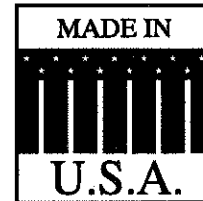
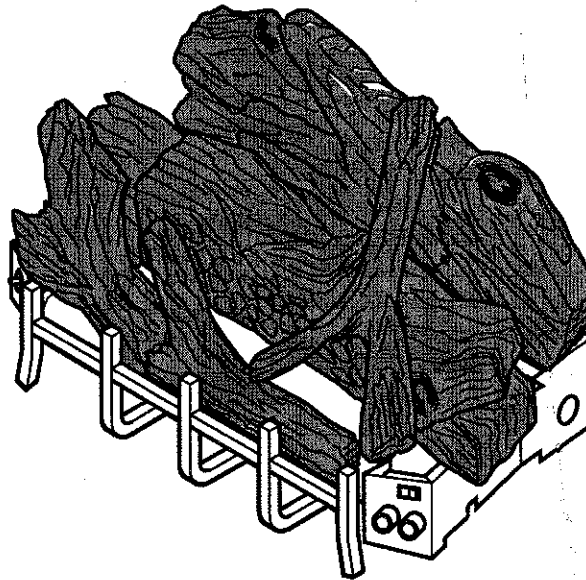


*Postal*

*Unit 308*      *Windward Point*

# UNVENTED GAS LOG HEATER OR VENTED DECORATIVE APPLIANCE INSTALLATION AND OPERATING INSTRUCTIONS



**MODELS: DEB20, DEB24, DEB30**

**Natural Gas or Propane/LPG**

**Control Type: Manual, Milli-Volt, Thermostat or Hi/Lo Remote Control**

This appliance may be installed in an aftermarket, permanently located, manufactured (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.

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to page 8.

## WARNINGS

If the information in this manual 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.

**READ AND SAVE THESE INSTRUCTIONS**

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## IMPORTANT SAFETY INFORMATION

### INSTALLER

Please leave these instructions with the owner.

### OWNER

Please retain these instructions for future reference.

### IMPORTANT

Read these instructions carefully before installing or trying to operate this vent-free gas heater.

### WARNING

- Any change to this heater or its controls can be dangerous.
- Improper installation or use of the heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.
- Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.
- Do not use a blower insert, heat exchanger insert or other accessory, not approved for use with this heater where applicable.

1. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
2. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.
3. Young children should be carefully supervised when they are in the same room with the appliance.
4. Do not place clothing or other flammable material on or near the appliance.
5. Any safety screen or guard removed for servicing an appliance, must be replaced prior to operating the heater.
6. Installation and repair should be done by a qualified service person.
7. To prevent malfunction and/or sooting, an unvented gas heater should be cleaned before use and 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 be kept clean.
8. **CARBON MONOXIDE POISONING:** Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating properly.
9. The installation must conform with local codes or, in the absence of local codes, with the **National Fuel Gas Code, ANSI Z223.1/NFPA54.**
10. This unit complies with ANSI Z21.11.2-2001 Unvented Heaters and also complies with ANSI Z21.60-2000 Decorative Vented Appliances for Solid Fuel Burning Fireplaces. State and local codes may only allow operation of this appliance in a vented configuration. Check your state or local codes. For vented operation, see "Vented Instructions" in this manual.
11. Do not install the heaters in a bathroom or bedroom.
12. Correct installation of the ceramic fiber logs, proper location of the heater, and annual cleaning are necessary to avoid potential problems with sooting. Sooting, resulting from improper installation or operation, can settle on surfaces outside the fireplace. See log placement instructions for proper installation.
13. Avoid any drafts that alter burner flame patterns. Do not allow fans to blow directly into fireplace. Do not place a blower inside burn area of firebox. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur.
14. **Caution:** Candles, incense, oil lamps, etc. produce combustion byproducts including soot. Vent-free appliances will not filter or clean soot produced by these types of products. In addition, the smoke and/or aromatics (scents) may be reburnt in the vent-free appliance which can produce odors. It is recommended to minimize the use of candles, incense, etc. while the vent-free appliance is in operation.
15. This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. See page 8.

Continued on page 4

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## IMPORTANT SAFETY INFORMATION

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*Continued from page 3*

16. Keep room area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
17. Unvented gas heaters are a supplemental zone heater. They are not intended to be the primary heating appliance.
18. Unvented gas heaters emit moisture into the living area. In most homes of average construction, this does not pose a problem. In houses of extremely tight construction, additional mechanical ventilation is recommended.
19. During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance; possibly causing headaches or eye or lung irritation. This is a normal and temporary occurrence.  

The initial break-in operation should last two to three hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in period will be slight and will disappear with continued use.
20. Input ratings are shown in BTU per hour and are for elevations up to 2,000 feet. For elevations above 2,000 feet, input ratings should be reduced 4 percent for each 1,000 feet above sea level. Refer to the National Fuel Gas Code.
21. 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 psig (3.5 kPa).
22. The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).
23. Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
24. This appliance must not be used with glass doors in the closed position. This can lead to pilot outages and severe sooting outside the fireplace.
25. Never burn solid fuels in a fireplace where a unvented room heater is installed.
26. Always have a fireplace screen in place when the appliance is in operation and, unless other provisions for combustion air are provided, the screen must have an opening(s) for induction of combustion air.

**MAKE SURE YOU HAVE RECEIVED ALL PARTS:**

Check your packing list to verify that all listed parts have been received. You should have the following:

- Unvented gas log grate/burner assembly
- Installation/operating instructions
- Ceramic Fiber logs
- Two (2) Plastic bags containing crushed volcanic rock
- Two (2) anchoring screws

The milli-volt controlled version of this heater is the only style designed to be operated with optional devices for ON/OFF functions. The following options may be used with the milli-volt controlled heater. These options are not packaged with the log set.

- Hand held Remote with receiver
- Wall switch with 15' wire
- Thermostat sensor
- Wall thermostat with 15' wire
- Hand held Thermostat Remote with receiver

The following options may be used with Hi/Lo control heater.

- Hand held Remote with receiver

**CAUTION**

- Handle the gas log burner assembly by the grate only. Do not pick the unit up by the burners.
- Gloves are recommended when handling ceramic fiber logs to prevent skin irritation from loose fibers. Logs are fragile — handle with care.

Carefully inspect the contents for shipping damage. If any parts are missing or damaged, immediately inform the dealer from whom you purchased the appliance. **Do not attempt to install any part of the appliance unless you have all parts in good condition.**

**WHAT YOU WILL NEED FOR INSTALLATION:**

You should have the following items available before proceeding with installation:

- External regulator (for propane/LPG and 1/2 lb. natural gas systems only)
- Piping which complies with local codes
- Screwdriver
- Pipe sealant approved for use with propane/LPG (Resistant to sulfur compounds)
- Drill with 5/32 bit
- Manual shutoff valve
- Sediment trap (recommended)
- Tee joint.
- Pipe wrench or appropriate size crescent wrench set

## PRODUCT FEATURES AND SPECIFICATIONS

### NATURAL GAS

**NOTE:** An external regulator is required to reduce supply pressure to a maximum of 10 1/2" W.C. (11" W.C. for HI/LO) on natural gas systems operating at higher pressure.

#### Manual Pressure

Regulator Pressure Setting: 3.0" w.c.

Gas Inlet Pressure: Max. 10 1/2" w.c.  
Min. 5" w.c.

#### Milli-Volt and T-Stat Pressure

Regulator Pressure Setting: 3.5" w.c.

Pilot Regulator: 3.5" w.c.

Gas Inlet Pressure: 10 1/2" w.c.  
Min. 5" w.c.

#### Hi/Lo Pressure

Regulator Pressure Setting: 3.5" w.c.

Pilot Regulator: 3.5" w.c.

Gas Inlet Pressure: Max. 11" w.c.  
Min. 6" w.c.

Model Number	Control	Gas Rate	
		Max BTU/Hr	Min BTU/Hr
DEB20NM	MANUAL	28,000	18,000
DEB24NM	MANUAL	38,000	20,000
DEB30NM	MANUAL	38,000	20,000
DEB20NV	MILLI-VOLT	28,000	18,000
DEB24NV	MILLI-VOLT	38,000	25,000
DEB30NV	MILLI-VOLT	38,000	25,000
DEB20NH	HI/LO	28,000	18,000
DEB24NH	HI/LO	38,000	20,000
DEB30NH	HI/LO	38,000	20,000
DEB20NT	THERMOSTAT	28,000	18,000
DEB24NT	THERMOSTAT	38,000	25,000
DEB30NT	THERMOSTAT	38,000	25,000

### PROPANE/LPG

**Note:** An external regulator is required to reduce supply pressure to a maximum of 13" w.c.

#### Manual Pressure

Regulator Pressure Setting: 10" w.c.

Gas Inlet Pressure: Max. 13" w.c.  
Min. 11" w.c.

#### Milli-Volt and T-Stat Pressure

Regulator Pressure Setting: 10" w.c.

Gas Inlet Pressure: Max. 13" w.c.  
Min. 11" w.c.

#### Hi/Lo Pressure

Regulator Pressure Setting: 10" w.c.

Gas Inlet Pressure: Max. 13" w.c.  
Min. 12" w.c.

Model Number	Control	Gas Rate	
		Max BTU/Hr	Min BTU/Hr
DEB20PM	MANUAL	28,000	18,000
DEB24PM	MANUAL	38,000	20,000
DEB30PM	MANUAL	38,000	20,000
DEB20PV	MILLI-VOLT	28,000	20,000
DEB24 PV	MILLI-VOLT	38,000	30,000
DEB30PV	MILLI-VOLT	38,000	30,000
DEB20PH	HI/LO	28,000	21,000
DEB24PH	HI/LO	38,000	22,000
DEB30PH	HI/LO	38,000	22,000
DEB20PT	THERMOSTAT	28,000	20,000
DEB24PT	THERMOSTAT	38,000	30,000
DEB30PT	THERMOSTAT	38,000	30,000

### IGNITION CONTROLS

Piezo ignitor allows ignition of the pilot without the use of matches or batteries.

**Manual control has three (3) positions:**

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Valve position to light/maintain a standing pilot.
- HI/LOW** - Variable position corresponding to desired flame height.

**Hi/Lo remote control valve has five (5) positions:**

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Position not used on this log set.
- PILOT** - Valve position to light/maintain a standing pilot.
- ON** - Valve position to turn ON.
- HI/LOW** - Variable position corresponding from pilot only to desired flame height.

**Milli-Volt and T-Stat control has four (4) positions:**

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Valve position to light/maintain a standing pilot.
- ON** - Valve position to turn ON/OFF log set with remote switch/thermostat.
- LOW/HI** - Variable position to control flame height (heat output).

### PILOT/ODS

The gas log heater is fitted with a specially designed safety pilot (ODS assembly) which senses the amount of oxygen available in the room and shuts the gas log heater off if the oxygen level begins to drop below a satisfactory level. The pilot can only be relit when adequate fresh air is available.

### THERMAL GENERATOR

The milli-volt/t-stat gas log pilot is fitted with a milli-volt (thermopile) generator to provide power for remote activation.

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## GENERAL INSTALLATION INFORMATION

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### CODES

Adhere to all local codes or, in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSI Z223.1 or NFPA54 which can be obtained from...

**American National Standards Institute, Inc.**

1430 Broadway  
New York, NY 10018

or

**National Fire Protection Association, Inc.**

Batterymarch Park  
Quincy, MA 02269

### ADEQUATE COMBUSTION AND VENTILATION AIR

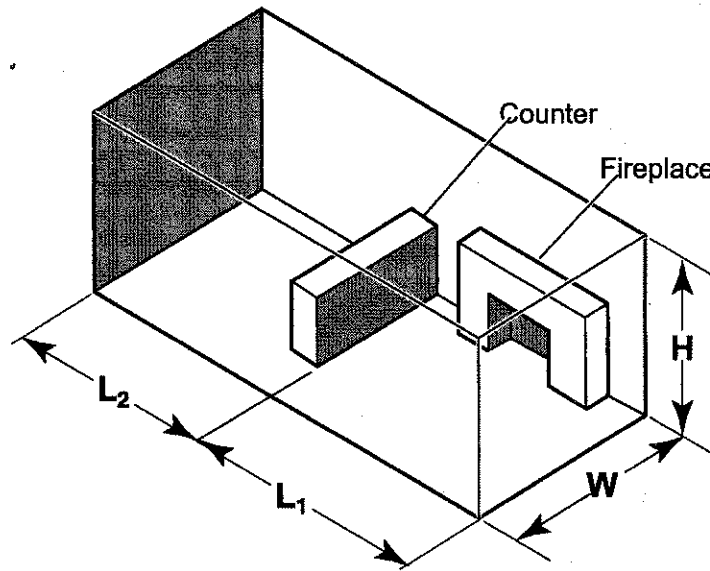
This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

The National Fuel Gas Code, (ANSI Z223.1/NFPA 54), defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 BTU per hour (4.8 m<sup>3</sup> per kw) of the aggregate input rating of all appliances installed in that space. An unconfined space is defined as a space whose volume is not less than 50 cubic feet per 1,000 BTU per hour (4.8 m<sup>3</sup> per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

### UNUSUALLY TIGHT CONSTRUCTION IS DEFINED AS CONSTRUCTION WHERE...

- a) walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 perm ( $6 \times 10^{11}$  kg per pa-sec-m<sup>2</sup>) or less with openings gasketed or sealed;
- b) weather striping has been added on openable windows and doors, and
- c) caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

## GENERAL INSTALLATION INFORMATION



**Figure 1 - Example of a Large Room with 1/2 Wall Divider**

The following formula can be used to determine the maximum heater rating per the definition of unconfined space:

$$\frac{\text{BTU/Hr} = (L_1 + L_2) \text{ Ft} \times (W) \text{ Ft} \times (H) \text{ Ft}}{50} \times 1000$$

Consider two connecting rooms with an open area between, with the following dimensions:

$$L_1 = 15\frac{1}{2} \text{ Ft.}, L_2 = 12 \text{ Ft.}, W = 12 \text{ Ft.}, H = 8 \text{ Ft.}$$

$$\frac{\text{BTU/Hr} = (15\frac{1}{2} + 12) \times (12) \times (8)}{50} \times 1000 = 52800 \text{ BTU/Hr}$$

If there were a door between the two rooms the calculation would be based only on the room with the heater.

$$\frac{\text{BTU/Hr} = (15\frac{1}{2}) \times (12) \times (8)}{50} \times 1000 = 29760 \text{ BTU/Hr}$$

**WARNING**

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3 or applicable local codes.

## FIREPLACE AND HEARTH DIMENSIONS

**WARNING**

This appliance is for installation only in a solid-fuel burning masonry or UL127 factory-built fireplace or in a listed ventless firebox enclosure. It has been design certified for these installations.

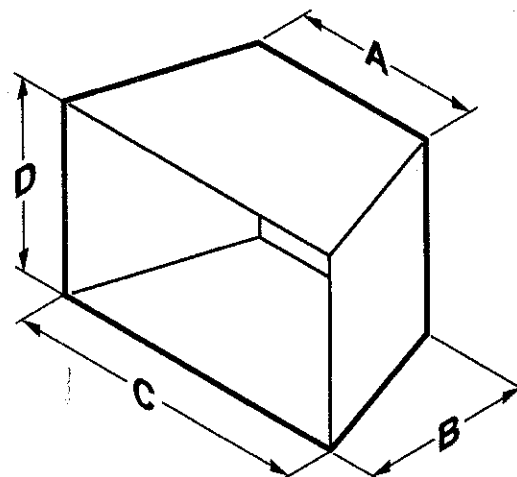
**Exception:** DO NOT install this appliance in a factory-built fireplace that includes instructions stating it has not been tested or should not be used with unvented gas logs.

Use manufacturer's installation and clearance requirements as defined in their manual.

The DEB Series unvented room heater is approved for installation into the following unvented fireplaces:  
**GCUF Series Fireboxes 32, 36, or 42**

The DEB Series unvented room heater may also be installed into a Ventless Firebox Enclosure for Gas Fired Decorative Type Unvented Room Heaters per IAS Requirement No. 2-97 ANSI Z21.91-2001 (typically referred to as a "Universal Firebox"), as long as firebox hearth dimensions meet the minimum hearth dimensions shown below.

Model	A	B	C	D
DEB20	18"	13 <sup>1</sup> / <sub>4</sub> "	27"	17"
DEB24	22 <sup>1</sup> / <sub>4</sub> "	13 <sup>1</sup> / <sub>4</sub> "	28 <sup>1</sup> / <sub>2</sub> "	17"
DEB30	25 <sup>1</sup> / <sub>2</sub> "	13 <sup>1</sup> / <sub>4</sub> "	32 <sup>1</sup> / <sub>2</sub> "	17"



**Figure 2 - Hearth Minimum Dimension**

