

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that DIANE E SKOG

Located At 459 ALLEN AVE (UNIT 4)

Job ID: 2011-12-2906-HVAC

CBL: 400- D-002-004

has permission to install an HVAC Unit (Residential Condo.)

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required it must be

12/20/2011

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-12-2906-HVAC	Date Applied: 12/12/2011	CBL: 400- D-002-004	
Location of Construction: 459 ALLEN AVE UNIT 4	Owner Name: GREG & OLIVIA BIRD	Owner Address: 459 ALLEN AVE # 4 PORTLAND, ME 04103	Phone:
Business Name:	Contractor Name: Down East Energy	Contractor Address: 172 Maine St., South Portland, ME 04106	Phone: 799-5585
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: R-3 PRUD
Past Use: Entire property is 26 residential condos of which this is unit #4	Proposed Use: Same: one residential condo #4 of 26 residential condos – to install Rinnai heater	Cost of Work:	CEO District:
Proposed Project Description: Install rinnai heater		Fire Dept: <input type="checkbox"/> Approved <i>w/conditions</i> <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>Capt. Perrine 12-18-11</i>	Inspection: Use Group: Type: HVAC <i>Marc has Reg's</i> Signature: <i>[Signature]</i>
Permit Taken By: Gayle		Zoning Approval	

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 informatin may invalidate a building permit and stop all work.	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: <i>OK [Signature] 12/13/11</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i>
	CERTIFICATION		

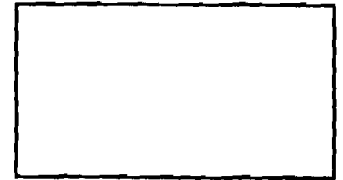
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, 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



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



ISSUED 12/20/11

R-37 2011 12 2906 Gf

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 459 Allen Ave, 400D002004 Use of Building Private Date 12/21/11
 Name and address of owner of appliance Breg + Olivia Birch 459 Allen Ave
Unit #4 Portland ME 04103
 Installer's name and address Down East Energy 172 Main St
South Portland Telephone 799-5585

Location of appliance:

- Basement
- Floor
- Attic
- Roof

Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name:

Rinnai

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 # PWT 1445
- Other _____

Type of Chimney:

Masonry Lined
Factory built _____

Metal
Factory Built U.L. Listing # _____

Direct Vent
Type Rinnai UL# _____

Type of Fuel Tank

- Oil
- Gas

Size of Tank 20

Number of Tanks 1

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$3,000.00 ~~Tank~~

Permit Fee: \$ 200.00 50.00

RECEIVED

DEC 12 2011

Dept. of Building Inspections
City of Portland Maine

Approved

Approved with Conditions

Fire: _____

Ele.: _____

Bldg.: _____

See attached letter or requirement

Inspector's Signature

Date Approved

Signature of Installer [Signature]



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

2011

Received from Dan's Air Service

Location of Work 450 Auburn St

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: _____

Building (IL) Plumbing (IS) Electrical (I2) Site Plan (U2)

Other HVA

CBL: 400 2000 004

Check #: 1000 Total Collected \$ 520

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by: [Signature]

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

Owner's Operation and Installation Manual for the



EX17C (RHFE-434FTA)
EX22C (RHFE-559FTA)



Energysaver®

Gas Direct Vent Wall Furnace

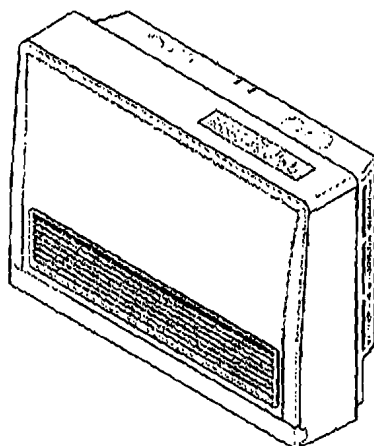


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⚠ WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 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 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 the gas supplier.

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

Register your product at www.rinnairregistration.com
or call 1-866-RINNAI1 (746-6241)

Rinnai®

This appliance may be installed as an OEM installation in a manufactured home (USA only) or 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*, in the United States, or the *Mobile Home Standard, CAN/CSA Z240 MH Series*, in Canada.

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

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

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Appliance Specifications

	Natural Gas	Propane Gas
Minimum supply gas pressure	3.5 in (89 mm) W.C.	8.0 in (203 mm) W.C.
Maximum supply gas pressure	10.5 in (267 mm) W.C.	13.0 in (330 mm) W.C.

EX17C		
	Natural Gas	Propane Gas
BTU/hour input	Low 8200 High 16700	Low 8200 High 16700
BTU/hour output	Low 6560 High 13360	Low 6560 High 13360

EX22C		
	Natural Gas	Propane Gas
BTU/hour input	Low 8200 High 21500	Low 8200 High 20700
BTU/hour output	Low 6560 High 17200	Low 6560 High 16560

Features

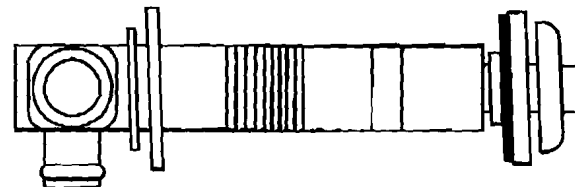
- Restarts automatically when ignition or combustion fails.
- Clean Heating Forced Flue Type
- Easy Operation One-Touch Ignition
- Programmable Thermostat
- Warm Air Outlet at Floor Level (keeps your feet warm)
- Child Lock
- Room Temperature Setting Memory
- Clean the Air Filter - Indicator Lamp
- Energy Saving Economy Setting
- Humidifier Tray
- Air Flow Directional Louvers
- Direct Vent Easily Installed
- Proportional Heating Variable Capacity
- Hush! Quiet Operation
- Modern Design Minimizes Floor Space Requirements
- Fault Code Message Display
- Timers 1 and 2
- Dimmer
- Set back (setting a minimum temperature)
- Temperature settings in Fahrenheit or Celsius

Flue Manifolds

See the installation instructions for the parts list of the vent kit.

The "A" Vent Kit is included with the appliance.

The following flue manifold sizes are available:



Name	Kit No.	Fits walls
S Vent Kit	FOT-150	3 - 4 1/2 in (75 - 115 mm)
A Vent Kit	FOT-151	4 1/2 - 9 1/2 in (115 - 240 mm)
B Vent Kit	FOT-152	9 1/2 - 15 3/4 in (240 - 400mm)
C Vent Kit	FOT-153	15 3/4 - 23 5/8 in (400 - 600 mm)
D Vent Kit	FOT-154	23 5/8 - 31 1/2 in (600 - 800 mm)

Installation Instructions

General Instructions

WARNING

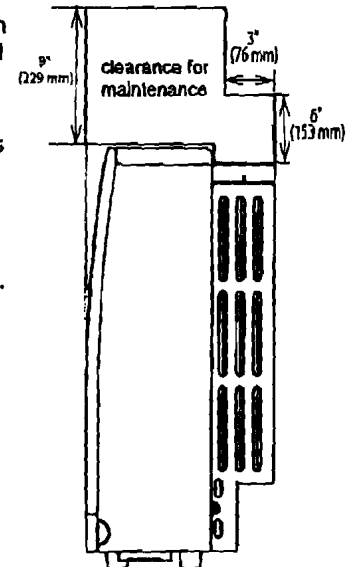
Do not use substitute materials.
Use only parts certified with the appliance.

NOTICE

If installation is at a location above 2001 ft (611 m), then follow the Adjust Gas Pressure Settings section.

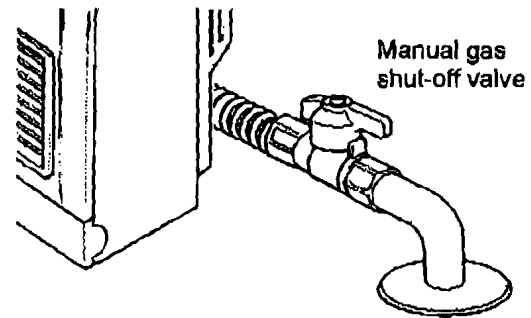
If installation is at or below 2000 ft (610 m) then the pressure settings do not need to be adjusted.

- A qualified service technician should install the appliance and inspect it before use.
- If you move, check the gas type in your new area. The local gas authority will be able to advise on local regulations.
- The installation must conform with local codes or, in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, or the *Natural Gas and Propane Installation Code, GSA B149.1*.
- A manufactured home (USA only) or mobile home OEM 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 Z225.1*, or the standard for *Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4*.
- The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1*.
- Appliance input ratings are based on sea level operation and need not be changed for operation up to 2000 ft (610 m) elevation. For operation at elevations above 2000 ft (610 m), follow the procedure in the section, Adjust Gas Pressure Settings.
- The appliance and its 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 equipment 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).
- If the flooring is carpet, tile, or other combustible material other than wood, then the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance.
- Rinnai suggests that a dedicated electrical circuit with a 120V AC, 60 Hz, 10 amp power source be used.
- This appliance discharges a large volume of warm air next to the floor. Any particles in the air such as cigarette smoke could cause discoloration in carpet. The warm air flow could discolor nylon carpets containing dyes or vinyl surfaces. To prevent discoloration of the floor covering a mat may be placed under the appliance which extends about 30 inches (750 mm) in front of it. (Wood is included in the shipping container that can be cut to size and used if needed.)
- This appliance is not designed to built in.
- This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used. If a conversion of the unit is needed, conversions must be performed by a qualified service provider at the owner's expense.
- Follow the Adjust Gas Pressure Settings (page 28) and confirm that the correct code is used for your gas type and altitude.
- This appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.
- Two 1/8 in test plugs are provided for testing of manifold differential pressure. They are located on the modulating gas valve and on the burner manifold.
- The appliance should be correctly sized for the space it is required to heat. It is recommended that an industry standard BTU Heat Loss Calculation be conducted to determine the proper sizing.
- Follow the installations instructions and those in *Care and Maintenance* for adequate combustion and ventilation air.
- The flow of combustion and ventilation air shall not be obstructed.
- Locate the heater where outdoor air does not affect the room air thermistor. Otherwise, the sensible temperature control feature will be affected.
- Clearances to access the appliance during servicing are 2 inches (50 mm) from the sides, 40 inches (1 m) from the front, and the area shown above the appliance in the picture.



Gas Connection

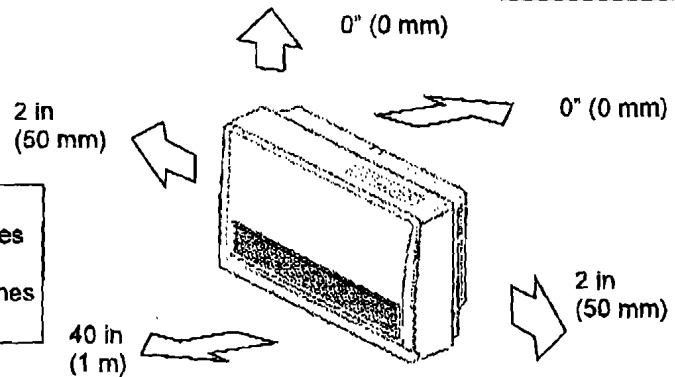
- The gas supply line shall be gas tight, sized and so installed as to provide a supply of a gas sufficient to meet the maximum demand of the heater without loss of pressure.
- A shut off valve and appliance connector valve should be installed in the upstream of the gas line to permit servicing.
- Flexible pipe and any appliance connector valve used for gas piping shall be types approved by nationally recognized agencies.
- Any compound used on the threaded joint of the gas piping shall be a type which resists the action of liquefied petroleum gas (propane / LPG).
- After completion of gas pipe connections all joints including the heater must be checked for gas tightness by means of leak detector solution, soap and water, or an equivalent nonflammable solution, as applicable. (Since some leak test solutions, including soap and water, may cause corrosion or stress cracking, the piping shall be rinsed with water after testing, unless it has been determined that the leak test solution is non-corrosive.)
- Check the gas supply pressure immediately upstream at a location provided by the gas company. Supplied gas pressure must be within the limits shown in the Specifications section.
- Refer to an approved pipe sizing chart if in doubt about the size of the gas line.
- Install the provided manual gas shut-off valve so that it can be accessed for easy operation. Do not conceal manual cut-off valve behind back spacer.



Clearances to Combustibles

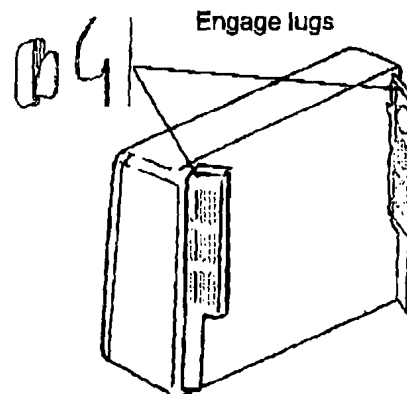
When determining where to install the appliance the clearances to combustibles shown in the figure must be followed. Also refer to the Safety Behaviors and Practices section.

NOTICE The 40 inch (1 meter) clearance from the front of the appliance does not include flooring material or carpeting that is less than 1.2 inches (30 mm) in height.

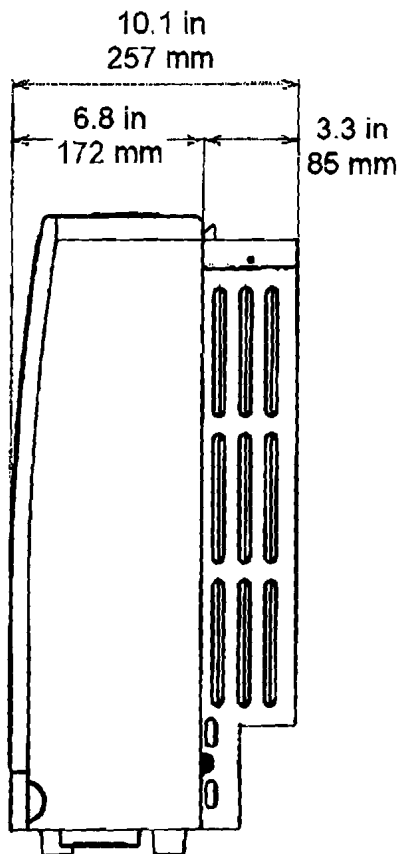
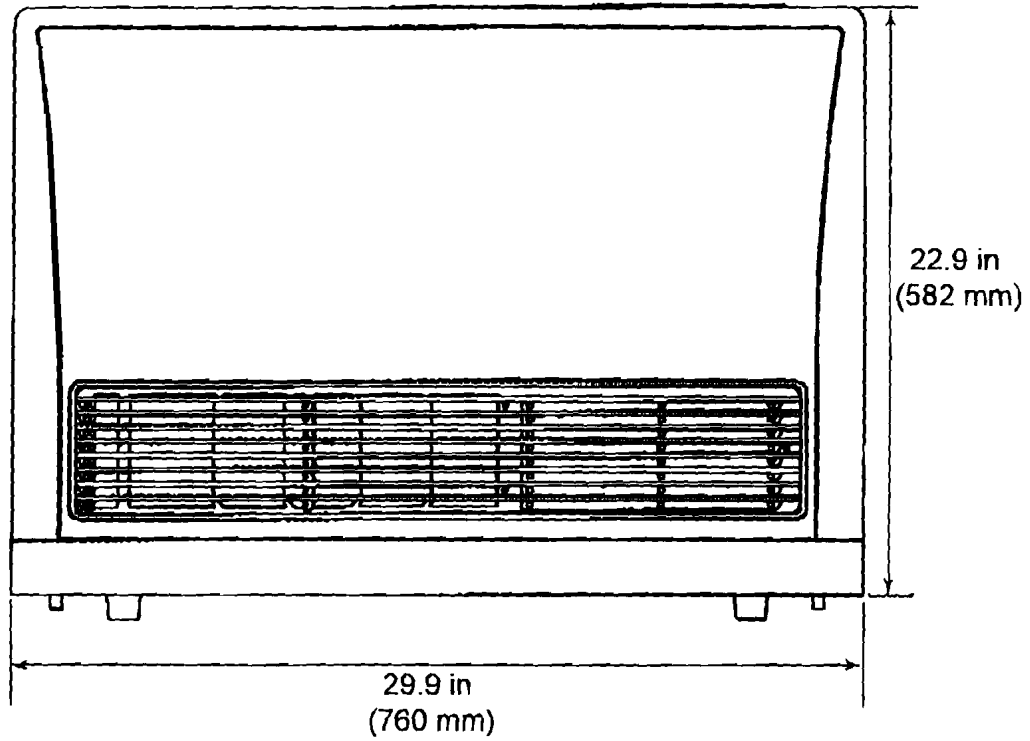


Attach Back Covers (Sides Only)

Attach back covers as shown.



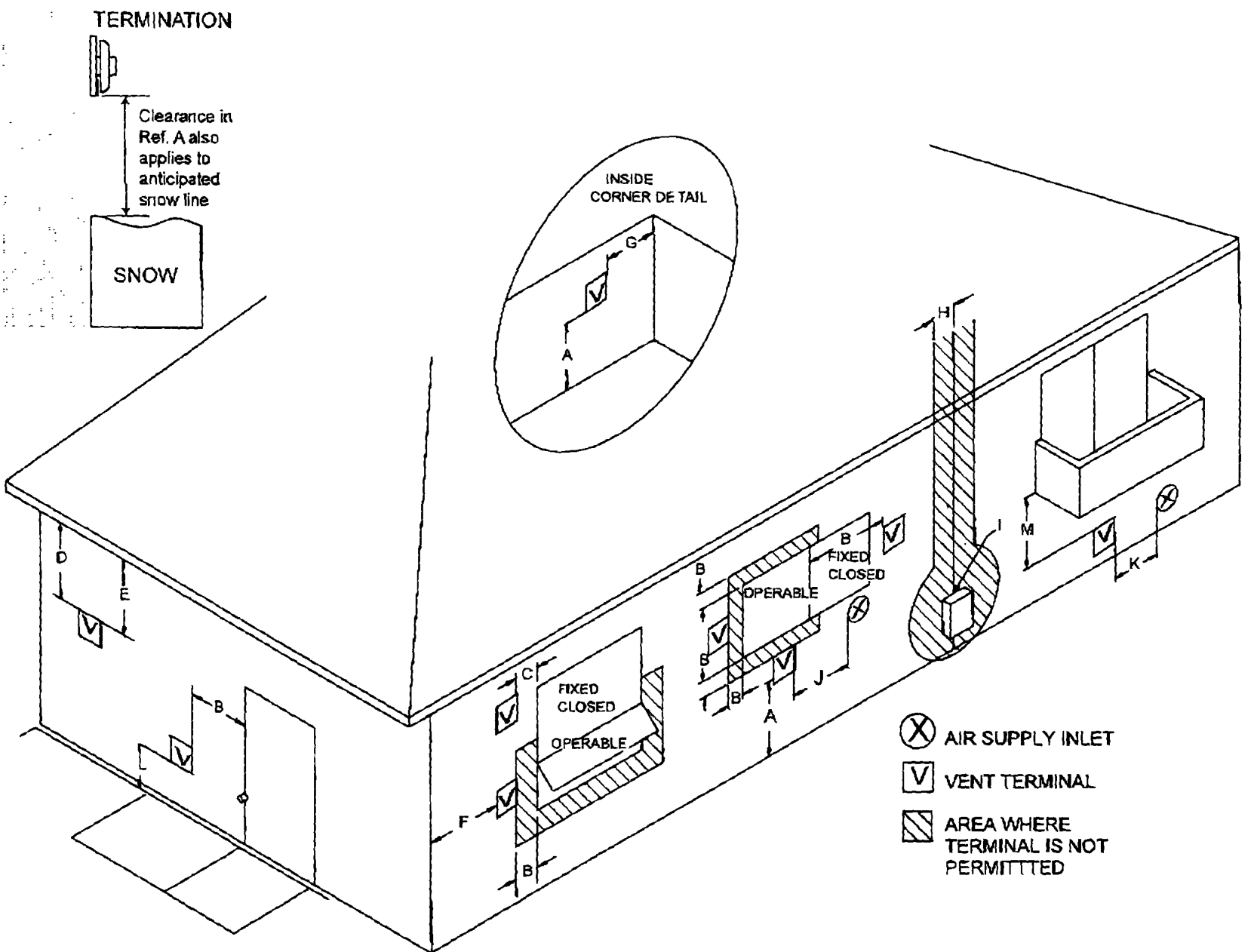
Dimensions



NOTICE A full size template is provided on the cardboard packaging.

DO NOT DISCARD until installation is completed.

Flue Terminal Clearances



Flue Terminal Clearances

Ref	Description	Canadian Installations	US Installations
A	Clearance above grade, veranda, porch, deck, or balcony. (Take into account the anticipated snow line)	12 inches (30 cm)	12 inches (30 cm)
B	Clearance to window or door that may be opened	6 inches (15 cm) for appliances \leq 10,000 BTUh; 12 inches (30 cm) for appliances $>$ 10,000 BTUh and \leq 100,000 BTUh, 36 inches (91 cm) for appliances $>$ 100,000 BTUh	6 inches (15 cm) for appliances \leq 10,000 BTUh; 9 inches (23 cm) for appliances $>$ 10,000 BTUh and \leq 50,000 BTUh, 12 inches (30 cm) for appliances $>$ 50,000 BTUh
C	Clearance to permanently closed	*	*
D	Vertical clearance to ventilated soffit, located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*
E	Clearance to unventilated soffit	*	*
F	Clearance to outside corner	*	*
G	Clearance to inside corner	20 inches (50 cm)	20 inches (50 cm)
H	Clearance to each side of center line extended above meter/regulator assembly	3 feet (91 cm) within a height 15 feet (4.5 m) above the meter/regulator assembly	*
I	Clearance to service regulator vent	3 feet (91 cm)	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 inches (15 cm) for appliances \leq 10,000 BTUh; 12 inches (30 cm) for appliances $>$ 10,000 BTUh and \leq 100,000 BTUh, 36 inches (91 cm) for appliances $>$ 100,000 BTUh	6 inches (15 cm) for appliances \leq 10,000 BTUh; 9 inches (23 cm) for appliances $>$ 10,000 BTUh and \leq 50,000 BTUh, 12 inches (30 cm) for appliances $>$ 50,000 BTUh
K	Clearance to a mechanical air supply inlet	6 feet (1.83 m)	3 feet (91 cm) above if within 10 feet (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 feet (2.13 m) $\text{\textcircled{D}}$	*
M	Clearance under veranda, porch, deck, or balcony	12 inches (30 cm) to non-flammables $\text{\textcircled{E}}$ 24 inches (60 cm) to flammables $\text{\textcircled{E}}$	12 inches (30 cm) to non-flammables $\text{\textcircled{E}}$ 24 inches (60 cm) to flammables $\text{\textcircled{E}}$

$\text{\textcircled{D}}$ A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

$\text{\textcircled{E}}$ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

*For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, clearances are in accordance with local installation codes and the requirements of the gas supplier.

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
 - **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
 - **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**
1. Close-In: (Electrical, Plumbing, Framing)
 2. Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City. Building a Community for Life • www.portlandmaine.gov

Director of Planning and Urban Development

Job ID: 2011-12-2906-HVAC

Located At: 459 ALLEN AVE
UNIT 4

CBL: 400- D-002-004

Conditions of Approval:

Fire

1. Installation shall comply with City Code Chapter 10.
2. Fuel-fired boilers shall be protected in accordance with NFPA 101, *Life Safety Code*.
3. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances*;
4. NFPA 54, *National Fuel Gas Code*;
5. NFPA 91, *Standard for Exhaust Systems for Air Conveying Vapors, Gases, Mists, and Noncombustible Particulate Solids*;
6. NFPA 70, *National Electrical Code*; and the manufacturer's published instructions.

Building

1. The installation must comply with UL, the Manufacturers' Listing, and State of Maine Gas Regulations.
2. Separate permits are required for any electrical: plumbing, sprinkler, fire alarm, HVAC systems, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
3. Maintain proper setback(s) from property lines/buildings and proper clearances from vertical openings when direct venting
4. A Carbon Monoxide (CO) detector shall be installed in each area within or giving access to bedrooms. That detection must be powered by the electrical service (plug-in or hardwired) in the building and battery.
5. M1804.2.5 Direct vent terminations. Vent terminals for direct-vent appliances shall be installed in accordance with the manufacturer's installation instructions.