



Freestanding and Fireplace Insert

OWNER'S MANUAL







PLEASE READ THIS ENTIRE MANUAL BEFORE
INSTALLATION AND USE OF THIS PELLET BURNING
ROOM HEATER. FAILURE TO FOLLOW THESE
INSTRUCTIONS COULD RESULT IN PROPERTY DAMAGE,
BODILY INJURY OR EVEN DEATH



Contact your building or fire officials about restrictions and installation inspection requirements in your area.

TABLE OF CONTENTS

3
3
4
4
4
6
6
7
7
8
8
9
9
10
12
13

Pellet Quality:

PELLET QUALITY IS IMPORTANT, PLEASE READ

YOUR ENVIRO PELLET STOVE HAS BEEN DESIGNED TO BURN WOOD PELLETS ONLY. DO NOT USE ANY OTHER TYPE OF FUEL, AS THIS WILL VOID ANY WARRANTIES STATED IN THIS MANUAL.

CAUTION: It is important to select and use only pellets that are dry and free of dirt or any impurities such as high salt content. Dirty fuel will adversely affect the operation and performance of the unit and will void the warranty. The Pellet Fuel Industries (P.F.I.) has established standards for wood pellet manufactures. We recommend the use of pellets that meet or exceed these standards. Ask your dealer for a recommended pellet type.

THE PERFORMANCE OF YOUR PELLET STOVE IS GREATLY AFFECTED BY THE TYPE AND QUALITY OF WOOD PELLETS BEING BURNED. AS THE HEAT OUTPUT OF VARIOUS QUALITY WOOD PELLETS DIFFERS, SO WILL THE PERFORMANCE AND HEAT OUTPUT OF THE PELLET STOVE.

Since Sherwood Industries Ltd. has no control over the quality of pellets that you use, we assume no liability for your choice in wood pellets.

P.F.I. PELLET STANDARDS:

Fines (fine particles)	1% maximum through a 1/8" screen
Bulk Density	.40 lbs. per cubic foot minimum
Size	1.14'' to $5/16''$ diameter $1/2 - 11/2''$ long maximum
Ash Content	1% maximum (Premium grade)
	3% maximum (Standard grade)
Moisture Content	8% maximum
Heat Content	approximately 8200 BTU/lb minimum

ASH: The ash content of the fuel and operation of your stove will directly determine the frequency of cleaning. The use of high ash fuels may result in the stove needing to be cleaned daily. A low ash fuel may allow longer intervals between cleaning.

CLINKERING: [clinkers are silica (sand) or other impurities in the fuel that will form a hard mass during the burning process]. This hard mass will block the air flow through the Burn Pot Liner and affect the performance of the stove. Any fuel, even approved types may tend to clinker. Check the Burn-Pot Liner daily to ensure that the holes are not blocked with clinkers. If they become blocked, remove the liner (when the unit is cold) and clean/scrape the clinkers out. Clean the holes with a small pointed object if required. Refer to the section "**Routine Cleaning and Maintenance**."

PELLET FEED RATES: Due to different fuel densities and sizes, pellet feed rates may vary. This may require an adjustment to the slider damper setting or to the auger feed trim setting on Low.

Store pellets at least 36" (1 m) away from the pellet stove.

RATING LABEL LOCATION:

Freestanding:

Insert:

The rating label is located:

on the inside of the hopper lid.

on the hopper cover.

IMPORTANT SAFETY DATA:

TO PREVENT THE POSSIBILITY OF A FIRE, THIS APPLIANCE MUST BE PROPERLY INSTALLED BY FOLLOWING THE INSTALLATION INSTRUCTIONS. PLEASE READ THIS ENTIRE OWNER'S MANUAL BEFORE INSTALLING OR OPERATING YOUR ENVIRO PELLET STOVE. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH. CONTACT YOUR LOCAL BUILDING OR FIRE OFFICIALS TO OBTAIN A PERMIT AND ANY INFORMATION ON ANY INSTALLATION RESTRICTIONS AND INSPECTION REQUIREMENTS FOR YOUR AREA. An ENVIRO dealer will be happy to assist you.

The stove's exhaust system works with negative combustion chamber pressure and a slightly positive chimney pressure.

IT IS VERY IMPORTANT TO ENSURE THAT THE EXHAUST SYSTEM BE SEALED AND IS AIRTIGHT.

SAFETY WARNINGS AND RECOMMENDATIONS:

Fuel: This pellet stove is designed and approved to only burn wood pellet fuel with up to 3% ash content. Dirty fuel will adversely affect the operation and performance of the unit and may void the warranty. Check with your dealer for fuel recommendations.

THE USE OF CORDWOOD IS PROHIBITED BY LAW.

Soot: Operation of the stove with insufficient combustion air will result in the formation of soot which will collect on the glass, the heat exchanger, the exhaust vent system, and may stain the outside of the house. This is a dangerous situation and is inefficient. Frequently check your stove and adjust the slider/damper as needed to ensure proper combustion. **See: "Operation - Slider/Damper Setting"**

Cleaning: There will be some build up of fly ash and small amounts of creosote in the exhaust. This will vary due to the ash content of the fuel used and the operation of the stove. It is advisable to inspect and clean the exhaust vent annually or every two tons of pellets.

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

Electrical: THE USE OF A SURGE PROTECTED POWER BAR IS RECOMMENDED.

The maximum power requirement is 700 watts (3.1 amp). The stove has a grounded electrical cord and should be connected to a standard 230 volt, 50 Hz grounded electrical outlet. Make sure the electrical cord is not trapped under the appliance and that it is clear of any hot surfaces or sharp edges. When installing the stove in a mobile home, it must be electrically grounded to the steel chassis of the home and bolted to the floor in accordance with applicable local, state or federal codes.

Glass: Do not abuse the glass by striking or slamming the door. Do not attempt to operate the stove with broken glass. The stove uses ceramic glass. Replacement glass must be purchased from an ENVIRO dealer. Do not attempt to open the door and clean the glass while the unit is in operation or if glass is hot.

Flammable Liquids: Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in the heater. Keep all such liquids well away from the heater while it is in use.

Smoke Detector: Smoke detectors should be installed and maintained in the structure when installing and operating a pellet burning appliance.

Operation: The ash pan and door must be closed securely for proper and safe operation of the pellet stove. Also ensure all gaskets on the door are checked and replaced when necessary.

KEEP ASH PAN FREE OF RAW FUEL.

DO NOT PLACE UNBURNED OR NEW PELLET FUEL IN ASH PAN. A fire in the ash pan may occur.

Installation: Be sure to maintain the structural integrity of your home when passing a vent through walls, ceilings, or roofs.

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

Fresh air: Must be connected to all units installed in Mobile Homes as well as "Air Tight Homes" (R2000). Fresh air intake is recommended on all installations. Failure to install intake air may result in poor performance, smoke, property damage, house fire, bodily injury, or death under certain conditions.

If you have any questions with regards to your stove or the above-mentioned information, please feel free to contact your local dealer for further clarification and comments.

SINCE SHERWOOD INDUSTRIES LTD. HAS NO CONTROL OVER THE INSTALLATION OF YOUR STOVE, SHERWOOD INDUSTRIES LTD. GRANTS NO WARRANTY IMPLIED OR STATED FOR THE INSTALLATION OR MAINTENANCE OF YOUR STOVE. THEREFORE, SHERWOOD INDUSTRIES LTD. ASSUMES NO RESPONSIBILITY FOR ANY CONSEQUENTIAL DAMAGE(S).

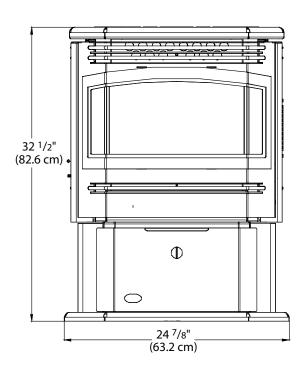
SAVE THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE

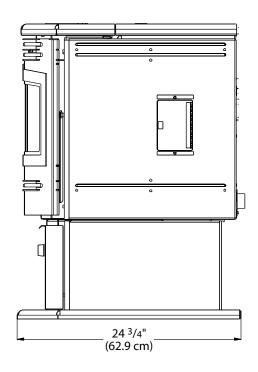
FREESTANDING DIMENSIONS:

 WIDTH:
 24 % inches
 (63.2 cm)

 HEIGHT:
 32 ½ inches
 (82.6 cm)

 DEPTH:
 24 ¾ inches
 (62.9 cm)





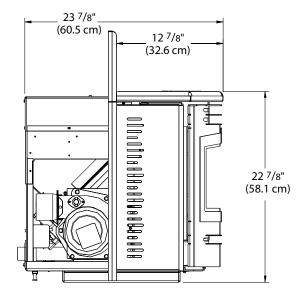
INSERT DIMENSIONS:

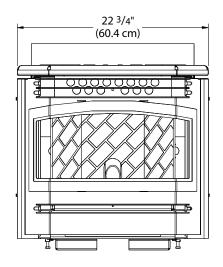
WIDTH: HEIGHT:

DEPTH:

DEPTH FROM FRONT OF UNIT TO SURROUND:

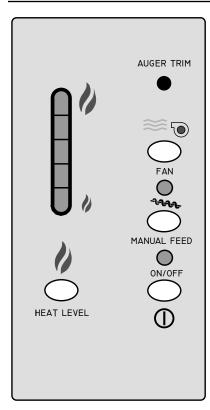
23 ¾ inches (60.4 cm) 22 % inches (58.1 cm) 23 % inches (60.5 cm) 12 % inches (32.6 cm)





OPERATING INSTRUCTIONS

STOVE CONTROLS:



HEAT LEVEL INDICATOR:

Shows the Heat Level output setting.

HEAT LEVEL ADJUSTMENT:

This button will change the Heat Level output setting of the stove from low to high

ON/OFF BUTTON:

Is used to turn the unit ON and OFF

SYSTEM LIGHT:

The System Light is responsible for signaling the state of the control board. When the light is flashing during start-up, the stove is in an automatic start mode. When the light is solid, the Heat Level Setting can be altered.

MANUAL AUGER FEED:

If the unit runs out of fuel this button can be used to "prime the auger system". This button will turn off after 60 seconds and then must be released, then pressed again.

AUGER LIGHT:

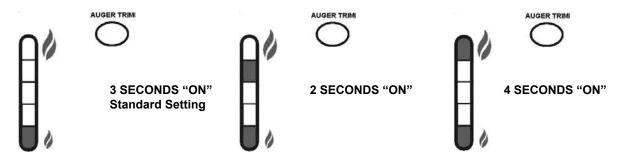
This light will flash when the auger motor is energized.

CONVECTION BLOWER CONTROL:

Used to turn the convection blower ON/OFF. If the Blower is left off, and the sensor located on the air jacket reaches 160 °F (71 °C), the Convection blower will automatically come on HI speed to cool the unit. Leave the convection blower ON for peak efficiency.

AUGER TRIM:

The Auger Trim Button is used to increase or decrease the feed rate on LOW, ONLY. Push the Auger Trim button until the number 1 and 5 lights appear on the Heat Level Indicator. This will increase the feed rate to 4 seconds ON time Auger pulse. This is done only on LOW to allow the burning of poor quality fuels. Push the button until the number 1 and 4 lights appear, this will reduce the Auger On time to 2 second. This setting is for high-grade fuel only. Push the button until just the number 1 light is on, this is for a 3 second on time (standard setting).



OPERATING INSTRUCTIONS

AUTOMATIC SAFETY FEATURES:

Your pellet Stove has the following safety features:

- A) The stove will shut off when the fire goes out and the exhaust temperature drops below 120 °F (49 °C).
- B) The stove has a high temperature safety switch. If the temperature on the hopper reaches 200 °F (93 °C) the auger will automatically stop, and the stove will shut off when the exhaust temperature cools. If this happens call your local dealer to reset the 200 °F (93 °C) high limit switch. FIND THE REASONS WHY THE UNIT OVERHEATED.
- C) This unit has a convection fan control over-ride. This function causes the convection fan to reach its full speed when the temperature at the back of the firebox reaches 160 °F (71 °C). This is a normal safety feature of your unit.
- D) The unit is equipped with a vacuum switch to monitor the venting; if it becomes blocked the vacuum switch will turn off the auger and the #2 light on the control board will flash.

SLIDER/DAMPER SETTING:

The slider damper is located behind the left cab side. The door must be open for the cab side to be removed on all models. On freestanding model loosen the two (2) T20 torx screws at the front of the stove; one (1) above the top door hinge and one (1) below the bottom door hinge, swing open left panel to access. On insert model remove the one (1) T20 at the top of the cab side under the top front and remove the two (2) T20 torx screws at the front of the stove; one (1) above the top door hinge and one (1) below the bottom door hinge.

- If the fire goes out and the heat output has been set on the lowest setting, use the auger trim button to increase feed rate or the Slider Damper should be pushed in slightly, decreasing the air in the firebox. Check the firebox vacuum and re-set if necessary.
- If after long periods of burning the fire builds up and over flows the burn pot or there is a build up of clinkers. This would be a sign that the pellet quality is poor and the slider damper must be pulled to compensate, to give the fire more air.

The easiest way to make sure that an efficient flame is achieved is to see the characteristics of the fire.

- A tall and lazy flame with dark orange tips requires more air Open slider slightly.
- A short and brisk flame, like a blowtorch, has too much air Close slider slightly.
- If the flame is in the middle of these two characteristics with a bright yellow/orange, active flame then the air may be correct for proper operation monitor for build up.

SPECIAL NOTES:

Pellet quality is a major factor in how the pellet stove will operate. If the pellets have a high moisture content or ash content the fire will be less efficient and has a higher possibility of the fire building up and creating clinkers (hard ash build-up). If this happens, pull the Slider Damper out slightly to increase the air flow to the fire.

OPERATING INSTRUCTIONS

OPERATING YOUR PELLET STOVE:

PRE-BURN INSTRUCTIONS: The burn pot liner holes must be clear and the liner installed properly against the ignitor tube for proper operation. Check the hopper for enough pellets to start the unit.

DO NOT OPERATE THE UNIT WITH THE DOOR OR ASH PAN AJAR

MANUAL MODE:

To START:

Press the ON / OFF Button. The stove will turn on. The System Light will flash. The Auger Light will flash with each pulse of the auger (the Auger Feed Rate is pre-programmed during start-up). The Heat Level Indicator will show the Heat Level that the stove will run at after start-up.

If this is the first time the unit has been started or the unit has run out of fuel, the auger will need to be primed. Press the Manual Auger Feed button until fuel starts to drop into the Burn Pot Liner (see "Operating Instructions - Stove Controls").

To OPERATE:

When a fire has been established, the System Light will turn solid, the Auger Light will continue to flash to the corresponding Heat Level setting. The Heat Level button can now be pressed to change the desired Heat Level Output setting.

The convection blower (room air blower) will turn on. The speed of this blower is controlled by the setting of the heat level output indicator. The convection blower can be turned OFF by depressing the convection blower control button. When the air jacket reaches 160 °F (71 °C) the convection blower will come ON High, cooling the unit. For the best efficiency and to prevent cycling, the convection blower should be left on at all times.

When operating on LOW HEAT LEVEL, the feed rate can be adjusted for different quality fuels. These settings can be used if the fire keeps going out on low (poor quality fuel). Or if the low setting is too hot for the room (see "Operating Instructions - Stove Controls").

THERMOSTAT / SWITCH MODE:

INITIAL START-UP: See above

OPERATION - HI / LOW mode: When the thermostat contacts are closed the stove settings are adjustable as per Manual Mode (see above). When the thermostat contacts open, the circuit board will take control of the settings. The stove will drop down to a low burn until the thermostat contacts close again. This low burn setting can be adjusted for different fuel qualities (see "Operating Instructions - Stove Controls"). The stove will come back to the previous HEAT LEVEL setting when the thermostat contacts close again.

OPERATION – ON / OFF mode: When the thermostat contacts close, the unit will light automatically. Once up to temperature, the stove operates the same as in manual mode (see above). When the thermostat contacts open, the unit automatically begins its shutdown routine. The stove will re-light when the thermostat contacts close again.

TURNING YOUR PELLET STOVE OFF:

•MANUAL and HI / LOW mode: To turn the unit OFF, simply press the ON / OFF button. This will stop the feed of pellets. The blowers will continue to operate and cool the stove down. When cool enough, the stove will turn off. •ON / OFF mode: To turn the unit OFF, turn the thermostat down or off.

DO NOT unplug unit while Combustion fan is operating. This may lead to smoke escaping from the stove.

ROUTINE CLEANING AND MAINTENANCE

The following list of components should be inspected and maintained routinely to ensure that the appliance is operating at its optimum and giving you excellent heat value:

2-3 DAYS/WEEKLY	SEASON or 2 TONS OF FUEL
Burn Pot and Liner	Exhaust Vent
Ash Pan	Fresh air Intake Tube
Inside Firebox	Blower Mechanisms
Door Glass	Heat exchanger tubes
Heat exchanger tubes	Behind firebox liners
Ash pan and Door gaskets	All Hinges
Door Latch	Post Season Clean-up

TOOLS REQUIRED TO CLEAN UNIT

• Torx T20 Screwdriver

• 5/16" Wrench or Socket

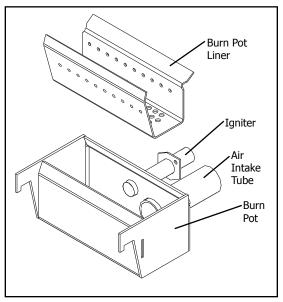
• Brush

Soft Cloth

Vacuum with fine filter bag

BURN POT AND LINER (2-3 days)

Cleaning of the burn pot and liner must only be done when stove is cold.



This is the 'pot' where the pellets are burned. The Burn Pot and Liner should be inspected every two to three days, to ensure proper air flow through the liner. Failure to keep the liner clean may cause a build up of fuel past the burn pot liner and up the drop tube. This will cause the auger to jam and may result in pellets burning in the drop tube and hopper. Open the door using the door handle provided located on the right-hand side of the stove, swing the door open. Remove the burn-pot liner from the stove. Using a metal scrapper remove material that has accumulated or is clogging the liner's holes. Then dispose of the scrapped ashes from the liner and from inside the burn-pot. Place the burn-pot back into the stove, making sure that the pipes are properly inserted into the burn pot. Place the liner back into the burn-pot, making sure that the ignitor hole in the liner is aligned with the ignitor tube. Pushing the liner up against the ignitor tube.

• If after long periods of burning the fire continually builds up and overflows the burn pot or there is a build up of clinkers, this is an indication that the pellet fuel quality is poor or the stove may need cleaning. Check the stove for ash build up (clean if required) and adjust the Slider / Damper to produce the proper clean combustion.

DOOR GLASS CLEANING (2-3 days)

Cleaning of the glass must only be done when stove is cold. Open the door by lifting the handle. The glass can be cleaned by wiping down the outside and inside of the glass with a dry soft cloth.

If the glass has build up that can not be removed with only the cloth, clean the glass using paper towel and a gas appliance glass cleaner, this may be purchased through most dealers. If a gas appliance glass cleaner is not available, use a damp paper towel dipped in fly ash to clean the glass. After the glass has been cleaned use the dry soft cloth to wiping down the outside and inside of the glass

Door glass replacement: It is recommended that your ENVIRO dealer replace the glass if broken.

The door glass is made of high temperature PYRO CERAMIC 5 mm thick. The center panel is 15.4×9.0 inches (39.0 cm x 22.9 cm) and side panels are 2.6×9.0 inches (6.7 cm x 22.9 cm). They must be replaced with (PART # EF-062). Substitute materials will not be permitted.

ASH PAN AND DOOR GASKETS (weekly)

After excessive use the gasket may come loose. To repair this, glue the gasket on using high-temperature fiberglass gasket glue available from your local ENVIRO dealer. This is important to maintain an airtight assembly.

ROUTINE CLEANING AND MAINTENANCE

ASH PAN (weekly)

The ash pan is located under the burner. Dump the ashes into a metal container stored away from combustibles. Monitor the ash level every week. Remember that different pellet fuels will have different ash contents. Ash content is a good indication of fuel efficiency and quality. Refer to "Introduction - Safety Warnings And Recommendations" for disposal of ashes.

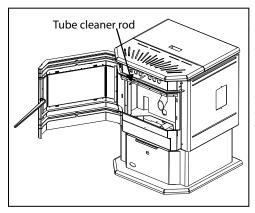
DO NOT PLACE UNBURNED OR RAW PELLET FUEL IN ASH PAN.

Freestanding:

To remove the ash pan, simply turn the knob and pull out towards the front.

Insert:

To remove the ash pan open the door, remove the burn pot liner and the burn pot, then pull the ash pan out.



HEAT EXCHANGER TUBES (weekly)

Open the door and the rod is located under the unit top, in the center of the stove just behind the door (see figure to left). This handle is to be pushed in and out a few times **(ONLY WHEN THE UNIT IS COLD)** in order to clean away any fly ash that may have collected on the heat exchanger tubes. As different types of pellets produce different amounts of ash, cleaning of the tubes should be done on a regular basis to enable the unit to run efficiently.

FRESH AIR INTAKE (season)

Inspect periodically to be sure that it is not clogged with any foreign materials.

EXHAUST PASSAGES (season)

Removal of the firebox backing for bi-annual cleaning:

- Open the door by lifting the handle, Remove the burn pot and burn pot liner.
- Lubricate all screws with penetrating oil.
- Remove the four (4) screws that hold the Brick liner retainers in place. Remove Side Brick liner by sliding forward then out.
- Pull the center panel out.
- Vacuum and clean thoroughly.

Installation of firebox backing:

- Insert center panel with backing.
- Place the two (2) side panels back into the firebox and reinstall the two (2) retainers using two (2) screws on each side.
- Replace the burn pot and burn pot liner
- Close the glass door and secure.

EXHAUST VENT (season)

This vent should be cleaned every year or after two (2) tons of pellets. We recommend contacting your dealer for professional cleaning. To clean the vent pipe, tap lightly on the pipe to dislodge any loose ash. Open the bottom of the "T" to dump the ash, then vacuum as much of the ash out of the vent pipe as possible.

POST SEASON CLEAN-UP

Once you are finished using the pellet appliance for the season, unplug the stove for added electrical protection. It is very important that the stove be cleaned and serviced as stated above.

WARRANTY

Sherwood Industries Ltd. gives a five year limited warranty on all steel manufactured parts. A one-year warranty is provided on all electrical components. The above limited warranties are extended only to the original purchaser.

There is no warranty on the following parts:

- Fiberglass rope baskets
- refractory material
- burn pot liner
- paint
- enamel finish or gold plating where it applies
- vacuum hose.

**NOTE: The paint on the brick firebox lining may peel. This is due to the extreme conditions applied to the paint and is in no way covered under warranty.

WHEN FILING A WARRANTY CLAIM PLEASE COMPLETE THE FOLLOWING INFORMATION ON AN OFFICIAL WARRANTY CLAIM FORM:

TO THE DEALER:

- Name, Address and Telephone Number of purchaser and date of purchase.
- Date of Installation. Name of the installer and dealer. Serial Number of the appliance. Nature of the compliant, defects or malfunction, description and part # of any parts replaced.

TO THE DISTRIBUTOR:

• Sign and verify that work and information are correct.

ENSURE THAT YOU SPECIFY THE NATURE OF THE COMPLAINT, DEFECT, PERIODICAL MALFUNCTION, ETC.

The limited warranty covers defects in materials and workmanship as long as the products has been installed according to the manual's instruction. If the product is damaged or broken as a result of mishandling or misuse, the warranty does not apply. Removal and re-installation costs are not covered under this warranty.

It is the manufacturer's option whether to repair or replace the appliance. The shipping cost to and from the factory is paid by the consumer. All warranties by the manufacturer are set forth herein and no claim shall be made against the manufacturer on any oral warranty or representation.

Sherwood Industries Ltd. assumes no responsibility for damage caused by household power fluctuations or power surges.

Under Warranty

For the do-it-yourself Individual

The consumer should be aware that the pellet appliance needs setting using tools that he/she might not have. Consult an ENVIRO dealer. It is recommended than only an authorized ENVIRO dealer installs an ENVIRO unit. There will be no warranty coverage on parts destroyed or burnt out as a result of a consumer installation error or defect.

Sherwood Industries Ltd. reserves the right to make changes without any notice.

INSTALLATION DATA SHEET

The following information must be recorded by the installer for warranty purposes and future reference.

NAME OF OWNER:	NAME OF DEALER:
ADDRESS:	ADDRESS:
PHONE:	PHONE:
MODEL:	NAME OF INSTALLER:
SERIAL NUMBER: (dd/mm/yyyy)	
DATE OF INSTALLATION:(dd/mm/yyyy)	ADDRESS:
MAGNEHELIC AT INSTALL: INSTALLER'S SIGNATURE:	
	PHONE:

MANUFACTURED BY:
SHERWOOD INDUSTRIES LTD.
6782 OLDFIELD RD. SAANICHTON, BC, CANADA V8M 2A3
www.envirofire.biz
May 13, 2004
C-10368