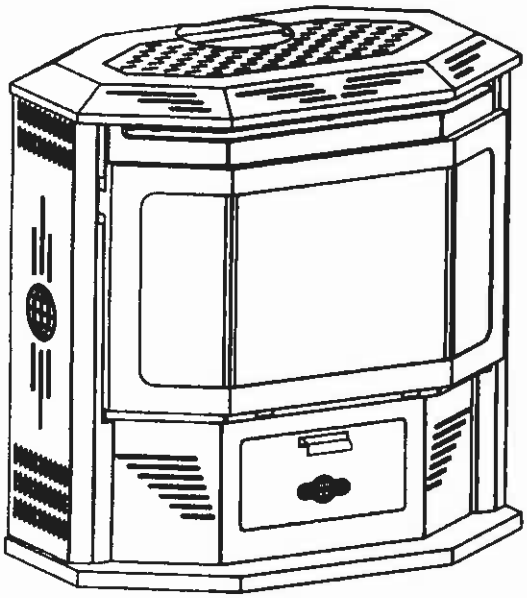
EARTH STOVE™
BY LENNOX HEARTH PRODUCTS

INSTALLATION AND OPERATION MANUAL

FREESTANDING GAS FIRED DIRECT VENT ROOM HEATER

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



MODEL BayFire™ *Europa* (Direct Vent)

P/N 45089, Rev. I, 1/02

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, person injury or loss of life.

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

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 neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

Installation and service must be performed by a qualified installer, service agency or gas supplier. This appliance is only for use with the type(s) of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Warnock Hersey

C US

IMPORTANT WARNINGS / CAUTIONS

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

1. **WARNING: Improper assembly, installation, adjustment, alteration, service or maintenance can cause injury and / or property damage. Installation and service must be performed by a qualified installer, service agency or the gas supplier. Except when complying with local codes, any deviation from the installation and/or operating instructions contained in this manual will void the appliance warranty and may be hazardous.**
2. **Due to high temperatures, this appliance should be located out of traffic and away from furniture, draperies and not in windy or drafty areas.**
3. **The appliance must NOT be connected to a chimney flue serving a separate solid-fuel burning appliance.**
4. **This appliance is equipped with a relief door (under the stove top) in case of delayed ignition blow back. If the relief door opens, inspect for gasket damage. If necessary, replace with factory supplied gasket only. Confirm relief door is closed and properly seated.**
5. **CAUTION: HOT WHILE IN OPERATION. An appliance hot enough to warm your home can severely burn anyone touching it. Keep children, clothing and furniture away. Contact may cause skin burns. Do not let children touch the appliance. Train them to stay a safe distance from the unit.**
6. **Do not place clothing or other flammable material on or near the gas appliance. The minimum clearances must be maintained for all combustible surfaces and materials including; furniture, carpet, drapes, clothing, wood, papers, etc.**
7. **Do not connect 110-12 VAC (residential line voltage) to the gas control valve or control wiring system of the unit.**
8. **Any safety screen or guard removed for servicing must be replaced prior to operating the appliance.**
9. **WARNING: Use only the glass door certified with this appliance. Exercise caution to protect glass from impact. Do not operate the appliance with broken glass or use substitute materials.**
10. **DO NOT USE this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and gas control which has been under water.**
11. **Do not burn wood or other material in this heater.**
12. **WARNING: The appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.**
13. **Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this appliance.**
14. **This appliance is not for use with air filters.**
15. **Any change to this heater or its controls can be dangerous.**
16. **The appliance should be inspected and maintained at least 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, burners and circulating air passageways of the appliance be kept clean.**
17. **This appliance is only for use with the type of gas indicated on the rating label (located inside control panel). This appliance is not convertible for use with other fuel unless a certified kit is used.**
18. **WARNING: This appliance must be properly connected to a venting system. Operation of this gas appliance when not connected to a properly installed and maintained venting system can result in carbon monoxide (CO) poisoning and possible death.**
19. **WARNING: Do not modify the venting system, appliance, or controls in any way. Be advised, any modification can be dangerous. Provisions must be made to ensure the intake and exhaust passages of the vent termination cap remain unrestricted.**
20. **CAUTION: Under no circumstances should these appliances be vented to other rooms or buildings. These appliances must only be vented to the outside. Vent terminations shall not be recessed into a wall or siding.**
21. **IMPORTANT: Do not exceed the maximum horizontal run allowed.**
22. **SAVE THESE INSTRUCTIONS.**

TABLE OF CONTENTS

Important Warnings 2

Testing / Listing, Using this Manual 3

Planning Your Installation..... 4-5

Manufactured (Mobile) Home Installation 5

Installation 6-16

Care and Operation..... 17-19

Maintenance..... 20-22

Wiring Diagram, Gas Control 23

Troubleshooting..... 24-26

Replacement Parts List / Diagrams..... 27-28

Optional Accessories..... 29

Safety Instructions..... 30

Specifications 31

Safety / Listing Label..... 32

Ownership Record and Service Log 33

CONGRATULATIONS ON THE PURCHASE OF YOUR NEW GAS APPLIANCE MANUFACTURED BY LENNOX HEARTH PRODUCTS.

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

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

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

Sincerely,
All of us at Lennox Hearth Products

TESTING / LISTING

This appliance is tested and certified as safe for residential use by an internationally recognized testing and certification agency. The safety tests are conducted in accordance with American National Standards Institute (ANSI) requirements. Tested to ANSI Z21.88-1998 *CSA 2.33-M98 Direct Vent Gas Fireplace and CAN/CGA 2.17-M91 (For High Altitude).

Vent Brands:

This appliance is listed for installation with Security Secure Vent chimney or Simpson Dura Vent brand chimney only. Other brands may not be used. See pages 10-11.

PACKAGING LIST

This appliance is packaged with an accessory package, which contains the following:

- One - Installation and operation instructions manual.
- One - Warranty.
- One - 6 piece log set and embers.
- Three - Vent restrictor rings.

USING THIS MANUAL

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

PLANNING YOUR INSTALLATION

LOCAL AND NATIONAL CODE REQUIREMENTS

The installation of these appliances must conform with local codes or, in the absence of local codes, with:

In USA, The National Fuel Gas Code, ANSI Z223.1 (NFPA 54) - current edition.
In Canada, CAN/CGA-B149.1 (Installation Code for Natural Gas Burning Appliances and Equipment-current edition) and CAN/CGA-B149.2 (Installation Code for propane Gas Burning Appliances and Equipment-current edition) and other applicable codes.

Blower Kit (Optional, see page 29): The blower electrical power cord should be connected to a standard 115 volt, A.C., 60 hertz cycle, electrical outlet (wall receptacle) that is electrically grounded per local codes or per electrical codes:

In USA, NEC, ANSI / NFPA 70-1987.
In Canada, CSA C22.1

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

To avoid electrical shock, always ensure that the power cord is unplugged (i.e., there is no electrical power to the circulation blower) before handling the circulation blower or performing any work on the appliance.

High Altitude: Gas inputs shown are for elevations up to 2000 feet in the U.S.A. and 4500 feet in Canada. For higher elevation, the appliance must be derated (see *Deration* below).

Deration: Replacing burner orifice with a smaller one to reduce input). Ratings must be reduced at the rate of 4 percent for each 1,000 feet above sea level. Refer to (for USA) NFPA 54 / ANSI Z223.1-latest edition for orifice resizing. See page 29 for information on ordering a high altitude orifice kit.

TOOL / EQUIPMENT LIST

The following tools and equipment are recommended for completing the partial assembly required when the appliance is installed:

- Pliers.
- Phillips head screwdriver.
- ½" socket.
- Pipe sealant compound.
- Leak test fluid.
- "U" tube manometer or pressure gauge (0 - 16", inches water column) H2O scale.

GAS PRESSURE

Inlet gas supply pressure for proper operation:

Natural Gas - 4.5" WC min. – 10.5" WC max.
Propane (LP) – 10.5" WC min - 13.0" WC max.

Manifold gas supply pressure:

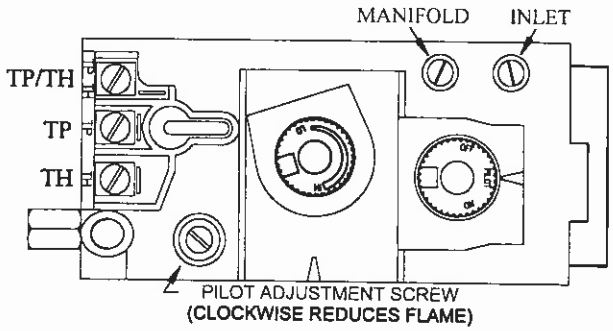
	LOW		HIGH
Natural Gas -	1.7" WC 26,000 BTU/hr	(to)	3.5" WC 40,000 BTU/hr
Propane (LP)	6.3" WC 28,000 BTU/hr	(to)	10" WC 38,000 BTU/hr

PRESSURE TAPS

Gas Inlet Pressure Tap - Located on top right of gas valve.

Gas Outlet (Manifold) Pressure Tap - Located on top right of gas valve (to the left of the inlet pressure tap).

Gas Control Valve



Pressure Testing: See *Pressure Testing* on page 12.

⚠IMPORTANT

Appliance gas valves can be damaged if subjected to more than 1/2 psig (3.48 kPa) pressure. Therefore, when pressure testing the gas supply piping system in this pressure range, the appliance gas valve must be disconnected and isolated.

PLANNING YOUR INSTALLATION

QUESTIONS TO ASK LOCAL BUILDING OFFICIAL

Correct installation is critical and imperative for reducing fire hazards and perilous conditions that can arise when gas appliances function improperly. The appliance must be installed per manufacturers' instructions.

Gas appliance equipment and installations must conform to appropriate local codes and applicable state and federal requirements. Familiarity with these requirements before installation is essential. Important considerations to discuss with local building officials include:

1. Applicable codes (i.e. Uniform Mechanical Code, State or Regional Gas Codes, National Fuel Gas Code)?
2. Local amendments?
3. Recognized testing lab: I.T.S. / Warnock Hersey.
4. Is a permit required - cost?
5. In some states or municipalities, a licensed gas fitter or plumber may be required to install this appliance. Check with your local building official for requirements in your area (i.e. Is a license required for installation of gas supply line)?
6. Maximum amount of gas pipe without a pressure test - type of test required?
7. Are below grade penetrations of the gas line allowed?
8. Is concealed gas piping allowed?
9. Specific requirements of concealed fittings?
10. Is rigid pipe to appliance required?
11. Allowed piping materials?
12. Shut-off valve required within 4 feet of the firebox?
13. May the shut-off valve be concealed?
14. Rooms where the installation is not allowed?

In the absence of local codes, installation should conform to the National Fuel Gas Code, also known at ANSI Z223.1-NFPA 54.

CHOOSING A LOCATION

This appliance can be installed in most residential room configurations, parallel to a rear or adjacent wall, or in an alcove that allows for the minimum clearances to combustible surfaces. It is recommended that the installation of this appliance be planned on paper to ensure its position will allow passage of the flue through the wall or ceiling and roof. Your local building inspector should review your plans prior to installation.

FLOOR PROTECTION

When installed directly on carpeting, • tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance (♦ see note below).

Notes:

- • Ceramic tile is non-combustible and does not require a wood or metal panel under the appliance.
- ♦ Models with a pedestal base where base dimensions exceed width and depth of stove body, qualify as the floor protection

MANUFACTURED (MOBILE) HOME REQUIREMENTS

This appliance may be installed in an aftermarket permanently located, manufactured home, where not prohibited by local codes. When installed in Manufactured Housing the following supplemental requirements must be met:

- The appliance must be secured to manufactured home floor (i.e. ¼" lag bolts through pedestal base).
- The appliance must be grounded to the chassis of the manufactured home. Use a No. 8 or heavier copper wire at least 18" in length.
- The structural integrity of the manufactured home floor, walls, ceiling and roof must be maintained.

A manufactured (mobile) home installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or, when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI / NCSBCS A225.1, or standard for Gas equipped Recreational Vehicles and Mobile Housing, CSA Z240.4.

INSTALLATION – Model Bayfire™ *Europa*

Consult your Local Building Department for requirements in your area.

CLEARANCES TO COMBUSTIBLE MATERIALS

This appliance can be installed in most residential room configurations, parallel to a rear or adjacent wall, or in an alcove that allows for the minimum clearances to combustible surfaces. Your local building inspector should review your plans prior to installation.

When installing this appliance, provide adequate clearances around air openings and adequate clearances for purposes of servicing and proper operation.

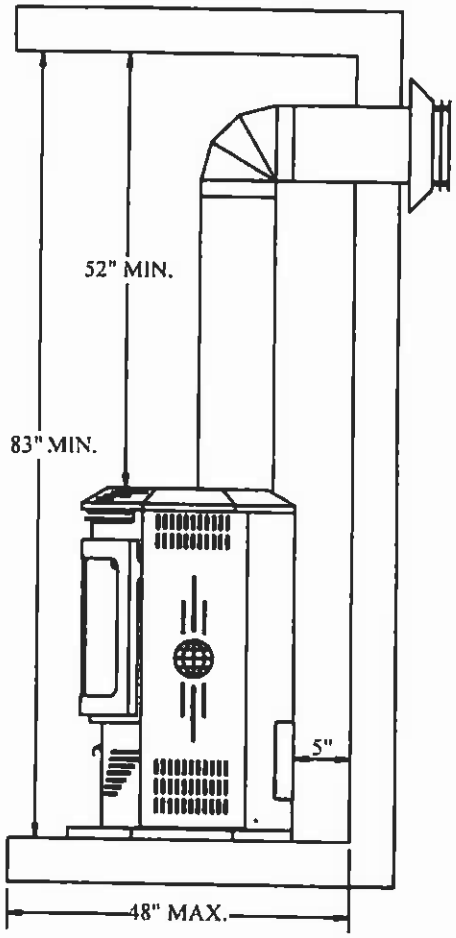
As determined through the safety certification of this unit, a minimum clearance to combustible materials must be maintained around specific areas of the gas appliance.

The clearances listed here are minimum distances and only apply in the configuration shown. Do not use clearances from one installation configuration with clearances from another to obtain closer clearances.

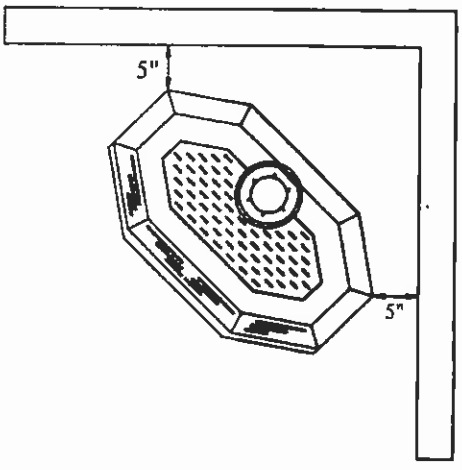
Top of appliance (min.) *This includes any projections such as shelves, windowsills, mantels, etc. above the appliance.*	52" (inches)
Back Wall (min.)	5" (inches)
Side Wall (min)	7" (inches)
Corner - 45° angle (min.) stove corners to wall	5" (inches)
Ceiling (min.)	83" (inches) from floor
Alcove Height (min.)	83" (inches) from floor
Alcove Width (min.)	46" (inches)
Alcove Depth (max.)	48" (inches)
Floor (min.)	0" (inches)

Note: min. = minimum
max. = maximum.

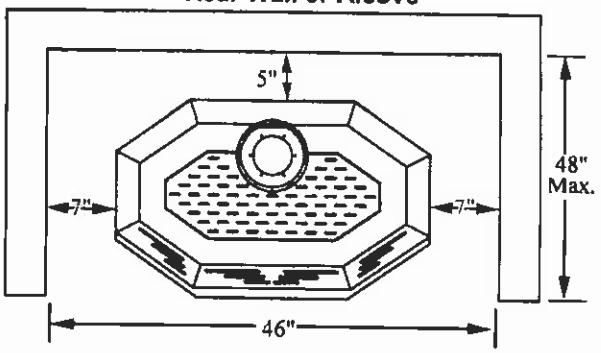
Rear Wall or Alcove



Corner



Rear Wall or Alcove



INSTALLATION – *See Pipe Manufacturers clearances for Pipe Clearances*

VENTING CONFIGURATIONS

This appliance is approved to be installed in the following 3 venting configurations (no other venting configurations are allowed):

- Horizontal Termination with 1 offset (see page 8).
- Vertical Termination with 2 Offsets (see page 8).
- Vertical Termination with no Offsets (see page 9).

Look at the applicable venting configurations shown of pages 8 and 9 for additional requirements which are specific for each venting configuration.

General Venting Requirements

- This appliance is designed to be vented with a 4" x 6 5/8" co-axial direct-vent pipe. Each direct-vent appliance must use its own separate vent system (see pages 10 and 11 for approved vent components). See pipe manufacturers instructions for additional vent installation requirements.
- Horizontal run of pipe requires a 1/4" rise per foot.
- See page 11 for *Vent Termination Requirements.*
- Horizontal vent clearances: 3" minimum top 1" minimum on bottom and sidewalls.
- Vertical vent clearances: 1" minimum.

FLUE RESTRICTOR RING(S) INSTALLATION

There are three 3/8" restrictor rings provided with this appliance. The standard placement is outlined on pages 8 & 9 (install first ring after 6' of vertical pipe, then every 6' thereafter, not to exceed 3 restrictor rings. See Restrictor Ring Placement Guidelines *on this page for more information). Install the restrictor ring(s) between the locking sections of pipe.*

Note: The restrictor rings are designed to slow down the combustion air delivery. By reducing the air delivery, the performance and flame aesthetics of the appliance is improved.

Restrictor Ring Placement Guidelines

Depending upon the vent configuration and other variables, it may be necessary to adjust the quantity and position of the restrictor ring(s) to ensure proper operation of the appliance.

Be advised, product performance can be affected due to numerous factors which affect exhaust flow and air delivery, such as – gas BTU value and composition, type of gas used (NG or LP), vent configuration, ambient temperature, wind conditions, altitude, etc.

Symptoms for Lack of Combustion Air - Remove restrictor ring(s) to increase combustion air delivery if the following symptoms are present (first confirm input is correct, primary air shutter is properly adjusted, and venting system connections are secure and not blocked):

- Flame appears yellow with black tips.
- Floating or reaching burner flames (lazy, ill-defined, quiet, may roll).
- Sooting.
- Pilot becomes yellow and appliance shuts down.

Symptoms - Excessive Combustion Air -Install one or more restrictor ring(s) to reduce combustion air delivery if the following symptoms are present:

- Low Flame.
- Pilot pulls and appliance shuts down.
- Waving blue pilot flame.

Support Brackets - Install vent support brackets as specified by vent manufacturer.

Ref. NFPA 54 / ANSI Z223.1, 7.6.5
Support of Gas Vents. Gas vents shall be supported and spaced in accordance with their listings and the (vent) manufacturer instructions.

INSTALLATION – *See Pipe Manufacturers clearances for Pipe Clearances*

VENTING CONFIGURATIONS WITH HORIZONTAL PIPE RUNS

Maximum allowable horizontal pipe run:
At 3' (foot) vertical pipe, the maximum horizontal run allowed is 6' (feet). At 22' vertical pipe, the maximum horizontal run allowed is 10'. For vertical height distances between 3' (feet) and 22' (feet) refer to chart (to the right) to determine the maximum horizontal run allowed.

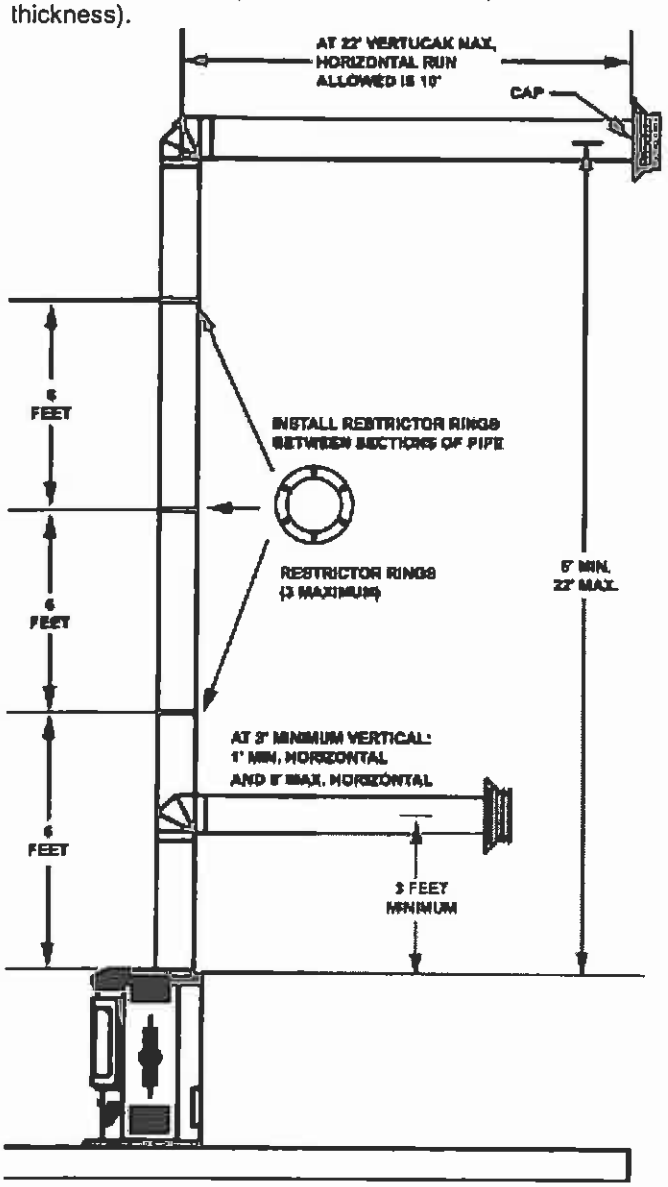
Maximum Horizontal Pipe Runs for Given Vertical Pipe Run (in feet)

Vertical Pipe	Maximum Horizontal run allowed	Vertical Pipe	Maximum Horizontal run allowed
3'	6'	16'	9'
8'	7'	19'	10'
11'	8'	22'	10'
14'	8'		

HORIZONTAL TERMINATION WITH 1 OFFSET

Min. Vertical Pipe From Appliance to Offset: 3 feet.
Max. Vertical Pipe Length: 22 feet

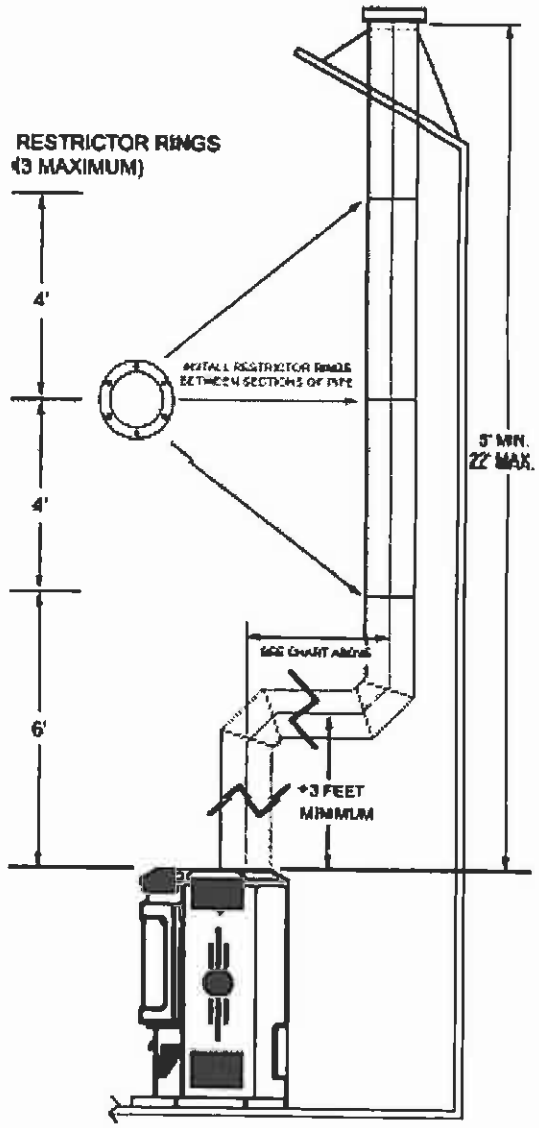
Min. Horizontal – 1' (clearance to rear wall plus wall thickness).



VERTICAL TERMINATION WITH 2 OFFSETS

Min. vertical pipe from appliance to first offset: 3 feet.

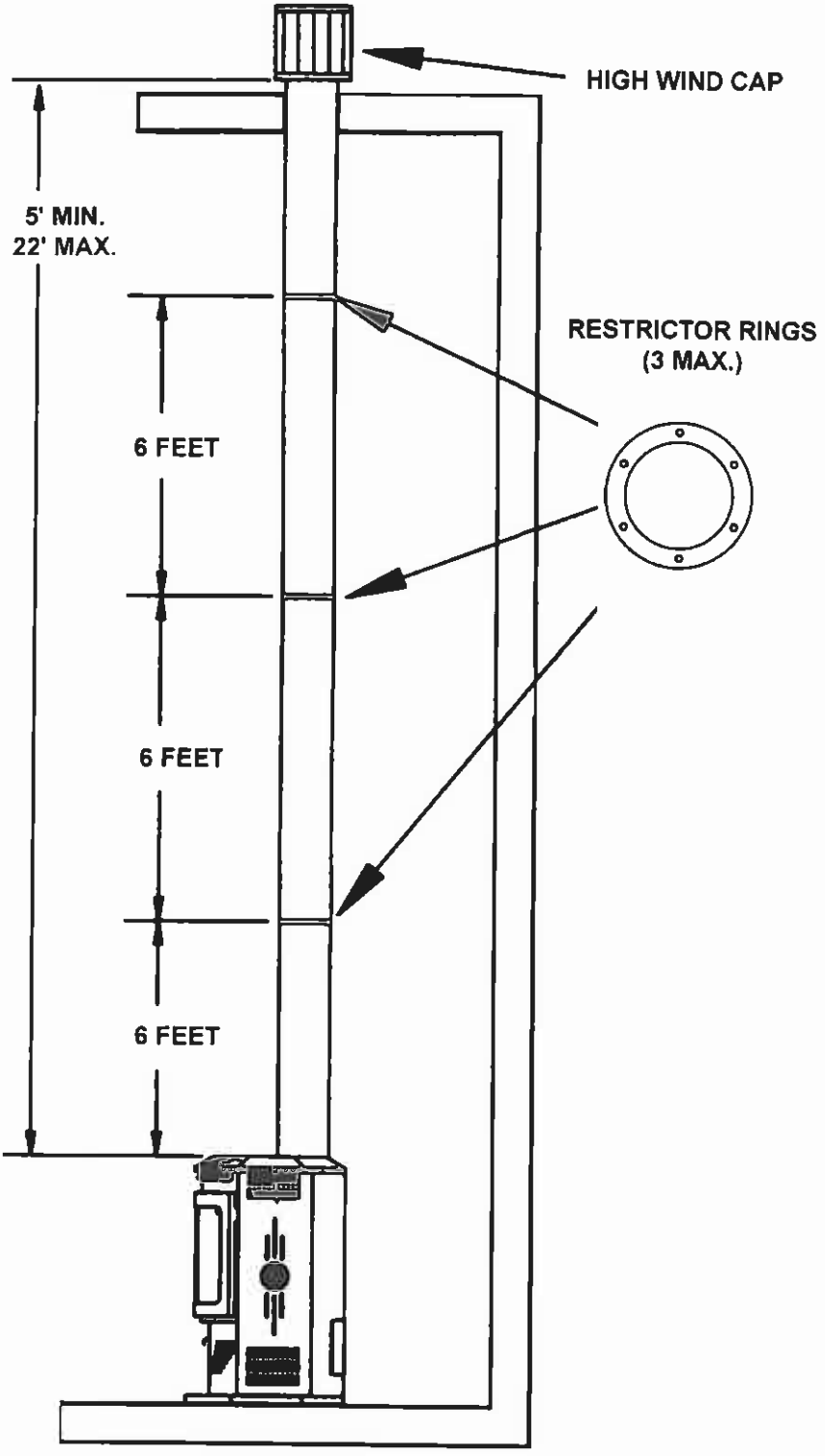
Max. Vertical - 22' (feet)
Min. Total Vertical Pipe Length: 5 feet
Max. Total Vertical Pipe Length: 22 feet



INSTALLATION – *See Pipe Manufacturers clearances for Pipe Clearances*

VERTICAL TERMINATION WITH NO OFFSETS

Min. Total Vertical Pipe Length: 5 feet
Max. Total Vertical Pipe Length: 22 feet



* A high wind cap is required when terminating vertical.

INSTALLATION *See Pipe Manufacturers Instructions For Installation Of Venting Components & Clearances.*

DIRECT VENT SYSTEM COMPONENTS – Model BayFire™ Europa

IMPORTANT: APPLIANCES INSTALLED USING SIMPSON DURA-VENT BRAND PIPE MUST SEAL ALL JOINTS WITH MILL-PAC BLACK, HIGH TEMPERATURE SEALANT.

Model #	Brand: SECURITY / Description	Model #	Brand: SIMPSON DURA-VENT / Description
SV 0 SHK	Standard Horizontal Term. Kit (90° Black Elbow, Firestop (2), Horizontal Square Term. Cap)	970	Basic Horizontal Term. Kit (90° Black Elbow, Wall Thimble Cover, Horizontal Square Term. Cap)
SV 0 HK	Horizontal Term. Kit (90° Black Elbow, Firestop (2), Horizontal Term. Cap, adj. Black length 1-1/2 – 6")	971	Horizontal Term. Kit A (90° Black Elbow, Wall Thimble Cover, Horizontal Square Term. Cap, adj. 24" black pipe, 11-14 5/8" adj. Black pipe)
SV 0 FK	Vertical Flat Roof Term. Kit (w/ flashing, storm collar, vertical Term. Cap)	973	Vertical Termination Kit
SV 0 FAK	Vertical pitched Roof Kit, 1/12-7/12 (with adjustable roof flashing, storm collar, vertical termination cap)	978	Vertical Pitched Roof Kit, 0/12–6/12 (with adjustable flashing, storm collar, low profile term. Cap)
SV 0 FBK	Vertical pitched Roof Kit, 8/12-12/12 (with adjustable roof flashing, storm collar, vertical termination cap)	N/A	N/A
SV 0 L6	6" Pipe Length (Galvalume)		6" Pipe Length (Galvalume)
SV0 LB6	6" Pipe Length (Black)	908B	6" Pipe Length (Black)
SV 0	9" Pipe Length (Black)	907B	9" Pipe Length (Black)
SV 0 L12	12" Pipe Length (Galvalume)	906	12" Pipe Length (Galvanized)
SL 0 LB12	12" Pipe Length (Black)	906B	12" Pipe Length (Black)
SV 0 L24	24" Pipe Length (Galvalume)	904	24" Pipe Length (Galvanized)
SV 0 LB24	24" Pipe Length (Black)	904B	24" Pipe Length (Black)
SV 0 L36	36" Pipe Length (Galvalume)	903	36" Pipe Length (Galvanized)
SV 0 LB36	36" Pipe Length (Black)	903B	36" Pipe Length (Black)
SV 0 L48	48" Pipe Length (Galvalume)	902	48" Pipe Length (Galvanized)
SV 0 LB48	48" Pipe Length (Black)	902B	48" Pipe Length (Black)
N/A	N/A	911B	11"-14" Adj. Pipe Length (Black)
SV 0 LA	1 ½- 6" Adj. Pipe Length	N/A	N/A
SV 0 LBA	1 ½- 6" Adj. Black Pipe Length	N/A	N/A
SV 0 E45	45 Elbow (Galvalume)	945	45 Elbow (Galvanized)
SV 0 EB45	45 Elbow (Black)	945B	45 Elbow (Black)
SV 0 E90	90 Elbow (Galvalume Swivel)	990G	90 Elbow (Galvanized Swivel)
SV 0 EB90	90 Elbow (Black Swivel)	990BG	90 Elbow (Black Swivel)
SV 0	90 Elbow (Galvalume)	990	90 Elbow (Galvanized)
SV 0	90 Elbow (Black)	990B	90 Elbow (Black)
SV 0 CHC	⊕Horizontal Standard Term. Cap	984	⊕Horizontal Standard Term. Cap
SV 0 CHCV	⊕Horizontal High Wind Term. Cap	N/a	⊕Horizontal High Wind Term. Cap
SV 0 CPB	• Vertical Termination Cap	983	• Vertical Termination Cap
SV 0 CGV	• Vertical High Wind Cap	991	• Vertical High Wind Cap
SV 0 STC36	⊗Snorkel Termination Cap 36"	981	⊗Snorkel Termination Cap 36"
SV 0 STC14	⊗Snorkel Termination Cap 14"	982	⊗Snorkel Termination Cap 14"
SV 0	Vinyl Shield Protector	950	Vinyl Siding Standoff
SV 0 VS	Round Ceiling Support / Wall Thimble Cover	940	Round Ceiling Support / Wall Thimble Cover
SV 0 CSB	Cathedral Ceiling Support Box, decorative square	941	Cathedral Ceiling Support Box
SV 0 SF	Black Plate, Decorative	N/A	N/A
SV 0	Round Ceiling Support Box / Wall Thimble	942	Round Ceiling Support Box / Wall Thimble
SV 0	Storm Collar	953	Storm Collar
SV 0 RSM	Wall Radiation Shield	N/A	N/A
SV 0 BF	Firestop	N/A	N/A
N/A	N/A	963	Firestop Spacer
SV 0 F	Flashing, Flat Roof (storm collar included)		
SV 0 FA	Flashing, Adjustable roof 1/12-7/12 (storm collar included)	943	Flashing 0/12-6/12
SV 0 FB	Flashing, Adjustable 8/12-12/12 (storm collar included)	943S	Flashing 7/12-12/12
SV 0 BM	Wall Band	988	Wall Strap

⊗ Snorkel Caps: These are elongate vent termination caps, which incorporate the principles of natural draft into a horizontal installation. Two styles are common, 14" and 36" (Cap height). They enhance draft and relieve backpressure by creating natural draft in the snorkel.

⊕ Horizontal Caps: This 13 ½" square horizontal cap is placed on the outer wall of the dwelling. Not to be within 9" of an air inlet or within 12" of the ground. It requires a minimum 2' rise on the interior pipe.

• Vertical Termination Cap: Low profile and high wind caps can only be used on vertical pipe installations.

INSTALLATION – Model Bayfire™ *Europa*

DIRECT VENT RETROFIT OF EXISTING CHIMNEY SYSTEM - An existing Class-A (wood-burning) Metal Chimney or Masonry Chimney can be converted to a direct vent system. Use one of the following chimney conversion kits listed below. Have the existing chimney system inspected by a professional prior to the conversion. **If using Simpson Dura-Vent brand liner kit, see "IMPORTANT" note at the top of previous page**. The chimney conversion should not be applied to the portion of the vent system that is in the room of the appliance. Use only Co-Axial direct vent pipe (4" inner pipe, 6 5/8" outer pipe as listed on previous page) from the appliance to the retro-connector into converted flue system. Adhere to all specifications outlined in this manual regarding clearances to combustibles, vertical and horizontal vent length minimums and maximums, etc. Read all instructions in this manual and provided by vent manufacturer with kit carefully before starting the installation. Failure to follow the instructions may create a fire or other safety hazard, and will void the warranty.

Model #	Brand: SECURITY / Description	Model #	Brand: SIMPSON DURA-VENT / Description
SV4MCK	Masonry Chimney Conversion Kit –Vertical term. Cap, cap adapter, masonry cover, black adapter (to flex), 2 gear clamps	934	Masonry Chimney Conversion Kit
SV4CCK1	Factory Built Chimney Conversion Kit – for 6" I.D., 1" insulation.	931	Factory Built Chimney Conversion Kit A – for 6" I.D.; Only compatible w/ specific brands – Contact Vent Manufacturer
SV4CCK2	Factory Built Chimney Conversion Kit – for 7" I.D., 1" insulation; 8" I.D., 1" insulation; 6" I.D., 2" insulation.	932	Factory Built Chimney Conversion Kit B – for 6", 7" & 8" I.D.; Only compatible w/ specific brands – Contact Vent Manufacturer
SV4CCK3	Factory Built Chimney Conversion Kit – for 10" I.D., 1" insulation; 7" I.D., 2" insulation; 8" I.D., 2" insulation.	933	Factory Built Chimney Conversion Kit C – for 7" & 8" I.D.; Only compatible w/ specific brands – Contact Vent Manufacturer

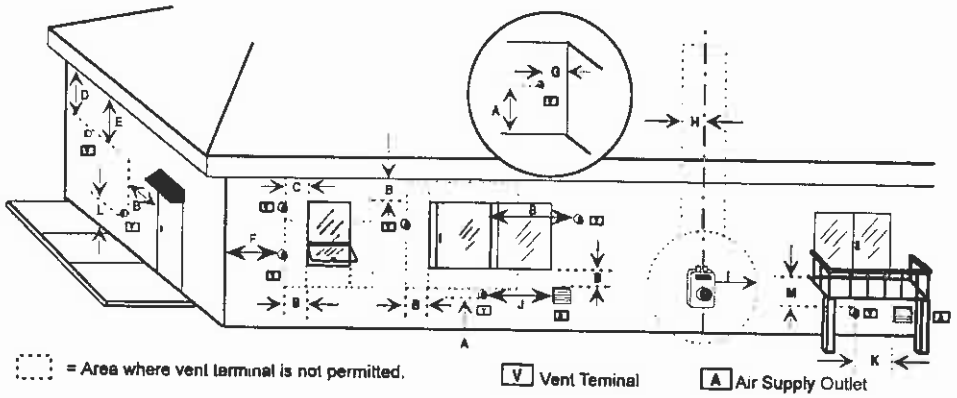
VERTICAL VENT TERMINATION REQUIREMENTS

The vent/air intake termination clearances above the high side of an angled roof is as follows:

Roof Pitch	Feet	Meters
Flat to 6/12	1.0	0.3
6/12 to 7/12	1.25	0.38
7/12 to 8/12	1.5	0.46
8/12 to 9/12	2.0	0.61
9/12 to 10/12	2.5	0.76
10/12 to 11/12	3.25	0.99
11/12 to 12/12	4.0	1.22
12/12 to 14/12	5.0	1.52
14/12 to 16/12	6.0	1.83
16/12 to 18/12	7.0	2.13
18/12 to 20/12	7.5	2.29
21/12 to 21/12	8.0	2.44

HORIZONTAL VENT TERMINATION REQUIREMENTS

The venting terminals should not be recessed into a wall or siding.



A = 2"Clearances above grade, veranda, porch, deck or balcony.

B = 12" Clearance to window or door that may be opened.

C = 9" (USA) Clearance to permanently closed window.12" (CAN)

D = 24" Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal.

E = 12" Clearance to unventilated soffit.

F = 9" Clearance to outside corner.

G = 6" Clearance to inside corner.

H = 3 ft. (USA) Not to be installed above a meter / regulator assembly within 3 feet (90 cm) horizontally from the centerline of the regulator.

I = 3 ft. (USA) Clearance to service regulator vent outlet.
6 ft. (CAN)

J = 9" (USA) Clearance to non-mechanical air supply inlet to building or the combustion air inlet to 12" (CAN) any other appliance.

K = 3 ft. (USA) Clearance to a mechanical air supply inlet.
6 ft. (CAN)

L* = 7 ft. (USA) Clearance above paved sidewalk or a paved driveway located on public property.

M**= 12" Clearance under veranda, porch, deck or balcony

* *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 2 sides beneath the floor.*

Note: Local Codes or Regulations may require different clearances

INSTALLATION

GAS SUPPLY HOOKUP

If using pipe other than black iron pipe see NFPA 54-National Fire Protection Association / ANSI Z223.1-American National Standards Institute; and local code for specific requirements for the type of pipe used. Alternative gas piping systems such as CSST may be used subject to local code and proper sizing.

⚠CAUTION

To avoid pipe compounds from entering system, apply compounds only to male pipe threads. Do not apply compound to the first two threads.

A gas supply line must be run to the appliance by a qualified professional. The plumbing of the gas line must comply with National Standards; NFPA 54-National Fire Protection Association / ANSI Z223.1-American National Standards Institute; and local code.

This appliance is equipped with a flexible gas line and fitting for a gas supply line connection. Connection can be made using either the 3/8" NPT male fitting or, by removing the fitting, to the flex line 3/8" female flare. The flex line is located on the bottom of stove. Some areas may have certain restrictions against the use of flexible gas lines. Check local codes. The gas appliance control valve has a 3/8" NPT female type inlet for the gas supply line, if hard plumbing is required.

If the gas supply will be routed to the appliance from the rear or through the floor, the flexible gas line for hookup is readily accessible

Gas piping must not run in or through air ducts, clothes chutes, chimneys or gas vents, dumb waiters or elevator shafts.

Piping should be sloped 1/4" per 15 feet (6mm per 4.6m) upward toward the meter from the appliance. The piping must be supported at proper intervals every 8 to 10 ft. (2.4m to 3.1m) using suitable hangers or straps.

The gas supply line must be purged of air before it is connected to the appliance (*See Air Purging Procedure* on page 13).

An accessible, approved shut-off valve must be installed upstream of any connector so that the appliance may be isolated to allow service, removal, and replacement (within six feet of the appliance per NFPA 54, or twelve inches in some codes). A shut-off valve is provided with this appliance.

IMPORTANT: In case emergency shut-off is required, shut off main manual gas valve and disconnect main power to appliance. These devices should be properly labeled by the qualified professional.

PRESSURE TESTING:

- The appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of *1/2 psi (3.5 kPa).
- 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 psi (3.5 kPa).

Make the connection to the gas supply line using the correct fitting required to the shut-off valve.

Install a drip leg where condensates might accumulate. Sediment traps, like drips and collection tees, are required to be installed. Traps collect moisture and intercept and hold foreign objects which might block orifices and valves. A drip leg should be installed in vertical pipe runs to the appliance.

Supply Line Size Requirements

The proper gas line diameter must be used to run from the supply regulator (at the gas company meter) to the appliance. Never use galvanized or plastic pipe. Refer to the table below for suggested sizing of the gas supply line.

Suggested Sizing of Schedule 40 Pipe Supply Line

Schedule 40 Pipe Length (Feet)	Schedule 40 Pipe Inside Diameter (Inches)	
	Natural Gas	LP. Gas
0-10	1/2	3/8
10-40	1/2	1/2
40-100	1/2	1/2
100-150	3/4	1/2
150-200	3/4	1/2

Use an approved pipe sealant compound for NPT fittings. After all pipe connections are made, apply normal gas line pressure: 7.0" W.C. for natural gas; 11.0" W.C. for LP gas (propane) and use an approved leak detection solution to test for the tightness of each pipe connection joint.

⚠IMPORTANT

Compounds used on threaded joints of gas piping must be resistant to the actions of liquified petroleum gases.

IMPORTANT: All connections must be checked for leaks with a leak detector or soapy water solution. Never check for gas leakage with an open flame!

⚠CAUTION

Some soaps used for leak detection are corrosive to certain metals. Carefully rinse piping thoroughly after leak test has been completed. Do not use matches, candles, flame or other sources of ignition to check for gas leaks.

*** Note: ½ psi = 14" WC (inches water column).**

INSTALLATION

AIR PURGING PROCEDURES:

Purging Air from Supply Line

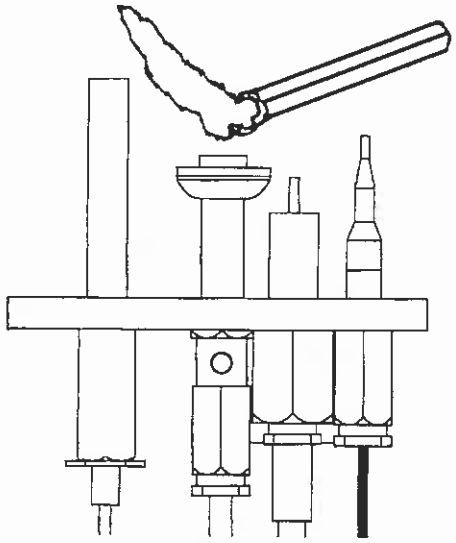
a. Turn gas supply line valve off.
b. Loosen setscrew at inlet pressure tap on upper right of control valve (see *Pressure Taps* on page 4).
c. Turn gas supply line valve on.
d. When gas flows, turn supply valve off.
e. Close the inlet pressure tap.

Purging **Air from** Appliance
Purge air from appliance by holding gas control valve down in the pilot position until pilot will light (see Fig. bellow).

DO NOT LIGHT A MATCH IF YOU SMELL GAS.

Light a match then allow gas flow to pilot. If the Match "blows", there is air in the line (purge line). If the flame is straight and tall, there is no gas pressure.

Pilot Assembly



Before beginning the assembly / installation process, the following preparations should be completed:

- Ensure that all the components are present (see Packaging List on page 3).
- Run gas supply line to the location of planned installation (see Gas Supply Hook-up, page 12).
- If an optional remote control kit or wall thermostat is to be used, route wires to location of planned installation. For more information on the following kits, see page 29: **Note: The 2 white wires from the burner tray assembly will only be used if an optional remote control kit is installed.**

  RC-STAT, Cat No. 98K99, Deluxe Remote Control
  RC, Cat No. 26N04, Standard Remote Control
  WTK, Cat No. 89L36, Wall Thermostat Kit

- Venting system components that will be required will vary depending on the venting configuration planned for and the height to the planned termination point (see pages 7 - 9). For venting component ordering information see pages 10 and 11.
- Plan for electrical outlet access (wall receptacle), if the optional Air Circulation Blower kit is to be installed.

  Cat. No. H0083, Blower kit

  Note: When installed, the power cord will reach approximately 8 feet from the lower back of the stove.

- If installation is higher than 2000 feet above sea level for USA or 4500 feet above seal level in Canada, a high altitude orifice kit is required.

  Cat. No. H0091, High Altitude Orifice Kit

- If the appliance is factory equipped for use with natural gas and propane (LP) gas is to be used, a natural gas to propane conversion kit is required.

  Cat. No. H0087, NG to LP Conversion Kit

- If the appliance is factory equipped for use with propane (LP) and natural gas is to be used, a propane to natural gas conversion kit is required.

  Part No. 45130, LP to NG Conversion

Note: See page 29 for additional information on ordering Optional Kits.

INSTALLATION

1. **Remove Stove from Pallet**
   a. Remove the screws which secure stove pedestal base to pallet.
   b. Gently lift the stove up and off the pallet.
   Note: Lifting the stove off the pallet requires a minimum of two people (each standing on opposite sides of the stove).

2. **Install stove and venting system per instructions on pages 6 to 13.**

3. **Open Door** – See Door Operation, page 17. Be very careful handling the gold door because the gold plating remains soft until it cures (see *"Break-In" Period*, page 19) and is easily scratched.

4. **Check (and adjust if necessary) the burner air shutter gap on burner tube** (see *Check / Adjust Burner Air Shutter Gap*, page 16).

5. **If an optional remote control is used, connect it to the two-(2) white leads.** See Wiring Diagram, page 23.

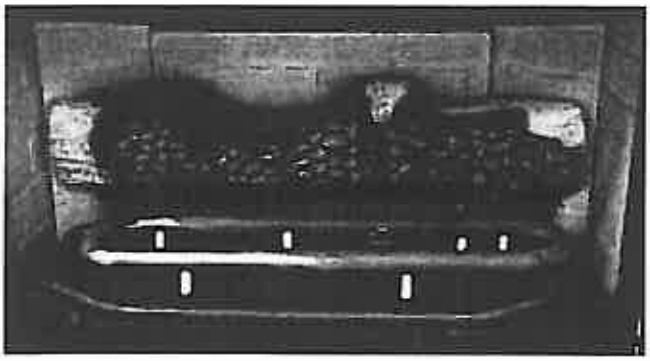
6. **Connect the gas supply line to the appliance.** See Gas Supply Hookup, page 12.

7. **Install Log Set:**
   After this appliance has been properly installed and all the gas connections have been made and tested, you can now install the log set. Note: The door should be removed from the stove as outlined on page 17 (see *Door Operation*).

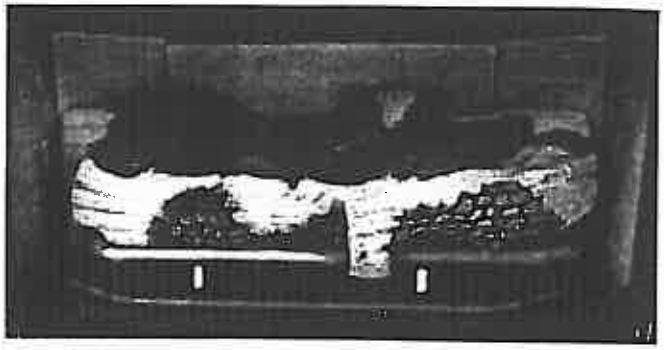
   WARNING: If logs are not installed according to the directions in this manual, flame impingement and improper combustion could occur and result in excessive production of soot and carbon monoxide (CO), a colorless, odorless, toxic gas.

This appliance is equipped with a six piece log set. Carefully install the logs into the firebox as shown on this page. All logs should fit down onto pins and mounts provided. This will ensure a proper flame and safe combustion.

a. Carefully place largest log in the rear of the firebox.

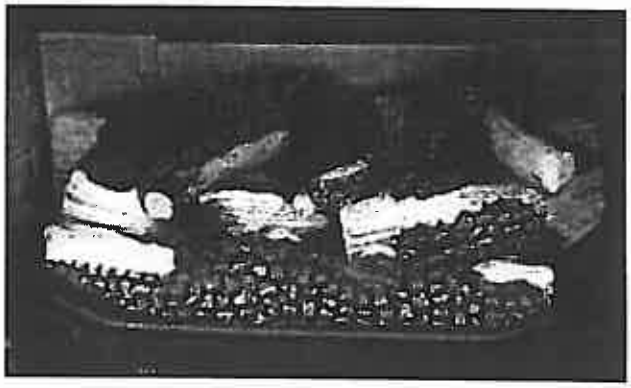


b. Place two middle logs as shown on the pins provided.



c. Place the front log as shown on the pins provided.

d. Place the two top twigs as shown on the pins provided.



INSTALLATION

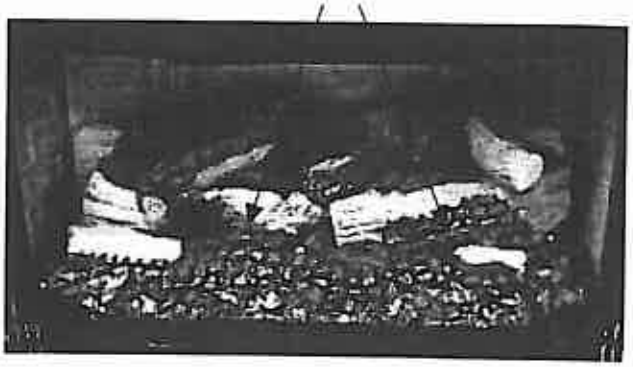
8. **Install Glowing Embers** - One package of ember material has been included with this gas appliance. You will not need to use the entire bag (additional ember material is provided for your future maintenance needs).

   IMPORTANT: The quantity and placement of the ember material can affect stove performance therefore it is very important that it be placed as shown in the picture below.

   Proper Placement of Ember Material: Unpackage and divide the fine ember material (mineral wool) into thumbnail sized fluffy pieces. Distribute the glowing embers over the front ember burner, around the front log and between the front log and the two middle logs.

Place embers across front ember burner tube.

Place Embers between the front Log and the two middle logs.



9. **Reinstall Gold Door** – Reinstall door as outlined on page 17 (see *Door Operation*). The gold door frame should be cleaned thoroughly with a good window cleaning solution and a soft cloth BEFORE the stove is burned. Do not use any metal polishes or abrasives to clean the door. Any oils or fingerprints left on the gold could become permanent blemishes if the stove is burned prior to their removal. After the first few fires, the gold will cure.

INSTALLATION

INSTALLATION CHECK LIST

Read and understand these instructions before using appliance. Go through this installation checklist:

- ❑ Ensure that the log set is properly installed. Use caution when handling the logs. See pages 14 and 15.
- ❑ Reinstall the door assembly. See *Door Operation* on page 17.

  WARNING: Do not operate appliance with the glass door assembly removed, cracked or broken. Replacement of the glass should be done by a qualified technician.
- ❑ Ensure venting termination cap is unobstructed.
- ❑ Check to see that wiring is correct and is contained to area inside the pedestal base (Ref. *Wiring Diagram*, page 23).
- ❑ Ensure that the relief door under the trivet on stove top is properly closed (see *Combustion Chamber Relief Door* on page 19).
- ❑ Verify that the gas line has been purged of air.
- ❑ Test all connections for leaks (factory and field) with a leak detector or soapy water solution. If you smell gas, do not attempt to light this appliance. Follow safety instructions on the front cover of this manual.
- ❑ Check / Adjust Burner Air Shutter Gap:

  Natural Gas – 3/8" gap Propane – 3/8" gap

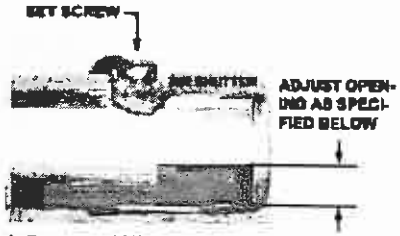
  Some adjustment from standard may be necessary for the desired flame characteristics (see *Burner Flame Appearance*, page 22).

<u>To adjust air shutter:</u>

Adjust Air Shutter. The standard burner air shutter opening is adjustable (see following picture). Check the air shutter gap and adjust if necessary as outlined in this section (see *Air Shutter Adjustment Guidelines* on this page).

To Adjust: Locate the phillips head setscrew positioned on the top of burner tube where burner orifice is located (see picture below). Use a phillips screwdriver to loosen the screw just enough so shutter can be rotated. Adjust gap as necessary and retighten setscrew.

Burner Air Shutter



Natural Gas: ¼" gap
Propane: ½" gap

Air Shutter Adjustment Guidelines:
If the burner flame appearance differs greatly from what is shown on page 22 (see Burner Flame Appearance), some adjustment from standard for the air shutter gap may be necessary (to compensate for variables in the installation and fuel such as, BTU value / composition, gas pressure, specific gravity of gas, altitude, etc.).

See "Burner Flame Appearance" on page 22 for guidelines on how to determine what is an acceptable burner flame appearance. The following chart is provided to aid you in achieving the correct air shutter adjustment for your installation.

Flame Appearance Chart

Amount of Primary Air	Flame Color	Air Shutter Adjustment
LOW →	More yellow than blue →	Increase gap
HIGH →	More blue than yellow →	Decrease gap

- ❑ Light the appliance following the instructions on page 18 (*Care and Operation*). Relight the main burner in both the HI, and LO positions, and verify proper burner ignition and operation.

  NOTE: Upon the initial firing of your new gas stove, you may notice an odor. This may last up to two hours. It is recommended to open the windows to allow fresh air to circulate into the room.

  WARNING: If the pilot does not light after 1 minute, wait at least 5 minutes for gas to clear before attempting again.
- ❑ With burner lit, check to make sure that the inlet gas and manifold pressures are correct (see *Gas Pressure*, page 4). Verify that the pilot and main burner ignition and operation are correct.
- ❑ If the optional air circulation blower kit is installed, plug the blower power cord into an 120 V, 60Hz, grounded outlet (see *Air Circulation Blower*, Page 4).

CARE AND OPERATION

DOOR OPERATION

The gold door assembly is mounted on hinges at the bottom of the stove firebox and is secured in the closed position by 2 latches at the top sides.

New Stoves - Be very careful handling the gold door because the gold plating remains soft until it cures (see *"Break-In" Period,* page 15) and is easily scratched. After setup of the logs and embers is complete, the glass door must be secured closed.

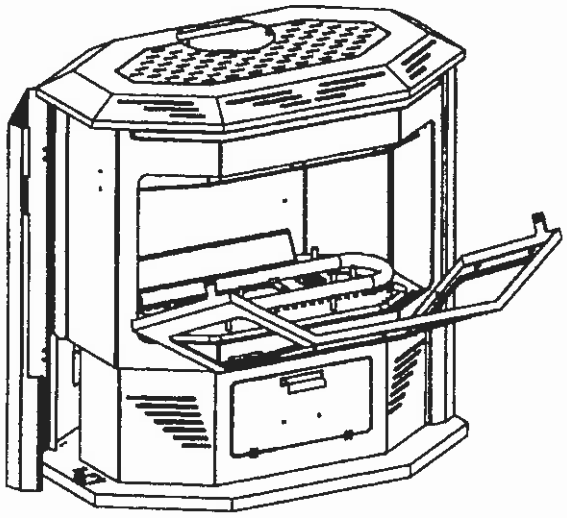
Opening and Removing Door

Read "Cautions" on this page.

The glass door can be easily opened and removed (if necessary for replacement or maintenance) as follows:

To open, unlatch the two door latches at the upper corners of the gold door. Carefully swing the door down to about a 10-degree angle and remove by sliding it to the left. To reinstall and close door, reverse this process

Door hinges down, then slide left to remove.



CAUTIONS:

- **Never operate the appliance with the door open or unlatched.**
- **Use only glass door assemblies certified for use with this appliance.**
- **Do not attempt to remove or replace broken glass in the door assembly.**
- **If the door assembly or glass is broken or damaged (in any way), they must be replaced before heater can be safely operated. Use only components provided by the manufacturer as replacement parts. Do not substitute any other glass or components on this heater. Using substitute components may lead to improper operation of heater and may be a safety hazard.**
- **Do not strike glass. Do not slam door shut. This may lead to breakage and / or leakage of flue products into dwelling.**

CARE AND OPERATION

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance has a pilot which must be lit. 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.

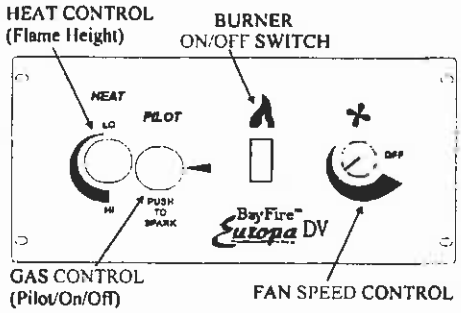
WHAT TO DO IF YOU SMELL GAS:

- 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 neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

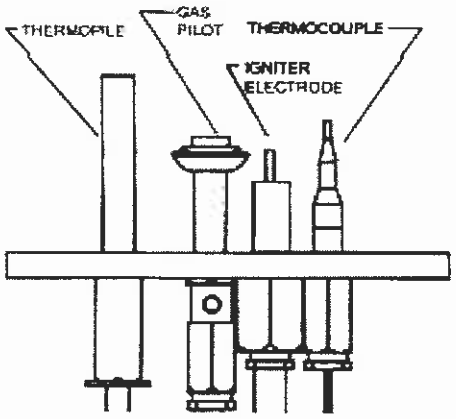
C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

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.

Gas / Burner Controls
(Located on front of pedestal base behind panel)



Pilot Assembly



LIGHTING INSTRUCTIONS

1. STOP! Read the safety information on this page or on label (on appliance).
2. Turn off all electrical power to the appliance (if optional blower is installed unplug blower power cord). Make sure the burner ON/OFF switch is in the OFF position.
3. Locate the gas / burner controls (on the front of pedestal base behind hinged access panel).
4. Push in gas control knob slightly and turn clockwise to "OFF."
   NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
5. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
6. Visually locate the pilot located in the center right of the firebox beneath the rear ceramic log.
7. Turn knob on gas control counterclockwise to "PILOT."
8. This appliance contains a spark ignition system (battery operated piezo igniter), which is used to light the pilot. Push in the gas control knob all the way and hold it in (the battery operated piezo igniter will automatically spark). The spark produced by the piezo igniter should light the pilot. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release the gas control knob and it will pop back out. The pilot should remain lit.
   - If it goes out, repeat steps 4 through 8.
   - If the 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 3 or 4 tries, turn the gas control knob to "OFF" and call your Service technician or gas supplier.
9. Turn gas control counterclockwise to "ON." Use rocker switch, located either on the control panel or the exterior side panel, to operate main burner. Adjust variable pressure dial (RB Regulator / Flame Height Control) to set burner flame to desired heat output.
10. If optional thermostat is used set it to desired temperature.
11. If optional remote control is used, turn ON / OFF switch to "OFF" position.
12. Swing the control access door closed.
13. Turn on electrical power to the appliance (if optional blower is installed, plug in power cord).

Notes

- If valve gas control knob is turned to the off position after pilot has been lit, the unit must cool down for at least five minutes before pilot can be relit (magnet in valve will not lock in until cool).
- For Shut down Procedure, see *To Turn Off Gas To The Appliance* on page 19.
- Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.
- The Pilot will have to be relit when resumed use of the appliance is desired (see *Lighting Instructions* on this page).

CARE AND OPERATION

TO TURN OFF GAS TO THE APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.
2. Locate the gas / burner controls (below the glass door assembly).
3. Push in gas control knob slightly and turn clockwise ↱ to "OFF."

"BREAK-IN" PERIOD

There will be some odor during the first few burns from the curing of the stove paint. Depending on your use, this may take a few hours or a few days. The dwelling should be well ventilated during these initial burns.

KEEP YOUR HOUSE WELL VENTILATED DURING THE CURING PROCESS. THE ODOR AND HAZE EMITTED BY THE CURING PROCESS CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR.

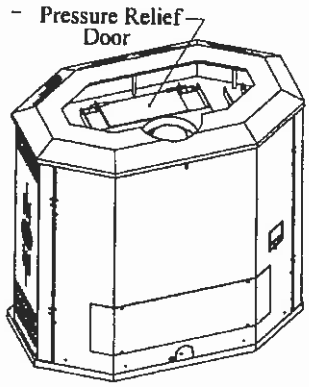
If the optional *Air Circulating Blower Kit* (see page 29 for ordering information) is installed, do not turn on a blower during the break-in period. Do not place anything on the stove surface until the paint is completely cured.

Do not attempt to repaint the stove until the paint is completely cured. If the surface later becomes stained or marred, it may be lightly sanded and touched up with spray paint (See *Small Area Paint Touch-Up*, page 20). Paint is available at your local authorized Lennox Hearth Products dealer. Never attempt to paint a hot stove.

COMBUSTION CHAMBER PRESSURE RELIEF DOOR

This appliance is equipped with a relief door (located under the trivet on the stove top) in case of delayed ignition blow back. If the relief door opens, inspect for gasket damage. If necessary, replace with factory supplied gasket only. Confirm that the relief door is closed and properly seated.

Pressure Relief Door



MAINTENANCE

LOG SET

Removing & Cleaning Logs - Carefully remove the logs (removing top twigs then front middle and rear logs. See log instructions on page 14). Use care when handling the fiber logs, as they become quite fragile after curing. Use a small soft-bristled brush (e.g., a nylon paint brush) to remove soot, dust or debris that may have accumulated on the burner or log set. See page 14, *Install Log Set* for instructions on reinstalling logs and page 15 for installing glowing embers.

Suggestion - Remove the logs and burner tube, and clean them outside the home in a location with plenty of fresh air ventilation. Avoid breathing fine particulates of dust that may be generated.

Replacing Logs - If logs become damaged by accident or improper handling and need replacement, use only replacement logs provided from manufacturer, which can be purchased from your local dealer. See page 27 and 28, item #19.

CLEANING BURNER

With the logs removed, vacuum out any foreign matter (lint, carbon etc.) on the burner tube. Be sure the burner ports are "open." Inspect and clean air shutter opening to ensure that it is free from lint, dust, spider webs or any debris (see burner air shutter illustration, page 16).

CLEANING BURNER

With the logs removed, vacuum out any foreign matter (lint, carbon etc.) on the burner tube. Be sure the burner ports are "open." Inspect and clean air shutter opening to ensure that it is free from lint, dust, spider webs or any debris (see burner air shutter illustration, page 16).

CLEANING VALVE

Clean all lint and dust build-up around the control valve. Inspect and clean with a brush for any spider webs or lint accumulation.

INSPECT WIRING / CAUTIONS:

1) Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
2) Verify proper operation after servicing.
3) Inspect and clean all wire connections. Ensure that there is no melting or damage. Inspection should include:
   - Terminals at the valve
   - On / Off switch
   - Wall Thermostat / Remote Control (optional kits)

VENTING SYSTEM

A periodic examination of the venting system must be performed to ensure that the flow of combustion and ventilation air is not obstructed (outlet and inlet is open and free from blockage). We recommend that you have your gas appliance checked yearly by your independent Lennox dealer.

If the vent-air intake system is disassembled for any reason, the service technician should follow vent manufactures instructions for proper reassembly and sealing of the vent-air intake system.

IMPORTANT – APPLIANCES INSTALLED USING SIMPSON DURA-VENT BRAND PIPE MUST SEAL ALL JOINTS WITH MILL-PAC BLACK, HIGH TEMPERATURE SEALANT.

CLEAN EXTERNAL SURFACES

External surfaces should be kept clean and dust removed form air inlets to the appliance. The flow of combustion and ventilation air must not be obstructed. The appliance must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.

SMALL AREA PAINT TOUCH-UP

The stove body is painted with a quality high-temperature stove paint. Use only model TSPK-B Stove Paint, Catalog # 70K99. Do not touch-up this appliance with any other paint.

Using one small piece of 320 grit sand paper and lightly sand the blemish so that the edges are "feathered" or smooth to the touch between the painted and bare surfaces. Do not let the sand paper gum up with paint, as this will cause scratches on the metal surface. If there are any scratches, use 600 grit sandpaper instead. Mask off surfaces you do not want painted. Paint lightly over the bare surface first as this will act as an undercoat. Then paint over a larger area in smooth even strokes to blend.

See *Break-In Period* on page 19 for information on curing the paint.

MAINTENANCE

CLEANING GLASS

The window on the gas appliance is made from a clear ceramic material and may be cleaned when cool with any non-abrasive product designed for use on glass windows. Do not use abrasive cleaners on glass. The viewing glass should be cleaned periodically. Exterior glass may be cleaned with an ammonia-based glass cleaner as desired. Interior glass - use soap and water, or commercial glass cleaner recommended for stove glass.

Note: Each time the appliance is lit, it may cause condensation and fog on the glass. This condensation and fog will disappear in a few minutes.

(If Optional Blower Kit Is Installed)
CLEANING BLOWER INTAKE

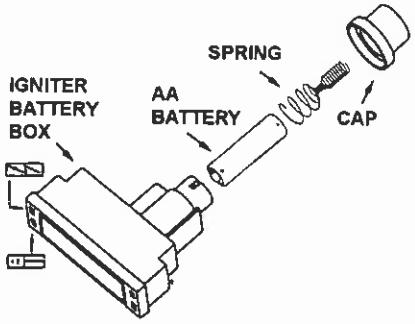
Unplug power cord. Remove any deposits from the room air blower inlets (accumulations of carpet fibers, pet hair, dust, etc.). Use a brush and / or light vacuuming for cleaning. The frequency of cleaning should be increased if pets are in the dwelling. The room air blower is equipped with sealed lubricated bearings that do not need additional lubrication. For this reason, it is recommended that you do not try to add any drops of oil to them (excess oil can ruin the blower).

BATTERY OPERATED IGNITER

1. Inspect AA Battery (located behind hinged panel on the right side of stove body. Remove cap to access).
   a. Inspect battery for signs of corrosion, replace if necessary.
   b. Check battery charge using battery tester (or voltmeter. See note below). Replace battery if a low charge is indicated.

   Note: Battery charge can be checked using a voltmeter. Set voltmeter to 2 volt DC. Touch voltmeter leads to each end of battery, voltmeter should read 1+ volt.

Igniter Battery Box Assembly



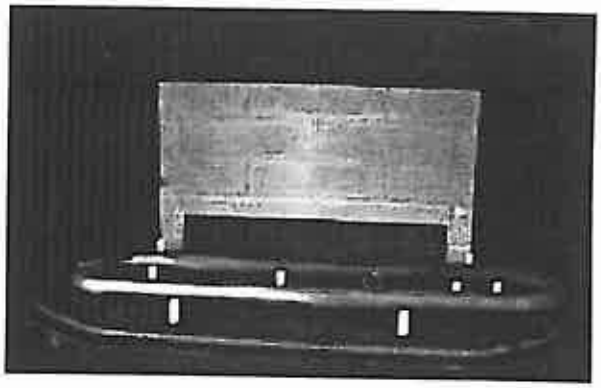
Keep the area near the appliance clear and free from combustible materials, gasoline and other flammable vapors and liquids.

Check for carbon monoxide presence

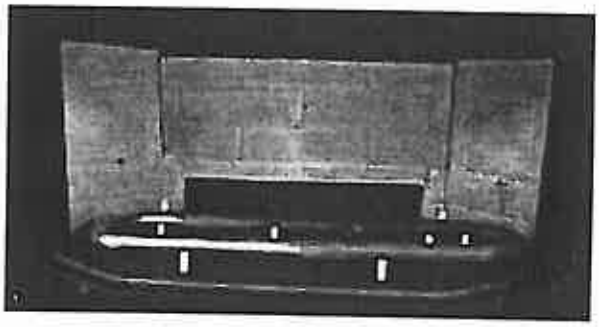
Check for gas leaks

Replacing Brick Panel Set

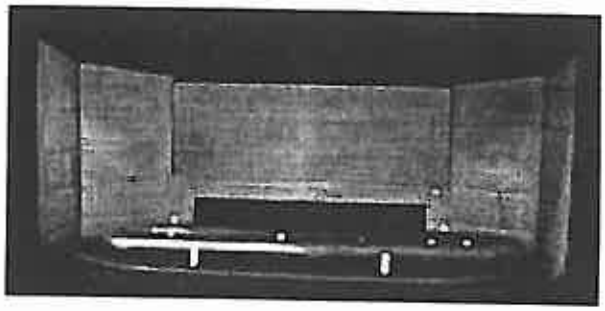
1. Remove Door (see *Door Operation*, page 17).
2. Install back brick panel.



3. Install corner brick panels.



4. Install front brick panels.



MAINTENANCE

PERIODIC CHECK OF PILOT AND BURNER FLAMES

Check the operation of the pilot and cycle the burner. Visually check the flame of the burner making sure the flames are steady; not lifting or floating. The flame color should be blue at the burner with yellow body and tops.

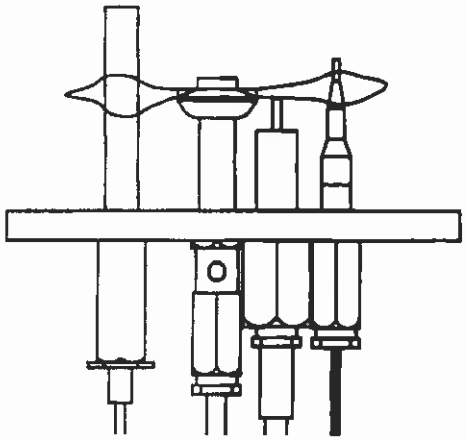
Cycle unit a minimum of 2 times

- Watch for smooth burner ignition and shut down.
- Burner: Check flame patterns. Ensure that burner flame appearance does not vary greatly from diagram shown on this page.
- Pilot: Ensure pilot flame appearance does not vary greatly from diagram shown below.

Pilot Flame Appearance

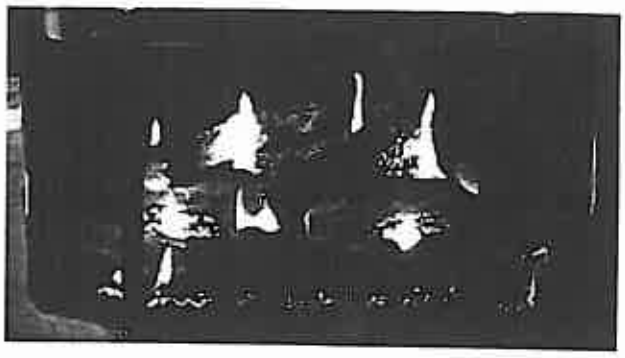
A proper pilot flame should consist of torch-like flame issuing from the pilot hood as shown in illustration below.

Proper Pilot Appearance



Burner Flame Appearance

A periodic visual check of the pilot and burner flames should be performed. If either the pilot or burner flame do not show proper appearance or behavior, as outlined here, consult a qualified gas appliance technician.



A proper burner flame is shown above. The burner flame should have the following characteristics after initial start-up (let appliance burn 15 to 20 minutes prior to accessing flame appearance):

- Excessive impingement (contact of flame with logs) should not occur.
- Rear burner flames should have yellowish tips; no soot should form at burner flame tips.
- Flames should not rise off of burner (no "lifting" of flame).

The burner flame can be adjusted to give the proper flame appearance and to prevent sooting on the window or logs by adjusting the position of the primary air shutter (see *Air Shutter Adjustment*, on page 16).

NOTE: During periods of high natural gas demand, the gas supplier may add "make-up gases" to the pipeline. This addition will change the composition of the supply gas, and may cause a change in burner flame appearance. You may also notice soot formation on the logs and viewing windows. Check with your gas supplier if you suspect a change in the composition of your gas supply.

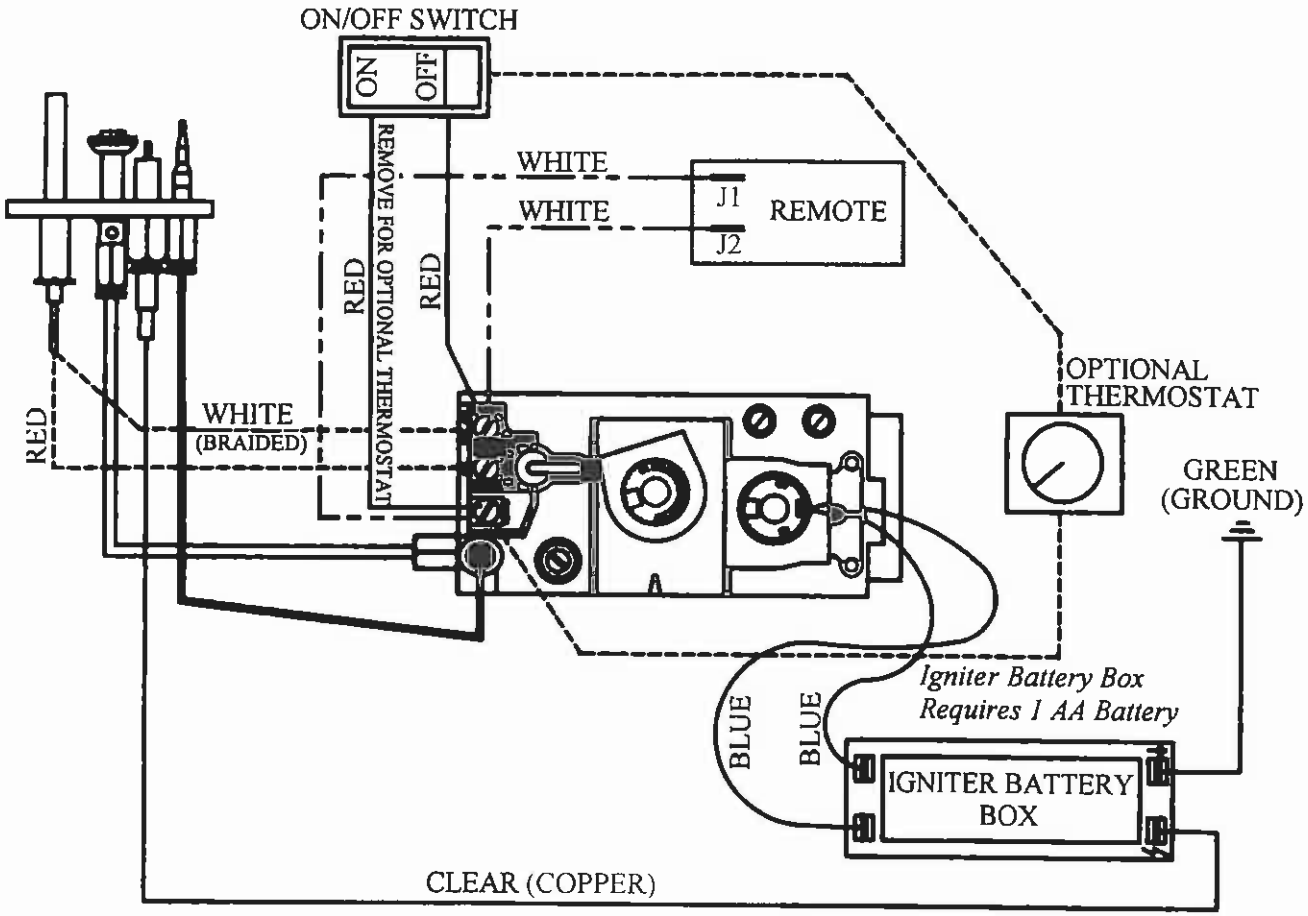
WIRING DIAGRAM

GAS CONTROL AND SAFETY SYSTEM WIRING DIAGRAM

CAUTION: Label all wiring prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

The gas control wiring diagram shown here should be used by service technicians for guidance when troubleshooting problems with the pilot safety (millivolt) system or burner remote control system or when locating system components for repair / replacement. Note: If replacement of any of the original wire is necessary, use 105°C thermoplastic wiring.

GAS CONTROL AND SAFETY SYSTEM WIRING DIAGRAM



TROUBLESHOOTING *(Qualified Technicians Only)*

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Igniter will not light the pilot after holding down pilot knob. **WARNING: IF THE PILOT WILL NOT LIGHT AFTER 1 MINUTE OF ATTEMPTING, WAIT FOR AT LEAST 5 MINUTES FOR GAS TO CLEAR BEFORE ATTEMPTING AGAIN.**	A. Check Battery at igniter battery box (Battery Operated Igniter, page 21).	• Replace AA battery if necessary • Check for loose connection on igniter and igniter battery box. • Check for spark. If electrode connection is correct and no spark, replace igniter.
	B. Misaligned electrode at pilot.	Spark should be extending approx. 1/8" to thermopile. Adjust gap to give proper spark. Remove hands from electrode before pressing pilot knob.
	C. Air is not purged from gas lines.	Purge line by holding gas control knob down in the pilot position until gas is available.
	D. Hood Misaligned.	Realign.
	E. No gas.	Turn on gas.
	F. Wire Disconnected	Check wiring.
2. Pilot will not light.	A. Poor connection of thermopile wires at valve terminals.	Be sure thermopile is secured tight into pilot bracket.
	B. Defective Thermopile.	Check millivolts, replace as needed. 325 mv minimum.
	C. Pilot knob not held down long enough or not fully depressed.	Depress to bottom and hold down for 45-60 seconds.
	D. Main burner switch "ON".	Turn main burner switch "OFF"
	E. EMU wire loose (black wire from underside of valve to terminal).	Check wiring for loose connection.
	F. Faulty EMU.	Check valve*. Replace valve if necessary.
3. Pilot light will not stay lit.	A. Improper pilots adjustment.	Check pilot flame. Adjust flame, if necessary.
	B. Poor connection of thermopile wires at valve terminals.	Be sure thermopile is secured tight into pilot bracket. Be sure wiring connections are tight throughout system.
	C. Defective thermopile.	Check thermopile voltage with meter. Depress valve knob and light pilot. Meter should read a minimum of 325 millivolts with the ON / OFF switch in the "OFF" position. Minimum of 150mv is required with the main burner engaged. * Replace thermopile if necessary.
	A. Insufficient millivolt production.	Wait 60-90 seconds after pilot engages and check thermopile millivolts. 325 millivolts minimum. * Replace thermopile if necessary.
4. Pilot drops out when main burner is switched on.	B. Main burner switch wired incorrectly.	Correct wiring.
	C. Main burner wire shorted or stressed.	Check wire and correct if necessary.
	D. Faulty main burner EMU.	Check valve. * Replace valve if necessary.
	E. Improper pilot adjustment.	Check pilot flame. Adjust flame if necessary.
	F. ON / OFF switch defective.	Check ON / OFF switch for proper connections. Connect wires across terminal at ON / OFF switch. If burner comes on, replace ON / OFF switch. If not, jumper junctions at valve. If burner comes on, replace wires.
5. With pilot lit, valve and ON / OFF switch in "ON" position, no gas burner.	A. ON/OFF switch defective.	Check ON / OFF switch for proper connections. Connect wires across terminal at ON / OFF switch. If burner comes on, replace ON / OFF switch. If not, jumper junctions at valve. If burner comes on, replace wires.
6. Glass develops milky white film (on inside).	A. Result of byproducts in the fuel / mineral residues..	Follow cleaning guidelines outlined in the MAINTENANCE section of this manual, on page.
7. Glass fogs up.	A. A normal result of gas combustion.	No action necessary. After the heater has warmed up, the glass will clear.
8. Blue flames.	A. A normal result during the first 20 minutes.	No action is necessary. Flames will begin to turn more yellowish after about 20 minutes of burning.
9. Sticking valves.	A. Debris and moisture from the gas line clogging valve.	Improper plumbing, no drip leg in line to prevent travel of moisture and dirt. * Replace damaged valve or burner tray assembly and correct plumbing.
10. Flame noise –rumbling / gurgling.	A. Excessive primary air.	Adjust burner air shutter.
11. Orifice noise (buzz or whistle).	A. Trash lodged in orifice.	Clean orifice; replace if necessary.
	B. Burr in main burner orifice.	Debur or replace orifice.
	C. Excessive gas pressure.	Check inlet & manifold gas pressure. See page 4.

TROUBLE SHOOTING *(Qualified Technicians Only) Continued*

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
12. Soot &/or Floating flames. Usually accompanied by the odor of aldehydes. Sooting – First Rule Out: Soot staining and soiling of carpets, drapes, windows & other household components can often be traced to the use of such items as candles, oil lamps, incense, and other misc. aromatic off-gassing materials. ***IF SOOT IS NOT PRESENT IN THE FIREBOX, IT CANNOT BE THE SOURCE OF THE EXTERNAL SOOT.***	A. Sooting - Free carbon produced by potentially dangerous improper / incomplete combustion of gas. B. Floating Flames: Lazy, ill-defined, quiet flame, which roll around sometimes completely off the port. Potentially dangerous incomplete combustion.	• Check appliance input rate (gas pressure: inlet and manifold, & burner orifice size) and reduce if necessary. • Insufficient secondary air due to restricted exhaust flow (the rate at which the exhaust leaves determines the rate at which the secondary air is delivered). Horizontal run (requires ¼" rise per foot horizontal), inner pipe not secured, vent termination interference. Blocked burners / Flame impingement: Correct log & burner positioning. • Insufficient primary air (yellow tipping): Adjust primary air. • IN ALL CASES: Annual Service Procedure should be performed. • Propane Units: LP tanks can suffer pressure decreases, which can result in sooting as it approaches empty. • Higher Elevations – Derate per manual (see *High Altitude, on* page 4).
13. Burner Flashback Air / gas mix-ture ignites inside burner near ori-fice, creating roaring noise (like blowtorch). Production of carbon monoxide & aldehydes possible. Soot may clog inside of burner. Problem: Imbalance of gas flow velocity & burning speed pattern.	A. Excessive primary air.	Reduce primary air, being careful to avoid yellow tipping.
	B. Burner input underrated	Check input rate. Check input pressure using a manometer. Replace *RB regulator or burner tray assembly if necessary. Confirm correct gas pressure at house meter or tank (call gas company). Improper gas pipe size, correct plumbing. Confirm correct size burner orifice (see chart under "High Altitude").
	C. Valve leak if flashback occurs w/ burner valve in "OFF" position.	• Replace valve.
14. Delayed Ignition (makes a sudden "whoosh" noise as burner lights).	A. This is a buildup of gases prior to ignition. This is more prevalent with propane (LP) fuel, since gas is heavier.	• Primary air shutter closed too far. Adjust shutter to correct gap. • Burner ports plugged, not allowing proper flame travel. Open ports. • Pilot is not positioned closed enough to light up row on burner. Adjust pilot location. • Logs placed improperly interfering with flame travel. Correct log positioning. • Unit not properly derated for higher altitudes. Derate unit. • Excessive gas pressure - Call gas company. • (Propane units). Burner tube is not level, not allowing correct mix of primary air and gas.
15. Flame lifts from burner and pilot.	A. Air Starvation. Poor connection of inner pipe. No rise on horizontal run of pipe.	Raise cap so that inner pipe has at least a 1/4" rise per 1 (one) foot of horizontal run. Check pipe connections.
16. Intermittent lifting and cycling of flame. Possible intermittent pilot dropout problems.	A. High wind conditions.	Install high wind cap.
	B. Cap Obstructed.	Check for siding or other materials obstructing or overlapping vent cap. Reset cap ensuring that nothing overlaps or obstructs it.
	C. Inner pipe disconnected from elbow.	Reconnect inner pipe. If inner pipe is not secured to elbow with three screws, pipe can disconnect and cause venting problems. Remove cap - reach inside and reset pipe to elbow.
	D. Improper clearances from vent to surrounding environment (windows, soffits, etc). This is both an operational & safety concern.	Correct installation.
	E. External Environment- Buildings / trees / rooflines interfering w/ venting.	Correct installation.
17. Low flame. Possible intermittent pilot dropout problems.	A. The (vent pipe) air restrictor rings left out.	Install restrictor rings.

TROUBLE SHOOTING *(Qualified Technicians Only)* ***Continued***

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
18. Smell of gas	A. Loose fittings may be allowing gas to leak out.	Check all joints for leakage: pilot assembly, gas supply system, main burner assembly, pilot and burner adjustment screws. Use a proper leak check solution. WARNING: Never use an open flame to check for leaks.
18. A thin coating of black soot forms on the window. NOTE: See page 21, *Cleaning Glass.*	A. Burner primary air inlet is restricted or blocked.	Be sure all openings (fresh air inlets) in stove are free from dust and debris. Recheck these areas periodically.
	B. Flames make contact with logs or other surfaces.	Make sure logs are in their correct positions.
	C. Improper venting.	Check for flue blockage, disconnected flue, improper installation, negative air pressure inside building (with respect to exhaust exit), or "down draft" situation. Make appropriate corrections.

Reference information for qualified technician:

Thermopile / Thermocouple Operation

- Thermopile: Millivolt production should be a minimum of 325 MV with pilot only.
- Thermocouple: Millivolt production should be a minimum of 14 MV with pilot only.

Drop out rate

- TP 50-60 MV
- TP 1 1/2-2 Min. (3 max.) if longer, replace thermopile.

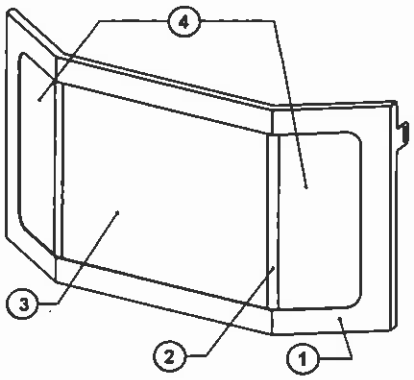
REPLACEMENT PARTS – Model: *Europa*

Item No.	Part No. / Cat. No.	Description
		Door Parts
1	45040	Door Assembly, Gold
2	45045	Glass, Black Out Strips (order 2 if set is needed)
	26M81	Gasket Kit, Door, 3/4" Rope - 8 ft.
	27M80H	Gasket Kit, Glass, 3/8" – 16 ft. (self adhesive backing)
3	45043	Glass, Center 14 1/8 X 15 13/16" (gasket not included)
4	45044	Glass, Side 14 1/8 X 6 3/16" (gasket not included. Order 2 if set is needed)
	49054	Clip, Front Glass (order 2 if set is needed)
	49056	Clip, Glass Corner (order 4 if set is needed)
	49057	Clip, Glass Corner (order 2 if set is needed)
	45084	Door Hinge, Front Set, Right
	45085	Door Hinge, Front Set, Left
26	45082	Door Hinge "A", Set, Left
27	45083	Door Hinge "B", Set, Right
		Gas / Electrical Parts
5	45110	Burner Tray Assembly, Natural Gas
5	45120	Burner Tray Assembly, Propane (LP)
6	10750092	Valve, SIT Nova, Natural Gas
6	10850057	Valve, SIT Nova, Propane (LP)
11	45135	RB Regulator, Natural Gas
11	45136	RB Regulator, Propane (LP)
7	45059	Pilot Assembly, Natural Gas (includes pilot tube, igniter electrode, thermopile, thermocouple, & pilot orifice)
7	45063	Pilot Assembly, Propane (LP) (includes pilot tube, igniter electrode, thermopile, thermocouple, & pilot orifice)
	26M76	Pilot Tube Kit, 0.199.620, 24",includes fittings
8	45143H	Orifice, Pilot - Natural Gas #51
8	45144	Orifice, Pilot - Propane (LP) #35
	25072	Orifice, Burner - Natural Gas, Front #53
	49113	Orifice, Burner - Natural Gas, Rear #33
	45064	Orifice, Burner - Propane (LP), Front #62
	25093	Orifice, Burner - Propane (LP), Rear #52
9	18050	Thermopile, 24"
10	32041	Thermocouple, 24" with brass threaded retainer (for securing to pilot bracket).
13	45052H	Burner Tube, Main (rear)
14	45053H	Burner Tube, Ember (front)
15	45091	Battery Box, Igniter
16	45061	Battery Switch, Igniter
	45062	Ground Wire 12" (For Igniter)
17	410-270	Switch, On/Off (Burner)
	25095	Wire Harness, Valve
		Fan System (Optional Kit)
	45070H	Blower Assembly
	45070-2	Wire Harness, Blower (includes power cord)
	528	Rheostat W/Connectors (knob not included)
	00821	Disc, Low Limit (thermally activated fan disc)
25	527	Knob, Rheostat

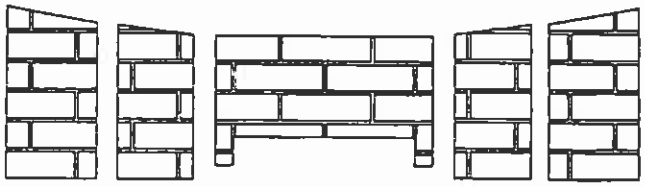
REPLACEMENT PARTS – Model: *Europa*

Item No.	Part No. / Cat. No.	Description
		Firebox / Log Parts
18	45101	Panel Set, 5 Piece Brick
19	45100	Log Set, 6 Piece Fiber
	85L53H	Glowing Embers, Bag
		Miscellaneous Component Parts
20	39020	Knob, Pilot
21	39028	Knob, Hi /Lo (flame height control knob)
28	45036	Panel, Control (face plate)
	45089H	Installation and Operation Manual
	25015	Gasket, Relief Door
	45011	Outer Top Panel
	45015H	Louver, Lower Top
	45016H	Louver, Upper Top
22	45013H	Top Inset Panel, Black (trivet 22 X 8 7/8")
	45025	Hinged Side Panel, Left
	45021	Hinged Side Panel, Right

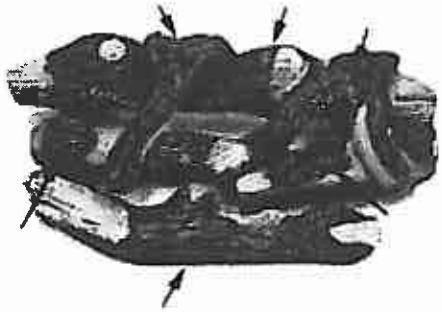
DOOR ASSEMBLY (1)



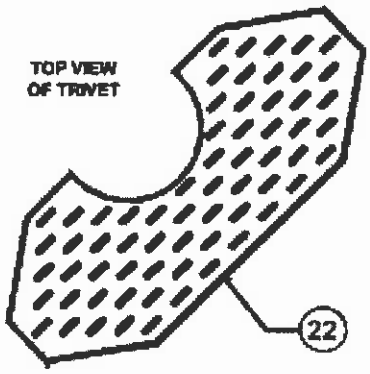
5 PIECE BRICK PANEL SET (18)



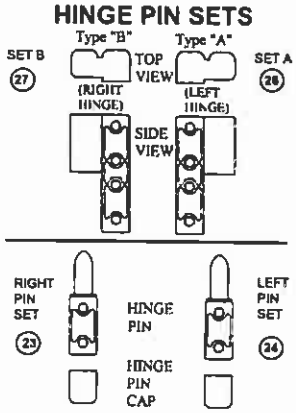
6 PIECE LOG SET (19)



BLACK TRIVET (22)
(Inset On Stove Top)

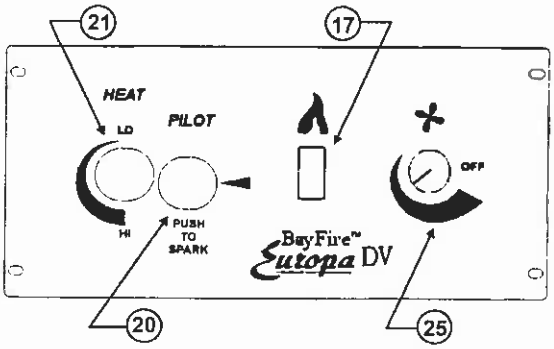


HINGE PIN SETS

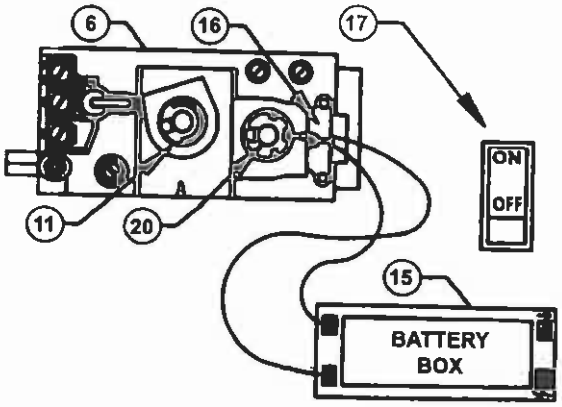


REPLACEMENT PARTS – Model: *Europa*

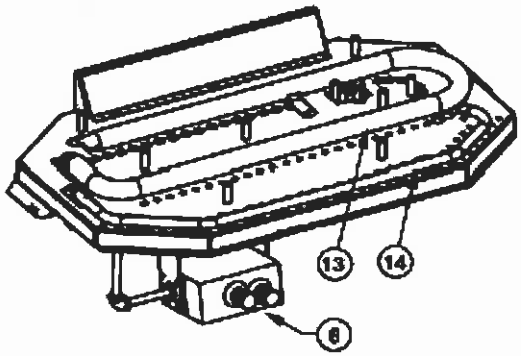
CONTROL PANEL SWITCH & KNOB LOCATIONS



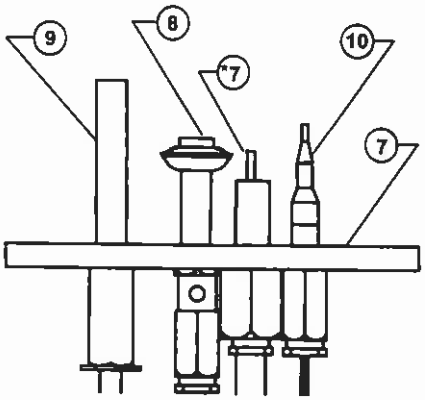
CONTROLS



BURNER TRAY ASSEMBLY (5)



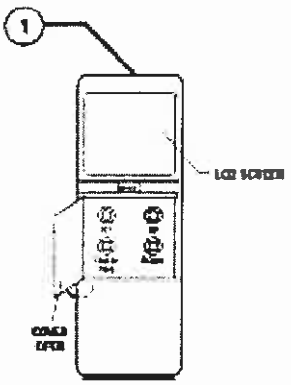
PILOT ASSEMBLY (7) (Side View)

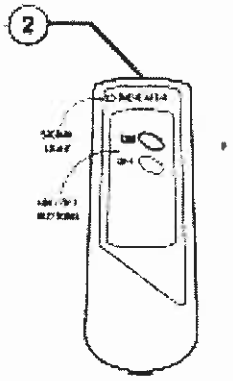


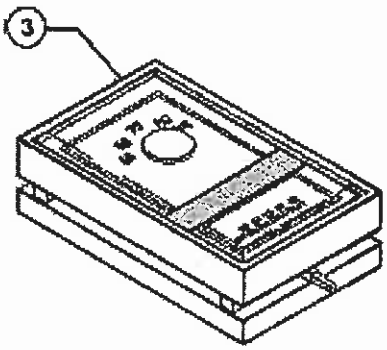
**** If the igniter electrode is needed, order pilot assembly, #7***

OPTIONAL ACCESSORIES – Model *Europa*

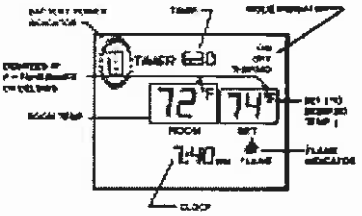
Item #	Part # / Cat. #	Model	Description
1	98K99	RC-STAT	Remote Control (radio frequency, deluxe w/thermostat)
2	26N04	RC	Remote Control (radio frequency, standard on/off)
3	89L36	WTK	Thermostat, Wall
4	45160H	ITS-L/D	Top Inset Panel, Gold (Trivet 22 X 8 7/8")
5	45070H	FA-Europa	Blower Kit w/Rheostat & Fan Sensor (TOD)
	70K99	TSPK-B	Paint, Black Metallic (12 oz. spray can)
	45140H	GCKNL-EUR	Conversion Kit, Propane (NG to LP)
	45130	GCKLN-EUR	Conversion Kit, Natural Gas (LP to NG)
	85L53H	FGE	Glowing Embers, Bag
	45150H	HAOK-EUR	High Altitude Kit (up to 2,000 ft. USA, up to 4,500 Canada)

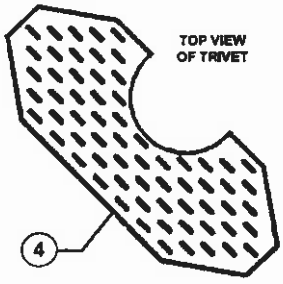




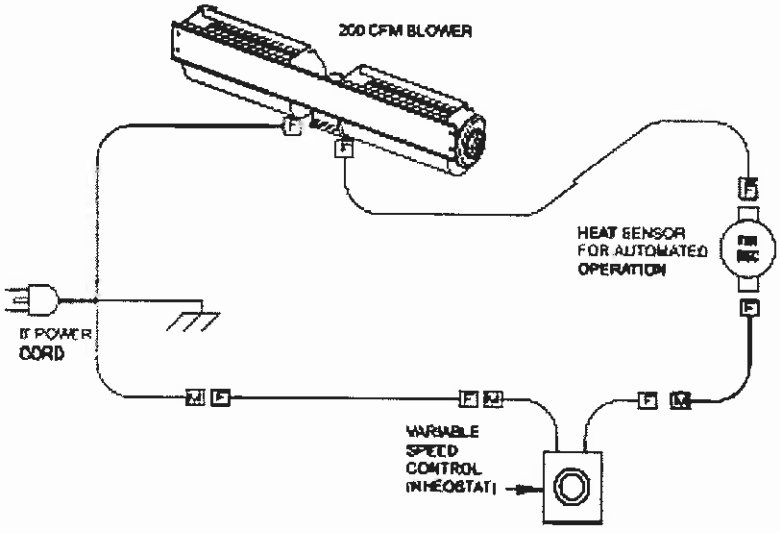


(1) Deluxe Remote Features





(5) Blower Kit



FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A. This appliance is equipped with an electronic ignition device to light the pilot. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING, smell 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:

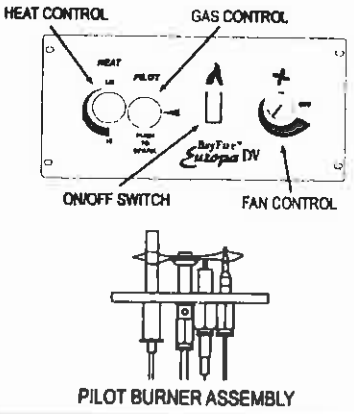
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in or turn the gas control knob. Never use any 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 technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn On/Off switch to the "OFF" position.
3. Turn off all electric power to the appliance.
4. Turn gas control clockwise ↷ to "OFF".
5. Wait five (5) minutes to clear out any gas. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
6. Find pilot-follow metal tube from gas control. The pilot is behind the right hand end of the right middle log.
7. Turn gas control knob on control counterclockwise ↶ to "PILOT".



8. Push the knob down all the way and hold in that position. Ignitor automatically sparks until Pilot is lit. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release button and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 4 through 8 holding knob down an additional fifteen (15) seconds.
   - If button does not pop up when knob is released, stop and immediately call your service technician or gas supplier.
   - If pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
9. Turn gas control counterclockwise ↶ to "ON". Knob can be turned to "ON" only if the control knob has popped up.
10. Turn On/Off switch to "ON". This will light the main burner.
11. Adjust flame height with heat control knob counterclockwise ↶ for full flame, clockwise ↷ for reduced flame.
12. If optional wall thermostat is used, set to desired temperature.
13. After fan comes on, adjust to desired airflow.

TO TURN OFF GAS TO APPLIANCE

1. Turn off the On/Off switch.
2. Turn off electric power to the appliance if service is to be performed.
3. Turn gas control clockwise ↷ to "OFF". Do not force.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air. See installation and operating instructions accompanying the appliance.

Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shut off system can result in carbon monoxide (CO) poisoning and possible death.

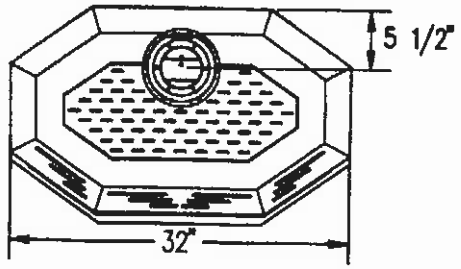
SPECIFICATIONS: Model BayFire™*Europa*

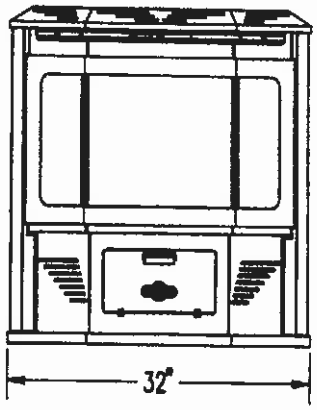
Approx. Sq. Ft.
Heating Capacity~1800 square feet.

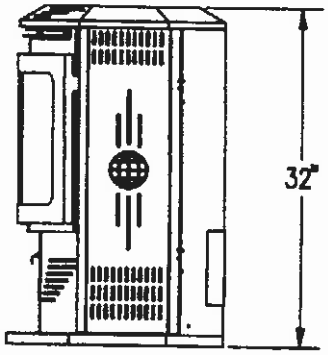
Flue Size	4" – Top Flue Outlet
Intake Pipe	6 5/8"
Height Overall	32"
Height (to flue)	29 ½"
Width Overall	32"
Depth Overall	20 ¼"
Fuel	Natural or LP Gas. Gas inlet 3/8" NPT.
Performance Features	Variable Flame Control. High Efficiency plenum heat exchanger. Natural convection & radiant heat.
♦ Safety Test	Listed by ITS (Intertek Testing Services. Listing mark is Warnock Hersey) as a Direct Vent, Gas Fired Room Heater to: ANSI Z21.88-1998 *CSA 2.33-M98 Direct Vent Gas Fireplace CAN/CGA 2.17-M91 (For High Altitude)
Heat Input	26,000 - 43,000 BTU's (Natural Gas) 26,000 - 38,000 BTU's (Propane)
Ship Weight	250 lb.'s.

Options:
NG Conversion Kit
LP Conversion Kit
High Altitude Kit
Blower Kit (200 cfm) w/ Rheostat & Fan Sensor
Remote Control *(Standard or Deluxe with Thermostat)*
Wall thermostat
Gold Top Trivet

~ Square feet heating capacities are approximations only. They will vary depending upon the level of insulation, climate, house design, ceiling height, ambient outside temperatures and how the stove is operated.







Note: Dimensions shown are approximations only (+/- ¼")

SPECIFICATIONS			
GAS TYPE	**NATURAL GAS**	**PROPANE GAS (LP)**	**MINIMUM CLEARANCES TO COMBUSTIBLES**
Orifice Size	#33 front / 53 rear	#52 front / 62 rear	Back Wall 5 In. / 127 mm
Min. Supply Pressure	4.5" WC	10.5" WC	Side Wall 7 In. / 178mm
Output BTU / Hr (efficiency)			Corner (45° angle) stove corner to wall 5 In. / 127mm
Blower On	30,800 (* 77%)	30,800 (* 77%)	Ceiling Minimum 83 In. / 2108 mm
Blower Off	30,000 (* 75%)	30,000 (* 75%)	Alcove Min. Height 83 In. / 2108 mm
HIGH SETTING			Alcove Min. width 46 In. / 1168 mm
Manifold Pressure	3.5" WC	10.0" WC	Alcove Max. Depth 48 In. / 1220 mm
Input BTU / HR	43,000	38,000	Max Wall Thickness 31 In. / 788 mm
LOW SETTING			
Manifold Pressure	1.7" WC	3.6" WC	
Input BTU / HR	26,000	26,000	

Altitude - U.S.A. 0-2000 Ft. (0-610M) No derating *
Altitude - Canada 0-4500 Ft. (0-1372M) No derating *
* With the orifice, manifold pressure and input ratings shown above. Allitudes above 2000 FT (610M) for USA and 4500 FT (1372M) for Canada, reorifice per manual and consult local codes.

Elect. Rating - Blower #45070H; 120V, 60 Hz, 1.1A

This Appliance is equipped at the factory for the use with Natural Gas or Propane (LP). Units using propane must be either factory LP or field conversion using the LP Conversion Kit, #45140H. Units using natural gas must be either factory natural gas or field converted using The Natural Gas Conversion Kit #45130.

SAFETY / LISTING LABEL

LISTED GAS FIRED DIRECT VENT ROOM HEATER

Tested & Listed by
Warnock Hersey
C US

Model BayFire™ FS
Certified for use in USA and Canada.
May be installed in Manufactured Mobile Homes.

EARTH STOVE™
BY LENNOX HEARTH PRODUCTS

Tested to ANSI Z21.88-1998*, CSA 2.33-M98 Direct Vent Gas Fireplace and CAN/CGA 2.17-M91 (FOR HIGH ALTITUDE)

This appliance is only for use with the type of gas indicated on the rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. See owner's manual for details. This appliance is not convertible for use with other gases, unless a certified kit is used.

This stove is factory equipped for: ☐ Natural Gas ☐ Propane (LP)

SPECIFICATIONS				
GAS TYPE	NATURAL GAS	PROPANE GAS (LP)	MINIMUM CLEARANCES TO COMBUSTIBLES	
Orifice Size	33 / 53	52 / 62	Back Wall	5 in. / 127 mm
Min. Supply Pressure	4.5" WC	10.5" WC	Side Wall	7 in. / 178 mm
Output BTU/HR			Corner (45° angle)	5 in. / 127 mm
Blower On	30,800	30,800	Corner to Wall	
Blower Off	30,000	30,000		
HIGH SETTING			Ceiling Minimum	83 in. / 2108 mm
Manifold Pressure	3.5" WC	10.0" WC	Alcove Min. Height	83 in. / 2108 mm
Input BTU/HR	43,000	38,000	Alcove Min. Width	46 in. / 1168 mm
LOW SETTING			Alcove Max. Depth	48 in. / 1220 mm
Manifold Pressure	1.6" WC	6.4" WC		
Input BTU/HR	26,000	26,000		

Altitude - U.S.A. 0-2,000 Ft. (0-610 M) No derating *
Altitude - Canada 0-4,500 Ft. (0-1372 M) No derating *
* With the orifice, manifold pressure and input ratings shown above.
Altitudes above 2,000 Ft. (610 m) for USA and 4,500 Ft. (1372 m) for Canada, reorifice per manual and consult local codes.

Electrical Rating:
Blower (Part # 45070H)
120 V, 60 Hz, 1.1 A

This appliance is equipped at the factory for use with either Natural Gas or Propane (LP). Units using propane must be either factory LP or field converted using The LP Conversion Kit, part # 45140H. Units using natural gas must be either factory natural gas or field converted using The Natural Gas Conversion Kit, part #45130.

Install and use only in accordance with the manufacturer's installation and operating instructions. Keep the burner and control compartment clean. This appliance must be installed in accordance with local codes, if any. If not, follow the current ANSI Z223.1 National Fuel Gas Code in USA, and CGA B149 in Canada. Electrical connections and grounding must be in accordance with local codes, if any. If not, follow the current National Electrical Code ANSI/NFPA 70 in USA, or CSA C22.1 Canadian Electrical Code in Canada.

This appliance must be properly connected to a venting system in accordance with the manufacturer's installation instructions. This appliance may be installed in a bedroom.

WARNING: Improper installation, adjustment, alteration, service or maintenance, can cause property damage, personal injury or loss of life. Refer to the owner's information manual provided with this appliance. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

CAUTION: Hot while in operation. Do not touch. Keep children, furniture, gasoline and other liquids with flammable vapors away. Never operate unit with glass door off.

Mfg. by Lennox Hearth Products; 1110 West Taft Avenue; Orange, CA 92865

DO NOT REMOVE THIS LABEL MADE IN USA IGN

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

SERVICE AND MAINTENANCE LOG

Service Date	Service Technician	Service Description

LENNOX®

HEARTH PRODUCTS

1110 West Taft Avenue
Orange, CA 92865