

# heatilator®

*The first name in fireplaces*

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## INSTALLATION & OPERATING INSTRUCTIONS

### CALIBER DESIGNER B-VENT SERIES



U.S. Patent 5,613,487

**WARNING:** 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.

**CAUTION:**

Do not expose the appliance to the elements (such as rain, etc.).

**WARNING!**

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

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**WARNING!**

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.

### SAFETY PRECAUTIONS

1. Please read these installation instructions completely before beginning installation procedures. Failure to follow them could cause an appliance malfunction resulting in serious injury and/or property damage.
2. Always check your local building codes prior to installation. This installation must comply with all local, regional, state and national codes and regulations.
3. Installation and repair should be done by a qualified service person. This appliance should also be inspected annually by a qualified service person. More frequent inspections/cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.
4. This is a vented decorative gas appliance. Do not burn wood or other material in this appliance.
5. NEVER leave children unattended when there is a fire burning in the appliance.
6. This appliance may only use the approved venting systems shown in these installation instructions. Venting must not be connected to chimney flue servicing a solid fuel burning appliance or a gas fuel burning appliance.
7. NEVER use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this appliance. Keep any flammable liquids a safe distance from the appliance.
8. While servicing this appliance, always shut off all electricity and gas to the appliance. This will prevent possible electrical shock or burns. Also, make sure the appliance is completely cooled before servicing.
9. 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.
10. Be sure to provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.

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## DESIGN AND INSTALLATION CONSIDERATIONS

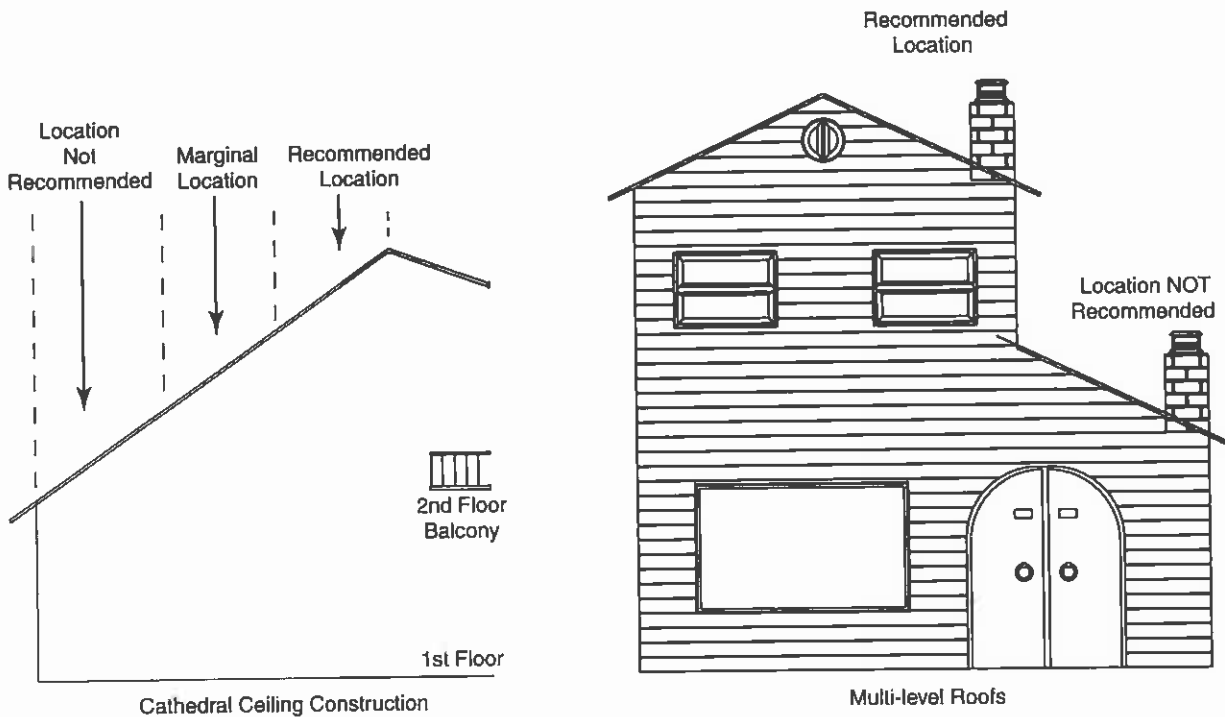
When selecting a location for your B-Vent appliance, it is important to evaluate a number of considerations. Modern construction techniques can create conditions that may not allow your vent to draft properly. This may result in spillage from your B-Vent appliance, as well as cause other combustion appliances to operate incorrectly.

Tightly sealed construction is important for energy efficiency. Unfortunately, a great deal of effort has been directed to tightening up sidewall construction, while considerably less attention has been paid to tightening upper portions of the warm air envelope (insulated ceilings). This has increased the "Stack Effect", a condition that increases the negative pressure generated by the structure. This negative pressure will directly affect the drafting performance of a B-Vent appliance vent. To minimize the negative pressure generated by stack effect, make certain that all ductwork installed in the attic spaces is sealed airtight. Minimize the number of recessed light fixtures installed in the insulated ceiling and use sealed recessed light fixtures. Finally, make certain the whole house fans and attic access panels are tightly sealed. These are important design considerations that must be observed during the design and construction stage of the home.

If you desire to put an appliance in your basement, we recommend that you consider a direct vent gas appliance. Basements always have a significant negative air pressure that causes the B-Vent system to be more susceptible to spillage and cold flue back drafting. Since direct vent gas appliances are sealed, they are not affected by the negative pressure that exists in basements.

Finally, a B-Vent appliance performs best when the vent (roof termination) is located on the upper half of the roof, especially when cathedral ceilings are present. Vents that are located on the lower half of the roof realize what is known as "lazy flue" and will not draft as well as a vent that is located in the upper portion of the roof. The reason for this is that the stack effect generated by the overall height of the living spaces inside the house will exceed the draft generated by the vent system. If you desire to place an appliance in a location where the termination cap would be located on the lower half of a roof, such as on an outside wall at the base of a cathedral ceiling, we recommend that you consider using a direct vent gas appliance. This will ensure an appliance that operates correctly.

These properties do not affect just your B-Vent appliance. They can cause any woodburning appliance as well as any conventionally vented (B-Vent) gas appliance to operate improperly. Careful planning at this stage of your project will ensure satisfaction with the operation of your appliance once it is completed.



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## A. APPLIANCE SPECIFICATIONS

### 1. U.S. AND CANADA CERTIFICATION

The Caliber Designer B-Vent Series gas appliance has been tested in accordance with the ANSI standard Z21.50-1996 (Decorative); in Canada, the current CAN/CGA M2.22-M96, IR41, P4, and IR55 and has been LISTED by Underwriters Laboratories Inc. for installation as described in this manual. All components are UL or AGA safety certified.

### 2. LOCAL CODES

This installation must conform with local Codes. In the absence of local Codes comply with the National Fuel Gas Code ANSI Z223.1-latest edition in the U.S.A., and the CAN/CGA B149 Installation Codes in Canada.

If you need assistance during installation contact your local dealer or Heatilator Technical Services Department, Hearth & Home Technologies, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641, 800-843-2848.

HEATILATOR® is a registered trademark of Hearth & Home Technologies (HHT), Division HON Industries.

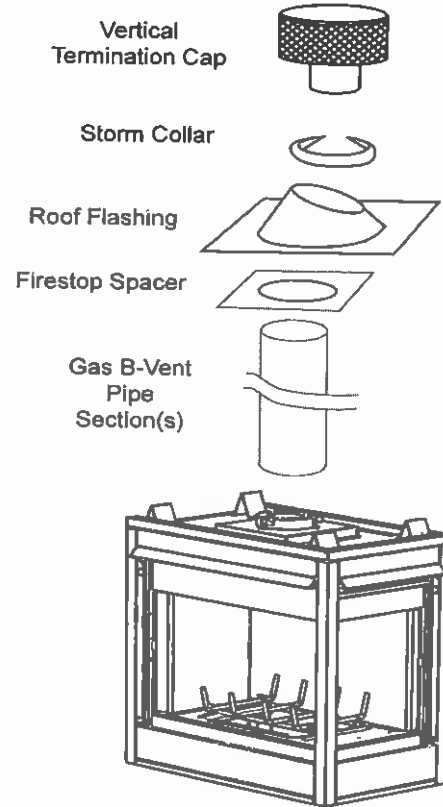
### 3. GLASS CERTIFICATION AND SPECIFICATIONS

Heatilator gas appliances manufactured with tempered glass may be installed in hazardous locations such as bathtub enclosures as defined by the CPSC. The tempered glass has been tested and certified to the requirements of ANSI Z97.1-1984 and CPSC 16 CFR 1202. (Safety Glazing Certification Council SGCC# 1595 and 1597. Architectural Testing, Inc. Reports 02-31919.01 and 02-31917.01.)

This statement is in compliance with SPCS 16 CFR Section 1201.5 "Certification and labeling requirements" which refers to 15 USC 2063 stating "...Such certificate shall accompany the product or shall otherwise be furnished to any distributor or retailer to whom the product is delivered."

Some local building codes require the use of tempered glass with permanent marking in such locations. Glass meeting this requirement is available from the factory. Please contact your dealer or distributor to order.

### Typical Vertical Installations



**We strongly recommend that you DO NOT install B-Vent Gas Appliances in strong negative air locations, such as a basement or a public facility. Living rooms with cathedral ceilings could be susceptible to a negative air situation, but such installations can be overcome through raising the termination, depending on specific installations. This appliance uses room air for normal operation and could have problems establishing a positive draft in a negative air location. In lieu, we recommend a Direct Vent Gas Appliance.**

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**Note:** Minimum and maximum clearances must be maintained at all times. Illustrations throughout these instructions reflect typical installations and are for design purposes only. Actual installation may vary slightly due to individual design preferences.

The illustrations and diagrams used throughout these installation instructions are not drawn to scale.

**Tools and building supplies normally required for installation:**

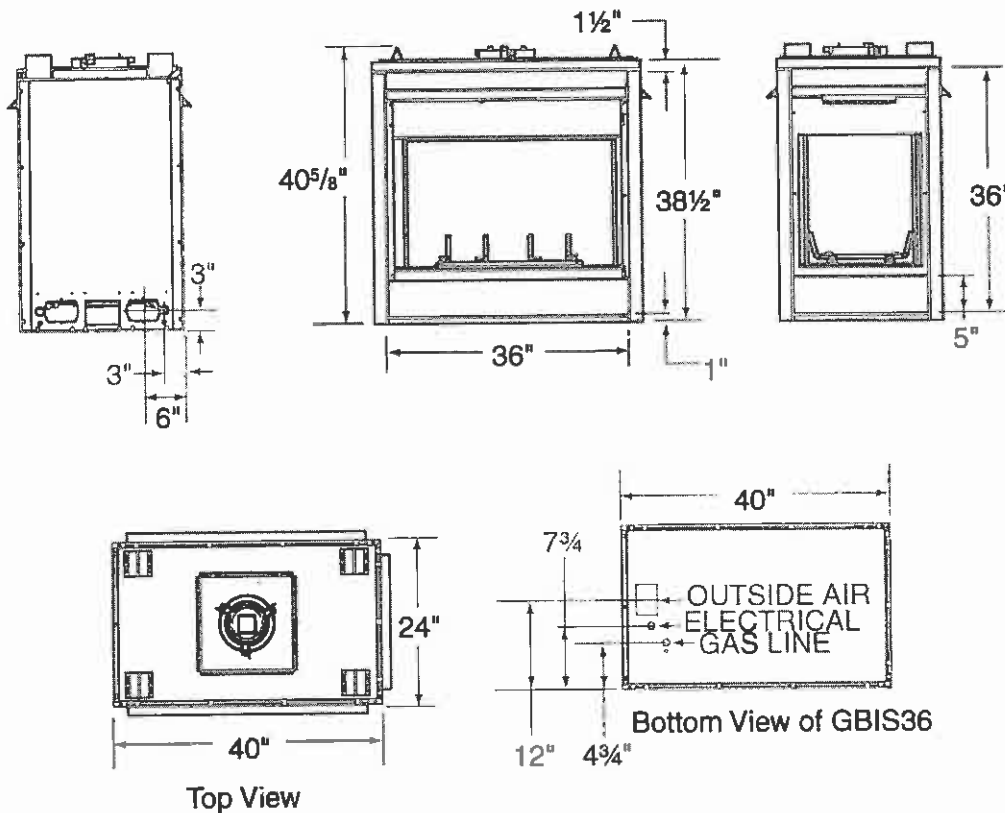
**Tools:**

- Saw
- Pliers
- Hammer
- Phillips Screwdriver
- Tape measure
- Plumb Line
- Level
- Electric Drill/Bits
- Framing Square
- Safety Gloves

**Building Supplies:**

- Wall-finishing materials
- Framing material
- Appliance Surround
- Caulking material

Catalog #	Description
GBST36	See-through, standing pilot, natural gas appliance
GBFL36	Peninsula, standing pilot, natural gas appliance
GBCR36	Corner Right, standing pilot, natural gas appliance
GBCL36	Corner Left, standing pilot, natural gas appliance
GBIS36	Island, standing pilot, natural gas appliance
<b>The following suffixes are defined as follows:</b>	
no suffix	Standing Pilot, Natural Gas
L	Standing Pilot, Propane Gas
E	Electronic Ignition, Natural Gas
LE	Electronic Ignition, Propane Gas
Example:	GBST36LE is a See-Through, electronic ignition, propane gas appliance.



Appliance Dimensions

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## B. LOCATION AND CLEARANCES

**WARNING!**

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

### 1. APPLIANCE LOCATIONS AND SPACE REQUIREMENTS

Figure 1 illustrates a variety of ways the appliance may be located in a room. The Caliber Designer Series may be installed directly on the floor or raised on a hearth. These appliances are certified for installation in a bedroom, bed/sitting room or bathroom in the U.S. and Canada, provided that the bedroom or bathroom has a volume of at least 1700 cubic feet.

Common venting of this gas appliance with other gas appliances is not allowed in multifamily dwellings.

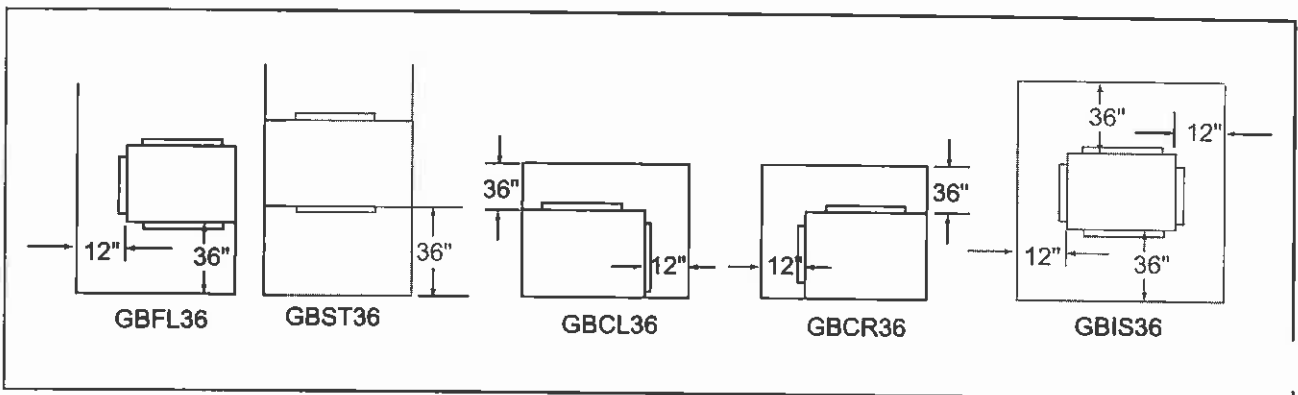


Figure 1  
Appliance Locations and Clearances

### 2. CLEARANCES

Figure 2 shows venting clearances that must be maintained through the floor or ceiling.

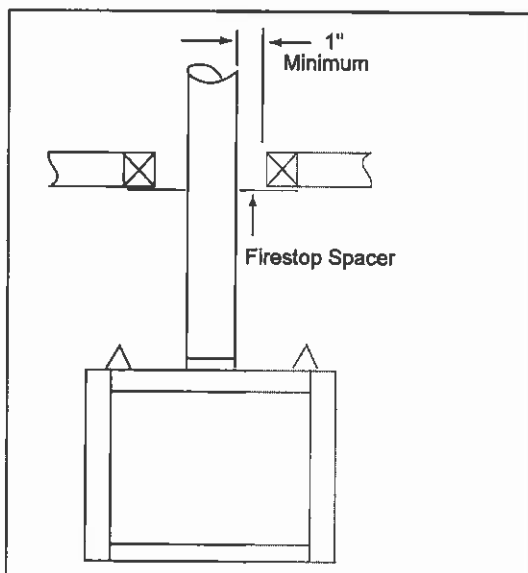


Figure 2  
Venting Clearances to Combustible Materials

### 3. HIGH ALTITUDE INSTALLATION

For U.S. installation, appliances are tested and approved for elevations from 0-2000 feet. When installing this appliance at an elevation above 2000 feet, United States codes require a decrease of the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4% for each 1000 feet above sea level. Check with the local gas utility for proper orifice size identification.

For Canada, appliances are certified for elevations from 0-4500 feet. When installing this appliance at an elevation between 0-4500 feet in Canada, the input rating does not need to be reduced. When installing this appliance at an elevation above 4500 feet in Canada, check with local authorities.

**CAUTION:**

Wear gloves and safety glasses for protection.

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## C. FRAMING

Figure 3 shows a typical framing of this appliance using combustible materials. All required clearances to combustibles must be adhered to.

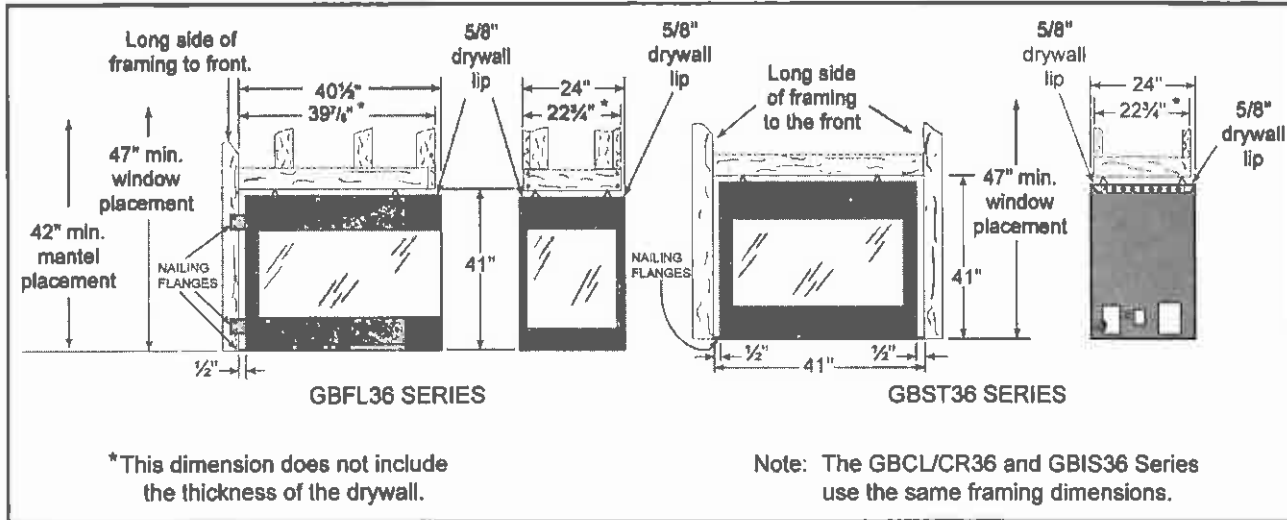


Figure 3 - Framing

## D. SETTING THE APPLIANCE

This appliance may be placed on a smooth combustible or noncombustible continuous, flat surface. When the appliance is 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. Slide the appliance into position and level the appliance from side-to-side and front-to-back. Shim with noncombustible material as necessary.

Secure the appliance by bending out the nailing flanges on each side of the appliance and nail to framing. The nailing flanges have been positioned 5/8" back from the front of the appliance to allow the addition of drywall.

### WARNING!

To prevent contact with sagging or loose insulation, the appliance must **not** be installed against vapor barriers or exposed insulation. Localized overheating could occur and a fire could result.

### CAUTION:

Provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.

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## E. VENTING

### 1. VERTICAL TERMINATION

**Note:** This appliance is designed and tested for use with a listed 5-inch B-Vent system. NEVER downsize pipe.

This appliance is designed and tested for use with a listed 5 inch B-Vent vent system.

**a. Clearances**

Vent clearances are per vent manufacturer's specifications.

**b. Vent Lengths**

Various venting configurations are shown in Figures 4 and 5 from which maximum vent runs can be determined.

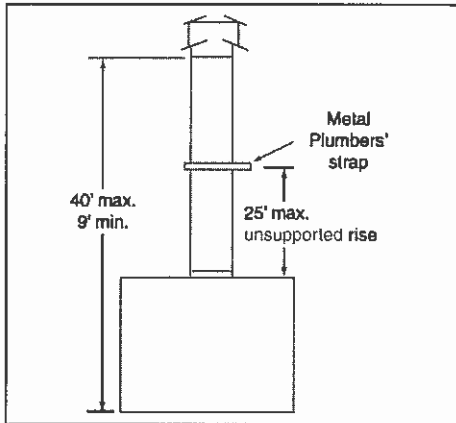


Figure 4 - Vertical Termination Vent Lengths

**WARNING - RISK OF FIRE!**

Always maintain minimum clearances or greater around the vent system. Do not pack air spaces with insulation or other material.

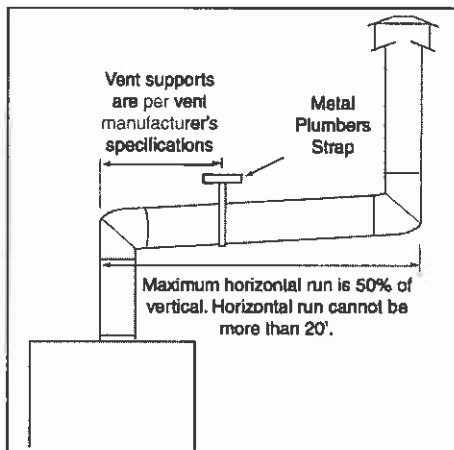


Figure 5 - Vertical Termination Vent Lengths

**WARNING!**

The horizontal run of vent must have a 1/4" rise for every 1 ft. of run towards the termination. Never allow the vent to run downward. This could cause high temperatures and may present a fire hazard.

### 2. FIRESTOP SPACER/VENT INSTALLATION

Frame an opening and install a firestop spacer whenever the vent penetrates a ceiling/floor area, as shown in Figure 6. Frame the opening with the same sized lumber as used in the ceiling floor joists. Unless the flue is offset, the hole should be directly above the appliance. DO NOT pack insulation around the vent. Assemble vent sections with three screws per joint.

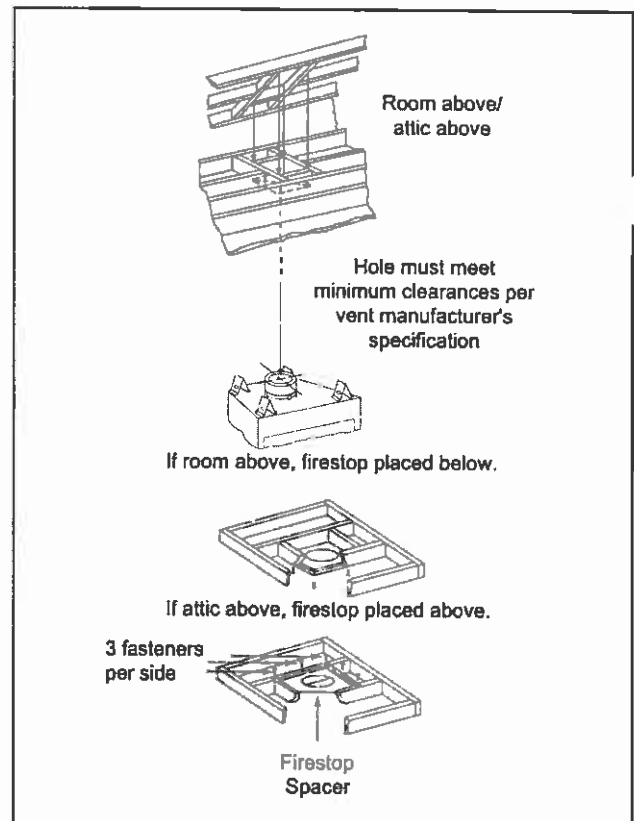


Figure 6  
Installing the firestop spacer

**CAUTION:**

Provisions shall be made to provide adequate combustion and ventilation air.