

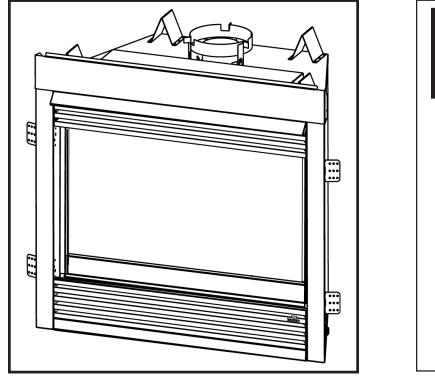
Hearth & Home Technologies Inc. 1915 W. Saunders Street Mt. Pleasant, Iowa 52641 www.heatilator.com

# INSTALLATION & OPERATING INSTRUCTIONS

# CALIBER B-VENT SERIES GCBC60/80

# **DECORATIVE GAS APPLIANCE**

FOR RESIDENTIAL USE



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 gas 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.

Note: An arrow (→) found in the text signifies change in content.

# 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.

**GAS-FIRED** 

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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.
- This appliance may only use the approved B-vent system shown in these installation instructions. Venting <u>must not</u> <u>be connected</u> to chimney flue servicing a solid fuel burning appliance or a gas fuel burning appliance.
- 7. Use only the fuel gas specified on the rating label of this gas appliance.
- **8.** The appliance area shall be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- 9. 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.
- **10.** 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.
- **11.** Be sure to provide adequate clearances around the air openings into the combustion chamber and adequate accessibility clearances for servicing and proper operation.
- **12.** Provisions shall be made to provide adequate combustion and ventilation air. The flow of combustion and ventilation air should not be obstructed.

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# **DESIGN AND INSTALLATION CONSIDERATION**

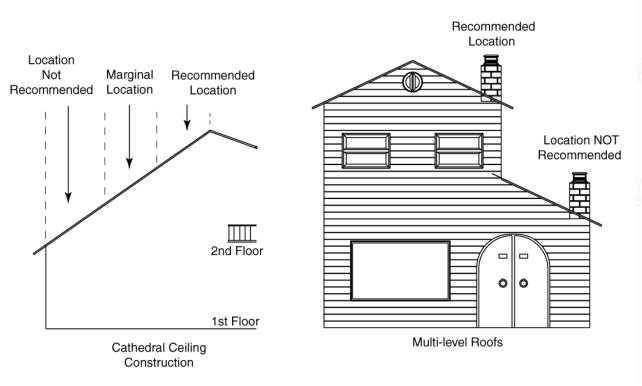
When selecting a location for your B-Vent appliance, it is important to evaluate a number of considerations. Modern construction techniques can create conditions that may not allow your vent to draft properly. This may result in spillage from your B-Vent appliance, as well as cause other combustion appliances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



# **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** (Decorative). In Canada, the current **CAN/CGA 2.22-M98**, **IR41**, **P4**, and **IR55** 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.

For assistance during installation contact your local dealer or contact Heatilator Technical Services Department, Hearth & Home Technologies Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641, 1-800-927-6841.

HEATILATOR® is a registered trademark of Hearth & Home Technologies Inc.

#### 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 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.

## WARNING!

This appliance is tested and listed for use only with the optional accessories listed in these instructions. Use of optional accessories not specifically tested for this appliance could void the warranty and/or result in a safety hazard.

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.

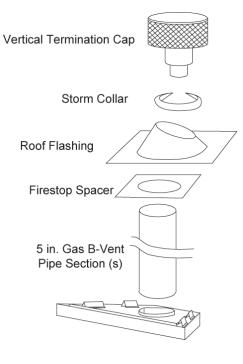
# CALIBER B-VENT INSTALLATION INSTRUCTIONS

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## CALIBER Nomenclature

Catalog #	Description
GCBC60IL	Appliance Order Code Number
GC	Gas Caliber
В	B-Vent
С	Circulating
60	60 = 36 in. Appliance 80 = 42 in. Appliance
IL	No suffix - Standing Pilot, Natural Gas L = Standing Pilot, Propane Gas I = Intermittent Pilot Ignition, Natural Gas IL = Intermittent Pilot Ignition, Propane Gas
GCBC60IL	Appliance Order Code Number with Upgrade Code Number
R	Refractory Upgrade
F	Fan Kit Upgrade
	EXAMPLE
GCBC60ILRF	Gas CALIBER, B-Vent, Heat Circulating, 36 in., Propane Gas, Intermittent Pilot Ignition appliance with Refractory and Fan Kit Upgrades

## **TYPICAL VERTICAL INSTALLATIONS**

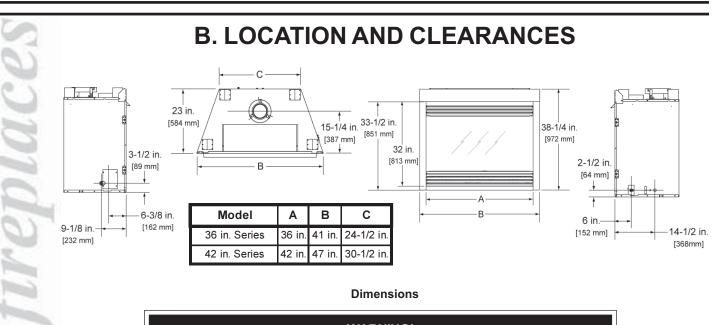


# Tools and building supplies normally required for installation:

Saw	Wall-finishing materials
Pliers	Framing material
Hammer	Surround
Phillips screwdriver	Caulking material
Tape measure	Gloves
Plumb line	Framing square
Level	Electric drill/bits
Non-corrosive leak-che	ck solution

**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.



WARNING! Due to high temperatures, the gas 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 Series may be installed directly on the floor or raised on a hearth. These appliances are certified for installation in a bedroom or bed/sitting room in the U.S. and Canada, provided that the bedroom or bed/sitting room has a volume of at least 1600 cubic feet for the GCBC60 Series or 1750 cubic feet for the GCBC80 Series.

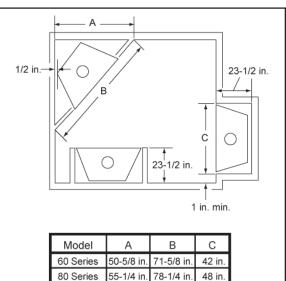


Figure 1 - Appliance Locations

#### 2. Clearances

Figure 2 shows all clearances that must be maintained around the appliance.

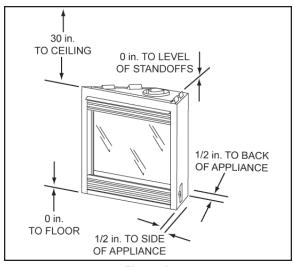


Figure 2 Appliance Clearances to Combustible Materials

# CAUTION:

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

# **CALIBER B-VENT INSTALLATION INSTRUCTIONS**

# C. FRAMING

Figure 3 shows typical framing of this appliance using combustible materials. Figure 4 shows the minimum mantel heights. All required clearances to combustibles must be adhered to.

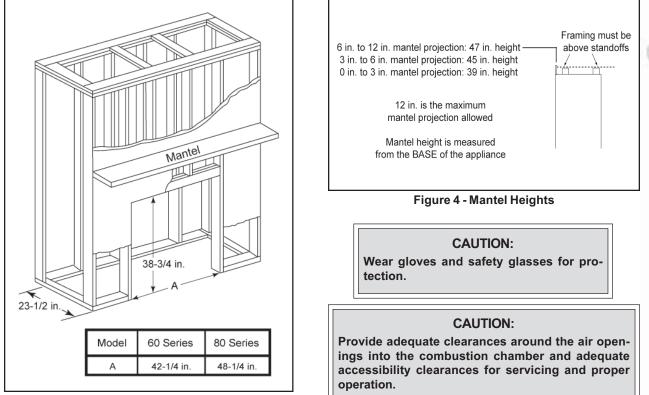


Figure 3 Framing

## 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.

# **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 it 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 in. back from the front of the appliance to allow the addition of drywall.

## WARNING!

This gas appliance may only use an approved B-Vent chimney system. It must not be connected to a chimney flue servicing a separate solid fuel or gas fuel burning appliance.

# E. VENTING

Note: This appliance requires a 5 in. B-Vent for operation. Never down size pipe.

## 1. Clearances

Vent clearances are per vent manufacturer's specifications.

#### 2. Vent Lengths

Various venting configurations are shown in Figures 5 and 6 from which maximum vent runs can be determined.

## WARNING - RISK OF FIRE!

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

#### WARNING!

The horizontal run of vent must have a 1/4 in. 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.

#### a. No Elbows

See Figure 5.

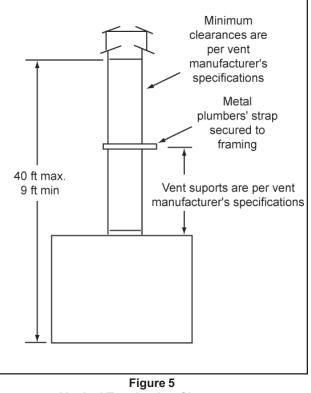
#### b. Elbows

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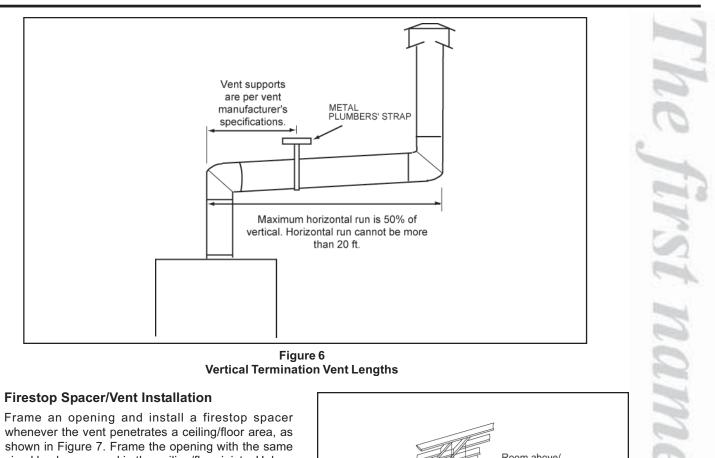
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You may have a 90-deg elbow directly off the top of the appliance. See National Fuel Gas Code for the maximum number of elbows allowed. Follow the rule of maximum horizontal being 50% of vertical, but not exceeding 20 ft. See Figure 6.



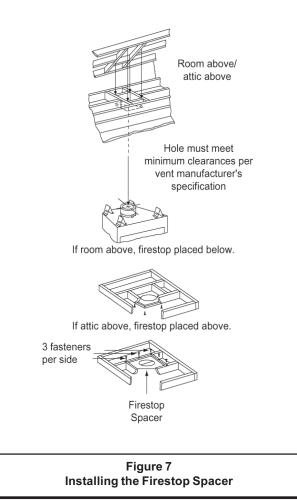


# **CALIBER B-VENT INSTALLATION INSTRUCTIONS**



#### 3. Firestop Spacer/Vent Installation

Frame an opening and install a firestop spacer whenever the vent penetrates a ceiling/floor area, as shown in Figure 7. 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 as per manufacturer's specifications.



# CALIBER B-VENT INSTALLATION INSTRUCTIONS

## 4. Chase/Termination Installation

Figure 8 and Table 1 specify minimum vent heights for various pitched roofs. Vent sections may have to be cut to a certain length.

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.

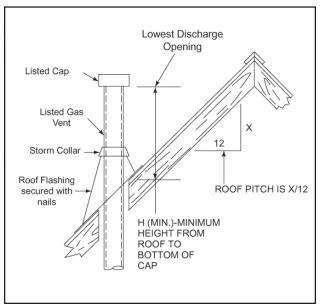


Figure 8 Vent Height for Vertical Termination

## 5. Check the Venting System

Check the venting system to assure proper operation. This can be done with a match while the appliance is operating. See Figure 9.

Hold a lighted match at the bottom edge of the draft hood opening.

- **a.** If the flames and smoke remain upright, ventilation is acceptable.
- **b.** If the flames and smoke are drawn into the draft hood, this means ventilation is good.
- c. If the flames and smoke are forced away from the draft hood, this may indicate a ventilation blockage or down draft resulting in gas spillage into the home.

If this occurs, turn off the appliance and do not burn it until it has been inspected by a qualified service person.

Roof Pitch	<u>H (Min.) Ft.</u>
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

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

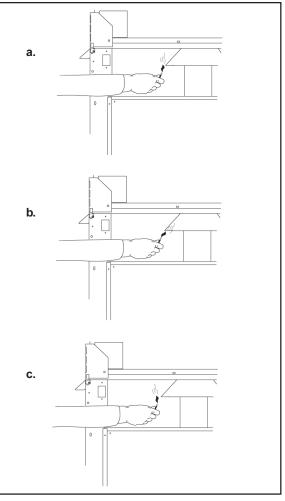


Figure 9 Testing Ventilation

#### 6. Install the Outside Air Kit

An outside air kit is available as an optional feature with this appliance. An outside air kit helps to decrease the amount of room air taken by utilizing outside air for combustion. It is strongly recommended that it be installed.

The outside air kit can only be installed on the left side of the appliance.

To install the outside air kit, refer to the installation instructions provided with the kit.

**Note:** The outside air kit can terminate at any level with the exception that it must terminate at least one foot below the vent termination cap. The outside air kit inlet thimble should be positioned at least 4 ft above the ground level in a manner that will not allow snow, leaves, etc. to block the inlet.

## 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.

# F. UTILITIES

#### 1. High Altitude Installation

For U.S. installation, gas appliances are tested and approved for elevations from 0-2000 feet. When installing this gas appliance at an elevation above 2000 feet, National Fuel Gas 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. The correct orifice is available from your Hearth & Home Technologies distributor.

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

#### 2. Gas Line Connection

The appliance is provided with a stainless steel flexible connector and a listed (and Commonwealth of Massachusetts approved) tee-handle manual shutoff valve. See Figure 10. The incoming gas line should be piped into the valve compartment and connected to the 1/2 in. FIP connection provided on the manual shutoff valve. See Figure 11 to connect the gas line. **Optional:** Seal around the gas line to prevent cold air leakage.

All connections must be tightened and checked for leaks with a commercially available, non-corrosive leak check solution. Be sure to rinse off the solution when done leak testing.

Bleed the gas line to extract any air that may have been trapped inside the pipe.

**Note:** Have the gas supply line installed in accordance with building codes by a qualified installer approved and/or licensed as required by the locality. In the Commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter.

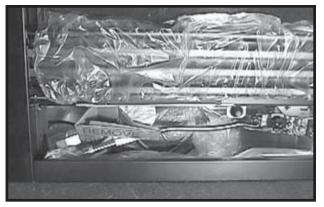


Figure 10 - Control Compartment

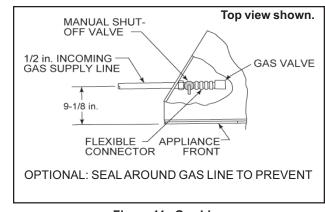


Figure 11 - Gas Line

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# CALIBER B-VENT INSTALLATION INSTRUCTIONS

#### WARNING!

The gas control valve has been preset at the factory. Altering settings may result in fire hazard or bodily injury.

Note: The gas appliance and its manual shutoff 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 gas appliance must be isolated from the gas supply piping system by closing its manual shutoff 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).

#### 3. Gas Pressure

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On the standing pilot and electronic gas control valve, a pressure tap is included on the front face of the valve. Pressure taps are located on the front face of the valve and accessible for test gauge connection.

Tables 2 and 3 show optimum gas pressure information. Consult your local gas company for assistance in determining the proper orifice for your altitude or refer to ANSI Z223.1-latest edition, Appendix F.

#### **Gas Conversions** 4.

Natural or propane gas conversions necessary to meet the application need to be made by a qualified technician using Hearth & Home Technologies specified and approved parts. In the event your gas appliance must be converted to use: Propane/standing pilot - CKVP, Natural Gas/standing pilot - CKVN; Propane/intermittent pilot - DCKVP, Natural Gas/intermittent pilot - DCKVN.

CALIBER 60 and 80			
Inlet Gas Supply Press. (N.G.)	4.5 (min.) - 7.0 (max.) in. w.c.		
Optimal Manifold Press (N.G.)	3.5 in. w.c.		
Inlet Gas Supply Press. (L.P.)	11.0 (min.) - 14.0 (max.) in. w.c.		
Optimum Manifold Press. (L.P.)	10 in. w.c.		

Table 2 - Gas Information for Intermittent Pilot and Standing Pilot Appliances

CALIBER:	60	80	
Input Rate (N.G.)	32,000 BTU/hr.	35,000 BTU/hr.	
Input Rate (L.P.)	32,000 BTU/hr.	35,000 BTU/hr.	
Orifice Size (N.G.)	.110 in.	.113 in.	
Orifice Size (L.P.)	.067 in.	.070 in.	

Table 3 - Gas Information for Intermittent Pilot and Standing Pilot Appliances

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# 5. Wiring

#### a. Optional Accessories Requirements

Wiring for optional accessories should be done now to avoid reconstruction.

#### b. Intermittent Pilot Ignition

- This appliance requires a 110VAC supply to the appliance junction box for operation. A wiring diagram is shown in Figure 12.
- 2) This appliance is equipped with an intermittent pilot control valve which operates on a 3V system.
- 3) This appliance is supplied with a battery pack and a 3VAC transformer, which requires the installation of the supplied junction box. We highly recommend that the junction box be installed at this time to avoid reconstruction.

The battery pack is supplied in the installation assembly bag. The battery pack should be connected as shown in Figure 12 and placed on the bottom pan of the appliance.

The battery pack requires two D cell batteries (not included). Batteries cannot be placed in the battery pack while using the 3 VAC transformer. Conversely, the transformer must be unplugged if the battery pack is used. **Note:** This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/ NFPA 70-latest edition** or the **Canadian Electric Code, CSA C22.1**.

# CAUTION:

Battery polarity must be correct or control module damage will occur.

**Note:** Optional Accessories Requirements: Wiring for optional accessories should be done now to avoid reconstruction.

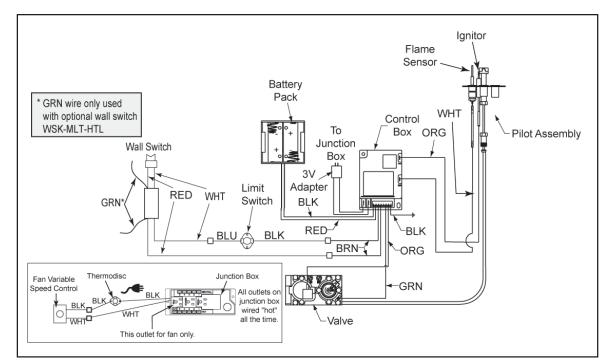


Figure 12 - Intermittent Pilot Ignition Wiring Diagram

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# **Standing Pilot Ignition**

- 1) This standing pilot appliances does not require a 110VAC supply to operate. It is suggested that a 110V junction box be installed for use with an optional fan and/or remote.
- 2) This appliance may be connected to a thermostat (not supplied). Use a thermostat that is compatible with a millivolt gas valve. See Figure 13 for a wiring diagram.

#### WARNING!

The standing pilot ignition appliance does NOT require a 110VAC supply for operation. Connecting the appliance/ wall switch to a 110VAC supply will cause the appliance to malfunction and destroy the valve and thermopile.

Note: This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or the Canadian Electric Code, CSA C22.1.

Note: Optional Accessories Requirements: Wiring for optional accessories should be done now to avoid reconstruction.

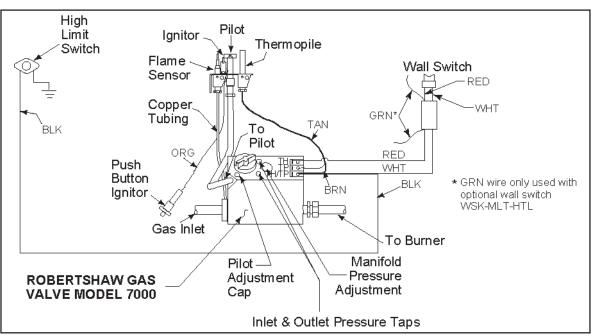


Figure 13 - Standing Pilot Ignition Wiring Diagram

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#### 6. Install the Junction Box

- **a.** If the box is being wired from the OUTSIDE of the appliance:
  - 1) Remove the cover plate located on the outer shell (right side).
  - 2) Install the supplied Romex connector in the cover plate.
  - Loosen two screws on the Romex connector, feed the necessary length of wire through the connector and tighten the screws.
  - 4) Make all necessary wire connections and reattach the cover plate to the outer shell.
- **b.** If the box is being wired from the INSIDE of the appliance:
  - 1) Remove the screw attaching the junction box to the outer shell, rotate the junction box inward to disengage it from the outer shell.
  - 2) Pull the electrical wires from outside the appliance through this opening into the valve compartment.
  - Loosen the two screws on the Romex connector, feed the necessary length of wire through the connector and tighten the screws.

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Figure 14 - Junction Box Detail

- 4) Make all necessary wire connections to the receptacle and assemble the receptacle and cover to the junction box.
- c. If the box is being wired to a wall mounted switch or BC10 for use with a fan (See Figure 15):
  - 1) The power supply for the appliance must be brought into a switch box.
  - 2) The power can then be supplied from the switch box to the appliance using a minimum of 14-3 with ground wire.
  - 3) At the switch box connect the black (hot) wire and red (switch leg) wire to the wall switch or BC10 as shown.
  - 4) At the appliance connect the black (hot), white (neutral) and green (ground) wires to the junction box as shown.
  - 5) Route the red (switch leg) wire through the knockout in the face of the junction box and connect to the top fan switch connector (1/4 in. male) as shown.

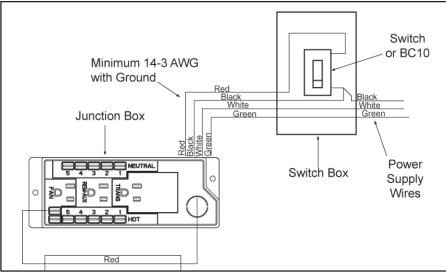
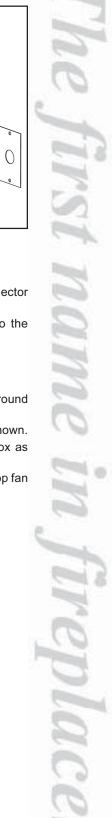


Figure 15 - Wiring



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# G. FINISHING

## 1. Combustible Finishing Material

Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or unplastered (this includes drywall).

### 2. Noncombustible Finishing Material

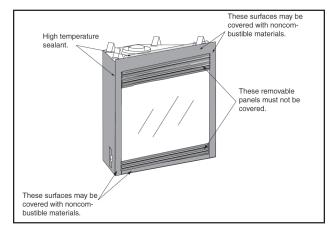
Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or combination thereof, or have a UL Fire rating of Zero (0).

#### 3. High Temperature Sealant Material

Sealants that will withstand high temperatures: General Electric RTV103 (Black) or equivalent and Rutland, Inc. Appliance Mortar #63, or equivalent.

A bead of high temperature sealant, 1/8 in. inch wide minimum, must be used to close off gaps between the appliance and facing to prevent cold air leaks. See Figure 16.

A combustible mantel may be installed. Please refer to Figure 4, page 7.





WARNING! Grilles on this appliance cannot, in any way, be covered as it may create a fire hazard.

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# **H. APPLIANCE PREPARATION**

## 1. Attach the Hood

The hood is to be located above the glass panel. The hood must be attached or a fire hazard may result. Locate the four screws just inside the upper section of the appliance. Position the hood and slide into position. Tighten the four screws. See Figure 17.

#### 2. Remove the Upper Panel Grille

Grasp the upper grille panel and remove the rubber pins holding the grille. See Figure 18.

#### 3. Remove the Control Access Panel

Release the spring pin on the right hand side of the control access panel. See Figure 19.

### 4. Remove the Glass and Screen

See page 24 of this manual.

#### 5. Prepare the Appliance

Remove the strap from the screws on the hearth pan. Remove the foam material. The log set should look similar to that in Figure 20.

WARNING - RISK OF CARBON MONOXIDE! Do not hit or strike glass. Do not operate this appliance if the glass is broken or cracked.

# WARNING - RISK OF CARBON MONOXIDE!

Never operate this appliance with the glass removed or not sealed.

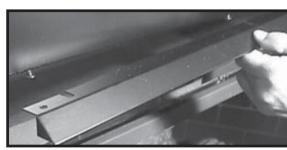


Figure 17 - Attaching the Hood



Figure 18 - Upper Grille Panel Removal



Figure 19 - Control Access Panel Removal



Figure 20 - CALIBER Log Set (CALIBER 60 shown)

## 6. Place the Lava Rock and Vermiculite

See Figures 21-23. It is not necessary to use the entire bag. Save the remaining amount for future use.

#### 7. Place the Rock Wool

Place a small amount of 1/2 in. diameter pieces (dime-size) of rock wool on the burner pan so that the rock wool touches but does not cover the holes in the burner pan. This will provide the "glowing embers" look. As with the lava rock and vermiculite, it is not necessary to use the entire bag. Save the remaining for future use. See Figures 22 and 24.

## 8. Place the Fire Glow

Fire glow (FIRE98) is a flame colorant material that also adds to the realism of the gas appliance flame. After placing the rock wool in the appliance, sprinkle some of the fire glow on top of the burner. As with the lava rock, vermiculite and rock wool, it is not necessary to use the entire bag. Save the remaining for future use. See Figure 25.

#### 9. Replace the Glass

Replace the glass as shown on page 24.

**10. Replace the Control Access Panel** See Figure 26.

## 11. Replace the Upper Grille Panel



Figure 21 - Placing Lava Rock

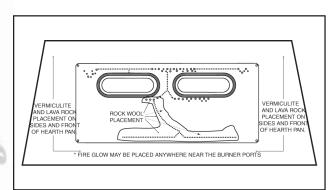


Figure 22 - Placing the Vermiculite, Lava Rock, Rock Wool and Fire Glow.



Figure 23 - Placing the Vermiculite



Figure 24 - Placing the Rock Wool

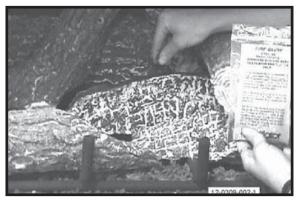


Figure 25 - Placing the Fire Glow



Figure 26 - Replace the Control Access Panel

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# I. DETERMINE THE IGNITION

To determine whether your appliance is an intermittent pilot ignition or a standing pilot ignition system, open the control access panel to examine the wiring system. If your system has a red ignitor button as shown in Figure 27, you own a standing pilot ignition appliance. If no red ignitor button is present, you own an intermittent pilot ignition appliance.

You may also check the rating label located on the inside of the control access panel to determine ignition type.

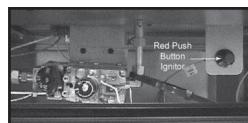


Figure 27 - Standing Pilot Ignition

# J. LIGHTING INSTRUCTIONS

## 1. Intermittent Pilot Ignition

# ----- FOR YOUR SAFETY------READ BEFORE OPERATING

WARNING! If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- · Immediately call your gas supplier from a neighbor's phone. Follow the supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in and turn the gas control knob. Never use tools. If the lever or knob will not move by hand, don't try to repair it call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. 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.

# LIGHTING INSTRUCTIONS

- 1. STOP! Read the safety information above on this label.
- 2. Turn wall switch to the "OFF" position.
- 3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light burner by hand.
- 4. Wait five minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label.
- If you don't smell gas, go on to the next step.
- 5. To turn on burner, turn on all electric power to this appliance.
- 6. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.

# TO TURN OFF GAS TO APPLIANCE

- 1. Open the control access panel.
- 2. Turn off the wall switch.
- 3. Push in gas control knob and turn to the "OFF" position. Do not force.
- 4. Close control access panel.

# 2. Standing Pilot Ignition

# ----- FOR YOUR SAFETY------READ BEFORE OPERATING

WARNING! If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

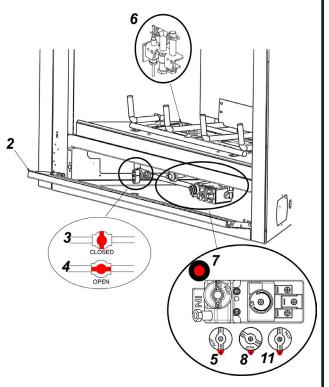
WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building
- Immediately call your gas supplier from a neighbor's phone. Follow the supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the knob. Never use tools. If the knob will not move by hand, don't try to repair it call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. 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.

# LIGHTING INSTRUCTIONS -

# STOP! Read the safety information above on this label!

- 1. Turn off all wall switches to the appliance.
- 2. Open control access panel.
- Turn gas line to "CLOSED". Wait 5 minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
- 4. Turn gas line to "OPEN".
- Turn pilot knob clockwise to "OFF". Knob may have to be depressed to pass the "PILOT" position.
- 6. Locate pilot assembly inside the appliance.
- 7. Locate red ignitor button.
- 8. Turn pilot knob to "PILOT" and push in.
- 9. Continue to hold in pilot knob and push the red ignitor button 12-15 times until small blue pilot flame appears.
- Continue to hold in pilot knob for approximately 1 minute. Pilot should remain lit. If pilot goes out, wait 5 minutes and repeat Steps 4-9.
- **11.** To light the main burner, release and turn the knob counterclockwise to "ON". If the appliance is connected to a wall switch, turn it to "ON". Do not light by hand.
- 12. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.



# TO TURN OFF GAS TO APPLIANCE

- 1. Turn off the wall switch or set thermostat to lowest setting.
- 2. Open control access panel.

- 3. Turn gas line to "CLOSED" position. Do not force.
- 4. Close control access panel.

MUM



# K. SEASONAL CHECKLIST

### WARNING!

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition. Young children should be carefully supervised when they are in the same room as the appliance.

#### WARNING!

Keep the area near the appliance clear and free from combustible materials, Gasoline and other flammable vapors and liquids.

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.

## 1. Standing Pilot Ignition Operation

Hearth & Home Technologies recommends you leave the pilot on year round.

## a. Lighting the Appliance During Regular Use

Turn the wall switch to "ON".

## b. Shutdown During Regular Use

Turn the wall switch to "OFF".

#### c. Long Term Shutdown

- 1) Turn all wall switches to "OFF".
- 2) Turn pilot knob on valve to "OFF".
- 3) Turn the gas line to "CLOSED".
- 4) To relight the pilot and appliance, see page 20.

## 2. Intermittent Pilot Ignition Operation

- a. Lighting the Appliance during Regular Use Turn the wall switch to "ON".
- b. Shutdown During Regular Use Turn the wall switch to "OFF".

## c. Long Term Shutdown

- 1) Turn all wall switches to "OFF".
- 2) Turn the gas line to "CLOSED".
- 3) To relight the appliance, see page 19.

# CAUTION:

Any safety screen or guard removed for servicing a gas appliance must be replaced prior to operating the appliance.

Clothing or other flammable material should not be placed on or near the appliance.

# Before operating this appliance, have a qualified technician:

- **1.** Review proper placement of logs, rock wool and vermiculite.
- 2. Check wiring.
- 3. Check air shutter adjustment.
- 4. Ensure there are no gas leaks.
- **5.** Ensure the glass is sealed and in proper position.
- 6. Ensure the flow of combustion and ventilation air is not obstructed.

# 3. Operating the Outside Air Kit

The outside air kit is an optional feature for this appliance. The outside air kit helps to decrease the amount of room air taken by utilizing outside air for combustion. It is strongly recommended that it be installed.

To operate the outside air kit, before starting the appliance, open the control access panel. Grasp the small, black handle located on the left side of the appliance, just below the glass channel. See Figure 28. Lift the handle out of its slot and pull towards the front. The outside air door should open. Replace the handle back in the slot on the bracket from which it was removed (so the outside air door remains open) and close the control access panel. When through burning the appliance, open the control access panel, grasp the handle and push the outside air door closed.

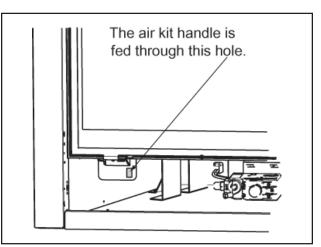


Figure 28 - Operating the Outside Air Kit



#### 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.

# L. START-UP ISSUES

ISSUE		SC	SOLUTIONS		
1.	Condensation on the glass.	1.	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation should disapear.		
2.	Blue flames.	2.	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn.		
3.	Odor from appliance.	3.	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing.		
4.	Film on the glass.	4.	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 4-6 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner, such as Brasso may be necessary.		

## WARNING!

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.

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# <u>calïber</u>

# **M. MAINTENANCE INSTRUCTIONS**

## 1. Clean the Burner and Control Compartment

Keep the burner and control compartment clean by brushing and vacuuming at least once a year. Always turn off the wall switch (or remote control) and gas valve before cleaning.

## 2. Check the Vent System

The appliance and venting system should be inspected before use, and at least annually, by a qualified field service person, to ensure that the flow of combustion and ventilation air is not obstructed. Refer to Section E, Step 5.

## 3. Check the Flame Patterns

a. Check the flame of the burner periodically, making sure the flames are steady, not lifting or floating. See Figure 31. The flame color should be blue with yellow tips. The flame sensor (intermittent pilot) or thermopile and thermocouple (standing pilot) tips should be covered with flame. See Figures 29-30.

**Note:** After extended periods of burning, film may build up on the flame sensor (intermittent pilot ignition). The flame sensor should be cleaned annually with emery cloth to remove this build up.

If the vent configuration is installed incorrectly, the vent may cause the flames inside the appliance to lift or "ghost" - a dangerous situation. Inspect the flames after installation to ensure proper performance. See Figure 31. If the vent configuration is correct, yet the flames are lifting or ghosting, shut off gas to the appliance and contact the dealer.

**Note:** The look of the flames and embers may differ based on the type of fuel and venting assembly that is required.

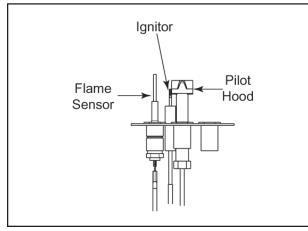


Figure 29 - Intermittent Pilot Ignition

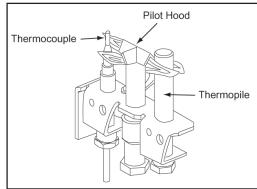


Figure 30 - Standing Pilot Ignition



Figure 31 - Flame Patterns (60 Series shown)

b. To prevent the possibility of soot, we have provided your appliance with an adjustable air shutter. Your air shutter is provided in the closed position for natural gas and in the open position for propane. It takes 16 full turns (360 degrees) to move the air shutter from fully OPEN to fully CLOSED. In the event soot is accumulating in your appliance, the air shutter should be opened farther. This can be done by opening the control access panel and locating the air shutter handle in the bottom of the firebox. See Figure 32. When the air shutter handle is turned all of the way **DOWN** (counterclockwise), the air shutter is fully closed. When the air shutter handle is turned all the way **UP** (clockwise), the air shutter is fully open

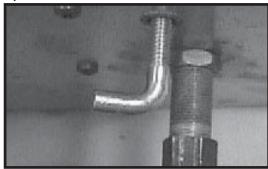


Figure 32 - Air Shutter Handle Location

## 4. Clean the Glass

See Figure 33. Never operate this appliance without the glass properly secured in place or if the glass is broken.

In the event of glass breakage, carefully remove the glass frame. This will allow the removal of all glass fragments and sheet metal edge protection strips. Vacuum all remaining glass pieces with a shop vac. DO NOT VACUUM IF PIECES ARE HOT! Replace glass with only a Hearth & Home Technologies glass panel assembly ordered direct or through your local distributor. Never use substitute material. Only fully tempered soda lime safety glass or ceramic glass may be used on this appliance.

- 8 Reattach the four Quick Access Latches.
- 7 To replace, place the glass on the bottom Glass retainers. must be firmly seated into the glass bottom retainers.
- 6 Set glass on nonabrasive surface. Clean using a nonabrasive, mild cleaning solution (i.e. Brasso).

- 9 Place the screen into the top screen retainers, lift and rotate towards the appliance. Place on the bottom retainers.
- 10 Close the control access panel.

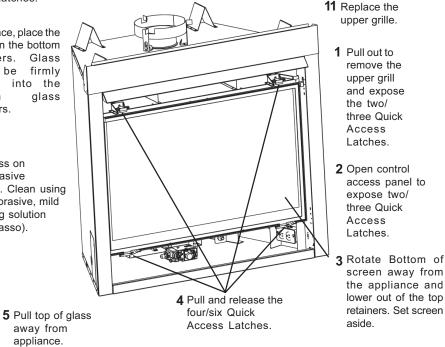


Figure 33 - Glass Cleaning

Safety Note:

Handle glass with care avoid striking, to scratching or slamming shut. NEVER clean glass when it is hot. Keep children and pets a safe distance away.

# 5. Log Removal/Replacement

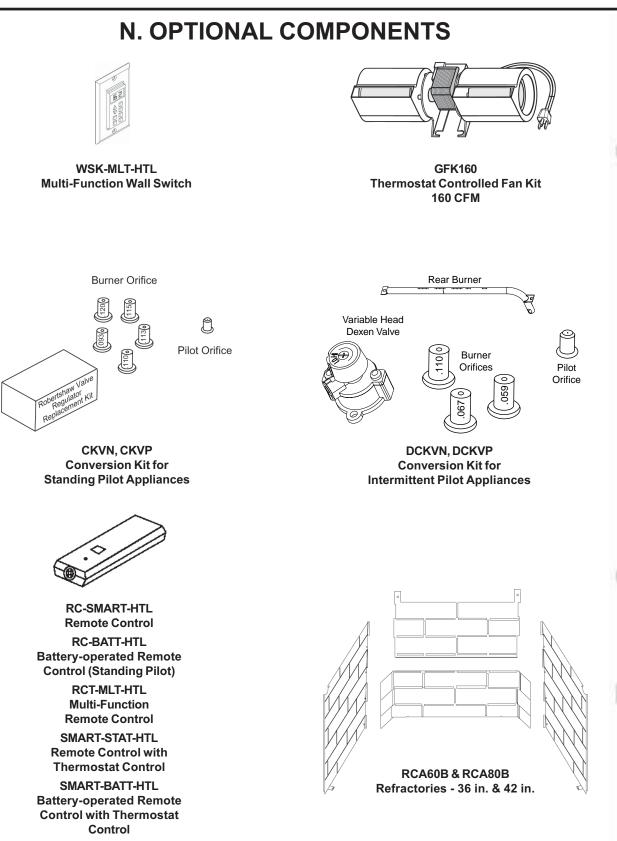
If removal of the logs becomes necessary, remove the two screws, one at each end of the grate. Grasp the grate as shown. Grasp the grate and pull the logs up and off the burner. See Figure 34.

To replace the logs, grasp the grate as shown. Lower the log set onto the burner pan, making sure the tabs on the front of the grate line up with the holes provided. Attach the two screws at each end of the grate.



Figure 34 - Log Removal



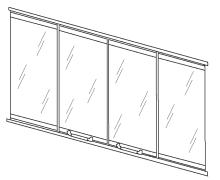


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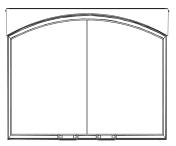


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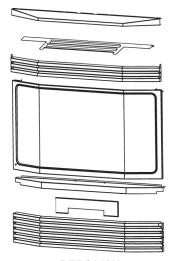
# **OPTIONAL COMPONENTS (con't)**



DFC2B/S & DFN6B/S Fixed Glass Doors



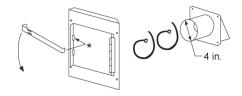
DFA36, DFA36B, DFA36S DFA42, DFA42B, DFA42S Arched Door



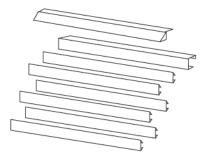
DFBC36/42 Bay Door

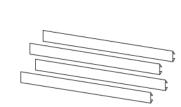


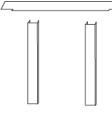
# **OPTIONAL COMPONENTS (con't)**



AK14 - Air Kit







TK6B/S/BN/PT TK7B/S/BN/PT Trim Kits

TK47B/A, TK48A/B Trim Kits



TK302B/S, TK402B/S

Trim Kits

QKE3B, QKE4B Quick Tile Surround Brass Finish

# COLOR KEY

Suffix	Finish
none	Black
В	Brass
S	Stainless Steel
AC	Antique Copper
BN	Brushed Nickel
СР	Copper
PT	Pewter



TKB2, TKB6 Bay Door Trim Kit





Replacement parts are available from your distributor/dealer.

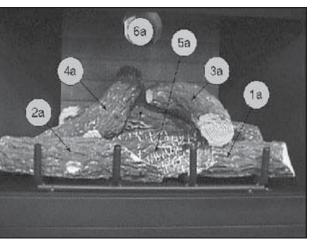


Fig A - Gas Log Assembly

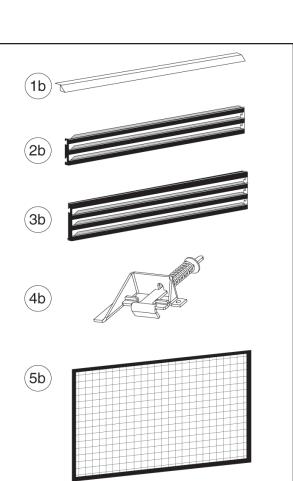
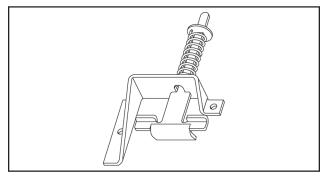


Fig. B - Panels, etc.

ITEM	PART #	DESCRIPTION	QTY.
Α	30837	Grate/Log Assembly - 60	1
	30846	Grate/Log Assembly - 80	1
1a	29780	Front Right Log	1
2a	29779	Front Left Log	1
3a	29829	Middle Left Log	1
4a	29830	Top Log	1
5a	30037	Burnt Out Log	1
6a	30036	Back Log - 60	1
	30167	Back Log - 80	1
7a	FIRE98	Fire Glow	1
8a	14333	Rock Wool	1
9a	28911	Lava Rock	1
10a	28746	Vermiculite	1

ITEM	PART #	DESCRIPTION	QTY.
В		Panels, etc.	
1b	29575	Hood - 60	1
	29577	Brass Hood - 60	1
	29576	Hood - 80	1
	29588	Brass Hood - 80	1
2b	26638	Upper Grille - 80	1
	26637	Upper Grille - 60	1
3b	25016	Lower Grille - 60	1
	25144	Lower Grille - 80	1
4b	33858	Quick Access Latches ™	4/6
5b	4031-095	Glass Kit w/ Screen - 60 in.	1
	4031-096	Glass Kit w/ Screen - 80 in.	1



Item 4b - Quick Access Latch™

Visit our Website at: www.heatilator.com for a dealer/distributor near you!

# calïber

# Homeowner's Notes Page



# Homeowner's Notes Page

# CALIBER B-VENT INSTALLATION INSTRUCTIONS

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# GAS APPLIANCE (FIREPLACE) LIMITED LIFETIME WARRANTY

**HEARTH & HOME TECHNOLOGIES INC. ("HHT")** extends the following warranty for HEATILATORâ gas appliances installed in the United States of America or Canada (the "Appliance"). Dealers and employees of HHT have no authority to make any warranty or authorize any remedies in addition to or inconsistent with the terms of this warranty.

#### **Limited Lifetime Warranty**

HHT warrants the Appliance for component failure due to a manufacturing defect of any of the following components: combustion chamber, burner pan, and logs. The Limited Lifetime Warranty specified above is subject to the conditions, exclusions and limitations listed below, is for the period the Appliance is owned by the original homeowner only, and is nontransferable.

#### **1 Year Limited Warranty**

HHT warrants the Appliance to be free from failure of any of the following components for a period of one year after installation: valve, flexible gas line connector, glass panel, fan, direct vent chimney components, factory paint, gasket, piezo ignitor, thermopile, thermocouple, junction box, pilot assembly, shutoff valve, high limit switch, refractory liners, transformer, and control box. If the Heatilator Appliance is found to be defective in either material or workmanship within one year of the date of original installation, HHT will provide replacement parts at no charge and pay reasonable labor and freight costs, and is for the period of one year following the date of original installation of the Appliance.

#### Conditions, Exclusions, & Limitations of Liability

- A. Both the Limited Lifetime and 1 Year Limited Warranties supplied by HHT apply only while the Appliance is in its location of original installation. HHT's obligation under this warranty does not extend to damages resulting from (1) installation, operation or maintenance of the Appliance not in accordance with the Installation Instructions, Operating Instructions, and the Listing Agent Identification Label furnished with the Appliance; (2) installation which does not comply with local building codes; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure, air handling devices such as exhaust fans or forced air furnaces, or other causes; (5) use of fuels other than those specified in the Operating Instructions; (6) installation or use of components not supplied with the Appliance or any other components not expressly authorized and approved by HHT; and/or (7) modification of the Appliance not expressly authorized and approved by HHT.
- B. HHT's liability under both the Limited Lifetime Warranty and the 1 Year Limited Warranty is limited to the replacement and repair of defective components or workmanship during the applicable period. HHT may fully discharge all of its obligations under such warranties by repairing the defective component(s) or at HHT's discretion, providing replacement parts at no charge and paying reasonable labor and freight costs.
- C. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE WARRANTY SPECIFIED ABOVE.
- **D.** Some states do not allow exclusions or limitations of incidental or consequential damages, so those limitations may not apply to you. This warranty gives you specific rights; you may also have other rights which vary from state to state.

#### How to Obtain Service

- To obtain service under this warranty you must:
- 1. Send written notice of the claimed condition to Heatilator Technical Service Department, Hearth & Home Technologies, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641-1563. You may also register your claim online at www.heatilator.com.
- 2. Provide proof of purchase, model number, serial number, and manufacturing date code to HHT.
- Provide HHT reasonable opportunity to investigate the claim, including reasonable opportunity to inspect the Appliance prior to any repair or replacement work and before the Appliance or any component of the Appliance has been removed from the place of original installation.
- 4. Obtain HHT's consent to any warranty work before the work is done.

#### **ADDITIONAL INFORMATION:**

If you would like information on current HEATILATOR products or want to locate a dealer in your area, call 1-800-927-6841.

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