

heatilator®

The first name in fireplaces



Hearth Technologies-Mt. Pleasant
1915 W. Saunders Street
Mt. Pleasant, Iowa 52641
Division, HON INDUSTRIES
www.heatilator.com



NOVUS™ SERIES

REAR DIRECT VENT GAS APPLIANCE

INSTALLATION & OPERATING

INSTRUCTIONS



33" & 36" with the X Burn System

For Residential Use - Meets All HUD Requirements for
Manufactured Housing Installations

U.S. Patent 5,613,487

CAUTION:

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

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.

Read these installation instructions completely before beginning installation. Failure to follow them could cause an appliance malfunction resulting in serious injury and/or property damage.

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.

Contents

A. Preparation	3
B. Location and Clearances	5
C. Framing	7
D. Setting the Appliance	8
E. Venting	9
F. Utilities	17
G. Finishing	20
H. Appliance Preparation	20
I. Determining the Ignition	22
J. Lighting Instructions	22
K. Seasonal Checklist	24
L. Start-up Issues	25
M. Maintenance instructions	26
N. Optional Components	28
O. Replacement Parts	30
Index	31
Warranty	32

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. The NOVUS 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.

A. PREPARATION

U.S. and Canada Certification

The NOVUS Series Gas Appliance has been tested in accordance with the ANSI standard Z21.88-2000 in the United States, the current CSA 2.33-2000 in Canada, 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.

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.

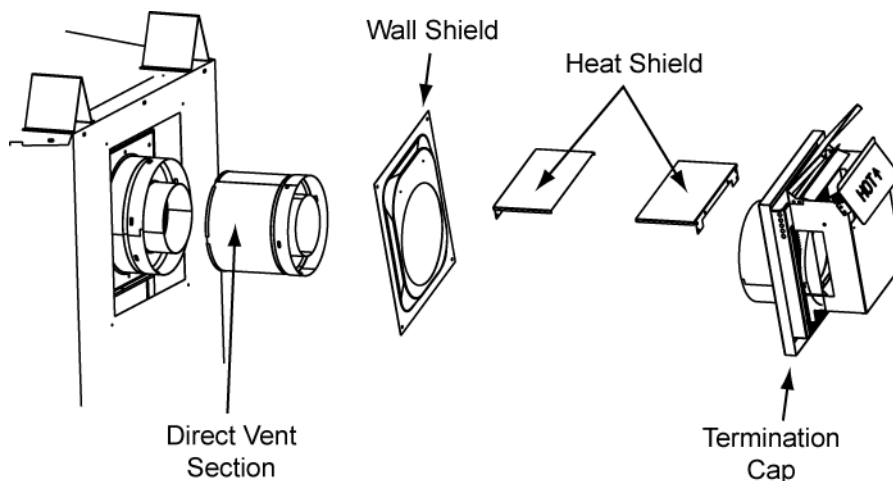
The Novus Series gas appliance has been tested and listed for use in manufactured housing (mobile homes). These installation instructions conform with the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280*, or when such a standard is not applicable, the *Standard for Manufacturer Home Installations, ANSI A225.1*.

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

HEATILATOR® and NOVUS™ are registered trademarks of Hearth Technologies Inc.

Novus Nomenclature

Catalog #	Description
GNRC36LE	Appliance Order Code Number
GN	Gas Novus
R	Rear Vent
C or H	C - Decorative Circulating H - Heater Listed
36	36 - 36" Appliance 33 - 33" Appliance
LE	No suffix - Standing Pilot, Natural Gas L - Standing Pilot, Propane Gas E - Electronic Ignition, Natural Gas LE - Electronic Ignition, Propane Gas
GNRC36LEB	Appliance Order Code Number with Upgrade Code Number
B	Black Firebox
GNRC36LE	Example: Gas NOVUS, Rear Vent, Decorative Circulating, 36", Propane Gas, Electronic Ignition appliance.



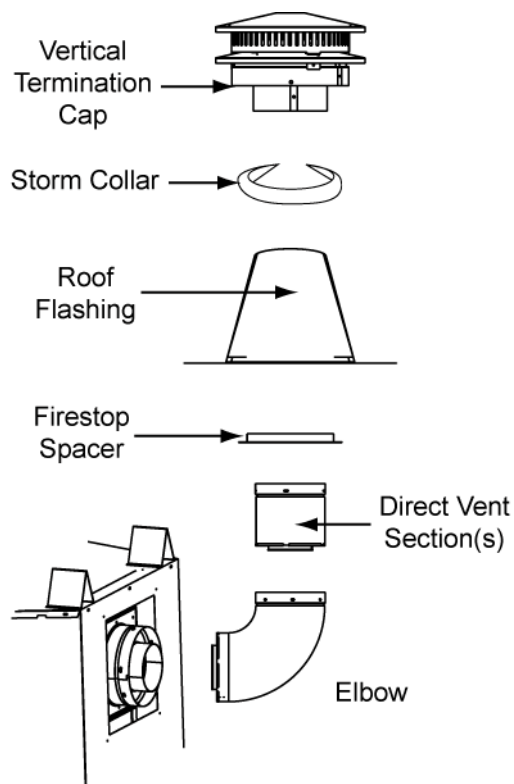
Typical Horizontal Installation

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:

Saw	Wall-finishing materials
Pliers	Framing material
Hammer	Surround
Phillips screwdriver	Caulking material
Tape measure	Gloves
Plumb line	Framing square
Level	Electric drill and bits
Safety glasses	

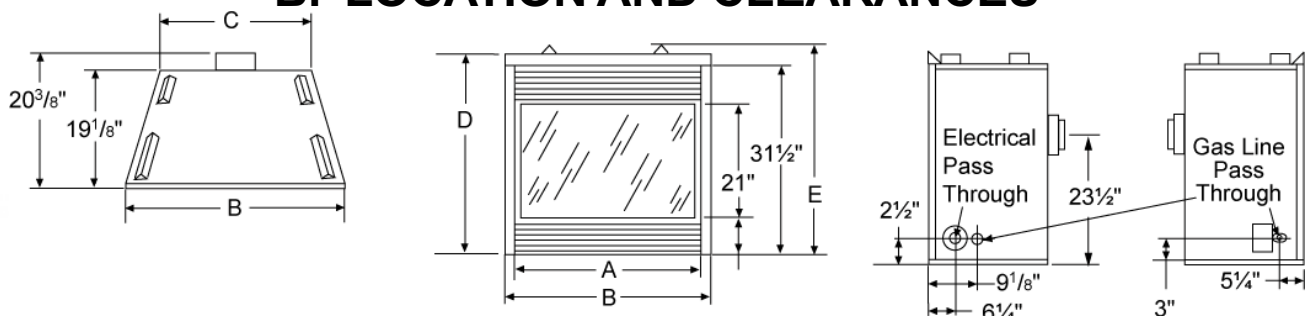


Typical Vertical Installation

INSTALLATION COMPONENTS

Installation Components	Description
CS	Cap Shield
FS6	Firestop Spacer
HS1	Rear Vent Flue Heat Shield
RF6	Roof Flashing (for 0/12 to 6/12 pitch)
RF7	Steep Pitch Roof Flashing (for 7/12 to 12/12 pitch)
VP4	4" length vent pipe
VP6	6" length vent pipe
VP12	12" length vent pipe
VP24	24" length vent pipe
VP36	36" length vent pipe
VP48	48" length vent pipe
VP45	45° Elbow
VP90	90° Elbow
VP6-9	6"-9" Slip Section Vent Pipe
VP9-14	9"-14" Slip Section Vent Pipe
VP14-24	14"-24" Slip Section Vent Pipe
VP12MI	12" Vent Pipe - non-unitized (can be cut to length)
VP24MI	24" Vent Pipe - non-unitized (can be cut to length)
VP-TB1	Basement Horizontal Termination Cap
VP-TH	Horizontal Termination Cap
VP-TRK	Rear Vent Horizontal Kit (Cap, Wall Shield, Heat Shield, & a 6-9" Slip Section)
VP-TRK2	Horizontal Rear Vent Termination Kit (Cap, Wall Shield, Heat Shield, & a 6-9" Slip Section)
VPTV	Vertical Termination Cap
VP-VT1	Horizontal Termination Cap
VP-VT1X	High Wind Horizontal Termination Cap
VS4	Vertical Vent Support
VSS2	Vinyl Soffit Shield
WS6	Wall Shield to ensure horizontal clearances

B. LOCATION AND CLEARANCES



Model	A	B	C	D	E
GNRC33	32 ³ / ₄ "	37 ⁷ / ₈ "	11 ⁵ / ₈ "	36"	36 ⁵ / ₈ "
GNRC36	35 ³ / ₄ "	40 ⁷ / ₈ "	14 ³ / ₈ "	33"	34 ¹ / ₂ "

Model	A	B	C	D	E
GNRH36	35 ³ / ₄ "	40 ⁷ / ₈ "	14 ³ / ₈ "	36"	36 ⁵ / ₈ "

Dimensions

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 NOVUS 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 in mobile homes in the U.S. and Canada.

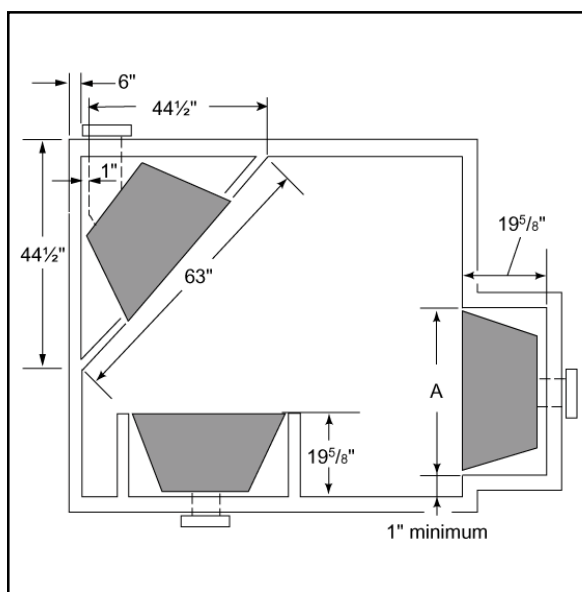


Figure 1 - Appliance Locations

Model	A
GNRC33	38-7/8"
GNRC36	41-7/8"
GNRH36	41-7/8"

* Dimensions represent minimum space required for a centered corner installation. Actual requirements will vary with individual construction. Depending on individual construction and appliance location, additional space may be needed to meet required vent and cap clearances.

CAUTION:

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

2. CLEARANCES

a. For all appliances:

Top of stand-offs	0"
Floor	0"
Back of appliance	1/2"
Side of appliance	1/2"
Top of drywall flange to ceiling	30"

b. Minimum Venting Clearances (See Fig. 2)

Horizontal runs off back of appliance to wall shield:
1" sides and bottom of vent (see Fig. 2 for top of vent)

Horizontal runs inside a wall (Heat Shields must be installed):
3" air space on top of vent
1" sides and bottom of vent

Vertical runs:
1" air space around vent

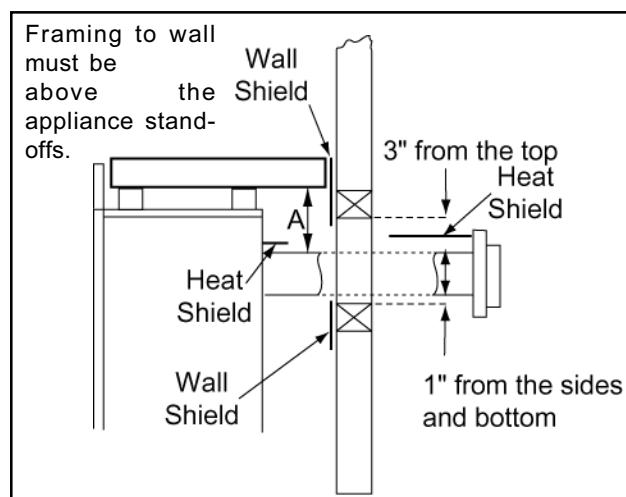


Figure 2

Rear Vented Appliances Venting Clearances

Model	A
GNRC33	9-1/8"
GNRC36	7"
GNRH36	9-1/8"

C. FRAMING

Figures 3-5 show typical framing of this appliance using combustible materials. All required clearances to combustibles must be adhered to.

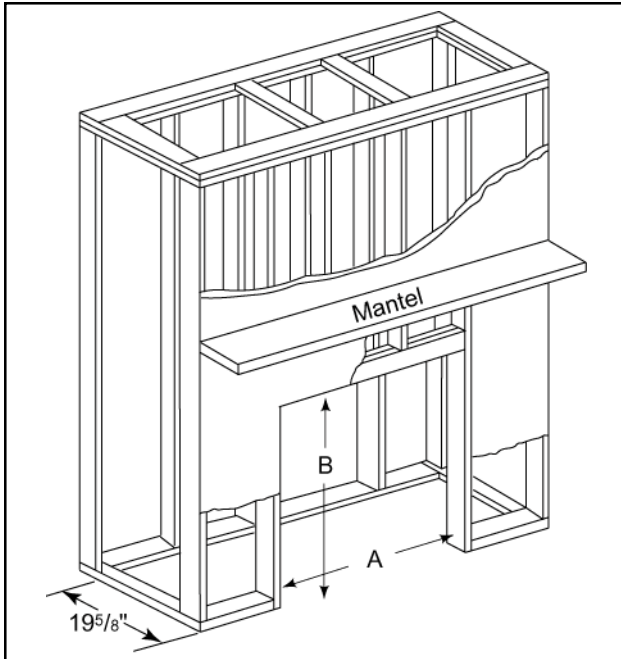


Figure 3 - Framing

Model	A	B
GNRC33	38-7/8"	36-3/4"
GNRC36	41-7/8"	34-5/8"
GNRH36	41-7/8"	36-3/4"

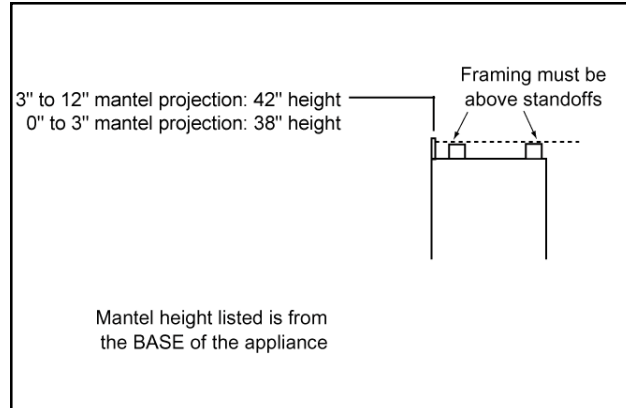


Figure 4
Mantel Height for Decorative Series

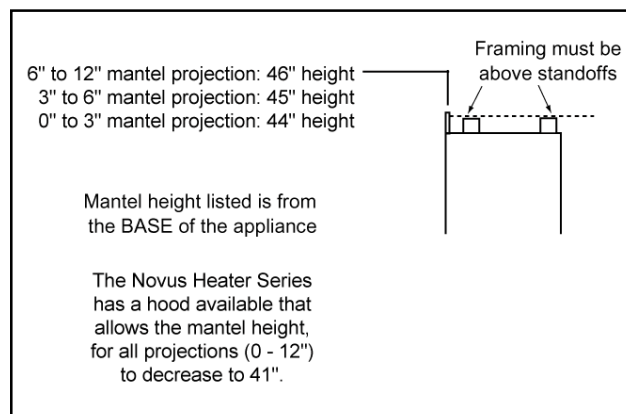


Figure 5
Mantel Height for Heater Series

WARNING!

To prevent contact with sagging or loose insulation, the appliance must **not** be installed against vapor barriers or exposed insulation.

CAUTION:

Wear gloves and safety glasses for protection.

CAUTION:

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

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 the framing. The nailing flanges have been positioned 5/8" back from the front of the appliance to allow the addition of drywall.

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 fuel or gas fuel burning appliance.

The first name in fireplaces

E. VENTING

- Horizontal Termination - see below.
- Vertical Termination - see page 13.

1. HORIZONTAL TERMINATION

a. No Elbows

The maximum horizontal run with no vertical sections of vent is 18" from the back of the appliance to the base of the cap. See Figure 6.

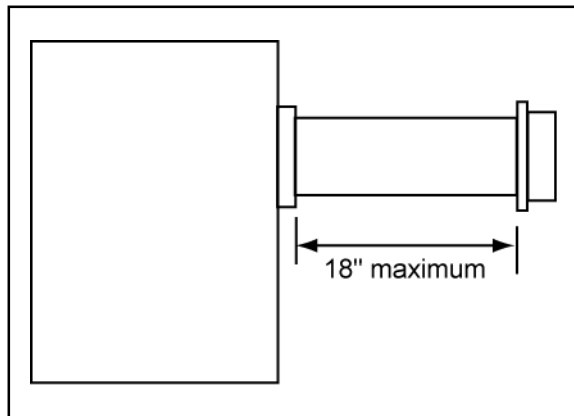


Figure 6
Rear Vented Appliances

b. 45° Elbow

For corner installations with horizontal venting, a maximum of one 45° elbow may be used. The maximum horizontal run following the elbow is 18" to the base of the cap. See Figure 7.

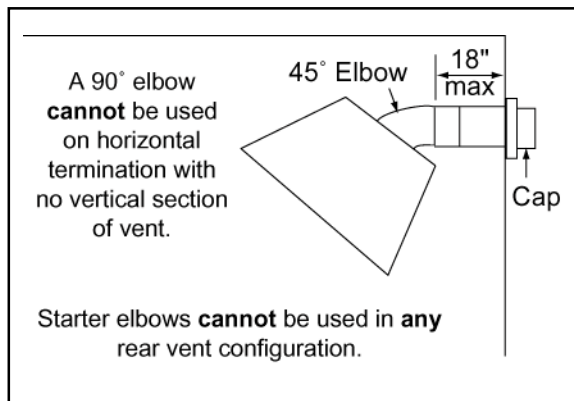


Figure 7
45° Elbow

WARNING - RISK OF FIRE!

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

WARNING - RISK OF FIRE!

If you have chosen horizontal termination, be sure there are no future obstructions from trees, bushes, snow drifts, etc.

CAUTION:

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

c. Two Elbows

Figure 8 shows various venting configurations using two elbows to terminate horizontally. A minimum of a one foot vertical section is required any time 90° elbows are used when rear venting the appliance. The maximum vertical run is 20' and the maximum horizontal run is 18'.

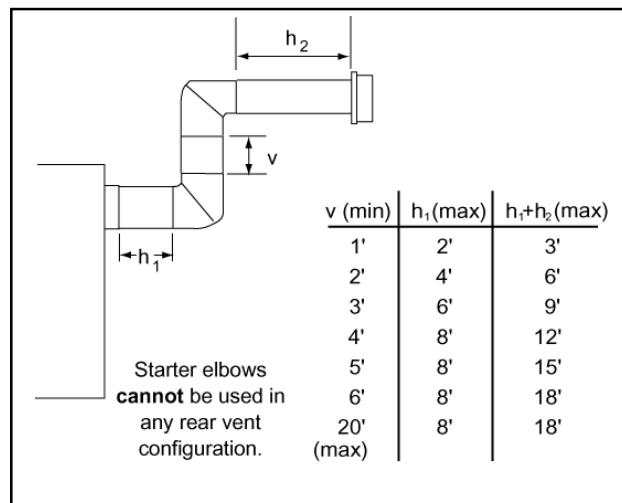


Figure 8
Two Elbows

d. Three Elbows

Figure 9 shows various venting configurations using three elbows to terminate horizontally. A minimum of a one foot vertical is required any time 90° elbows are used when rear venting the appliance. The maximum vertical run is 20' and the maximum horizontal run is 18'.

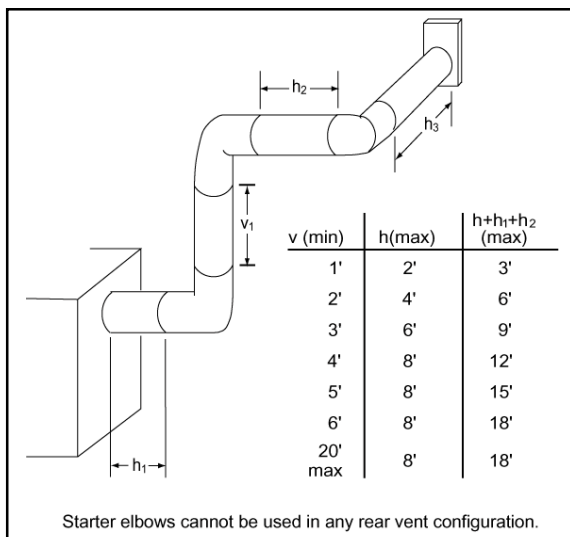


Figure 9
Three Elbows

e. Assembling Chimney Sections

Use only pipe supplied and listed for use with this appliance. See page 3 for a description of listed components. See Section 3 on page 15 for instructions on assembling the vent sections.

f. Installing the Interior Wall Shield (WS6)

Frame a hole in a combustible wall for an interior wall shield, as shown in Figure 10 whenever a wall is penetrated. This shield maintains minimum clearances and prevents cold air infiltration.

The termination cap location must meet all local and national codes and not be easily blocked or obstructed. See Figure 14, page 12.

If the hole being penetrated is of non-combustible materials, a 9" diameter hole as acceptable.

Secure the shield to the framing as shown in Figure 11.

The last section of vent may require cutting, depending upon wall thickness and appliance location. The cap should overlap the vent sections by at least 1-1/2". See Figure 12.

g. Installing the Rear Vent Heat Shield

For horizontally terminated rear vent appliances, the flue heat shields **MUST** be placed 1" above the top of the vent between the wall shield and base of the termination cap. The shields are attached to the wall shield and base of the cap with two screws each. When installed, the cap's shield will rest under the wall shield's shield. The shields must have at least 1/2" overlap. See Figure 13. Depending on the installation, the shields may be too long and will require trimming. If the shields are too short, material must be added or a longer HS1 Heat Shield can be used in place of the shield attached to the cap.

Note: Exterior wall thickness must be a minimum of 4" to a maximum of 17-1/2"

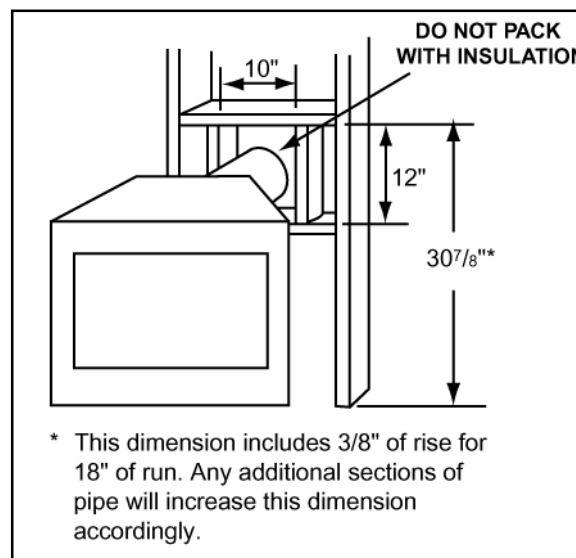


Figure 10 - Exterior Wall Hole

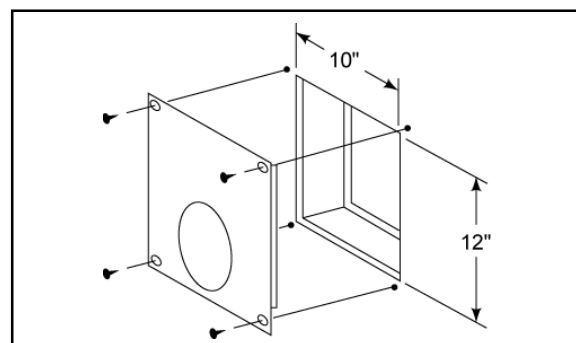


Figure 11 - Interior Wall Shield

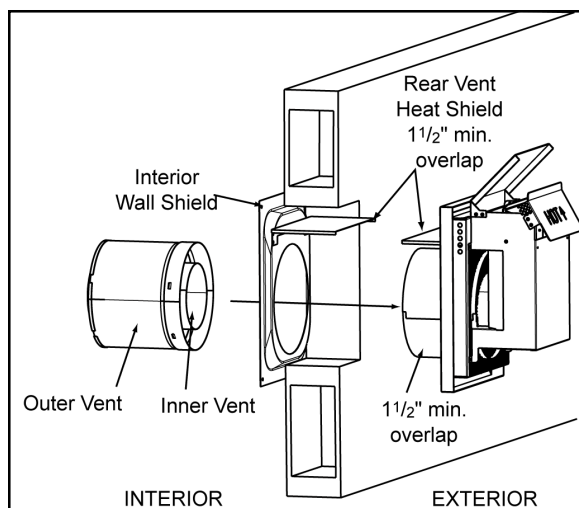


Figure 12 - Venting Through the Wall



Figure 13 - Rear Vent Heat Shield

WARNING - RISK OF FIRE!

Always maintain minimum air space clearances or greater around the appliance and vent system.

The first name in fireplaces

h. Termination

Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.

Install the cap as shown in Figures 12 and 13. Cap pipe sections should overlap the vent pipe by 1-1/2". Caulk outside edges of cap.

Local codes may require the installation of a cap shield (CS) which prevents the cap from accidentally touching anything or anyone.

Figure 14 illustrates cap locations prescribed by current ANSI Z223.1 and CAN/CGA-B149 installation codes.

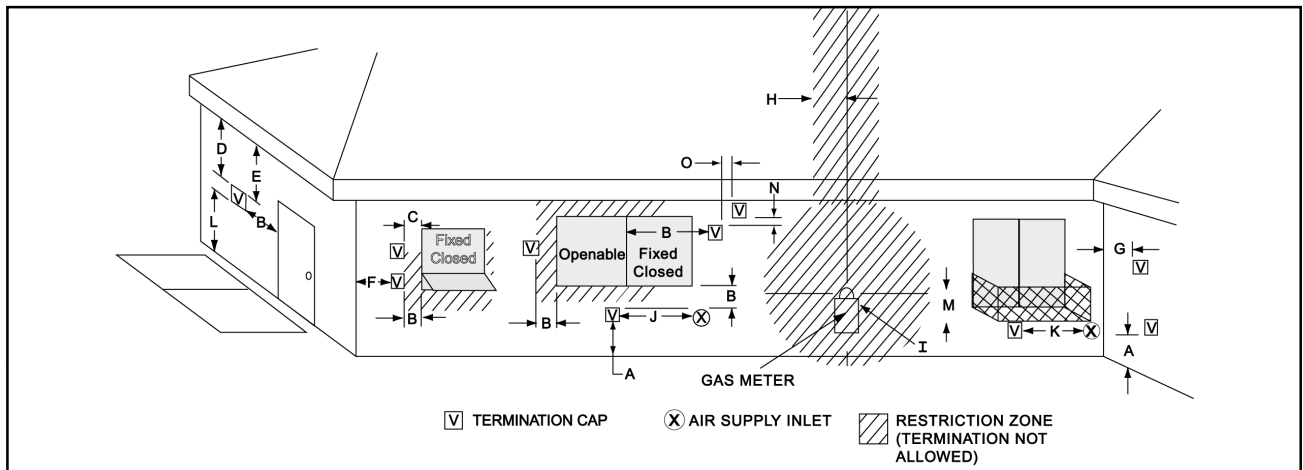


Figure 14 - Termination Cap Locations

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 terminal within a horizontal distance of 2 feet (60 cm) from the centerline of the terminal - 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 Technologies Inc. assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

2. VERTICAL TERMINATION

a. Clearances

See Figure 15 for clearance information.

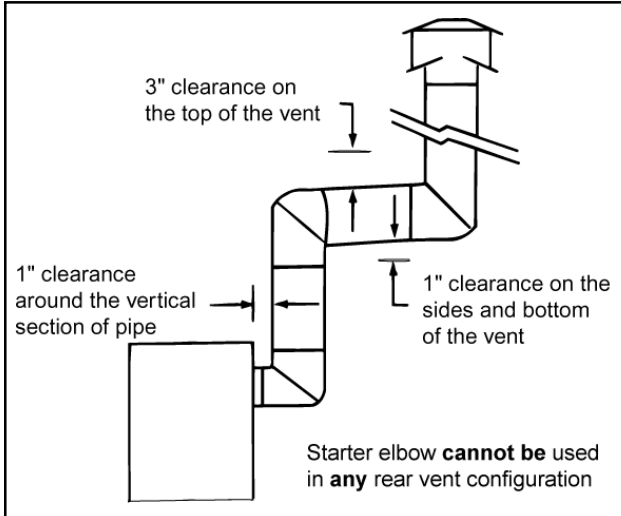


Figure 15
Vertical Termination Clearances

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" rise for every 1 ft. of run towards the termination. Never allow the vent to run downward. This could cause high temperatures and may create a fire hazard.

Note: Horizontal runs will require the use of one vent support (or metal plumber's strap) for every 3' of vent.

CAUTION:

For vertically terminated installations, metal tape at each vent joint will help prevent excess air infiltration and improve flame appearance. All joints above the storm collar should be taped and/or sealed with silicone caulk to prevent water penetration.

b. Vent Lengths

Various venting configurations are shown in Figure 16 from which maximum vent runs can be determined.

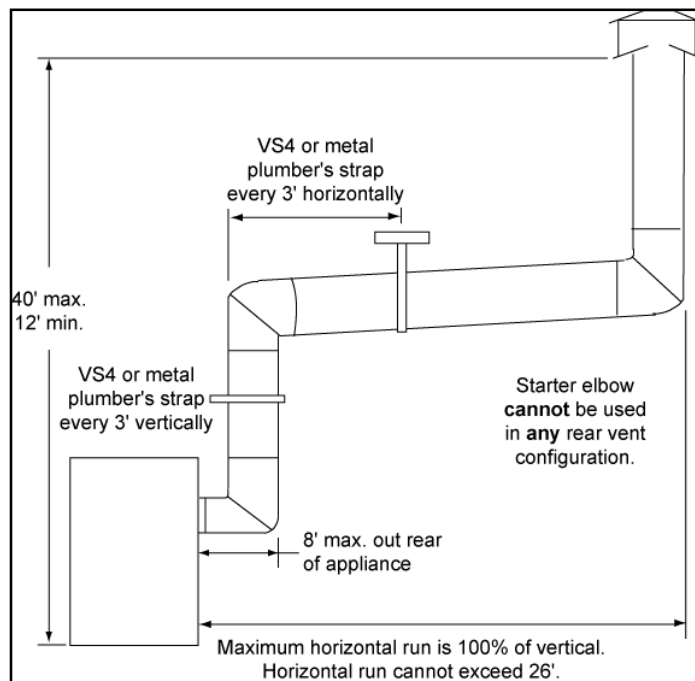


Figure 16
Vertical Termination Vent Lengths

c. Assembling Chimney Sections

Use only pipe supplied and listed for use with this appliance. See page 5 for a description of listed components. See Section 3 on page 15 for instructions on assembling the vent sections.

d. Firestop Spacer/Vent Installation

Frame an opening and install a firestop spacer whenever the vent penetrates a ceiling/floor area, as shown in Figure 17. Frame the opening with the same size lumber as used in the ceiling/floor joists. **DO NOT** pack insulation around the vent. Assemble vent sections with three screws per joint.

e. Chase/Termination Installation

Figures 18 and 19, 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.

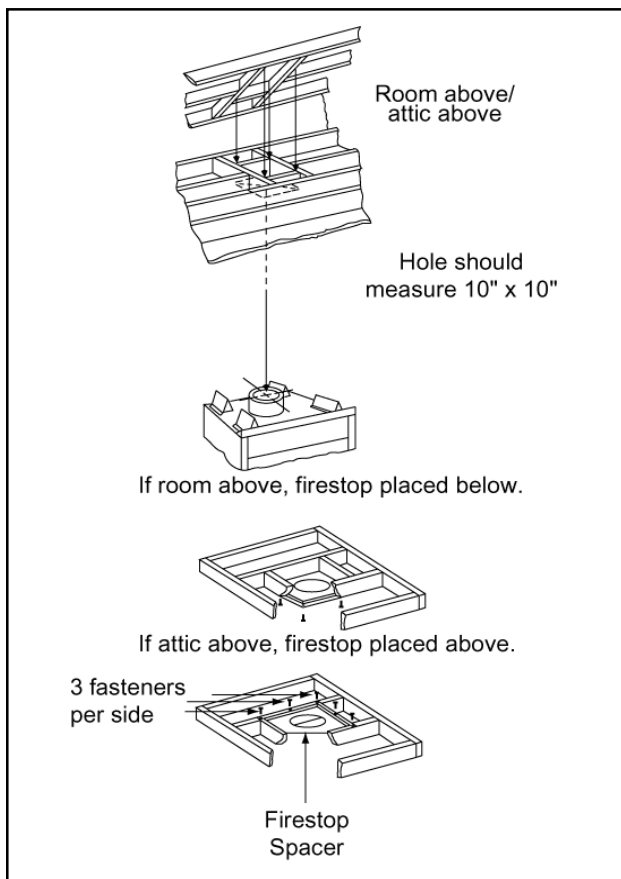


Figure 17
Installing the Firestop Spacer

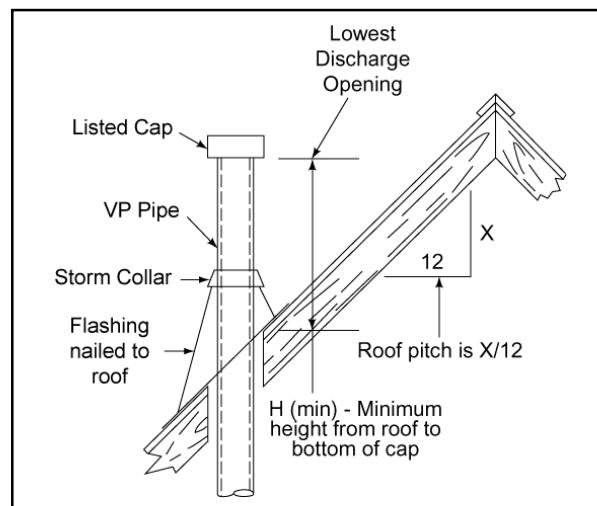


Figure 18
Vent Height for Vertical Termination

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 - Vent Height

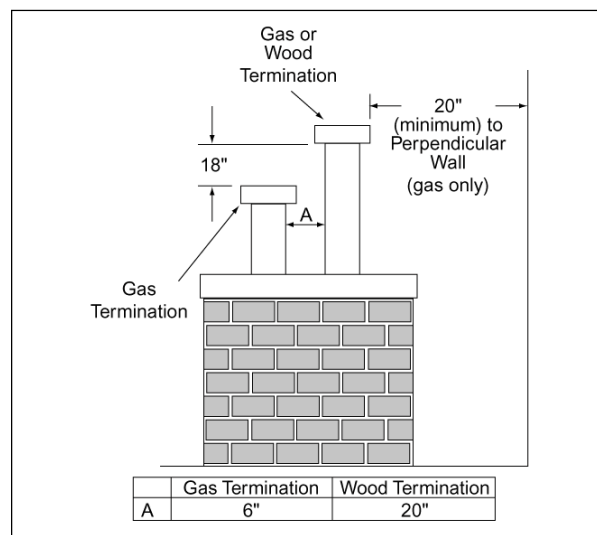


Figure 19
Multiple Vertical Termination

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

3. ASSEMBLING THE VENT SECTIONS

a. Attaching the Venting to the Appliance

To attach the first VP section to the appliance collars, slide the flared end of the Inner flue of the VP section over the inner collar on the appliance. At the same time, insert the outer flue into the outer collar on the appliance. Push the vent section into the collar until all the lances have snapped into place. Tug slightly on the vent to confirm it has completely locked in place.

b. Assembling Vent Sections

- 1) Start the flared inner flue of section "A" over the inner flue of section "B".
- 2) Insert the outer flue of section "A" into the outer flue of section "B". See Figure 20.

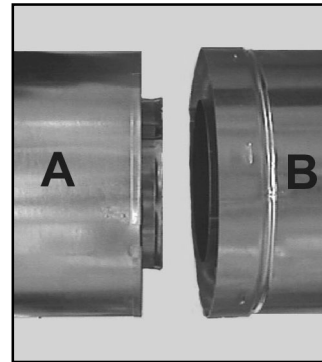


Figure 20

Note: Squeezing the pipe slightly to fit may be necessary.

Once both inner and outer flues are started, press section "A" into section "B" firmly until all lances have snapped into place. Tug slightly on section "A" to confirm it has completely locked into place. See Figure 21.

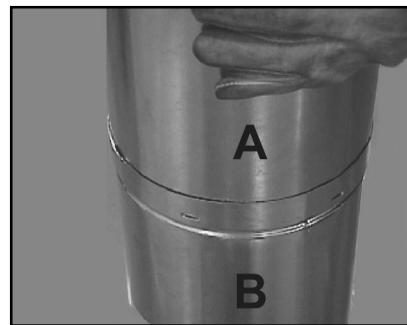


Figure 21

Note: Make sure that the seams are NOT aligned in order to prevent unintentional disconnection.

c. Assembling Minimum Installation (MI) Sections

MI sections are non-unitized so that they can be cut to a certain length. To use these sections, they must be cut to length from the non-expanded end. See Figure 22. They can then be attached by first connecting the expanded end of the MI inner flue with the inner flue from the adjacent vent section and securing with three screws. The expanded portion of the MI inner flue must overlap completely with the untreated end of the adjacent vent section. The outer flue can then be inserted into the adjacent outer flue expanded end and attached to the next vent section with three screws. The other end of the MI vent section can then be attached by fitting a snap lock section to it and snapping it together as normal.

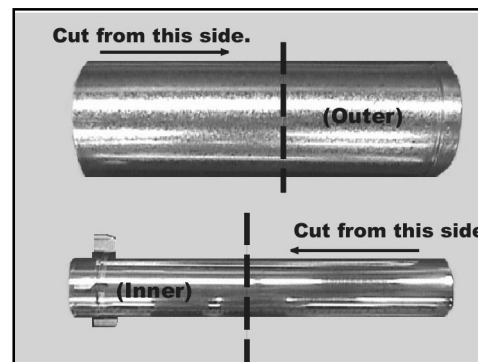


Figure 22

d. Assembling the Slip Sections

Slip sections should be snapped into the first mating piece, then expanded to their desired length, making sure that a 1.5" overlap is maintained between the two sections of the slip section. The sections need to be secured by driving two screws through the overlapping portions of the vent. See Figure 23. This will secure the slip section to the desired length and prevent it from separating. The slip section can then be attached to the next section of vent.

e. Disassembling Vent Sections

(Only if necessary)

To disassemble any two pieces of pipe, rotate either section so that the seams on both pipe sections are aligned as shown in Figure 24. They can then be carefully pulled apart.

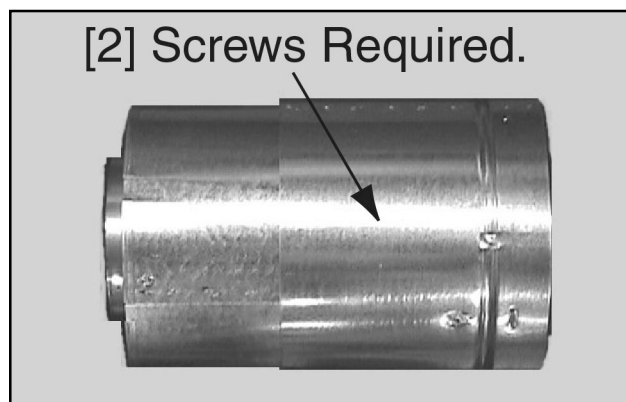


Figure 23

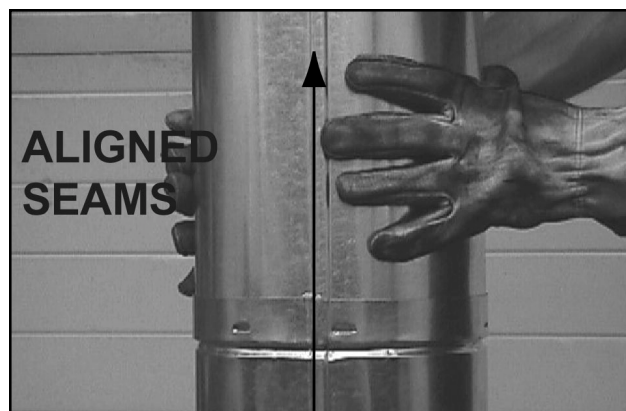


Figure 24

F. UTILITIES

1. 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, 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 current orifice is available from your Heatilator distributor.

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.

2. GAS LINE CONNECTION

Open the control access panel as shown in Figures 25 and 26. The appliance is provided with a stainless steel flexible connector and manual shutoff valve. The incoming gas line should be piped into the valve compartment and connected to the 1/2" FIP connection provided on the manual shutoff valve. All connections must be tightened and checked for leaks with a soap and water solution or leak detector. Bleed the gas line to extract any air that may have been trapped inside the pipe. See Figure 27 to connect the gas line.



Figure 25
Opening Control Access Panel



Figure 26
Control Access Panel Removal

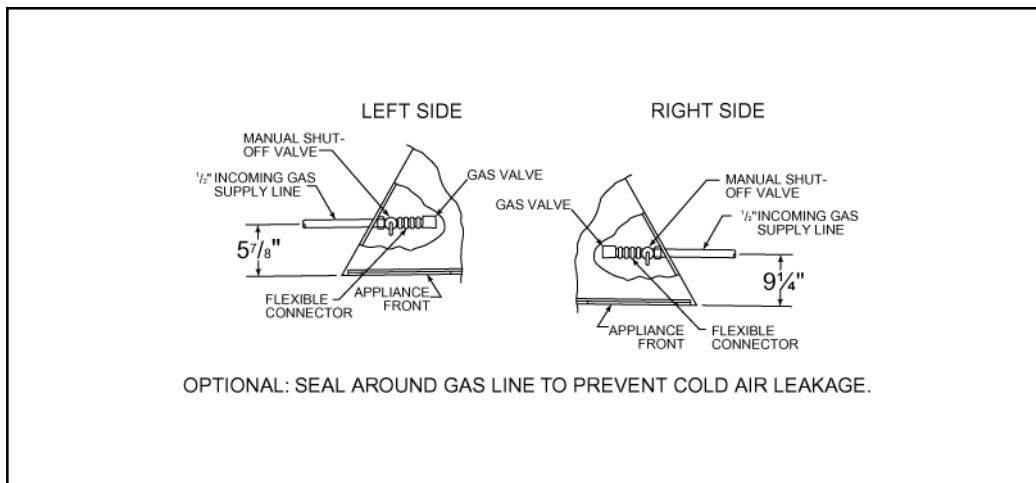


Figure 27
Gas Line

3. GAS PRESSURE

A pressure tap is included on the front face of the standing pilot gas control valve. The electronic valve includes a 1/8" NPT plugged tap on the top and bottom of the valve near the outlet to the main burner. Pressure taps are immediately upstream of the gas supply connection and accessible for test gauge connection.

Table 2 shows 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.

NOVUS	
Inlet Gas Supply Pressure (N.G.)	4.5 (min.) - 7.0 (max.)*
Optimal Manifold Pressure (N.G.)	3.5*
Inlet Gas Supply Pressure (L.P.)	11.0 (min.) - 14.0 (max.)*
Optimum Manifold Pressure (L.P.)	10.0*
Input Rate (N.G.)	25,000 BTU/hr.
Input Rate (L.P.)	25,000 BTU/hr.
N.G. Orifice Size	.101 in./2.56 mm
L.P. Orifice Size	.059 in./1.50 mm

* w.c. (water column)

Table 2
Gas Information for Electronic and Standing Pilot Appliances

Note: This 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 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).

4. WIRING

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.

WARNING!

This standing pilot appliance DOES NOT require a 110V AC supply for operation. Connecting the appliance wall switch wires to 110V AC supply will cause the appliance to malfunction and destroy the valve and thermopile.

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

a. Standing Pilot

This standing pilot appliance does not require a 110V AC supply to operate. It is suggested that a 110V junction box be installed with a switched outlet for the optional fan and an always-powered outlet for the optional remote control.

Only heater listed appliances may be connected to a thermostat (not supplied). Use a thermostat that is compatible with a millivolt gas valve. See Figure 28.

CAUTION:

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

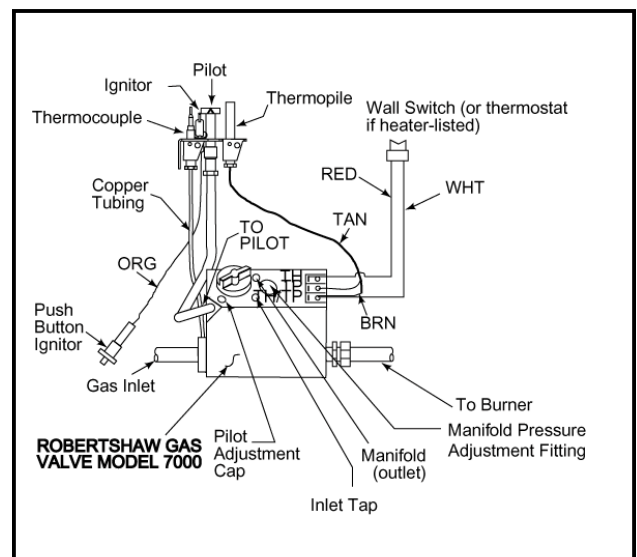


Figure 28 - Standing Pilot Ignition Wiring Diagram

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.

3. HIGH TEMPERATURE SEALANT MATERIAL

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

A high temperature sealant, 1/8" wide minimum, must be used to close off gaps between the appliance and facing to prevent cold air leaks. See Figure 31.

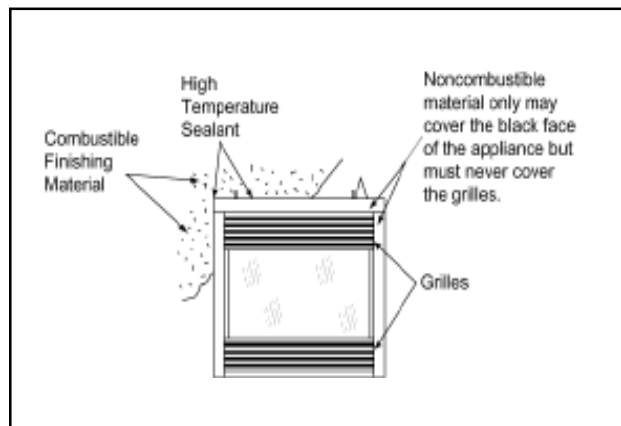


Figure 31 - Finishing Materials

WARNING!

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

H. APPLIANCE PREPARATION

1. ATTACHING 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 32.

2. UPPER GRILLE PANEL REMOVAL

Grasp the upper grille panel and remove the rubber pins holding the grille. See Figure 33.

3. CONTROL ACCESS PANEL REMOVAL

Release the spring pin on the right hand side of the control access panel. See Figure 34.

4. GLASS AND SCREEN REMOVAL

See page 27 of this manual.



Figure 32 - Installing the Hood

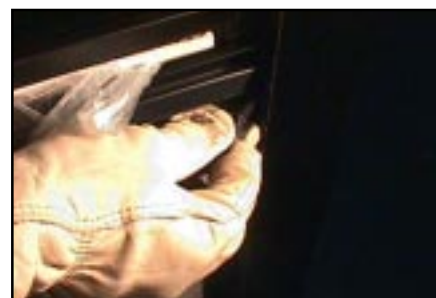


Figure 33 - Upper Grille Panel Removal



Figure 34 - Control Access Panel Removal

5. APPLIANCE PREPARATION

a. Log Set

The log set should look similar to that in Figure 35.



Figure 35 - Log Set

b. Placing the Lava Rock and Vermiculite

See Figure 36 for lava rock and vermiculite placement.

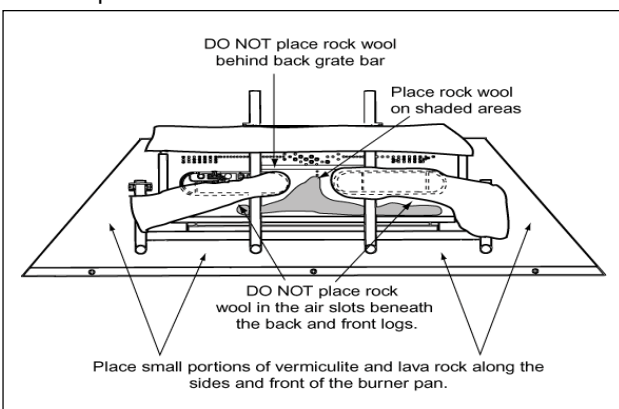


Figure 36
Placing the Vermiculite and Lava Rock
(top logs removed for clarity)

c. Placing the Rock Wool

Place a small amount of 1/2" 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. See Figure 37.

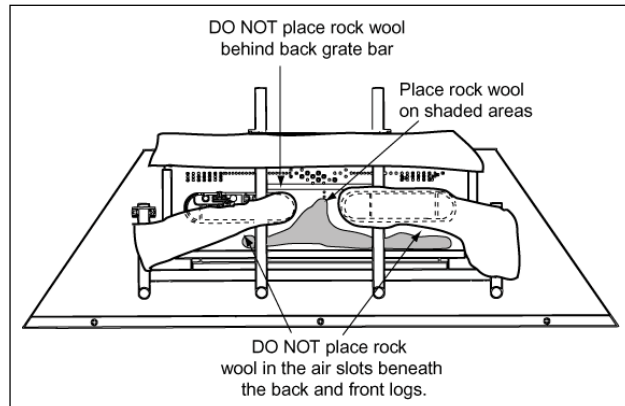


Figure 37
Placing the Rock Wool
(top logs removed for clarity)

6. GLASS AND SCREEN REPLACEMENT

See page 27 of this instruction manual.

WARNING! RISK OF CARBON MONOXIDE!

Do not hit or strike glass. Do not operate this appliance with the glass removed, broken, or not sealed.

7. CONTROL ACCESS PANEL PLACEMENT

Place the control access panel as shown in Figure 38.



Figure 38 - Replace Control Access Panel

I. DETERMINING THE IGNITION

To determine whether your appliance is an electronic 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 39, you own a standing pilot ignition appliance. If no red ignitor button is present, you own an electronic ignition appliance.

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

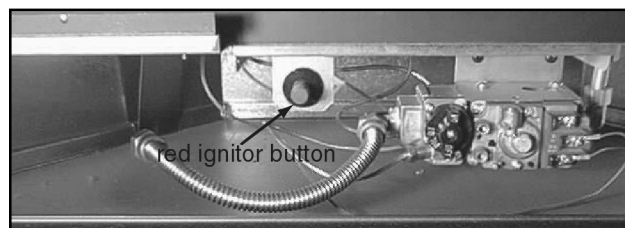


Figure 39
Standing Pilot Ignition

J. LIGHTING INSTRUCTIONS

1. ELECTRONIC IGNITION APPLIANCES

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 manual shutoff valve. Never use tools. If the manual shutoff valve 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 (5) 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. Turn off the wall switch.
- 2. Turn gas line to the "OFF" position.
- 3. 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 gas appliance has a manual ignition device that lights the pilot. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING 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.

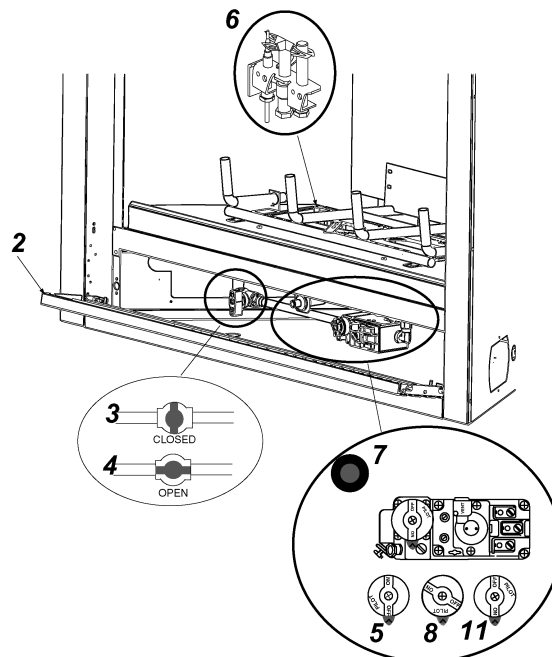
WHAT TO DO IF YOU SMELL GAS

- 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 gas control knob to light the pilot. Never use tools. If the knob will not push in or turn 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 the 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 wall switch to the "OFF" position or set thermostat to lowest setting.
2. Open control access panel.
3. Turn gas shut-off valve 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 manual shutoff valve to "OPEN".
5. 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.
10. Continue to hold in pilot knob for approximately one minute. Pilot should remain lit. If pilot goes out, wait 5 minutes and repeat Steps 4-9.
11. Release and turn the knob counterclockwise to "ON". To light main burner, turn wall switch 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 the thermostat to the lowest setting.
2. Open the control access panel.
3. Turn the manual shutoff valve to the "CLOSED" position. Do not force.
4. Close the control access panel.

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.

CAUTION:

Any safety screen or guard removed for servicing an appliance must be replaced prior to operating this appliance.

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

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.

BEFORE OPERATING THIS APPLIANCE HAVE A QUALIFIED TECHNICIAN:

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

WARNING!

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

L. START-UP ISSUES

1. STANDING PILOT OPERATION

Hearth Technologies Inc. recommends you leave the pilot on year round.

If you decide to shut down the appliance for a long period of time:

- Turn all wall switches to "OFF".
- Turn pilot knob on valve to "OFF".
- Turn the gas line to "CLOSED".

Lighting the Appliance During Regular Use: Turn the wall switch to "ON".

Shutdown During Regular Use: Turn the wall switch to "OFF".

2. ELECTRONIC IGNITION OPERATION

To shut down the appliance for a long period of time:

- Turn all wall switches to "OFF".
- Turn the gas line to "CLOSED".

Lighting the Appliance during Regular Use: Turn the wall switch to "ON".

Shutdown During Regular Use: Turn the wall switch to "OFF".

3. FUEL

Do not burn wood or other solid materials in this appliance.

Natural or propane gas conversions necessary to meet the application need to be made by a qualified technician using Heatilator specified and approved parts.

In the event your appliance must be converted to use propane, you must use a **CKVP** Conversion Kit. To convert to use natural gas, you must use a **CKVN** Conversion 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.

PROBLEMS/SOLUTIONS.

Issues:	Possible Causes and Solutions:
1. Condensation on the glass.	1. This is a result of gas combustion and temperature variations. As the appliance warms up, this condensation should disappear.
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 the 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.

M. MAINTENANCE INSTRUCTIONS

1. CLEANING THE BURNER AND CONTROL COMPARTMENT

Keep the burner and control compartment clean by brushing and vacuuming at least once a year. Failure to do so may shorten the fan's life (where applicable). Always turn off the wall switch (or remote control) and gas valve before cleaning.

2. CHECKING THE VENT SYSTEM

Test the venting system periodically to assure proper operation.

3. CHECKING FLAME PATTERNS

Check the flame of the burner periodically, making sure the flames are steady, not lifting or floating. The flame color should be blue with yellow tips. See Figure 38. The ignitor (electronic) or thermopile and thermocouple (standing pilot) tips should be covered with flame. See Figures 40-42.

If the vent configuration is installed incorrectly, the vent may cause the flames inside the appliance to lift or "ghost", which is a dangerous situation. Inspect the flames after installation to ensure proper performance. See Figure 43. 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.

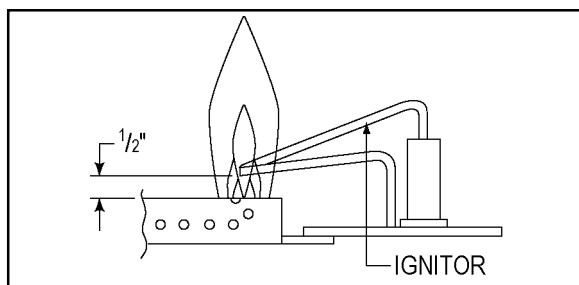


Figure 40 - Electronic Ignition

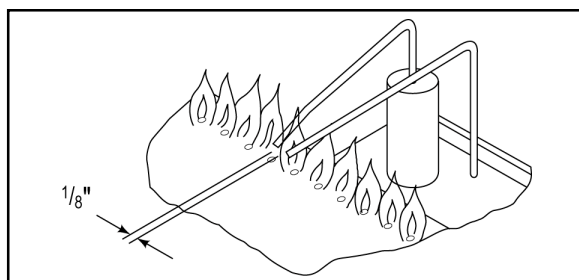


Figure 41 - Electronic Ignition

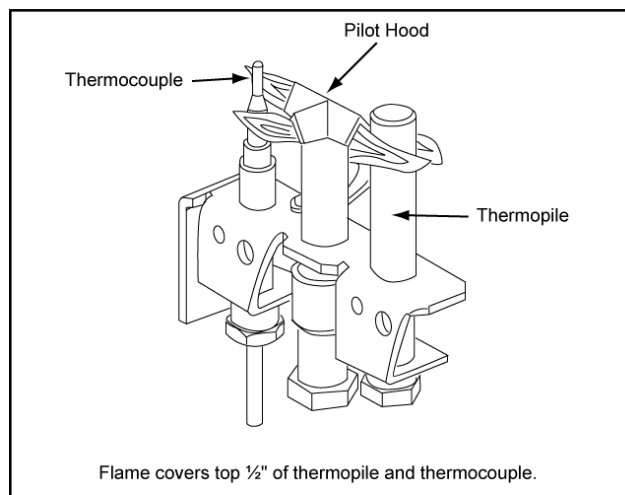


Figure 42
Standing Pilot

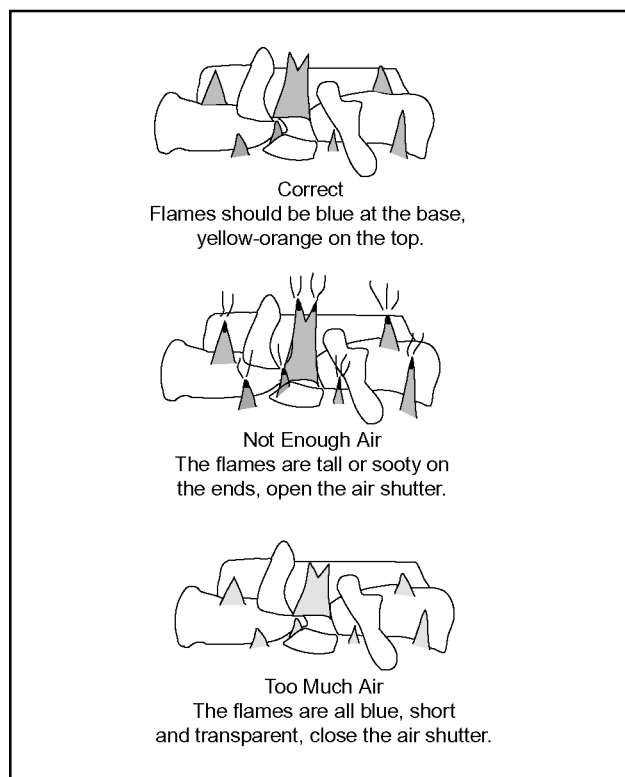


Figure 43
Flame Patterns

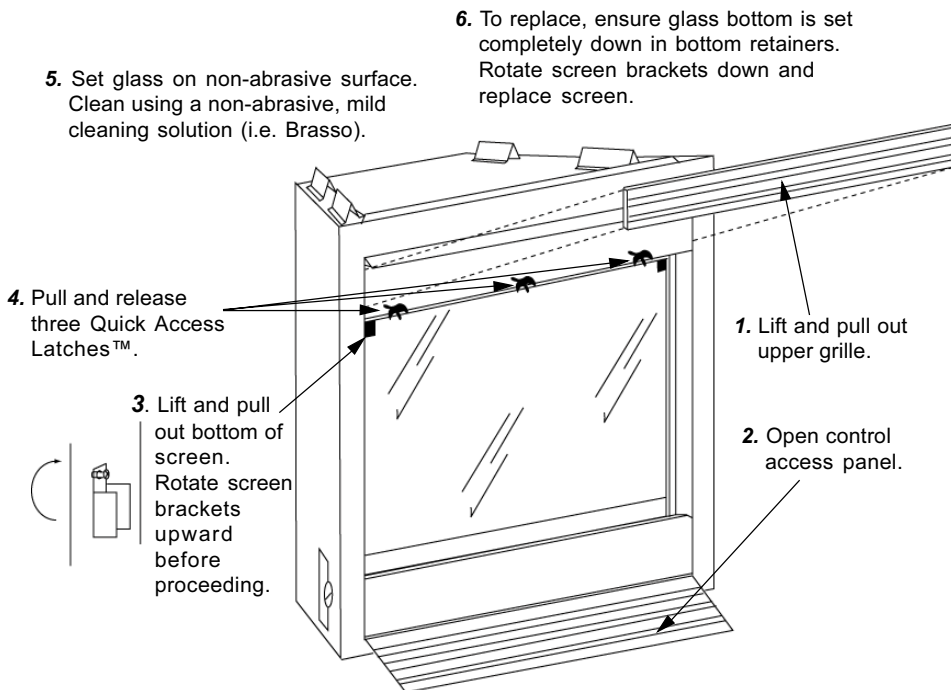
4. VENTING SYSTEM INSPECTION

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.

5. CLEANING THE GLASS

See Figure 44. Never operate this appliance without the glass properly secured in place or if the glass is broken or chipped.

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 only with a Heatilator brand 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.



Safety Note:

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

Figure 44 - Glass Cleaning

6. LOG REMOVAL/REPLACEMENT

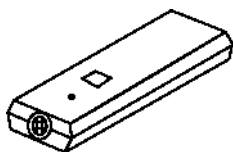
If removal of the logs becomes necessary, remove the two screws at the front of the grate. Grasp the two outside upright grate bars. Pull the log toward the front and up, off the burner. See Figure 45.

To replace the logs, grasp the two outside upright grate bars. Push and lower the log set onto the burner pan, making sure the back of the left most grate bar slides through the grate mounting bracket attached to the hearth pan. Attach the two screws at the front of the grate.



Figure 45 - Log Removal

N. OPTIONAL COMPONENTS



RC-SMART-HTL
Remote Control
(Standing Pilot)

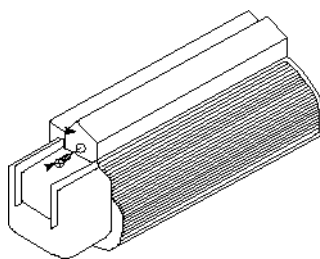
RC-ELEC-HTL
Remote Control
(Electronic Ignition)

RC-BATT-HTL
Battery-operated Remote
Control (Standing Pilot)

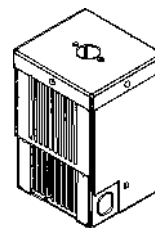
RCT-MLT-HTL
Multi-Function
Remote Control

SMART-STAT-HTL
Remote Control with
Thermostat Control

SMART-BATT-HTL
Battery-operated Remote
Control with Thermostat
Control



FK4
Fan Kit
(33" & 36" appliances
only)

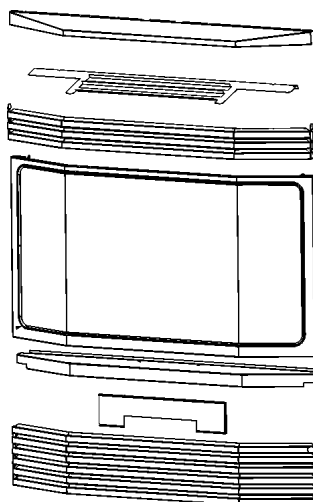


BC11
Automatic Variable Blower Control

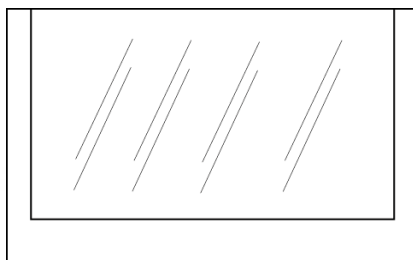
BC10
Fan Motor Rheostat Control

BC12
Variable Speed Control w/Thermostat

BC14
Automatic Variable Blower Control

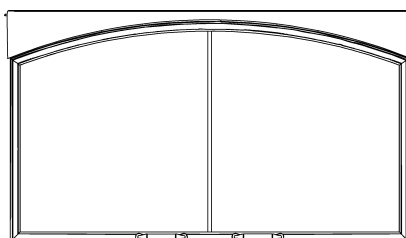


DFBN36
Bay Door
(36" appliance only)

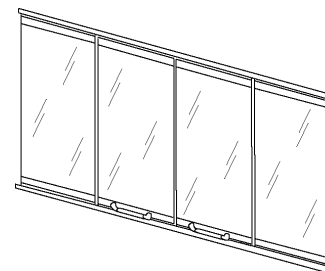


GP33
Ceramic Glass - 33"

GP36
Ceramic Glass - 36"



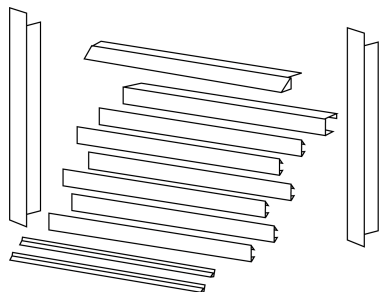
DFA33/B
DFA36/B/S
Cabinet-Style
Arched Glass Door



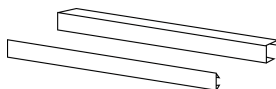
DFN3A/B/S
DFN6A/B/S
Fixed Glass Door

The first name in fireplaces

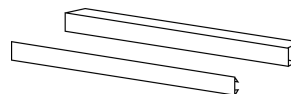
OPTIONAL COMPONENTS (con't)



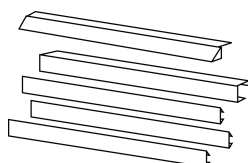
TKN62A/B/S
Trim Kits for 36" Decorative Appliances



TKN35A/B/S, TKN63A/B/S
Trim Kits



TKN35A/B/S, TKN65A/B/S
Trim Kits



TKN33A/B/S
Louver Trim Kit



TKB6
Polished Brass Trim Kit for
Bay Door

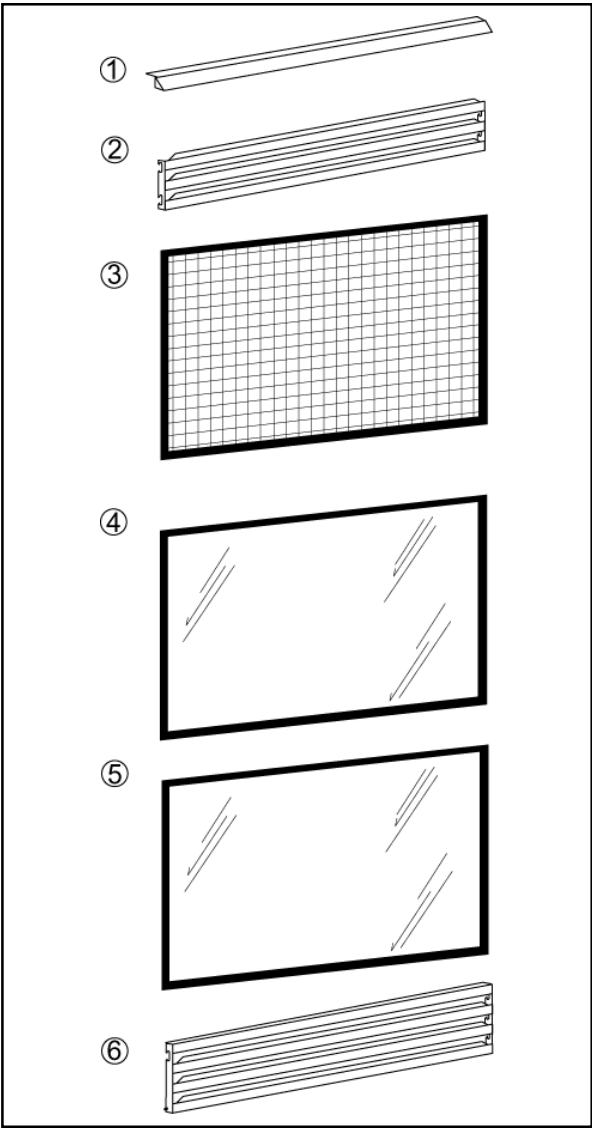
The first name in fireplaces

O. REPLACEMENT PARTS

Replacement parts are available from you distributor/dealer.



A



ITEM	PART #	DESCRIPTION	Qty
A	34051 34923	33/36" Novus Log & Grate Assy. 30" Novus Log & Grate Assy.	1 1
1	21993 21992	Hood - 36" Hood - 33"	1 1
2	22123 22122	Upper Grille - 36" Upper Grille - 33"	1 1
3	26804 26803	Screen Assembly - 36" Screen Assembly - 33"	1 1
4	22712 22711	Decorative Glass w/Frame - 36" Decorative Glass w/Frame - 33"	1 1
5	22715	Heater Glass w/Frame - 36"	1
6	21582 21581	Lower Grille - 36" Lower Grille - 33"	1 1

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

Index

A

Appliance Preparation 20
Assembling the Vent Sections 15

C

Certification 3
Chase Installation 14
Chimney Sections - Assembling 14
Chimney Sections - Assembly 10
Cleaning the Burner and Control
Compartment 26
Clearances 6, 13
Minimum Venting 6
Codes 3
Combustible Material 20
Components 5

D

Dimensions 5
Disassembling Vent Sections 16

E

Electronic 19
Electronic Ignition 19, 26
Operation 25

F

Finishing 20
Combustible Material 20
High Temp Sealing Material 20
Noncombustible Material 20
Firestop Spacer 14
Flames
Blue 25
Patterns 26
Framing 7
Fuel 25

G

Gas Line Connection 17
Gas Pressure 18
Glass
Cleaning 27
Condensation 25
Film 25

H

High Altitude Installation 17
High Temperature Sealant Material
20
Hood - Attaching 20
Horizontal Installation 4

I

Interior Wall Shield - Installing 10

J

Junction Box Wiring 19

L

Lava Rock 21
Lighting Instructions
Electronic Ignition 22
Locations
Appliance 6
locations 6
Log Set
Removal/Replacement 27
log set 20

M

Maintenance
Burner & Control Compartment 26
Checking the Flame Patterns 26
Checking the Vent System 26
Maintenance instructions 26
Mantel Height 7
Minimum Installation 15
Multiple Vertical Termination 14

N

Nomenclature 3
Noncombustible Material 20

O

Odor 25
Optional Components 28

R

Rear Vent Heat Shield - Installing 10
Replacement Parts 30
Requirements
Space 6
Rock Wool 21

S

Safety Precautions 2
Seasonal Checklist 24
Slip Sections 16
Standing Pilot 18, 26
Operation 25
Wiring Diagram 18
Start-up Issues 25

T

Termination Cap Locations 12

U

Upper Panel Removal 20
Utilities 17

V

Vent Height 14
Vent Lengths 13
Vent System - Checking 26
Venting 9
Assembling Vent Sections 15
Attach to fireplace 15
Chimney Sections 10
Disassembly 16
Horizontal Termination
Interior Wall Shield 10
No Elbows 9
Rear Vent Heat Shield 10
Three Elbows 10
Two Elbows 9
Minimum Installation Sections 15
Rear Vent Heat Shield 11
Slip Sections 16
Through the wall 11
Vent Lengths 13
Vertical Termination
Chase installation 14
Chimney Sections 14
Firestop Spacer 14
Multiple Vertical Termination 14
Vent Height 14
Vermiculite 21
Vertical Installation 4
Vertical Termination 13
Clearances 13

W

Website 30
Wiring 18
Electronic Ignition 19
Wiring Diagram 19
Junction Box 19
Standing Pilot 18
Wiring Diagram 18
Standing Pilot Ignition 18



Gas Appliance (Fireplace) Limited Lifetime Warranty

HEARTH TECHNOLOGIES INC. ("HTI") extends the following warranty for HEATILATOR® gas appliances installed in the United States of America or Canada (the "Appliance"). Dealers and employees of HTI 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.

HTI 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.

HTI 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, HTI 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 HTI apply only while the Appliance is in its location of original installation. HTI'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 HTI; and/or (7) modification of the Appliance not expressly authorized and approved by HTI in writing. This warranty is limited to only the component parts manufactured or supplied by HTI.
- B.** HTI'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. HTI may fully discharge all of its obligations under such warranties by repairing the defective component(s) or at HTI's discretion, providing replacement parts at no charge and paying reasonable labor and freight costs.
- C. EXCEPT TO THE EXTENT PROVIDED BY LAW, HTI 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 Technologies Inc., 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641-1563. You may also register your claim online at www.heatilator.com/contact.asp.
- 2. Provide proof of purchase, model number, serial number, and manufacturing date code to HTI.
- 3. Provide HTI 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 HTI'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 1-800-843-2848.

©2001 Heatilator® is a Registered Trademark of Hearth Technologies Inc.