DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that LABAN W WWII VET» LEITER

Located At 175 VAUGHAN

Job ID: 2011-08-2105-HVAC

CBL: 063 - - G - 009 - 001 - - - - -

has permission to InstallLochinuar Knight Boiler

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

9/6/11

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

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.**

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 OCCU0PIED.

City of Portland, Maine - Building or Use Permit Application

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

Job No:	Date Applied:	CBL:	
2011-08-2105-HVAC	8/26/2011	063 - - G - 009 - 001 - - - - -	
Location of Construction: 175 VAUGHAN	Owner Name: LABAN LEITER WWII VET	Owner Address: 175 VAUGHAN ST PORTLAND, ME - MAINE 04102	Phone:
Business Name:	Contractor Name: Caron & Waltz	Contractor Address: 321 Lincoln ST SOUTH PORTLAND MAINE 04106	Phone: 799-2228
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: R-4
Past Use: Single Family Dwelling	Proposed Use: Same: Single Family Dwelling – to install Lochinuar Knight boiler	Cost of Work: $14,000.00	CEO District:
		Fire Dept: ___ Approved ___ Denied ___ N/A Signature:	Inspection: Use Group: HVAC Type: Signature:
Proposed Project Description:		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Lannie			

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 electrial 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.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	W. Prin
___ Wetlands	___ Miscellaneous	___ Not in Dist or Landmark
___ Flood Zone	___ Conditional Use	___ Does not Require Review
___ Subdivision	___ Interpretation	___ Requires Review
___ Site Plan	___ Approved	___ Approved
___ Maj ___ Min ___ NM	___ Denied	___ Approved w/Conditions
Date: OK 8/30/11	Date:	___ Denied
		Date: Any exterior work requires A Separate review & Approval

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 appication 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 PHON

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

#2011-08-2105

R-A

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:

63-C9-9

Location / CBL 175 VAUGHAN STREET Use of Building RESIDENCE Date 8/24/11

Name and address of owner of appliance LABAN LEITER

175 VAUGHAN STREET, PORTLAND, ME 04101

Installer's name and address CARON + WALTZ, 321 LINCOLN STREET

SO. PORTLAND, ME 04106 Telephone 799-2228

Location of appliance:

- ☒ Basement
- ☐ Floor
- ☐ Attic
- ☐ Roof

Type of Fuel:

- ☒ Gas
- ☐ Oil
- ☐ Solid

Appliance Name: LOCHINVAR KNIGHT # KBN210

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 4280
- ☐ Other _____

Type of Chimney:

- ☐ Masonry Lined
  Factory built _____
- ☐ Metal
  Factory Built U.L. Listing # _____
- ☒ Direct Vent
  Type PUC UL# _____

Type of Fuel Tank

- ☐ Oil
- ☒ Gas

RECEIVED
AUG 26 2011
Dept. of Building Inspections
City of Portland Maine

Size of Tank NA

Number of Tanks NA

Distance from Tank to Center of Flame NA feet.

Cost of Work: $ 13,485.00

Permit Fee: $ _____

Approved

Fire: _____

Ele.: _____

Bldg.: _____

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

Ratings

DESIGN CERTIFIED ® CERTIFIED ® DOE ENERGY STAR

Knight Boiler I=B=R Rating				
Model Number Note Change "N" to "L" for L.P. gas models	Input MBH (Note 5)		Gross Output MBH	Net I=B=R Ratings Water, MBH
	Min	Max	(Note 2,7)	(Note 3,7)
KBN081	16	80	72	63
KBN106	21	105	94	82
KBN151	30	150	135	117
KBN211	42	210	190	165
KBN286	57	285	260	226

Other Specifications				
Boiler Water Content Gallons	Water Connections	Gas Connections	Air Size	Vent Size (Note 4)
0.6	1"	1/2"	3"	3"
0.7	1"	1/2"	3"	3"
1.3	1"	1/2"	3"	3"
1.7	1"	1/2"	3"	3"
2.4	1-1/4"	3/4"	4"	4"

NOTICE Maximum allowed working pressure is located on the rating plate.

Notes:

1. As an Energy Star Partner, Lochinvar has determined that Knight boilers meet the Energy Star guidelines for energy efficiency.
2. The ratings are based on standard test procedures prescribed by the United States Department of Energy.
3. Net I=B=R ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pickup. Ratings are based on a piping and pickup allowance of 1.15.
4. Knight boilers require special gas venting. Use only the vent materials and methods specified in the Knight Installation and Operation Manual.
5. Standard Knight boilers are equipped to operate from sea level to 4,500 feet **only** with no adjustments. The boiler will de-rate by 4% for each 1,000 feet above sea level up to 4,500 feet.
6. High altitude Knight boilers are equipped to operate from 3,000 to 12,000 feet **only** with no field adjustments. The boiler will de-rate by 2% for each 1,000 feet above 3,000 feet. High altitude models are manufactured with a different control module for altitude operation, but the operation given in this manual remains the same as the standard boilers. A high altitude label (as shown in FIG. A) is also affixed to the unit.
7. Ratings have been confirmed by the Hydronics Institute, Section of AHRI.
8. Knight boilers comply with the requirements of CSD-1 Section CW-400 requirements as a temperature operation control. The manual reset high limit provided with the Knight is listed to UL353.

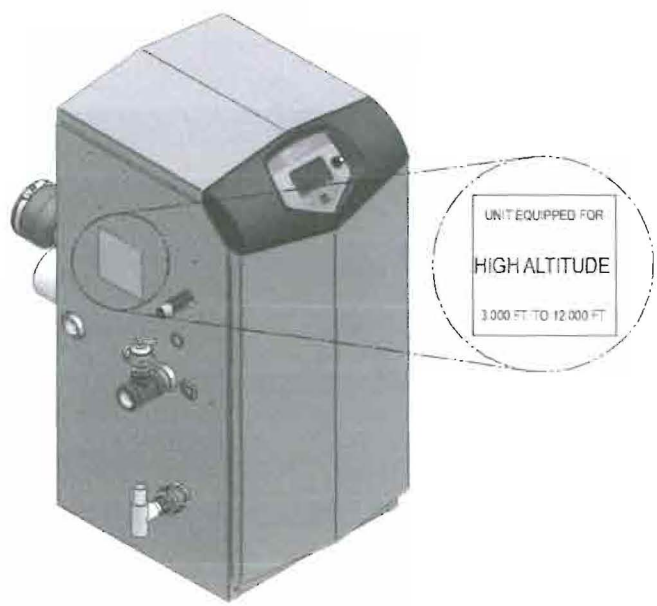


***Figure A** High Altitude Label Location*

3 General venting

Direct venting options - Sidewall Vent

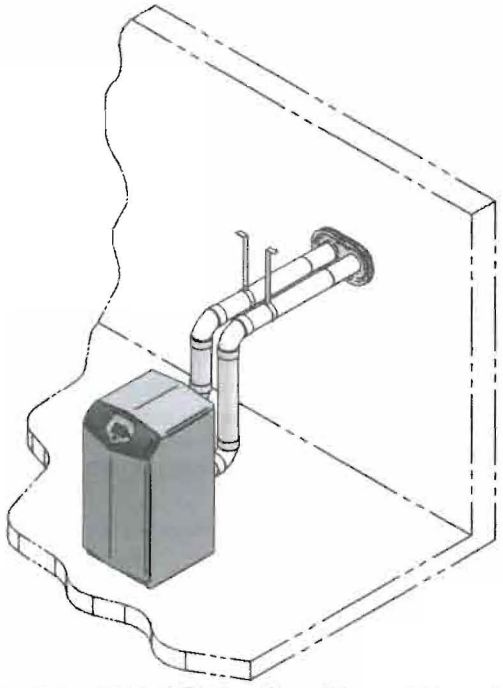


Figure 3-1 *PVC/CPVC Two-Pipe Sidewall Termination - See page 21 for more details*

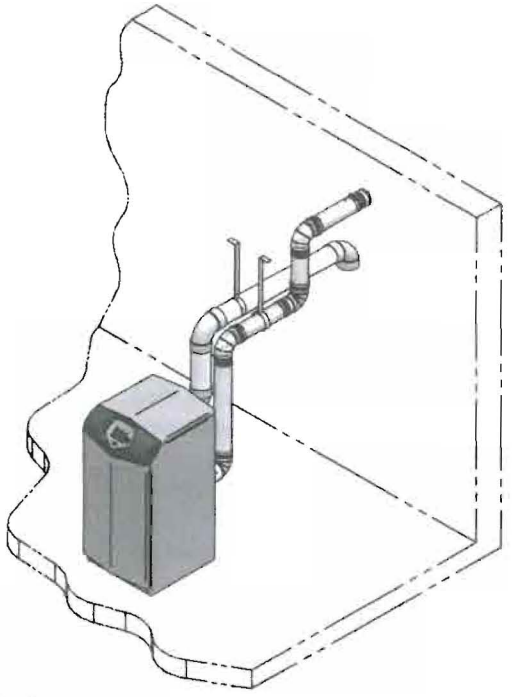


Figure 3-2 *Stainless Steel Two-Pipe - See page 22 for more details*

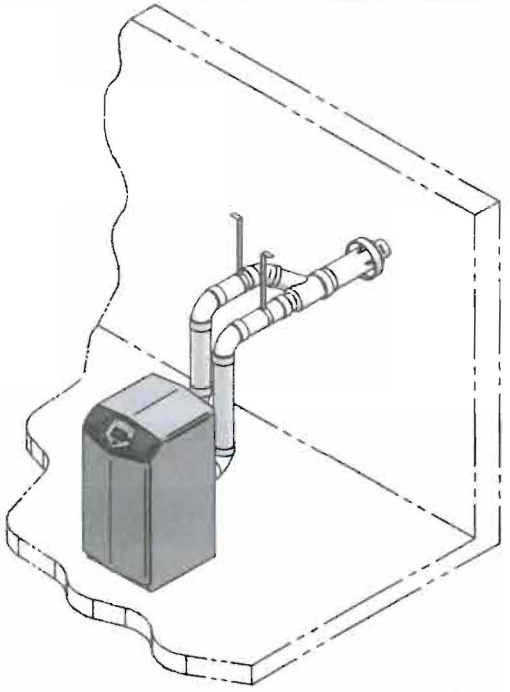


Figure 3-3 *PVC/CPVC Concentric Sidewall Termination - See page 25 for more details*

CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

6-16 20 11

Received from Cross Electric

Location of Work 175 Clayton

Cost of Construction $_____ Building Fee:_____

Permit Fee $_____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: 160

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other HVAC

CBL: 62-1-15

Check #: 9759 **Total Collected $** 160

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

Taken by: PJ

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

1 Determine boiler location

Provide air openings to room:

Knight boiler alone in boiler room

1. No air ventilation openings into the boiler room are needed when clearances around the Knight boiler are at least equal to the SERVICE clearances shown in FIG.'s 1-1 and 1-2. For spaces that do NOT supply this clearance, provide two openings as shown in FIG. 1-1. Each opening must provide one square inch free area per 1,000 Btu/hr of boiler input.

Knight boiler in same space with other gas or oil-fired appliances

1. Follow the National Fuel Gas Code (U.S.) or CSA B149.1 (Canada) to size/verify size of the combustion/ventilation air openings into the space.

⚠ WARNING The space must be provided with combustion/ventilation air openings correctly sized for all other appliances located in the same space as the Knight boiler.

Do not install the boiler in an attic.

Failure to comply with the above warnings could result in severe personal injury, death, or substantial property damage.

2. Size openings only on the basis of the other appliances in the space. No additional air opening free area is needed for the Knight boiler because it takes its combustion air from outside (direct vent installation).

Flooring and foundation

Flooring

The Knight boiler is approved for installation on combustible flooring, but must never be installed on carpeting.

⚠ WARNING Do not install the boiler on carpeting even if foundation is used. Fire can result, causing severe personal injury, death, or substantial property damage.

If flooding is possible, elevate the boiler sufficiently to prevent water from reaching the boiler.

Residential garage installation

Precautions

Take the following precautions when installing the appliance in a residential garage. If the appliance is located in a residential garage, it should be installed in compliance with the latest edition of the National Fuel Gas Code, ANSI Z223.1 and/or CAN/CGA-B149 Installation Code.

- Appliances located in residential garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling shall be installed so that all burners and burner ignition devices are located not less than 18 inches (46 cm) above the floor.
- The appliance shall be located or protected so that it is not subject to physical damage by a moving vehicle.

Vent and air piping

The Knight boiler requires a special vent system, designed for pressurized venting.

The boiler is to be used for either direct vent installation or for installation using indoor combustion air. When room air is considered, see Section 3, General Venting. Note prevention of combustion air contamination below when considering vent/air termination.

Vent and air must terminate near one another and may be vented vertically through the roof or out a side wall, unless otherwise specified. You may use any of the vent/air piping methods covered in this manual. Do not attempt to install the Knight boiler using any other means.

Be sure to locate the boiler such that the vent and air piping can be routed through the building and properly terminated. The vent/air piping lengths, routing and termination method must all comply with the methods and limits given in this manual.

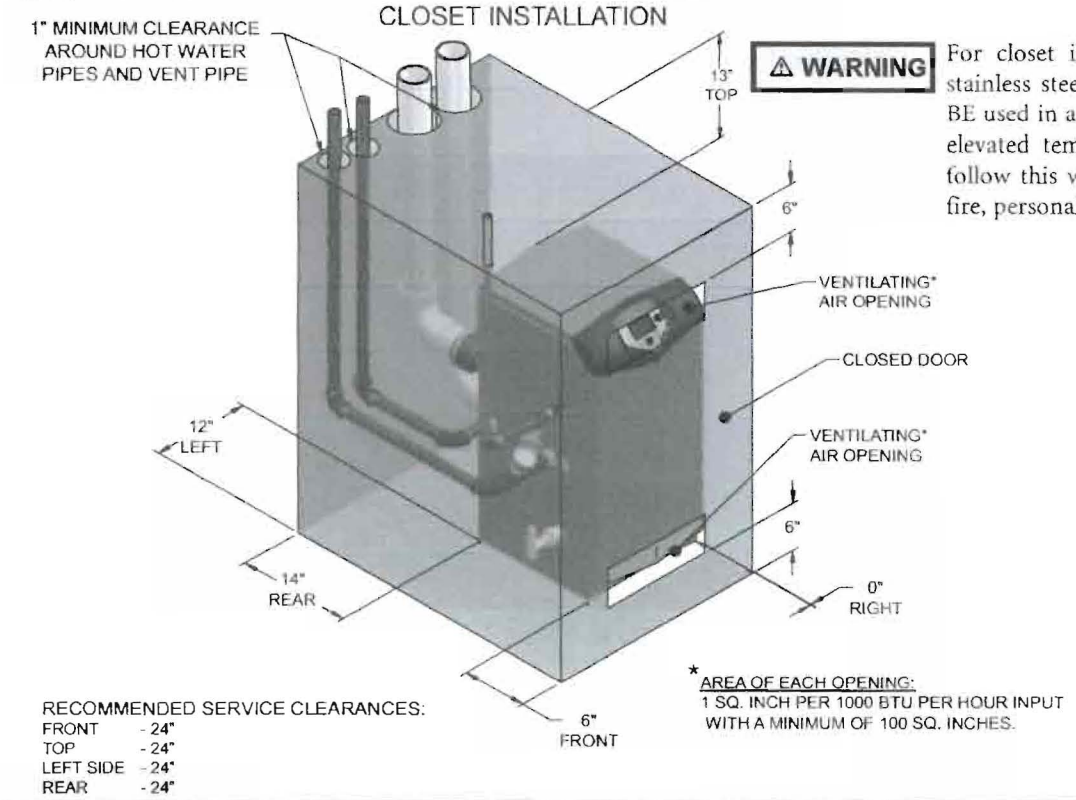
Prevent combustion air contamination

Install air inlet piping for the Knight boiler as described in this manual. Do not terminate vent/air in locations that can allow contamination of combustion air. Refer to Table 1A, page 11 for products and areas which may cause contaminated combustion air.

⚠ WARNING You must pipe combustion air to the boiler air intake. Ensure that the combustion air will not contain any of the contaminants in Table 1A, page 11. Contaminated combustion air will damage the boiler, resulting in possible severe personal injury, death or substantial property damage. Do not pipe combustion air near a swimming pool, for example. Also, avoid areas subject to exhaust fumes from laundry facilities. These areas will always contain contaminants.

1 Determine boiler location *(continued)*

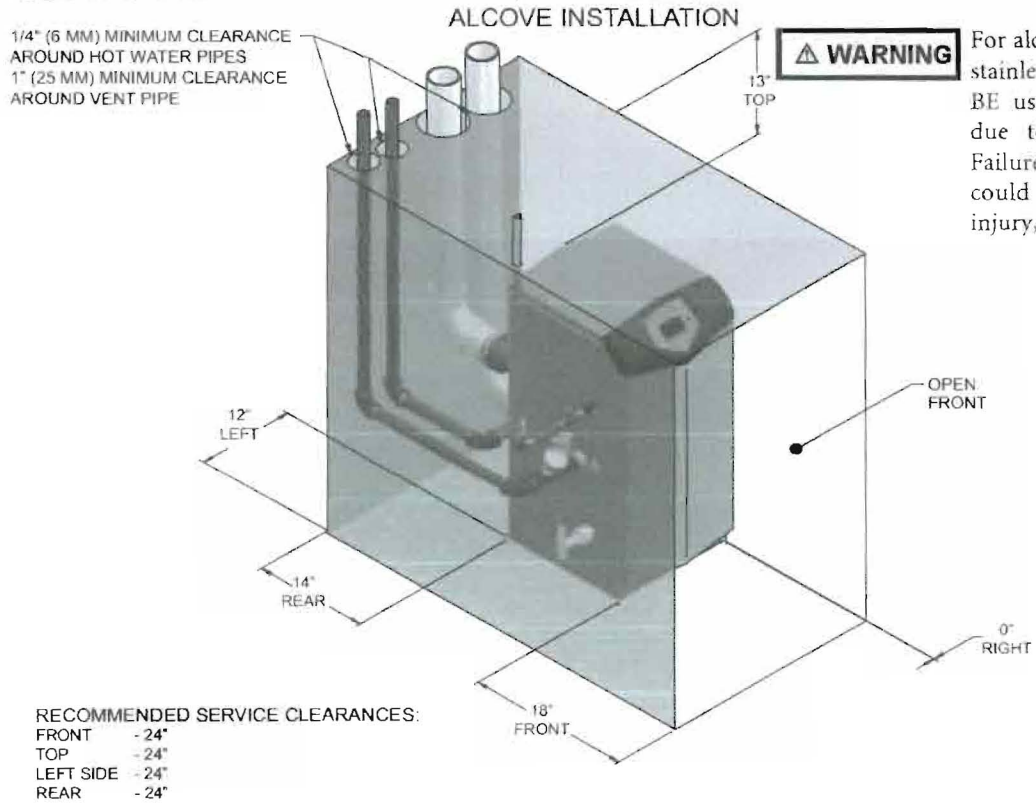
Figure 1-1 *Closet Installation - Minimum Required Clearances*



⚠ WARNING

For closet installations, CPVC or stainless steel vent material MUST BE used in a closet structure due to elevated temperatures. Failure to follow this warning could result in fire, personal injury, or death.

Figure 1-2 *Alcove Installation - Minimum Required Clearances*



⚠ WARNING

For alcove installations, CPVC or stainless steel vent material MUST BE used in an alcove structure due to elevated temperatures. Failure to follow this warning could result in fire, personal injury, or death.