-T" has been designed to burn wood pellets only. Dirty fuel will adversely affect the performance of the stove. **Caution:** The use of dirty or wet fuel may void the warranty!

Only wood pellets manufactured to the Association of Pellet Fuel Industries (A.P.F.I) standard for residential pellet fuels are recommended for use with the Whitfield "Advantage II-T" stove. Look for the A.P.F.I. registration number on the bag of fuel to ensure compliance with the standard. Contact your dealer for more information on A.P.F.I. approved wood pellet fuels.

The A.P.F.I. standard for residential pellet fuel is as follows:

HEAT CONTENT:	8200 BTU/lb minimum
BULK DENSITY:	40 lb/foot^3 minimum
MOISTURE CONTENT:	8% maximum
ASH CONTENT:	1% maximum
SIZE:	1/4" to 3/8"diameter, 1-1/2" long maximum
FINES:	1% maximum through a 1/8" screen

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 holes in the grate. Even an A.P.F.I. approved pellet fuel may tend to clinker. A clinker can be removed from the burn grate and placed in the ash pan with the use of the grate scraper / ash pan tool. See **Routine Maintenance** for more information on cleaning.

ASH

The frequency of removal of the ash and maintenance performed on the stove is directly proportional to the ash content of the fuel. A stove burning fuel with .25% ash content may only need to be cleaned out once every 1 to 2 weeks. However, a stove burning a fuel with 1.0% ash content may need cleaning every 1 to 2 days.

PLEASE NOTE: Pyro Industries, Inc., has no control over the manufacturing of pellet fuel and will not be held responsible for poor stove performance or any damage caused by inferior pellet fuels.

STOVE OPERATING CONTROLS

Please refer to Figures 2 and 3.

- **Start Switch** - The push-button START switch activates the convection blower and the combustion blower. If the exhaust does not get up to temperature within 30 minutes, the stove will automatically shut down. The blowers can be restarted by pushing the START switch "on" again.
- **On/Off Switch** - The On/Off switch activates the fuel feed (auger) motor only. The start switch has to be activated to give power to the On/Off switch. When the On/Off switch is turned off, the fuel feed will stop and the blowers will continue to operate until the stove has cooled down sufficiently (up to 45 minutes); then the stove will automatically turn off.
- **HEAT OUTPUT** - When on manual operation, the fuel feed provides the ability to burn at five hand selectable burn rates. The selector switch alters the fuel feed rate and the combustion air supply simultaneously. The control is preset to provide the optimum ratio of fuel and air at each setting.

  When under thermostat operation, the stove operates under two settings. There is a "pilot" or low setting and a "demand" or high setting.

  If your thermostat senses the room heat to be higher than your selected temperature, the thermostat will set the stove to the "pilot" or low setting. This is equivalent to physically setting the stove on HEAT OUTPUT setting #1. If your room temperature is lower than the selected thermostat temperature, the thermostat will operate the stove at the HEAT OUTPUT switch setting you have physically selected. Use a HEAT OUTPUT switch setting from #2 through #5.
- **Auger 'On' Light** - The red light on the control panel indicates when there is power to the auger motor.
- **Blower Speed** - The lower knob on the control panel controls the speed of the convection fan. Turning up the fan will increase the amount of heat into the room. THE CONVECTION BLOWER SPEED MUST BE AT MAXIMUM when the HEAT OUTPUT selector is on position #5.
- **Damper Control** - The "push-pull" 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 is in place to allow the air-to-fuel ratio to be "fine-tuned" after the stove is installed. Once the damper has been correctly adjusted to allow the proper amount of air into the combustion chamber at all burn rates, push the collar against the side panel of the stove and tighten the set screw so that the damper cannot be pushed in any further. The proper air settings will vary from stove to stove due to installation, altitude, and fuel being burned. If your flame is smokey red/orange with evidence of soot at the top of the flame, you need more combustion air; pull the damper out until the flame begins to 'dance'. If the flame is 'short' at the higher burn rates or if the pellets are burning up in the grate before new pellets are fed into the fire, push the damper further in. CONTACT YOUR NEAREST WHITFIELD DEALER FOR MORE INFORMATION IF NEEDED.

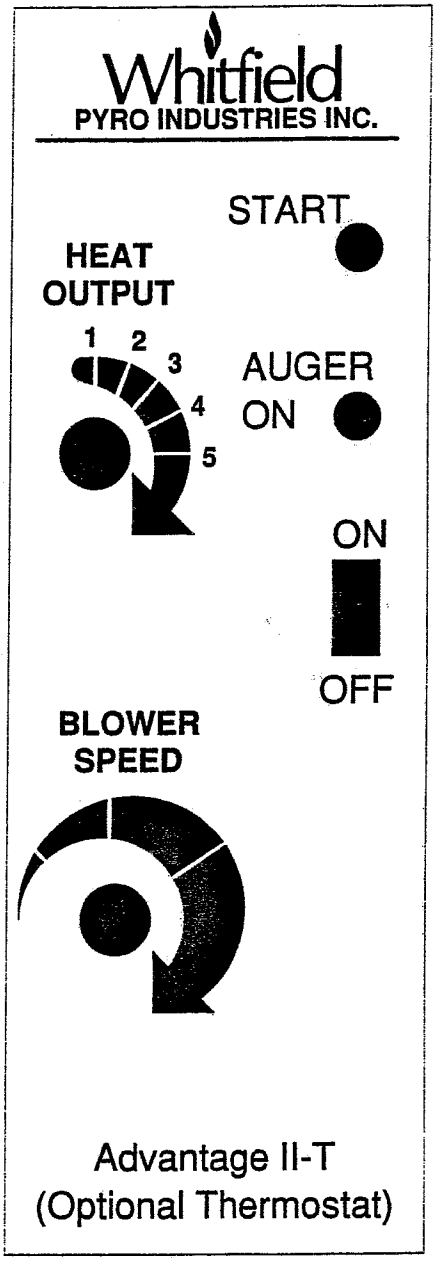


Figure 2 - Control Panel

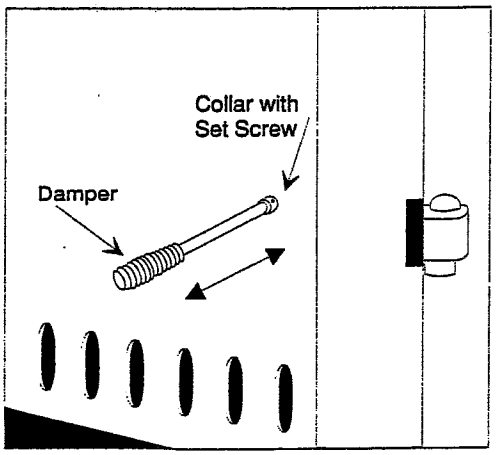


Figure 3 - Damper Adjustment

STARTING YOUR WHITFIELD PELLET STOVE

1. Place a recommended fire starter (see your dealer for appropriate firestarter in your area) in the burn grate and put a handful of pellets on top of the starter. DO NOT USE FLAMMABLE LIQUIDS TO START YOUR STOVE.
2. Light the firestarter in the grate with a match and close the door.
3. Turn the HEAT OUTPUT SELECTOR switch to #3 or #4, and press the START SWITCH. Pressing the START SWITCH will activate both blowers.
4. After the pellets in the grate are burning sufficiently (red hot coals), slide the ON/OFF switch to the 'On' position; this will activate the auger motor, and pellets will begin to feed into the burn grate.
5. After the pellets are burning well, adjust the HEAT OUTPUT SELECTOR to the desired setting. The manual combustion air control should be set when the stove is installed. Combustion air will adjust automatically as the HEAT OUTPUT SELECTOR switch is turned. The flame should be yellowish in color and there should be no evidence of soot formation at the top of the flame.
6. Adjust the BLOWER SPEED knob to set the desired amount of convection air.

GENERAL OPERATING CONSIDERATIONS

Damper - You should not usually need to adjust the damper once the collar has been tightened to the damper rod. If the flame becomes reddish/orange, pull the damper out. If the condition continues your stove probably needs routine maintenance. Excessive amounts of fly-ash build-up or clinkers in the grate, will starve the fire for air. See **ROUTINE MAINTENANCE**, page 8, for more information on cleaning fly-ash and clinkers.

Pellet Feed - The pellet feed system is designed to handle a wide range of pellet sizes. These different pellets can feed at considerably different rates. If the stove will not stay alight at the minimum fuel feed setting, those particular pellets are not feeding fast enough. If this happens, reduce the combustion air by adjusting the damper IN a little or, have the dealer adjust the AUGER ON time on your stove. At the same time, the dealer may need to adjust the combustion blower speed.

Pellet Size - You will 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. A 40 lb. bag of pellets should last approximately 8 hours on high and 30 hours (or more) on low, depending on type of pellets.

AUTOMATIC SAFETY FEATURES

Power Outage

During a power outage, the stove will shut down safely. It will not automatically restart when the power is restored unless the exhaust is still up to temperature. A small amount of smoke may leak from the top of the window glass, the hopper and from the combustion air intake. This will not persist for more than 3 to 5 minutes and will not be a safety hazard.

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

Overheating

A high temperature switch will automatically shut down the stove if it overheats. The stove will need to be manually re-lit. Allow 45 minutes before re-lighting.

TURNING OFF YOUR WHITFIELD PELLET STOVE

Turn the On/Off Switch 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.

ROUTINE MAINTENANCE

NOTE: STOVE WILL NEED TO BE SHUT OFF AND COOLED ENOUGH TO HANDLE BEFORE ROUTINE MAINTENANCE IS PERFORMED.
ALWAYS DISCONNECT POWER BEFORE DOING ANY ROUTINE MAINTENANCE

The amount of fly ash build-up in your stove is directly proportional to the ash content of the fuel that you are using (see **PELLETS**, page 5). The frequency of cleaning and maintenance of your stove depends on the fuel you are using. After a period of time (a week, or so) inspect the heat exchanger tubes, the burner head, and the ash traps behind the fire brick. You will want to gauge your routine maintenance accordingly.

A **ROUTINE MAINTENANCE** sticker is located inside the hopper lid of your stove for convenience.

THE FOLLOWING AREAS NEED TO BE INSPECTED WHEN DOING ROUTINE MAINTENANCE:

- Burner Head
- Heat Exchanger Tubes
- Ash Pan And Ash Trap Baffles
- Door Rope Gasket
- Exhaust Vent
- Motor Lubrication

Burner Head: The burner head should be inspected periodically to assure that the air holes have not become clogged with ash or clinkers. The burner head can easily be cleaned with the grate scraper/ash pan tool, or it can be removed from the combustion chamber for cleaning; the whole assembly should be removed periodically and emptied of ash.

PLEASE NOTE: The air inlet tube on the burner head has a ring gasket on the end. This must firmly seal against the back of the firebox for proper combustion airflow.

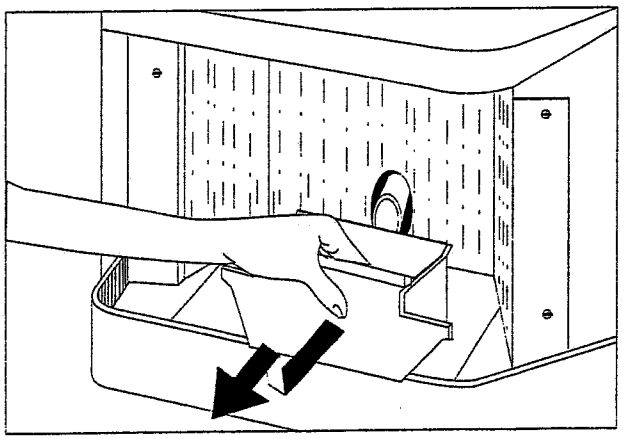


Figure 4
Removing The Burner Head

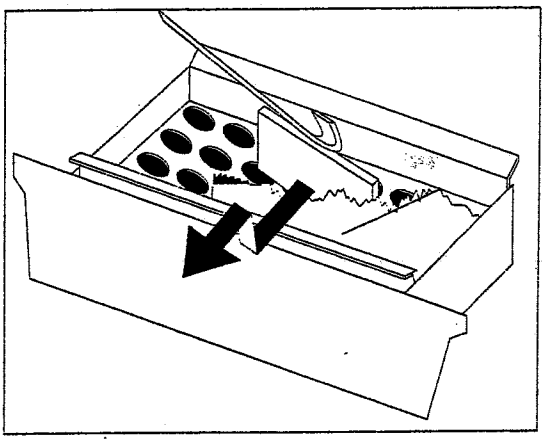


Figure 5
Cleaning Fly Ash and Clinkers

Heat Exchanger Tubes: Directly above the combustion chamber door is a lever that is used for cleaning the heat exchanger tubes. By pulling this lever out (forward) and pushing it back in a few times, you will clean the fly ash off the heat exchanger tubes. If your stove was recently turned off, the lever may still be hot.

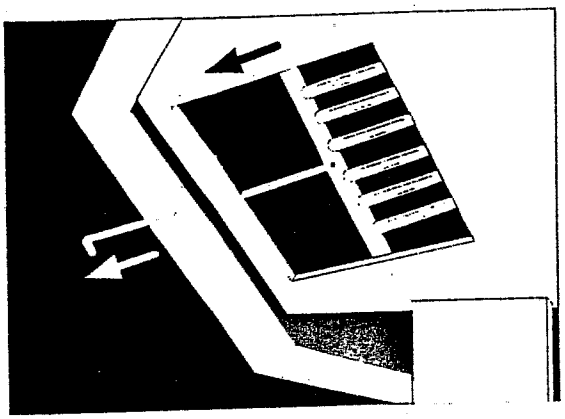


Figure 6 - Cleaning the Heat Exhanger Tubes

Ash Pan And Ash Trap Baffles: Ash pan and ash trap baffles will have to be emptied when necessary. Access to the ash traps behind the side firebricks is obtained by removing the firebrick retention plates and the side firebricks. The baffles are located behind the side firebricks and are easily removed. Undo the two screws that hold each firebrick retention plate in place. Remove the firebricks, right brick first, then the center firebrick, the the left firebrick. Undo the two screws that hold the ash trap baffles in place, and remove baffles for cleaning.

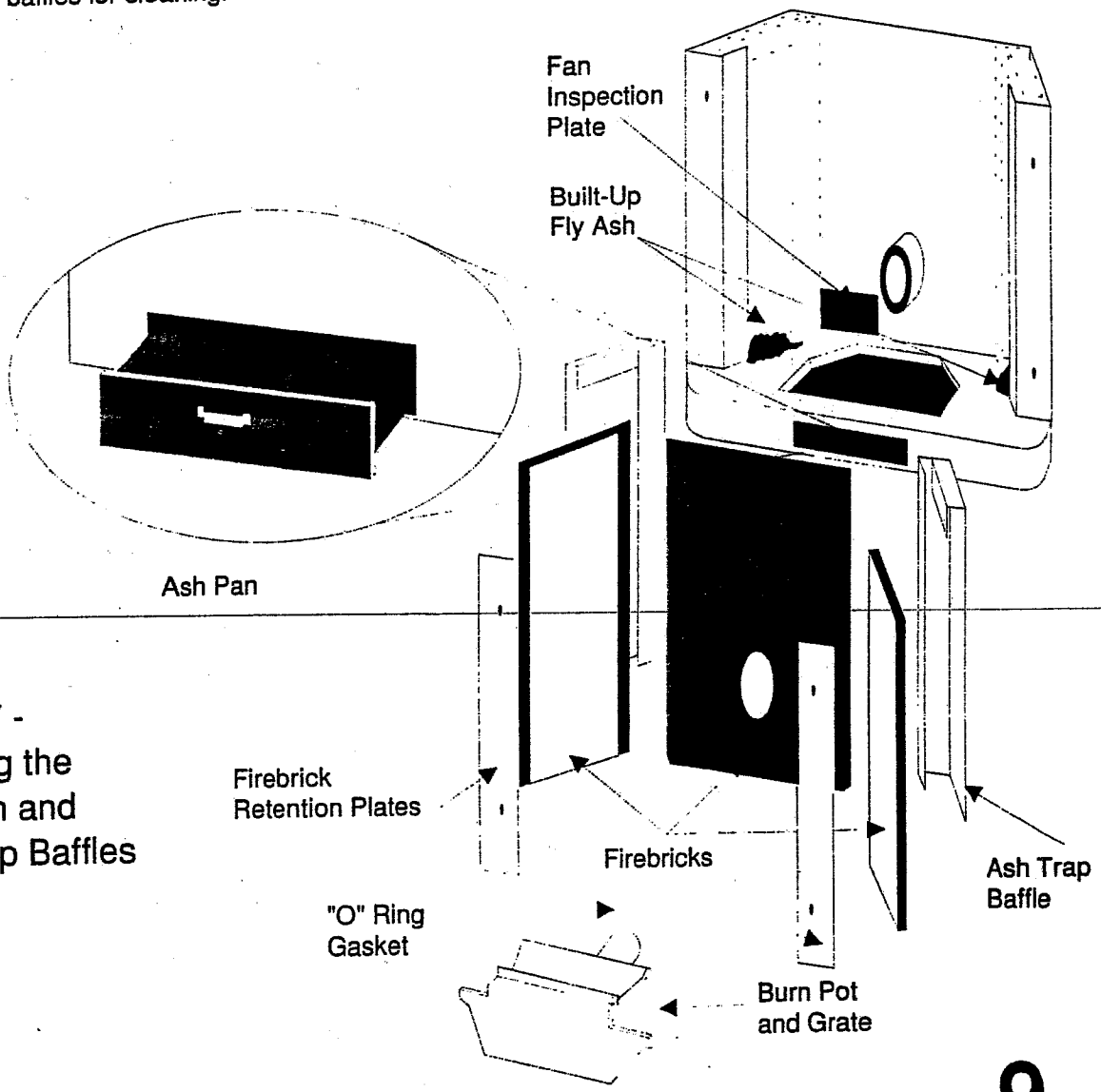


Figure 7 - Cleaning the Ash Pan and Ash Trap Baffles

Door Rope Gasket: The condition of the rope gasket around the door and windows should be checked periodically and replaced or repaired if necessary. Hinges and door latches can be adjusted to improve door seal.

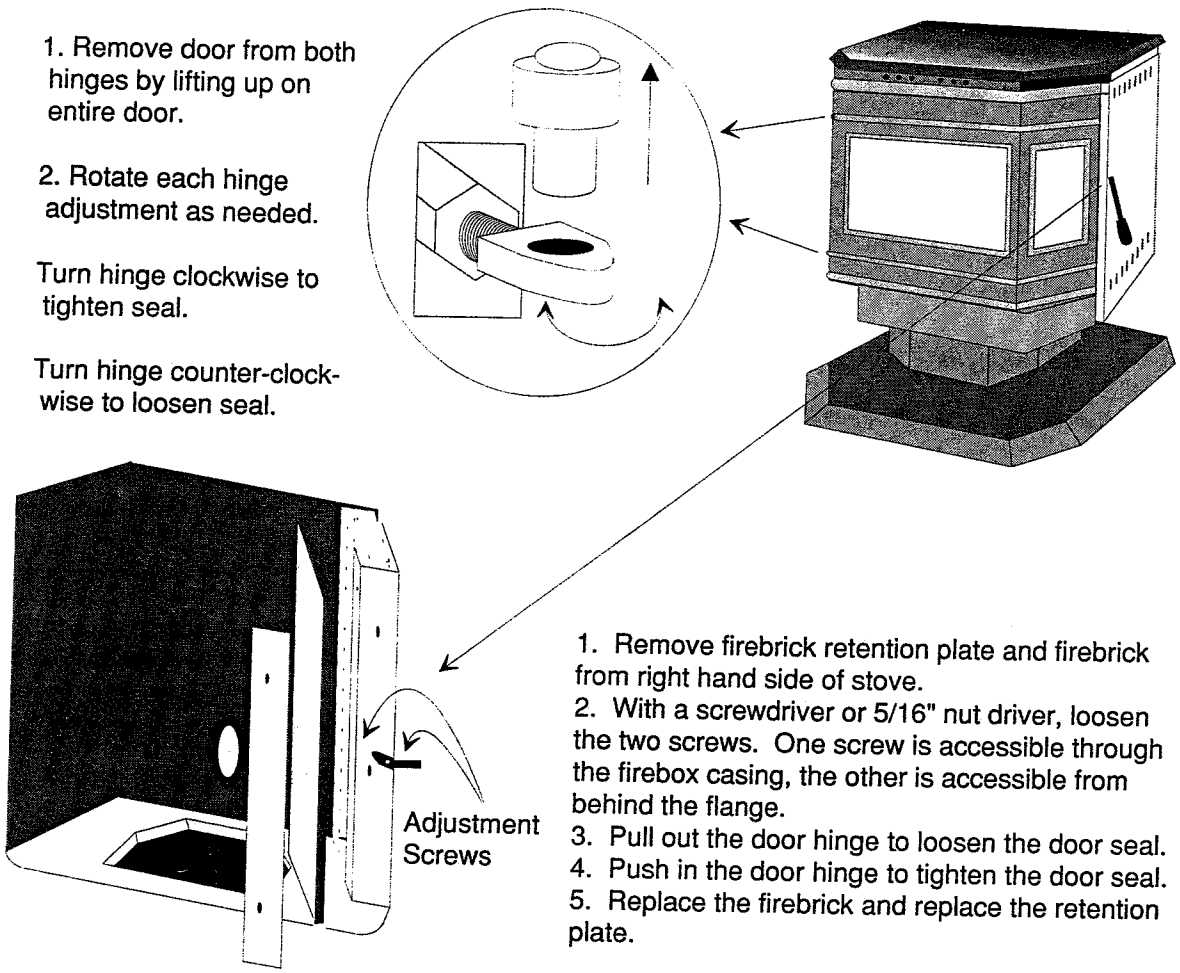


Figure 8 - Adjusting the Door Seal

Exhaust Vent: Inspect frequently and clean when necessary.

Motor Lubrication: The two blower motors require lubrication annually with not more than two drops of high temperature turbine oil (available from your dealer) at the lubrication points shown below.

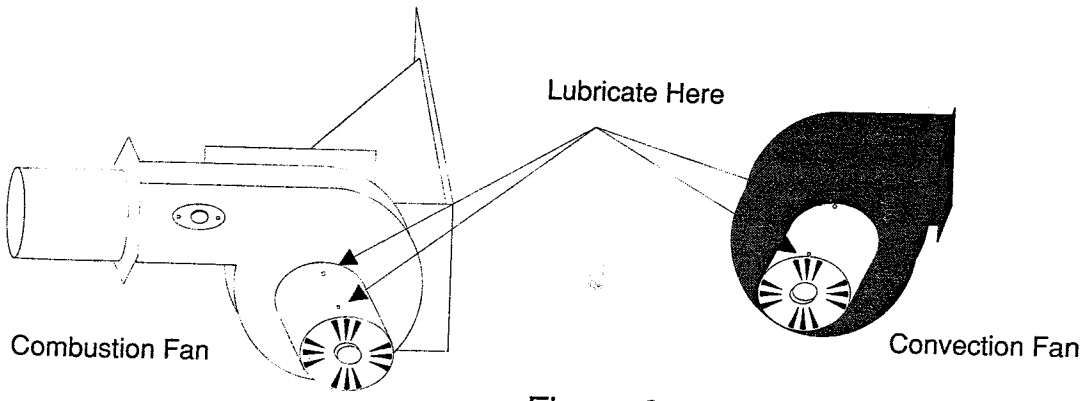


Figure 9
Motor Lubrication Points

STOVE INSTALLATION CONFIGURATIONS

THE WHITFIELD "ADVANTAGE II-T" MAY BE INSTALLED AS:

- A freestanding unit with a pedestal mounted on a noncombustible floor pad.
- A hearth mounted fireplace insert into a masonry or factory built fireplace.
- A built-in heater mounted on an insulated floor pad.
- A mobile home heater mounted on an insulated floor pad.

FLOOR PROTECTION

The Whitfield "ADVANTAGE II-T" must be installed on a noncombustible protective floor pad of minimum 3/8" thickness material or a masonry hearth. The hearth or floor pad must extend a minimum of 6" in front of and from each side of the stove (and 6" behind in a freestanding/vertical installation configuration) or to the nearest permitted combustible material (if less than 6").

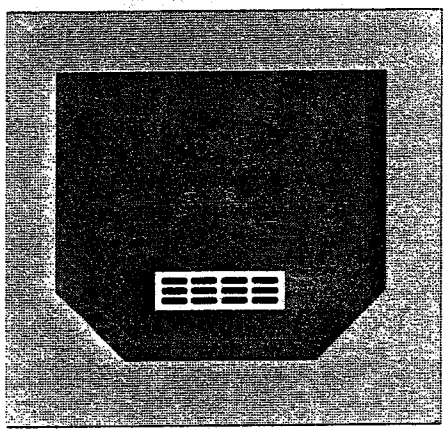


Figure 10 - Hearth Pad Clearances

CLEARANCES TO COMBUSTIBLES

The stove must be installed with the following minimum clearances to side and back wall combustible materials:

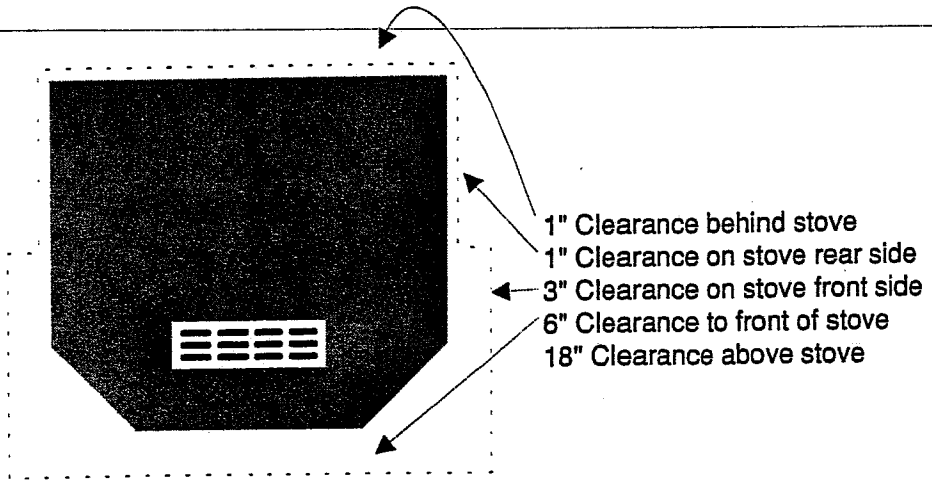


Figure 11 - Clearance to Combustibles

STOVE EXHAUST / INTAKE INSTALLATION

IT IS RECOMMENDED THAT ONLY AN AUTHORIZED DEALER INSTALL YOUR PELLET STOVE.

THE FOLLOWING INSTALLATION GUIDELINES MUST BE FOLLOWED TO ENSURE CONFORMITY WITH BOTH THE SAFETY LISTING OF THE STOVE AND LOCAL BUILDING CODES.

GENERAL GUIDELINES FOR INSTALLING EXHAUST SYSTEM

- A listed 3 or 4 inch type "PL" pellet vent exhaust system must be used for FREESTANDING installations and attached to the pipe connector provided on the back of the stove. Use a 3-to-4 inch adapter for 4 inch pipe.
- The exit terminal must be located no less than 60" from any opening through which combustion products could enter the building, (i.e. windows and doors) not less than 24" from an adjacent building, and not less than 7' above grade when located adjacent to public walkways. The exit terminal must be arranged so that flue gases are not directed so as to jeopardize people, overheat combustible structures or enter the building. Keep brush, plants and shrubs at least 36" away from vent termination.
- Ninety-degree elbows accumulate fly ash and soot thereby reducing exhaust flow and performance of the stove. Horizontal runs of pipe collect fly ash also. It is recommended that a single or double clean-out 'tee' be installed at every 90 degree turn so that fly ash can accumulate. If a 90 degree turn connects a vertical run of pipe to a horizontal run (as you follow the exhaust away from the stove), a tee is not required. At any other 90 degree turn, installation of a clean out tee is recommended tol permit periodic cleaning of both the horizontal and vertical runs of pipe.
- Total length of horizontal vent must not exceed 25 ft.
- A 3" single-wall, stainless steel flexible or rigid exhaust pipe should be used for INSERT installations and must be attached to the stove with a single or double wall, stainless 'tee' with a clean-out cap. The stainless steel 'tee' can be inclined at 45 degrees to enable the vent to be centered on the stove, and allows the 'tee' to be cleaned out without removing the stove (see Figure 20 on page 18).
- When venting into an existing chimney (masonry or factory built) the chimney must be cleaned, with all creosote removed.
- The "PL" vent or single wall stainless exhaust system must be installed so as to be GAS TIGHT! The vent manufacturer's installation procedures must be followed. In addition, pipe connections, joints and all pipe seams within the home should be sealed with room temperature vulcanizing, high temperature silicone sealer (RTV).
- If an insert is to be installed into an unlined masonry chimney, it is recommended that the 3" or 4" stainless steel pipe be extended to the top of the existing chimney. The top of the existing chimney should be sealed with a steel plate (see Figure 21 on page 19).

DETERMINING EQUIVALENT PIPE LENGTH

To determine whether a 3" or 4" exhaust system is required for your installation (freestanding or insert), review the sample installation below. Fill out the top chart, and calculate your total equivalent pipe length. After you have the total equivalent pipe length, use the chart at the bottom of the page to determine if your installation requires 3" or 4" exhaust pipe.

Type of Pipe	# of Elbows or Feet of pipe.		Equivalent Feet	Total Equivalent Feet
90° Elbows		x	5	
45° Elbows		x	3	
Horizontal Pipe		x	1	
Vertical Pipe		x	.5	
			Total →	

A - 90 Deg. Elbow
B - 1' Horizontal Pipe
C - 45 Deg. Elbow
D - 8' Vertical Pipe
E - 2' Horizontal Pipe
F - 90 Deg. Tee

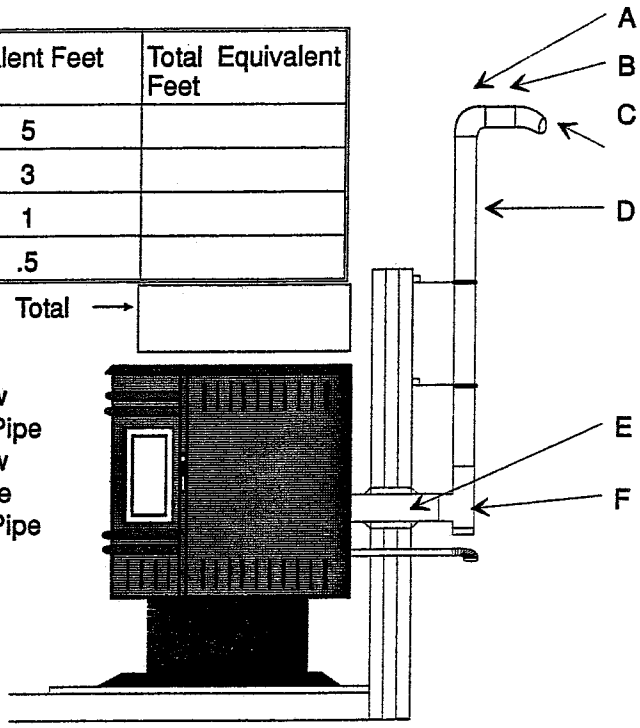
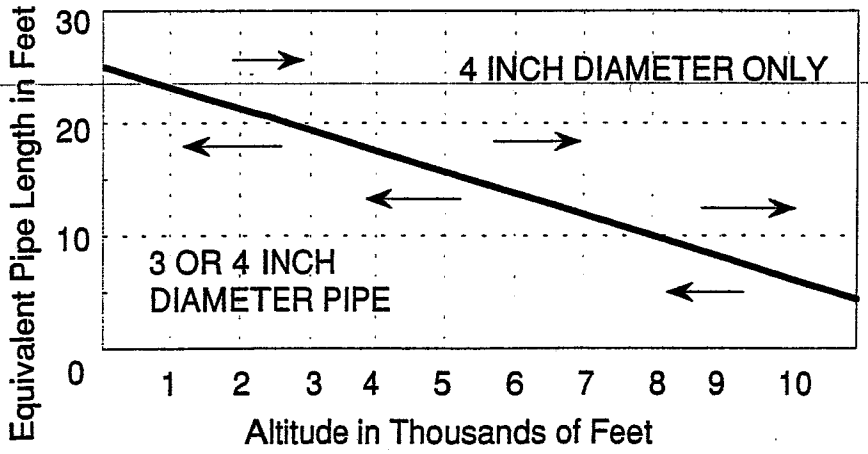


Figure 12 - Sample Installation

Sample Installation Chart

Type of Pipe	# of Elbows or Feet of pipe.		Equivalent Feet	Total Equivalent Feet
90° Elbows/Tee (A &F)	2	x	5	10
45° Elbows (C)	1	x	3	3
Horizontal Pipe (B&E)	3	x	1	3
Vertical Pipe (D)	8	x	.5	4
			Total →	20



INSTALLING AN OPTIONAL FRESH AIR INTAKE

- For FREESTANDING installations with horizontal through-the-wall exhaust, it is recommended, but not required, that the optional outside fresh air intake be installed.
- For INSERT installations into an existing fireplace, or FREESTANDING installations with a vertical exhaust, the optional outside air intake is not required.
- Outside fresh air intake is REQUIRED for mobile home installations.
- Only steel pipe 1 5/8" inside diameter is approved to use for outside air connection (straight or flexible). PVC pipe or aluminum pipe is NOT approved, and should never be used.
- If the air inlet is connected to the outside, it MUST be terminated with a vertical 90 degree bend (down) or with a wind hood. Failure to do so could result in a 'burn back' during high winds blowing directly up the air inlet during a simultaneous power failure.
- Blockage, excessive length, or bends in the air intake pipe will starve the stove of combustion air. A 90 degree bend is equivalent in restriction to approximately 30" of straight inlet pipe.

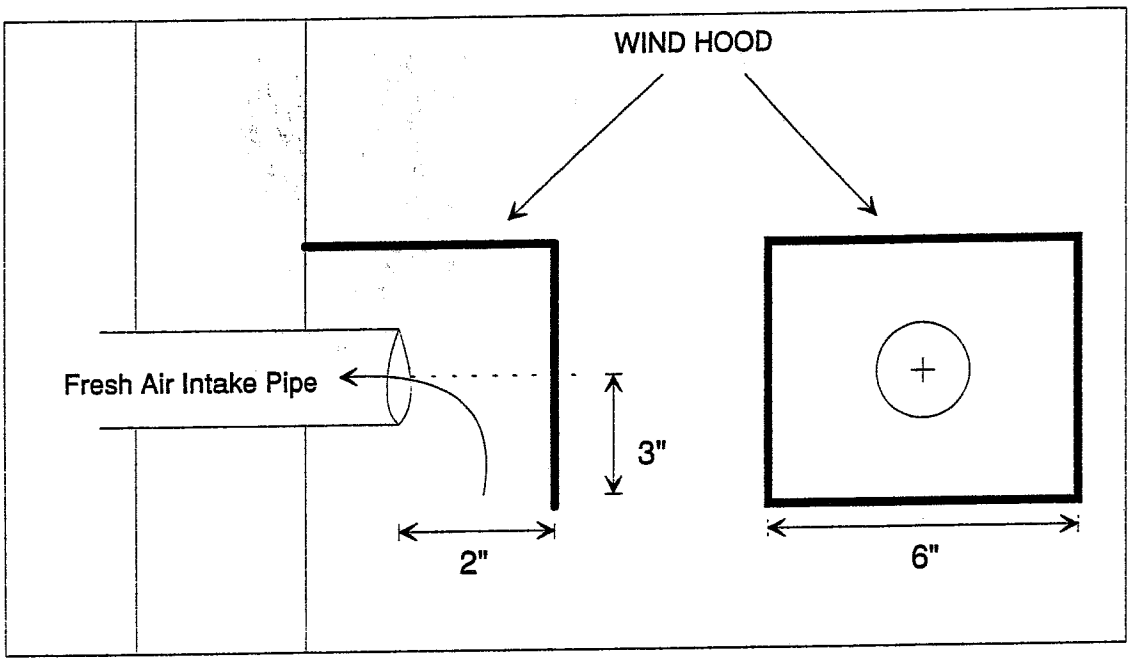


Figure 13 - Wind Hood Termination

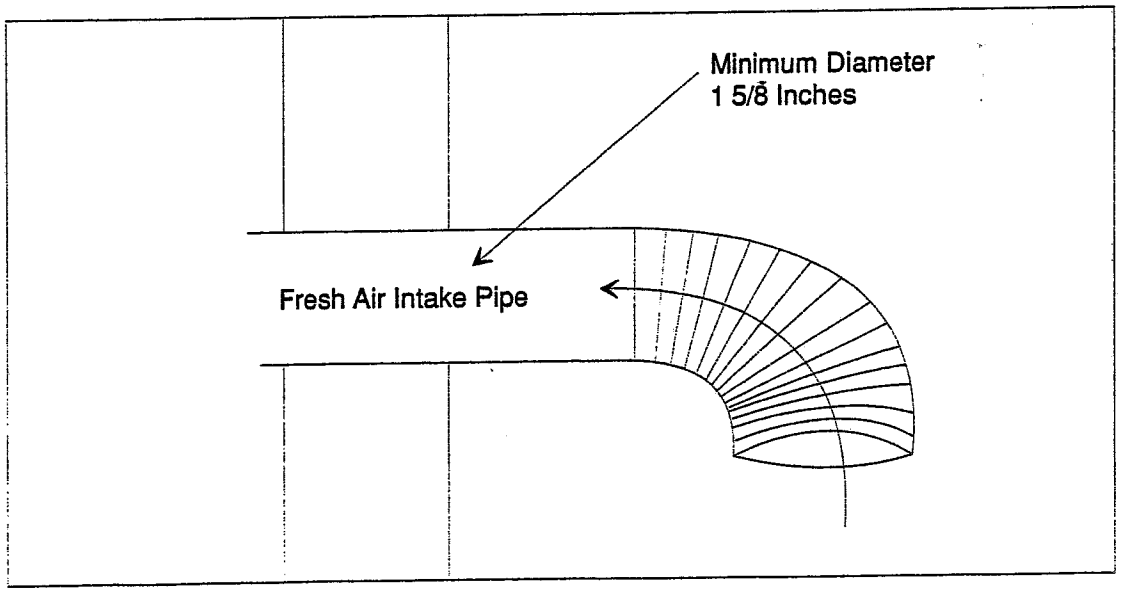


Figure 14 - 90 Degree Bend Termination

MOBILE HOME INSTALLATION

IN ADDITION TO STANDARD INSTALLATION INSTRUCTIONS, THE FOLLOWING REQUIREMENTS ARE MANDATORY FOR INSTALLATION IN A MOBILE HOME:

- Stove must be permanently bolted to the floor.
- Stove must have permanent outside air source.
- Stove must be permanently electrically grounded to the steel chassis of the home.

CHECK WITH YOUR LOCAL BUILDING OFFICIAL AS OTHER CODES MAY APPLY.

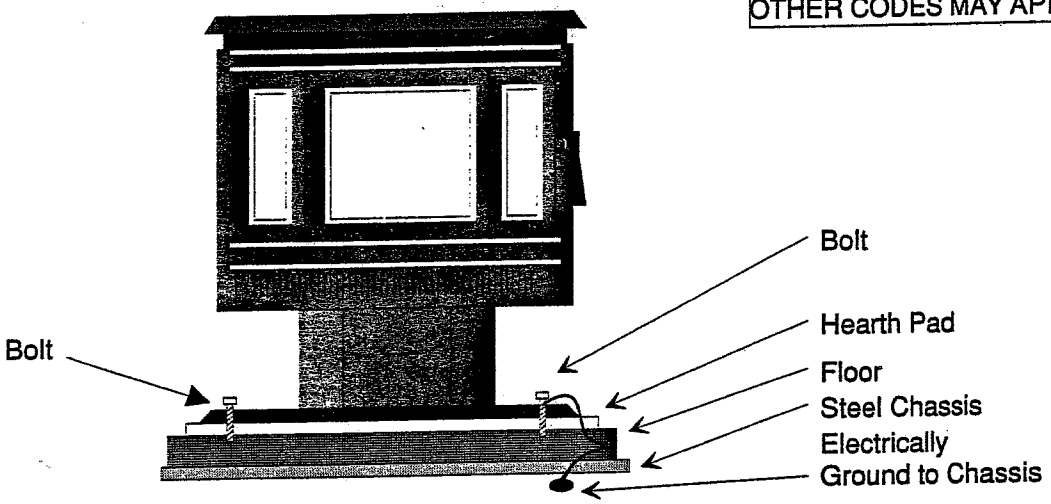


Figure 15 - Mobile Home Installation

INSTALLING YOUR FREESTANDING PELLET STOVE

FLUSH INSTALLATION WITH HORIZONTAL EXHAUST TERMINATION (See Figure 16)

1. Locate proper position for type "PL" wall thimble (F). Use a saber saw or key hole saw to cut a 7" diameter hole through the wall (G) for 3" pipe (for 4" pipe, cut an 8" hole). Install the wall thimble in the hole.

2. Position the stove approximately 12" from the wall on the floor pad. Push type "PL" pipe (D) through wall thimble (F). Squeeze a bead of high temperature silicone (RTV) sealer (A) around end of machined portion of the 3" pipe connector on the back of the stove (B). Firmly push on section of type "PL" pipe (D) until inner pipe liner pushes into the bead of RTV sealer.

3. Push the stove (with pipe attached) towards wall. Pipe (D) will go through the wall thimble (F). Position stove no closer than 1" to the wall.

4. Install type "PL" 45 degree elbow (H) with rodent screen cap (optional) on outside end of pipe. NOTE: The end of the exhaust pipe must extend a minimum of 12" from the outside of the building. Rodent screen should not be less than 3/8" in mesh.

5. If installing with combustion air from outside; cut a separate hole through the wall for the fresh air tube (E). This tube must be 1 5/8" (min.) diameter, steel only! Connect outside air pipe to air inlet on stove (C). This tube must be terminated with a 90 degree elbow or hood.

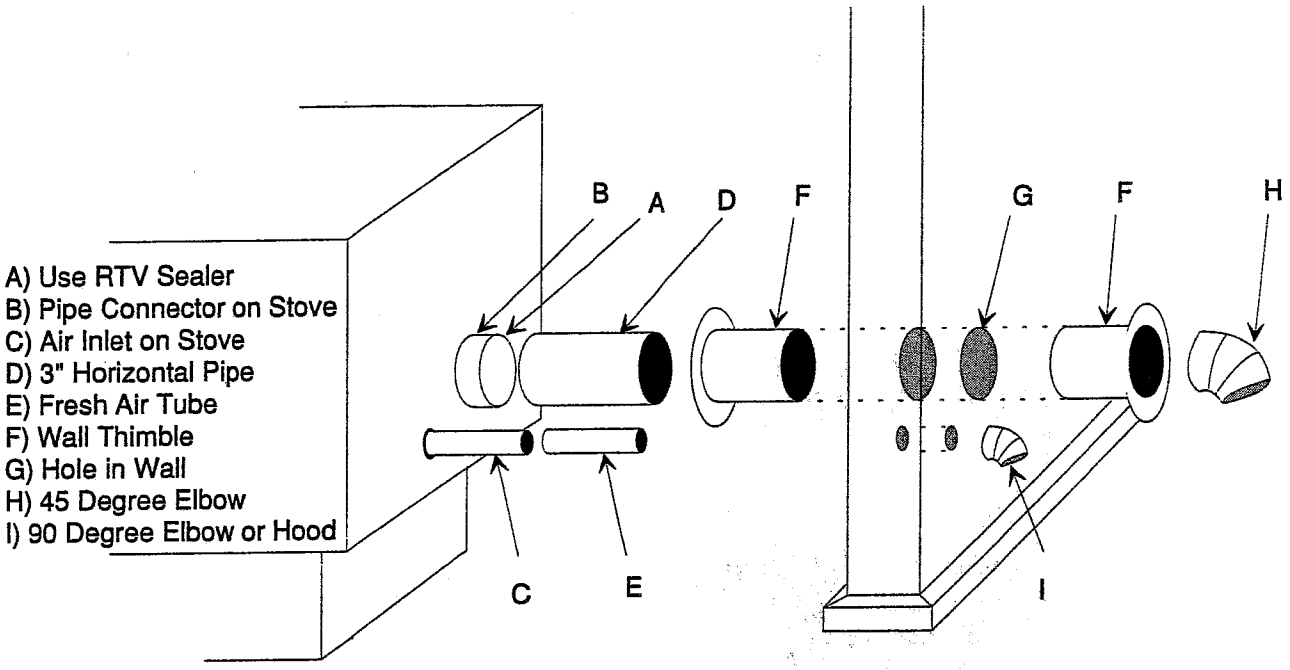


Figure 16 - Horizontal Exhaust Termination

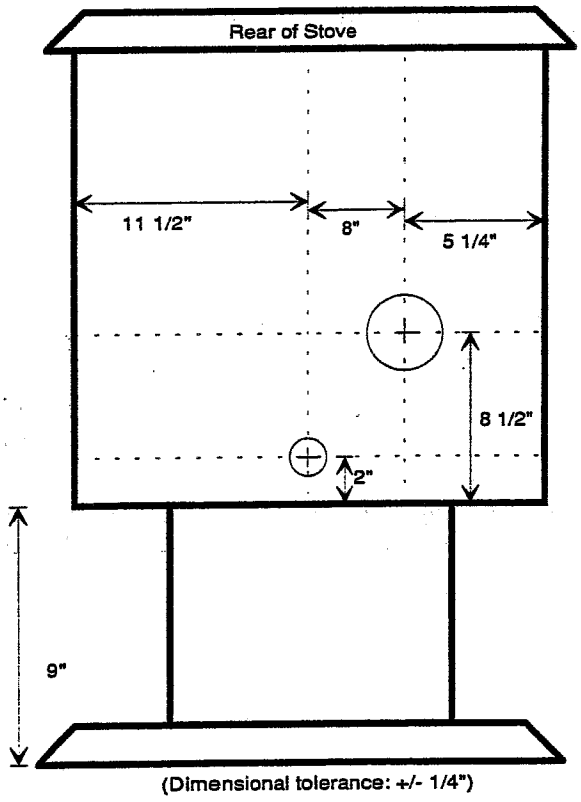


Figure 17 - Vent Alignment

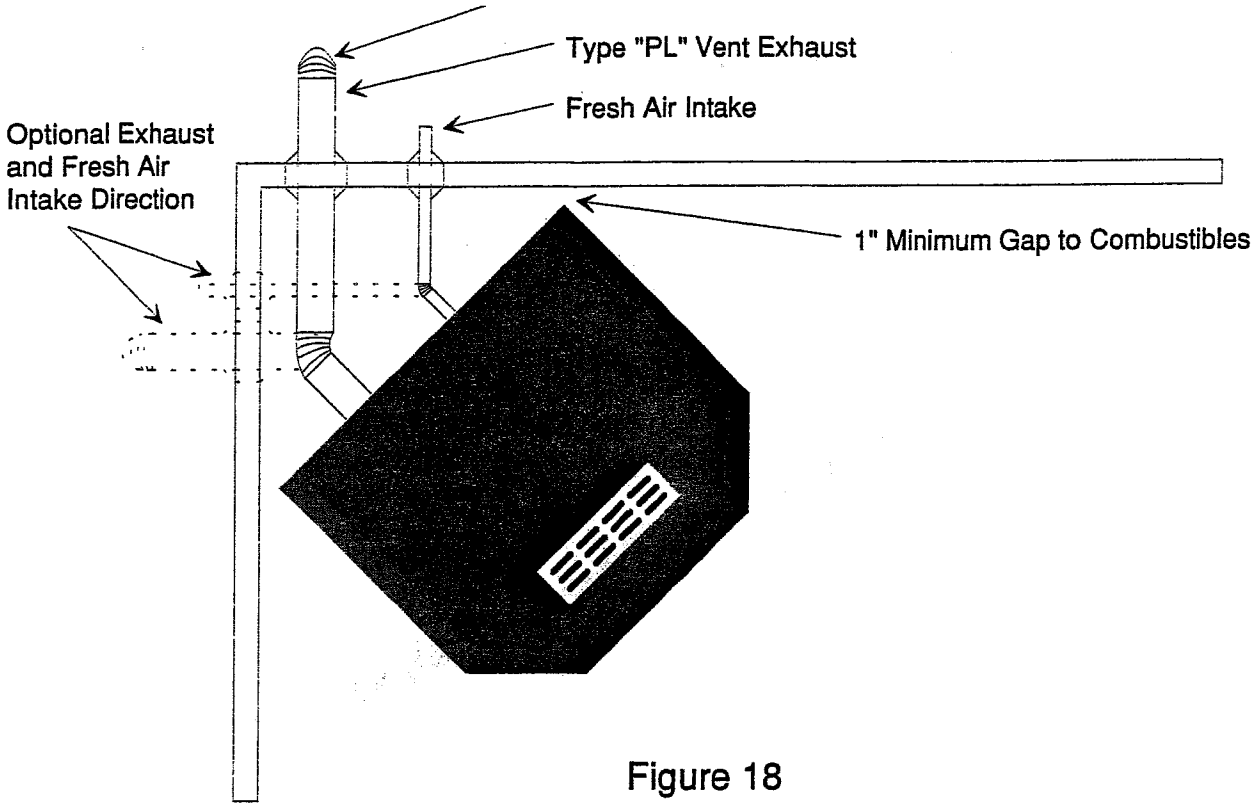


Figure 18
Corner Installation of Freestanding Stove

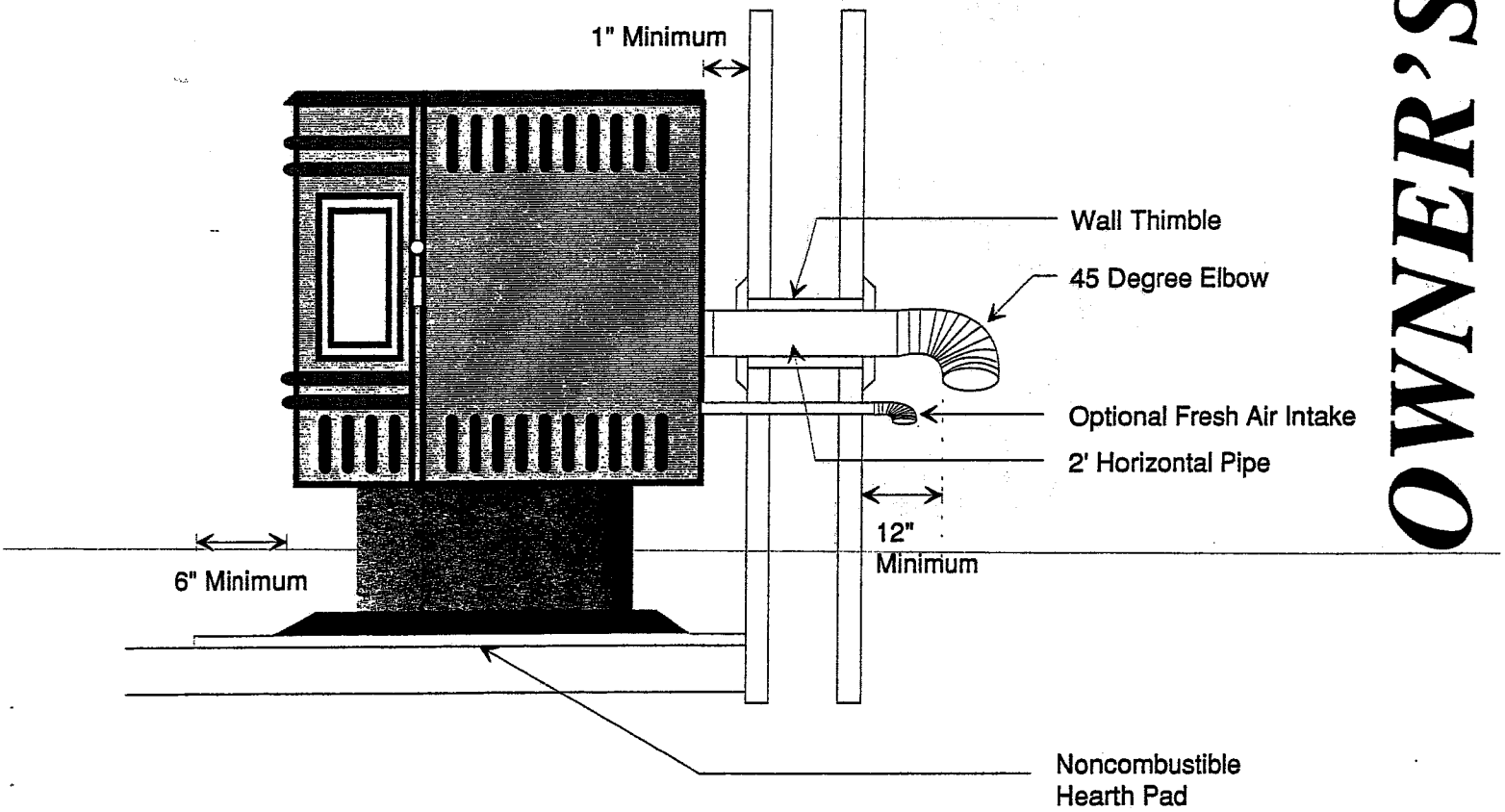


Figure 19 - Standard Horizontal Exhaust Configuration

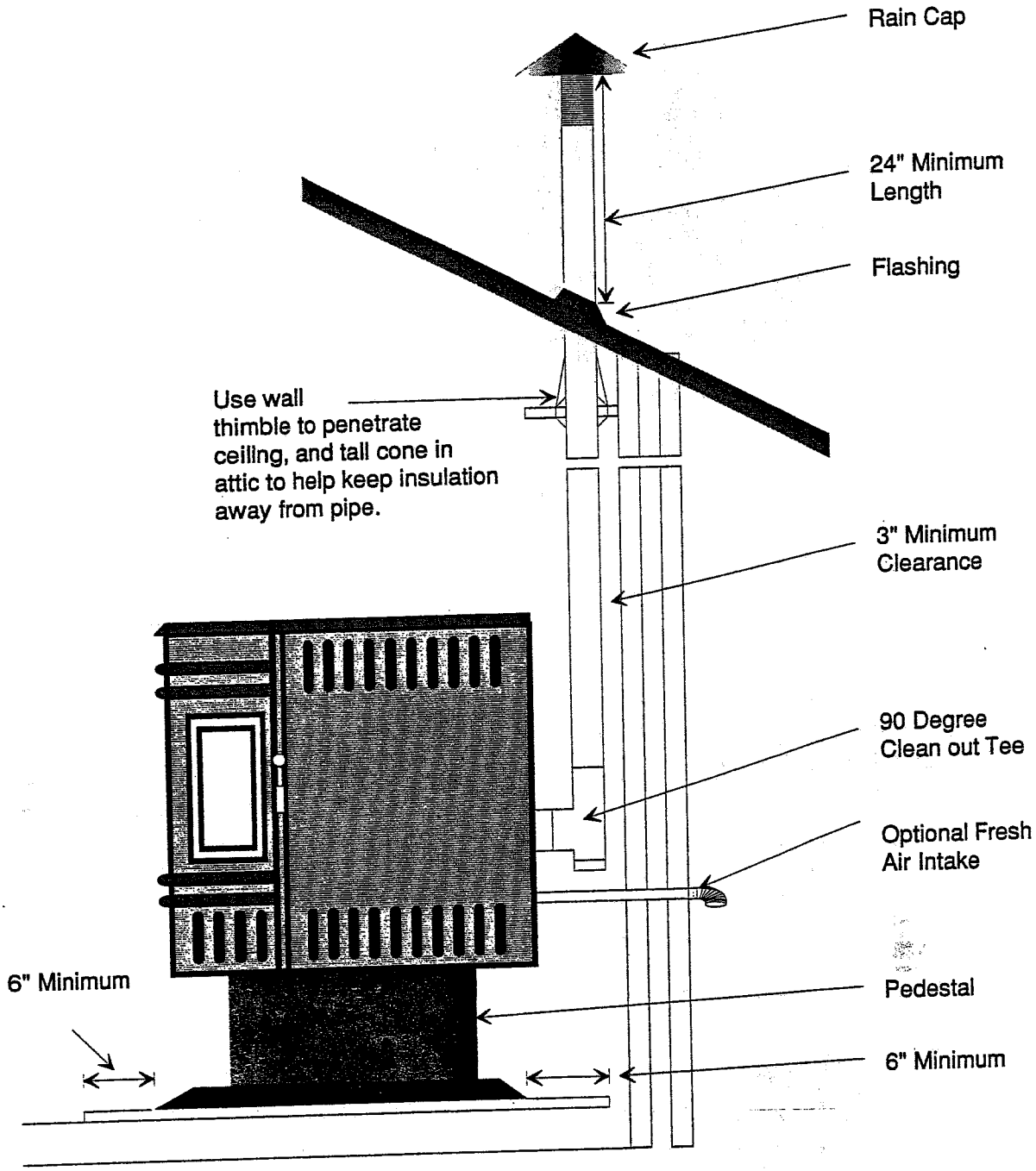


Figure 20
Inside Vertical Installation with Roof Termination

VENTING INTO AN EXISTING CHIMNEY

The Advantage II-T insert may be installed in a masonry or factory built fireplace as shown below. When installing into a masonry chimney, it is recommended that the exhaust vent be extended to the top of the chimney as shown in Figure 21.

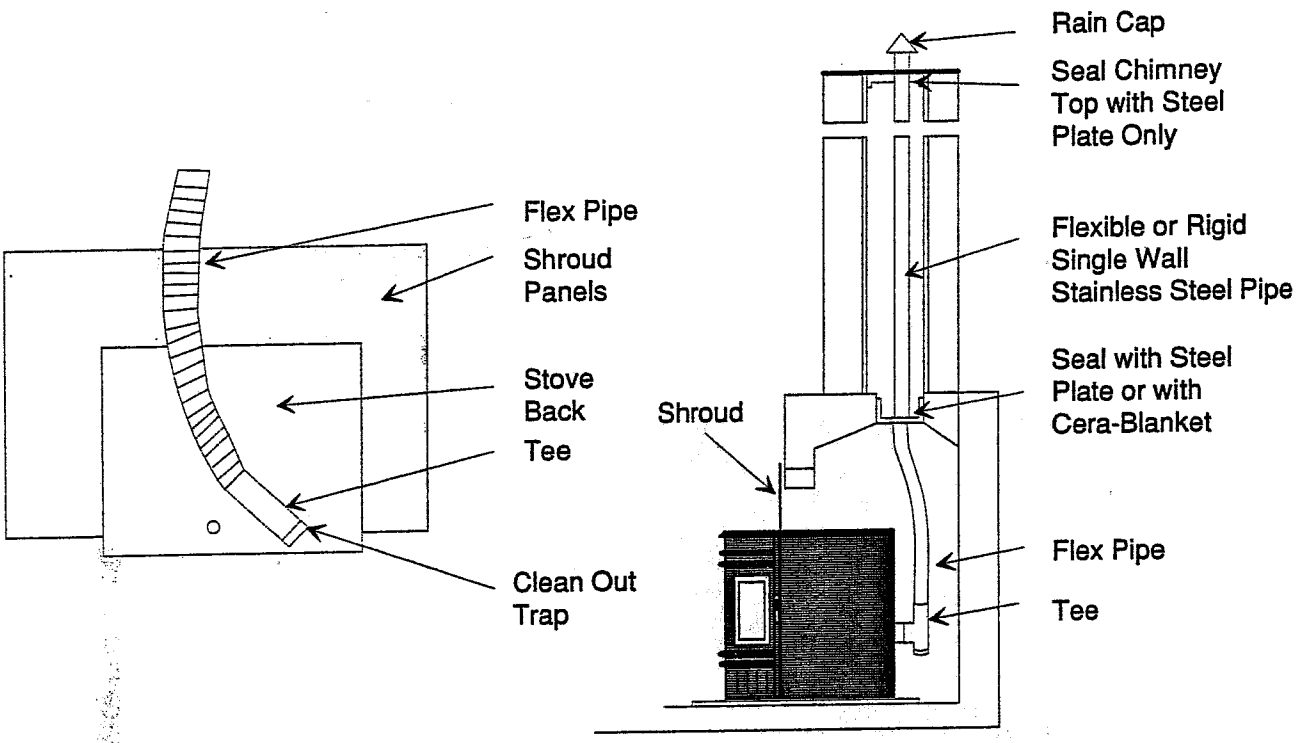
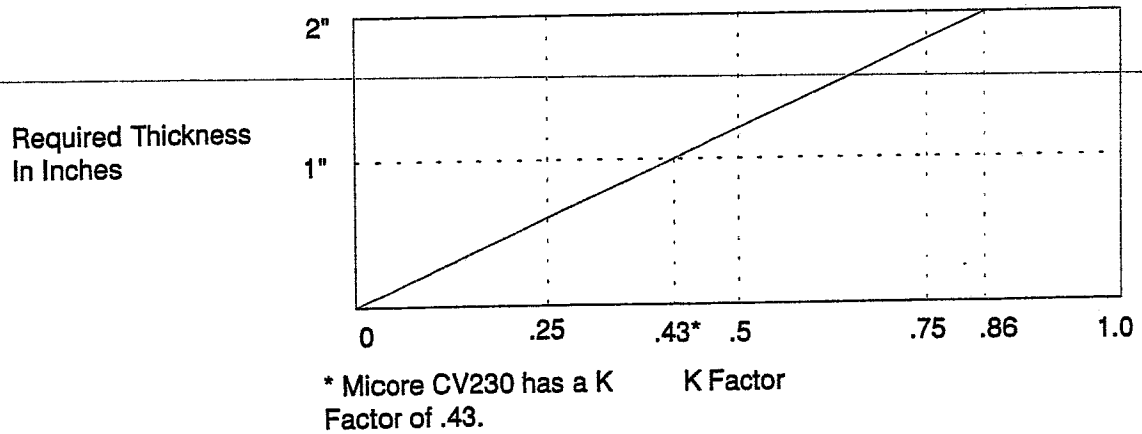


Figure 21- Venting into an Existing Chimney

DETERMINING FLOOR PROTECTOR THICKNESS

Match the K-factor of the floor protector material to the chart below to determine the minimum material thickness needed. If Micore CV-230 (the approved floor protection material) is unavailable, see **Appendix B** for other floor protection materials and their required thicknesses.



* Micore CV230 has a K Factor of .43.

Figure 22 - Floor Protector Thickness Chart

BUILT IN HEATER INSTALLATION CONFIGURATION

Horizontal Venting

The Advantage II-T INSERT may be framed directly into an outside wall using the insert shroud as shown in Figure 23. The inside dimensions of the framed opening should be 27-1/2" high x 39-3/4" wide. The exhaust installations are the same as for the FREESTANDING stove. Refer to **INSTALLING YOUR FREESTANDING STOVE**, page 15, for information on exhaust installation.

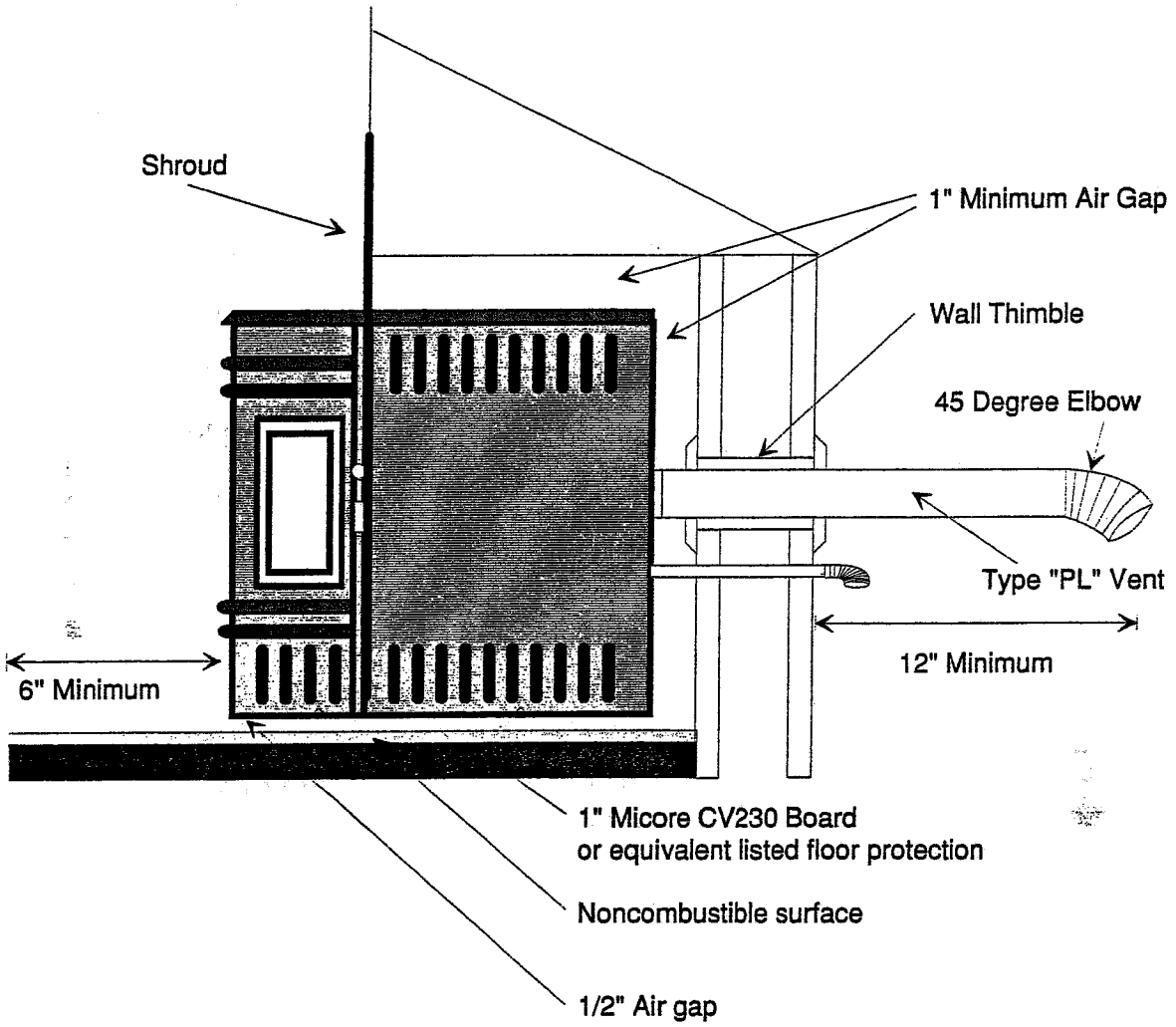


Figure 23 - Built In Heater Configuration

OPTIONAL ACCESSORIES

The following is a list of optional accessories available from your Whitfield pellet stove dealer:

Stove & Window Trim:

Available in brass or nickel, the elegant stove-body and window trim is easily installed to both freestanding and insert Whitfield stoves.

Shroud Trim:

Brass or nickel trim is available for Whitfield Pellet Insert Shroud Assembly and makes the perfect addition to your fireplace insert.

Trivets:

A gold or nickel plated trivet that matches your trim gives an "old-fashioned stove" look to the top of your Whitfield Pellet stove, and adds an extra touch of class.

Shrouds

Available for Whitfield Pellet Stove inserts only, the following shrouds are available.

Small Shroud (28 1/2" high x 40 3/4" wide)

Medium Shroud (32" high x 44" wide)

Large Shroud (28 1/2" high x 47 1/2" wide)

Insert Pedestal Support

For Pellet Stove Inserts, the insert pedestal support is adjustable and available in the slate color only. Additional height can be added to the small, medium, or large insert shrouds by adding the insert pedestal support. It attaches to the bottom front of the insert and can be adjusted from 3 1/2" up to 7" in height.

INSTALLATION OFOPTIONAL ACCESSORIES

INSTALLING THE INSERT SHROUD ASSEMBLY

The Advantage II-T insert requires a 3-piece shroud for proper installation. This shroud is designed to attach directly to the stove and covers the fireplace opening for most factory-built fireplaces and small masonry fireplaces. The right hand side piece houses the electronic control board behind an opening flap.

1. Remove the adjustable hopper cover by removing the two (2) self tapping screws.

2. Attach the shroud top to the front top panel with 6 rivets.

3. Replace the adjustable hopper top and fasten in place. There are five (5) self tapping screws across the back, three (3) along each side and two (2) which attach to the shroud top. The hopper cover should be adjusted to the maximum height that the fireplace opening allows. This will permit greater fuel storage capacity.

4. Attach the right side shroud by fastening with two (2) self tapping screws to the top shroud and one (1) self tapping screw to the bottom side bracket of the stove.

5. Attach the control panel to the right side of the shroud assembly by sliding the control and mounting bracket into the flanges provided in the shroud and fastening.

6. Attach the control door knob to the control panel door.

7. Attach the left side shroud to the stove as in step 4.

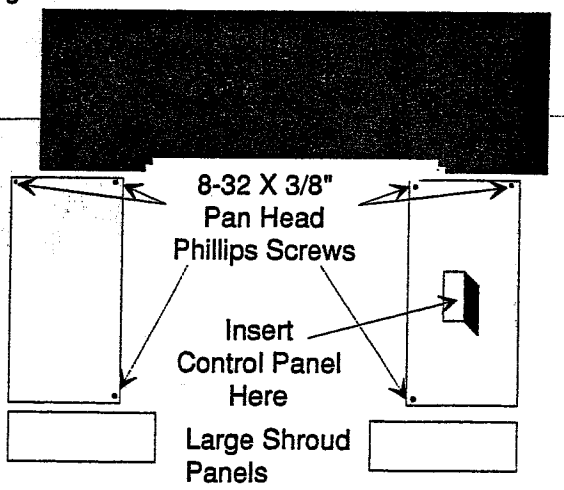
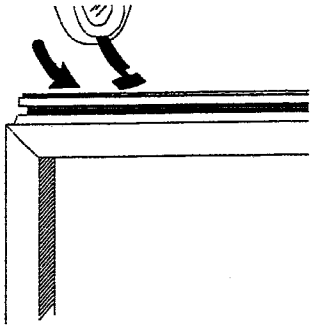


Figure 24 - Installing the Shroud Assembly

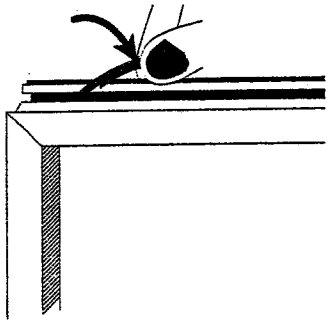
STOVE WINDOW TRIM INSTALLATION

(3 clips are provided. Only one is needed for each piece of window trim.)

1. Turn trim clip sideways and put the "tee" end of the clip into the channel of the window trim.



2. Spin trim clip around and place the "straight" end of the clip in the channel on the window trim. Make sure that the 'tooth' is towards the window for a better hold.



3. The window trim clips should go on the trim in the position shown below. Place the bottom of the trim into the window opening first and press hard until the top of the window trim slips into the window opening.

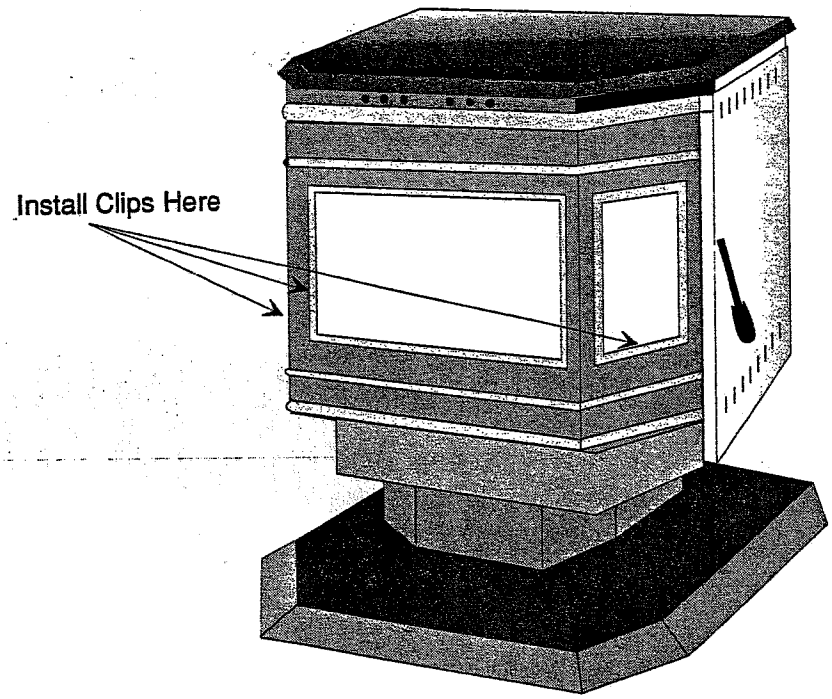


Figure 25 - Window Clip Location

THERMOSTAT INSTALLATION/CONTROL PANEL REMOVAL

UNPLUG STOVE BEFORE PERFORMING ANY MAINTENANCE WORK.

The electronic control board is mounted to a steel bracket for easy installation into the stove or side shroud using a single fastener. The control board can be removed or replaced without removing the side panel or the side shroud.

The control cable is fitted with a quick-disconnect plug that plugs into the back of the control board. The other end of the control cable is permanently attached to the screw terminals. If the thermostat is used, its two low voltage wires should be inserted through the grommet located at the back of the stove (freestanding) and connected to the back of the control board as shown in Figure 27. The jumper wire provided on the control board at this location should first be removed. The blower and motor wires attach directly to quick disconnects on the terminal block as indicated in Figure 28.

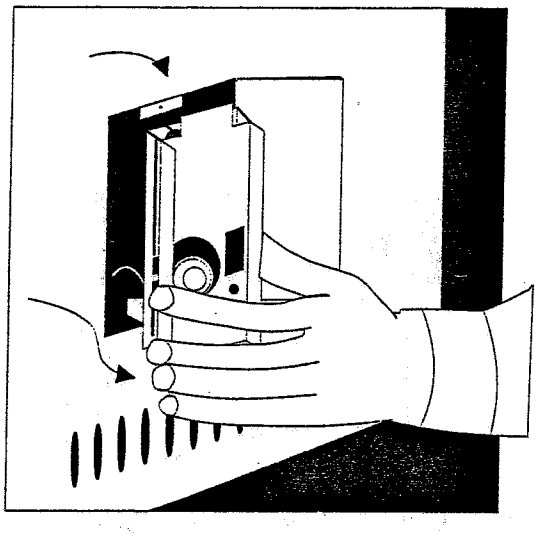


Figure 26
Removing the Control Panel

To install a wall thermostat:

1. Unplug the stove from your wall outlet.
2. Locate the screw at the top of the control panel, and with a screwdriver, remove the screw.
3. Tilt the control panel forward from the top, and remove it by slowly pulling it toward you.
4. If you need to completely remove the control panel, you will notice that a quick disconnect plug is used to connect all the wires to the control panel. Squeeze together the two clips, then pull the plug out.
5. Carefully remove the jumper wire by pulling at the base of the spade connectors. Do not remove the jumper wire by pulling on the wire itself. Needle nose pliers can be used if necessary.
6. Crimp two 1/4" female spade quick-connect connectors to the control wires from your thermostat. Install the thermostat control wires onto the male spade plugs on the control board.
7. To install your control panel, simply place the tab at the bottom of the control panel bottom into the slot at the bottom of the opening and tip the board into place. Replace the screw at the top of the control panel.
8. Plug the stove into your wall outlet.
9. Review the **Heat Output** information on page 6 before operating your stove for the first time with a thermostat control.

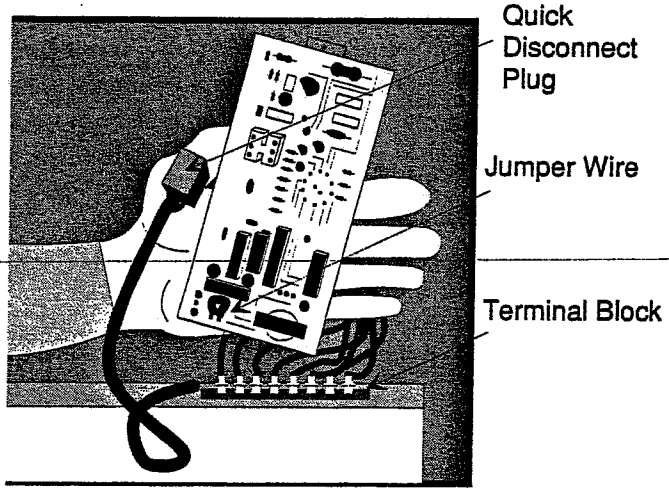


Figure 27
Locating the Jumper Wire and Quick Disconnect

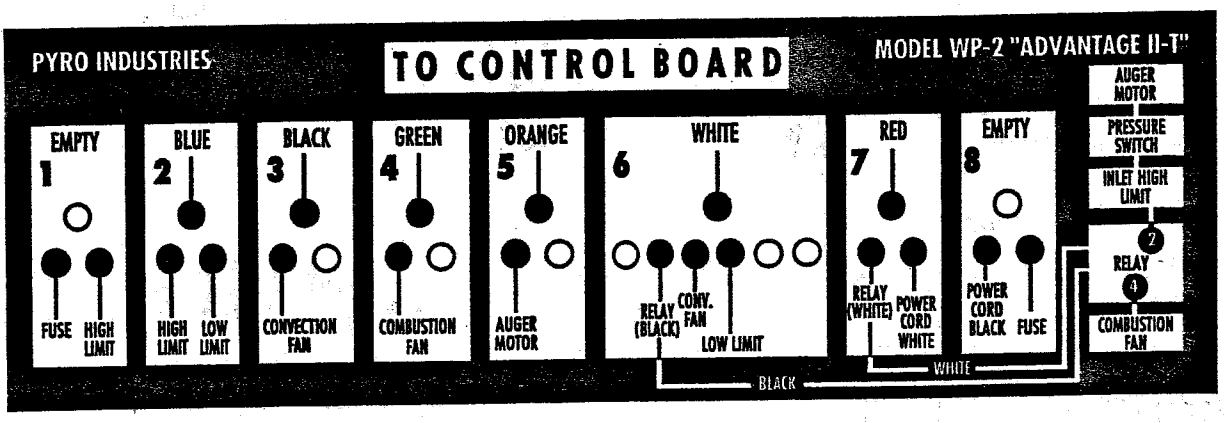


Figure 28
Hook Up Diagram for Terminal Block

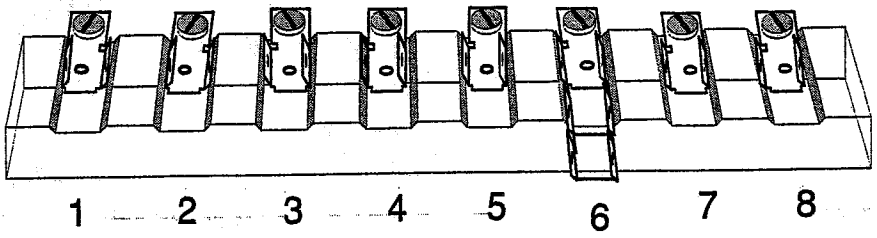


Figure 29
Terminal Block

APPENDIX A
ADVANTAGE II-T TROUBLESHOOTING

UNPLUG STOVE BEFORE PERFORMING ANY MAINTENANCE WORK

PROBLEM	CAUSE(S)	SOLUTIONS
Fire burns with a lazy orange flame. Pellets build up in the grate and the window gets sooted up.	There is insufficient combustion air.	Remove any clinkers or ash from the bottom of the grate that might be obstructing the primary air holes (see page 8). Change to a better grade of fuel if necessary (see **Pellets**, page 5). Check that the damper is open sufficiently (pulled out). Check that the heat exchanger tubes are not clogged with ash (see page 9). Check ash build up behind the side firebricks. Clean if necessary (see page 9). 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. A small adjustment may be required to ensure a good seal. Replace the door gasket if necessary (see Figure 8 on page 10). Check that the ash pan is locked in the correct position and check the gasket seal around the ash pan in the same manner as above. Replace the ash pan gasket if necessary. Check the combustion blower impeller by removing the firebrick and the inspection plate located behind the center brick. Clean impeller or remove blower for further cleaning if necessary. Check for blockage in the air inlet tube or exhaust pipe. Clean as necessary.
		Have your certified Whitfield dealer adjust the combustion blower speed on the control panel.
	Fuel feed rate is too high.	Have your certified Whitfield dealer adjust the fuel feed rate on the control panel.

PROBLEM	CAUSE(S)	SOLUTION
Fire goes out or stove shuts down automatically.	The hopper is empty.	Refill hopper.
	Pellets are not feeding.	See "Pellets will not feed" below.
	The high limit temperature switch has tripped.	Allow stove to cool for 1 hour and relight. If the stove has been operating at a medium to high burn rate, and the convection fan has been turned down low, then the fan should be turned up higher. If this problem persists (particularly at lower burn rates) then the high limit snap switch should be replaced by your certified Whitfield dealer.
	The combustion air setting is too high.	Adjust damper in to reduce combustion air flow.
	The fuel feed rate is too low.	Have your certified Whitfield dealer adjust the fuel control.
Pellets will not feed.	The hopper is empty.	Refill hopper.
	The auger, circuit board, air inlet, pressure switch, high limit switch or relay may be defective.	Have your certified Whitfield dealer diagnose the problem and replace any parts if necessary.
Stove runs for 30 minutes then shuts down.	The exhaust gas is not up to temperature.	Press start switch and relight stove if necessary.
	The low limit snap switch is not operating correctly.	Have your certified Whitfield dealer replace the low limit snap switch.
	The wires to either the low limit snap switch or the high limit snap switch (mounted on the back of the firebox) are loose or disconnected.	Check wires between the snap switches and the terminal block. Make sure there are good connections between the wires and their terminals.
Blowers will not shut off after the fuel has been switched off and the stove has cooled down.	The low limit snap switch has failed in the closed position.	Have your certified Whifield dealer replace the low limit snap switch.
Blowers will not operate when the start switch is depressed.	There is no power to the stove.	Check that the stove is plugged in to the wall outlet. Check to see if your circuit breaker has tripped.
	There is no power to the control board.	Check the wire connections between the high limit snap switch and the terminal block.

PROBLEM	CAUSE(S)	SOLUTION
There is soot or fly ash in the house.	The window is being cleaned when the stove is operating.	Turn down the convection fan or turn off stove before cleaning to prevent dispersion of ash and soot into the room.
	There is leakage at the joints between the combustion fan, exhaust pipe, and "PL" vent. This will be evidenced by dust on the impeller of the convection fan, and in the heat exhanger tubes.	Seal up any leaks in the exhaust system with room temperature vulcanizing silicone sealer (RTV).
	For a fireplace insert installation: If the existing fireplace opening was not thoroughly cleaned and painted before the insert was installed, then the convection fan may be picking up the fireplace dust, soot or ash and blowing it into the house.	Pull insert away from fireplace opening. Thoroughly clean the opening and paint the inside of the opening with latex or an inexpensive spray paint to hold down the finer particles of dust.
	The vacuum cleaner is leaking.	Check your vacuum cleaner bag, replace the bag, or don't use a vacuum to clean out soot and fly ash from your stove.

APPENDIX B - FLOOR PROTECTION MATERIALS

Material Type	Required Sheets/Layers	K Factor	Minimum Thickness	Actual Thickness
Cement		2.04	4.74	4.75
Den-Shield	6 Sheets of 7/16"	1.1	2.55	2.625
Foam Glass		.34	.79	1.5
Homasote N.C.F.R.	3 Layers of 1/2"	.59	1.32	1.5
Micore CV-230	2 Layers of 1/2"	.43	1	1
Micore CV-300	3 Layers of 3/8"	.458	1.06	1.125
Millboard		.84	1.95	2
Wonderboard	6 Sheets of7/16"	.98	2.27	2.625

Micore CV-230 is the approved and tested floor protection material. If you need to use a floor protector other than Micore CV-230, see the above chart of equivalent floor protection materials. A K factor is listed for each material type. The minimum thickness is derived from the chart on page 19. When you install a material listed above, the column labeled "Actual Thickness" gives you the actual thickness of the material you will be using when you utilize the required number of sheets or layers of material. All thickness listings are in inches.

THIS WARRANTY IS ISSUED BY PYRO INDUSTRIES, INC. (MANUFACTURER) AND EXTENDS ONLY TO THE ORIGINAL PURCHASER OF THIS PRODUCT.

The Manufacturer provides a five year limited warranty on all steel parts (except the grate), and a 1 year limited warranty on all electrical components. These warranties extend from the date of the original purchase. There is expressly no warranty on the following components: glass window, fiberglass rope gaskets, firebrick, grate, paint, exterior brass or enamel finish.

This warranty covers defects in materials and workmanship in covered components, provided the product has been installed and operated strictly in accordance with Manufacturer's printed instructions. This warranty does not cover damage or breakage caused by improper handling, misuse or unauthorized modification. Without limiting the foregoing, the use of fuels other than pelletized wood will void all warranties and liabilities.

All claims under this warranty must be made in writing to the Manufacturer at; Pyro Industries, Inc., 11625 Airport Road, Everett, WA 98204, and should include the following:

1. Name, address, and telephone number of servicing dealer.
2. Name, address, and telephone number of purchaser.
3. Date of purchase.
4. Model & Serial number of stove.
5. Nature of the defect, malfunction and/or complaint.

Local representatives are to inspect parts and or units. If the inspection indicates that the failure was due to defective material or workmanship in covered components and that the other terms and conditions of this warranty have been complied with, the Manufacturer's sole duty and liability under this warranty shall be limited to the Manufacturer's replacement or repair, at Manufacturer's option, of the defective unit or part. The purchaser shall assume all costs of shipping to and from the Manufacturer and shall be responsible for all losses during shipment if the unit is not defective. If a unit is found to be defective by the Manufacturer, shipping costs will be reimbursed. Removal and reinstallation costs are not covered under this warranty.

NEITHER THE MANUFACTURER, NOR THE SUPPLIER TO THE PURCHASER, ACCEPTS RESPONSIBILITY, LEGAL OR OTHERWISE, FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE TO PROPERTY OF PERSONS RESULTING FROM THE USE OF THIS PRODUCT. ANY WARRANTY IMPLIED BY LAW, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS, SHALL BE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. WHETHER A CLAIM IS MADE AGAINST THE MANUFACTURER BASED ON A BREACH OF THIS WARRANTY OR ANY OTHER TYPE OF WARRANTY, EXPRESSED OR IMPLIED BY LAW, MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL OR OTHER DAMAGES OF ANY NATURE WHATSOEVER IN EXCESS OF THE ORIGINAL PURCHASE PRICE OF THIS PRODUCT. ALL WARRANTIES BY MANUFACTURER ARE SET FORTH HEREIN AND NO CLAIM SHALL BE MADE AGAINST MANUFACTURER ON ANY ORAL WARRANTY OR REPRESENTATION.

Some states do not allow the exclusion or limitation of consequential damages, or limitations of implied warranties, so the limitations or exclusions set forth in this warranty may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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