

OWNERS MANUAL

**YOUR
WOODCUTTING
DAYS
ARE OVER.**



THE  REVOLUTIONARY
Whitfield
PELLET-BURNING STOVES
THE PROVEN PERFORMER.

MODELS: WF-1: ZERO CLEARANCE FIREPLACE

NOW YOU HAVE THE BEST!!

"THE PROVEN PERFORMER"

WE WISH TO WELCOME YOU AS A NEW OWNER OF THE WHITFIELD LINE OF PELLET STOVES AND FIREPLACES. IN PURCHASING A "PROVEN PERFORMER" PELLET STOVE, YOU HAVE JOINED THE RANKS OF THOUSANDS OF CONCERNED INDIVIDUALS WHOSE ANSWER TO THEIR HOME HEATING SYSTEM REFLECTS CONCERN FOR EFFICIENCY AND AESTHETICS, AND OUR ENVIRONMENT. WE EXTEND OUR CONTINUAL SUPPORT TO HELP YOU ACHIEVE THE MAXIMUM BENEFIT AND ENJOYMENT AVAILABLE FROM YOUR PELLET STOVE.

PLEASE! FAMILIARIZE YOURSELF WITH THE OWNER'S MANUAL BEFORE INSTALLING YOUR WHITFIELD. THIS MANUAL COVERS, IN DETAIL, THE NECESSARY STEPS REQUIRED IN ASSEMBLING AND INSTALLING YOUR WHITFIELD PELLET STOVE OR FIREPLACE IN A SAFE MANNER.

WE AT PYRO INDUSTRIES, INC. - THE MANUFACTURERS OF THE WHITFIELD PELLET STOVES AND FIREPLACES - ALL THANK YOU FOR SELECTING A WHITFIELD AS YOUR ANSWER TO YOUR HOME HEATING NEEDS.

SINCERELY,

ALL OF US AT PYRO INDUSTRIES, INC.

INDEX

HEADING	PAGE #
(SECTION I.)	
DISCLAIMERS	
INSTALLATION AND MAINTENANCE DISCLAIMER.....	1
PELLETS & PELLET DISCLAIMER.....	2
GENERAL	
PRINCIPLES OF OPERATION.....	3
CONTROLS	
1. ON/OFF SWITCH.....	4
2. START SWITCH.....	4
3. FUEL CONTROL.....	4
4. AUTOMATIC CONTROLS	
4A. Over Heat Snap Switch.....	4
4b. Auger Tube Over Heat Snap Switch.....	4
4c. Convection Fan (On/Off) Snap Switch.....	4
5. Damper Control.....	4
SAFETY	
SAFETY PRECAUTIONS.....	5
SMOKE ALARM.....	5
SAFETY TESTING.....	6
SAFETY FEATURES.....	7
STOVE BODY	
PAINT.....	7
(SECTION II.)	
INSTALLATION INSTRUCTIONS (GENERAL)	
CHECK LIST	
CUSTOMER CHECK LIST.....	8
EXHAUST INSTALLATION.....	9
OUTSIDE AIR CONNECTION.....	9
ELECTRICAL INSTALLATION.....	9
FLOOR PROTECTION	10
CLEARANCE TO COMBUSTIBLES	
ZERO CLEARANCE FIREPLACE.....	10
HEARTH STOVE.....	11
PRE-INSTALLATION INFORMATION	
SET UP PROCEDURES.....	12
SPECIFIC INSTALLATION DETAILS	
I. HEARTH STOVE (THROUGH THE WALL).....	13
II. HEARTH STOVE (CORNER INSTALLATION).....	14
III. HEARTH STOVE (THROUGH THE CEILING).....	15
IV. HEARTH STOVE (VENTED UP AN EXISTING CHIMNEY).....	16, 17
V. ZERO CLEARANCE FIREPLACE.....	18
VI. MOBILE HOME INSTALLATION.....	19

(SECTION III.)

OPERATING INSTRUCTIONS.....	20,21	IV.
SHUT-DOWN PROCEDURE.....	21	

MAINTENANCE		
ROUTINE MAINTENANCE.....	22,23	

TROUBLE SHOOTING GUIDE		
1. NO FUEL FEED.....	24	
2. SOOT ON WINDOW.....	24	
3. NO HEAT FROM HEAT EXCHANGER.....	24	V.
4. FIRE GOES OUT AT LOW FUEL FEED.....	25	
5. STICKING DAMPER.....	25	
6. ERATTIC FIRE.....	25	
7. SMOKE OR ODER FROM STOVE.....	25	VI.

SECTION I.
(DISCLAIMERS)

INSTALLATION AND MAINTENANCE DISCLAIMER:

SINCE PYRO INDUSTRIES HAS NO CONTROL OVER THE INSTALLATION OF YOUR STOVE, PYRO INDUSTRIES GRANTS NO WARRANTY, IMPLIED OR STATED, FOR THE INSTALLATION OR MAINTENANCE OF YOUR STOVE, AND ASSUMES NO RESPONSIBILITY FOR ANY CONSEQUENTIAL DAMAGE.

ALL EXHAUST AND FRESH AIR CONNECTIONS MUST EXIT TO THE OUTSIDE OF THE DWELLING. THEY MUST BE FULLY SEALED AND AIR TIGHT. ANY LEAKAGE OF DUST OR SOOT FROM EITHER THE FRESH AIR INTAKE OR EXHAUST SYSTEM, IS THE SOLE RESPONSIBILITY OF THE INSTALLER!

The Whitfield Fireplace/Hearth Stove (model WF-1 and WF-2) is designed and approved for the burning of pelletized biomass 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!

Internal components of your Whitfield Stove should be checked, oiled and cleaned on a regular basis. (See Page 24; Routine Maintenance). failure to perform recommended and required maintenance may cause difficulty in the operation of your stove. PYRO INDUSTRIES ACCEPTS NO RESPONSIBILITY FOR PROBLEMS WHICH MAY ARISE DUE TO LACK OF MAINTENANCE BY THE STOVE OWNER.

PARTICULAR ATTENTION SHOULD BE PAID TO THE STOVES EXHAUST SYSTEM. THE EXHAUST SYSTEM MUST BE CHECKED ON A REGULAR BASIS AND CLEANED IF NECESSARY. FAILURE TO DO SO WILL RESULT IN A BUILD UP OF FLY ASH IN THE CHIMNEY AND WILL RESULT IN THE UNSATISFACTORY OPERATION OF YOUR STOVE, IF EXHAUST BECOMES BLOCKED WITH FLY ASH.

PELLETS & PELLET DISCLAIMER

THE WHITFIELD FIREPLACE/HEARTH STOVE HAS BEEN DESIGNED TO BURN PELLETS ONLY!! DIRTY FUEL WILL ADVERSELY EFFECT THE PERFORMANCE OF THE UNIT. IF POOR QUALITY FUEL (*) IS USED, MAINTENANCE WILL BE NEEDED MORE FREQUENTLY.

CAUTION: THE USE OF DIRTY OR WET FUEL MAY VOID THE WARRANTY!!

PELLETS

SIZE:

Generally pellets come in 1/4, 5/16, 3/8 or 1/2 inch diameter.

The Whitfield Fireplace/Hearth Stove has been designed to run on pellets up to three-eighth inch size. Larger diameter and or longer pellets tend to bridge the auger flights and may not feed properly. You will need to gauge your fuel feed rate based on the variances of the pellets you are using. (e.g. smaller diameter pellets generally feed faster than larger diameter pellets at the same fuel setting; particularly if they are shorter in length)

PELLET COMPOSITION:

Most pellets are composed of sawdust, bark, agricultural residue or a combination of same. Some important differences to be noted:

1. Generally speaking, the more bark in wood pellets, the higher the ash content of the fuel. A good quality pellet will contain less than 1% ash.
2. Pellets composed of agricultural residue will have higher ash content - typically greater than 5%.
3. More additives equals higher BTU/hr. from the fuel. Some pellets have binders added to increase their hardness and improve the ease of their going through the die in the manufacturing process.

EFFECT OF QUALITY or LACK OF QUALITY:

Pellets can vary considerably in quality. Please be aware of the following facts.

(*) DIRTY FUEL: (loose material). If pellets have too large a portion of fines (loose material), proper combustion will be affected and you may need to clean the combustion blower more frequently. NOTE: If pellets have a large amount of fines, you may wish to screen them to insure a cleaner burn.

The Whitfield Fireplace/Hearth Stove with it's unique bottom augered cross feed system is designed to handle lower quality pellet fuels that are high in ash or fines. There are limitations to this feature however. No Pellet Stove will handle dirt, sand or other non combustibile materials. Attempting to do so, may cause auger jams, clinkering and unacceptable burn characteristics. Pyro Industries accepts no responsibility for the burning of poor quality fuel.

PRINCIPLES OF OPERATION (GENERAL)

It is important to realize that like any mechanical devise there are right and wrong methods of operation and maintenance. Adherence to the operating and maintenance instructions, will assure you of continuing convenience and enjoyment in the operation of your Stove.

The Whitfield Fireplace/Hearth Pellet Stoves are remarkably simple and safe in their operation. They can produce over 40,000 BTU's/hour to heat your home on the coldest of days.

Wood pellets are made from waste sawdust and other by-products that are ground, dried and then compressed into pellets. They can be purchased in 40 or 50 lb. bags from your nearest dealer.

The fuel is stored in dual hoppers that are part of the stove. After the fire has been lit, a slowly-turning screw auger delivers fuel, from both hoppers simultaneously into the fire at a rate that can be manually controlled. A combustion fan draws air into the burner head creating a vigorously burning fire. This fan then discharges the waste gases through a small exhaust pipe in the back of the stove. A second fan circulates room air across the heat exchanger fins (located on the top of the firebox) and out through the slots above the door and into the room. The brightly burning fire is always visible through the glass bay window area at the front of the unit.

The Stove will operate best and at its peak efficiencies when run continuously and can be adjusted to maintain the room temperature at a constant level. This is a great improvement over the up and down cycling temperatures provided by a thermostat.

The controls are housed in a separate module for the Model WF1 and are located underneath the right hand hopper lid on the Hearth Stove model (WF-2).

Once the fire has been lit and the fuel flow and Damper have been adjusted; the only regular attention the unit will need will be to fill the hoppers, empty the ash pan and wipe dust from the window when needed.

It is important to keep the internal components of the stove clean from the ash and dust deposits from the pellets. The section of this manual on ROUTINE MAINTENANCE should be clearly understood.

You will find the new technology of the Whitfield Fireplace/Hearth Stove considerably more convenient than your old wood stove. In most ways it will rival the convenience of a gas or oil furnace but with the added warmth and charm of a wood fire.

CONTROLS

WF-1 MODEL - ZERO CLEARANCE BUILT-IN:

The blowers and the automatic pellet supply are controlled from a small remote control module with a power cord plugged into the back of the stove. The Control Module should be flush-mounted in the wall enclosure within five (5) feet of the stove.

WF-2 MODEL - HEARTH STOVE:

The blowers and the automatic pellet supply are controlled from a small control panel just inside the hopper lid of the right-hand hopper. Other wise the operation of these controls is identical to WF-1 controls.

1. ON/OFF SWITCHES:

A. (MAIN) - Turns the Auger Motor, Combustion Blower and the Convection Blower On or Off.

B. (AUGER MOTOR) - Push Button Switch; Switches the Auger Motor On or Off independently from the Main ON/Off Switch.

2. START SWITCH - The "start" switch is a spring loaded switch that is depressed momentarily to activate an internal relay. If the stove shuts off automatically, is turned off manually, or there is a power failure, then this switch must be reset to start the stove again.

3. FUEL CONTROL - The fuel control sets the rate at which the pellets are supplied to the fire by switching the auger motor on and off every few seconds. Clockwise rotation of the fuel control knob increases the pellet feed from 20% to 100%.

4. AUTOMATIC CONTROLS - There are several Automatic Controls incorporated into the Whitfield Fireplace and Hearth Stove. They are as follows;

a). Over Heat Snap Switch; If the Whitfield Fireplace/Hearth stove overheats, an overheat switch will safely shut down the unit and a manual reset will be required to start the stove again after it has cooled down approximately one (1) hour.

b). Auger Tube Over Heat Snap Switch; If the pellets start to burn down into the burner head and auger tubes (due to empty hoppers or a jammed auger) the stove will automatically shut off. A manual reset will be required to start the stove again.

c). Convection Fan Snap Switch: The convection blower will automatically start as the stove heats up (10-30 minutes) and will stop when the stove cools down (30-60 minutes).

5. DAMPER CONTROL - The push-pull rod on the bottom of the left-hand hopper (on the front) controls the amount of air supplied to the fire. Maximum air is provided with the rod positioned all the way out. Whenever the fuel feed rate is adjusted (UP or DOWN) the damper should be adjusted OUT or IN accordingly to give a clean burn.

SAFETY PRECAUTIONS

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! PAY PARTICULAR ATTENTION TO THE SECTIONS PERTAINING TO THE EXHAUST AND FRESH AIR INSTALLATION PROCEDURES RELATING TO PROPER SEALING FOR AIR TIGHTNESS. THIS STOVE'S EXHAUST SYSTEM WORKS WITH NEGATIVE COMBUSTION CHAMBER PRESSURE AND A POSITIVE CHIMNEY PRESSURE. THEREFORE IT IS IMPERATIVE THAT THE AIR INTAKE AND EXHAUST SYSTEM BE AIRTIGHT, INSTALLED CORRECTLY AND REGULARLY CLEANED.

Under correct operation, the Whitfield Fireplace/Hearth Stove cannot be overfired. Prolonged operation at maximum burn may, however, shorten the life of the electrical components (blowers, motors and controls) and is not recommended! "Overheat sensors have been built into the stove. Should overheating occur the stove will automatically shut down

Gasoline or other flammable liquids must NEVER be used to start or "freshen up" the fire. Keep all such liquids well away from the Fireplace/Hearth Stove at all times! Check with your local Dealer to obtain an approved Fire Starter.

Ashes removed from the Whitfield Fireplace/Hearth Stove must be deposited in a metal container on a non-combustible surface pending final disposal.

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 Fireplaces/Hearth Stoves that are installed in a mobile home, must be electrically grounded to the steel chassis of the home in compliance with H.U.D. requirements.

IT IS THE RESPONSIBILITY OF THE CUSTOMER TO CONTACT THEIR LOCAL BUILDING OFFICIALS TO OBTAIN A PERMIT AND INFORMATION ON ANY INSTALLATION RESTRICTIONS AND INSPECTION REQUIREMENTS.
=====

SMOKE ALARM

An approved smoke alarm must be installed in the vicinity of the stove. Early warning of any smoke leakage will result.

SAFETY TESTING

The Whitfield Model WF-1 and WF-2 pellet burning stove has been independently tested and approved in accordance with the specifications and procedures outlined in UL 1482 for solid fuel room heaters stating requirements for installation as a space heater or hearth insert for masonry or Metal Fireplaces. The safety listing label is located inside the right hand hopper lid.

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

WF-1: ZERO CLEARANCE FIREPLACE:

1. A BUILT-IN- TO-THE-WALL ZERO CLEARANCE FIREPLACE.
2. A FIREPLACE INSERT. (You will need a minimum fireplace opening measuring 33" high and 44" wide.)
3. CAN BE INSTALLED FREE STANDING AGAINST A COMBUSTIBLE WALL WITH A CUSTOM WOOD OR BRICK MANTLE PLACED AROUND THE STOVE.

WF-2: PELLET HEARTH STOVE (FREE STANDING STOVE):

1. A HEARTH STOVE PLACED IN FRONT OF A MASONRY OR METAL FIREPLACE AND VENTED UP THE EXISTING CHIMNEY.
2. A FREESTANDING UNIT VENTED THROUGH AN OUTSIDE WALL OR THROUGH THE CEILING.

The Whitfield Fireplace/Hearth Stove will not operate using natural draft, nor without a power source for the blowers and fuel feeding systems.

The appliance is provided with an exhaust connector for a 3 or 4 inch type Pyro Industries Model "PL" double wall vent with a stainless steel inner liner. The installation does not require a vertical "class A" chimney system. The Whitfield Pellet Burning Fireplace/Hearth stove has been approved for horizontal venting through a combustible wall using listed components. The exhaust termination must be no lower than two (2) feet above the top of the Stove.

The Whitfield Fireplace/Hearth Stove is designed to provide the optimum proportions of fuel and air to the fire and properly adjusted will burn free of smoke and soot. Any blockage of the air supply to or from the stove will seriously degrade this performance and will be evidenced by a smoking exhaust and sooting window. For the best operation, the ash content of the pellet fuel should be less than 2% and the calorific value approximately 8,500 BTU's per lb. Poor quality Pellets will seriously impair the performance of the stove.

SAFETY FEATURES

Pellet burning appliances eliminate the most serious hazards associated with conventional wood-burning and represent a significant technology breakthrough in the safety of residential wood-burning.

1. CREOSOTE FORMATION AND CHIMNEY FIRES:

The high efficiency achieved using dry pelletized fuel and forced draft combustion virtually eliminates smoke production and creosote formation under correct burn conditions.

2. OVERFIRING:

"Fuel controlled combustion" prevents the possibility of overfiring the stove. A temperature control will automatically shut off the fuel if the stove gets too hot.

"FUEL CONTROLLED COMBUSTION" - Adjusting the heat output by controlling the rate at which fuel is continuously added to the fire.

3. POWER FAILURE

Electrical power failure will shut the stove down automatically and in a safe manner. A small amount of smoke leakage into the room may be expected under these conditions, but will not persist for more than a few minutes. This in no way represents a safety hazard. The stove WILL NOT reignite when the power returns, but the system can easily be restarted (as long as there are still hot coals in the burn pot) by pushing the start button on the control panel.

STOVE PAINT

WARNING: The high temperature paint on this stove will take approximately two days of use to fully cure. During this time an odor will be evident and the area around the stove should be well ventilated. DO NOT touch the painted surfaces during this period of time.

SECTION II.
(INSTALLATION INSTRUCTIONS)

CUSTOMER CHECK LIST

A. THINGS TO CHECK BEFORE INSTALLATION:

- a. THOROUGHLY READ AND UNDERSTAND THE MANUAL: YOU MUST FAMILIARIZE YOURSELF WITH THE OPERATION OF THE PELLET STOVE OR YOU MAY HAVE DIFFICULTY IN OPERATING IT.

PAY PARTICULAR ATTENTION TO THE SECTIONS THAT DEAL WITH PROPER INSTALLATION, OPERATION, MAINTENANCE AND DAMPER CONTROL!! (If you familiarize yourself with these areas in particular you will have little difficulty in operating your Whitfield Stove.

- b. BEFORE FINAL INSTALLATION:
Check to see that the set screw which holds the auger motor to the auger is tight and has not loosened in shipment. (Front right hand access panel will need to be removed to check this).
- c. Check to see that the auger turns free with no foreign objects in hopper.
- d. Check that the rope gasket around the opening bay window and the ash pan door have not been damaged. Repair or replace if necessary.
- e. Check that the gasket seals around both hopper lids/flaps are not damaged.

B. Things to check upon completion of installation but prior to starting stove for the first time!

- a. Check to see that the fresh air inlet on the rear of the stove is installed (and sealed) for outside air.
- b. Check to see that the exhaust pipe which connects directly to the stove has been sealed with high temperature silicone (RTV) to prevent any leakage.
- c. Check to see that the chimney cap has been installed correctly, to prevent any natural drafts, which may adversely effect safety and performance. (see section on windy conditions)
- d. Check to see that all joints of "PL" VENT are tight and correctly installed. (See "PL VENT INSTALLATION").

WARNING: FAILURE TO INSPECT AND FAMILIARIZE YOURSELF WITH ANY OF THESE ITEMS MAY RESULT IN UNSATISFACTORY PERFORMANCE AND POSSIBLY UNSAFE CONDITIONS FROM YOUR WHITFIELD FIREPLACE/HEARTH STOVE AND COULD CAUSE UNNECESSARY DIFFICULTY IN ITS OPERATION!

EXHAUST INSTALLATION REQUIREMENTS:

1. Based on the need for a small amount of natural draft when stove is shut down or power has gone out, you must Adhere to the following installation recommendations.
 - A. Straight out Horizontal runs must have a vertical rise of at least two feet above the top of the Stove.
 - B. Short Horizontal Installations of 5 feet or less may need more than 2 feet of vertical above the top of the Stove to evacuate any smoke present in the Stove during shut down or power outage.
 - C. Horizontal or vertical runs which go down, or exceed 5 feet in length are not recommended.

Failure to adhere to these instructions may result in some smoke or odor entering the room through the firebox or the hoppers.

2. The exit terminal shall be located not less than 60 inches from any opening, through which combustion products could enter the building, (i.e. windows and doors), nor less than 24 inches from an adjacent building and not less than 7 feet above grade when located adjacent to public walk ways. It shall be so arranged that flue gases do not jeopardize people, overheat combustible structures or enter the building.
3. The system shall be installed so as to be gas tight. Connections within the building must be joined together using high temperature silicone (RTV), 1/4 sheet metal screws (do not pierce the inner wall of the exhaust pipe with the screws) and metallic tape. Where the exhaust pipe joins the stove, RTV must be used and the pipe must be connected to the stove with sheet metal screws. Single or Double "PL" Clean Out Tees must be installed at every 90 degree bend, to facilitate cleaning of the chimney.
4. When venting into an existing chimney, it is strongly recommended that the top chimney opening be reduced to 4". This will lessen the possibilities of high winds creating adversely high natural draft in the chimney.

FOR SPECIFIC INSTALLATION DETAILS AND DIAGRAMS PERTAINING TO PROPOSED INSTALLATION CONFIGURATION: (Pages 12-19)

OUTSIDE AIR CONNECTION REQUIREMENTS

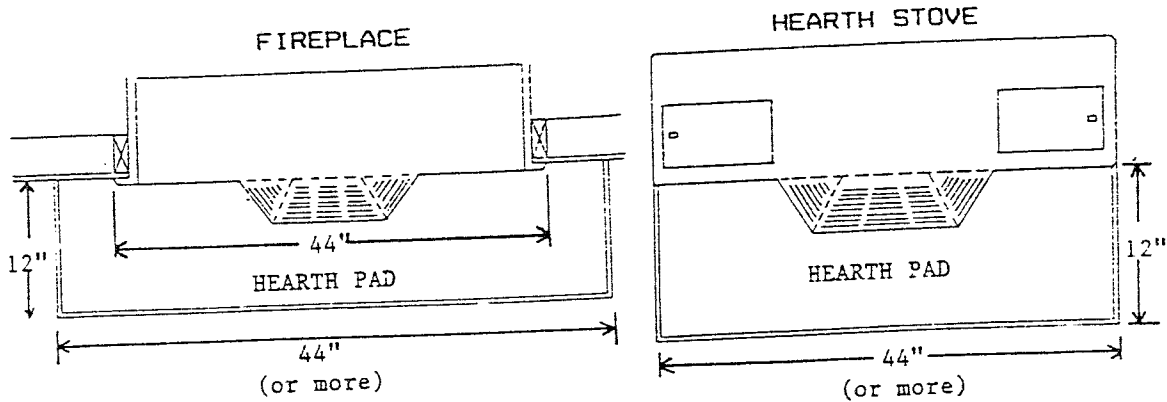
The stove should be connected to an outside source of combustion air to improve efficiency and cleanliness. A 1 5/8 inch flexible metallic pipe may be used for this purpose. A suitable connection is provided on the rear of the stove. The inlet pipe may be terminated flush with the outside of the building or the floor, but should be protected from wind or animals (birds etc.)

ELECTRICAL INSTALLATION REQUIREMENTS

The appliance is provided with an 8 foot grounded electrical cord extending from the rear. This should be connected to a standard 110 volt, 60 Hz electrical outlet. The approximate power requirements are 150 watts.

FLOOR PROTECTION REQUIREMENTS

The Whitfield Fireplace/Hearth stove must be installed on a non-combustible protective floor pad of minimum 3/8 inch asbestos millboard (or equivalent thereof) or a masonry hearth. The hearth or floor pad must extend a minimum of 12 inches in front of the stove (6in. in front of window). Measurements are as follows:

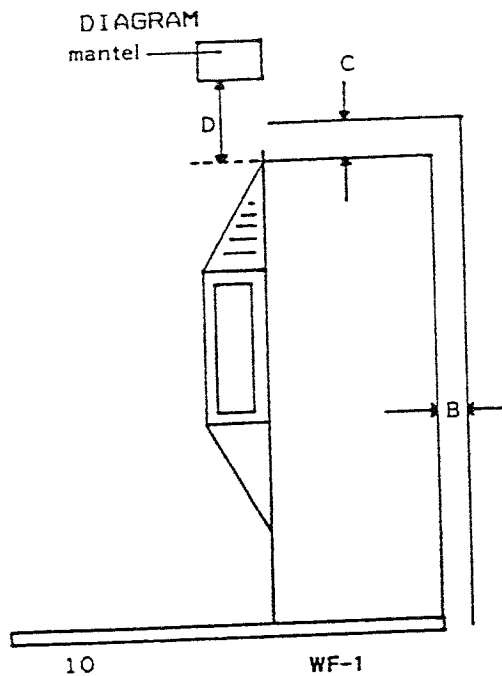


CLEARANCE TO COMBUSTIBLES REQUIREMENTS

The unit must be installed with the following minimum clearances to combustible materials:

WF-1: ZERO CLEARANCE BUILT-IN:

- | | |
|------------|--|
| A. SIDE: | 0" inches/MM |
| B. BACK: | 0" inches/MM (to standoffs). |
| C. TOP: | 0" inches/MM (to standoffs) |
| D. MANTLE: | 18" inches/455MM (Above top of Fireplace.) |



CLEARANCES TO COMBUSTIBLES REQUIREMENTS Cont.

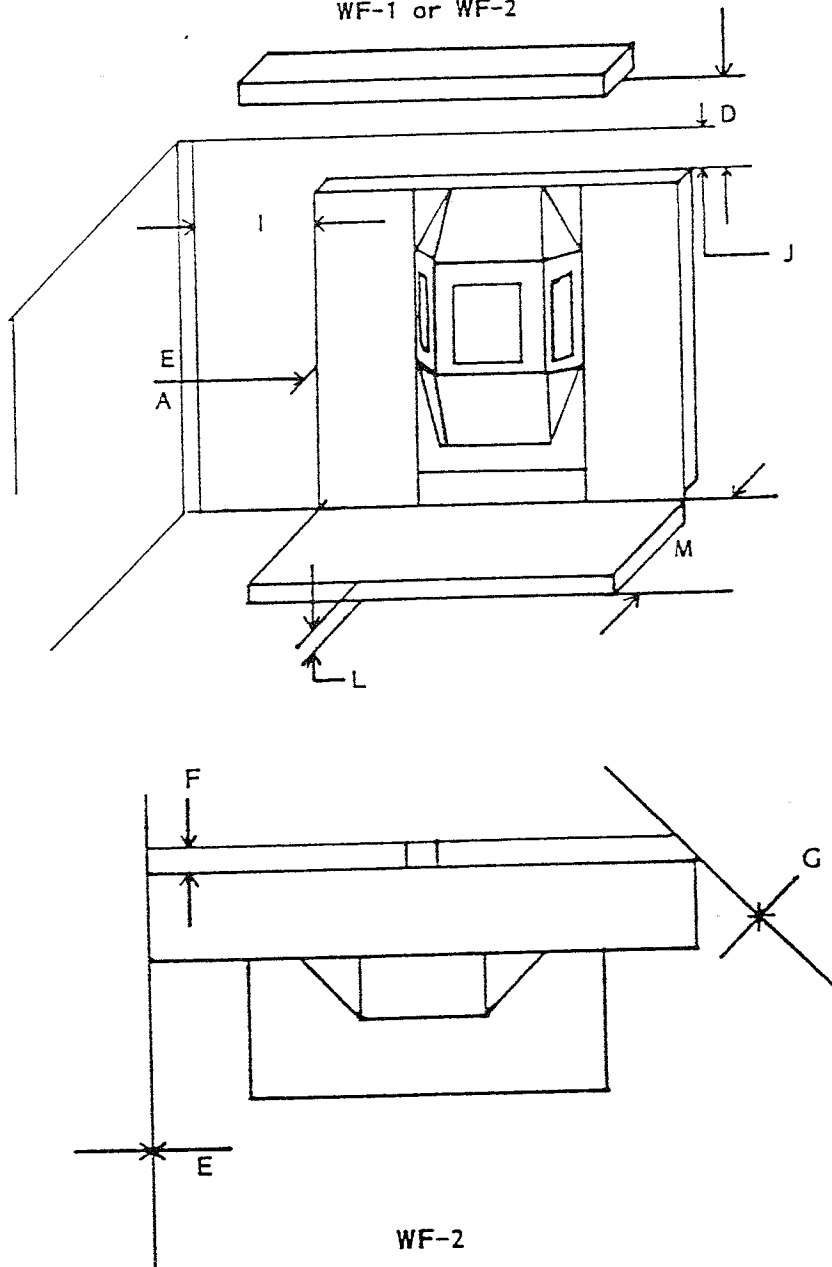
WF-2: HEARTH STOVE, FREESTANDING HEATER:

- E. SIDE: 0" INCHES/MM
- F. BACK: 1 1/2" INCHES/40MM
- G. CORNER: 0" INCHES/MM

WF2 HEARTH MOUNTED INSTALLATION:

- B. BACK: 0" INCHES/MM
- I. SIDE FACING: 0" INCHES/MM
- J. TOP FACING: 0" INCHES/MM
- D. MANTLE: 18" INCHES/455/MM
- L. FLOOR ABOVE HEARTH: 0" INCHES/MM

DIAGRAM
WF-1 or WF-2



WF-2

"SETUP" PROCEDURES

It's important to recognize the fact that a Pellet Stove is an Appliance more than it is a Stove in the traditional sense. As such there are important operational and Installation differences which must be understood and adhered to by the Dealer and the Customer if they are to avoid unnecessary problems.

When the Whitfield Fireplace/Hearth Stoves are manufactured, the Hoppers and Hopper Lids are sealed to predetermined levels. It is extremely important that these seals be checked when stove is first installed. Failure of these seals or operation with the hopper lids open could result in the leakage of smoke, poor burn characteristics or even the possibilities of "burn back conditions" in high winds during a power failure or shut down!

[Perform following Test Procedures to verify conformance.]

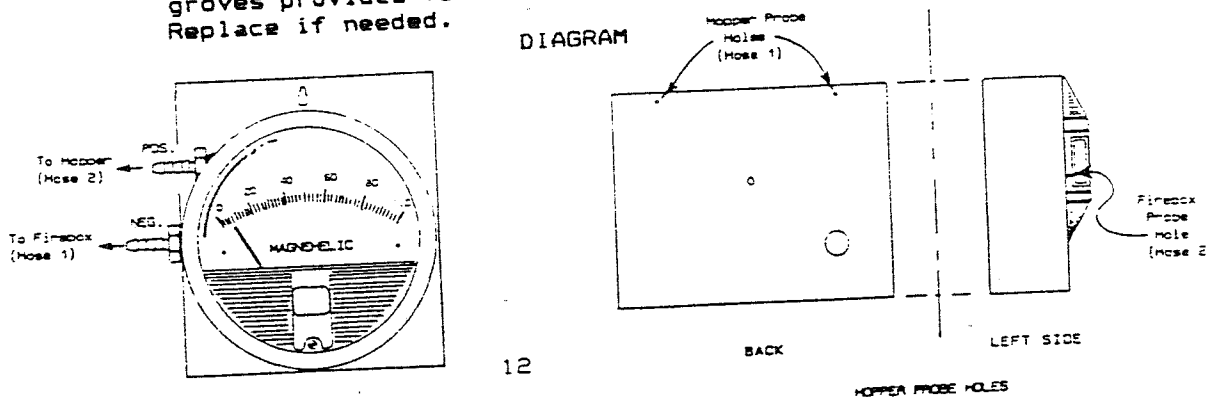
NOTE: HOPPERS AND AUGER TUBE NEED TO BE EMPTY WHEN PERFORMING THIS TEST PROCEDURE.

1. Remove "Cera Board" fire brick from the fire box. Block off the ends of the two vent tubes (seven eighths in diameter) that penetrate the sides of the firebox and extend into the hoppers.

2. HOPPERS and HOPPER LIDS:
Install Pressure Gauge (Magnahelic) hose 1 in test probe hole on the left side of the door. Turn on Stove (Press On/Off Switch to on and press Start switch). Pull Damper out with until Pressure Gauge reads 0.6

If the reading is less than 0.3 the hopper is too tight. release the tension on the latch a little. If the reading is greater than 0.6 check the gasket around the hopper lids and tighten the latch if necessary. (BE SURE AND REMOVE THE VENTILATION TUBE BLOCKAGE UPON COMPLETION OF THIS TEST) Install hose 2 in the hole on the Right Hopper (See Diagram). With Hopper Lids firmly closed you should get a reading in the range of .03-.06 If you fail to obtain this pressure you will need to check the Lid Gaskets and the Hopper joints to be sure they are sealed completely. Repeat the exact same Procedure on the Left Hopper also.

2. FIRE BOX DOOR and ASH PAN DOOR:
Check to see that the Gaskets are firmly seated in the grooves provided for this purpose on the doors. Repair or Replace if needed.



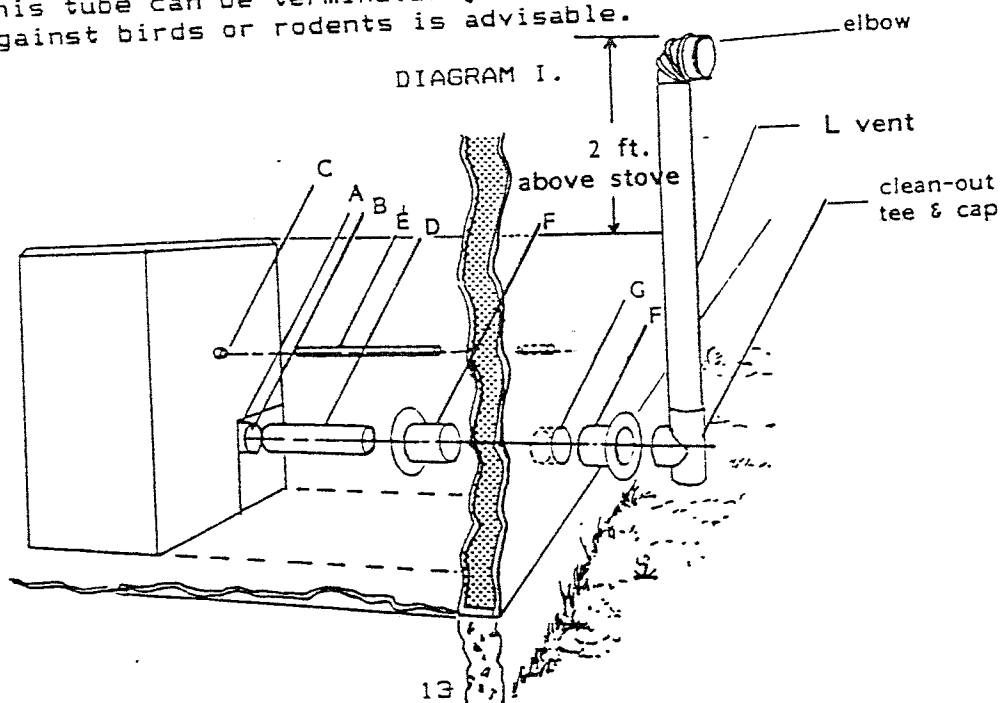
DETAILED INSTRUCTIONS FOR CORRECT EXHAUST INSTALLATION:

Use only 3" or 4" inch approved "PL" Vent components to complete the exhaust assembly.

EXHAUST INSTALLATION; ITEMS 1A, B & C; PAGE 9 MUST BE ADHERED TO.

I. HEARTH STOVE (THROUGH THE WALL) (See Diagram I. Below)

1. Locate proper position for Type "PL" Wall Thimble (F). Use saber saw or key hole saw to cut a 7 inch diameter hole through the wall (G). Install Type "PL" Wall Thimble in the hole.
2. Position Whitfield Stove approximately 12" from the wall on floor protector. Push Type "PL" Pipe (D) through "PL" Thimble (F). Squeeze a "bead" of high temperature silicone (RTV) sealer (A) around back end of machined portion of the 3" connector (B) on the back of the stove (B). Firmly push an 18" or 24" length of Type "PL" Pipe (D), until inner pipe liner pushes into the bead of RTV sealer. Note: you will need to use a 3" or 4" Increaser or Tee if you use 4" vent or 4" "Z Flex".
3. Push Whitfield Stove (with pipe attached) towards wall. (Pipe "D" will go through the wall thimble "F"). Whitfield Hearth Stove can be positioned 1 1/2 inches from the wall.
4. Install Type "PL" 45 degree elbow (pointed down) on outside end of pipe. NOTE: The end of the exhaust pipe must extend a minimum of 12 inches from the outside of the building.
5. Cut a separate hole through the wall for the fresh air tube (E). This tube must be any approved 1 5/8" flexible metallic hose that will fit over the fresh air inlet (C) on the stove. This tube can be terminated just outside the house. Protection against birds or rodents is advisable.

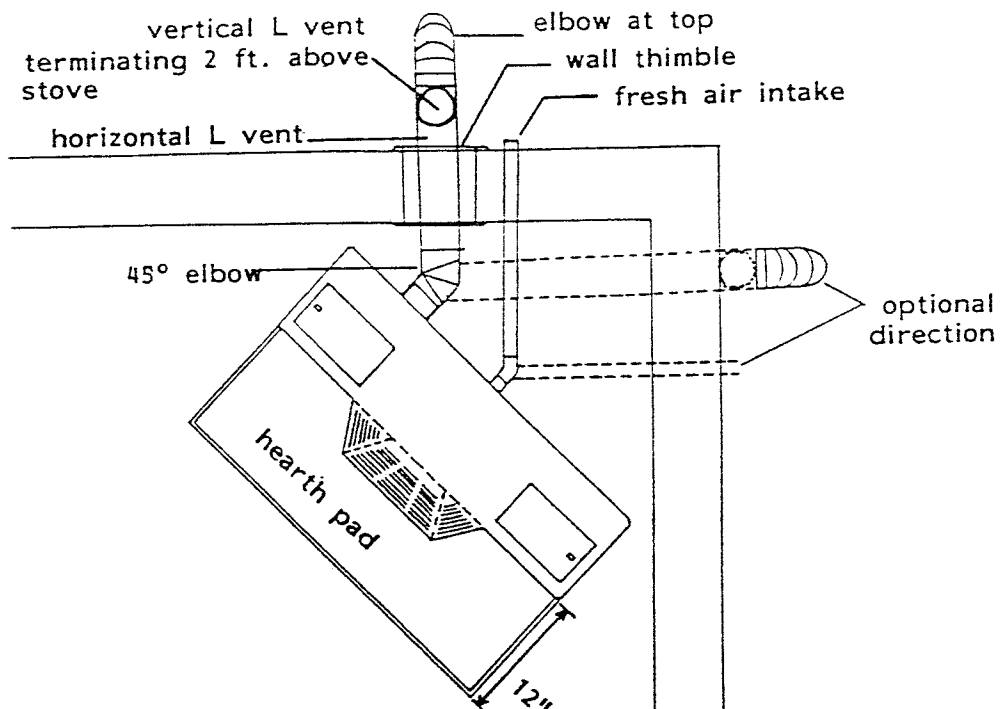


II. HEARTH STOVE (Corner Installation)
(See Diagram II. Below)

[EXHAUST INSTALLATION; ITEMS 1A,B & C; PAGE 9 MUST BE ADHERED TO.]

1. Position Whitfield Stove on floor protector approximately 12 inches from the wall. Align "PL" Thimble position using a 45 degree "PL" elbow either left or right (depending on which wall is an outside wall).
2. Push 18 or 24 inch section of type "PL" double wall vent pipe through "PL" thimble.
3. Squeeze a bead of high-temperature RTV sealer around back end of machined portion of the 3 inch connector on back of stove. Firmly push on a 45 degree "PL" elbow until inner pipe liner pushes into the bead of RTV sealer. Attach with sheet metal screws. Note: You will need to use a 3"X4" Increaser or Tee if you use 4" Vent.
4. Connect 18 or 24 inch "PL" pipe to 45 degree "PL" elbow. Seal connection of 45 degree elbow and pipe with three 1/4" screws and the use of high temperature foil tape.
5. Move Whitfield stove into place, leaving stove no closer than 1 1/2 inches from the wall.
6. Install "PL" end vent on outside end of pipe.
7. Install fresh air intake components which may be obtained from your stove dealer. Protection against birds and rodents is advisable.

DIAGRAM II.



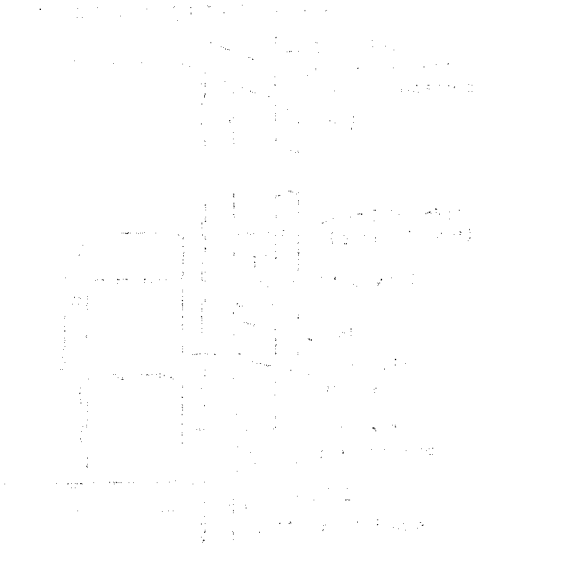
Annual Report of the Board of Directors
of the [Company Name]

REPORT OF THE BOARD OF DIRECTORS FOR THE YEAR ENDING 1948

1. The Board of Directors has the honor to acknowledge the cooperation and assistance of the management and the employees of the Company in the preparation of this report.
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IV. HEARTH STOVE (Vented up Existing Fireplace Chimney)
(See Diagram IV. (Page 20) Below)

[EXHAUST INSTALLATION; ITEMS 1A,B & C; PAGE 9 MUST BE ADHERED TO.]

1. Position stove in front of fireplace on the hearth. Install cover plate with holes for flue and combustion air inlet.
2. Squeeze a "bead" of high-temperature RTV sealer around back end of machined portion of the 3 inch connector on back of stove. Firmly push on type "PL" Tee (aimed up) until inner pipe liner pushes into the bead of RTV sealer.
- 3 Attach (with the use of RTV and Sheet Metal Screws) 4" flexible stainless steel pipe or PL Vent to the "PL" Tee and extend to a minimum of 12" beyond the chimney damper.* (Note: the end of the pipe must be a minimum of at least 2 feet beyond the top of the Stove).

The PL Vent or "Flex pipe must protrude through a steel chimney damper plate, that has been positioned to prevent any back flowing of exhaust gases back into the room.

Alternatively the PL Vent or Flex pipe may be extended all the way to the top of the chimney and terminated with a chimney cap. **

5. Push stove back to the desired position.
6. A fresh air intake is not required (but may be desired to prevent any possibility of smoke or odor from leaking back into dwelling when the stove is shut down.) Do not terminate the fresh air intake too close to the exhaust termination. Poor Stove operation will result.
7. Install a chimney plate directly on top of the chimney, reducing the opening size down to 4" inches. FAILURE TO DO THIS COULD CAUSE EXCESSIVE CHIMNEY DRAFTING AND COULD CREATE UNSAFE CONDITIONS!
- 8.*It is imperative that you Ensure that the Fireplace cavity and Chimney are thoroughly clean before installation of the Hearth Stove. Any dust or odor present in the Fireplace or Chimney will be picked up by the Convection fan and circulated through out the room through the Heat Exchanger.

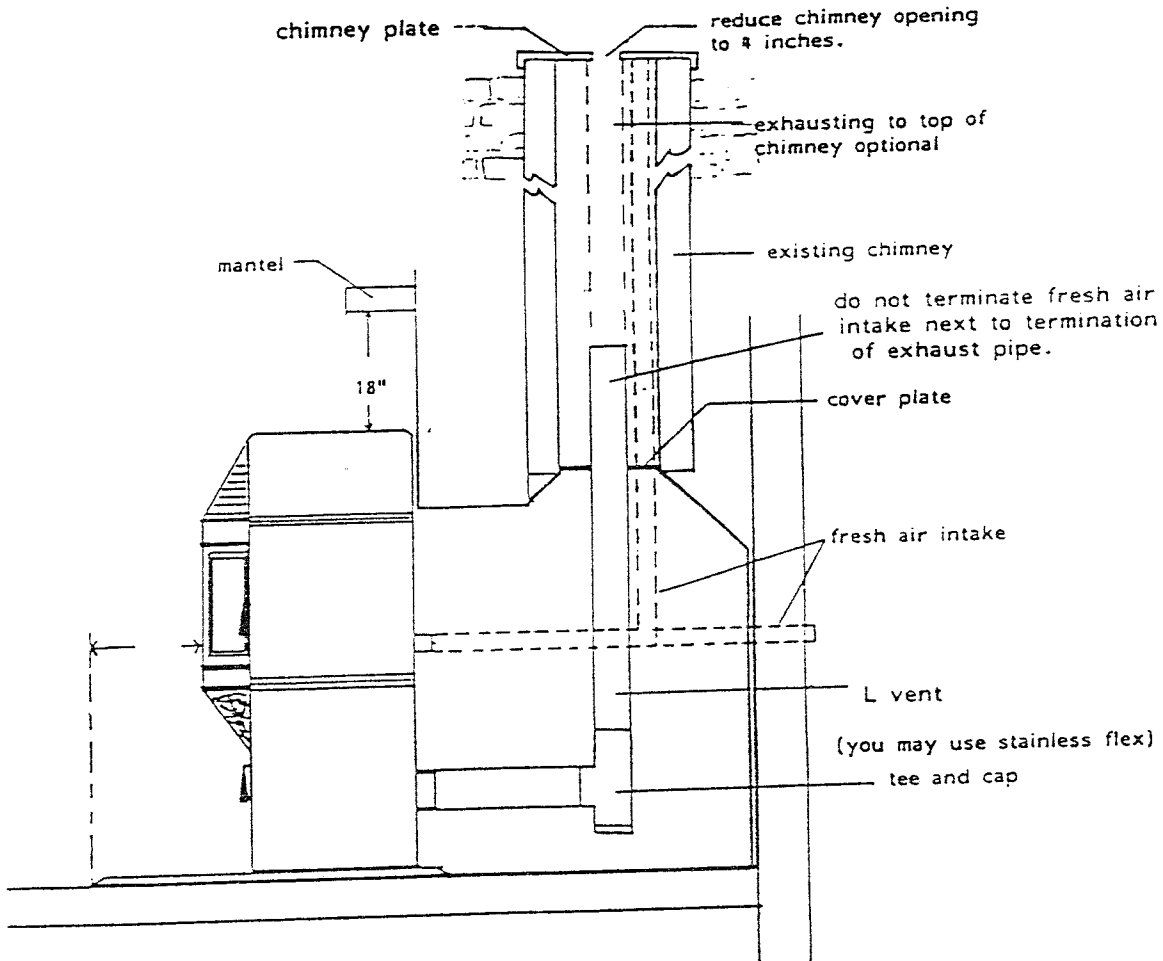
** When extending the Vent to the top of an existing chimney it is strongly recommended that you use double walled PL Vent to minimize heat losses from the pipe. Excessive heat losses with single wall pipe will lead to a greater chance of condensation and the formation of creosote deposits which will require more frequent cleaning.

REMEMBER TO SEAL ALL JOINTS AND SEAMS OF EITHER THE PL VENT OR Z FLEX! FAILURE TO DO SO WILL RESULT IN DUST AND ODOR LEAKAGE BACK INTO THE ROOM.

IV. Hearth Stove (Venting Up an existing Chimney) Cont.

EXHAUST INSTALLATION; ITEMS 1A, B & C; PAGE 9 MUST BE ADHERED TO.

DIAGRAM IV.



EXHAUST AND FRESH AIR INTAKE INSTALLATION OPTIONS

EXHAUST

A. vented all the way to the top of the existing chimney.....

B. vented just 2 feet above the top of the stove.....

FRESH AIR INTAKE

A. OPTIONAL.

B. must go all the way to the top of the existing chimney or thru the back wall of the fireplace opening.

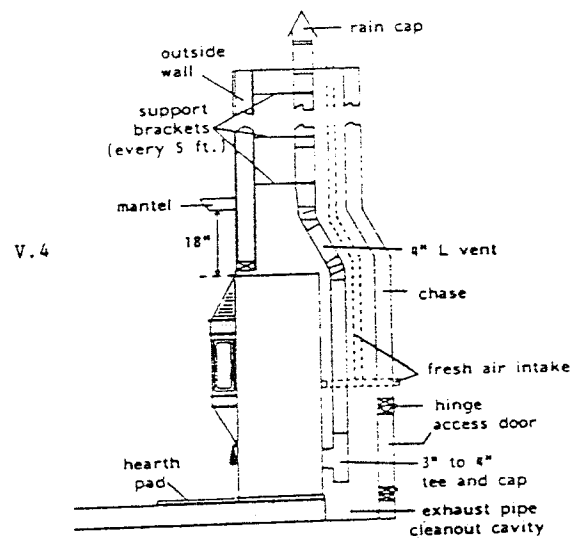
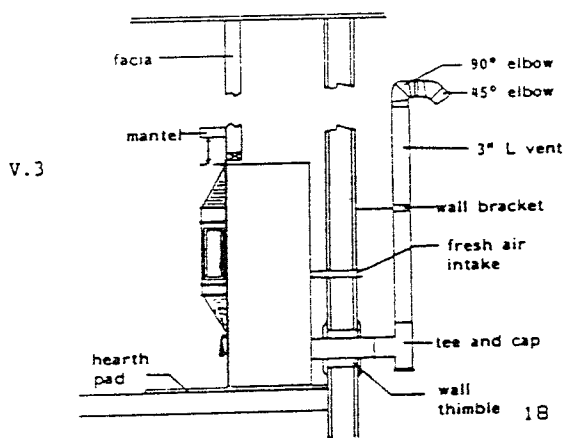
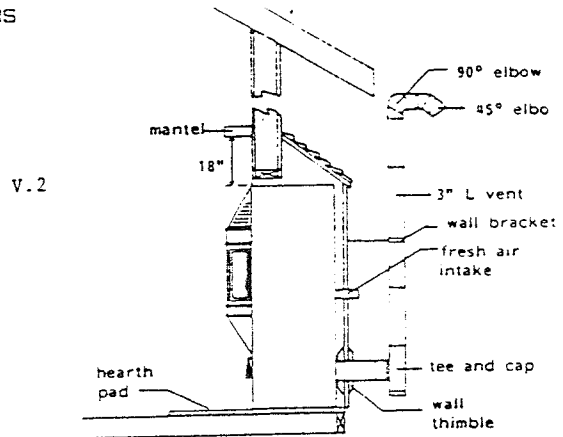
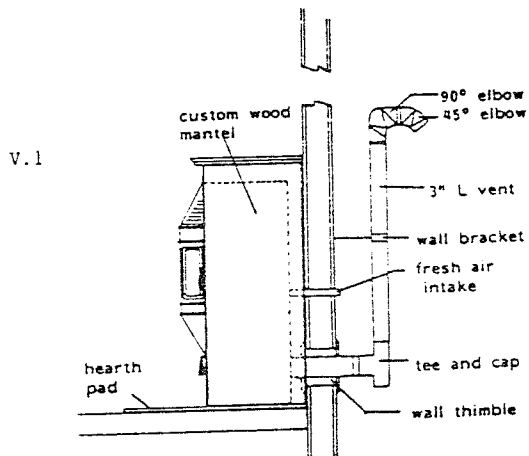
V. ZERO CLEARANCE BUILT-IN
(See Diagrams V. 1, V. 2, V. 3 and V. 4)

EXHAUST INSTALLATION; ITEMS 1A, B & C; PAGE 9 MUST BE ADHERED TO.

NOTE: The Whitfield Zero Clearance Fireplace can be built directly into a frame wall and vented to the outside (see Diagram V.2 and V.3). The "Zero Clearance" Unit can also be placed against an outside wall (similar to Diagram V.1) and installed with a custom enclosure around the unit. The Zero Clearance model can also be installed within a chimney chase that terminates above the roofline (as in Diagram V.4). In all of these installations, a 30 sq.in. cross section of circulating air must be supplied to the left side of the Fireplace. The Control Module may be mounted directly into the Frame Wall or the Mantel.

FOLLOW ALL PREVIOUS INSTALLATION INSTRUCTIONS.

DIAGRAMS



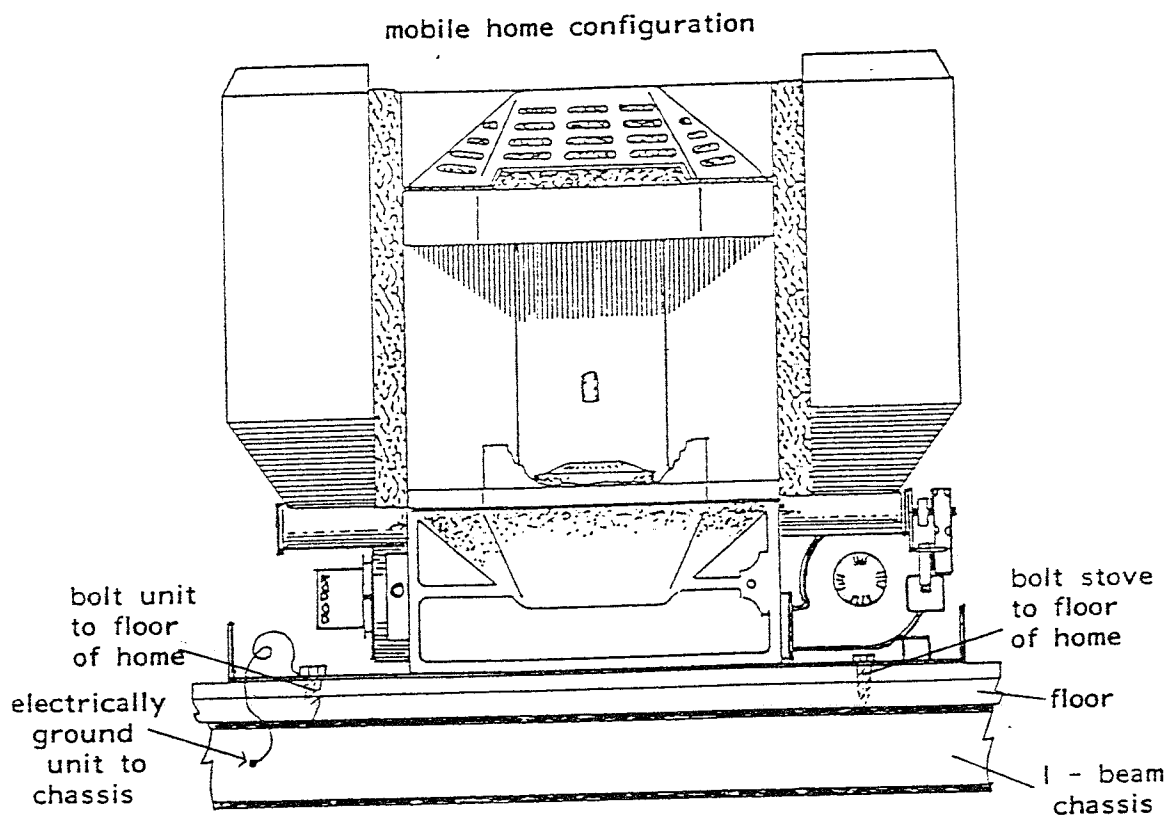
VI. MOBILE HOME INSTALLATION
(See Diagram VI. Below)

[EXHAUST INSTALLATION; ITEMS 1A, B & C; PAGE 9 MUST BE ADHERED TO.]

The Whitfield Fireplace/Hearth Stove has been approved for installation in a mobile home. All the previous installation instructions must be adhered to along with the following requirements:

1. Bolt the stove to the floor.
2. Electrically ground the unit to the chassis of the home.
3. Combustion Air intake must be connected to the outside!

DIAGRAM VI.



SECTION III.
OPERATING INSTRUCTIONS

A. FILL HOPPERS:

1. Open Hopper lids and fill both hoppers with pellets. (check to be sure that the gasket seals around the hopper lids are undamaged).
2. Close and firmly latch both hopper lids. (Hopper Lids must be in their closed positions when stove is operating!)

B. TO START THE STOVE:

1. Turn on the combustion blower and the fuel feed, by pressing on the On/Off switch to ON and then pressing the upper "Start Switch".
2. Push the Damper fully in.
3. Set the Fuel Control to 100% until the burner head is full of fuel. This takes approx. 20 minutes if the system is empty and with the fuel control set at 100%.
4. Paper or a proprietary firestarter may be used to start the fire. Bury the Firestarter in the pellets on top of the burner head, light, close the door and turn the fuel feed rate to 20%.
5. When the pellets are burning well, set the desired feed rate by rotating the fuel control knob (clockwise to increase). Initially this should be turned to approx. 50-60% to heat up the room. The damper control should be pulled out correspondingly to provide enough air for the fire to burn cleanly. If there is evidence of smoke in the firebox or in the exhaust or soot on the window, then the damper control should be pulled out further. (Note: the damper is sensitive, particularly at the lower settings).
6. Primary combustion air is drawn up through the holes around the burner-head. This airflow, plus the movement of the pellets up from the center of the burner-head out on to the burn ring, is sufficient to displace the ash from the burner-head and deposit it in the ash pan below. Secondary combustion air is supplied from the tube over the burner head and completes the combustion of gases from the pellets. Both primary and secondary combustion air is controlled by the damper.
7. When the fire is fully established there should be an inner and a outer ring of red hot coals on the burner head with a black ring of partially burned pellets between them. There should be a vigorous yellow flame above the burner head which will increase in height at higher fuel settings.

C. CONTINUOUS OPERATION:

1. The stove is designed to be run continuously. The manual fuel and air controls permit the stove to be set at a heat output that will be in balance with the continuous heat loss from the room and thereby maintain a constant room temperature.

C. Continuous Operation Cont.

2. To adjust Heat output up or down; the Fuel Control should be changed first and the Damper adjusted a few minutes later. (This allows time for any build up of pellets at high burn, to burn down before you lower the air and conversely allows pellets to accumulate some before you raise the air if you've been operating at a lower fuel setting.) Be sure that you have made the proper fuel and air adjustments to the Stove before you leave it unattended.
3. The hopper doors must be kept tightly closed at all times except when filling. FAILURE TO DO SO COULD ALLOW SMOKE BACK INTO HOUSE THROUGH THE HOPPER and poor Stove Operation! (See Trouble Shooting Section for additional details.)

The hopper doors restrict any air from being drawn through the auger tubes into the fire. A simple check on their tightness is as follows:

-After the Stove has been burning for a few hours open the stove door and scrape the charred pellets off the top of the burner head. If unburned pellets are exposed at a depth of one-half to one inch below the surface, the hopper lids are correctly sealed. If charred pellets are found all the way down to the auger, then the hopper seals need to be checked. (see Setup Procedures Section.)

4. The Ash Pan should be removed and emptied when approx. three quarters full. The lower door gives access to the Ash Pan. The tool provided with the Stove incorporates a handle which should be used to remove the Ash Pan and dispose of the ashes. REMEMBER THE ASHES MAY STILL BE HOT AND CAUTION SHOULD BE EXERCISED TO PREVENT ANY SPILLAGE OF HOT ASHES OR COALS ONTO THE FLOOR!

D. STOVE SHUT DOWN:

1. To shut the stove down, the system on/off switch should be turned to the OFF position. Check that the hopper lids/flaps are tightly closed.

In the event that you see or smell smoke when you shut your stove down, the following alternate shut down procedure should be used.

Alternate Shut Off Procedure:

1. Shut the "Auger Motor Shut Off Switch" off leaving the Main On/Off Switch on.
2. Push Damper fully in.
3. At the end of approx. one hour turn the Main On/Off Switch to off.

This procedure allows any pellets on the burner head to fully burn out; and evacuates any smoke from the fire box.

ROUTINE MAINTENANCE

WE SUGGEST THAT YOU CHECK THE FOLLOWING PARTS OF YOUR STOVE DURING THE FIRST MONTH OF OPERATION TO DETERMINE THE DESIRED FREQUENCY OF THIS CLEANING BASED ON YOUR INDIVIDUAL USAGE. YOU WILL KNOW WHEN YOUR STOVE NEEDS CLEANING EITHER BY INSPECTION OR IF YOU SEE THE PERFORMANCE FALL OFF MARKEDLY.

1. BURNER HEAD
2. DOOR ROPE GASKET
3. "PL" VENT EXHAUST SYSTEM
4. BLOWERS (COMBUSTION AND CONVECTION)
5. FRESH AIR INTAKE

ACCESS TO THE INTERNAL COMPONENTS OF THE FIREPLACE (e.g. AUGER MOTOR, COMBUSTION FAN, CONVECTION FAN, OR THE EXHAUST CONNECTION ON THE ZERO CLEARANCE FIREPLACE, IS GAINED BY REMOVING THE LEFT AND RIGHT FRONT PANELS. *

TO GAIN ACCESS TO THE INTERNAL COMPONENTS OF THE HEARTH STOVE REMOVE THE TOP AND LEFT AND RIGHT SIDE PANELS.

* NOTE: STOVE WILL NEED TO BE SHUT OFF AND COOLED DOWN ENOUGH TO HANDLE BEFORE MAINTENANCE IS PERFORMED.

- A. BURNER-HEAD: The burner-head and air inlet tube should be removed periodically, and any fly-ash or silica (sand from the pellets) should be removed from the area on which the burner head rests and from inside the burner head. When the burner head is re installed the air inlet tube must not project more than 1/4 inch into the firebox, or primary combustion air to the burner head will be cut off.
- B. SECONDARY AIR TUBE: The Secondary Air Tube (above the burner head) should be cleaned off. Be sure to aim the tube at the center of the Burner Head after cleaning.
- C. ASH CLEAN OUT: Ash will collect in the bottom of the passages of the Stove and will eventually block off the combustion fan if not removed. Access is gained through the inspection plate positioned behind the ash pan and by removing the Cera Board "Fire Bricks". These areas should be thoroughly vacuumed out, including down through the triangular cut outs behind the Cera Board.
- D. DOOR ROPE GASKET: The condition of the rope gasket around both doors (combustion chamber and ash pan doors) should be checked periodically and replaced or repaired if necessary.

To test the gasket for air tightness, a strip of paper should be inserted between the door gasket and the stove. When the door is closed friction should be felt when the paper strip is pulled. This procedure should be repeated around the entire perimeter of the door.

- E. EXHAUST SYSTEM: The exhaust vent system should be inspected frequently and cleaned as necessary. Pay particular attention to elbows, tees and other areas where ash collects. The cap on each Tee can be removed for inspection. Double check to see that all joints are sealed with high-temperature silicone (RTV) and securely taped with high-temperature metallic tape. Repair or replace if needed.
- F. BLOWERS: The bearings on the Convection Blower should be oiled annually using a light-weight, general purpose oil. The Combustion Blower is permanently lubricated.
- G. FRESH AIR INTAKE: Inspect to see that there are no obstructions in the fresh air intake.
- H. HOPPER DOORS: It's imperative that the Hoppers be well sealed. To assure this seal you should inspect the Hopper seals for worn or damaged areas. Repair or Replace as needed.
- I. BURNER HEAD AND AUGER CLEAN OUT:
It is important to check the Burner Head and Auger for any possible Carbon build-up. If Carbon is present chip it off the burner head and auger surfaces and remove. Failure to keep this area free from Carbon will restrict the flow of pellets and will eventually cause a auger jam.

"FIREPLACE/HEARTHSTOVE SETUP"

TROUBLE SHOOTING GUIDE

Listing of problems and there probable solutions.

I. NO FUEL FEED:

Possible Problems;

- A. No Power.
 - a. Check to see stove is plugged in.
 - b. Check to see if there's been a power interruption; (Press Start Switch)
 - c. Check to see that Stove hasn't overheated. (Press Start Switch after one hour cool down period.)
 - d. Repair as needed. (See Section Page)
- B. Faulty Auger Motor.
Remove Auger Motor and Replace.
- C. Jammed Auger.
Determine cause for jam, and correct.
- D. Power Interruption.
 - a. If power interruption stems from the Power Company; re-light Stove when power returns.
 - b. If power interruption is not from the Power Company; determine cause, repair and relight stove. (Note: the possible causes for the power interruption, if not the Power Company would be the tripping of one of the Over Heat Snap Switches, located on the Auger Feed Tubes or the Stove top in the case of the WF1)

II. SOOT ON THE WINDOW:

Possible Problems;

- A. Incorrectly adjusted, Damper.
- B. Door not shut tightly:
 - 1. Faulty Door Gasket.
 - 2. Door latch out of adjustment
- C. Hopper Lids Too Tightly Sealed.
- D. Blockage in the air inlet or the exhaust vent.
- E. The exhaust vent system may be too long or have too many bends causing a loss of draft. Increase the exhaust to a 4 inch diameter pipe.
- F. If air intake draws from the chimney, insufficient oxygen may be getting to the fire. Air Intake needs to be run to the outside.

III. NO HEAT FROM THE HEAT EXCHANGER:

- 1. Check to see that air is being blown from the heat exchanger grill above the bay window. If not, the Convection Blower

IV. FIRE GOES OUT AT LOW FUEL FEED:

Possible Problems;

- A. Fuel flow setting too low for pellets being used.
- B. Check to see that the damper is adjusted correctly. Damper pulled out too far can cause the auger tube switch to overheat and trip out, and shut stove off.
- C. Check to see that the auger motor is functioning properly.

V. STICKING DAMPER:

Possible Problems;

- A. Creosote on the damper dues to incorrect Stove operation.

VI. ERRATIC FIRE:

Possible Problems;

- A. Check timer to see that it is functioning properly.
 - Fixed On time is 6 seconds.
 - Variable time is 1 (100%)-20 (20%) seconds.
- B. Check to see that there is no blockage in hopper keeping pellets from flowing freely or that the pellets are "bridging" at the bottom of the hopper. determine cause of blockage, remove blockage and free up pellets as needed.

VII. SMOKE OR ODOR FROM STOVE WHEN IT IS SHUT OFF:

- A. Insufficient vertical height of Chimney and or too much heat loss from chimney causing the natural chimney draft to be insufficient to evacuate the fire box of smoke.
- B. Hopper Lids not closed or sealed properly.
- C. Door Gasket not sealing properly.

Warranty

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: 11625 Airport Road, Everett, WA, 98204, and should include the following:

1. Name, address and telephone number of purchaser;
2. Name and address of seller, plus the date of purchase;
3. Name and address of installer and date of installation;
4. Serial number of the stove; and
5. Nature of the defect, malfunction or complaint.

Arrangements will be made for inspection. 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. 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 OR 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, EXPRESS 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 incidental or 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.

Pyro Industries, Inc.
695 Pease Rd.
Burlington, WA 98233

1087PYRO3857

Whitfield pellet stoves and fireplaces are safety tested and listed by Warnock Hersey Professional Services Ltd., Coquitlam, B.C., Canada. Warnock Hersey is a UL certified lab that tests solid fuel burners to UL Standard #1482. Warnock Hersey also has an International Conference of Building Officials I.C.B.O. #TL-116.