City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Issue Date:	CBL:
05-0011	PERMIT ISSUED	~~351~~ A028001

Location of Construction:	Owner Name:	Owner Address:	Phone:
104 Shepherd Ln	Scala Michael F &	104 Shepherd Ln	JAN 14 2005
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Frost N Flame	629 Main St-Portland Gorham	CITY OF PORTLAND
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		HVAC	R2

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Single Family	Single Family install a Starbridge gas heater	$48.00	$2,431.45	5

FIRE DEPT: ☐ Approved ☐ Denied

Signature:

INSPECTION: Use Group: R3 Type: HVAC

Signature: JMB 1/13/05

Proposed Project Description:
Install a Starbridge gas heater w/direct venting

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
dmartin	01/05/2005

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☑ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date: JMB 1/13/05	Date:	Date: JMB

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

351 A28

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 104 Shepherd Lane Portland Use of Building Residential Date 12/30/04

Name and address of owner of appliance 104 Shepherd Lane Portland

Installer's name and address Frost + Flame Dennis Knudsen

629 Main St. Gorham Telephone 856-7000

Location of appliance:
- ☒ Basement (Daylight)
- ☐ Floor
- ☐ Attic
- ☐ Roof

Type of Fuel:
- ☒ Gas
- ☐ Oil
- ☐ Solid

Appliance Name: Sturbridge

U.L. Approved ☒ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☒ Yes ☐ No

IF NO Explain:

The Type of License of Installer:
- ☐ Master Plumber #
- ☐ Solid Fuel #
- ☐ Oil #
- ☒ Gas # PNT 1606
- ☐ Other

Type of Chimney:
- ☐ Masonry Lined
  Factory built
- ☐ Metal
  Factory Built U.L. Listing #
- ☒ Direct Vent
  Type Simpson Dura-Vent UL# 3N98

Type of Fuel Tank
- ☐ Oil
- ☒ Gas

Size of Tank 50

Number of Tanks 1

Distance from Tank to Center of Flame 20+ feet.

Cost of Work: $ 2431.45

Permit Fee: $ 48.00

Approved

Fire:

Ele.:

Bldg.: JMB

Approved with Conditions

☐ See attached letter or requirement

Inspector's Signature

Date Approved

Signature of Installer

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
05-0011	01/04/2005	351 A028001

Location of Construction:	Owner Name:	Owner Address:	Phone:
104 Shepherd Ln	Scala Michael F &	104 Shepherd Ln	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Frost N Flame	629 Main St. Portland	
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		HVAC	

Proposed Use:	Proposed Project Description:
Single Family install a Starbridge gas heater	Install a Starbridge gas heater w/direct venting

Dept: Zoning **Status:** Approved **Reviewer:** Jeanine Bourke **Approval Date:** 01/13/2005

Note:

Ok to Issue: ☑

Dept: Building **Status:** Approved **Reviewer:** Jeanine Bourke **Approval Date:** 01/13/2005

Note:

Ok to Issue: ☑

1) The installation must comply with the State of Maine Gas Regulations.

- Direct Vent Freestanding Stove
- Natural Gas or Propane
- Vent Horizontally or Vertically
- Standard Residential
- Mobile Home Approved

Featuring the Ember Fyre Burner

Tested and Listed by

OMNI-Test Laboratories, Inc.
Beaverton, Oregon
Report # 028–S–50-5
ANSI Z21.88

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal 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 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 the gas supplier.**

This appliance may be installed as an OEM installation in a manufactured (mobile) home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, Title 24 CFR, Part 3280.

This appliance is only for use with the type(s) of gas indicated on the rating plate. A conversion kit is supplied with the appliance.

Sturbridge Owner's Manual

Installer: After installation give this manual to the homeowner and explain operation of this heater.

 Part # 100-01142

Travis Industries, Inc.
10850 117th Place N.E. Kirkland, WA 98033

Specifications

Features:

- Ember Fyre™ Burner for "Wood Fire" Look
- Works During Power Outages (millivolt system)
- High Efficiency
- Optional Thermostat or Remote Control
- Optional Blower for Quicker Heat Distribution
- Convenient Operating Controls
- Variable-Rate Heat Output
- Low Maintenance

Installation Options:

- Freestanding Stove
- Horizontal or Vertical Vent
- Residential or Mobile Home
- Straight or Corner Placement
- Bedroom Approved

Heating Specifications:

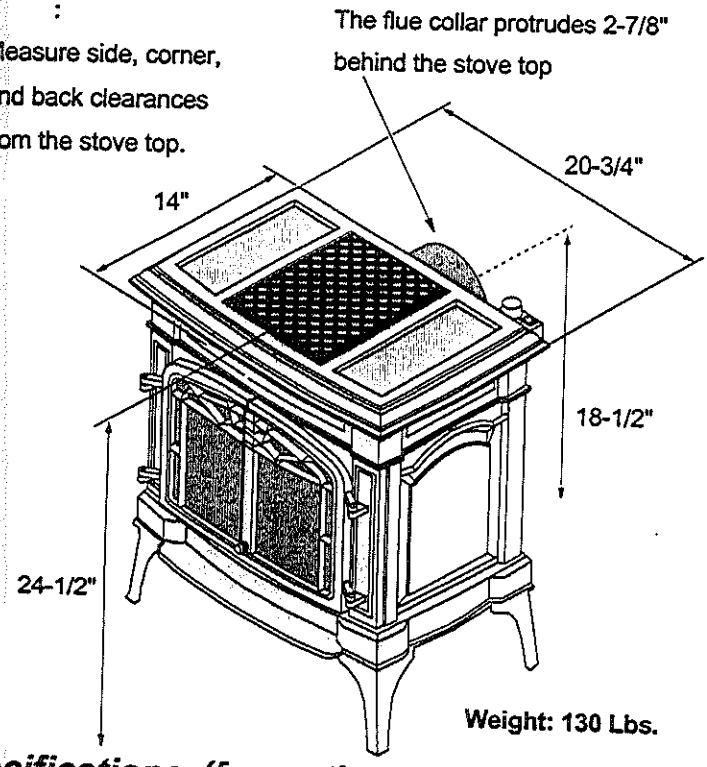
Approximate Heating Capacity (in square feet)*.....up to 850 with Blower, up to 650 Without
Maximum Input (in BTU's) 18,000
Minimum Output On Low (in BTU's).....9,900
Steady State Efficiency.....up to 80.1%
AFUE (without blower) .....Up to 67.8%

* Heating capacity will vary depending on the home's floor plan, degree of insulation, and the outside temperature.

** Efficiency rating is a product of thermal efficiency rating determined under continuous operation independent of installed system.

Dimensions & Weight:

Measure side, corner, and back clearances from the stove top.



Weight: 130 Lbs.

Electrical Specifications (for optional blower)

Electrical Rating.....115 Volts, 1.3 Amps, 60 Hz (150 watts on high)

Fuel:

This heater is shipped in natural gas (NG) configuration but may be converted to propane (LP) using the included LP conversion kit. The sticker on top of the gas control valve will verify the correct fuel.

Installation Warnings:

- **Failure to follow all of the requirements may result in property damage, bodily injury, or even death.**
- **This heater must be installed by a qualified installer who has gone through a training program for the installation of direct vent gas appliances.**
- **This appliance must be installed in accordance with all local codes, if any; if not, in U.S.A. follow ANSI Z223.1 and NFPA 54(88).**
- **In Manufactured or Mobile Homes must conform with 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. This appliance may be installed in Manufactured Housing only after the home is site located.**
- **This stove is designed to operate on natural gas or propane (LP).**
- **All exhaust gases must be vented outside the structure of the living-area. Combustion air is drawn from outside the living-area structure.**
- **Notify your insurance company before hooking up this stove.**
- **The requirements listed below are divided into sections. All requirements must be met simultaneously. The order of installation is not rigid – the qualified installer should follow the procedure best suited for the installation.**

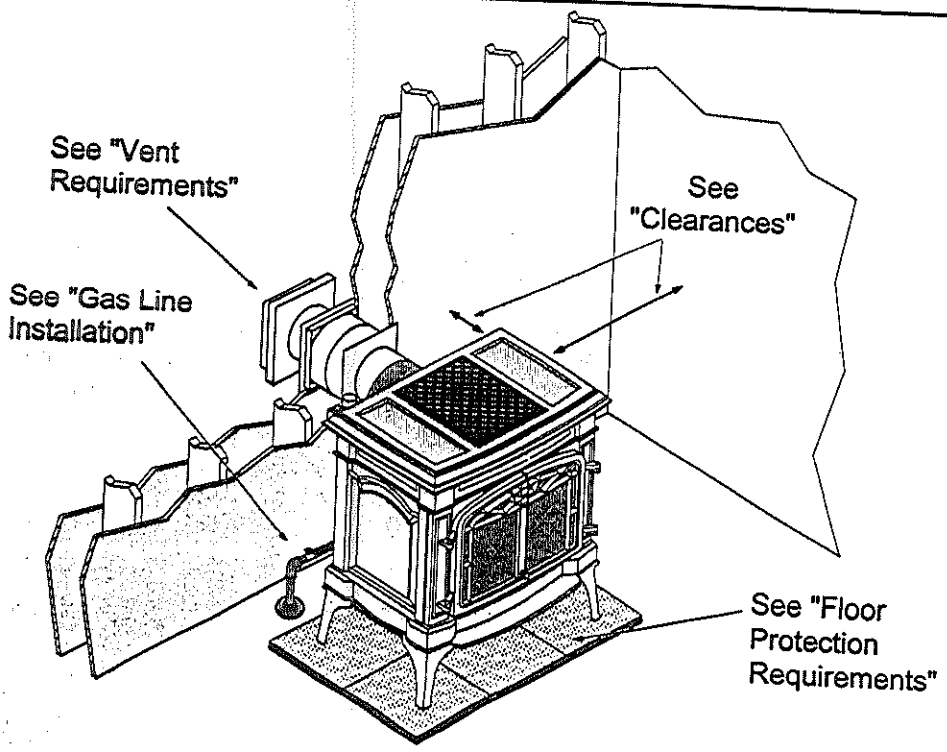
Packing List

- Propane Conversion Kit
- Log Set
- 2" Pipe, 8" Pipe, and 90° Elbow (for gas inlet)
- Door Latch Tool (to un-latch glass frame)
- Touch-Up Paint

Additional Items Required

- Vent (see "Venting Requirements" for details)
- Gas Line Equipment (shutoff valve, pipe, etc.)

Installation Overview

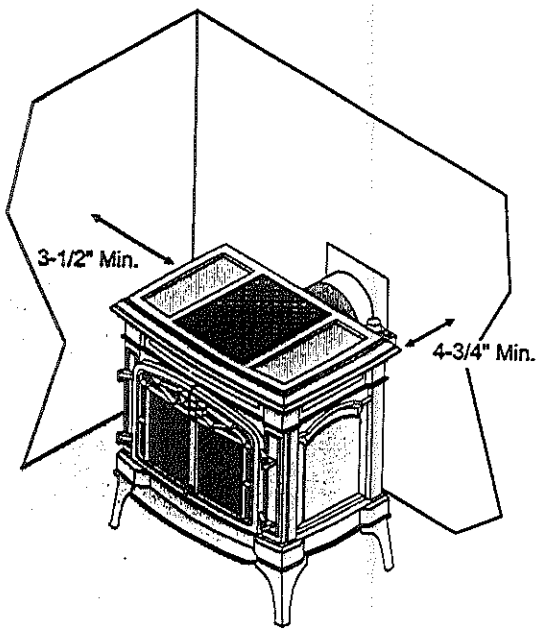


Installation Hints:

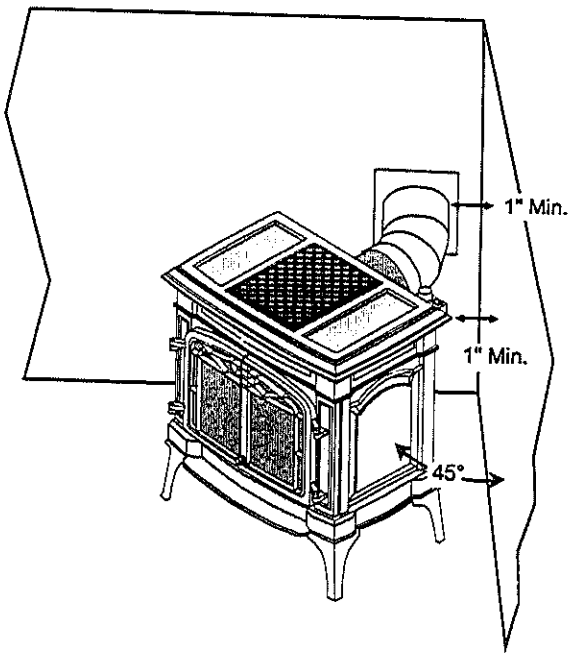
- If converting to LP, convert the appliance prior to installation.
- The blower is easiest to install prior to installation. Because the blower is located near the gas inlet location, we recommend using the included pipe and elbow to route the gas inlet around the blower position.
- Install the logs last - they are fragile.
- When determining the location of the stove, locate the wall studs (for horizontal penetrations) and ceiling trusses (for vertical penetrations). You may wish to adjust the stove position slightly to ensure the vent does not intersect with a framing member.
- Fumes and smoke from the paint curing and oil burning off the steel may occur the first time you start this heater. This is normal. We recommend you open windows to vent the room.

Stove Clearances

Straight Installations



Corner Installations



Mobile Home Requirements

- When the stove is installed in a mobile home, it must be bolted to the floor.
- When the optional blower is installed it must be connected to a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the optional blower cord.

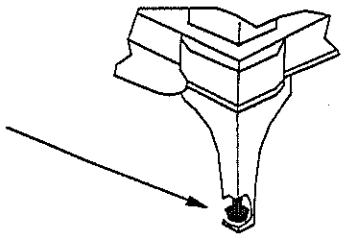
Heater Placement Requirements

- Heater must be installed on a level surface capable of supporting the heater and vent
- Due to the high temperature of the heater, it should be located out of traffic and away from furniture and draperies. Heater must be placed so no combustibles are within, or can swing within 36" of the front of the heater (e.g. drapes, doors)
- When placed in a location where the floor to ceiling height is under 7 feet, the installation is considered an alcove and must meet the following requirements:
  - The alcove floor to ceiling height must be at least 36" tall
  - The alcove must not be more than 48" deep before the ceiling returns to 7'
  - The alcove must be at least 27-3/4" wide
- The heater must not be placed so the vents below or above the door, along the sides of heater, or along the back of the heater can become blocked.
- This heater may be placed in a bedroom. Please be aware of the large amount of heat this appliance produces when determining a location.

Floor Protection Requirements

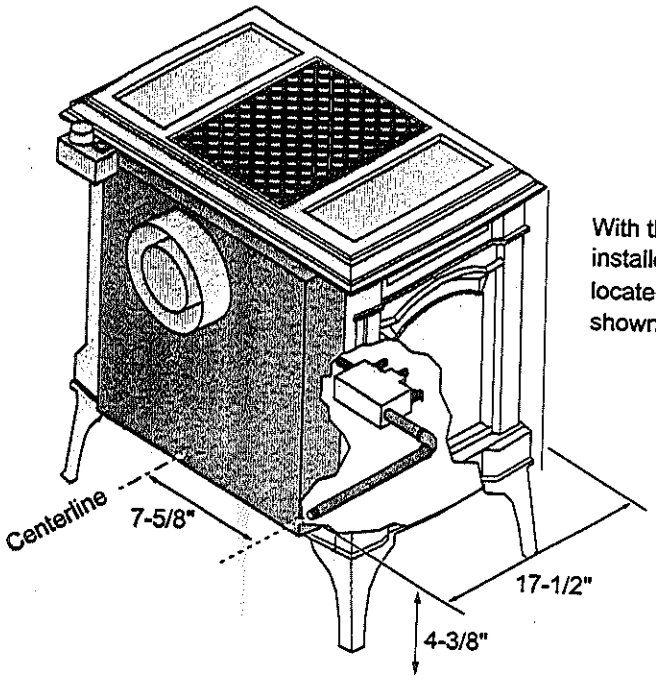
- When the stove is installed directly on carpeting, vinyl or other combustible material other than wood flooring or a high pressure laminate wood floor, the stove must be installed on a metal or wood protection panel extending the full width and depth of the stove top (Minimum 20-3/4" wide by 14" deep).

Make sure these rubber tipped bolts on each leg contact the floor (they dampen any noise that may transmit through the hearth). Do not adjust with weight on the legs, the rubber tips may tear.



Gas Line Installation

- ! The gas line must be installed in accordance with all local codes, if any; if not, follow current ANSI Z223.1 or NFPA 54.
- ! The heater and gas control valve must be disconnected from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45 kPA). For pressures under 1/2 psig (3.45 kPA), isolate the gas supply piping by closing the manual shutoff valve.
- This heater is designed for natural gas but can be converted to propane. Check the sticker on top of the gas control valve to verify the correct fuel is used (see page 4).
- Leak test all gas line joints and the gas control valve prior to and after starting the heater.
- The gas inlet accepts a 3/8" F.P.T. Fitting
- The location of the gas inlet is shown below
- A manual shutoff valve is required for installation (it must be located within 3' of the heater). T-Handle gas cocks are required in Massachusetts in compliance with code 248CMR.
- Installation must be performed by a qualified installer, service agency or the gas supplier (In Massachusetts a licensed plumber/gasfitter).



With the included pipe installed, the gas inlet is located at the location shown below.

Gas Inlet Pressure

- With the heater off, the inlet pressure must meet the requirements listed in the table below
- If the pressure is not sufficient, make sure the piping used is large enough and the total gas load for the residence does not exceed the amount supplied.
- The supply regulator (the regulator that attaches directly to the residence inlet or to the propane tank) should supply gas at the suggested input pressure listed below. Contact the local gas supplier if the regulator is at an improper pressure.

	Standard Input Pressure
Natural Gas	7" W.C. (1.74 Kpa)
Propane	13" W.C. (3.23 Kpa)

Vent Requirements

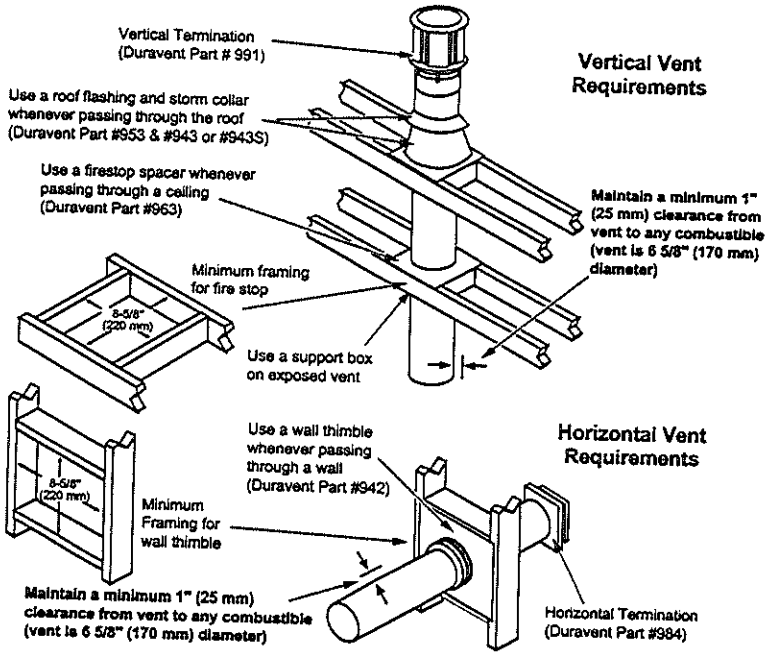
! Always maintain the required 1" clearance (air space) to combustible materials to prevent a fire hazard. Do not fill air spaces with insulation.

! The gas appliance and vent system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas-burning appliance. Each direct vent gas appliance must use it's own separate vent system.

- This appliance is equipped only for altitudes 0-2000 ft. However, our in-house testing has shown that the unit operated at altitudes to 8000 ft.

! Failure to adjust the air shutter properly may lead to improper combustion which can create a safety hazard. Consult your dealer or installer if you suspect an improperly adjusted air shutter.

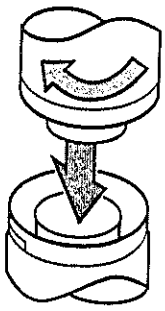
- When the vent passes through a wall, a wall thimble is required. When the vent passes through a ceiling, a support box or firestop is required. When the vent passes through the roof, a roof flashing and storm collar are required. Follow the instructions provided with the vent (from Duravent®) for installing these items.



- Use Model GS Direct Vent manufactured by Simpson Dura-Vent only (or the Chimney Conversion Kit - see Addendum #2). Follow the installation instructions included with the vent. For the nearest Simpson Dura-Vent supplier, call (800) 835-4429. Part numbers and descriptions are listed below.

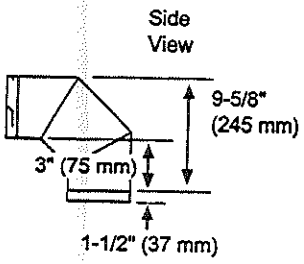
Straight Lengths		Vent Terminations		Penetration, Support Parts	
908B	6" Pipe Length, Black (interior)	981	Snorkel Termination (36" rise) (for basement installations)	942	Wall Thimble
907B	9" Pipe Length, Black (interior)	982	Snorkel Termination (14" rise) (for basement installations)	940	Optional Wall Thimble Cover
906	12" Pipe Length, Galvanized	984	Horizontal Square Termination	941	Cathedral Ceiling Support Box
906B	12" Pipe Length, Black (interior)	950	Vinyl Siding Standoff	943	Flashing, 0/12 to 6/12 Roof Pitch
904	24" Pipe Length, Galvanized	991	Vertical Termination	943S	Flashing, 7/12 to 12/12 Roof Pitch
904B	24" Pipe Length, Black (interior)	Elbows		953	Storm Collar
903	36" Pipe Length, Galvanized	990	90° Elbow	963	Ceiling Firestop
903B	36" Pipe Length, Black (interior)	990B	90° Elbow, Black (interior)	988	Wall Strap
902	48" Pipe Length, Galvanized	945	45° Elbow		
902B	48" Pipe Length, Black (interior)	945B	45° Elbow, Black (interior)		
911B	11" to 14 5/8" Pipe, Adjustable, Black (interior)				

- Slide the vent sections together and turn 1/4 turn until the sections lock in place.
- Screws are not required to secure the vent. However, three screws may be used to secure vent sections together if desired.
- High temperature sealant is recommended at the appliance starter section connection (use high-temperature silicone or Mill-Pac®).
- If disassembly is required, at time of re-assembly check to see if the vent creates a tight fit. If it does not, apply high temperature sealant to the joints of the affected sections.
- Horizontal sections require a 1/4" rise every 12" of travel
- Horizontal sections require non-combustible support every three feet (e.g.: plumbing tape)



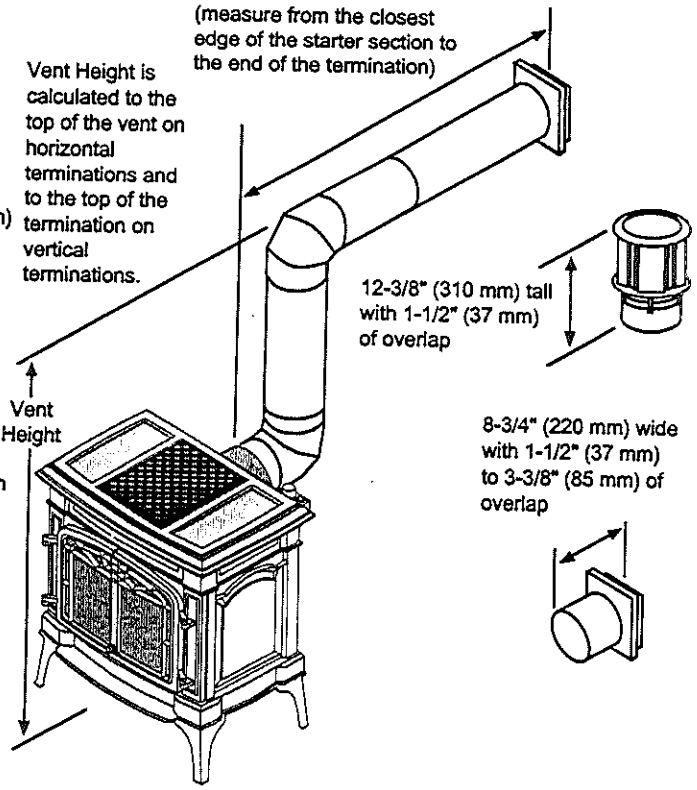
Measuring Vent Lengths

Elbows add 3" (75 mm) to the length of the vent system.

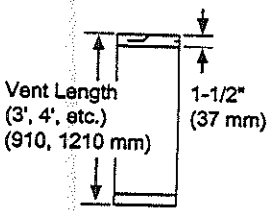


Vent Height is calculated to the top of the vent on horizontal terminations and to the top of the termination on vertical terminations.

Vent Horizontal Run (measure from the closest edge of the starter section to the end of the termination)

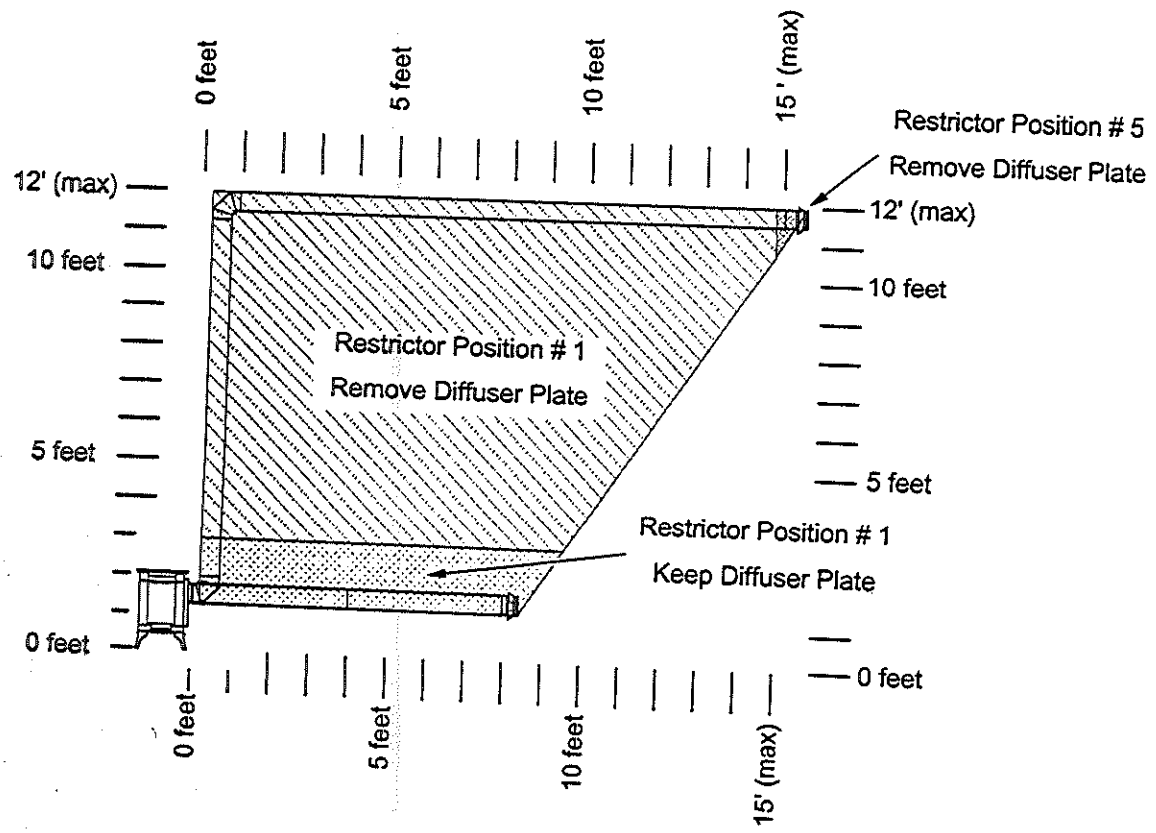


Vent sections overlap each other by 1-1/2" (37 mm)



Approved Venting Configurations for Horizontal Terminations

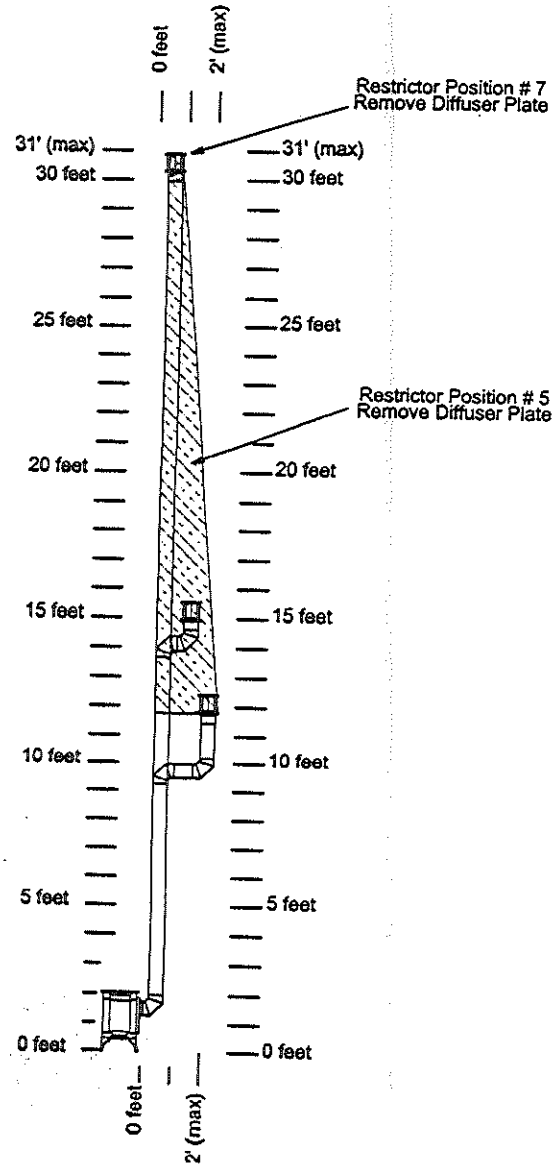
- 12' Maximum System Height
- 15' Maximum Offset
- The termination must fall within the shaded area shown in the chart. Use the indicated restrictor position.
- One 45° elbow may be used. It must be positioned horizontally (connecting one horizontal section or starter section to a horizontal section).
- If using a Snorkel Termination (14" or 36") add the snorkel height to the vertical height (snorkel terminations are used primarily for basement installations).



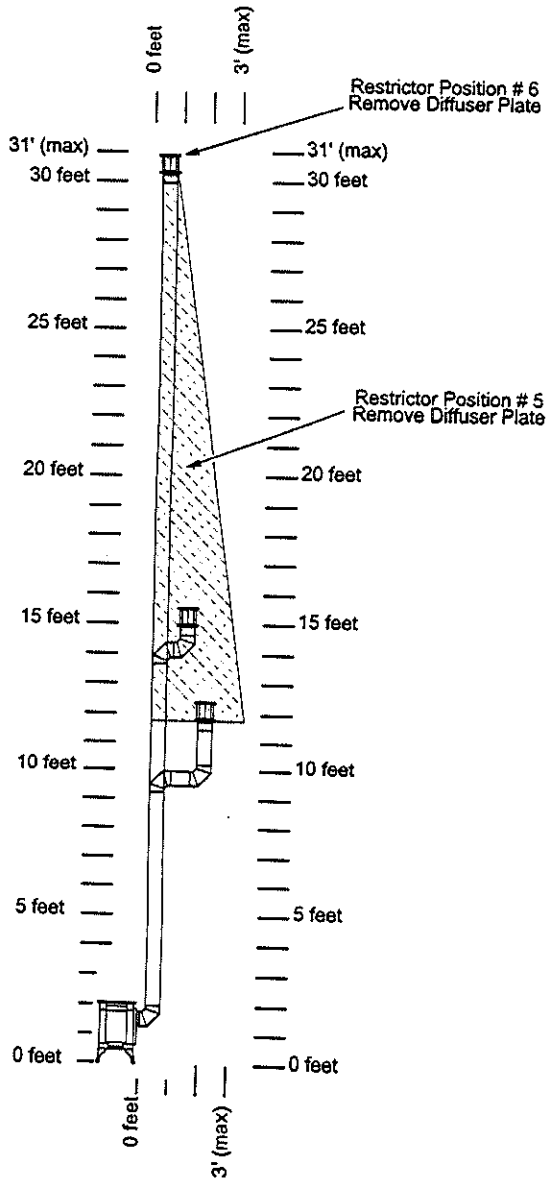
Approved Venting Configurations with a Vertical Termination

- Remove the diffuser plate (see "Diffuser Plate Removal" on page 12)
- Maximum 31' Rise
- Two 90° elbows or two 45° offsets may be used (after the initial 90° elbow)
- The termination must fall within the shaded area shown in the chart. Use the indicated restrictor position.

Natural Gas



Propane (LP)



Vent Termination Requirements (see illustration below)

I **Venting terminals shall not be recessed into a wall or siding.**

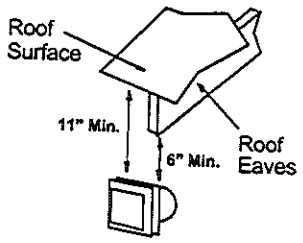
A Minimum 9" clearance from any door or window

B Minimum 12" above any grade, veranda, porch, deck or balcony

C Minimum 12" from outside corner walls

D Minimum 12" from inside corner walls

E Minimum 11" clearance below unventilated soffits or roof surfaces
Minimum 18" clearance below ventilated soffits
Minimum 6" clearance from roof eaves
NOTE: Vinyl surfaces require 24"



F Minimum 18" clearance below a veranda, porch, deck or balcony (must have two open sides)

G Minimum 48" clearance from any adjacent building

H Minimum 84" clearance above any grade when adjacent to public walkways or driveways
NOTE: may not be used over a walkway or driveway shared by an adjacent building

I Minimum 48" clearance from any mechanical air supply inlet

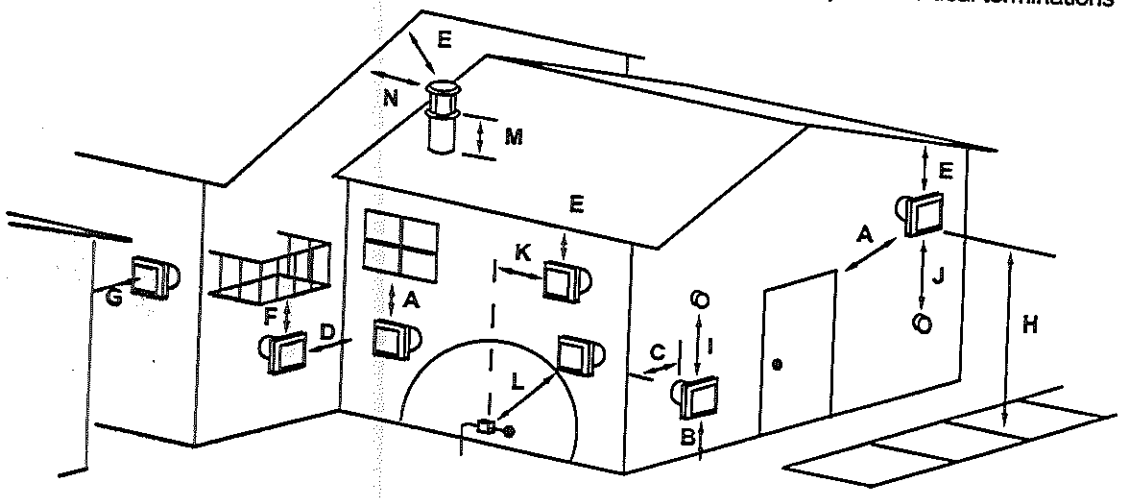
J Minimum 36" clearance above and 48" below and to the sides of non-mechanical air supply inlet

K Minimum 36" from the area above the meter/regulator (vent outlet)

L Minimum 36" from the meter/regulator (vent outlet)

M Minimum 12" above the roof line (for vertical terminations)

N Minimum 24" horizontal clearance to any surface (such as an exterior wall) – for vertical terminations



NOTE: Measure clearances to the nearest edge of the exhaust hood.

- Use the vinyl siding standoff (#1250) when installing on an exterior with vinyl siding.
- Vent termination must not be located where it will become plugged by snow or other material
- These clearances meet UMC-1994 and the CNA/CGA-B149 code standards.

The safety (listing) label is on the back of the stove. A copy of the safety label is shown below.

Tested & Listed by OTL Beaverton, Oregon USA
Omni-Test Laboratories, Inc.
Report No. 028-S-50-5
Certified for USA

LOPI

Sturbridge
Vented Gas
Fireplace Heater

[redacted]

Tested to: ANSI Z21.88b-2001 "Vented Gas Fireplace Heater" and UL 307b-1995 "Gas Burning Heating Appliances for Manufactured Homes".

VENTED GAS FIREPLACE HEATER – NOT FOR USE WITH SOLID FUEL

This appliance must be installed in accordance with local codes, if any; if none, follow the National Fuel Gas Code, ANSI Z223.1.

This vented gas fireplace heater is equipped at the factory for use with natural gas. If conversion to propane (LP) is desired, the optional factory conversion kit must be used.

This appliance is only for use with the type of gas indicated on the rating plate and may be installed in an after-market, 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 vented gas fireplace heater is not for use with air filters.

Keep burner and control compartment clean. See installation and operating instructions accompanying appliance.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

WARNING: Operation of this appliance when not connected to a properly installed and maintained venting system or tampering with the blocked vent shutoff system can result in carbon monoxide (CO) poisoning and possible death.

. See owner

CAUTION: Do not operate this appliance with glass removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified service person.

CAUTION: Hot while in operation. Do not touch. Keep children, clothing, furniture, gasoline and other liquids having flammable vapors away.

This appliance must be properly connected to a venting system in accordance with the manufacturer's installation instructions. Use only approved coaxial direct vent system to vent this appliance to the exterior 's manual for approved brands of venting.

Minimum Clearances to Combustibles

Stove Top to Sidewall	3.5"	Alcove Min. Height	36"
Stove Top to Backwall	4.75"	Alcove Max. Depth	48"
Stove Top to Cornerwall	1"	Alcove Min. Width	27.75"
Glass Front of Unit	36"		

	L.P.	N.G.		L.P.	N.G.
Input Rate on "HI" (BTU/Hr)*	18,000	18,000	Minimum Inlet Pressure (inches W.C.)	11"	5.5"
Input Rate on "LO" (BTU/Hr)*	14,600	14,100	Manifold Pressure on "HI" (inches W.C.)	10"	3.5"

This appliance is equipped only for altitudes 0-2000 ft. (0-610 m).

Electrical Rating: 115v, 1.5 Amps, 60 Hz

Manufacture Date: ■ 2002 ■ 2003 ■ 2004 ■ Jan. ■ Feb. ■ Mar. ■ Apr. ■ May ■ Jun. ■ Jul. ■ Aug. ■ Sep. ■ Oct. ■ Nov. ■ Dec.

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