



# WATERFORD

IRISH STOVES

www.waterfordstoves.com

## EMERALD Direct Vent Freestanding Gas Stove

## Owners & Installation Manual



MODELS: E65-NG1 Natural Gas E65-LP1 Propane

### WARNING:

If the information in these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

### FOR YOUR SAFETY

What to do if you smell gas:

- Do not try to light any appliance
- Do not touch any electrical switch: do not use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Tested by:



*Installer:* Please complete the details on the back cover and leave this manual with the homeowner.

*Homeowner:* Please keep these instructions for future reference.

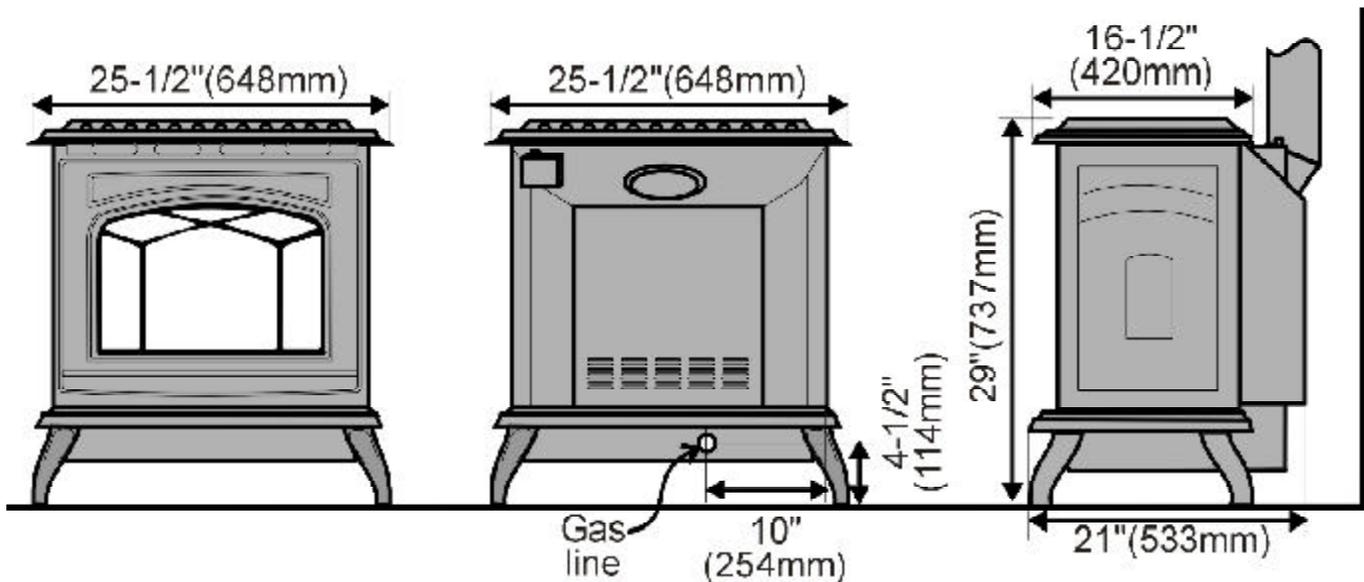
# WATERFORD

## EMERALD Direct Vent Freestanding Gas Stove

To the New Owner:

Congratulations! You are the owner of a state-of-the-art Waterford Direct Vent Freestanding Gas Stove by Waterford Irish Stoves. The Waterford Gas Series of hand crafted appliances has been designed to provide you with all the warmth and charm of a woodstove, at the flick of a switch. The models E65-NG1 and E65-LP1 of this series have been approved by Warnock Hersey for both safety and efficiency. As it also bears our own mark, it promises to provide you with economy, comfort and security for many trouble free years to follow. Please take a moment now to acquaint yourself with these instructions and the many features of your EMERALD Direct Vent Freestanding Gas Stove.

### UNIT SPECIFICATIONS



**NATIONAL FIREPLACE INSTITUTE**  
**NFI**  
**CERTIFIED**  
www.nficertified.org

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

**Wood Energy Technical Training**  
www.wett.com

# TABLE OF CONTENTS

	Page		Page
<b>Safety Label</b>			
Safety Labels .....	4	Support Extension - Round or Square .....	22
<b>Installation</b>		Converting a Class-A Metal Chimney or Masonry Chimney to a Direct Vent System .....	22
Specifications .....	6	System Data Chart .....	24
Information for Mobile/Manufactured Home		High Elevation .....	24
After First Sale .....	6	Gas Connection .....	24
Before You Start .....	6	Aeration Adjustment .....	24
General Safety Information .....	7	Gas Pipe Pressure Testing .....	25
Installation Checklist .....	7	Valve Description .....	25
Clearances to Combustibles .....	7	Conversion to Propane .....	25
Locating Your EMERALD Gas Stove .....	8	Reduction for Lower Btu Rating .....	26
Manufactured Mobile Home Requirements .....	8	Log Installation .....	27
Combustion and Ventilation Air .....	8	Optional Door Grill .....	27
Optional Fan Installation .....	8	Optional Wall Thermostat .....	28
Venting Introduction .....	9	Optional Remote Control Installation .....	28
Installation Precautions .....	9	Final Check .....	28
Safety Precautions for the Installer .....	9	Wiring Diagram .....	29
Vent Restrictors #1 and #2 .....	9	<b>Operating Instructions</b>	
Exterior Vent Terminal Locations .....	10	Operating Instructions .....	29
Rigid Pipe Venting Components List .....	11	Lighting Procedure .....	29
Rigid Pipe Venting - Horizontal Terminations		Shutdown Procedure .....	30
- All Systems .....	12	First Fire .....	30
Rigid Pipe Venting		Copy of Lighting Plate Instructions .....	30
- Vertical Terminations .....	13	Convection Fan Operation .....	31
- Straight Vertical .....	13	Adjusting Flame Height .....	31
- Offset Vertical .....	13	Normal Operating Sounds of Gas Appliances .....	31
- Horizontal Terminations .....	13	<b>Maintenance</b>	
Vertical Termination with Co-linear Flex system .....	14	Maintenance Instructions .....	31
Minimum Horizontal Termination Kit .....	15	General Vent Maintenance .....	32
Horizontal Termination Kit .....	15	Log Replacement .....	32
Horizontal Termination Kit Installation .....	16	Glass Replacement .....	32
Dura-Vent Termination Kits .....	17	Gasket Replacement .....	32
Planning Your Dura-Vent Installation .....	17	Fan Maintenance .....	32
Minimum Dura-Vent Components - Horizontal		Removing and Installing Valve .....	33
Installation .....	18	Replacement Parts List .....	34
Minimum Dura-Vent Components - Vertical		<b>Warranty</b>	
Termination .....	18	Warranty .....	39
Dura-Vent Horizontal Installation .....	19		
Dura-Vent Vertical Termination Installation .....	20		
Offset Chart .....	21		
Cathedral Ceiling Installations .....	21		

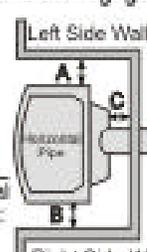
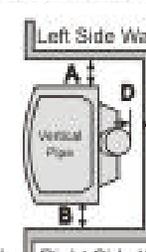
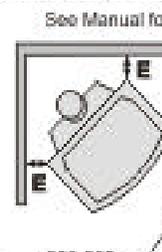
# SAFETY LABEL

This is a copy of the label that accompanies each EMERALD Direct Vent Freestanding Gas Stove. We have printed a copy of the contents

here for your review. The safety label is located on the inside of the drop down pedestal door.

NOTE: Waterford units are constantly being improved. Check the label on the unit and if there is a difference, the label on the unit is the correct one.

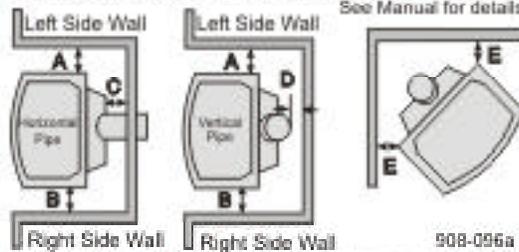
## Copy of Safety Label for E65-NG1 Natural Gas Stove

	<b>Listed:</b> GRAVITY DIRECT VENT WALL FURNACE <b>Certified for/Certifiée pour:</b> CANADA and U.S.A. <b>Report No.</b> 476-1646-00 (Mar. 1999)	DO NOT REMOVE THIS LABEL / NE PAS ENLEVER CETTE ÉTIQUETTE
	Tested to: CAN/CGA 2.17-M91, ANSIZ21.88b-2003/CSA 2.33b-2003	
MAY BE INSTALLED IN MANUFACTURED (MOBILE) HOMES AFTER FIRST SALE		Serial No./ No de serie
<b>FACTORY EQUIPPED FOR NATURAL GAS Model: E65NG1 ÉQUIPÉ À L'USINE POUR GAZ NATURAL</b>		
Minimum supply pressure 5" WC/C.E. (1.25 kPa) Manifold pressure High 3.8" WC/C.E. (0.94 kPa) Manifold pressure Low 1.1" WC/C.E. (0.27 kPa)		Pression d'alimentation minimum Pression à la tubulure d'échappement élevée Pression à la tubulure d'échappement basse
<b>Factory Equipped for Altitude 0-2000 ft.</b>		
Maximum Input 38,000 Btu/h (11.14 Kw/h) Minimum Input 19,000 Btu/h (5.57 Kw/h) Orifice size #32 DMS (2.9mm) Altitude 0-2000 ft/pi (0-610m)		Débit Calorifique maximum Débit Calorifique minimum Dimensions de l'orifice L'altitude
<b>Convertible for Altitude 2000-4500 ft.</b>		
Maximum Input 36,100 Btu/h (10.57 Kw/h) Minimum Input 18,000 Btu/h (5.28 Kw/h) Orifice size #33 DMS (2.87mm) Altitude 2000-4500 ft/pi (0-1372m)		Débit Calorifique maximum Débit Calorifique minimum Dimensions de l'orifice L'altitude
<b>Convertible to 27,000 Btu for Altitude 0 - 4500 ft. with Kit #: 260-920</b>		
Maximum Input 27,000 Btu/h (7.91 Kw/h) Minimum Input 13,500 Btu/h (3.95 Kw/h) Orifice size #40 DMS (2.49mm) Altitude 0-4500 ft/pi (0-1372m)		Débit Calorifique maximum Débit Calorifique minimum Dimensions de l'orifice L'altitude
<b>VENTING:</b> Only for direct discharge without duct connection. This appliance must be installed in accordance with the manufacturer's installation instructions and with local codes, if any; if not, follow the current ANSI Z223.1 in the USA or the current CAN/CGA-8149 in Canada. For Manufactured Home Installation: This Direct Vent System Appliance must be installed in accordance with the manufacturer's installation instructions and Manufactured Home Construction and Safety Standard Title 24 CFR, Part 3280, or the current Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities: ANSI/NFPA 601A, and with CAN/CSA Z240 MH Mobile Home Standard in Canada. Electrical supply 115VAC, 1.13 A, 60Hz. Not for use with solid fuel.		
<b>Minimum Clearances to Combustibles/Dégagement Minimum De Matériaux Combustibles</b>		
Minimum ceiling height from top of unit: 18"/460mm Minimum plafond hauteur en haut de l'appareil: 18"/460mm <b>A 6"/150mm D 2"/50mm</b> <b>B 10"/255mm E 2"/50mm</b> <b>C 5"/125mm</b>		
		See Manual for details
		
		
Minimum clearance of Vent Terminal to Outside Corner & Inside Corner: with AstroCap 6"/150mm with Dura-Vent Cap 12"/300mm		908-095a

FPI Fireplace Products International Ltd.  
 Delta, B.C., Canada  
 Made in Canada/Fabrique au Canada

**DOOR SEAL:** Please check that the door is properly sealed.

## Copy of Safety Label for E65-LP1 Propane Stove

	<b>Listed: GRAVITY DIRECT VENT WALL FURNACE</b> <b>Certified for/Certifiée pour: CANADA and U.S.A.</b> <b>Report No. 476-1646-00 (Mar. 1999)</b>	DO NOT REMOVE THIS LABEL / NE PAS ENLEVER CETTE ÉTIQUETTE
	<b>Tested to: CAN/CGA 2.17-M91,</b> ANSIZ21.88b-2003/CSA 2.33b-2003	
MAY BE INSTALLED IN MANUFACTURED (MOBILE) HOMES AFTER FIRST SALE		
<b>FACTORY EQUIPPED FOR PROPANE GAS Model: E65LP1 ÉQUIPÉ À L'USINE POUR GAZ PROPANE</b>		
Minimum supply pressure 12" WC/C.E. (3.00 kPa) Manifold pressure High 11" WC/C.E. (2.74 kPa) Manifold pressure Low 2.9" WC/C.E. (0.72 kPa)	Pression d'alimentation minimum Pression à la tubulure d'échappement élevée Pression à la tubulure d'échappement basse	FPI Fireplace Products International Ltd. Delta, BC, Canada Made in Canada/Fabrique au Canada DOOR SEAL: Please check that the door is properly sealed.
<b>Factory Equipped for 38,000 Btu</b>		
Maximum Input 38,000 Btu/h (11.14 Kw/h) Minimum Input 19,000 Btu/h (5.57 Kw/h) Orifice size #50 DMS (1.8mm) Altitude 0-2000 ft/pi (0-610m)	Débit Calorifique maximum Débit Calorifique minimum Dimensions de l'orifice L'altitude	
<b>Convertible to 29,000 Btu for altitude 0 - 4500 ft. with Kit #: 260-922</b>		
Maximum Input 29,000 Btu/h (8.5 Kw/h) Minimum Input 14,500 Btu/h (4.25 Kw/h) Orifice size #52 DMS (1.61mm) Altitude 0-4500 ft/pi (0-1372m)	Débit Calorifique maximum Débit Calorifique minimum Dimensions de l'orifice L'altitude	
<b>VENTING:</b> Only for direct discharge without duct connection. This appliance must be installed in accordance with the manufacturer's installation instructions and with local codes, if any; if not, follow the current ANSI Z223.1 in the USA or the current CAN/CGA-B149 in Canada. For Manufactured Home Installation: This Direct Vent System Appliance must be installed in accordance with the manufacturer's installation instructions and Manufactured Home Construction and Safety Standard Title 24 CFR, Part 3280, or the current Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities ANSI/NFPA 501A, and with CAN/CSA Z240 MH Mobile Home Standard in Canada.		
Electrical supply 115VAC, 1.13 A, 60Hz. Not for use with solid fuel.		
<b>Minimum Clearances to Combustibles/Dégagement Minimum De Matériaux Combustibles</b>		
Minimum ceiling height from top of unit: 18"/460mm Minimum plafond hauteur en haut de l'appareil: 18"/460mm <b>A 6"/150mm D 2"/50mm</b> <b>B 10"/255mm E 2"/50mm</b> <b>C 5"/125mm</b>		See Manual for details 908-095a
Minimum clearance of Vent Terminal to Outside Corner & Inside Corner: with AstroCap 6"/150mm with Dura-Vent Cap 12"/300mm		

For the State of Massachusetts, installation and repair must be done by a plumber or gasfitter licensed in the Commonwealth of Massachusetts.

For the State of Massachusetts, flexible connectors shall not exceed 36 inches in length.

For the State of Massachusetts, the appliances individual manual shut-off must be a t-handle type valve.

# INSTALLATION

## IMPORTANT: SAVE THESE INSTRUCTIONS

The EMERALD Direct Vent Freestanding Gas Stove must be installed in accordance with these instructions. Carefully read all the instructions in this manual first. Consult the building authority having jurisdiction to determine the need for a permit prior to starting the installation.

**Note:** Failure to follow the instructions could cause a malfunction of the heater which could result in death, serious bodily injury, and/or property damage. Failure to follow these instructions may also void your fire insurance and/or warranty.

**Note:** These instructions take precedence over Simpson Dura-Vent instructions.

## SPECIFICATIONS

**Fuels:** E65-NG1 is approved for use with natural gas.

E65-LP1 is approved for use with liquefied petroleum gases (propane).

**Electrical:** 120V A.C. system.

**Circulation Fan:** Variable speed, 125/75.

**Log Sets:** Ceramic fibre, 3 per set.

**Vent System:** Coaxial (6-5/8" outer / 4" inner liner) rigid flue and termination cap.

The efficiency rating of the appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independent of any installed system.

## INFORMATION FOR MOBILE/ MANUFACTURED HOMES AFTER FIRST SALE

This Waterford product has been tested and listed by Warnock Hersey as a Direct Vent Room Heater to the following standards: CAN/CGA 2.17-M91 and ANSI Z21.88b-2003/CSA 2.33b-2003.

This Direct Vent System Appliance must be installed in accordance with the manufacturer's installation instructions and the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or the current Standard of Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities ANSI/NFPA 501A, and with CAN/CSA Z240-MH Mobile Home Standard in Canada.

This appliance installation must comply with the manufacturer's installation instructions and local codes, if any. In the absence of local codes follow the current National Fuel Gas Code, ANSI Z223.1 and the current National Electrical Code ANSI/NFPA 70 in the U.S.A., and the current CAN/CGA B149 Gas Installation Code and the current Canadian Electrical Code CSA C22.1 in Canada.

This Waterford Mobile/Manufactured Home Listed appliance comes factory equipped with a means to secure the unit.

This Waterford Mobile/Manufactured Home listed appliance comes equipped with a dedicated #8 ground lug to which an 18 gauge copper wire from the steel chassis ground must be attached.

**This appliance may only be installed in an aftermarket permanently located, manufactured (mobile) home, where not prohibited by local codes.**

**This appliance is only use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.**

## BEFORE YOU START

Safe installation and operation of this appliance requires common sense, however, we are required by the Canadian Safety Standards and ANSI Standards to make you aware of the following:

**INSTALLATION AND REPAIRS SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THIS APPLIANCE SHOULD BE INSTALLED, REPAIRED, INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A QUALIFIED SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, ETC. IT IS IMPERATIVE THAT**

**THE CONTROL COMPARTMENT, BURNERS AND CIRCULATING AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN.**

**DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.**

**WARNING: FAILURE TO INSTALL THIS APPLIANCE CORRECTLY WILL VOID YOUR WARRANTY AND MAY CAUSE A SERIOUS HOUSE FIRE.**

**CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES, ESPECIALLY THE FIRE-PLACE GLASS, AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.**

**YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.**

**CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.**

- 1) Provide adequate clearances for servicing, proper operation and around the air openings into the combustion chamber.
- 2) The appliance must be installed on a flat, solid, continuous surface (e.g. wood, metal, concrete). This may be the floor, or it can be raised up on a platform to enhance its visual impact. The appliance may be installed on carpeting, tile, wood flooring or other combustible material, because the appliance's metal pedestal base extends the full width and depth of the appliance. The EMERALD Direct Vent Freestanding Gas Stove can be installed in a wide variety of ways and will fit nearly any room layout. It may be installed in a recessed position, framed out into the room, or across a corner.
- 3) The EMERALD Direct Vent Freestanding Gas Stove is approved for alcove installations, which meet the clearances listed on page 7. This unit is approved for manufactured home installations, see page 8 and

pages 11 and 12 for the required vent arrangements. If installed into a manufactured home the unit must be bolted down to the floor.

- 4) This appliance is Listed for bedroom installations when used with a Listed Millivolt Thermostat. Some areas may have further requirements, check local codes before installation.
- 5) This appliance is Listed for Alcove installations, maintain minimum Alcove clearances as follows, minimum width of 41", a maximum depth of 24", and minimum ceiling height of 47".
- 6) We recommend that you plan your installation on paper using exact measurements for clearances and floor protection before actually installing this appliance. Have a qualified building inspector review your plans before installation.

## GENERAL SAFETY INFORMATION

- 1) The appliance installation must conform with local Canadian Electrical Code.
- 2) The appliance when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes with the current National Electrical Code, ANSI/NFPA 70 or CSA C22.1 Canadian Electrical Code.
- 3) The appliance should be inspected for shipping damage before use and **serviced annually by a professional service person**. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, and circulating air passageways of the appliance be kept clean and free from excessive lint from carpeting.
- 4) See general construction and assembly instructions. The appliance and vent should be enclosed when installed in or passing through a living area, where children may come in contact with it.
- 5) This appliance must be connected to the specified vent and termination cap to the outside of the building envelope. Never vent to another room or inside a building. Make sure that the vent is fitted as per the instructions starting on page 9.
- 6) Inspect the venting system annually for blockage and any signs of deterioration.
- 7) Venting terminals shall not be recessed into a wall or siding.

- 8) Any safety glass removed for servicing must be replaced prior to operating the appliance.
- 9) To prevent injury, do not allow anyone who is unfamiliar with the operation to use the fireplace.

Emissions from burning wood or gas could contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

## INSTALLATION CHECKLIST

- 1) Check Clearances to Combustibles (page 7), location of unit (page 8) and venting requirements (pages 9 to 18).
- 2) Install vent restrictors, page 9.
- 3) Install Optional Fan, see page 8.
- 4) Install venting: Check all venting requirements, pages 9 to 18. Vertical Termination with Co-linear Flex System, page 14. Horizontal Termination Kits, page 15. Dura-Vent Termination Kits, page 19.
- 5) Make gas connections, page 24. Test the pilot. Must be as per diagram, page 31.  
  
If converting to Propane or reducing Btu input, make changes prior see pages 25 & 26.
- 6) Test Gas Pressure, page 25.
- 7) Install logs and embers where indicated on page 27.
- 8) Install optional Remote Control, or Wall Thermostat, page 28.
- 9) Final check, page 28.

Before leaving this unit with the customer, the installer must ensure that the appliance is firing correctly and **operation fully explained to customer**.

### This includes:

- 1) Clocking the appliance to ensure the correct firing rate (rate noted on label) after burning appliance for 15 minutes.
- 2) If required, adjusting the primary air to ensure that the flame does not carbon. First allow the unit to burn for 15-20 min. to stabilize.

**CAUTION: Any alteration to the product that causes sooting or carboning that results in damage is not the responsibility of the manufacturer.**

## CLEARANCES TO COMBUSTIBLES

The clearances listed are MINIMUM distances. Measure the clearance to both the appliance and the chimney connector. **The farthest distance is correct if the two clearances do not coincide.**

For example, if the appliance is set as indicated in one of the figures but the connector is too close, move the stove until the correct clearance to the connector is obtained.

This appliance may be installed only with the clearances as shown in the situations pictured. **Do not combine clearances from one type of installation with another in order to achieve closer clearances.**

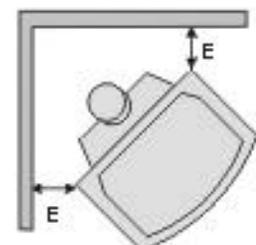
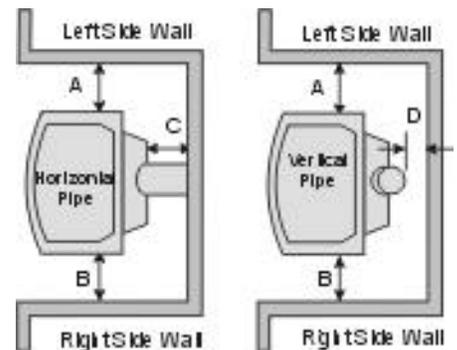
This unit can be installed on a solid combustible surface like a wood floor. This unit can also be installed directly on carpeting or vinyl.

Use the minimum clearances shown in the diagrams below:

### E65-NG1 & E65-LP1 Clearances

A	Left Side Wall to Unit*	6" / 150 mm
B	Right Side Wall to Unit	10" / 255 mm
C	Back Wall to Unit	5" / 125 mm
D	Vertical Vent Pipe to Back Wall	2" / 50 mm
E	Unit Corner to Wall	2" / 50 mm
	Mantel	18" / 460 mm
	Unit to Alcove Ceiling	18" / 460 mm
	Max. Alcove Depth	24" / 610 mm

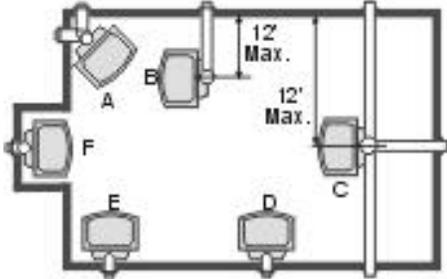
Minimum ceiling height is 18" / 460 mm from top of unit.



# INSTALLATION

## LOCATING YOUR EMERALD GAS STOVE

When selecting a location for your stove, ensure that the clearances listed above are met as well as ensuring that there is adequate accessibility for servicing and proper operation.



- A) Cross Corner
- B) Room Divider
- C) Island
- D) Flat on Wall
- E) Flat on Wall Corner
- F) Flush with Wall/Alcove

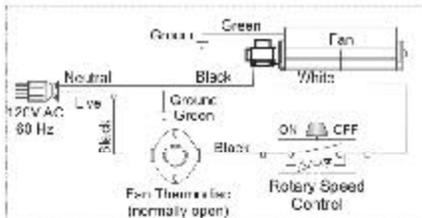
For Vent Termination requirements, see page 10.

## MANUFACTURED MOBILE HOME ADDITIONAL REQUIREMENTS

- 1) Ensure that structural members are not cut or weakened during installation.
- 2) Ensure proper grounding using the #8 ground lug provided.
- 3) Appliance must be anchored to the floor with the supplied anchoring methods.

## COMBUSTION AND VENTILATION AIR

The combustion air from this appliance is drawn from outside the building through the outer flue. Extra provision for combustion air inside the room is not required.

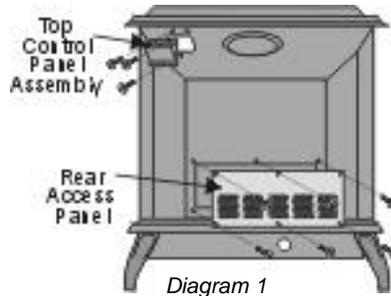


## OPTIONAL FAN INSTALLATION

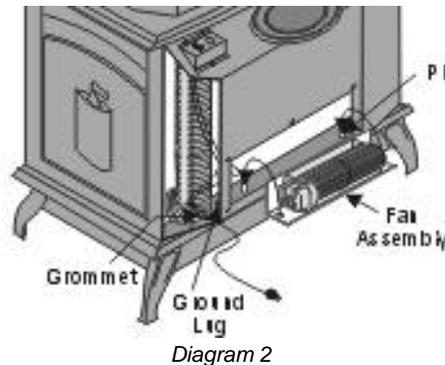
### Fan Kit Contains:

- | Qty. | Description                              |
|------|--|
| 1    | Fan Speed Controller with nut, and knob. |
| 1    | Fan Assembly c/w green wire attached     |
| 1    | power cord                               |
| 1    | Plastic locking grommet                  |

- 1) Remove the Top Control Panel Assembly by removing the three screws. Diagram 1.



- 2) Remove the nylon hole plug from the control panel.
- 3) Install the fan speed controller onto the control panel and secure with nut. Connect remaining wire harness wires to speed control. NOTE: Speed control wires must be in the down position when control panel is in place.
- 4) Push black knob onto speed control.
- 5) Remove the rear access panel on the back of the stove by removing the 6 screws. Install the fan onto pins as per diagram 2.



**NOTE: Do NOT damage, cut or remove the 3" aluminum air intake pipes.**

*Hint for pushing fan down onto pins - rub a bit of dish soap on the pins so the grommets will slide down more easily. Check to make sure the fan is seated properly on the pins - try to move the fan back and forth.*

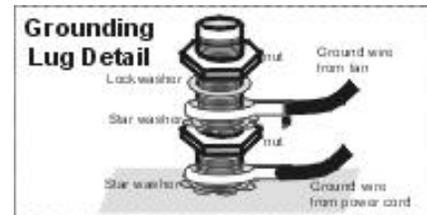
- 6) Push power cord through hole in the rear panel 14" - 16" and tie a loose knot in the cord on the inside to prevent the power cord from being pulled out. Diagram 2.

- 7) Install locking grommet to power cord and push through hole in the rear panel and give a 1/4 turn to secure.

**NOTE: When running wires, keep them clear of valve assembly and tubing to avoid tangling of wires and valve.**

**NOTE: Be careful not to cut wires when passing through holes in the fire-box.**

- 8) Run green ground wire from fan and connect to grounding lug.



- 9) Connect green power cord ground wire to grounding lug.
- 10) Run the neutral black wire from power cord and connect to fan motor.
- 11) Run the live black wire from power cord and connect to speed control wire.
- 12) Connect the white wire of the wire harness to the fan terminal.

**NOTE: Pull excess wire next to fan to avoid excessive heat from the fire-box.**

- 13) Ensure all wires are pulled away from firebox to avoid excessive heat and secure with stick-on wire clip.
- 14) Re-attach control panel with 3 screws, reversing step 1. Re-attach rear access panel with 6 screws, reversing step 5.

**NOTE: When power cord is plugged in, speed control is in the ON position and stove is burning, allow 10-15 minutes for the thermdisc (temperature switch) to activate and turn on the Fan automatically.**

### WARNING:

**Electrical Grounding Instructions**  
This appliance is equipped with a three pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

## VENTING INTRODUCTION

The Horizontal Termination Kit and the Simpson Dura-Vent Direct Vent System Model DV-GS venting systems, in combination with the Emerald Direct Vent Freestanding Gas Stoves, E65-NG1, and E65-LP1, have been tested and listed as direct vent heater systems by Warnock Hersey.

These units use the "balanced flue" technology Co-Axial system. The inner liner vents products of combustion to the outside while the outer pipe draws outside combustion air into the combustion chamber thereby eliminating the need to use heated room air for combustion and losing warm room air up the chimney.

**Note: These flue pipes must not be connected to any other appliance.**

The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas burning appliance. Each direct vent gas appliance must use its own separate vent system. Common vent systems are prohibited.

### IMPORTANT

Read all instructions carefully before starting the installation. Failure to follow these instructions may create a fire or other safety hazard, and will void the warranty. Be sure to check the venting and clearance to combustible requirements. Consult your local building codes before beginning installation.

The location of the termination cap must conform to the requirements in the Exterior Vent Terminal Locations on page 10.

## INSTALLATION PRECAUTIONS

These venting systems are engineered products that have been designed and tested for use with the E65-NG1, and E65-LP1. The warranty will be voided and serious fire, health or other safety hazards may result from any of the following actions:

- 1) Installation of any damaged Direct Vent component
- 2) Unauthorized modification of the Direct Vent System
- 3) Installation of any component part not manufactured or approved by Simpson Dura-Vent or Fireplace Products International Ltd.
- 4) Installation other than as instructed by Simpson Dura-Vent and Fireplace Products International Ltd.

**Warning: Always maintain required clearances (air spaces) to nearby combustibles to prevent a fire hazard. Do not fill air spaces with insulation.**

Be sure to check the vent termination clearance requirements from decks, windows, soffits, gas regulators, air supply inlets and public walkways as specified in the Exterior Vent Terminal Locations on page 10 and in your local building codes.

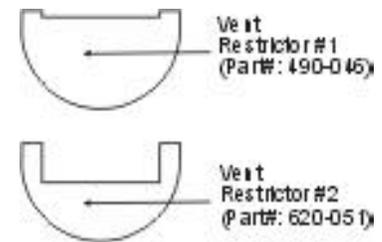
**The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas-burning appliance.** Each direct vent gas appliance must use its own separate vent system. Common vent systems are prohibited.

## SAFETY PRECAUTIONS FOR THE INSTALLER

- 1) Wear gloves and safety glasses for protection.
- 2) Exercise extreme caution when using ladders or on roof tops.
- 3) Be aware of electrical wiring locations in walls and ceilings.

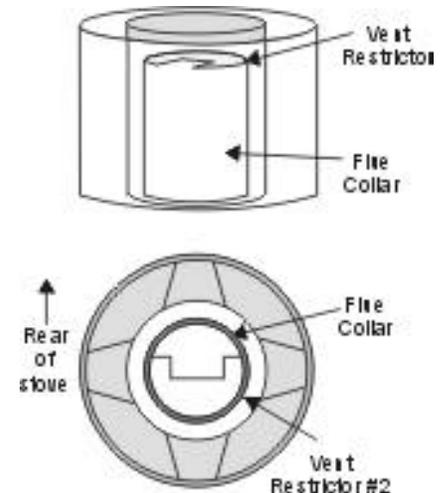
## VENT RESTRICTORS #1 AND #2

Vent restrictors are required for certain venting installations, see the diagrams on pages 12 and 13 to determine if they are required for your installation. The two vent restrictors are supplied with your unit. If a vent restrictor is required **it must be installed prior to connecting the pipe to the twist-lock appliance adapter.**



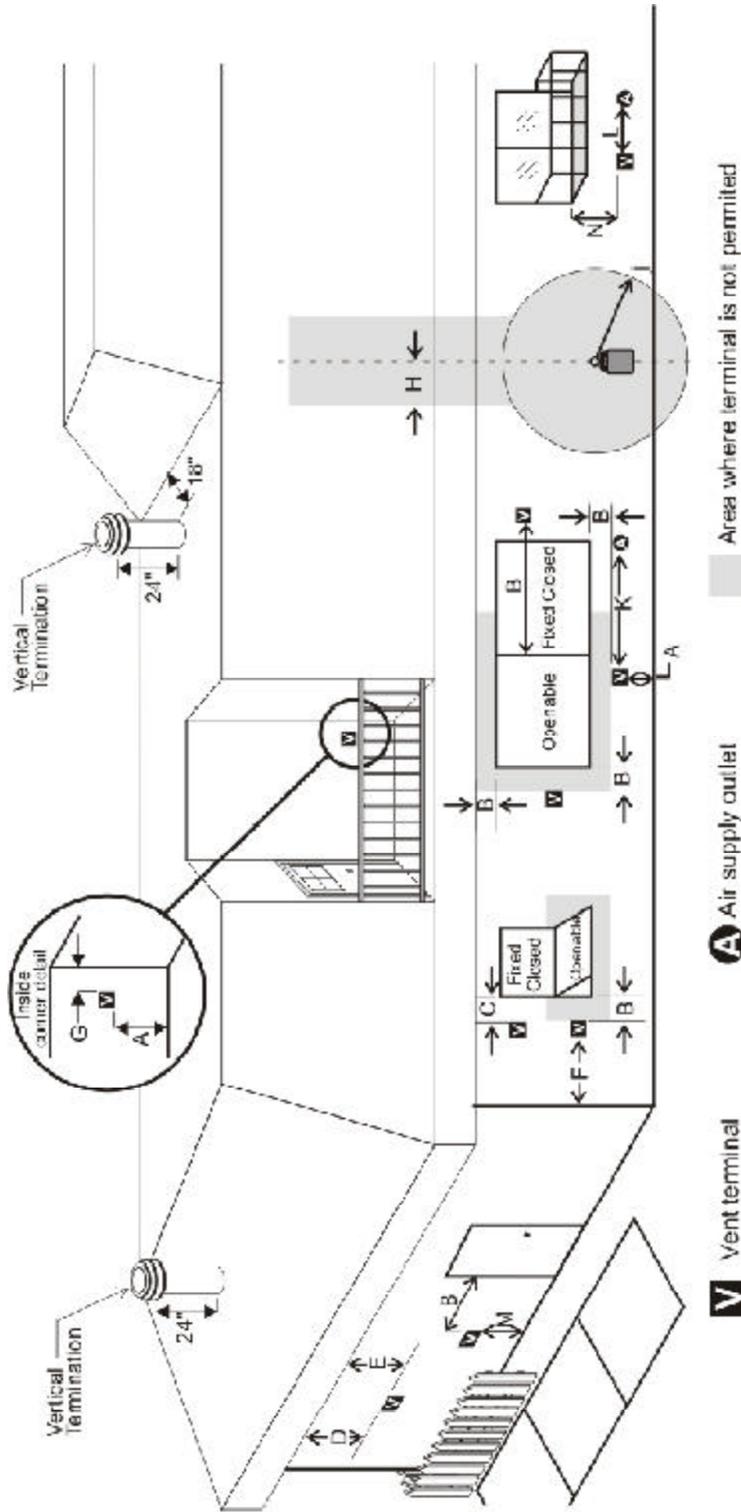
Slide the restrictor into the adapter collar and push the tabs down between the inner flue collar and the inside pipe of the twist-lock appliance adapter. See the diagram below.

The same procedure is used for vent restrictor #2.



# INSTALLATION

## EXTERIOR VENT TERMINAL LOCATIONS



- A= Clearance above grade, veranda, porch, deck, or balcony \*(min. 12"/30cm)
- B= Clearance to window or door that may be opened \*(12"/30cm) #(9"/23cm)
- C= Clearance to permanently closed window \*(min. 12"/30cm)
- D= Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of (24"/60cm) from the centerline of the terminal (min. 18"/46cm) check with local code.
- E= Clearance to unventilated soffit (min. 12"/30cm)
- F= Clearance to outside corner: with AstroCap Termination Cap (min. 6"/15cm), with Dura-Vent Termination Cap (min. 12"/30cm)
- G= Clearance to inside corner: with AstroCap Termination Cap (min. 6"/15cm), with Dura-Vent Termination Cap (min. 12"/30cm)
- H= Not to be installed above a meter/regulator assembly within (3'/90cm) horizontally from the centerline of the regulator.

- J= Clearance to service regulator vent outlet \*(min. 36"/90cm)
  - K= Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance \*(12"/30cm) #(9"/23cm)
  - L= Clearance to a mechanical air supply inlet \*(min. 72"/1.8m) #3' (91cm) above if within 10' (3m) horizontally.
  - M= \*\*Clearance above paved sidewalk or a paved driveway located on public property \*(min. 84"/2.1m)
  - N= Clearance under veranda, porch, deck, or balcony \*(min. 12"/30cm)\*\*\*
- Note: \* As specified in CGAB149 Installation Code. Note: Local codes or regulations may require different clearances.  
 \*\*A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.  
 \*\*\*Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.  
 #In accordance with the current ANZI Z223.1/NFPA 54, National Fuel Gas Code.

## RIGID PIPE VENTING COMPONENTS LIST

All Simpson Dura-Vent components are available directly from FPI.

Description	Simpson Dura-Vent Direct VentGS <sup>R</sup>	Selkirk Direct-Temp <sup>TM</sup>	Amerivent <sup>R</sup> Direct Vent
6" Pipe Length, Galvanized	908	4DT-6	N/A
6" Pipe Length, Black	908B	4DT-6B	N/A
7" Pipe Length, Galvanized	N/A	N/A	4D7
7" Pipe Length, Black	N/A	N/A	4D7B
9" Pipe Length, Galvanized	907	4DT-9	N/A
9" Pipe Length, Black	907B	4DT-9B	N/A
12" Pipe Length, Galvanized	906	4DT-12	4D12
12" Pipe Length, Black	906B	4DT-12B	4D12B
18" Pipe Length, Galvanized	N/A	4DT-18	N/A
18" Pipe Length, Black	N/A	4DT-18B	N/A
24" Pipe Length, Galvanized	904	4DT-24	4D2
24" Pipe Length, Black	904B	4DT-24B	4D2B
36" Pipe Length, Galvanized	903	4DT-36	4D3
36" Pipe Length, Black	903B	4DT-36B	4D3B
48" Pipe Length, Galvanized	902	4DT-48	4D4
48" Pipe Length, Black	902B	4DT-48B	4D4B
Adjustable Length, 11"-14", Galv.	911	4DT-AJ	N/A
Adjustable Length, 11"-14", Black	911B	4DT-AJB	N/A
Adjustable Length, 17"-24", Black	917B	N/A	N/A
Adjustable Length, 7" Galvanized	N/A	N/A	4D7A
Adjustable Length, 7" Black	N/A	N/A	4D7AB
Adjustable Length, 12" Galvanized	N/A	N/A	4D12A
Adjustable Length, 12" Black	N/A	N/A	4D12AB
45° Elbow, Galvanized	945	4DT-EL45	4D45L
45° Elbow, Black	945B	4DT-EL45B	4D45LB
45° Elbow, Swivel, Galvanized	945G	N/A	N/A
45° Elbow, Swivel, Black	945BG	N/A	N/A
90° Elbow, Galvanized	990	4DT-EL90S	4D90LS
90° Elbow, Black	990B	4DT-EL90SB	4D90LSB
90° Elbow, Swivel, Galvanized	990G	N/A	N/A
90° Elbow, Swivel, Black	990BG	N/A	N/A
Ceiling Support	949 - n/a from FPI	4DT-CS	4DFSP
Cathedral Support Box	941	4DT-CSS	4DRSB
Wall Support/Band	988	4DT-WS/B	4DWS
Offset Support	989 - n/a from FPI	4DT-OS	N/A
Wall Thimble, Black	942	4DT-WT	4DWT
Wall Thimble Support Box/Ceiling Support	940	N/A	N/A
Firestop Spacer	963	4DT-FS	4DFSP
Trim Plate, Black	N/A	4DT-TP	4DFPB
Brass Trim for Wall Thimble/Ceiling Support	3951	N/A	N/A
Attic Insulation Shield 12"	N/A	N/A	4DAIS12
Attic Insulation Shield - Cold Climates 36"	N/A	N/A	4DAIS36
Basic Horizontal Termination Kit (A)	970	4DT-HKA	4DHTK2
Horizontal Termination Kit (B)	971	4DT-HKB	4DHTK1
Vertical Termination Kit	978	4DT-VKC	4DVTK
High Wind Vertical Cap	991	N/A	N/A
High Wind Horizontal Cap	985	N/A	N/A
Horizontal Square Termination Cap	984	4DT-HHC	4DHC
Vertical Termination Cap	980	4DT-HVC	4DVC
Storm Collar	953	4DT-SC	4DSC
Adjustable Flashing, 0/12-6/12	943	4DT-AF6	4DF
Adjustable Flashing, 6/12-12/12	943S	4DT-AF12	4DF12
Vinyl Siding Standoff	950	4DT-VS	N/A
Vinyl Siding Shield Plate	N/A	4DT-VSP	N/A
Snorkel Termination 14"	982	4DT-ST14	4D12S
Snorkel Termination 36"	981	4DT-ST36	4D36S
946-506/P Vent Guard (Optional)		946-523/P AstroCap Horizontal Cap	
946-205 Vinyl Siding Shield for Riser Vent Terminal		946-206 Vinyl Siding Standoff - AstroCap	
946-208/P Vent Guard (Optional) - Riser Vent Terminal			

# INSTALLATION

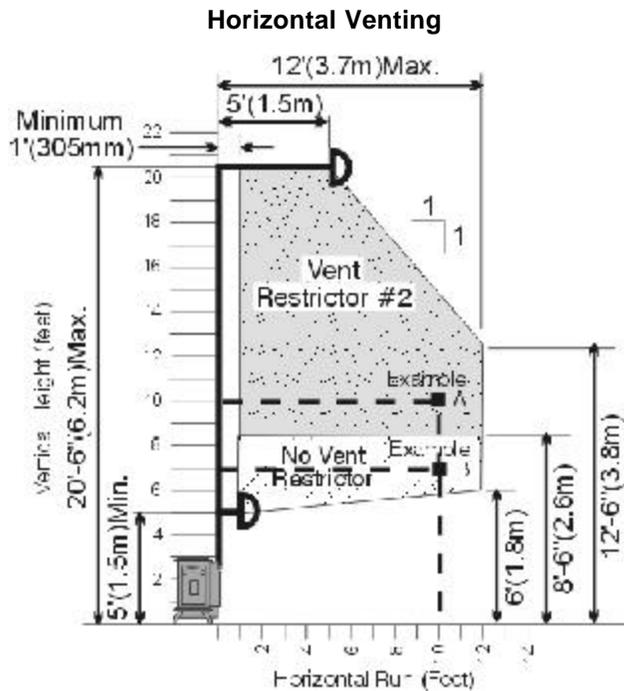
## RIGID PIPE VENTING - HORIZONTAL TERMINATIONS

The shaded area in the diagram below shows all allowable combinations of vertical runs with horizontal terminations. Maximum one 90° elbow (two 45° elbows equal one 90° elbow), not including the 45° elbow attached to the unit.

### RESIDENTIAL AND Manufactured Homes / Mobile Homes Installations

The venting arrangements diagrammed below, have a minimum of 75% (flue loss) efficiency with Fan Off, as required for manufactured homes. (Actual efficiency may be as high as 85%.)

**Note:** See page 9 for installation instructions for the Vent Restrictors. These must be installed before the pipe is connected to the unit. The vent restrictors are shipped inside the stove.



Page 12 & Page 13:

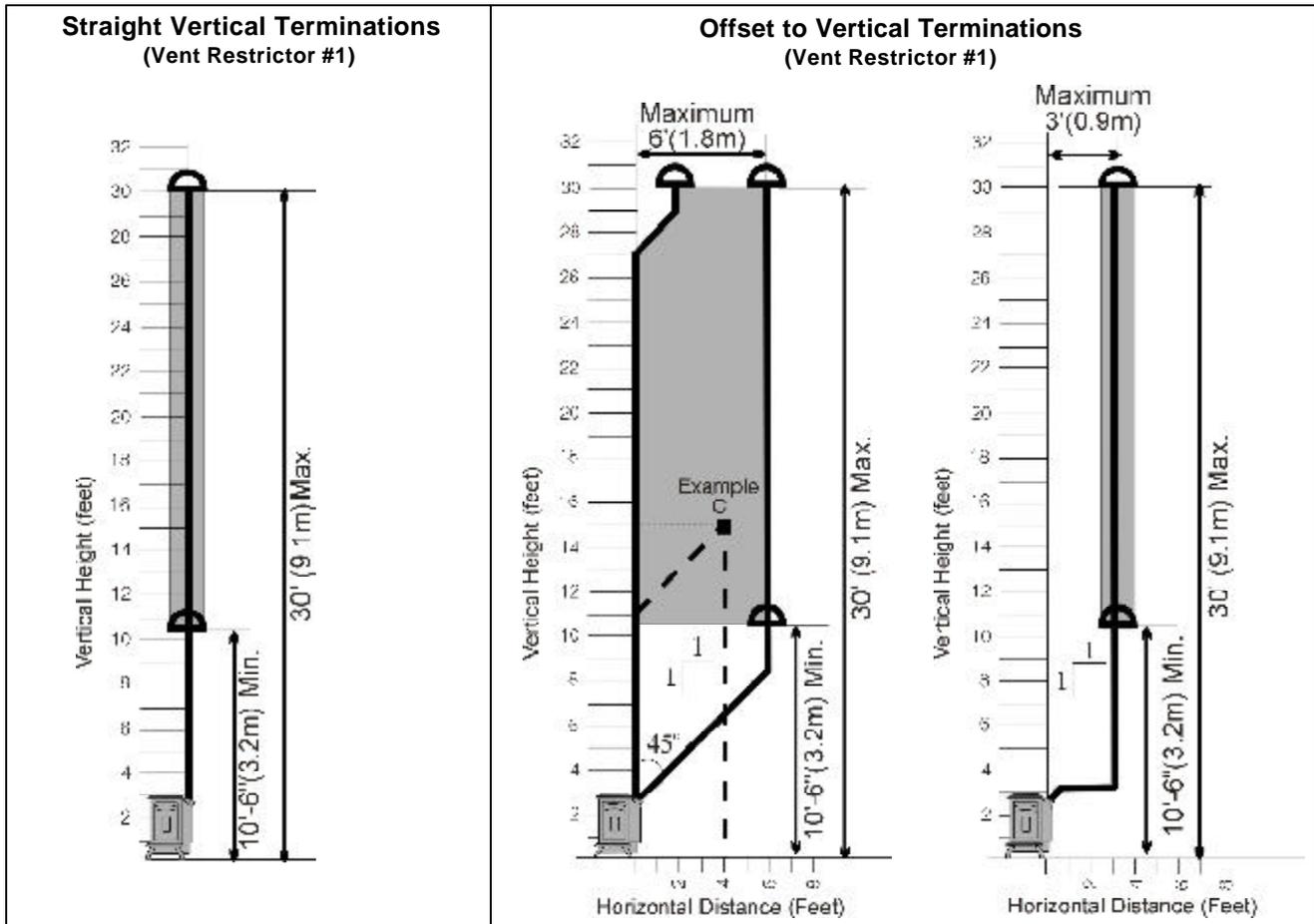
- If you are terminating within this shaded area Vent Restrictor #2 must be used.
- If you are terminating within this shaded area no Vent Restrictor is required.
- If you are terminating within this shaded area Vent Restrictor #1 must be used.

### Venting Arrangements Examples:

- Example A)  
Venting with horizontal termination.  
A 10 ft. vertical run with 10 ft. horizontal run falls within the shaded area, and therefore is an allowable installation with Vent Restrictor #2.
- Example B)  
Venting is not enclosed and has a horizontal termination.  
A 7 ft. vertical run with 10 ft. horizontal run falls within the shaded area, and therefore is an allowable installation with no vent restrictor required.
- Example C)  
Offset to Vertical Vent - Venting with vertical termination.  
A 15 ft. vertical run with 4 ft. horizontal offset distance falls within the shaded area and is an allowable installation with Vent Restrictor #1.

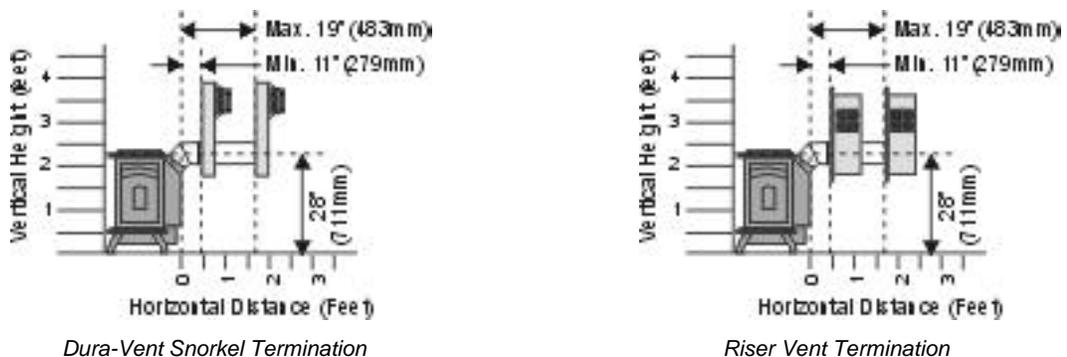
## RIGID PIPE VENTING - VERTICAL TERMINATIONS FOR BOTH RESIDENTIAL & MANUFACTURED HOMES/MOBILE HOMES

The shaded areas in the two diagrams below show all allowable combinations of straight vertical and offset to vertical runs with vertical terminations. **Maximum two 45° elbows**, not including the 45° elbow attached to the unit. All vertical and offset to vertical vent installations require Vent Restrictor #1. If the vent is ENCLOSED in a chase (min. size 9" x 9") maintain a 1-1/4" clearance to combustibles.



### Rigid Pipe Venting - Horizontal Terminations Only for Units Converted to Lower Btu Rating: 27,000 (NG), 29,000 (LP)

The two diagrams below show all allowable combinations of straight horizontal termination with one 45° elbow off the unit.



# INSTALLATION

## VERTICAL TERMINATION WITH CO-LINEAR FLEX SYSTEM

**THE APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE SERVING A SEPARATE SOLID FUEL BURNING APPLIANCE.**

Masonry chimneys may take various contours which the flexible liner will accommodate. However, **keep the flexible liner as straight as possible**, avoid unnecessary bending.

The Air Intake pipe must be attached to the inlet air collar of the termination cap.

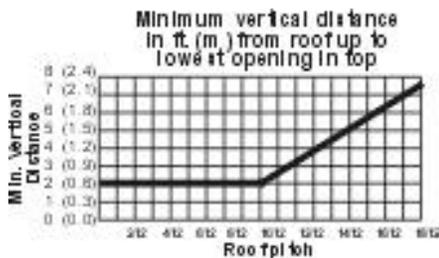
This appliance is designed to be attached to two 3" (76mm) co-linear aluminium flex running the full length of the chimney. See the Venting Arrangements chart below for minimum and maximum flue lengths. See chart below for minimum distances from roof. Periodically check that the vent is unrestricted.

### Required Parts:

Part #	Description
945G	45° Elbow
946-529	Co-linear DV Vertical Termination Cap
948-305	3" Flex - 35 ft.
270-944	U27 Dura-Vent Adapter
946-563	Co-Axial to Co-Linear Adapter Kit which contains the following: Co-linear Flex Adapter (270-585) Outer Pipe (946-257) Inner Pipe Adapter (946-219)

### Alternate Approved Caps

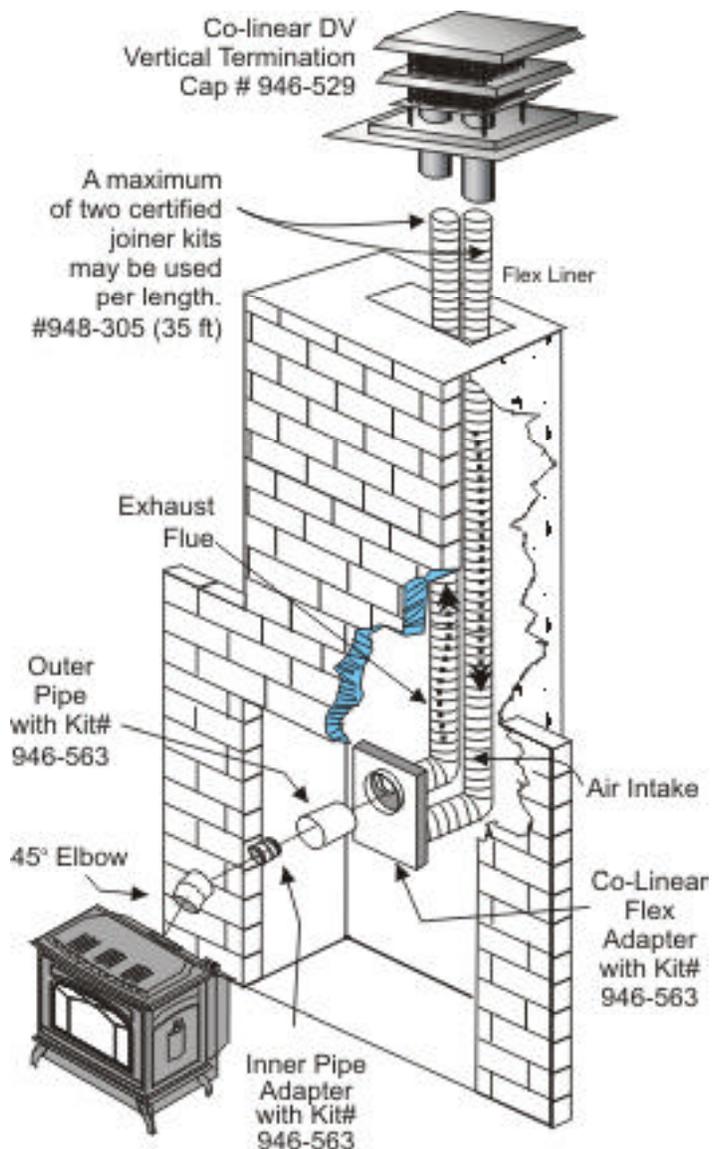
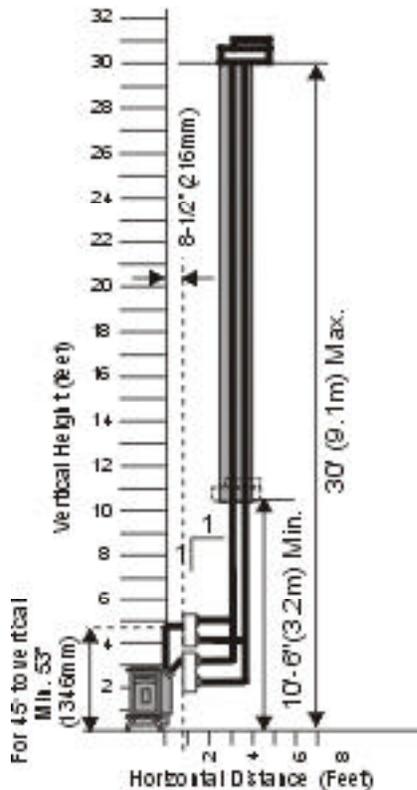
980	Vertical Termination Cap
991	High Wind Cap
923GK	3" Co-linear Adapter with flashing



### Venting Arrangements - Vertical Terminations with Co-linear Flex System for both Residential & Manufactured Homes/ Mobile Homes

The shaded area in the diagram shows the allowable vertical terminations. If the vent is ENCLOSED in a chase (min. size 9" x 9") maintain a 1-1/4" clearance to combustibles.

#### Straight Vertical Terminations



## MINIMUM HORIZONTAL TERMINATION INSTALLATIONS

See page 10 for Exterior Vent Termination requirements. The E65 is approved for a minimum horizontal termination with the Regency Riser Vent Kit. See the diagram on page 13 for minimum and maximum pipe lengths.

When planning your installation, it will be necessary to select the proper length of vent pipe for your particular requirements. Determine the minimum clearance to combustibles from the rear of the unit to the wall. It is also important to note the wall thickness. Before cutting the vent hole through the wall ensure that ALL vent and termination clearances (see page 7) will be met.

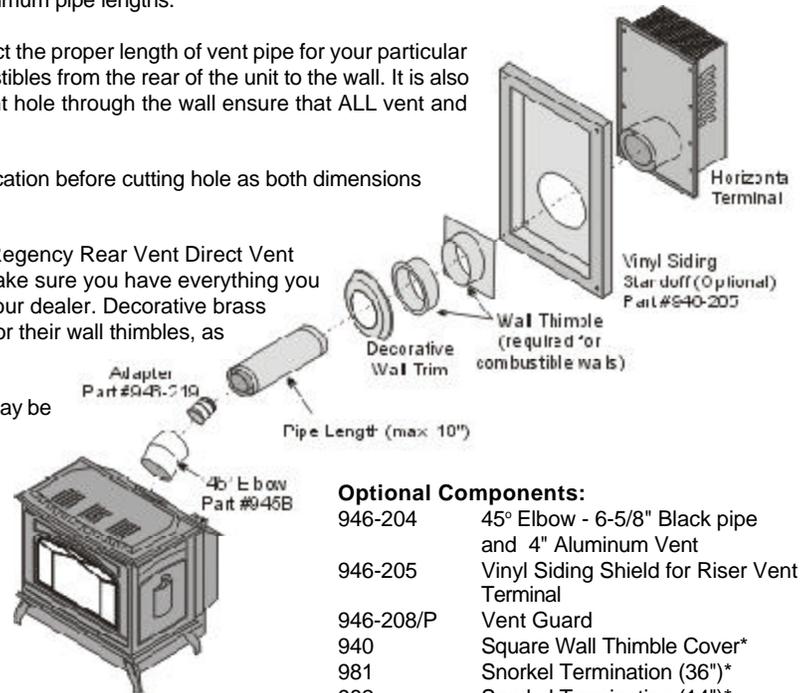
NOTE: Ensure compliance with the outside vent terminal location before cutting hole as both dimensions must be met.

You will require the following components with your new Regency Rear Vent Direct Vent Freestanding Gas Stove. Please review your product to make sure you have everything you need. In the event that you are missing any part, contact your dealer. Decorative brass or chrome trim kits are available from Simpson Dura-Vent for their wall thimbles, as well as a square wall thimble cover.

Note: These are the minimum pieces required. Other parts may be required for your particular installation.

### Minimum components for a Horizontal Installation:

640-944	Horizontal Termination Kit which includes:
1 946-201	6-5/8" Dia. x 18" Black Pipe
1 946-207	4" Dia. x 18" Aluminum Vent
1 946-202	Wall Penetration Heat Shield (Wall Thimble) (2 pcs)
1 640-530	Riser Vent Terminal
1 640-545	Decorative Wall Trim (Black)
1 948-128	Tube Mill-Pac Screws
945G*	1 45° Elbow
946-219	1 Adapter



### Optional Components:

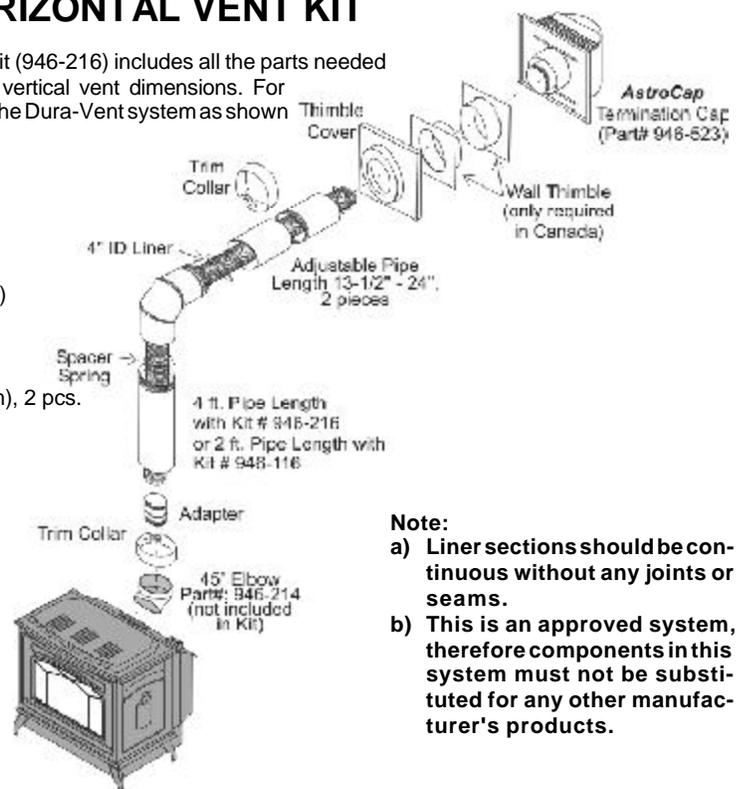
946-204	45° Elbow - 6-5/8" Black pipe and 4" Aluminum Vent
946-205	Vinyl Siding Shield for Riser Vent Terminal
946-208/P	Vent Guard
940	Square Wall Thimble Cover*
981	Snorkel Termination (36")*
982	Snorkel Termination (14")*
942	Wall Penetration Heat Shield*

\* Simpson Dura-Vent components

## DV STOVE HORIZONTAL VENT KIT

DV 2 ft. Stove Vent Kit (Part # 946-116) and DV 4 ft. Stove Vent Kit (946-216) includes all the parts needed to install the E65 Direct Vent unit with minimum horizontal and vertical vent dimensions. For installations that require longer vertical and/or horizontal vents use the Dura-Vent system as shown on page 17.

Qty.	Description
1)	1 Rigid Pipe Section (Kit # 946-116: 2 ft. (1.2m) length, Kit # 946-216: 4 ft. (1.2m) length), 6-1/2" (165mm) inside diameter
2)	1 Flex Liner, compressed aluminium 2 ply liner, 4" (102mm) inside diameter
3)	4 spring spacers
4)	1 90 deg. Elbow
5)	1 Adjustable pipe section 13-1/2" to 24" (343mm x 610mm), 2 pcs.
6)	1 Thimble Cover
7)	1 Wall Thimble (2 pcs.)
8)	1 Adapter
9)	1 <b>AstroCap</b> Termination Cap
10)	2 Trim Collars
11)	1 tube of Mill-Pac, high temperature sealant
12)	12 Screws, #8 x 1/2" Self tapping, Stainless Steel
13)	14 Screws, #8 x 1/2" Self tapping, Black
14)	4 Screws #8 x 1-1/2" Drill Point, Black
15)	4 Screws #8 x 1-1/2" Drill Point, Stainless Steel
16)	8 Wood screws #8 x 1"



### Note:

- Liner sections should be continuous without any joints or seams.
- This is an approved system, therefore components in this system must not be substituted for any other manufacturer's products.

Required but not included in above Kit:

45° Elbow (Part #: 946-214)

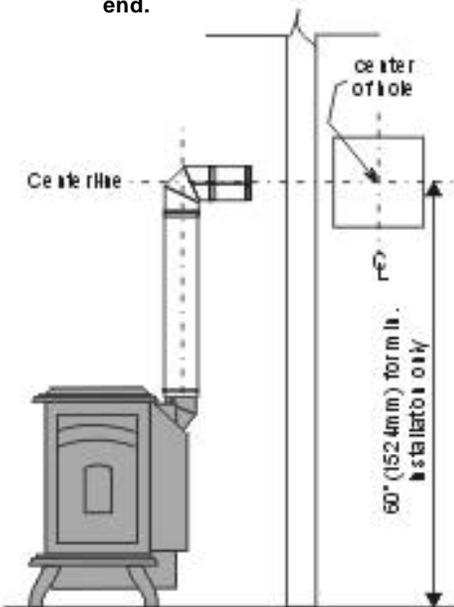
# INSTALLATION

## DV STOVE HORIZONTAL VENT KIT (# 946-116 & #946-216) INSTALLATION

Review the following sequence of instructions which are typical of most installations. The sequence may vary depending on wall thickness. Refer to pages 10 to 14 for vent location and clearance dimensions. If a Vent Restrictor is required it must be installed BEFORE any venting is attached to the stove.

- 1) Set the unit in its desired location. Check to determine if wall studs will be in the way of the venting system, adjust location until all clearances are met and there are no obstructions.

**Note:** A 1-1/2" (38mm) clearance around the outer pipe must be maintained except that only a 1" (25mm) clearance is needed at the termination end.

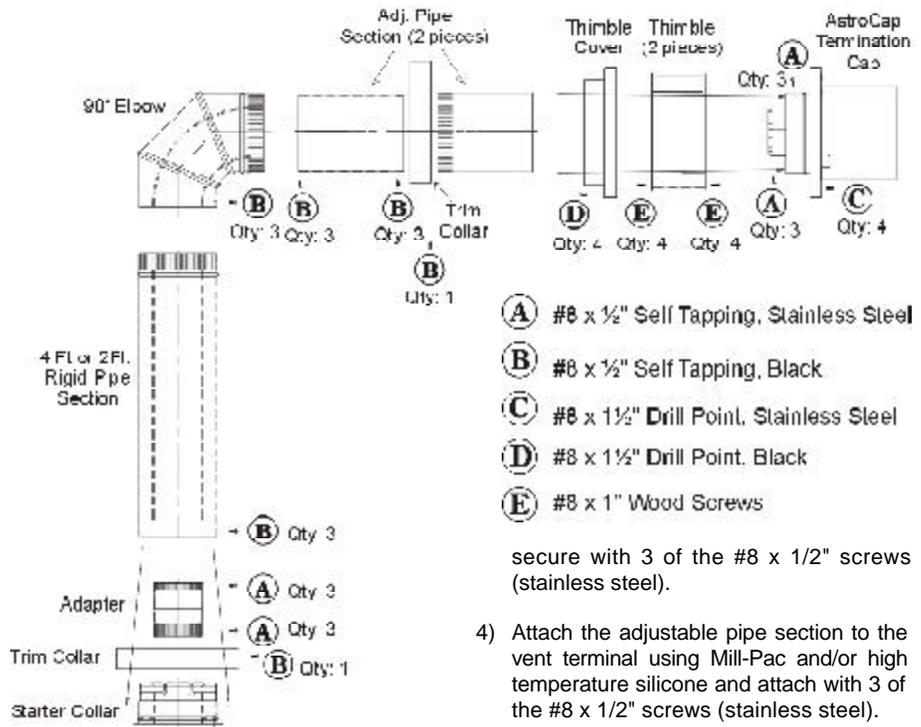


### IMPORTANT:

Do not locate termination hood where excessive snow or ice buildup may occur. Be sure to check vent termination area after snow falls, and clear to prevent accidental blockage of venting system. When using snow blowers, make sure snow is not directed towards vent termination area.

- 2) Assemble a trial fit to determine the vertical center-line for the vent termination.

- a) Cut a 9-1/2" x 9-1/2" (241mm x 241mm) square hole on both the interior and exterior wall.



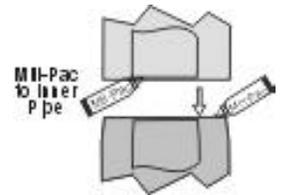
- A** #8 x 1/2" Self Tapping, Stainless Steel
- B** #8 x 1/2" Self Tapping, Black
- C** #8 x 1/2" Drill Point, Stainless Steel
- D** #8 x 1/2" Drill Point, Black
- E** #8 x 1" Wood Screws

secure with 3 of the #8 x 1/2" screws (stainless steel).

- 4) Attach the adjustable pipe section to the vent terminal using Mill-Pac and/or high temperature silicone and attach with 3 of the #8 x 1/2" screws (stainless steel).

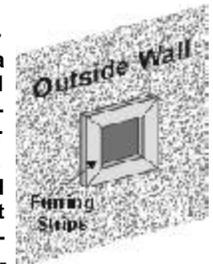
*Hint: Apply the sealant (Mill-Pac and/or high temperature silicone) to the outer pipe before connecting the inner pipe.*

**Note:** The pipe seam should be facing down.



**Note:** To make the installation more aesthetically pleasing, we recommend framing out a square that the cap can be mounted on.

**Note:** If installing termination on a siding covered wall, a vinyl siding standoff or furring strips must be used to ensure that the termination is not recessed into the siding. For vinyl siding standoff installation refer to the Dura-Vent Termination instructions.



- b) Install wall thimbles on both interior and exterior wall with 4 wood screws (#8 x 1") per thimble.
  - c) Attach the 2 piece adjustable pipe section to the vent terminal and slide into position from the exterior. The larger diameter end of the adjustable pipe goes to the vent terminal.
  - d) Install the 90° elbow onto the adjustable pipe to determine the vertical centerline.
- Note:** if the centerline cannot be met, the adjustable sections will have to be cut.
- e) Cut the 4 ft. section of rigid pipe to length. Attach the 45° elbow to the rigid pipe, and ensure that the pipe length when cut (with the 45° elbow) will seat onto both the starter collar and the 90° elbow. Crimped section of rigid pipe seats into the 90° elbow. Only cut the uncrimped side of pipe.

Dismantle all pipe sections including vent terminal.

- 3) Attach the 4" dia. flex liner to the vent terminal ensuring that the flex overlaps the collar of the vent terminal by a minimum of 1-3/8" (35mm). Use Mill-Pac to seal and

- 5) Slide the partially connected pipe and vent terminal assembly through the wall thimbles (from the exterior into the interior) and secure the cap to the exterior wall with 4 of the supplied screws (#8 x 1-1/2" drill

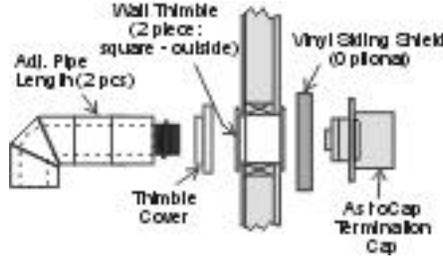
point, stainless steel). Note: pilot holes will need to be drilled through the wall thimble on all 4 corners.

**Note: The four screws provided for the vent cap should be replaced with appropriate fasteners for stucco, brick, concrete, or other types of sidings.**

- 6) A bead of non-hardening mastic should be run around both the termination and vinyl siding standoff to prevent water from entering and to make a tight seal between the cap and the standoff.
- 7) Stretch the 4" dia. flex liner out fully and get a trial fit of the liner onto the 4" dia. starter collar.
- 8) Cut the 4" dia. flex liner to the desired size.  
  
Hint: leave an extra 12" to 16" of length, this will make the final assembly easier to work with.
- 9) Secure the 4" dia. flex liner to the 4" adapter with Mill-Pac and 3 of the #8 x 1/2" screws (stainless steel).
- 10) Slide the decorative Thimble Cover over the pipe sections and secure with 4 screws (#8 x 1-1/2" drill point, black) to the wall.
- 11) Slide the 90° elbow (crimp end up), the 45° elbow and the 4 ft. pipe section (crimp end up) over the 4" dia. flex liner.
- 12) Install the spring spacers onto the pipe sections.
- 13) Secure the 4" dia. flex liner with adapter onto the stove collar. Put a bead of Mill-Pac around the appliance adapter and secure with 3 screws (#8 x 1/2, stainless steel).
- 14) Attach the 45° elbow onto the starter collar by sealing with Mill-Pac and/or high temperature silicone and securing with 3 of the #8 x 1/2" (black) screws.
- 15) Attach the pipe section to the 45° elbow by sealing with Mill-Pac and/or high temperature silicone and securing with 3 of the #8 x 1/2" screws (black). Pipe seams should be facing the wall.
- 16) Attach the 90° elbow onto the pipe section by sealing with Mill-Pac and/or high temperature silicone and securing with 3 of the #8 x 1/2" screws (black).
- 17) Slide the adjustable pipe section onto the 90° elbow. Slide the trim collar over the adjustable pipe sections to cover the joint of the telescopic section.) The flex may have to be compressed back in order for the adjustable pipe to properly mate to the elbow. Seal with Mill-Pac and/or high

temperature silicone and secure with 3 of the #8 x 1/2" screws (black). Pipe seams facing down.

- 18) Install the trim collar over the starter collar and secure with a #8 x 1/2" screw (black).



If the pipe needs to be touched up, use only Stove Brite High Temperature Metallic Black Stove Paint.

**NOTE: All inner joints must be sealed with Mill-Pac. All outer joints may be sealed with high temperature silicone.**

the unit flue outlet to the ceiling, the ceiling thickness, the vertical rise in an attic or second storey, and allow for sufficient vertical height above the roof line.

For multi-storey applications, fire stops are required at each floor level. If an offset is needed, additional pipe, elbows and supports will be required.

Do not exceed the maximum number of elbows. One 90° for horizontal terminations and two 45° for vertical termination.

## DURA-VENT TERMINATION KIT

### Planning Your Dura-Vent Installation

There are two basic types of Dura-Vent Direct Vent System installations: horizontal termination and vertical termination. Confirm the maximum horizontal run and maximum vertical rise from the diagrams on pages 12 and 13.

When planning your installation, it will be necessary to select the proper length of vent pipe for your particular requirements. For horizontal installations, determine the minimum clearance from the rear of the unit to the wall. It is also important to note the wall thickness. (The wall thimble is suitable for 2 x 4 or 2 x 6 wall construction.) Select the amount of vertical rise desired for "vertical-to-horizontal" type installations.

**Warning: Always maintain required clearances (air spaces) to nearby combustibles to prevent a fire hazard. Do not fill air spaces with insulation.**

The minimum clearance requirements between the outer wall of the vent pipe and nearby combustible surfaces is 1-1/4 inch. Be sure to check the vent termination clearance requirements from decks, windows, soffits, gas regulators, air supply inlets and public walkways as specified in the Exterior Vent Terminal Locations on page 10 and in your local building codes.

To determine the length of vent pipe required for vertical installations, measure the distance from

# INSTALLATION

You will require the following components with your new Emerald Direct Vent Freestanding Gas Stove. Please review your product to make sure you have everything you need. In the event that you are missing any part, contact your dealer.

**Note:** These are the minimum pieces required. Other parts may be required for your particular installation. See page 17 for a list of vent parts.

If installing termination on a siding covered wall, a vinyl siding standoff or furring strips can be used in order to ensure that the termination is not recessed into siding.

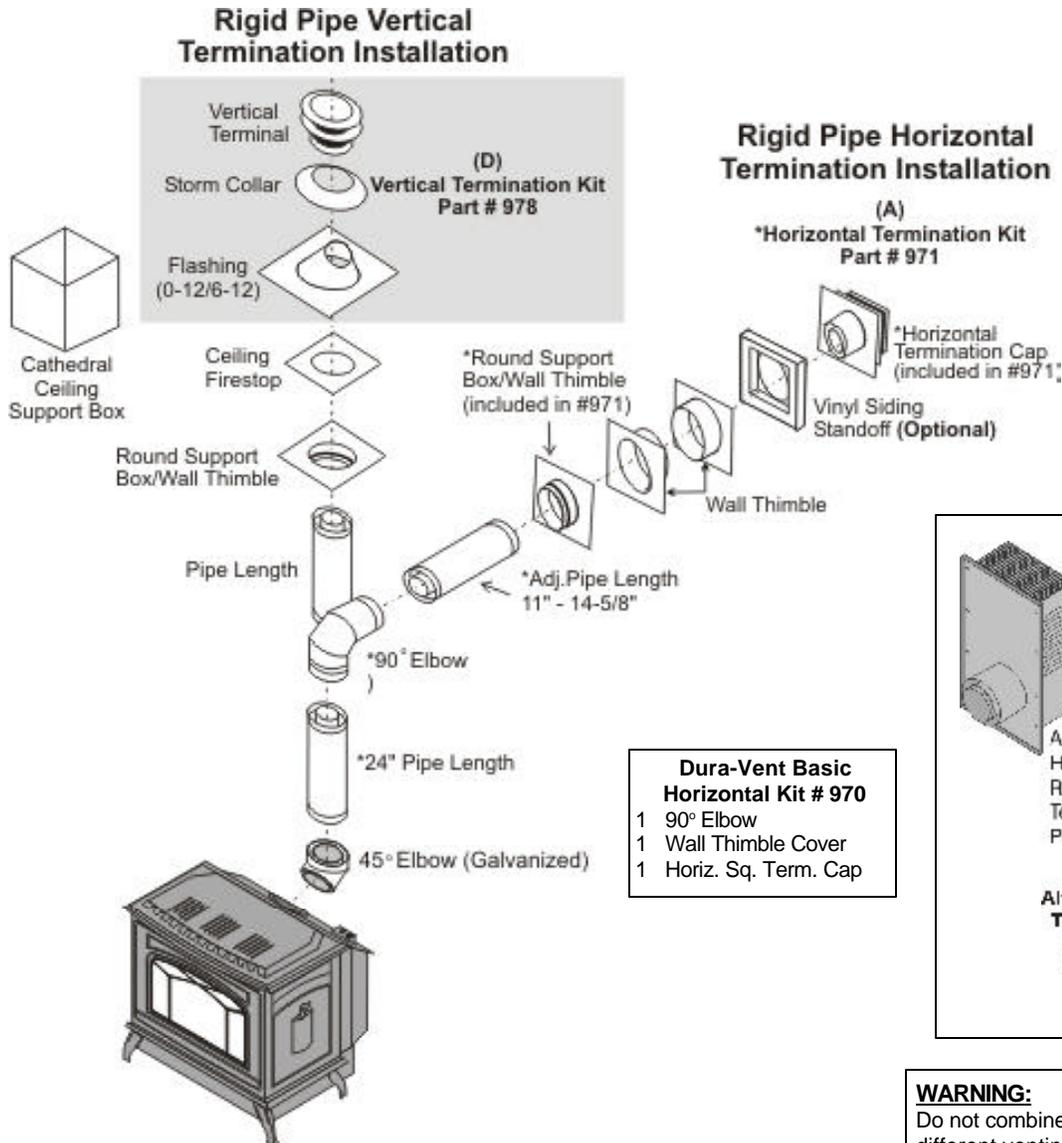
The vinyl siding standoff is required for walls with vinyl siding.

## Minimum components for a Dura-Vent Horizontal Installation:

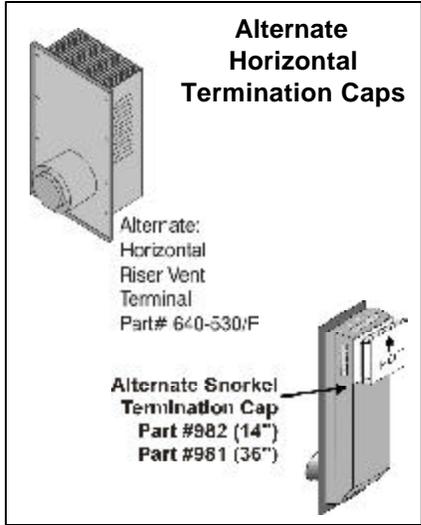
- A) Dura-Vent Horizontal Termination Kit
- B) Wall Thimble (required for combustible walls)

## Minimum components for a Dura-Vent Vertical Termination:

- D) Dura-Vent Vertical Termination Kit. See page 17 for pipe lengths.



- Dura-Vent Basic Horizontal Kit # 970**
- 1 90° Elbow
  - 1 Wall Thimble Cover
  - 1 Horiz. Sq. Term. Cap



**When using piping other than Simpson Dura-Vent, 3 screws must be used to secure rigid pipe to adaptor.**

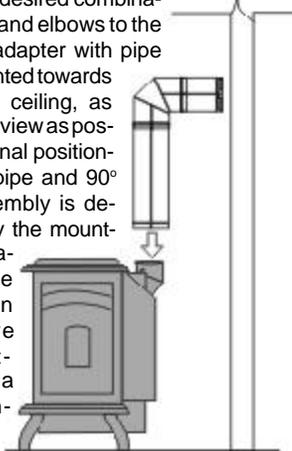
The FPI AstroCap™ and FPI Riser Vent terminal is certified for installations using FPI venting systems as well as Simpson Dura-Vent®, Direct Vent GS, American Metal Products, Ameri Vent Direct vent and Selkirk Direct-Temp. FPI™, and FPI AstroCap™ are the proprietary trademarks of FPI Fireplace Products International Ltd. Dura-Vent® and Direct Vent GS are registered and/or proprietary trademarks of Simpson Dura-Vent Co. Inc.

**WARNING:**  
Do not combine venting components from different venting systems.  
However use of the the AstroCap™ and FPI Riser is acceptable with all systems.

This product has been evaluated by Intertek for using a Dura-Vent Flue Adaptor in conjunction with Selkirk Direct-Temp and Ameri Vent Direct venting systems. Use of these systems with the Direct Vent GS starting collar is deemed acceptable and does not affect the Intertek WHI listing of components.

## DURA-VENT HORIZONTAL INSTALLATIONS

- 1) Set the unit in its desired location. Check to determine if wall studs or roof rafters are in the way when the venting system is attached. If this is the case, you may want to adjust the location of the unit.
- 2) Direct Vent pipe and fittings are designed with special twist-lock connections to connect the venting system to the appliance flue outlet. A twist-lock appliance adapter is installed on the unit at the factory. Assemble the desired combination of pipe and elbows to the appliance adapter with pipe seams oriented towards the wall or ceiling, as much out of view as possible. The final positioning of the pipe and 90° elbow assembly is determined by the mounting orientation of the adapter on the stove and twist-locked for a solid connection.



**Note:**

- a) Twist-lock procedure: Four indentations, located on the female ends of pipes and fittings, are designed to slide straight onto the male ends of adjacent pipes and fittings, by orienting the four pipe indentations so they match and slide in to the four entry slots on the male ends (diagram 1). Push the pipe sections completely together, then twist-lock one section clockwise approximately one-quarter turn, until the two sections are fully locked. The female locking lugs will not be visible from the outside on the Black Pipe or fittings. They may be located by examining the inside of the female ends. Apply sealant "Mill-Pac" to inner pipe and high temp silicone sealant to outer pipe on every twist-lock joint.

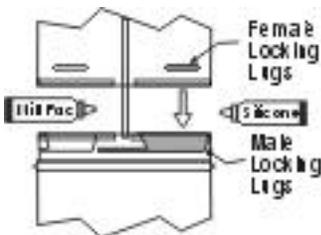


Diagram 1:

Hint: Apply silicone to female end.

- b) Horizontal runs of vent must be supported every three feet. Wall straps are available for this purpose.

**c) Snorkel Terminations:**

For installations requiring a vertical rise on the exterior of the building, 14-inch and 36-inch tall Snorkel Terminations and the Riser Vent as shown in Dia. 2 & 2a are available. Follow the same installation procedures as used for standard Horizontal Termination. NEVER install the snorkel upside down.

\*As specified in CGA B149 Installation Code. Local codes or regulations may require different clearances.

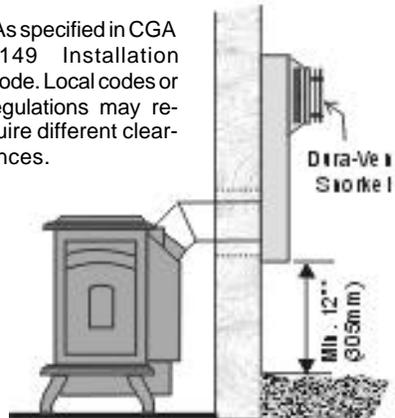


Diagram 2

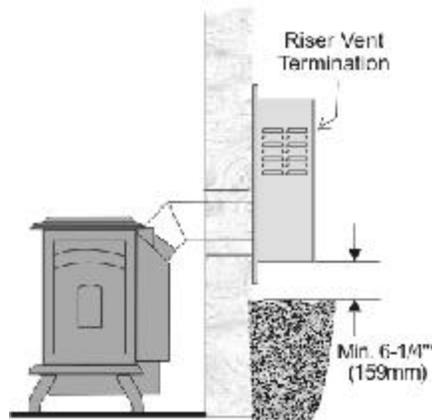


Diagram 2a

Snorkel Termination diagrams show the venting arrangements for units converted to the lower Btu rating of 27,000 (NG) or 29,000 (LP).

**Below Grade Snorkel Installation**

If the Snorkel Termination must be installed below grade, i.e. basement application, proper drainage must be provided to prevent water from entering the Snorkel Termination. Refer to Dura-Vent Installation instructions for details. Do not attempt to enclose the Snorkel within the wall, or any other type of enclosure.

- 3) With the pipe attached to the stove, slide the stove into its correct location, and mark the wall for a 10" x 10" (inside dimensions) square hole. The center of the square hole should line up with the centerline of the

horizontal pipe, as shown in diagram 3. Cut and frame the 10 inch square hole in the exterior wall where the vent will be terminated. If the wall being penetrated is constructed of non-combustible material, i.e. masonry block or concrete, a 7" diameter hole is acceptable.

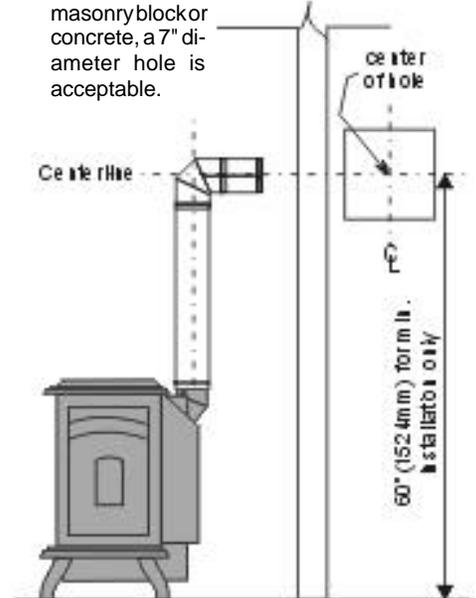


Diagram 3

**Note:**

- a) The horizontal run of vent should have a 1/4 inch rise for every 1 foot of run towards the termination. Never allow the vent to run downward. This could cause high temperatures and may present the possibility of a fire.
  - b) The location of the horizontal vent termination on an exterior wall must meet all local and national building codes, and must not be blocked or obstructed. For External Vent Terminal Locations, see diagram on page 10.
- 4) If installing the vent termination to a wall with vinyl siding, the Vinyl Siding Standoff must be used. Attach the Vinyl Siding Standoff to the Horizontal Vent Termination, but first run a bead of non-hardening mastic around its outside edges, so as to make a seal between vent cap and the standoff. Install the Vinyl Siding Standoff (Part # 950) between the vent cap and the exterior wall and attach with the four wood screws provided. Seal around the Vinyl Siding Standoff on all four sides. Diagram 6. **The arrow on the vent cap should be pointing up.** Insure that the 1-1/4" clearances to combustible materials are maintained. See diagram 4.

**Note:** If installing termination on a siding covered wall, a vinyl siding standoff or furring strips must be used to ensure that the termination is

# INSTALLATION

not recessed into the siding. The four wood screws provided should be replaced with appropriate fasteners for stucco, brick, concrete, or other types of sidings.

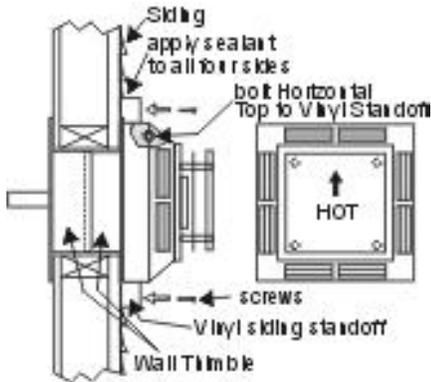


Diagram 4

5) Before connecting the horizontal run of vent pipe to the vent termination, slide the black decorative wall thimble cover over the vent pipe, then slide the Wall Thimble (Part # 942) over the vent pipe.

6) Slide the appliance and vent assembly towards the wall carefully inserting the vent pipe into the vent cap assembly. It is important that the vent pipe extends into the vent cap a sufficient distance so as to result in a minimum pipe overlap of 1-1/4 inches. Secure the connection between the vent pipe and the vent cap by attaching the two sheet metal strips extending from the vent cap assembly into the outer wall of the vent pipe. Use the two sheet metal screws provided to connect the strips to the pipe. Bend any remaining portion of the sheet metal strip back towards the vent cap, so it will be concealed by the decorative wall thimble cover. See diagram 5.

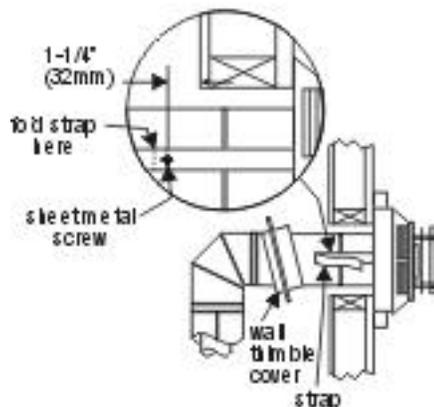


Diagram 5

7) Install wall thimble in the center of the 10" square and attach with wood screws.

8) Slide the decorative wall thimble up to the wall surface being careful not to scratch the paint and attach with screws provided. Apply decorative brass or chrome trim if desired. See diagram 6.

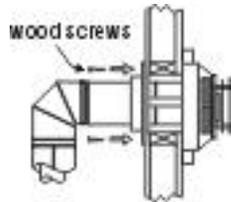


Diagram 6

## DURA-VENT VERTICAL TERMINATION

1) Maintain the 1-1/4" clearances (air spaces) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafter, or other nearby combustible surfaces. Do not pack air spaces with insulation. Check page 12 for the maximum vertical rise of the venting system and the maximum horizontal offset limitations.

2) Set the gas appliance in its desired location. Drop a plumb bob down from the ceiling to the position of the appliance flue exit, and mark the location where the vent will penetrate the ceiling. Drill a small hole at this point. Next, drop a plumb bob from the roof to the hole previously drilled in the ceiling, and mark the spot where the vent will penetrate the roof. Determine if ceiling joists, roof rafters or other framing will obstruct the venting system. You may wish to relocate the appliance or to offset, as shown in diagram 8 to avoid cutting load bearing members.

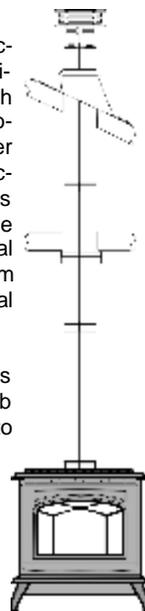


Diagram 7

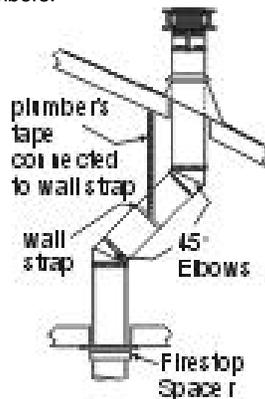


Diagram 8

3) To install the Round Support Box/Wall Thimble in a flat ceiling, cut a 10 inch square hole in the ceiling centred on the hole drilled in Step 2. Frame the hole as shown in diagram 9.

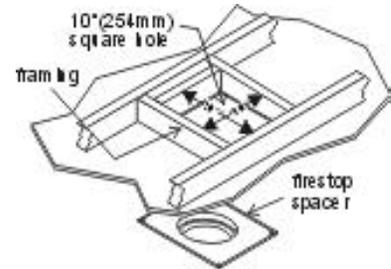
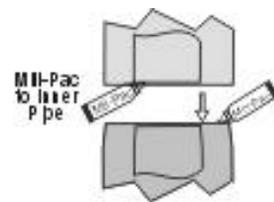


Diagram 9

4) Assemble the desired lengths of black pipe and elbows necessary to reach from the appliance adapter up through the Round Support Box. Insure that all pipes and elbow connections are in the fully twist-locked position and sealed.



Hint: Apply the sealant (Mill-Pac and/or high temperature silicone) to the outer pipe before connecting the inner pipe.

5) Cut a hole in the roof centred on the small drilled hole placed in the roof in Step 2. The hole should be of sufficient size to meet the minimum requirements for clearance to combustibles of 1-1/4". Slip the flashing under the shingles (shingles should overlap half the flashing) as per diagram 10.

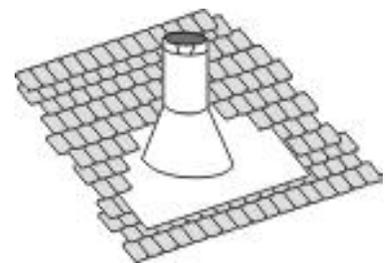


Diagram 10: The upper half of the flashing is installed under the roofing material and not nailed down until the chimney is installed. This allows for small adjustments.

6) Continue to assemble pipe lengths.

**Note:** If an offset is necessary in the attic to avoid obstructions, it is important to support the vent pipe every 3 feet, to avoid excessive stress on the elbows, and possible separation. Wall straps are available for this purpose. See diagram 5.

Galvanized pipe and elbows may be utilized in the attic as well as above the

roofline. The galvanized finish is desirable above the roofline due to its higher corrosion resistance.

Continue to add pipe sections through the flashing until the height of the vent cap meets the minimum height requirements specified in diagram 11 or local codes. Note that for steep roof pitches, the vertical height must be increased. A poor draft, or down drafting can result from high wind conditions near big trees or adjoining roof lines, in these cases, increasing the vent height may solve the problem.

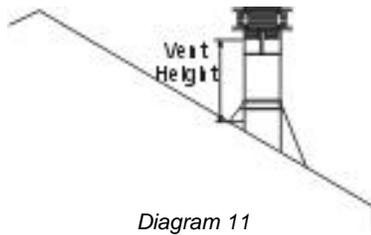


Diagram 11

Roof Pitch	Minimum Vent Height	
	Feet	Meters
flat to 7/12	2	0.61
over 7/12 to 8/12	2	0.61
over 8/12 to 9/12	2	0.61
over 9/12 to 10/12	2.5	0.76
over 10/12 to 11/12	3.25	0.99
over 11/12 to 12/12	4	1.22
over 12/12 to 14/12	5	1.52
over 14/12 to 16/12	6	1.83
over 16/12 to 18/12	7	2.13
over 18/12 to 20/12	7.5	2.29
over 20/12 to 21/12	8	2.44

- 7) Ensure vent is vertical and secure the base of the flashing to the roof with roofing nails, slide storm collar over the pipe section and seal with a mastic.
- 8) Install the vertical termination cap by twist locking it.

**Notes:**

- a) For multistorey vertical installations, a Ceiling Fire stop (Part #963) is required at the second floor, and any subsequent floor. Diagram 12. The opening should be framed to 10" x 10" inside dimensions, in the same manner as shown in diagram 9.
- b) Any occupied areas above the first floor, including closets and storage spaces, through which the vertical vent passes, must be enclosed.

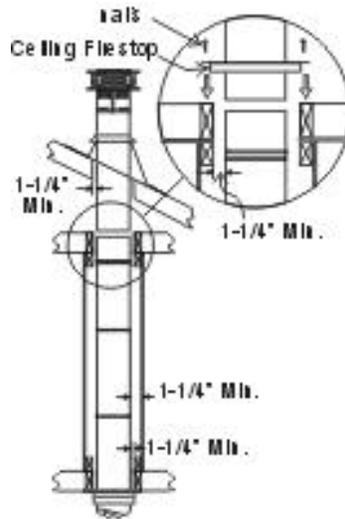
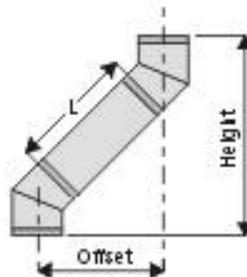


Diagram 12

**Offset Chart**

G S 6" (152mm) Nominal Diameter ID					
Offset		Pipe Length (L)		Height	
Inches	mm	Inches	mm	Inches	mm
4 5/8	121	0	0	13 1/4	337
9	229	6	152	17 1/2	445
11 1/4	286	9	229	19 1/2	495
13 1/4	337	12	305	21 3/4	552
21 3/4	552	24	610	30 1/4	768
30 1/4	768	36	914	39	991
38	965	48	1219	47	1194

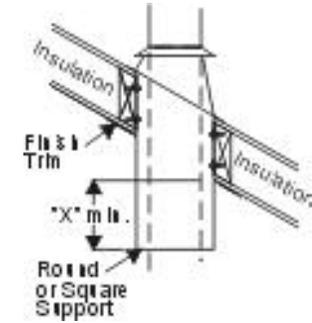


## CATHEDRAL CEILINGS

### Round Support (RDS) & Square Support (SQS)

If your home has a cathedral ceiling (no attic space between the ceiling and the roof), install the chimney and support as follows.

- 1) Situate the chimney in a convenient location as near as possible to the appliance outlet. Cut and frame a hole in the roof for the support. The sides of this hole must be vertical with 1 1/4" clearance.
- 2) Place the support in the opening. Lower it to the correct height as determined by the table and diagram below.



Slope	"X"
0/12 - 2/12	4"
2/12 - 7/12	5-1/2"
7/12 - 12/12	6-3/4"
12/12 - 24/12	7-1/2"
24/12+	12-1/2"

Using a level, make sure the support is vertical. If the support extends above the roof, cut it flush with the top of the roof. Nail the support to the frame opening using (8) 3" spiral nails or #8 x 1-1/2" screws.

**Note: If you are using a 6" square support you may find it difficult to screw it in place because it is fairly small inside.**

Simpson Dura-Vent has provided angle brackets with this support which can be screwed to the outside of the support box and nailed to surrounding framing as required. Use a minimum of four #8 x 1/2" screws per bracket. In some cases these brackets may need to be trimmed (e.g.: to fit under a flashing). Place the Finish Collar around the support and fasten it to the ceiling using the screws provided.

- 3) Use appropriate roof flashing. Place the flashing under the upper shingles and on top of the lower shingles approximately half of the flashing should be under the shingles.
- 4) Assemble the desired lengths of Black Pipe and Elbows necessary to reach from the appliance adapter up through the support box and flashing to proper height as per Dia. 12, local codes or pages 12 to 13. Ensure that all pipe and elbow connections are in their fully twist lock position.
- 5) Ensure vent is vertical and secure flashing to the roof with roofing nails. Slide the storm collar over the pipe section and seal with a mastic.
- 6) Twist lock the vent cap on to the last section.

# INSTALLATION

## Support Extensions - Round (RDSE) or Square (SQSE)

Steep pitched cathedral ceilings may require the use of a support extension. This piece fits down inside the support and can be adjusted to increase the support's length by up to 22". The extension is attached to the support using the eight metal screws provided. Be sure there is at least a 2 inch overlap where the extension joins the support.

## CONVERTING A CLASS-A METAL CHIMNEY OR MASONRY CHIMNEY TO A DIRECT VENT SYSTEM

### General

There are two different types of direct vent conversion systems listed below. Follow the appropriate directions for your installation.

- A) Through an existing factory built metal chimney going through the ceiling: A typical conversion of this type is shown in diagram 1. The concept of direct vent conversion is to connect an adaptor to an Underwriters Laboratories (UL) listed 4 inch diameter aluminum flex pipe which is then passed down through the center of the existing metal chimney system. Three sizes of Top Adaptors are available from Simpson Dura-Vent. The Retro Connector (909B) is attached to the bottom of the flex pipe. The Top Adaptor and the Retro Connector are attached to the existing chimney with sheet metal screws. The appliance is then connected to the chimney with appropriate black direct vent pipe and an adjustable length section.
- B) Through the wall of an existing masonry chimney: A typical conversion of an existing masonry chimney is shown in Diagram 6. A Top Adaptor (985K) and Flashing are used at the top of the masonry chimney. The 4 inch aluminum liner is connected to the adaptor and is passed down the chimney and out through the masonry wall and attached to the Retro Connector (909B). The Retro Connector is attached to the masonry wall and then connected to the direct vent pipe leading to the appliance.

**Prior to installation and connection of the vent system to a factory-built or masonry chimney, the chimney must be inspected and thoroughly cleaned by a qualified service person, such as a certified chimney sweep or home inspection service.**

**The direct vent system must not be connected to a damaged factory-built or masonry chimney.**

**For factory built, zero clearance, and masonry chimneys cleanout doors and caps or plugs for cleanout tee fittings and ash dumps shall be secured in place and sealed before installing a Direct Vent system within the chimney.**

**If the appliance shuts off during operation, contact a qualified service person to determine if a negative pressure and/or leaky chimney condition exists. Do not operate the appliance until the problem is corrected.**

### Approved for US Installations Only

The use of an existing chimney as an air intake is not covered under the ANSI Z21.88b-1999, CSA 2.33b-M99 test methods and the resulting ITS/WHI product certification. The code Authority Having Jurisdiction must be consulted prior to proceeding with this installation method.

### Converting a Factory Built Metal Chimney

- 1) Remove the existing chimney cap.
- 2) Measure the distance from the top end of the chimney to the bottom of the ceiling support box, add 3" (76mm) to this measurement, and cut a section of the 4" flex pipe to that length (the flex should already be extended to its nominal length).

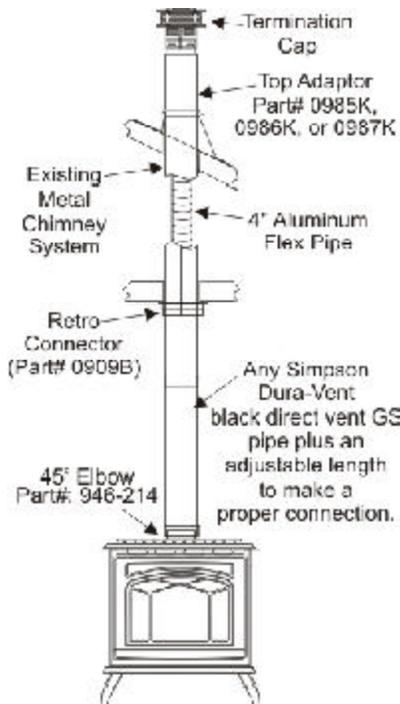


Diagram 1

- 3) Connect the end of the flex pipe section to the underside of the Top Adaptor using 3 sheet metal screws.

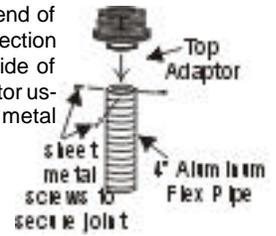


Diagram 2

- 4) Pass the flex pipe down through the center of the chimney system, and center the adaptor on the top of the chimney pipe. Drill four 1/8" diameter holes through the adaptor and into the chimney top. Insure that you are in fact, drilling into the metal on the chimney. Twist-lock the Termination Cap (Part# 980 or 991) onto the Adaptor. (Diagram 3 and 4).

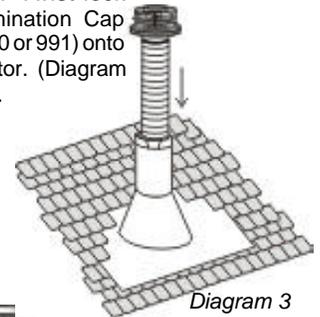


Diagram 3

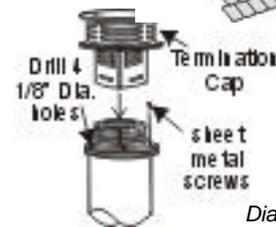


Diagram 4

- 5) Pull the flex pipe down through the ceiling support box, until it protrudes approximately 3" (76mm). Connect the flex pipe to the Retro Connector by slipping it into the 4-3/4" diameter sleeve on the top side of the Connector. Use 3 sheet metal screws to assemble these two parts.
- 6) Push the flex pipe back up into the ceiling support box, center the Retro Connector, and attach it to the support box, or decorative sleeve for double wall solid packed pipe, with the sheet metal screws (supplied). The holes in the Retro Connector are pre-punched. Diagram 5.

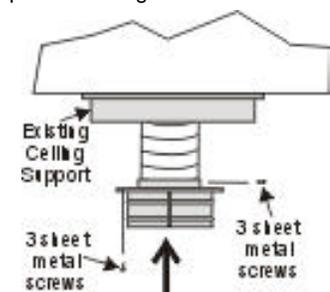


Diagram 5

- 7) The connection between the appliance and the Retro Connector may be completed with sections of black direct vent pipe, together with an adjustable length.

## Converting a Masonry Chimney

**Important:** The existing masonry flue opening needs to have an area of at least a 36 sq. in. to insure proper intake/exhaust flow.

- 1) Before cutting any holes, assemble the desired sections of black direct vent pipe to determine the center of the masonry penetration.

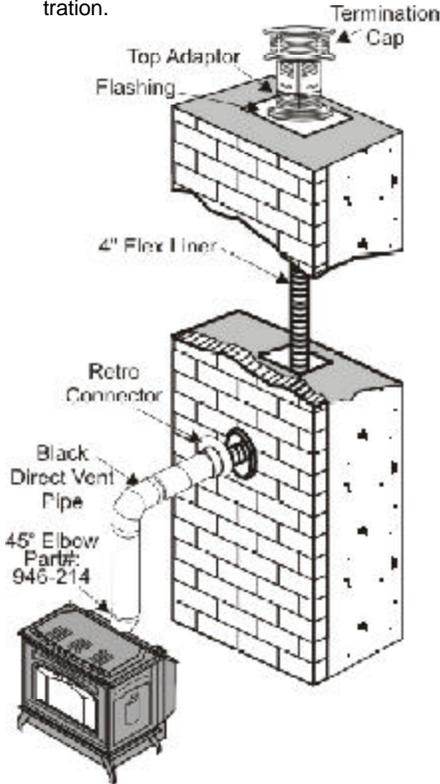


Diagram 6

- 2) Once the center point of the penetration has been determined, cut a 6" (152mm) dia. hole in the masonry. Be careful, if the hole is too large, the Retro Connector might not mount properly, and if the hole is too small, then the appliance might starve for intake air. If there is a frame wall in front of the masonry wall, cut and frame a 10" (254mm) clear square opening in the wall (centered around the 6" (152mm) masonry opening). If there is sheet rock only (no studs) in front of the masonry, the 10" (254mm) clear opening is still needed, but does not need to be framed. This allows the Retro Connector to mount directly on the masonry and provide clearance to the combustibles. Diagram 11.

- 3) Secure the Flashing (Part # 705C) to the top of the masonry chimney using a bead of non-hardening sealant-adhesive. If the Flashing is larger than the top of the chimney, then cut and fold flashing as needed to fit chimney. Diagram 7.

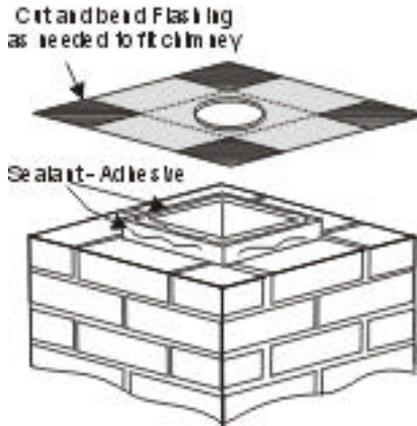


Diagram 7

- 4) To determine the length of flex required, measure from 3" (76mm) above the top of the Flashing down to the level of the opening. Add to this measurement the distance from the center of the chimney to out through the wall. Cut a piece of 4" flex to this length (the flex should already be extended to its nominal length).
- 5) Connect the 4" flex liner to the Top Adaptor (Part # 985K) using 3 sheet metal screws. Diagram 2.
- 6) Feed the 4" flex liner through the Flashing into the chimney. Continue to feed the liner out through the opening in the masonry wall.
- 7) Secure the Top Adaptor to the Flashing. Use 3 sheet metal screws through the side of the adaptor into the flange on the Flashing (diagram 8). Twist lock the Termination Cap (Part # 980 or 991) on to the Top Adaptor.

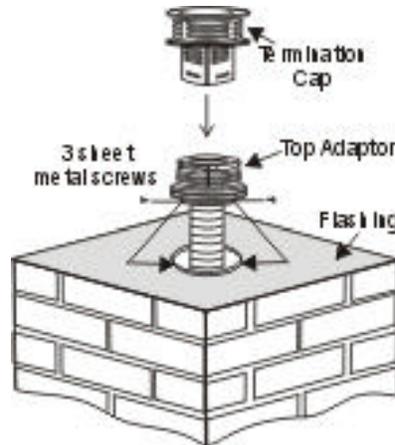


Diagram 8

- 8) Attach the flex to the Retro Connector. Use 3 sheet metal screws to attach the flex liner to the Connector. Diagram 9. Mount the Retro Connector to the masonry wall using masonry bolts. Re-drill larger holes on connector as needed. Be careful to insure that the connector is centered in the opening and the mounting holes line up with the masonry wall.

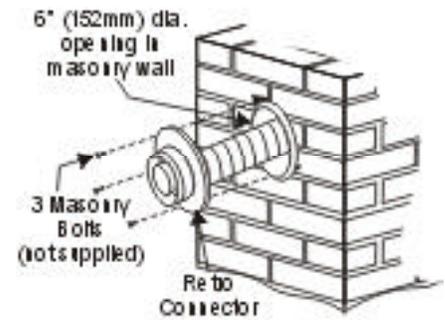


Diagram 9

- 9) Slide the Wall Thimble Cover (Part # 940) over the Retro Connector and secure with masonry bolts. Diagram 10. If you have a framed wall in front of the masonry, use wood screws to mount the Wall Thimble Cover to the framed wall, over the Retro Connector and the 10" (254mm) square framed opening. Diagram 11. If needed, add a section of direct vent pipe to the Retro Connector in order to extend through the opening in the Wall Thimble Cover.

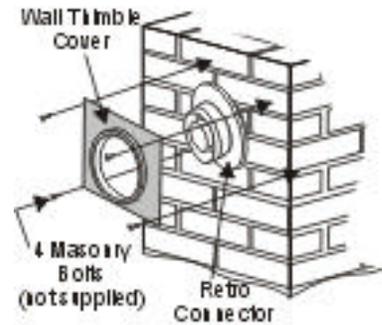


Diagram 10

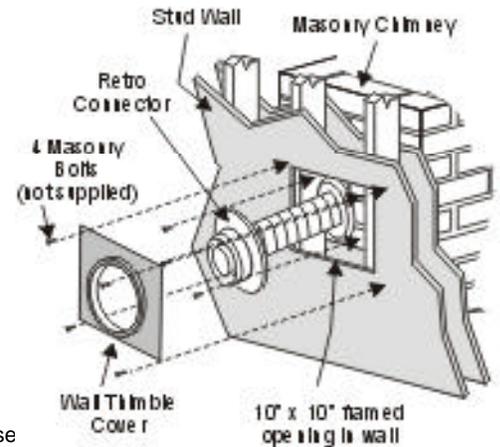


Diagram 11

- 10) The connection between the appliance and the Retro Connector may be completed with a section of black direct vent pipe, together with an adjustable length pipe section.

# INSTALLATION

SYSTEM DATA - E65-1 (WITH 38,000 BTU)	
For 0 to 2000* feet altitude Burner Inlet Orifice Sizes:	
Burner	Natural Gas #32 Propane #50
*Above 2000 ft. see National Fuel Code Orifice Chart.	
<b>Max. Input Rating</b>	
- Natural Gas	38,000 Btu/h
- Propane	38,000 Btu/h
<b>Min. Input Rating</b>	
- Natural Gas	19,000 Btu/h
- Propane	19,000 Btu/h
<b>Output Capacity with blower Off*</b>	
Natural Gas	29,070 Btu/h
Propane	29,650 Btu/h
<b>Output Capacity with blower On*</b>	
Natural Gas	29,564 Btu/h
Propane	30,172 Btu/h
*See page 8 for manufactured home chart.	
<b>Supply Pressure</b>	
Natural Gas	min. 5.0" w.c.
Propane	min. 12.0" w.c.
<b>Manifold Pressure</b>	
Natural Gas	3.8" +/- 0.2" w.c.
Propane	11" +/- 0.2" w.c.
SYSTEM DATA HIGH ELEVATION: E65-NG1	
For 2,000 - 4,500 feet altitude Burner Inlet Orifice Sizes:	
Burner	Natural Gas #33
<b>Max. Input Rating</b>	
- Natural Gas	36,100 Btu/h
<b>Min. Input Rating</b>	
- Natural Gas	18,000 Btu/h
<b>Output Capacity with blower Off</b>	
Natural Gas	27,616 Btu/h
<b>Max. Output Capacity with blower On</b>	
Natural Gas	28,086 Btu/h

## HIGH ELEVATION

This unit (with 38,000 Btu) is approved in Canada for altitude 2000 ft. to 4500 ft. (CAN/CGA-2.17-M91) with the orifice kit Part #621-975. For Natural Gas installations above 4500 ft. follow current CAN/CGA-B149.1. In U.S.A., for installations above 2000 ft. refer to current ANSI Z223.1 Sc8-8.1.2a appendix F, for resizing orifice.

SYSTEM DATA - E65-1 CONVERTED TO 27,000 (NATURAL GAS) OR 29,000 (PROPANE)	
For 0 to 4500 feet altitude Burner Inlet Orifice Sizes:	
Burner	Natural Gas #40 Propane #52
<b>Max. Input Rating</b>	
- Natural Gas	27,000 Btu/h
- Propane	29,000 Btu/h
<b>Min. Input Rating</b>	
- Natural Gas	13,500 Btu/h
- Propane	14,500 Btu/h
<b>Output Capacity with blower Off*</b>	
Natural Gas	19,845 Btu/h
Propane	22,040 Btu/h
<b>Output Capacity with blower On*</b>	
Natural Gas	20,385 Btu/h
Propane	22,765 Btu/h
*See page 8 for manufactured home chart.	
<b>Supply Pressure</b>	
Natural Gas	min. 5.0" w.c.
Propane	min. 12.0" w.c.
<b>Manifold Pressure</b>	
Natural Gas	3.8" +/- 0.2" w.c.
Propane	11" +/- 0.2" w.c.

## GAS CONNECTION

The gas connection is a 3/8" NPT 90° elbow. The gas line can be rigid pipe or to make installation easier, use a listed flexible connector and/or copper tubing if allowed by local codes. Since some municipalities have additional local codes it is always best to consult with your local authorities and the CAN/CGA B149 installation codes.

For USA installations follow local codes and/or the current National Fuel Gas Code, ANSI Z223.1.

When using copper or flex connectors use only approved fittings. Always provide a union so that gas lines can be easily disconnected for burner and/or valve servicing. Flare nuts for copper lines and flex connectors are usually considered to meet this requirement.

**IMPORTANT: ALWAYS CHECK FOR GAS LEAKS WITH A SOAP AND WATER SOLUTION OR GAS LEAK DETECTOR. DO NOT USE OPEN FLAME FOR LEAK TESTING.**

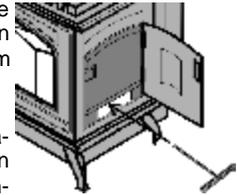
**Note:** Prior to any pressure testing of the gas supply piping system that exceeds test pressures of 1/2 psig, this appliance must be disconnected from the piping system. If test pressures equal to or less than 1/2 psig are used then this appliance must be isolated from the piping system by closing its individual manual shut-off valve during the testing.

## AERATION ADJUSTMENT

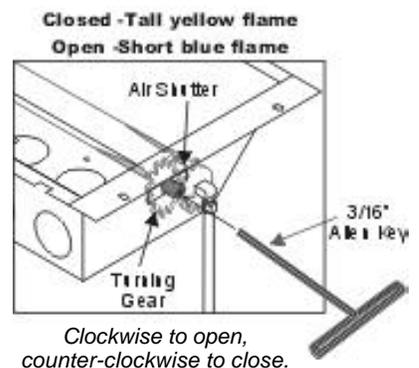
The burner aeration is factory set but may need adjusting due to either the local gas supply, air supply or altitude.

with 38,000 Btu	with 27,000 (NG) / 29,000 LP
<b>Natural Gas</b> 3/8" (9.5mm)	<b>Natural Gas</b> 3/16" (4.75mm)
<b>Propane</b> wide open	<b>Propane</b> 1/4" (6.35mm)

The aeration adjustment gears are located on the right side of the burner box and can be accessed from the side.



To adjust the aeration: use the allen key to turn the turning gear which will adjust the air shutter. Open the air shutter for a blue flame or close it for a yellow flame. The factory setting should be sufficient for most installations.



**Caution:** Carbon will be produced if the air shutter is closed too much.

**Note:** Any damage due to carboning resulting from improperly setting the aeration controls is NOT covered under warranty.

**Note:** Aeration Adjustment should only be performed by an authorized Regency Installer at the time of installation or service.

## GAS PIPE PRESSURE TESTING

The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig. (3.45 kPa). Disconnect piping from valve at pressures over 1/2 psig.

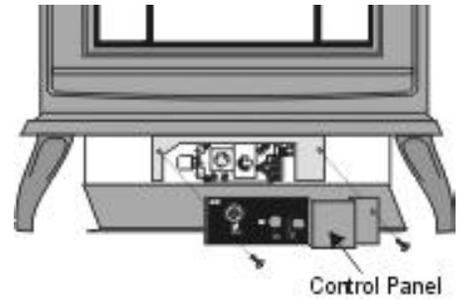
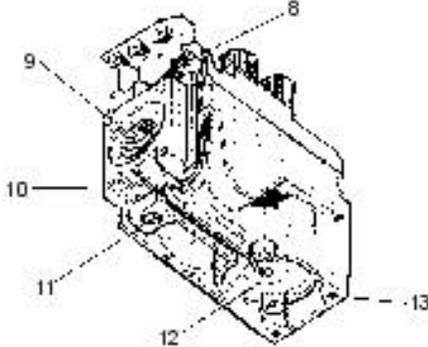
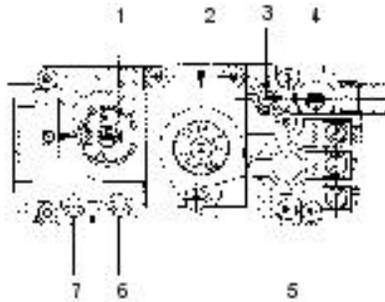
The manifold pressure is controlled by a regulator built into the gas control, and should be checked at the pressure test point.

**Note: To properly check gas pressure, both inlet and manifold pressures should be checked using the valve pressure ports on the valve.**

- 1) Make sure the valve is in the "OFF" position.
- 2) Loosen the "IN" and/or "OUT" pressure tap(s), turning counterclockwise with a 1/8" wide flat screwdriver.
- 3) Attach manometer to "IN" and/or "OUT" pressure tap(s) using a 5/16" ID hose.
- 4) Light the pilot and turn the valve to "ON" position. Read manometer.
- 5) The pressure check should be carried out with the unit burning and the setting should be within the limits specified on the safety label.
- 6) When finished reading manometer, turn off the gas valve, disconnect the hose and tighten the screw (clockwise) with a 1/8" flat screwdriver. **Note: Screw should be snug, but do not over tighten**

### Valve Description

- 1) Gas cock knob
- 2) Manual high/low adjustment
- 3) Pilot Adjustment
- 4) Thermocouple Connection
- 5) Main Operator
- 6) Outlet Pressure Tap (Manifold Pressure)
- 7) Inlet Pressure Tap (Supply Pressure)
- 8) Pilot Outlet
- 9) Main Gas Outlet
- 10) Flange Securing Screw Holes
- 11) Alternative TC Connection Point
- 12) Thermoelectric Unit
- 13) Additional Valve Mounting Hole



- 3) Open the front door. Open the right side door and there is a cutout in the heat shield through which can be seen a wing nut threaded on to a stud attached to the front door. Loosen this nut by turning it counterclockwise.



## CONVERSION KIT FROM NATURAL GAS TO PROPANE

**Model #261-969**  
for Emerald Gas Stoves and Gas Inserts using SIT 820 NOVA Gas Valve

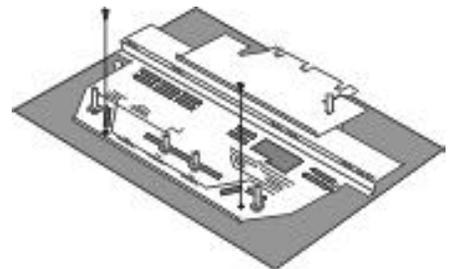
**THIS CONVERSION MUST BE DONE BY A QUALIFIED GAS FITTER IF IN DOUBT DO NOT DO THIS CONVERSION !!**

Conversion Kit Contains:

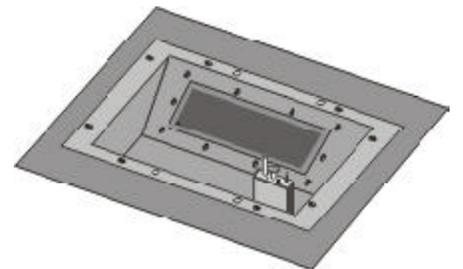
Qty.	Part #	Description
1	910-018	SIT Conversion Kit-50% Turndown LP
1	910-037	LP Injector (Pilot Orifice)
1	904-641	Burner Orifice #50
1	908-175	E63/E65 Decal "Converted to Propane"
1	908-528	Red "PROPANE" label
1	908-780	Instruction Sheet

- 1) Shut off the gas supply.
- 2) Open the valve door and remove the control panel.

- 4) Carefully remove the logs, embers and rockwool.
- 5) Remove burner. See diagram below.



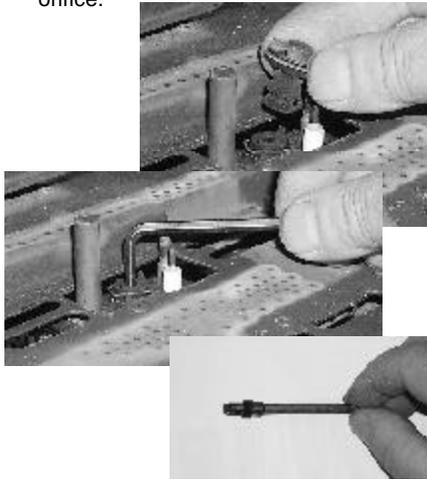
**Note: Use a magnetic type screwdriver if possible.**



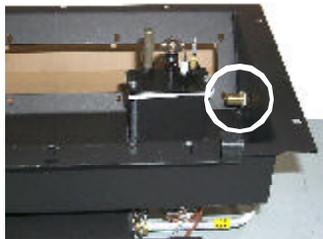
*Pilot assembly is now accessible for steps 6) to 11).*

# INSTALLATION

- 6) Remove and discard the 3 pressure regulator mounting screws (A), pressure regulator tower (B) and diaphragm (C).
- 7) Insure that the rubber gasket (D) is properly positioned and install the new HI/LO pressure regulator assembly to the valve using the new screws (E) supplied with the kit. Tighten screws securely.
- 8) Pull off the pilot cap to expose the pilot orifice.

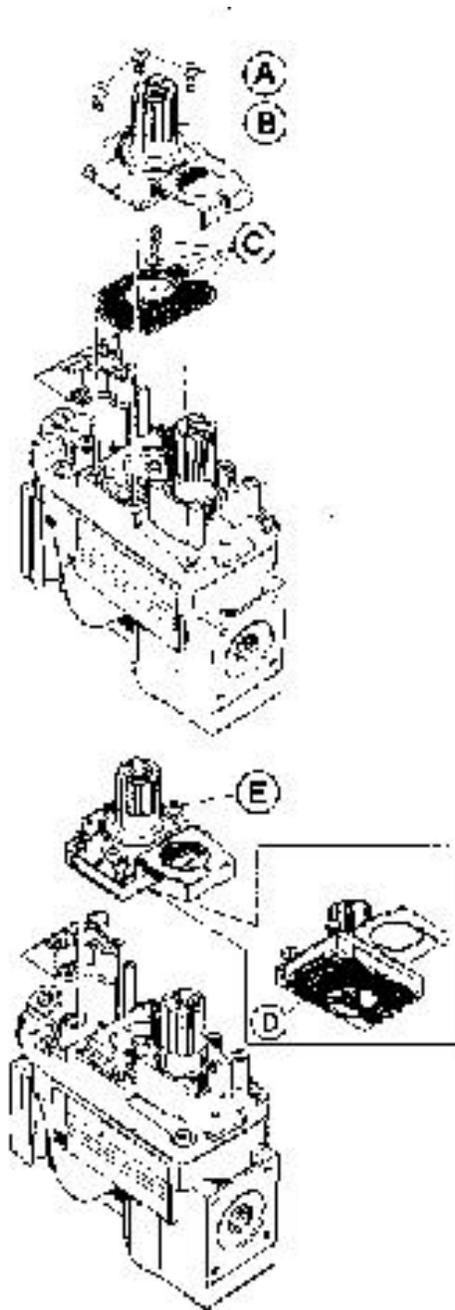


- 9) Unscrew the pilot orifice with the allen key and replace with the LP pilot orifice in the kit.



Burner Orifice

- 10) Remove burner orifice with a 1/2" wrench and discard. Use a wrench to hold on to the elbow behind the orifice.
- 11) Reinstall new burner orifice LP stamped #50 and tighten.
- 12) Reverse steps 4) to 2).
- 13) Attach the Conversion label "This unit has been converted to Propane" on top of the Serial # decal. E63/E65: Part #175
- 14) Replace yellow "Natural Gas" label with red "Propane" label
- 15) Check for gas leaks.
- 16) Check inlet and outlet pressures.
- 17) Check operation of flame control.
- 18) Check for proper flame appearance and glow on logs.



E63/E65 Conversion Decal: 908-175

## REDUCTION KIT TO LOWER BTU RATING FOR E65-1 GAS STOVE

**THIS CONVERSION MUST BE DONE BY A QUALIFIED GAS FITTER IF IN DOUBT DO NOT DO THIS CONVERSION !!**

### Natural Gas Conversion Kit 260-920

#### Contains:

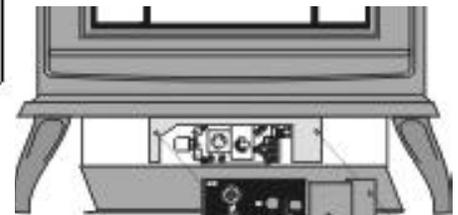
Qty.	Part #	Description
1	904-593	Burner Orifice #40 (Natural Gas)
1	908-365	Decal "Converted to 27,000 Btu"
1	908-363	Instruction Sheet

### Propane Conversion Kit 260-922

#### Contains:

Qty.	Part #	Description
1	904-390	Burner Orifice #52 (Propane)
1	908-365	Decal "Converted to 29,000 Btu"
1	908-363	Instruction Sheet

- 1) Shut off the gas supply.
- 2) Open the valve door and remove the control panel.



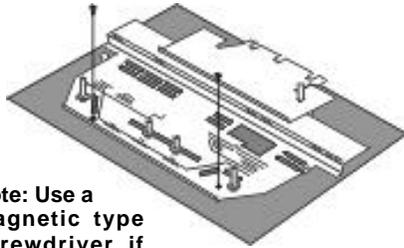
Control Panel

- 3) Open the front door. Open the right side door and there is a cutout in the heat shield through which can be seen a wing nut threaded on to a stud attached to the front door. Loosen this nut by turning it counter-clockwise.

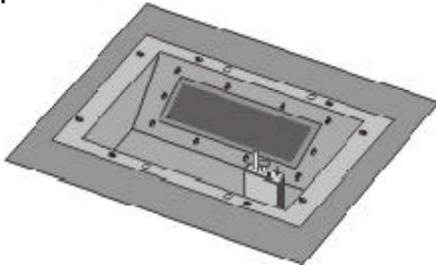


The wing nut that holds the front door is accessible through the cut-out in the right side heat shield.

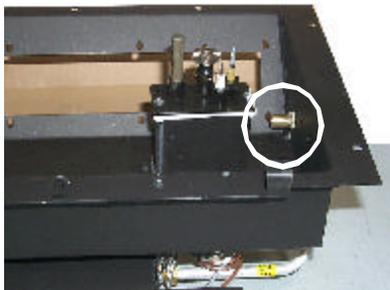
- 4) Carefully remove the logs, embers and rock-wool.
- 5) Remove burner.



**Note: Use a magnetic type screwdriver if possible.**



- 6) Remove burner orifice with a 1/2" wrench and discard.



Burner Orifice

- 7) Reinstall new burner orifice (NG stamped #40 or LP stamped #52) and tighten.
- 8) Reverse steps 5) to 2).
- 9) Attach the label "This unit has been converted to..." on top of the Serial # decal over the higher Btu information.
- 10) Check for gas leaks.
- 11) Check inlet and outlet pressures.
- 12) Check operation of flame control. Check for proper flame appearance and glow on logs.

## LOG INSTALLATION

**WARNING: Dangerous operating conditions may occur if these logs are not positioned in their approved locations. Read the instructions below carefully and refer to the diagrams. If logs are broken do not use the unit until they are replaced. Broken logs can interfere with the pilot and burner operation.**

- a) Front Right Log - Part # 902-020
- b) Front Left Log - Part # 902-021
- c) Rear log - Part # 902-022
- d) Embers - Part # 902-151 (1 bag)
- e) Lava - Part # 902-154 (1 bag)

(Part # 560-935 for the set of three logs)

- 1) Remove the logs from the box and carefully unwrap them. The logs are fragile, handle with care - **DO NOT FORCE** into position.
- 2) Place the rear log, carefully sliding it down onto the pins, with the flat side of the log facing the back of the unit. See diagram 1.

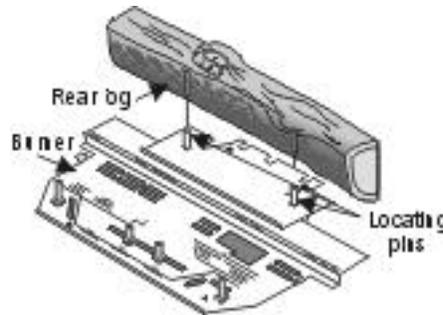


Diagram 1

Note: Do not force logs down.

- 3) Place the left front log, carefully sliding it down onto the left pins of the front burner. See diagram 2.

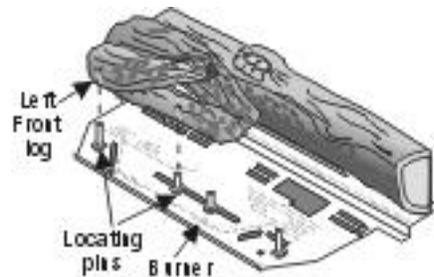


Diagram 2

- 4) Place the right front log, carefully sliding it down onto the right pins of the front burner. See diagram 3.

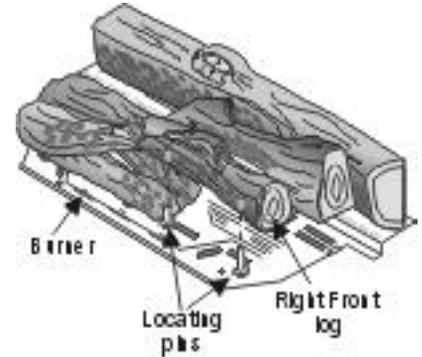


Diagram 3

- 5) Distribute the embers along the front burner but do not cover the burner ports and around the logs. Place the embers on the floor of the firebox. Place the lava on the burner tray in front of the left and right front logs. See Diagram 4.

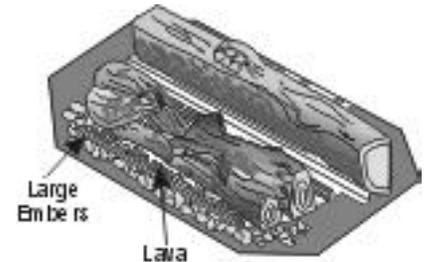


Diagram 4

## OPTIONAL DOOR GRILL INSTALLATION

**Door Grill Kit Contains:**

Qty.	Description
1	Front Door Grill
4	Screws
4	Grill Clips

- 1) Open the front door. Open the right side door and there is a cutout in the heat shield through which can be seen a wing nut threaded on to a stud attached to the front door. Loosen this nut by turning it counter-clockwise.



# INSTALLATION

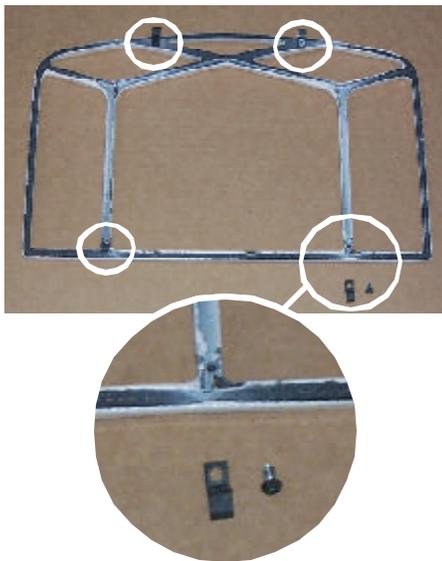
- Remove the glass panel by loosening the 6 screws securing the glass brackets. Support the glass to prevent it from dropping out and breaking.



- Tighten the screws on the grill clips.
- Replace the glass and secure the glass clips, reversing step 2)
- Close the front door by reversing step 1).



- Attach the 4 grill clips with the 4 screws but do not tighten down at this point.



- Place the grill into position on the front of the door, center it in the front viewing area and use the grill clips to hold it in place.

## OPTIONAL REMOTE CONTROL

Use the Waterford Remote Control Kit approved for this unit. Use of other systems may void your warranty.

The remote control kit comes with a hand held transmitter, a receiver and a wall mounting plate.

- Choose a convenient location on the wall to install the receiver and the receptacle box (protection from extreme heat is very important). Run wires from the fireplace to that location, use Thermostat Wire Table.
- Connect the wires as per the wiring diagram below.

**CAUTION**  
Do not connect the millivolt remote control wires to the 120V wires.

- Install 3 AAA alkaline batteries in transmitter and 4 AA alkaline batteries in the receiver. Install the receiver and its cover in the wall. Switch the remote receiver to "remote" mode. The remote control is now ready for operation.

## OPTIONAL WALL THERMOSTAT

A wall thermostat may be installed if desired. Connect the wires as per the wiring diagrams. Note that the wires are connected to the "TH" on the gas valve. Use table below to determine the maximum wire length:

**Note: Preferable if the thermostat is installed on an interior wall.**

Waterford offers an optional programmable thermostat but any 250-750 millivolt rated non-anticipator type thermostat that is CSA, ULC or UL approved may be used.

**CAUTION**  
Do not connect the millivolt wall thermostat wires to the 120V wires.

### Thermostat Wire Table

Recommended Maximum Lead Length (Two-Wire) When Using Wall Thermostat (CP-2 System)	
Wire Size	Max. Length
14 GA.	50 Ft.
16 GA.	32 Ft.
18 GA.	20 Ft.
20 GA.	12 Ft.
22 GA.	9 Ft.



## FINAL CHECK

Before leaving this unit with the customer, the installer must ensure that the appliance is firing correctly. This includes:

- Clocking the appliance to ensure the correct firing rate (rate noted on label) at 15 minutes.
- If required, adjusting the primary air to ensure that the flame does not carbon. First allow the unit to burn for 15 min. to stabilize.
- Check for proper draft.

### CAUTION

**Any alteration to the product that causes sooting or carboning that results in damage to the exterior facia is not the responsibility of the manufacturer.**

# OPERATING INSTRUCTIONS

## WIRING DIAGRAM - E65-NG1 & E65-LP1

If any of the original wires as supplied with the appliance must be replaced, it must be replaced with CSA type SEW (200°C) or its equivalent.

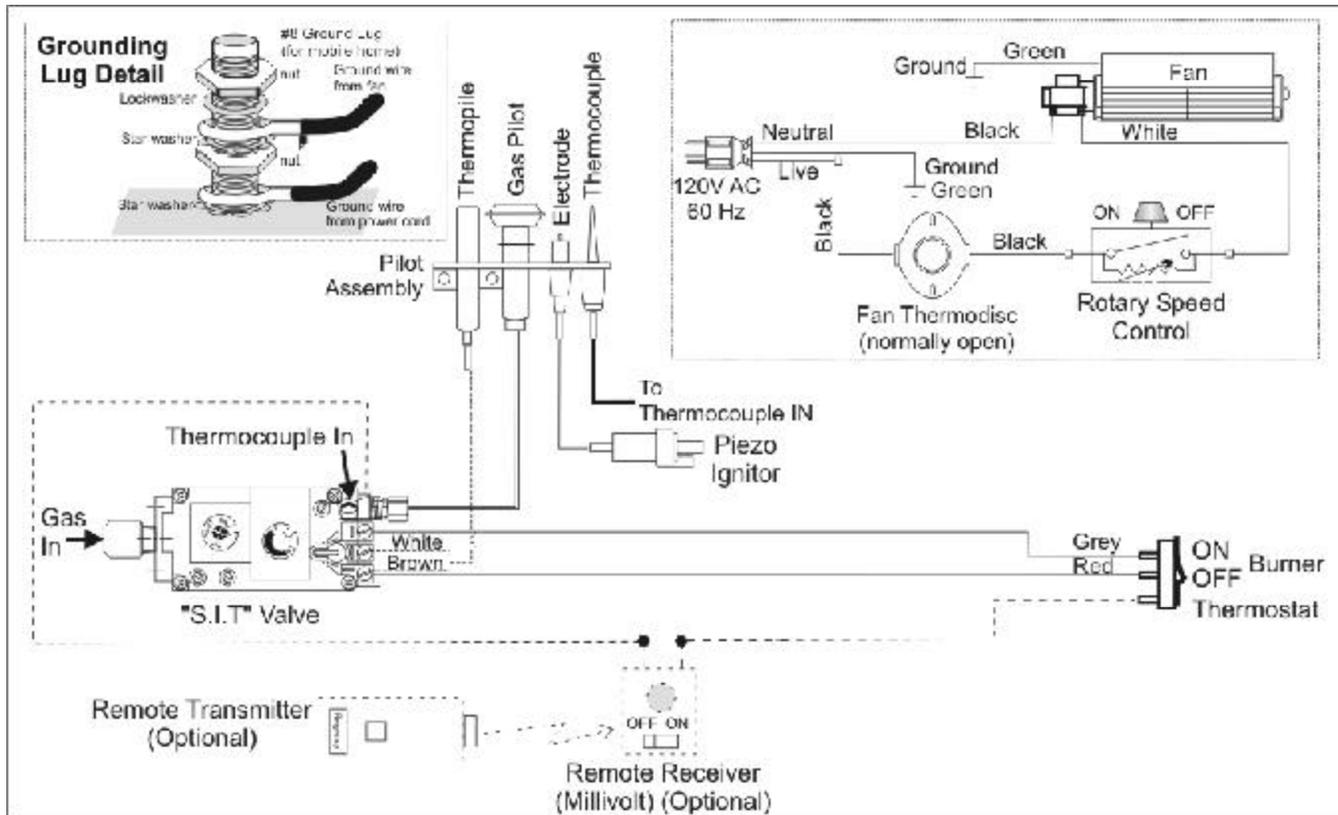
This heater does not require a 120V A.C. supply for operation. In case of a power failure, the burner switch and the optional remote control/thermostat will continue to operate. However, a 120V A.C. power supply is needed for the fan/blower operation.

**Caution:** Ensure that the wires do not touch any hot surfaces and are away from sharp edges.

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

### WARNING: Electrical Grounding Instructions

This appliance is equipped with a three pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

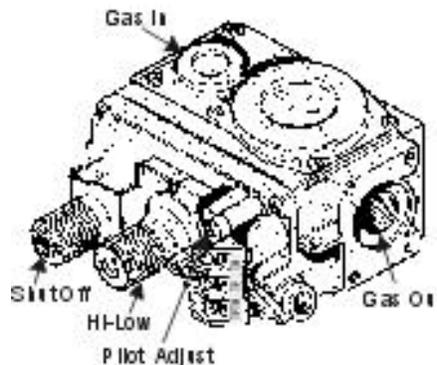


## OPERATING INSTRUCTIONS

- 1) Read and understand these instructions before operating this appliance.
- 2) Check to see that all wiring is correct and enclosed to prevent possible shock.
- 3) Check to ensure there are no gas leaks.
- 4) Make sure the glass in the door frame is properly positioned. Never operate the appliance with the glass removed. Never strike the glass or slam the door shut.
- 5) Verify that the venting and cap are unobstructed.
- 6) Verify log placement. If the pilot cannot be

seen when lighting the unit - the logs have been incorrectly positioned.

- 7) The unit should never be turned off, and on again without a minimum of a 60 second wait.



## LIGHTING PROCEDURE

**IMPORTANT:** Gas cock knob cannot be turned from "PILOT" to "OFF" unless it is partially depressed.

- 1) Turn stove OFF using the Burner "ON/OFF" switch remote or thermostat.
- 2) Turn gas control knob so indicator points to "OFF" position and allow 5 minutes for any gas in the combustion chamber to escape.
- 3) Turn gas control knob counterclockwise so indicator points to the "PILOT" position. Depress the gas control knob fully. Depress the igniter button several times until the pilot lights. After approximately one minute, release the gas control knob. The pilot flame should continue to burn. If the

# OPERATING INSTRUCTIONS

pilot does not remain lit, repeat operation allowing a longer period before releasing gas control knob.

- 4) When the pilot stays lit, turn the gas knob further counterclockwise to the "ON" position.
- 5) Use the thermostat or remote control to turn on the unit.
- 6) Rotate the flame height regulator to adjust the flame height higher or lower.

## SHUTDOWN PROCEDURE

- 1) Use the thermostat or remote control to turn off the main burner.
- 2) Turn the main gas control clockwise to the "OFF" position to turn off the pilot (push knob in slightly).
- 3) Turn off all electric power to appliance if service is to be performed.

## FIRST FIRE

The **FIRST FIRE** in your stove is part of the paint curing process. To ensure that the paint is properly cured, it is recommended that you burn your fireplace for at least four (4) hours the first time you use it with the fan on. When first operated, the unit will release an odour caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Smoke detectors in the house may go off at this time. Open a few windows to ventilate the room for a couple of hours. The glass may require cleaning.

**DO NOT ATTEMPT TO CLEAN THE GLASS WHILE IT IS STILL HOT!**

**Note:** When the glass is cold and the appliance is lit, it may cause condensation and fog the glass. This condensation is normal and will disappear in a few minutes as the glass heats up.

During the first few fires, a white film may develop on the glass front as part of the curing process. The glass should be cleaned or the film will bake on and become very difficult to remove. Use a non-abrasive cleaner and **NEVER** clean the glass while it is hot.

**DO NOT BURN THE APPLIANCE WITHOUT THE GLASS FRONT IN PLACE.**

## Copy of the Lighting Plate instructions

**FOR YOUR SAFETY READ BEFORE LIGHTING**

This appliance must be installed in accordance with local codes, if any; if none, follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or Natural Gas and Propane Installation Codes, CSA B149.1. (Australia: AG601, New Zealand: NZS 5261)

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or gas supplier.

A) This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

B) **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

**WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Do not touch any electric switch, do not use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C) Use only your hand to push in or turn the gas control knob. **Never use tools.** If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D) Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

E) This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

**CAUTION:** Hot while in operation. Do not touch. Severe Burns may result. Due to high surface temperatures keep children, clothing and furniture, gasoline and other liquids having flammable vapors away. Keep burner and control compartment clean. See installation and operating instructions accompanying appliance.

**LIGHTING INSTRUCTIONS**

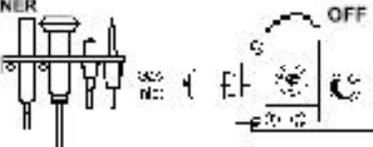
**STOP!** Read the safety information above on this label.

- 1) Push in gas control knob slightly and turn clockwise  to "OFF". Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
- 2) Wait five (5) minutes to clear out any gas. If you then smell gas **STOP!** Follow step "B" in the Safety Information above on this label. If you don't smell gas, go to the next step.
- 3) Turn knob on gas control counterclockwise  to "PILOT".
- 4) Push in control knob all the way and hold in. Continually push and release the black button on spark igniter until pilot lights. Continue to hold the control knob in for about 1/2 minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 1) to 4). If knob does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
- 5) Turn gas control knob counterclockwise  to "ON".
- 6) Use rocker switch to operate main burner.

PILOT BURNER  
VEILLEUSE

THERMOPILE

ELEMENT  
THERMO-  
ELECTRIQUE



**TO TURN OFF GAS APPLIANCE**

You may shut off the pilot during prolonged non use periods to conserve fuel.

- 1) Push in the gas control knob slightly and turn clockwise  to "OFF". Do not force.
- 2) Turn off all electric power to the appliance if service is to be performed.

**DO NOT REMOVE THIS INSTRUCTION PLATE** 908-017b

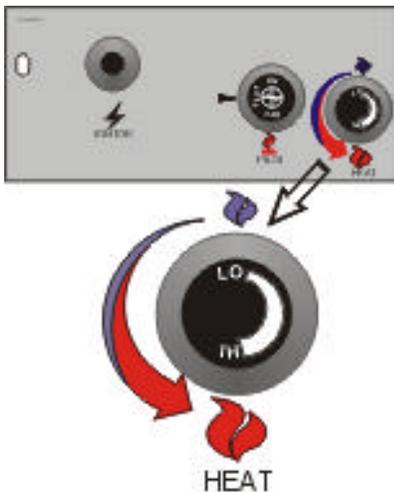
## AUTOMATIC CONVECTION FAN OPERATION

The fan operates automatically - turn the knob at the top right rear corner to adjust to the desired speed. The fan will turn on as the stove comes up to operating temperature. After the unit has been turned off and the unit cooled to below a useful heat output range the fan will shut off automatically.

## ADJUSTING FLAME HEIGHT

Your heater has an adjustable flame to tailor the look and heat output to your specific needs. It is adjusted by turning the flame adjustment dial on the gas control valve.

Turn clockwise to adjust the flame higher, counterclockwise for a lower flame.



## NORMAL OPERATING SOUNDS OF GAS APPLIANCES

It is possible that you will hear some sounds from your gas appliance. This is perfectly normal due to the fact that there are various gauges and types of steel used within your appliance. Listed below are some examples. All are **normal operating sounds** and should not be considered as defects in your appliance.

### Blower:

Waterford gas appliances use high tech blowers to push heated air farther into the room. It is not unusual for the fan to make a "whirring" sound when ON. This sound will increase or decrease in volume depending on the speed setting of your fan speed control.

### Burner Tray:

The burner tray is positioned directly under the burner tube(s) and logs and is made of a different gauge material from the rest of the firebox and body. Therefore, the varying thicknesses of steel will expand and contract at slightly different rates which can cause "ticking" and "cracking" sounds. You should also be aware that as there are temperature changes within the unit these sounds will likely re-occur. Again, this is normal for steel fireboxes.

### Blower Thermodisc:

When this thermally activated switch turns ON it will create a small "clicking" sound. This is the switch contacts closing and is normal.

### Pilot Flame:

While the pilot flame is on it can make a very slight "whisper" sound.

### Gas Control Valve:

As the gas control valve turns ON and OFF, a dull clicking sound may be audible, this is normal operation of a gas regulator or valve.

### Unit Body/Firebox:

Different types and thicknesses of steel will expand and contract at different rates resulting in some "cracking" and "ticking" sounds will be heard throughout the cycling process.

## MAINTENANCE INSTRUCTIONS

- 1) Always turn off the valve before cleaning. For relighting, refer to lighting instructions. Keep the burner and control compartment clean by brushing and vacuuming at least once a year. When cleaning the logs, use a soft clean paint brush as the logs are fragile and easily damaged.
- 2) Clean glass (never when unit is hot), appliance, and door with a damp cloth. Never use an abrasive cleaner.
- 3) The heater is finished in a porcelain finish or with a heat resistant paint and should only be refinished with heat resistant paint (not with wall paint). Waterford uses Stove-Bright Paint - Metallic Black #6309.

Never use an abrasive cleaner on the porcelain finish as it may scratch the surface.

- 4) Make a periodic check of burner for proper position and condition. Visually check the flame of the burner periodically, making sure the flames are steady; not lifting or floating. If there is a problem, call a qualified service person.
- 5) Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

- 6) The appliance and venting system must be inspected before use, and at least annually, by a qualified field service person, to ensure that the flow of combustion and ventilation air is not obstructed. During the annual service call, the burners should be removed from the burner tray and cleaned. Replace the embers but do not block the pilot.
- 7) Keep the area near the appliance clear and free from combustible materials, gasoline, and other flammable vapours and liquids.

**WARNING: CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.**

**DO NOT USE THIS APPLIANCE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE APPLIANCE AND TO REPLACE ANY PART OF CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.**

**CAUTION: ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING AN APPLIANCE MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.**

**CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.**

- 8) Each time the appliance is lit, it may cause condensation and fog the glass. This condensation and fog is normal and will disappear in a few minutes as the glass heats up.

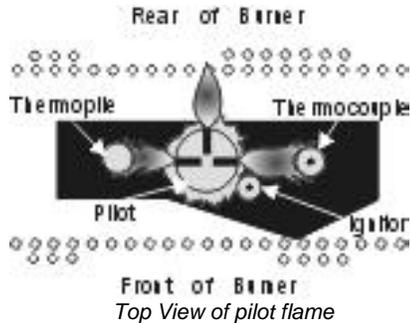
**Never operate the appliance without the glass properly secured in place or with the door open.**

- 9) Periodically check the pilot flames. Correct flame pattern has three strong blue flames: 1 flowing around the thermopile and 1 around the thermocouple, and 1 flowing

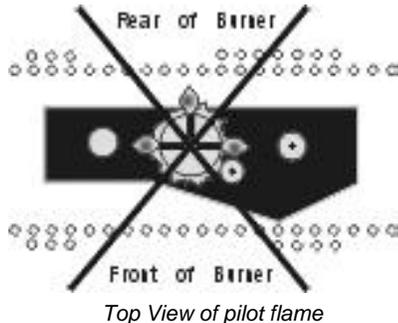
# MAINTENANCE

across the rear of the burner (it does not have to be touching the burner).

**Note:** If you have an incorrect flame pattern, contact your Waterford dealer for further instructions.



Incorrect flame pattern will have small, probably yellow flames, not coming into proper contact with the rear of the burner or thermopile.



## GENERAL VENT MAINTENANCE

Conduct an inspection of the venting system semi-annually. Recommended areas to inspect as follows:

- 1) Check the Venting System for corrosion in areas that are exposed to the elements. These will appear as rust spots or streaks, and in extreme cases, holes. These components should be replaced immediately.
- 2) Remove the Cap, and shine a flashlight down the Vent. Remove any bird nests, or other foreign material.
- 3) Check for evidences of excessive condensation, such as water droplets forming in the inner liner, and subsequently dripping out the joints. Continuous condensation can cause corrosion of caps, pipe, and fittings. It may be caused by having excessive lateral runs, too many elbows, and exterior portions of the system being exposed to cold weather.
- 4) Inspect joints, to verify that no pipe sections or fittings have been disturbed, and consequently loosened. Also check mechanical supports such as Wall Straps, or plumbers' tape for rigidity.

## LOG REPLACEMENT

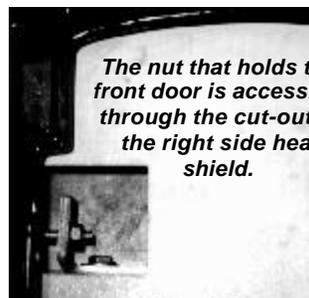
The unit should never be used with broken logs. Turn off the gas valve and allow the unit to cool before opening door to carefully remove the logs. The pilot light generates enough heat to burn someone. If for any reason a log should need replacement, you must use the proper replacement log. The position of these logs must be as shown in the diagram under Log Installation.

**Note:** Improper positioning of logs may create carbon build-up and will alter the unit's performance which is not covered under warranty.

## GLASS REPLACEMENT

Your EMERALD stove is supplied with high temperature, 5 mm Neoceram ceramic glass that will withstand the highest heat that your unit will produce. In the event that you break your glass by impact, purchase your replacement door from an authorized Waterford dealer only, and follow our step-by-step instructions for replacement.

- 1) Open the front door. Open the right side door and there is a cutout in the heat shield through which can be seen a 1/4" nut threaded on to a stud attached to the front door. Loosen this nut by turning it counter-clockwise with a 7/16" wrench until it can be removed by hand.



- 2) Remove the six screws that secure the retainers holding the glass in place.
- 3) Remove the glass and replace with the new glass.
- 4) Install two bottom retainers and turn the screws in just enough to support the glass.
- 5) Install the other retainers, tighten the screws alternately. Do not overtighten as this can damage the glass.
- 6) Close the door. Thread the nut onto the end of the stud.

Replacement Part # 940-087 Emerald Glass

**WARNING:** Do not operate appliance with glass panels removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.

**Note:** Wearing gloves will protect your hands while handling glass.

## REPLACING THE GASKET

The Emerald has 3/8" fiberglass gasket in the front door. Should it ever need replacement, use only the proper replacement gasket that is available from your Waterford dealer. To replace the gasket, follow this procedure.

- 1) Open the front door (see instructions above in Glass Replacement 1).
- 2) Remove the existing gasket and clean its channel with a scraper or wire brush.
- 3) Lay a thin bead of gasket cement the entire length of the channel.
- 4) Lay the gasket in the channel with sufficient pressure that it stays in place. Trim the excess from the end of the gasket so that it butts snugly against the other end without leaving a gap.
- 5) Close the door and apply firm pressure to seat the gasket evenly throughout.

## FAN MAINTENANCE

If your fan requires maintenance or replacement, access to the fan is through the rear access panel on the back of the unit. **NOTE:** the unit **MUST NOT** be operated without the fan access panel securely in place and correctly sealed.

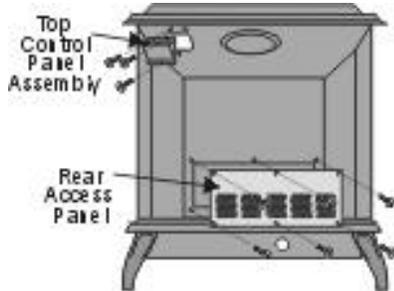
**IMPORTANT:** These fans collect a lot of dust from within your home. Ensure you maintain these fan motors on a regular basis by vacuuming out the fan squirrel cages, around the motor, and around the grills on the back of the stove.

**WARNING:**  
**Electrical Grounding Instructions**  
This appliance is equipped with a three pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

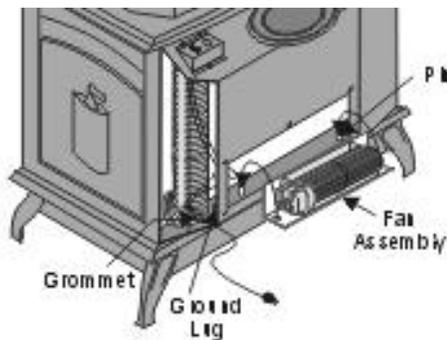
**IMPORTANT**  
Disconnect power supply  
before servicing

**To remove fan:**

- 1) Unplug or disconnect power source to stove.
- 2) Remove the 6 screws holding the access panel in place.



- 3) Unclip the black and white wires from the fan motor.
- 4) Lift fan off of the 2 pins, tip back and pull through rear panel. Do not tear or damage the flex pipe when removing the fan. Disconnect the green ground wire from the right side of the fan as soon as you can reach it.



**Replacing the Fan:**

Reverse the above steps (1 - 4). Make sure the fan wires and the ground wire are reattached.

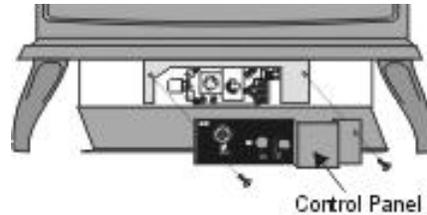
*Hint for pushing fan down onto pins - rub a bit of dish soap on the grommet so it will slide more easily onto the pin. Check to make sure the fan is seated properly on the pins - try to move the fan back and forth, there should be no noise, if there is check that the grommets haven't come loose.*

## REMOVING VALVE

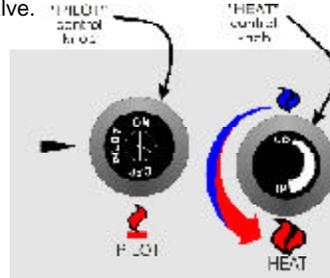
If your valve requires maintenance or replacement, use the following instructions:

**Note: Always close off the gas supply before removing the valve.**

- 1) If optional fan is installed, disconnect power source to stove.
- 2) Remove access panel.



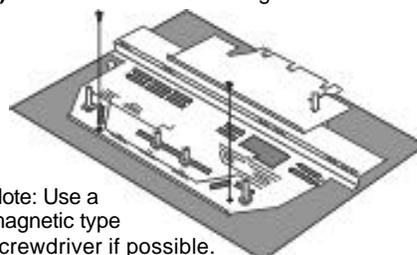
- 3) Disconnect gas line to stove.
- 4) Disconnect 3/8" NPT pipe from 90° elbow on valve.
- 5) Disconnect the two (2) switch wires from valve.



- 6) Disconnect piezo wire.
- 7) Open the front door. Disconnect the front door from the safety mechanism located on the right side of the heater. Open the right side door and there is a cutout in the heat shield through which can be seen a 1/4" nut threaded on to a stud attached to the front door. Loosen this nut by turning it counter-clockwise with a 3/16" wrench until it can be removed by hand.

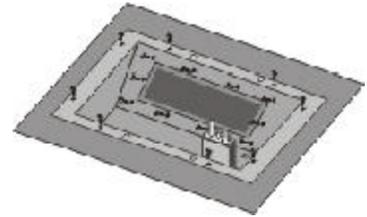


- 8) Carefully remove the logs, embers and rockwool.
- 9) Remove burner. See diagram below.

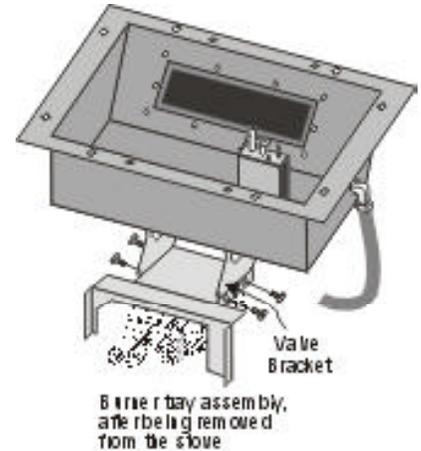


Note: Use a magnetic type screwdriver if possible.

- 10) Remove all 18 screws holding the burner tray assembly in place.



- 11) Carefully lift the burner tray assembly out.



- 12) To replace the burner tray assembly, simply reverse these instructions.

**To remove valve from valve assembly, continue.**

- 13) Remove two (2) thermopile wires.
- 14) Remove thermocouple with a 9 mm (metric) wrench.
- 15) Remove pilot nut with an 11 mm wrench.
- 16) Remove valve to orifice nut with a 13/16" wrench.
- 17) Remove inlet pipe with pipe wrench. Note orientation of 90° elbow.
- 18) Remove two (2) phillips head M5 screws on each side of the valve.
- 19) Remove valve and remove gas out 90° brass fitting. Note orientation of fitting.

## INSTALLING VALVE ASSEMBLY

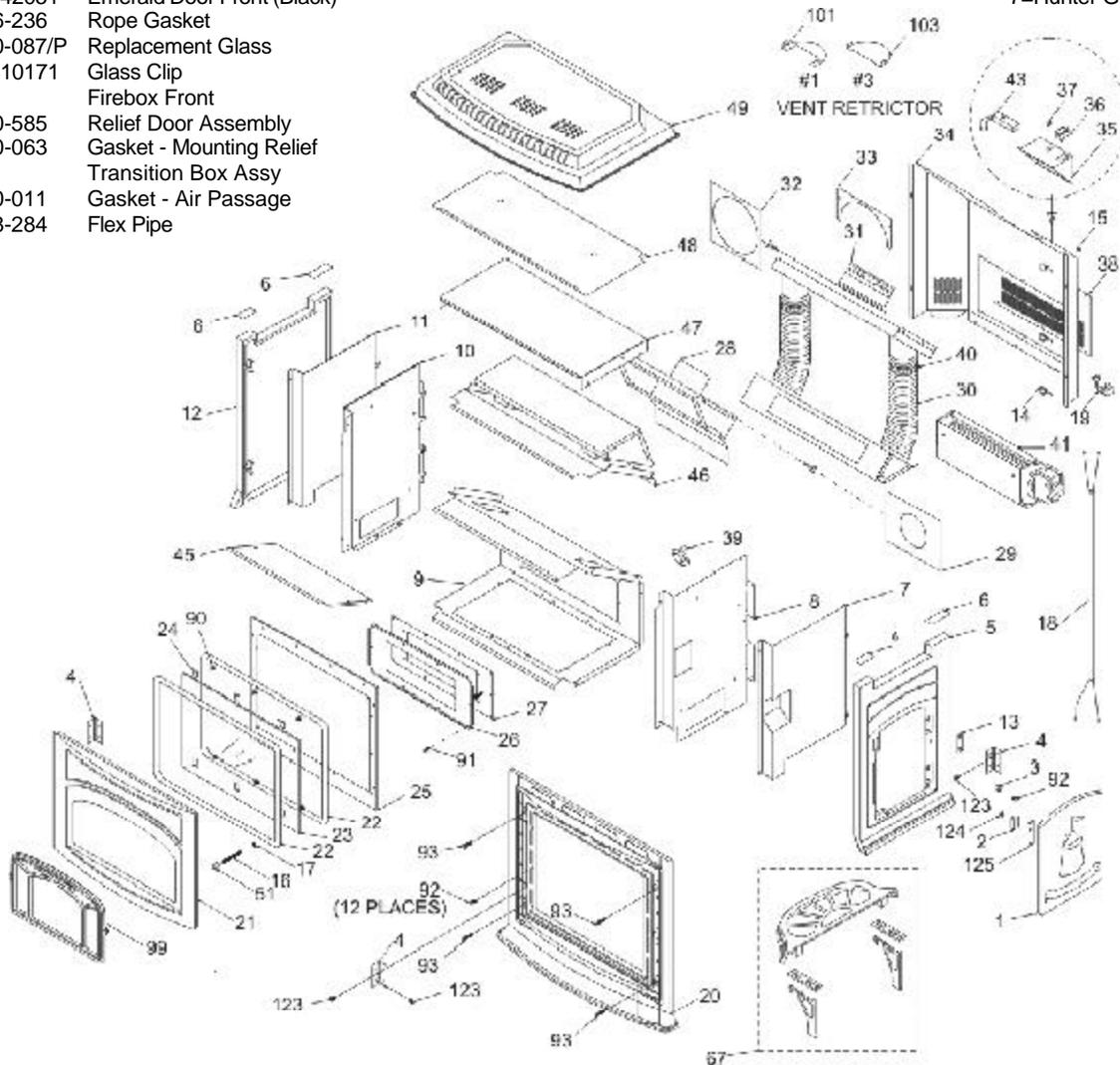
- 1) To install a new valve assembly, reverse instructions for **removing valve**. See assembly steps 1-12.
- 2) Check for leaks and manifold pressure. See **Gas Pressure Test** instructions.
- 3) To reinstall valve, reverse instructions for removing valve assembly, steps 13-19.

# PARTS LIST

## MAIN ASSEMBLY

Part #	Description	Part #	Description	Part #	Description
1)	W400141** Emerald Right Door (Black)	31)	923R Direct Vent Connector	49)	W841991** Emerald Hob (Black)
2)	904-258 Door Magnet	32)	936-194 Gasket - Starter Collar/Air Passage	51)	* Nut - 1/4 - 20 Hex
3)	948-134 Door Stop	33)	260-034 Pipe Collar	67)	42801 Side Shelf with Brackets (optional)
4)	44351 Black Butt Hinge	34)	260-035 Rear Panel	90)	* Screw #10 - 24 x 3/8" pan head
5)	W842001** Emerald Right Side (Black)	35)	260-037 Rear Control Panel	91)	* Screw #8 x 1/2" hex slotted
6)	41211 Tape Gasket w/adhesive Backing	36)	910-241 Burner ON/OFF Switch	92)	* Screw 1/4 x 1/4" flat head
7)	* Heat Shield - Right	37)	904-621 Hole Plug 0.375	93)	* Screw 1/4 x 1" flat head
8)	* Firebox - Right	38)	630-021 Fan Access Panel	99)	942-061** Decorative Door Grill Front
9)	* Firebox - Base/Back	39)	910-233 Fan Auto On/Off Thermodisc	101)	620-051 Vent Restrictor #1
10)	* Firebox - Left	40)	904-603 Hose Clamp	103)	490-046 Vent Restrictor #3
11)	* Heat Shield - Left	41)	730-517/P Fan Assembly (Optional)	123)	* Screw 1/4 - 20 x 3/8" Flat undercut
12)	W842121** Emerald Left Side (Black)	43)	910-330 Fan Speed Control (120 V)	124)	* Screw #10 - 24 x 1/4" pan head
13)	260-066 Door Shim	44)	904-569 Knob - Fan Speed Control	125)	260-067 Magnet Mounting Plate
14)	* Wire Tie Wrap	45)	910-794 Power Cord (120 V)		
15)	* Wire Tie Mount Button	46)	560-071 Baffle for Firebox		
16)	904-001 Door Rod 1/4-20 x 3-1/2 NC	47)	* Heat Exchanger Assembly		
17)	* Wing Nut for Door Rod	48)	* Firebox Heat Shield		
18)	910-897 High Temperature Wire Harness - Fan end		* Top Heat Shield		
19)	* Grommet for power cord				
20)	W842081** Emerald Front Frame (Blk)				
21)	W942051** Emerald Door Front (Black)				
22)	936-236 Rope Gasket				
23)	940-087/P Replacement Glass				
24)	W310171 Glass Clip				
25)	* Firebox Front				
26)	260-585 Relief Door Assembly				
27)	260-063 Gasket - Mounting Relief				
28)	* Transition Box Assy				
29)	630-011 Gasket - Air Passage				
30)	948-284 Flex Pipe				

\*Note: Not available as a replacement part.  
 \*\*Note: Last digit of part number represents color code: 1=Black, 2=Blue, 4=Blush, 5=Brown, 7=Hunter Green, 8=Claret

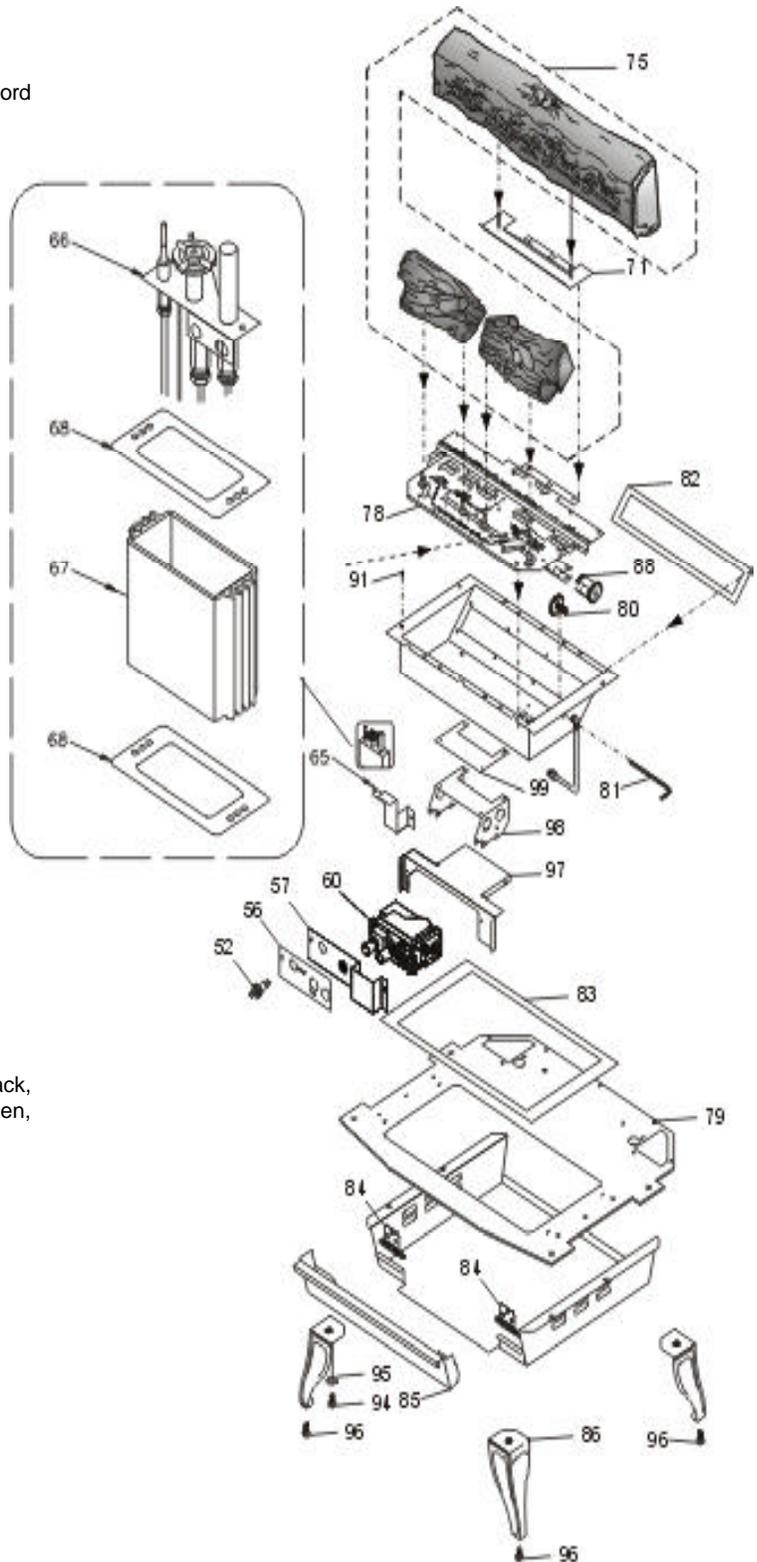


## BURNER & LOG ASSEMBLY

Part #	Description
52)	910-190 Piezo Ignitor & Nut
56)	908-672 Control Panel Decal
57)	490-061 Switch Plate
	910-896 High Temperature Wire Harness - to Power Cord
	261-574/P Valve Assembly S.I.T. - Natural Gas
	261-576/P Valve Assembly S.I.T. - Propane
	261-969 Conversion to Propane Kit
60)	910-378 Valve S.I.T. - Natural Gas
	904-688 #32 Orifice - N.G. (38,000 Btu/h)
	904-641 #50 Orifice - LP (38,000 Btu/h)
	904-593 #40 Orifice - N.G. (27,000 Btu/h)
	904-390 #52 Orifice - LP (29,000 Btu/h)
	936-170 Orifice Gasket
66)	910-038 Pilot Assy-SIT-3 flame - NG
	910-039 Pilot Assy-SIT-3 flame - LP
67)	* Pilot Holder
68)	W840470 Pilot Assembly Gasket
71)	260-570 Log Stand Assy
75)	560-935 Log Set
78)	651-580 Burner Assy
79)	* Base Plate
80)	260-565 Air Shutter Gear Assembly - Female
81)	904-565 Hex Key 3/16" AF
82)	630-009 Burner Tray / Air Passage Gasket
83)	630-008 Burner Tray Firebox Gasket
84)	948-042 Hinge for Valve Access Door
85)	260-056 Valve Access Door
86)	W420011** Leg (Black)
88)	260-560 Air Shutter Gear Assembly - Male
91)	* Screw - #8 x 1/2 Hex slotted
94)	* Capscrew 3/8 x 3/4" Zinc
95)	* Washer 3/8 Flat Zinc
96)	* Levelling Bolt 5/16 x 5/8" Hex Head
97)	* Valve Shield
98)	* Valve Bracket
99)	260-042 Valve Gasket

\*Note: Not available as a replacement part.

\*\*Note: Last digit of part number represents color code: 1=Black, 2=Blue, 4=Blush, 5=Brown, 7=Hunter Green, 8=Claret









# WARRANTY



**Waterford Fireplace Products are designed with reliability and simplicity in mind. In addition, our internal Quality Assurance Team carefully inspects each unit thoroughly before it leaves our facility. FPI Fireplace Products International Ltd. is pleased to extend this limited lifetime warranty to the original purchaser of a Waterford Product.**

**The Warranty:** Limited Lifetime

External casting, not directly in contact with the fire, such as hobs, sides, ash lips, legs, fronts and fire doors, are covered against cracks and warps resulting from manufacturer defects, parts and subsidized labour\* for three (3) years from the date of purchase and parts only thereafter.

The combustion chamber, heat exchanger, burner tubes/pans, logs, embers and all gold plating (against defective manufacture only) are covered under the Limited Lifetime Warranty for five (5) years for parts and subsidized labour\* and parts only thereafter.

Glass is covered for lifetime against thermal breakage only, parts and subsidized labour\* for three (3) years and parts only thereafter from date of purchase.

Electrical and mechanical components such as blowers, switches, wiring, thermocouples, FPI remote controls, spill switches, thermopiles, thermocouples, pilot assembly components, and gas valves are covered for one year parts and subsidized labour\* from the date of purchase. Blowers and valves replaced under warranty are considered repairs and continue as if new with appliance. ie. twelve (12) months from original purchase date of appliance with a minimum of three (3) months coverage from date of replacement.

FPI venting components are covered parts and subsidized labour\* for three (3) years from date of installation and parts only thereafter.

**Conditions:**

Porcelain/Enamel - Absolute perfection is neither guaranteed nor commercially possible. Any chips must be reported and inspected by an authorized dealer within three days of installation. Reported damage after this time will be subject to rejection.

Any part or parts of this unit which in our judgement show evidence of such defects will be repaired or replaced at FPI's option, through an accredited distributor or agent provided that the defective part be returned to the distributor or agent **Transportation Prepaid**, if requested.

It is the general practice of FPI to charge for larger, higher priced replacement parts and issue credit once the replaced component has been returned to FPI and evaluated for manufacturer defect.

The authorized selling dealer is responsible for all in-field service work carried out on your Waterford product. FPI will not be liable for results or costs of workmanship from unauthorized service persons or dealers.

At all times FPI reserves the right to inspect product in the field which is claimed to be defective.

All claims must be submitted to FPI by authorized selling dealers. It is essential that all submitted claims provide all of the necessary information including customer name, purchase date, serial #, type of unit, problem, and part or parts requested, without this information the warranty will be invalid.

**Exclusions:**

This limited Lifetime Warranty does not extend to or include paint (charcoal units), porcelain (including pinholes, scratches and minor shade mismatch), door or glass gasketing or trim.

At no time will FPI be liable for any consequential damages which exceed the purchase price of the unit. FPI has no obligation to enhance or modify any unit once manufactured. ie. as products evolve, field modifications or upgrades will not be performed.

FPI will not be liable for travel costs for service work.

Installation and environmental problems are not the responsibility of the manufacturer and therefore are not covered under the terms of this warranty policy.

Refractory liners, gaskets, door handles, paint are not covered under the terms of this warranty policy.

Any unit which shows signs of neglect or misuse is not covered under the terms of this warranty policy.

The warranty will not extend to any part which has been tampered with or altered in any way, or in our judgment has been subject to misuse, improper installation, negligence or accident, spillage or downdrafts caused by environmental or geographical conditions, inadequate ventilation, excessive offsets, negative air pressure caused by mechanical systems such as furnaces, fans, clothes dryer, etc.

Freight damage to stoves and replacement parts is not covered by warranty and is subject to a claim against the freight carrier by the dealer.

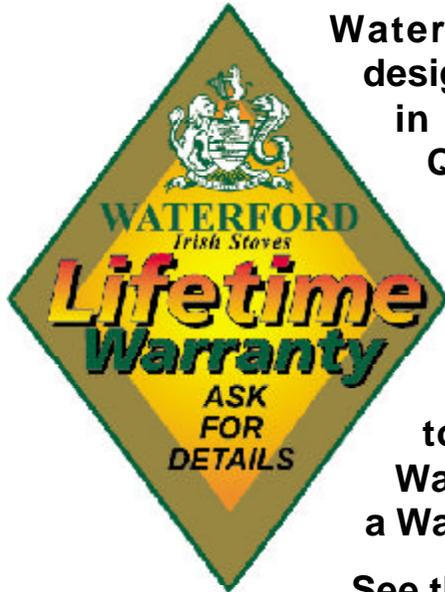
FPI will not be liable for acts of God, or acts of terrorism, which cause malfunction of the appliance.

Performance problems due to operator error will not be covered by this warranty policy.

Products made or provided by other manufacturers and used in conjunction with the operation of this appliance without prior authorization from Waterford, may nullify your warranty on this product.

Simpson Dura-Vent venting components are covered by Simpson Dura-Vent Inc. warranty.

*\* Subsidy according to job scale as predetermined by FPI.*



Waterford fireplace products are designed with reliability and simplicity in mind. In addition, our internal Quality Assurance Team carefully inspects each unit thoroughly before it leaves our door.

Waterford Irish Stoves is pleased to extend this Limited Lifetime Warranty to the original purchaser of a Waterford Product.

See the inside back cover for details.

Register your Waterford online at  
<http://www.waterfordstoves.com>

*Installer: Please complete the following information*

Dealer Name & Address: \_\_\_\_\_

\_\_\_\_\_

Installer: \_\_\_\_\_

Phone #: \_\_\_\_\_

Date Installed: \_\_\_\_\_

Serial No.: \_\_\_\_\_