

heatilator®

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INSTALLATION & OPERATING INSTRUCTIONS

CALIBER DESIGNER DIRECT VENT DECORATIVE GAS APPLIANCE



Meets All HUD Requirements for Manufactured Housing Installations
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.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

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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 or any gas control that 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

A. APPLIANCE SPECIFICATIONS

1. U.S. AND CANADA CERTIFICATION

The Caliber Series Gas Appliance has been tested in accordance with the ANSI standard **Z21.50-1998**, **CSA 2.22-M98**, and **UL 307B**, and has been listed by Underwriters Laboratories Inc. for installation as described in this manual. All components are UL, AGA, CGA or CSA 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.

The Caliber Designer Series gas appliance has been tested and listed for use in manufactured housing (mobile homes). These installation instructions 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 A225.1**.

For assistance during installation contact your local dealer or contact Heatilator Technical Services Department, Hearth & Home Technologies, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641, 1-800-843-2848.

HEATILATOR® is a registered trademark of Hearth & Home Technologies

3. GLASS SPECIFICATIONS/CERTIFICATIONS

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 requirement 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."

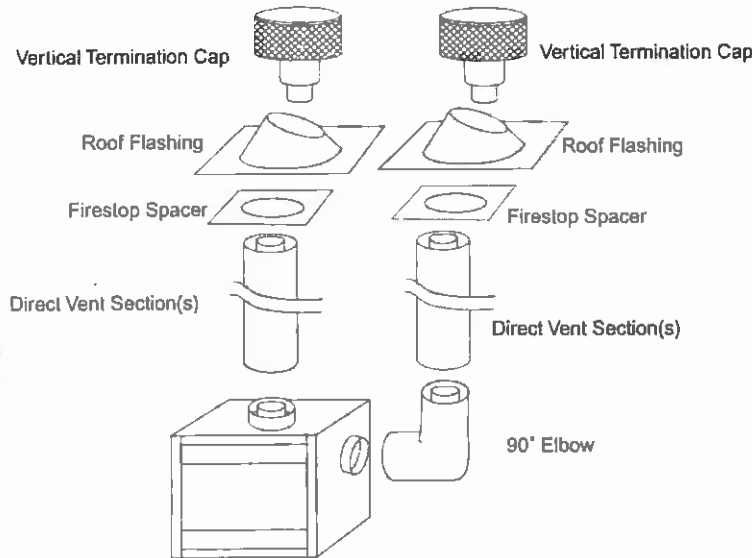
Some local building codes require the use of tempered glass with permanent marking in such locations. Glass meeting this requirement is available from the factory. Please contact your dealer or distributor to order.

CAUTION:

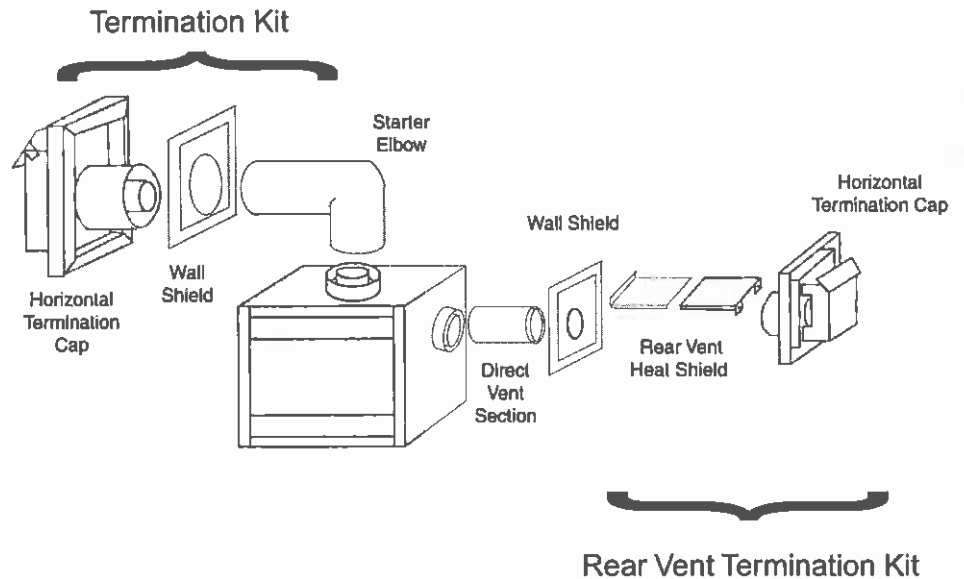
Do not expose the appliance to the elements (such as rain, etc.).

Note: Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified 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 of the appliance be kept clean.

TYPICAL VERTICAL INSTALLATIONS



TYPICAL HORIZONTAL INSTALLATIONS



Tools, building supplies and components normally required for installation:

- | | |
|----------------------|-----------------------------|
| Saw | Wall-finishing materials |
| Pliers | Framing material |
| Hammer | Appliance surround |
| Phillips screwdriver | Caulking material |
| Tape measure | Gas Appliance |
| Plumb line | Venting |
| Level | Termination cap |
| Gloves | Hearth sheet (if necessary) |
| Safety glasses | Optional components: |
| | Decorative doors |
| | Trim kits |

CAUTION:
Wear gloves and safety glasses for protection.

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NOMENCLATURE

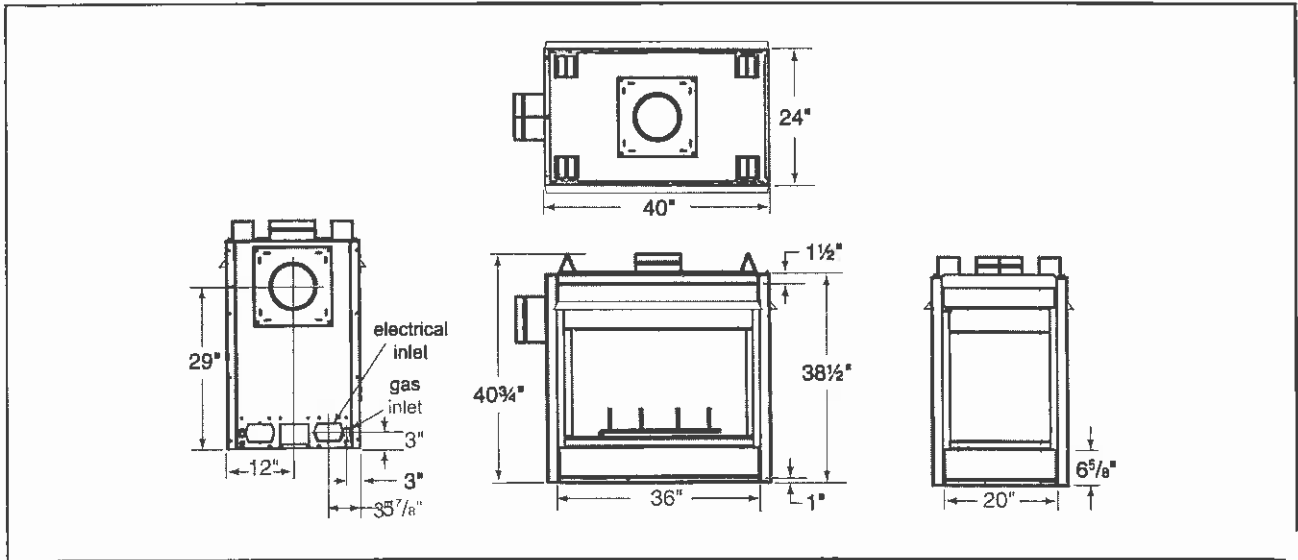
Catalog #	Description
GDCH60	Bay, Natural Gas, Standing Pilot Appliance (top vent only)
GDST60	See-Through, Natural Gas, Standing Pilot Appliance
GDFL60	Peninsula, Natural Gas, Standing Pilot Appliance
GDCR60	Corner Right, Natural Gas, Standing Pilot Appliance
GDCL60	Corner Left, Natural Gas, Standing Pilot Appliance
The following suffixes are defined as follows:	
No suffix	Natural Gas, Standing Pilot
L	Propane Gas, Standing Pilot
E	Natural Gas, Electronic Ignition
LE	Propane Gas, Electronic Ignition
V	Electric Ember Bed
Examples:	GDST60LE is a See-Through, propane gas, electronic ignition appliance
	GDFL60 is a Peninsula, natural gas, standing pilot appliance
Installation Components	Description
CS	Direct Vent Cap Shield for horizontal termination only
VPTH	Horizontal Termination Cap
VP-TR	Standard Horizontal Termination Cap with 5" collar-length with heat shield - Rear Vent
VP-TR2	Standard Horizontal Termination Cap with 3.5" collar-length with heat shield - Rear Vent
VPTV	Vertical Termination Cap
VP-VT1	Alternate Horizontal Termination Cap
VP-VT1X	Alternate Horizontal Termination Cap
VP-TB1	Basement Horizontal Termination Cap
VP45	45° Elbow
VP90ST	90° Starter Elbow (The first elbow in the system when venting off the top.)
VP90	90° Elbow
VP4	4" Vent Pipe
VP6	6" Vent Pipe
VP12	12" Vent Pipe
VP24	24" Vent Pipe
VP36	36" Vent Pipe
VP48	48" Vent Pipe
VP6-9	6-9" Slip Section
VP9-14	9-14" Slip Section
VP14-24	14-24" Slip Section
VP12MI	12" Vent Section (non-unitized can be cut to length)
VP24MI	24" Vent Section (non-unitized can be cut to length)
VP-THK	Top Vent Horizontal Kit (Cap, Wall Shield, 6-9" Slip Section, Starter Elbow)
VP-THK-MI	Top Vent Horizontal Kit (Cap, Wall Shield, VP24MI, Starter Elbow)
VP-TRK	Rear Vent Horizontal Kit (Cap, Wall Shield, Heat Shield, 6-9" Slip Section)
VP-TRK2	Rear Vent Horizontal Kit (Cap, Wall Shield, Heat Shield, 4" Vent Section)
FS6	Firestop Spacer
WS6	Wall Shield
VS4	Vertical Vent Support
VSS2	Vinyl Soffit Shield
RF6	Roof Flashing (vertical termination for 0/12 to 6/12 pitch)
1243S	Steep Pitch Roof Flashing (for 7/12 to 12/12 pitch)

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B. LOCATION AND CLEARANCES

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.



Dimensions

1. APPLIANCE LOCATIONS AND SPACE REQUIREMENTS

Figure 1 illustrates a variety of ways the appliance may be located in a room. The Caliber 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, and in manufactured housing (mobile homes) in the U.S. and Canada.

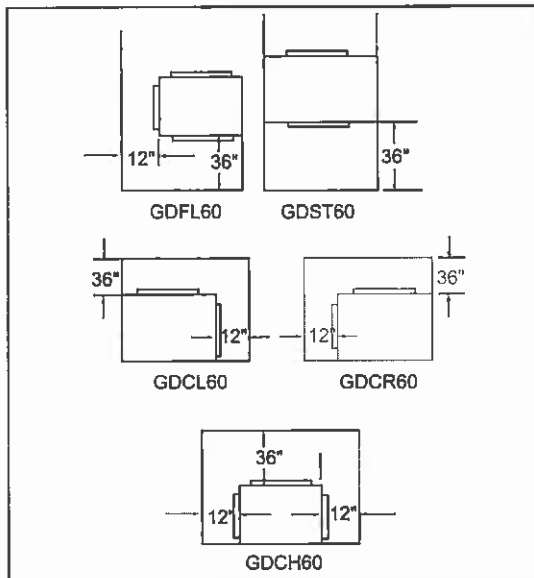


Figure 1 - Appliance Locations

2. CLEARANCES

Figure 2 shows all clearances that must be maintained around the appliance. See pages 10 and 11 for termination cap clearances. See Figures 17, 18, 27 and 30 for vent clearances.

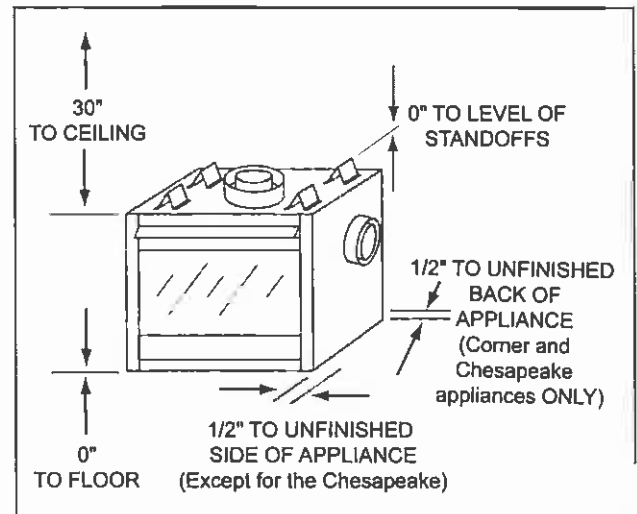


Figure 2
Appliance Clearances to Combustible Materials

C. FRAMING

1. FRAMING THE APPLIANCE

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

CAUTION:

Provide adequate clearances around the air openings to this appliance. Covering them may create a fire hazard. Adequate accessibility clearances are necessary for servicing and proper operation.

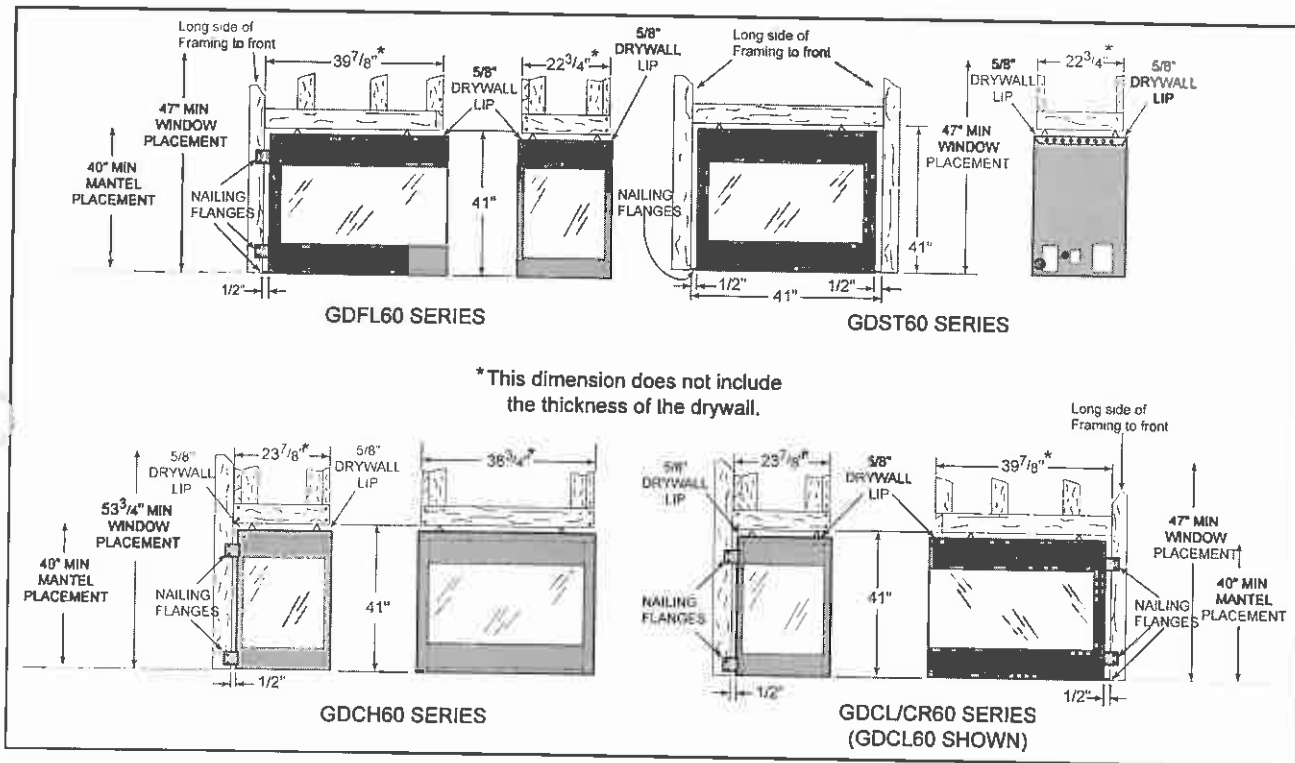


Figure 3 - Framing

Note: Mantel & window placement height dimensions shown in Figure 3 are measured from the base of the appliance.

Note: When installing the GDST60 and the GDFL60 series direct vent appliances, it is important not to cover or frame in the lower face on the side opposite the control access panel. These appliances have latches on the bottom of the glass that must be opened in order to remove the glass for cleaning. If you cover the lower face, access to the latches will not be possible. The access panel on this side of the appliance is fixed in place with two screws that must be removed to gain access to the latches. Again, if the non-valve side access panel is covered with your noncombustible material you will not be able to remove the glass.

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.

WARNING!
Be sure to provide adequate clearances around the air openings into the appliance and adequate accessibility clearances for servicing and proper operation.

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2. INSTALLING THE INTERIOR WALL SHIELD (WS6)

Whenever a combustible wall is penetrated, the hole must be framed with an interior wall shield (WS6) as shown in Figures 4 and 5. This shield maintains minimum clearances and restricts cold air infiltration. Secure the shield to the framing as shown in Figure 6.

The cap should overlap the vent sections by at least 1½". See Figure 7.

If the wall being penetrated is of noncombustible materials, a 9" diameter hole is acceptable.

Note: Exterior wall thickness must be a minimum of 4" to a maximum of 23½"

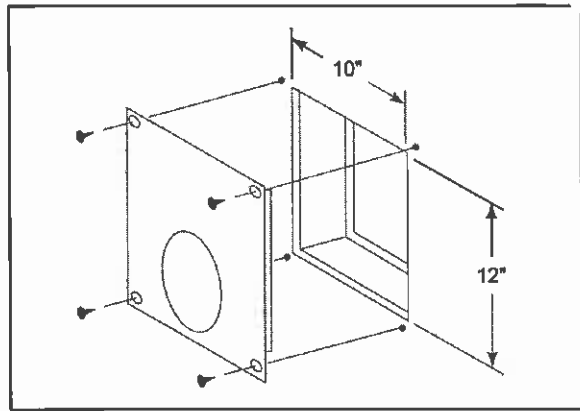


Figure 6
Interior Wall Shield

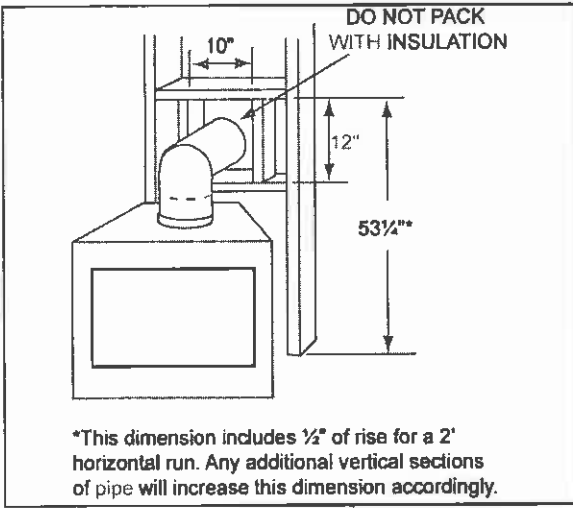


Figure 4 - Exterior Wall Hole
(top venting)

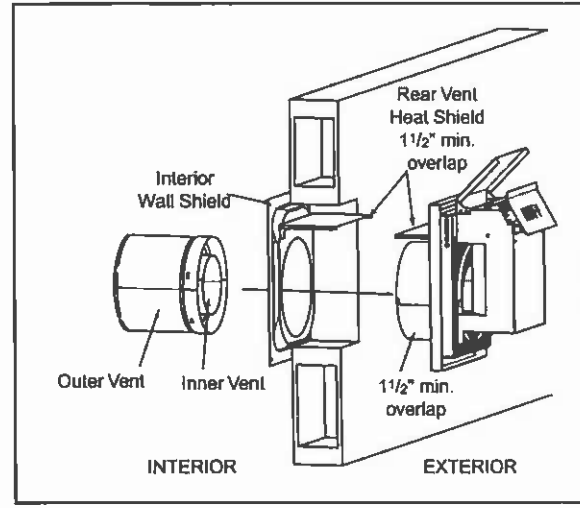


Figure 7
Venting Through the Wall

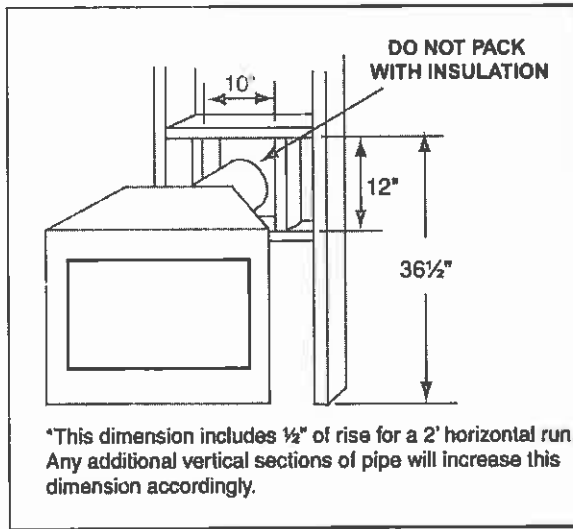


Figure 5 - Exterior Wall Hole
(rear venting)

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

WARNING!
This appliance may only use the direct vent system designed for use with the appliance and must not be connected to a chimney flue servicing a separate solid or gas-fuel burning appliance.

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3. FIRESTOP SPACER/VENT INSTALLATION

Frame an opening and install a firestop spacer (FS6) whenever the vent penetrates a ceiling/floor area, as shown in Figure 8. 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.

WARNING!

Be sure there are no present (nor future) obstructions to the termination cap such as trees, bushes, snow drifts, etc.

WARNING!

Exhaust products of gasoline engines are hazardous. The outside air must not be taken from a garage space, attic spaces, basements, or above the roofing where other heating appliances, fans or chimneys exhaust or utilize air.

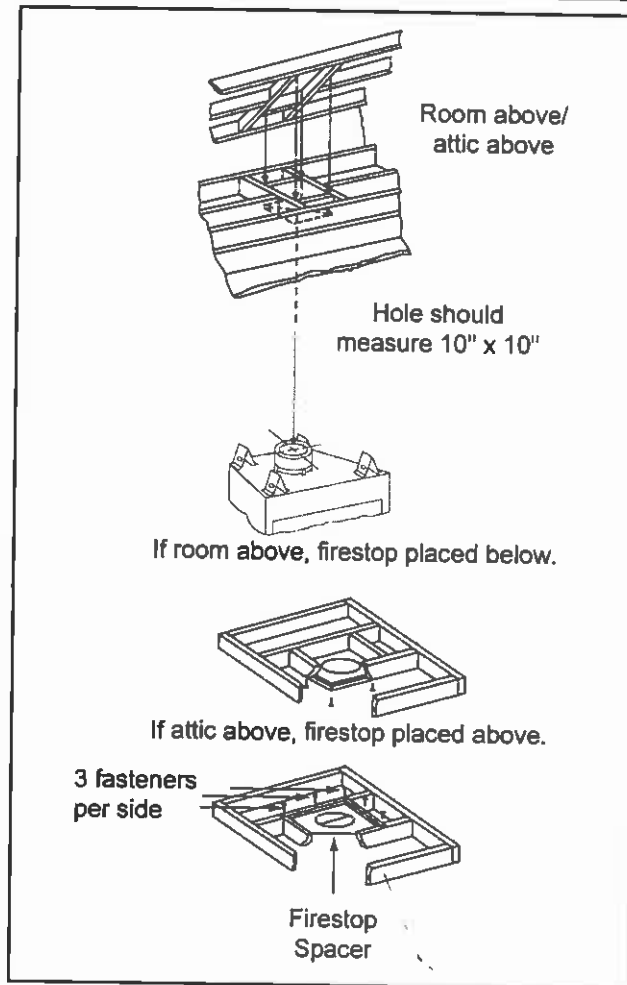


Figure 8 - Installing the Firestop Spacer

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4. CHASE/TERMINATION INSTALLATION

Figures 9 and 10 and Table 1 specify minimum vent heights for various pitched roofs.

These vent heights are necessary for safety and do not ensure draft-free operation. Trees, buildings, adjoining roof lines, adverse conditions, etc. may create a need for a taller vent should down drafting occur.

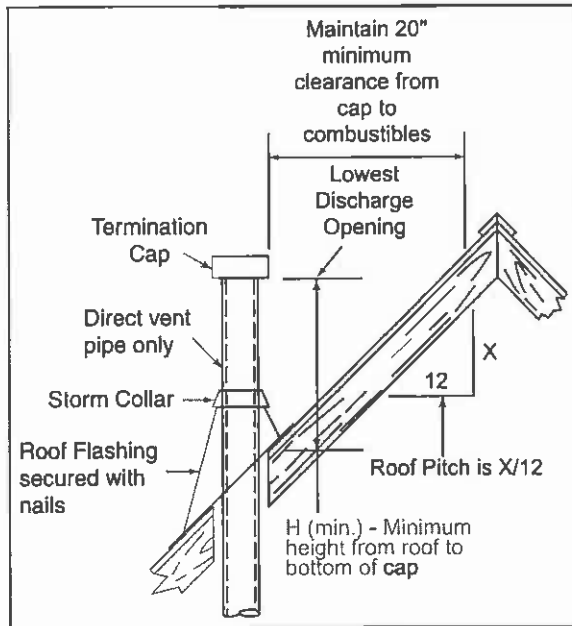


Figure 9

Vent Height for Vertical Termination

Roof Pitch	H (Min.) Ft.
Flat to 6/12	1.0
6/12 to 7/12	1.25
Over 7/12 to 8/12	1.5
Over 8/12 to 9/12	2.0
Over 9/12 to 10/12	2.5
Over 10/12 to 11/12	3.25
Over 11/12 to 12/12	4.0
Over 12/12 to 14/12	5.0
Over 14/12 to 16/12	6.0
Over 16/12 to 18/12	7.0
Over 18/12 to 20/12	7.5
Over 20/12 to 21/12	8.0

Table 1

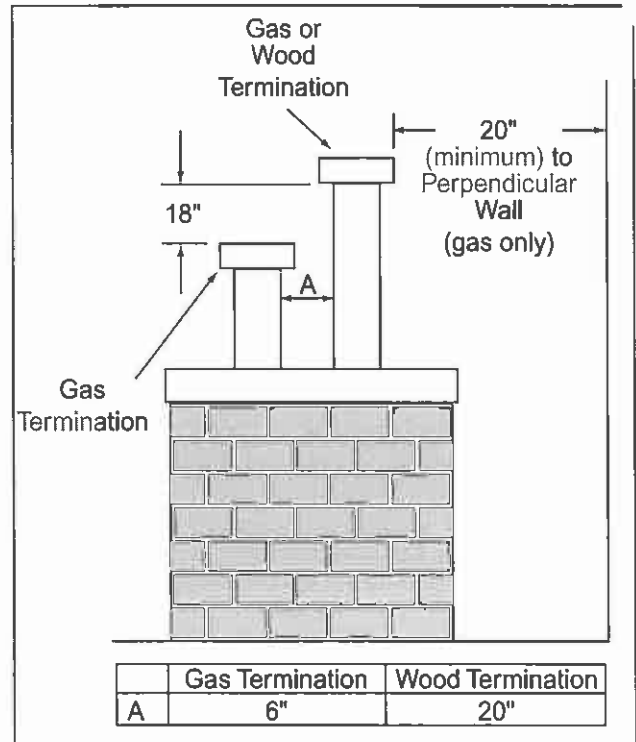


Figure 10

Multiple Vertical Termination Clearances

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5. TERMINATION CAP LOCATIONS

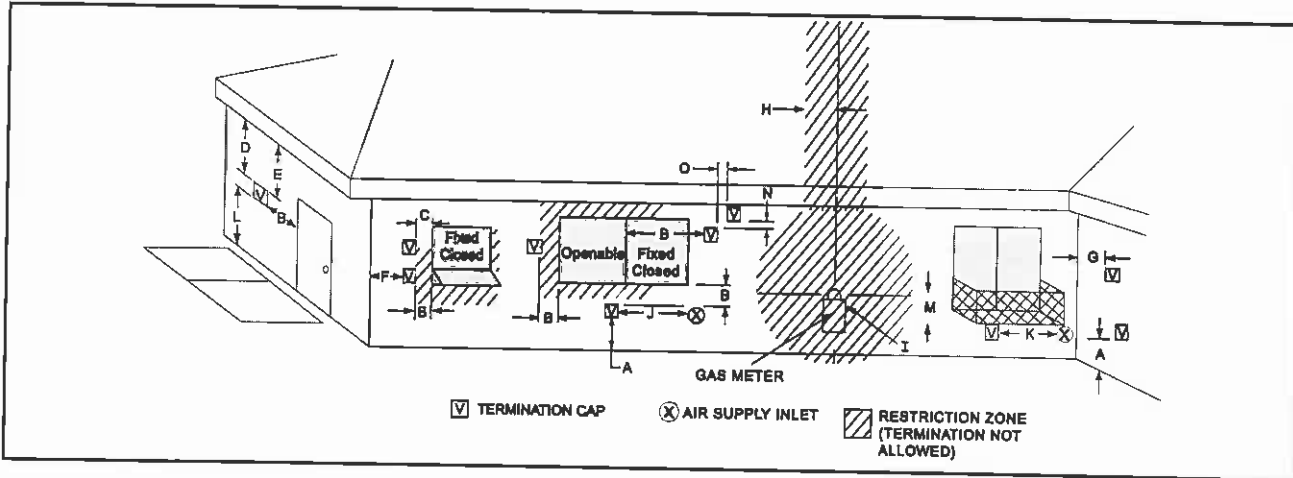


Figure 11 - Termination Cap Locations

DIMENSION DESCRIPTIONS

- A Clearance above the ground, a veranda, porch, deck or balcony - 12 inches (30 cm) minimum. *
- B Clearance to window or door that may be opened – 10,000 BTUs or less, 6 inches (15 cm) minimum; 10,000-50,000 BTUs, 9 inches (23 cm) minimum; over 50,000 BTUs, 12 inches (30 cm) minimum. *
- C Clearance to permanently closed window – 12 inches (30 cm) minimum - recommended to prevent condensation on window.
- D Vertical clearance to ventilated soffit located above the termination within a horizontal distance of 2 feet (60 cm) from the centerline of the termination – 18 Inches (46 cm) minimum. **
- E Vertical clearance to unventilated soffit - 12 inches (30 cm) minimum. **
- F Clearance to outside corner - 6 inches (15 cm) minimum.
- G Clearance to inside corner - 6 inches (15 cm) minimum.
- H Not to be installed above a meter/regulator assembly within 3 feet (90 cm) horizontally* from the center line of the regulator
- I Clearance to service regulator vent outlet - 6 feet (1.8m) minimum. *
- J Clearance to non-mechanical air supply inlet into building or the combustion air inlet to any other appliance - 12 inches (30 cm) minimum. *
- K Clearance to mechanical air supply inlet - 6 feet (1.8 m) minimum. *
- L Clearance above a paved sidewalk or paved driveway located on public property - 7 feet (2.1 m) minimum.
A vent may not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.
- M Clearance under veranda, porch, deck or balcony - 12 inches (30 cm) minimum. * Recommended 30 inches (76 cm) for vinyl or plastic.
Only permitted if veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor. *

- N Vertical clearance between two horizontal termination caps – 12 inches (30 cm) minimum.
- O Horizontal clearance between two horizontal termination caps – 12 inches (30 cm) minimum.
- * As specified in CGA B149 Installation Codes

Note: Local codes or regulations may require different clearances.

** Clearance required to vinyl soffit material – 30 inches (76 cm) minimum. With a vinyl soffit shield – 18 inches (46 cm) minimum.

WARNING!

In the U.S.: Vent system termination is NOT permitted in screened porches. You must follow side wall, overhang and ground clearances as stated in the instructions.

In Canada: Vent system termination is NOT permitted in screened porches. Vent system termination is permitted in porch areas with two or more sides open. You must follow all side wall, overhang and ground clearances as stated in the instructions.

Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

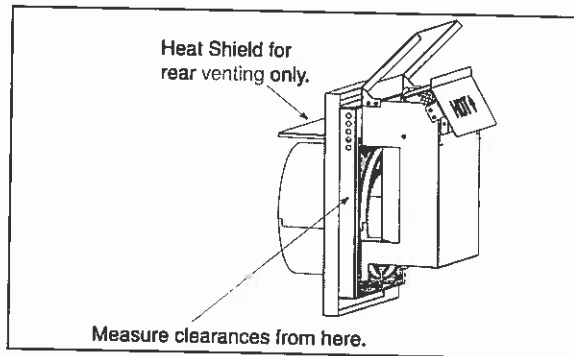


Figure 12 - Cap Clearances

Note: To ensure proper operation, verify all venting and the termination is unobstructed.

CAUTION:

A vinyl soffit shield should be installed if a cap is within 30" of a vinyl soffit.

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D. SETTING THE APPLIANCE

1. APPLIANCE PLACEMENT

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 (hearth sheet) extending the full width and depth of the appliance. Slide the assembly into position and level from side-to-side and front-to-back. Shim with noncombustible material as necessary.

2. SECURE THE APPLIANCE

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

3. REMOVAL OF VENT CONNECTORS

This appliance may be vented either off the rear of the appliance or off the top. Depending on your specific installation, a vent cover must be removed from either the top or rear of the appliance and the inner and outer collars attached.

4. REMOVAL OF VENT COVERS AND PLACEMENT OF COLLARS

This appliance may be vented either off the rear of the appliance or off the top. Depending on your specific installation, a vent cover will need to be removed from either the top or rear of the appliance and the inner and outer collars attached.

Looking at either the rear or top of your appliance (depending on which venting style you are going to use), there is a square plate held to the appliance via four screws. Remove this plate (insulation is attached to it). Below this piece is another plate attached to the inner shell of the appliance. Remove this plate as well. A third plate is attached to the appliance beneath the previous plate with four screws. Remove this last plate. You should be able to see inside the appliance. See Figure 13.

Take the 5" diameter collar assembly from the cardboard pack inside the appliance. Using four screws removed earlier attach the collar assembly where the last plate was removed. Take care not to strip the screws. The collar should protrude from the top or rear of the appliance. Take the 8" diameter collar assembly from the cardboard and attach it, via four screws, to where the second plate was removed on the inner shell. Make sure the gasketing on the plate seals the appliance inner shell. The third and final piece to install has insulation attached to it and an 8" diameter hole. This piece should fit around the 8" collar assembly with the insulation going inside the outer shell of the appliance. Attach with screws. See Figure 16.

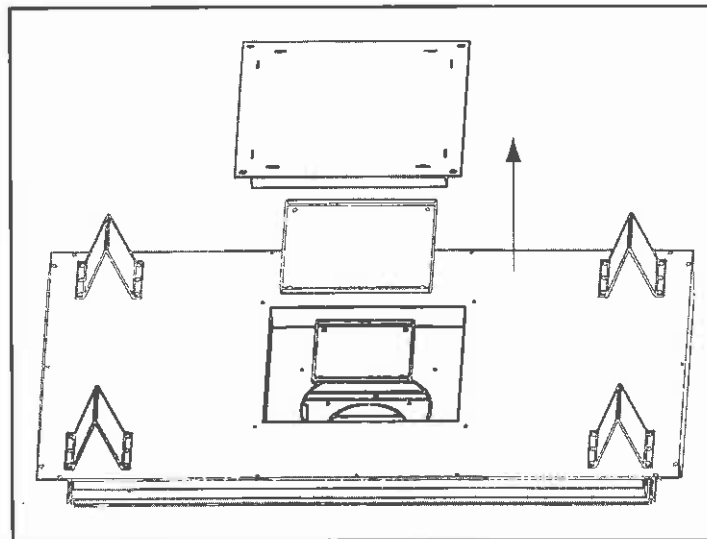


Figure 13
Venting Components (in order of disassembly)