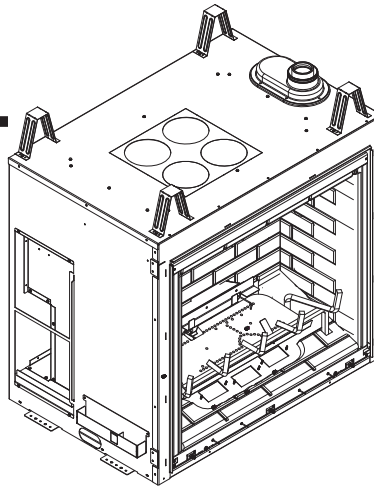


Model: HE36CLX-S
HE36CLXLP-S



GAS-FIRED



NOTICE



DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

DO NOT DISCARD

⚠ WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury, or death.

- **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.

⚠ WARNING



HOT GLASS WILL CAUSE BURNS. DO NOT TOUCH GLASS UNTIL COOLED. NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed.



Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies suggests NFI certified or factory trained professionals, or technicians supervised by an NFI certified professional.

Installation and service of this appliance should be performed by a Hearth & Home Technologies factory-trained Energy Pro technician.

Read this manual before installing or operating this appliance.
Please retain this owner's manual for future reference.

A. Congratulations

Congratulations on selecting a Heat & Glo gas fireplace, an elegant and clean alternative to wood burning fireplaces. The Heat & Glo gas fireplace you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of a new fireplace, you'll want to read and carefully follow all of the instructions contained in this owner's manual. Pay special attention to all cautions and warnings.

This owner's manual should be retained for future reference. We suggest that you keep it with your other important documents and product manuals.

The information contained in this owner's manual, unless noted otherwise, applies to all models and gas control systems.

Your new Heat & Glo gas fireplace will give you years of durable use and trouble-free enjoyment. Welcome to the Heat & Glo family of fireplace products!

Homeowner Reference Information	<i>We recommend that you record the following pertinent information about your fireplace.</i>
Model Name: _____	Date purchased/installed: _____
Serial Number: _____	Location on fireplace: _____
Dealership purchased from: _____	Dealer Phone: _____
Notes: _____	

Listing Label Information/Location

The model information regarding your specific fireplace can be found on the rating plate usually located in the control area of the fireplace.

HEAT & GLO
No one builds a better fire

Heat & Glo, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044

Not for use with solid fuel.
(Ne doit pas être utilisé avec un combustible solide).

Type of Gas (Sorte De Gaz): **NATURAL GAS**

This appliance must be installed in accordance with local codes, if any; if not, follow ANSI Z223.1 in the USA or CAN/CGA B149 installation codes. *(Installer l'appareil selon les codes ou règlements locaux ou, en l'absence de tels règlements, selon les codes d'installation CAN/CGA-B149.)*

ANSI Z21XX-XXXX · CSA 2.XX-MXX

Minimum Permissible Gas Supply for Purposes of Input Adjustment.

Approved Minimum (De Gaz) Acceptable	0.0 in w.c. (Po. Col. d'eau)
Maximum Pressure (Pression)	0.0 in w.c. (Po. Col. d'eau)
Maximum Manifold Pressure (Pression)	0.0 in w.c. (Po. Col. d'eau)
Minimum Manifold Pressure (Pression)	0.0 in w.c. (Po. Col. d'eau)

Total Electrical Requirements: 000Vac, 00Hz., less than 00 Amperes

ALTITUDE: 0-0000 FT. 0000-0000FT.
MAX. INPUT BTUH: 00,000 00,000
MIN. INPUT BTUH: 00,000 00,000
ORIFICE SIZE: #XXXXX #XXXXX

GAS-FIRED
UL
LISTED

MADE IN USA

Model: (Modele): XXXXXXXX
Serial (Serie): XXXXXXXX

Type of Gas →

Gas and Electric Information →

Model Number →

Serial Number →

▲ Safety Alert Key:

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Used to address practices not related to personal injury.

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➔ = Contains updated information.

B. Limited Lifetime Warranty

Hearth & Home Technologies LIMITED LIFETIME WARRANTY

Hearth & Home Technologies, on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of original purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
				X					Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

B. Limited Lifetime Warranty (*continued*)

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- This warranty is only valid in the country in which the HHT authorized dealer or distributor that sold the appliance resides.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, batteries and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. **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 EXPRESSED WARRANTY SPECIFIED ABOVE.**

1 Listing and Code Approvals

A. Appliance Certification

MODELS: HE36CLX-S, HE36CLXLP-S

LABORATORY: Underwriters Laboratories, Inc. (UL)

TYPE: Direct Vent Heater

STANDARD: Vented Gas Fireplace Heaters, ANSI Z21.88-2009/CSA 2.33-2009

Vented Condensing Gas Fireplace Heaters, CSA America Interim Requirement 1.09-2009

Gas-Fired Central Furnaces, ANSI Z21.47-2006/CSA 2.3-2006, Addenda's ANSI Z21.47A-2007/CSA 2.3A-2007, and ANSI Z21.47b-2008/CSA 2.3b-2008

This product is listed to ANSI standards for "Vented Gas Fireplace Heaters" and applicable sections of "Gas Burning Heating Appliances for Manufactured Homes and Recreational Vehicles", and "Gas Fired Appliances for Use at High Altitudes".

NOTICE: This installation must conform with local codes. In the absence of local codes you must 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.

B. Glass Specifications

This appliance is equipped with 5 mm ceramic glass. Replace glass only with 5 mm ceramic glass. Please contact your dealer for replacement glass.

C. BTU Specifications

Models (U.S. or Canada)		Maximum Input BTU/h	Orifice Size (DMS)
HE36CLX-S (NG)	US (0-2000 FT)	36,000	#33
	CANADA (2000-4500 FT)	34,000	#34
HE36CLXLP-S(LP)	US (0-2000 FT)	36,000	#50
	CANADA (2000-4500 FT)	33,000	#51

D. High Altitude Installations

NOTICE: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce input rate 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

Check with your local gas utility to determine proper orifice size.

E. Non-Combustible Materials Specification

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

Materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 °C** shall be considered non-combustible materials.

F. Combustible Materials Specification

Materials made of or surfaced with wood, compressed paper, plant fibers, plastics, or other material that can ignite and burn, whether flame proofed or not, or plastered or unplastered shall be considered combustible materials.

G. Electrical Codes

NOTICE: 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.**

- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.

Note: The following requirements reference various Massachusetts and national codes not contained in this document.

H. Requirements for the Commonwealth of Massachusetts

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) in. in size, "**GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS**".

Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

MANUFACTURER REQUIREMENTS

Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

See Gas Connection section for additional Commonwealth of Massachusetts requirements.

A. Gas Fireplace Safety

WARNING



**HOT GLASS WILL CAUSE BURNS.
DO NOT TOUCH GLASS UNTIL COOLED.
NEVER ALLOW CHILDREN TO TOUCH GLASS.**

- Keep children away.
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

- Clothing, furniture, draperies, and other flammable materials must not be placed on or near the appliance.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed. DO NOT operate the appliance with the barrier removed. If the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns.

- A physical barrier is recommended if there are at risk individuals in the house.
- To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.
- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.
- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to NEVER touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: www.hpba.org/safety-information.

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacations, trips, etc):

- Remove batteries from remote controls.
- Turn off wall controls.

B. Your Fireplace

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

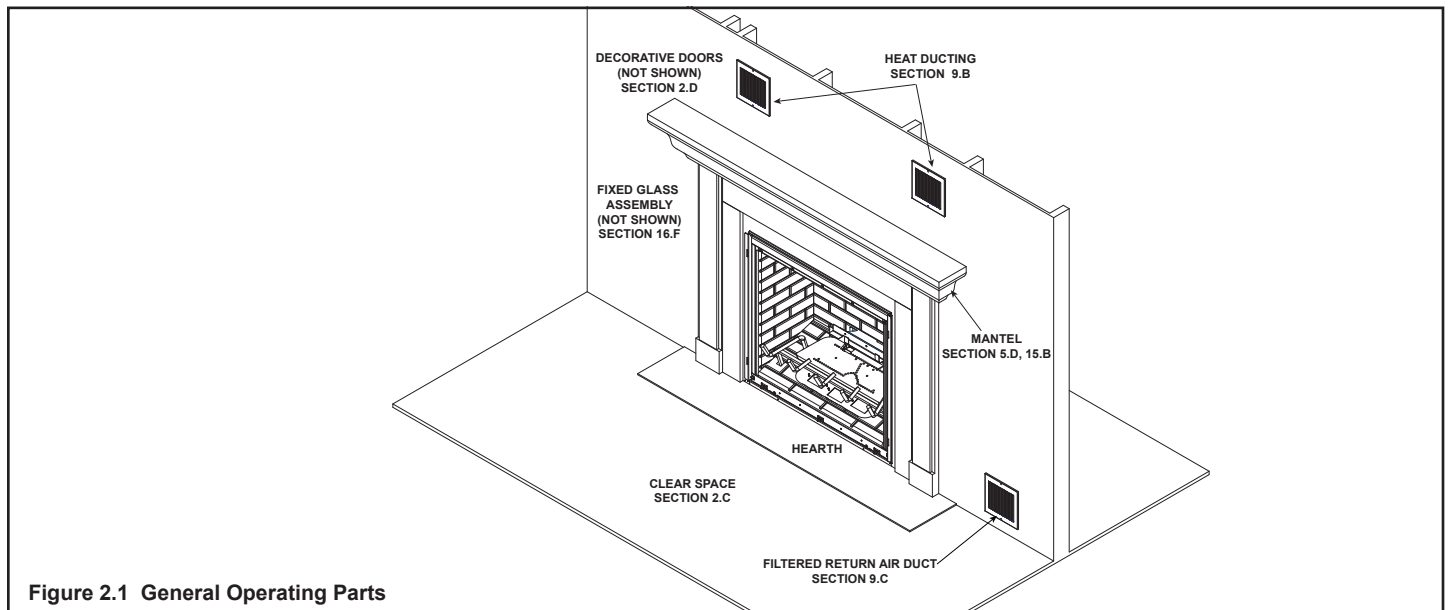


Figure 2.1 General Operating Parts

C. Clear Space

WARNING! DO NOT place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.2.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

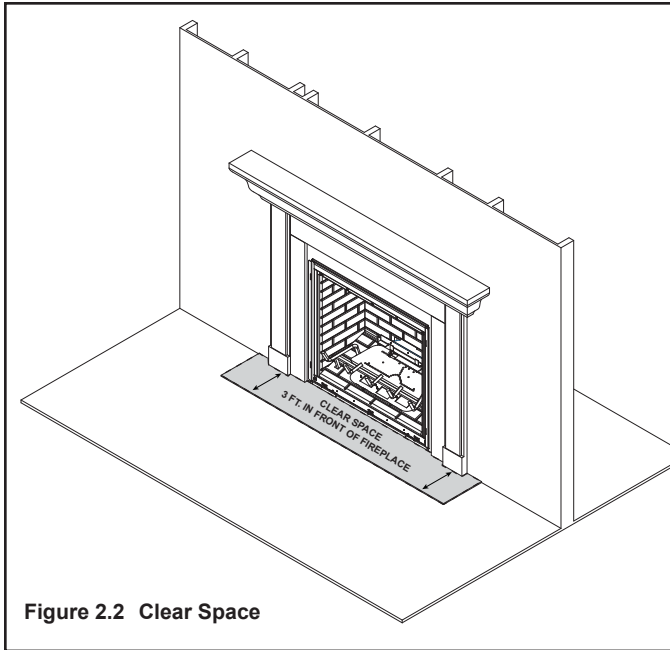


Figure 2.2 Clear Space

D. Decorative Doors and Fronts

WARNING! Risk of Fire! Install **ONLY** doors or fronts approved by Hearth & Home Technologies. Unapproved doors or fronts may cause fireplace to overheat.

This fireplace has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. DO NOT operate the fireplace with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

For more information refer to the instructions supplied with your decorative door or front.

E. Fixed Glass Assembly

See Section 16.F.

F. Wireless Thermostat

The wireless thermostat in this appliance utilizes Honeywell RedLINK™ technology (RedLINK is a trademark of Honeywell International Inc.). Follow the instructions supplied with the wireless thermostat to operate your fireplace:

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.

Contact your dealer if you have questions.

It is normal to experience a slight time delay (approximately 5 seconds) between the time a command button is pressed on the wireless thermostat and the command taking effect.

NOTICE: The wireless thermostat must be located no less than two feet and no more than 80 feet from the Equipment Interface Module.

G. Before Lighting Fireplace

Before operating this fireplace for the first time, **have a qualified service technician:**

- Ensure appliance is vented properly.
- Verify filtered air return is installed properly.
- Verify heat out ducting is installed properly.
- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, ember material and/or other decorative materials.
- 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 and that the integral barrier is in place.
- Ensure the condensate will drain properly.

WARNING! Risk of Fire or Asphyxiation! DO NOT operate fireplace with fixed glass assembly removed.

H. Lighting Instructions (DSI)



FOR YOUR SAFETY READ BEFORE LIGHTING

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 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 gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. 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.

WARNING:

DO NOT CONNECT 110 VAC TO THE CONTROL VALVE.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

If not installed, operated, and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or fuel combustion which are known to the State of California to cause cancer, birth defects, or other reproductive harm.

Keep burner and control compartment clean. See installation and operating instructions accompanying appliance.

For additional information on operating your Hearth & Home Technologies fireplace, please refer to www.fireside.com.

CAUTION:

Hot while in operation. **DO NOT** touch. Keep children, clothing, furniture, gas-line and other liquids having flammable vapors away.

DO NOT operate the appliance with fixed glass assembly removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified service person.

NOT FOR USE WITH SOLID FUEL

For use with natural gas and propane. A conversion kit, as supplied by the manufacturer, shall be used to convert this appliance to the alternate fuel.

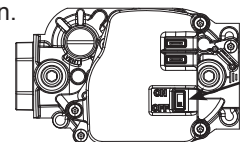
Also Certified for Installation in a Bedroom or a Bedsitting Room.

For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

LIGHTING INSTRUCTIONS (DSI)

1. Turn off all electric power to the appliance.
2. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

3. Move the red switch on the valve to the "OFF" position.



4. Wait five (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 located on the left side of this label. If you don't smell gas, go to next step.

5. Move the red switch on the valve to the "ON" position.

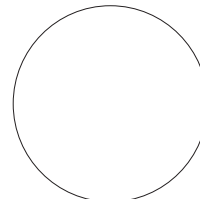
6. Turn on all electric power to the appliance.

7. Push SYSTEM key on Thermostat to turn appliance ON.

8. 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 all electric power to the appliance if service is to be performed.
2. Push SYSTEM key on Thermostat to turn appliance OFF.



Final Inspection by _____

2183-913

I. After Fireplace is Lit

Initial Break-in Procedure

- The fireplace should be run three to four hours continuously on high.
- Turn the fireplace off and allow it to completely cool.
- Remove fixed glass assembly. See Section 16.F.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fireplace.

NOTICE! Open windows for air circulation during fireplace break-in.

- Some people may be sensitive to smoke and odors.
- Smoke detectors may activate.

J. Surface Temperatures Above Fireplace

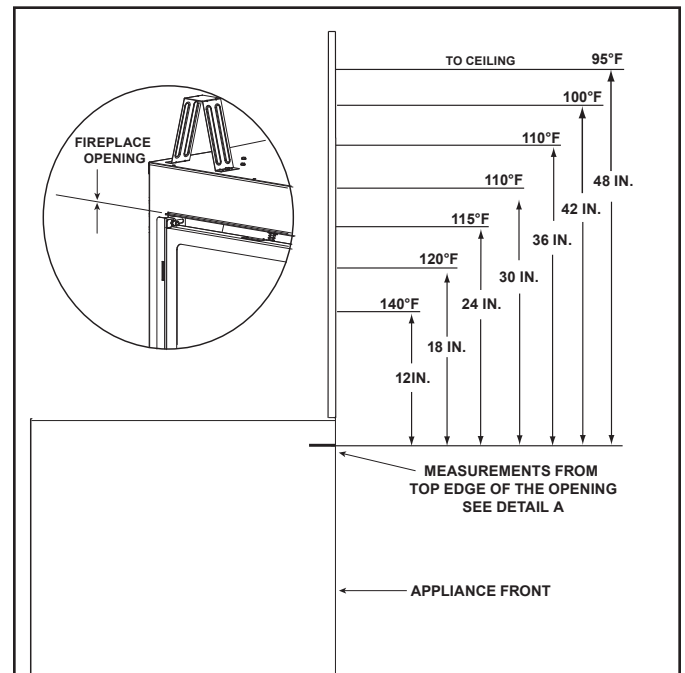


Figure 2.3. Maximum Wall Surface Temperatures Above Fireplace

K. Frequently Asked Questions

ISSUE	SOLUTIONS
Ember lights on/No flame	There is a 2-1/2 minute pre-purge after the appliance is turned on before the flame lights. This is normal for this appliance.
Convection blower does not turn on when appliance is turned on.	There is a 4-1/2 minute delay between the time the appliance is turned on and the time that the convection blower will turn on. This is normal for the appliance.
Condensation on the glass	This is a result of gas combustion and temperature variations. As the fireplace warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the fireplace is allowed to burn for 20 to 40 minutes.
Odor from fireplace	When first operated, this fireplace 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. Odor may also be released from finishing materials and adhesives used around the fireplace.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner such as gas fireplace glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the fireplace.

ISSUE	CAUSE	SOLUTIONS	
System does not turn on when in "HEAT" mode.	A. Indoor temperature is higher than heat setting	Increase heat setting to a temperature higher than indoor temperature.	
	B. Wireless thermostat has lost connection. "No Signal" flashing in upper left corner of thermostat display.	1. Check Electronic Ignition Module (EIM) for POWER light. (Green)	Light on
			No light
		2. Verify that the thermostat is located more than two feet from the Electronic Ignition Module (EIM).	
	3. Refer to RedLINK™ instructions regarding connections.		
Thermostat screen is blank.	Check batteries.	Batteries dead.	Replace batteries.
		Batteries ok.	Call qualified service technician.

3 Maintenance and Service

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

When properly maintained, your fireplace will give you many years of trouble-free service. We recommend annual service by a qualified service technician.

A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified service technician only. The fireplace should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the fireplace must be kept clean.

CAUTION! Risk of Burns! The fireplace should be turned off and cooled before servicing.

Glass Cleaning

Frequency: Seasonally

By: Homeowner

Tools Needed: Protective gloves, glass cleaner, 7/16 in. nut driver, drop cloth and a stable work surface.

CAUTION! Handle fixed glass assembly with care. Glass is breakable.

- Avoid striking, scratching or slamming glass
- Avoid abrasive cleaners
- **DO NOT** clean glass while it is hot
- Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.

Note: Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.

- Remove door or decorative front from fireplace and set aside on work surface.
- See Section 16.F for instructions to remove fixed glass assembly.
- Clean glass with a non-abrasive commercially available cleaner.
 - Light deposits: Use a soft cloth with soap and water
 - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
- Carefully set fixed glass assembly in place on fireplace. Hold glass in place with one hand and secure glass latches with the other hand.
- Reinstall door or decorative front.

Decorative Fronts

Frequency: Annually

By: Homeowner

Tools needed: Protective gloves, stable work surface

- Assess condition of screen and replace as necessary.
- Inspect for scratches, dents or other damage and repair as necessary.
- Vacuum and dust surfaces.

Thermostat

Frequency: Seasonally

By: Homeowner

Tools needed: Replacement batteries, thermostat instructions.

- Locate thermostat on wall.
- Place batteries as needed in thermostat.
- Mount thermostat on wall out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

- Remove batteries from thermostat.

Venting

Frequency: Seasonally

By: Homeowner

Tools needed: Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.

B. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

Gasket Seal and Glass Assembly Inspection

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.

- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

Logs

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary. Refer to Section 16 for log placement instructions.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

Firebox

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, stainless steel cleaner, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation.
- It will be normal for surface corrosion to occur on the firebox interior surface of the condensing appliance.
- Internal surface of firebox can be maintained by using stainless steel cleaner to remove effects of oxidation.
- Do not use steel wool or sandpaper to remove oxidation from interior of firebox. This will reduce the corrosion-resistance of the stainless steel material.
- Factory-painted surfaces can be maintained with primer and touch up paint.
- Replace firebox if it has been perforated.

Control Compartment

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, dust cloths

See Section 16 for instructions on how to disengage the firebox from the appliance outer shell and engage the support wheels.

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.
- Verify unobstructed ducts and filter.
- Check for evidence of water/condensate leakage.

Return Air Filter

Frequency: Every Three Months

By: Qualified Service Technician

Tools needed: Protective sleeves, screw driver

Inspect filter and replace as needed. See Section 9.C for detailed information.

Condensate Drainage System

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, nut driver, screwdriver

See Section 16.D for instructions on disengaging the firebox from the appliance outer shell.

- Verify all components of condensate removal system are working properly. Refer to Section 11.A for detailed information.
- Flush system with clean water. See Section 11.B for instructions.

Burner Ignition and Operation

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace Glowing embers with new dime-size pieces. **DO NOT** block ports or obstruct lighting paths. Refer to Section 16.I for proper ember placement.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 16.K for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect flame sensing rod for soot, corrosion and deterioration. Polish with fine steel wool or replace as required.

4 Getting Started

Installer Guide

A. Typical Appliance System

NOTICE: Illustrations and photos reflect typical installations and are for design purposes only. Illustrations/diagrams are not drawn to scale. Actual product may vary from pictures in manual.

Note: Dual venting configurations **ARE NOT** allowed. Appliance **MUST** be vented **EITHER** vertically **OR** horizontally.

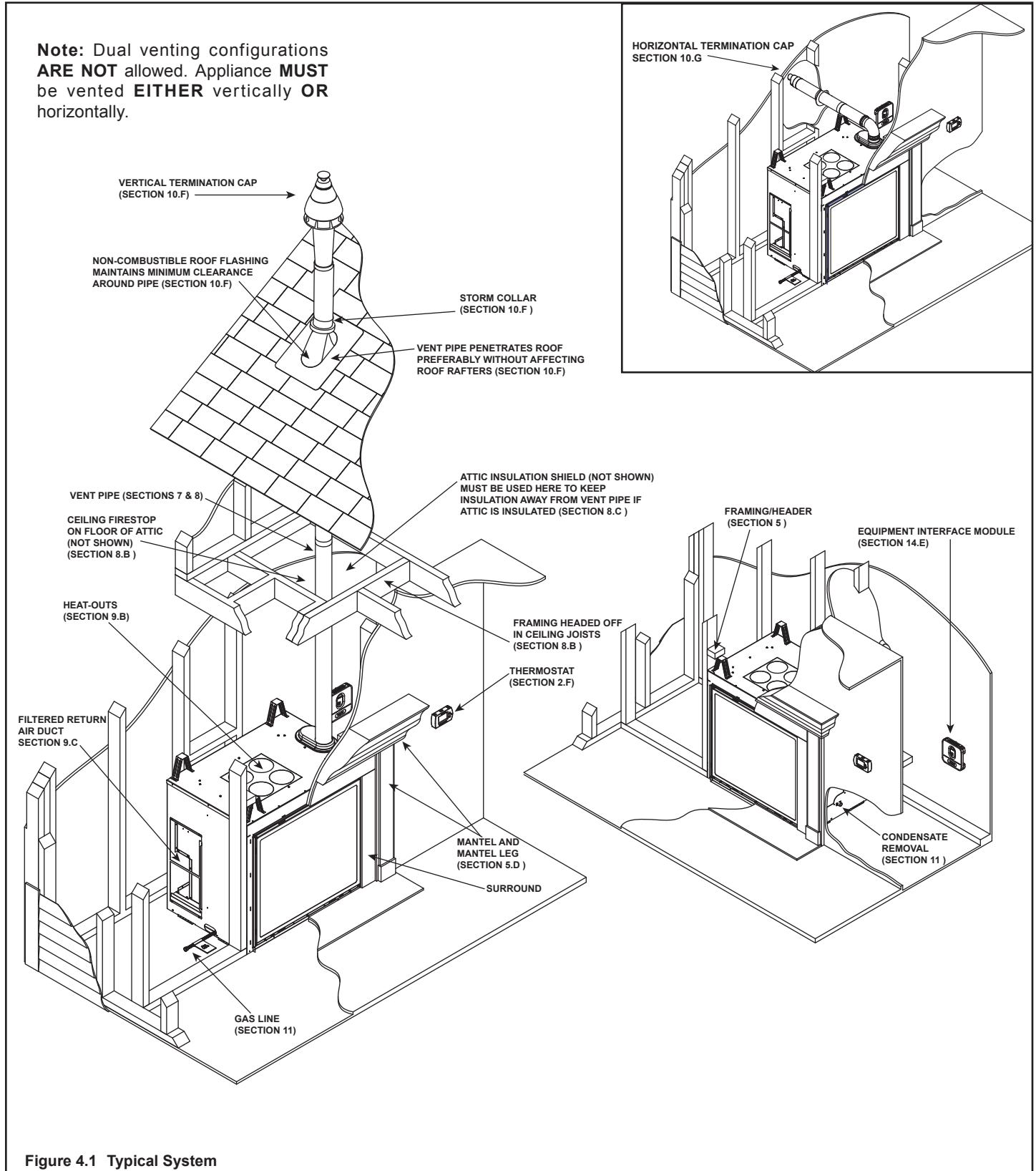


Figure 4.1 Typical System

B. Design and Installation Considerations

Heat & Glo direct vent gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the outside. No additional outside air source is required.

Installation **MUST** comply with local, regional, state and national codes and regulations. Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

Before installing, determine the following:

- Where the appliance is to be installed.
- The vent system configuration to be used.
- Gas supply piping requirements.
- Electrical wiring requirements.
- Framing and finishing details.
- Condensate removal requirements and details.
- Heat ducting requirements.
- Filtered return air ducting requirements
- Location of Equipment Interface Module.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified service technician, service agency or your dealer.

C. Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

Tape measure	Framing material
Pliers	Hammer
Phillips screwdriver	Manometer
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4 in.)
Plumb line	Safety glasses
Level	Reciprocating saw
Flat blade screwdriver	
Non-corrosive leak check solution	
1/2 - 3/4 in. length, #6 or #8 Self-drilling screws	
Caulking material (300°F minimum continuous exposure rating)	
1/4 NPT barbed hose fitting (for checking gas pressures at valve)	

D. Inspect Appliance and Components

- Carefully remove the appliance and components from the packaging.
- The vent system components and decorative doors and fronts may be shipped in separate packages.
- If packaged separately, the log set and appliance grate must be installed.
- Report to your dealer any parts damaged in shipment, particularly the condition of the glass.
- **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

WARNING! Risk of Fire or Explosion! Damaged parts could impair safe operation. DO NOT install damaged, incomplete or substitute components. Keep appliance dry.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance or vent system component.
- Modification of the appliance or vent system.
- Installation other than as instructed by Hearth & Home Technologies.
- Improper positioning of the gas logs or the glass door.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

Any such action may cause a fire hazard.

WARNING! Risk of Fire, Explosion or Electric Shock! DO NOT use this appliance if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system and/or gas control which has been under water.

5 Framing and Clearances

A. Selecting Appliance Location

When selecting a location for the appliance it is important to consider the required clearances to walls (see Figure 5.1).

WARNING! Risk of Fire or Burns! Provide adequate clearance around air openings and for service access. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

NOTICE: Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/diagrams are not drawn to scale. Actual installation may vary due to individual design preference.

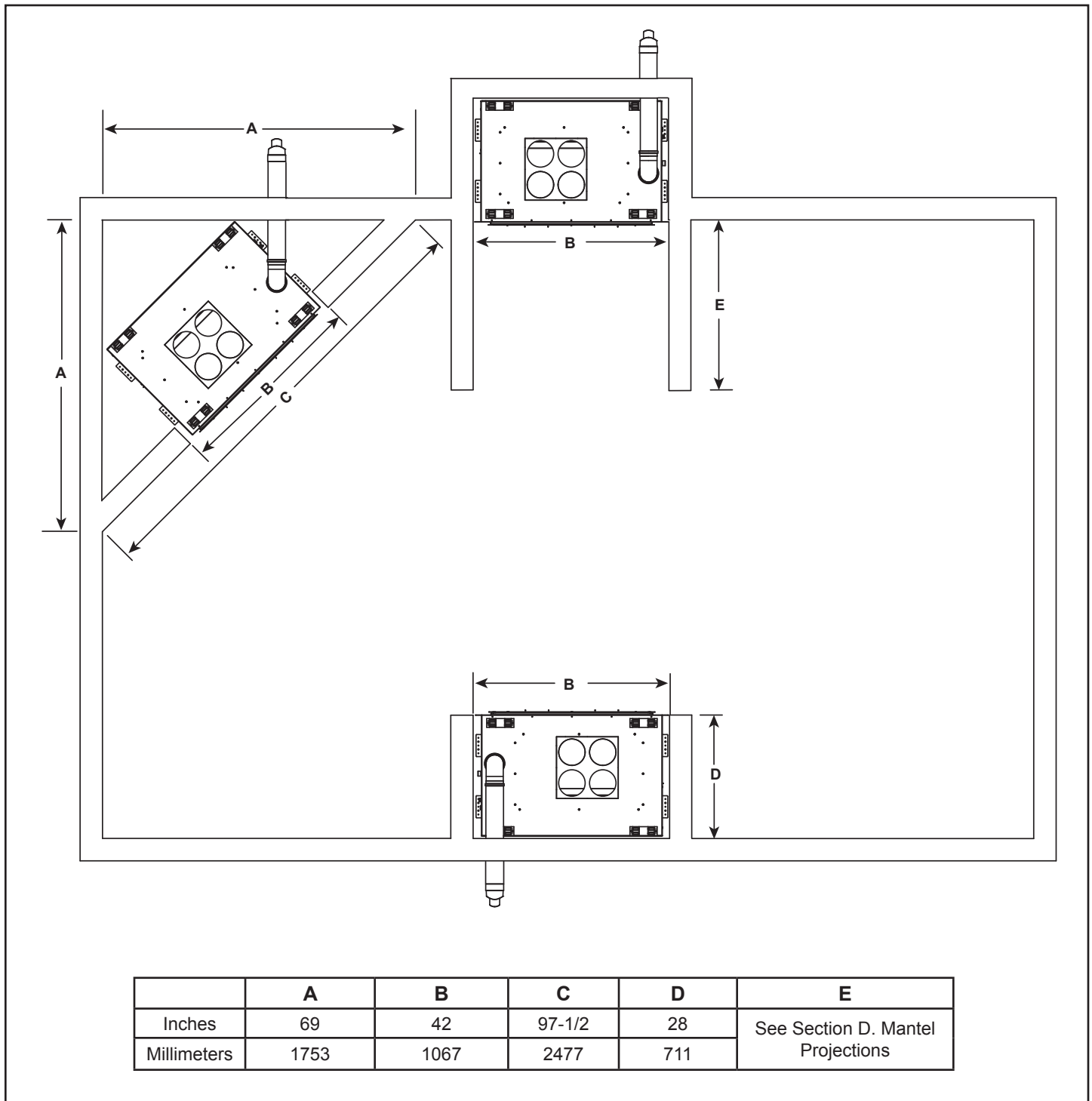


Figure 5.1 Appliance Locations

B. Constructing the Appliance Chase

A chase is a vertical box-like structure built to enclose the gas appliance and/or its vent system. In cooler climates the vent should be enclosed inside the chase.

NOTICE: Treatment of ceiling firestops and wall shield firestops and construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Therefore, you **MUST** check local building codes to determine the requirements to these steps.

Chases should be constructed in the manner of all outside walls of the home to prevent cold air drafting problems. The chase should not break the outside building envelope in any manner.

Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home. Additionally, in regions where cold air infiltration may be an issue, the inside surfaces may be sheetrocked and taped for maximum air tightness.

To further prevent drafts, the wall shield and ceiling firestops should be caulked with caulk with a minimum of

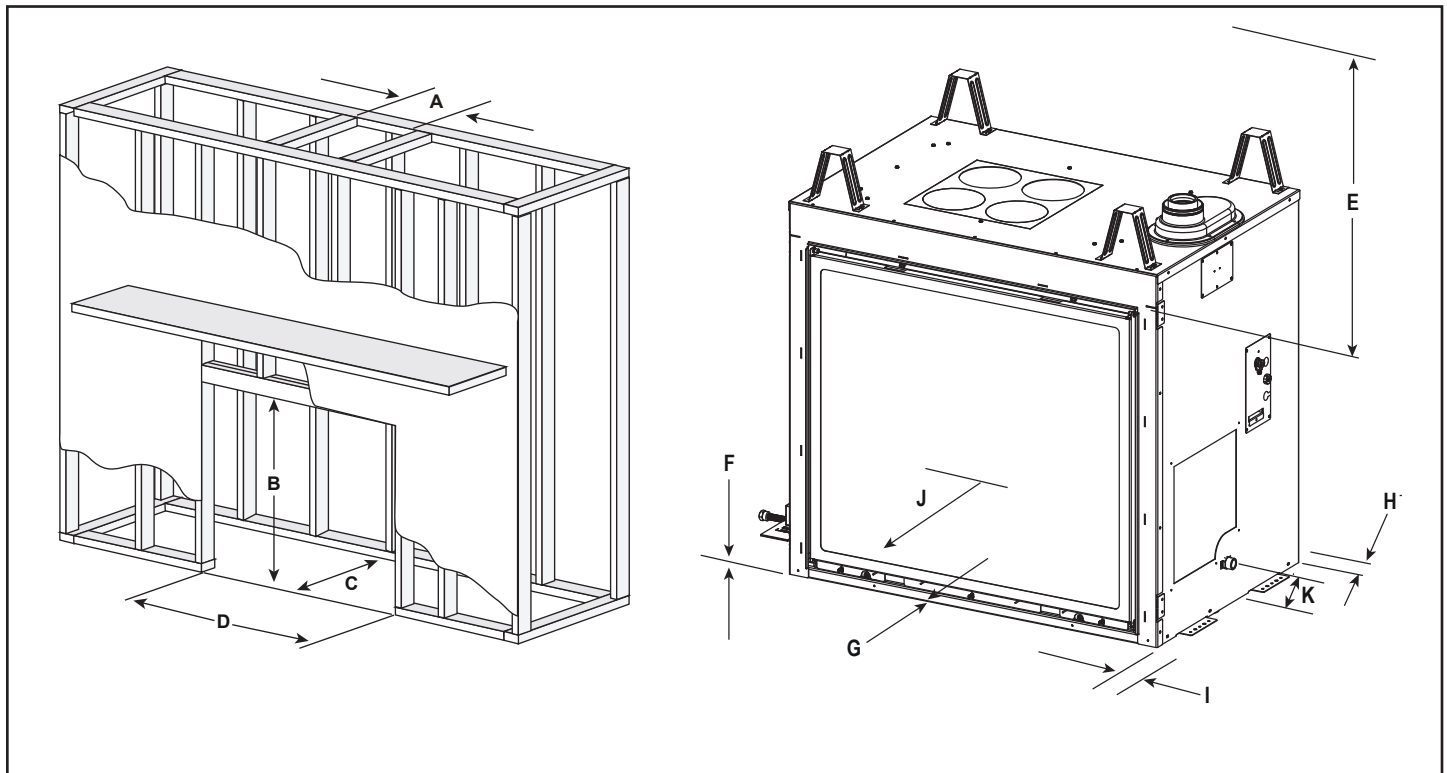
300°F continuous exposure rating to seal gaps. Gas line holes and other openings should be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with unfaced insulation. If the appliance is being installed on a cement surface, a layer of plywood may be placed underneath to prevent conducting cold up into the room.

C. Clearances

NOTICE: Install appliance on hard metal or wood surfaces extending full width and depth. **DO NOT** install directly on carpeting, vinyl, tile or any combustible material other than wood.

WARNING! Risk of Fire! Maintain specified air space clearances to appliance and vent pipe:

- Insulation and other materials must be secured to prevent accidental contact.
- The chase must be properly blocked to prevent blown insulation or other combustibles from entering and making contact with fireplace or chimney.
- Failure to maintain airspace may cause overheating and a fire.



* MINIMUM FRAMING DIMENSIONS											
	A	B	C	D	E	F	G	H	I	J	K
	Rough Opening (Vent Pipe)	Rough Opening (Height)	Rough Opening (Depth)	Rough Opening (Width)	Clearance to Ceiling	Combustible Floor	Combustible Flooring	Behind Appliance	Sides of Appliance	Front of Appliance	Condensate Drain Center
Inches	4	44	28	42	49	0	0	1/2	1/2	36	4-1/2
Millimeters	102	1118	711	1067	1245	0	0	13	13	914	114

* Adjust framing dimensions for interior sheathing (such as sheetrock)

Figure 5.2 Clearances to Combustibles

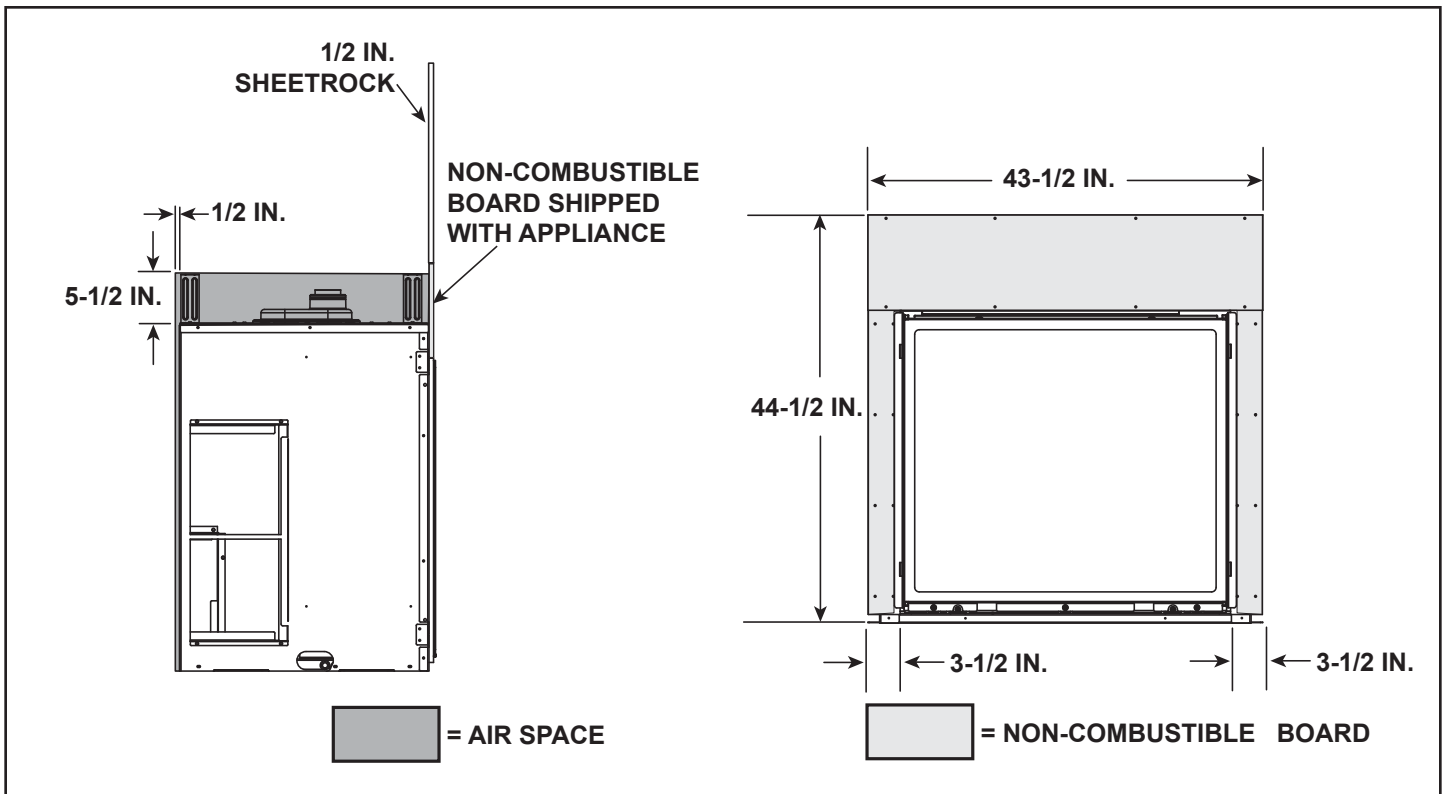
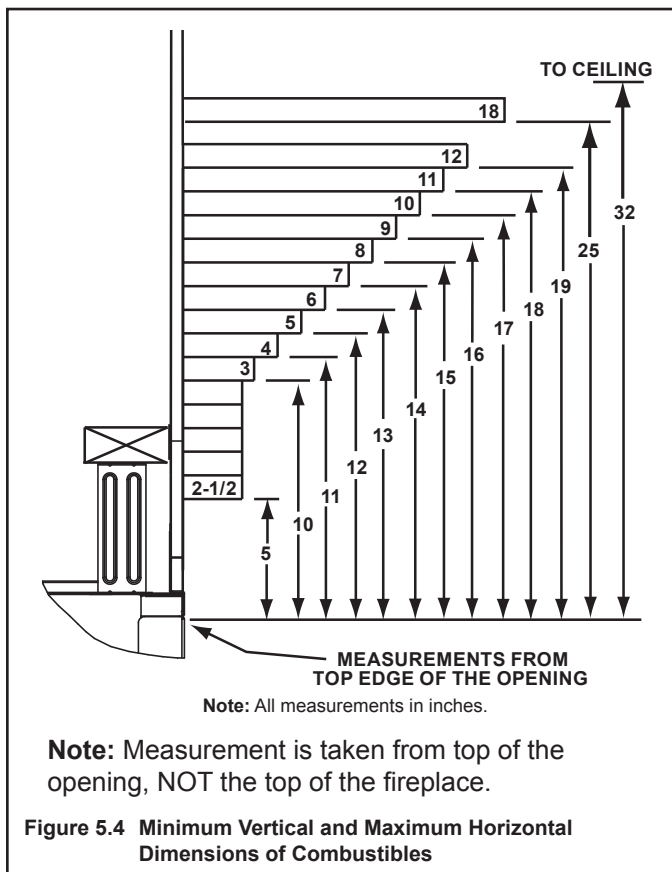


Figure 5.3 Non-Combustible Zone

D. Mantel and Wall Projections

WARNING! Risk of Fire! Comply with all minimum clearances as specified. Framing or finishing material closer than the minimums listed must be constructed entirely of noncombustible materials (i.e., steel studs, concrete board, etc).

Combustible Mantels



Combustible Mantel Legs or Wall Projections

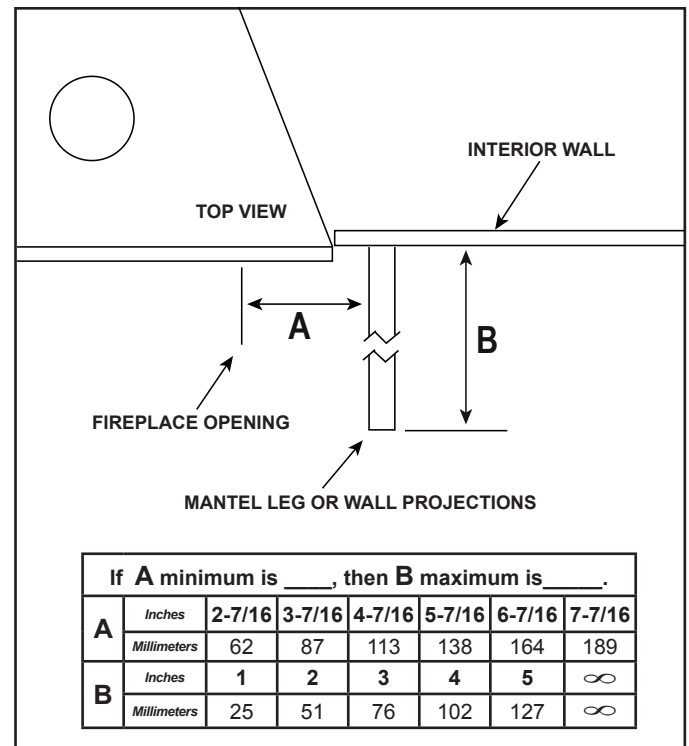


Figure 5.5 Clearances to Mantel Legs or Wall Projections (Acceptable on both sides of opening.)

6 Termination Locations

A. Vent Termination Minimum Clearances

⚠ WARNING

Fire Risk.
Maintain vent clearance to combustibles as specified.

- **DO NOT** pack air space with insulation or other materials.

Failure to keep insulation or other materials away from vent pipe may cause overheating and fire.

Roof Pitch	H (Min.) Ft.
Flat to 6/12.....	1.0*
Over 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

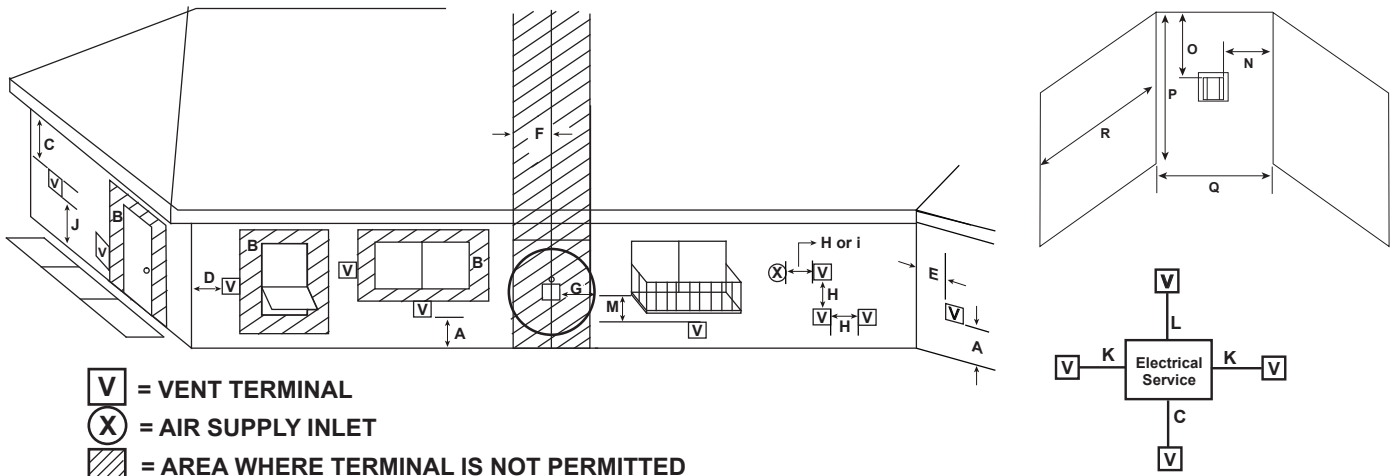
* 3 foot minimum in snow regions

Figure 6.1 Minimum Height From Roof To Lowest Discharge Opening

A	B
6 in. (minimum) up to 20 in. <i>152 mm/508 mm</i>	18 in. minimum <i>457 mm</i>
20 in. and over	0 in. minimum

- * If using decorative cap cover(s), this distance may need to be increased. Refer to the installation instructions supplied with the decorative cap cover.
- ** In a staggered installation with both gas and wood or fuel oil terminations, the wood or fuel oil termination cap must be higher than the gas termination cap.

Figure 6.2 Staggered Termination Caps



- V** = VENT TERMINAL
- X** = AIR SUPPLY INLET
- [Hatched Box]** = AREA WHERE TERMINAL IS NOT PERMITTED

- A = 12 inches.....clearances above grade, veranda, porch, deck or balcony
- B = 9 inches.....clearance to window or door that may be opened, or to permanently closed window
- C = 18 inches.....clearance below unventilated soffit
18 inches.....clearance below ventilated soffit
30 inches.....clearance below vinyl soffits and electrical service
- D = 6 inches.....clearance to outside corner
- E = 6 inches.....clearance to inside corner
- F = 3 ft. (Canada).....not to be installed above a gas meter/regulator assembly within 3 feet horizontally from the center-line of the regulator
- G = 3 ft.....clearance to gas service regulator vent outlet
- H = 12 inches.....clearance to non-mechanical (unpowered) air supply inlet, combustion air inlet or direct-vent termination
- i = 3 ft. (U.S.A.)
6 ft. (Canada).....clearance to a mechanical (powered) air supply inlet or dryer vent

All mechanical air intakes within 10 feet of a termination cap must be a minimum of 3 feet below termination.

J = 7 ft..... On **public** property: clearance above paved sidewalk or a paved driveway.

A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.

- K = 6 inches.....clearance from sides of electrical service
 - L = 12 inches.....clearance above electrical service
- Location of the vent termination must not interfere with access to the electrical service.

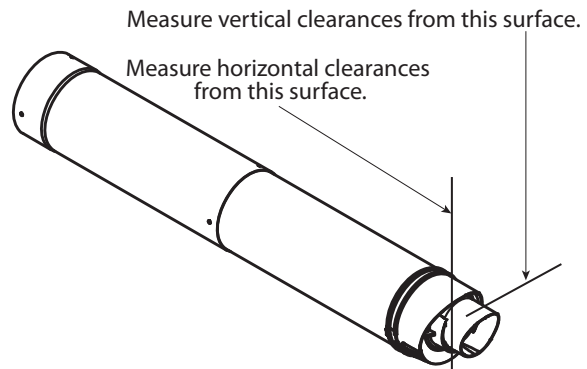
M = 18 inches clearance under veranda, porch, deck, balcony or overhang
42 inchesvinyl or composite overhang
Permitted when veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor.

Covered Alcove Applications

(Spaces open only on one side and with an overhang)

- N = 6 inches non-vinyl sidewalls
12 inches vinyl sidewalls
- O = 18 inches non-vinyl soffit and overhang
42 inches vinyl soffit and overhang
- P = 8 ft.

	Q _{MIN}	R _{MAX}
1 cap	3 feet	2 x Q _{ACTUAL}
2 caps	6 feet	1 x Q _{ACTUAL}
3 caps	9 feet	2/3 x Q _{ACTUAL}
4 caps	12 feet	1/2 x Q _{ACTUAL}
Q _{MIN} = # termination caps x 3 R _{MAX} = (2 / # termination caps) x Q _{ACTUAL}		



CAUTION! Risk of Burns! Termination caps are **HOT**, consider proximity to doors, traffic areas or where people may pass or gather (sidewalk, deck, patio, etc.). Listed cap shields available. Contact your dealer.

- Local codes or regulations may require different clearances.
- Vent system termination is **NOT** permitted in screened porches.
- Vent system termination is permitted in porch areas with two or more sides open.
- Hearth & Home Technologies assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.
- Vinyl protection kits are suggested for use with vinyl siding.

Figure 6.3 Minimum Clearances for Termination

7 Vent Information and Diagrams

A. Approved Pipe

This appliance is approved for use with Hearth & Home Technologies 4 inch CVP venting systems. CVP is a zero clearance vent pipe system. Refer to Section 17.B for vent component information.

DO NOT mix pipe, fittings or joining methods from different manufacturers.

The pipe is tested to be run inside an enclosed wall. There is no requirement for inspection openings at each joint within the wall.

WARNING! Risk of Fire or Asphyxiation. This appliance requires a separate vent. **DO NOT** vent to a pipe serving a separate solid fuel burning or condensing appliance. Corrosion may occur. Combustion gases may escape through appliances or vents. **DO NOT** vent this appliance into a fireplace chimney or building chase.

WARNING! Risk of Asphyxiation or Fire! Use only approved vent pipe. Inspect vent system for proper seal. Leaks may occur if not properly sealed.

Any vent pipe run in an uninsulated environment (i.e. under a deck, porch, crawl space) must be insulated. Refer to local codes for venting condensing appliances.

B. Vent Table Key

The abbreviations listed in this vent table key are used in the vent diagrams.

Symbol	Description
V ₁	First section (closest to appliance) of vertical length
V ₂	Second section of vertical length
H ₁	First section (closest to appliance) of horizontal length
H ₂	Subsequent sections of horizontal length

C. Use of Elbows

Diagonal runs have both vertical and horizontal vent aspects when calculating the effects. Use the rise for the vertical aspect and the run for the horizontal aspect (see Figure 7.1).

Two 45° elbows may be used in place of one 90° elbow. On 45° runs, one foot of diagonal is equal to 8-1/2 in. (216 mm) horizontal run and 8-1/2 in. (216 mm) vertical run. A length of straight pipe is allowed between two 45° elbows (see Figure 7.1).

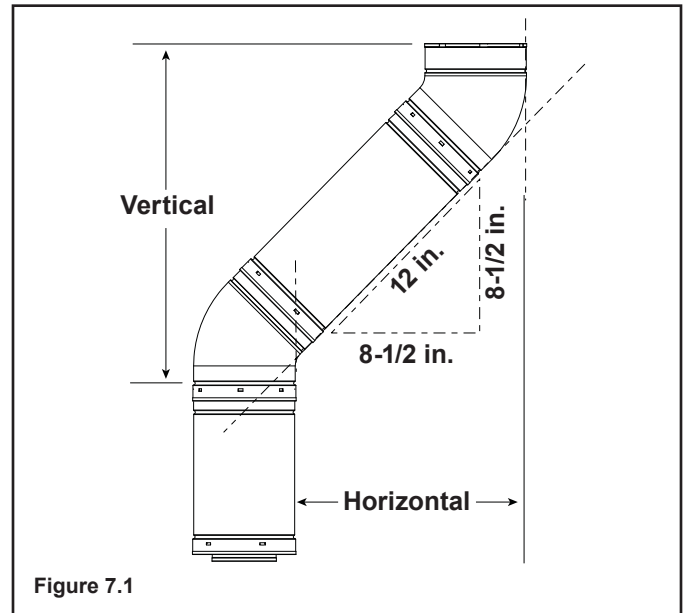


Figure 7.1

D. Measuring Standards

Vertical and horizontal measurements listed in the vent diagrams were made using the following standards.

- Pipe measurements are shown using the effective length of pipe (see Figure 7.2).
- Horizontal terminations are measured to the outside mounting surface (flange of termination cap) (see Figure 6.3).
- Vertical terminations are measured to bottom of termination cap.

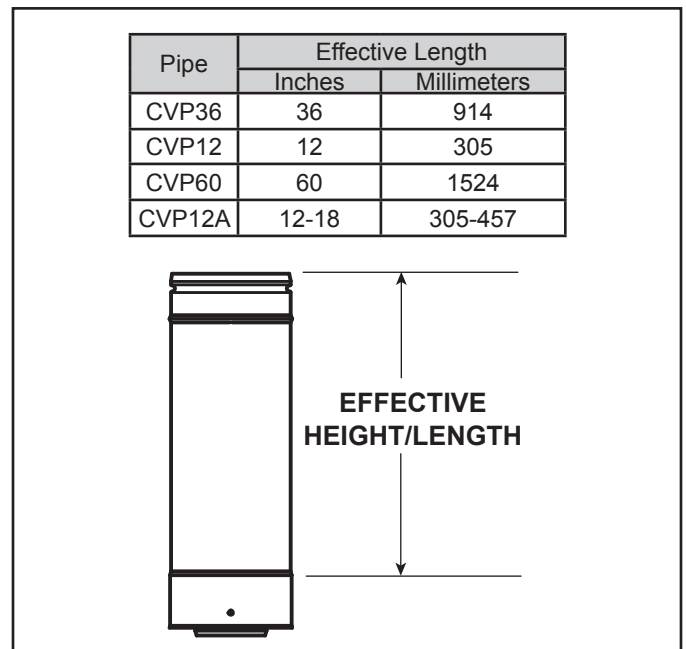


Figure 7.2 DVP Pipe Effective Length

Top Vent - Horizontal Termination

NOTICE: Vent pipe must slope upward 1/2 inch for every one foot of horizontal run. This is required for adequate condensate drainage. Condensate backup may lead to property damage.

Horizontal or Vertical Termination						
TOTAL VENTING LENGTH (feet)						
# of 90° Elbows	10	20	30	40	50	60
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X
4	X	X	X	X	X	X
5	X	X	X	X	X	X
6	X	X	X	X	X	
7	X	X	X	X		
8	X	X	X			
9	X	X				

Figure 7.3

NOTE: A 90° elbow may be replaced with two 45° elbows.

8 Vent Clearances and Framing

A. Wall Penetration Framing

Combustible Wall Penetration

Whenever a combustible wall is penetrated, you must frame a hole for the firestop(s). The firestop maintains minimum clearances and prevents cold air infiltration.

- The opening must be framed on all four sides using the same size framing materials as those used in the wall construction.
- See Section 10.G. for information for regarding the installation of a horizontal termination cap.

Non-Combustible Wall Penetration

If the hole being penetrated is surrounded by non-combustible materials such as concrete, a hole with diameter one inch greater than the pipe is acceptable.

Whenever a non-combustible wall is penetrated, the firestop is only required on one side and no heat shield is necessary.

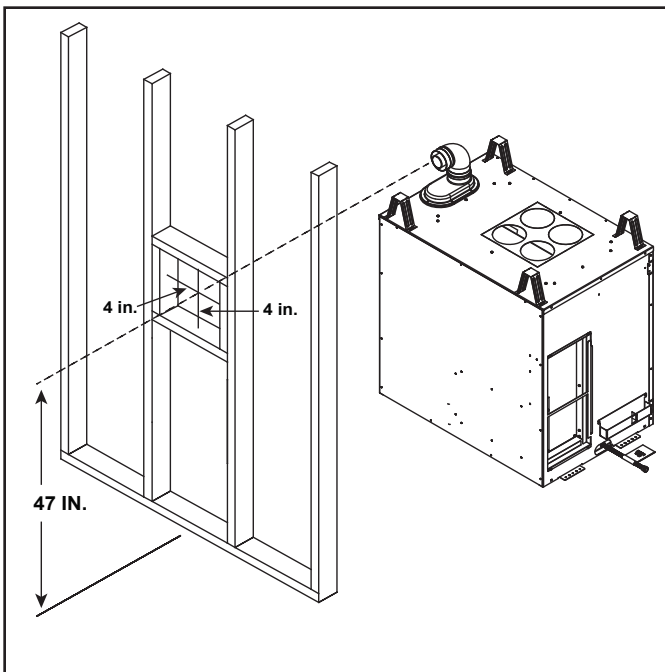


Figure 8.1 Wall Penetration

B. Install the Ceiling Firestop

A firestop **MUST** be used between floors and attics.

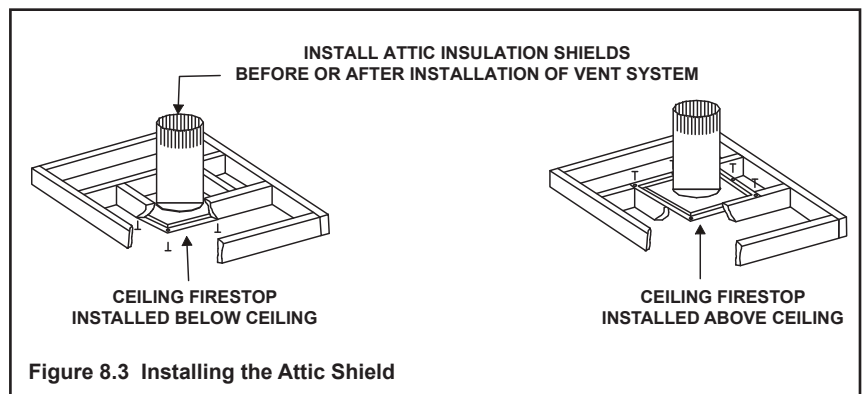
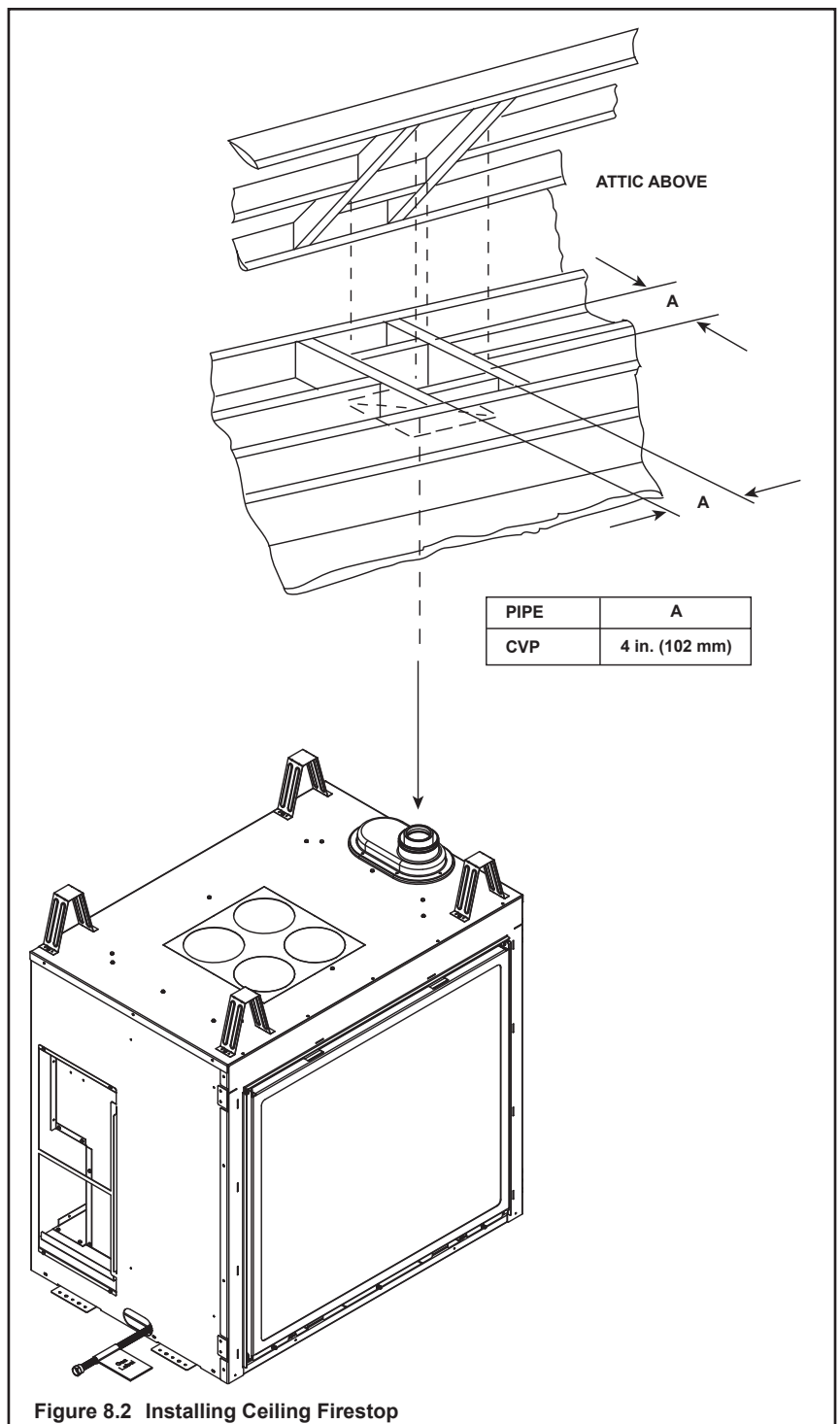
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- The firestop may be installed above or below the ceiling joists when installed with a attic insulation shield. It must be under joists between floors that are not insulated. Refer to Figure 8.3.
- Secure with three fasteners on each side.

→ C. Install Attic Insulation Shield

WARNING! Fire Risk. DO NOT allow loose materials or insulation to touch vent. *Hearth & Home Technologies* requires the use of an attic shield.

The International Fuel Gas Code requires an attic shield constructed of 26 gauge minimum steel that extends at least 2 in. (51 mm) above insulation.

- Attic insulation shields must meet specified clearances to combustible materials and be secured in place.
- An attic insulation shield kit is available from *Hearth & Home Technologies*. Contact your dealer to order. Install attic insulation shield according to instructions included with kit.



9 Appliance Preparation

A. Securing and Leveling the Appliance

WARNING! Risk of Fire! Prevent contact with:

- Sagging or loose insulation
- Insulation backing or plastic
- Framing and other combustible materials

Block openings into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.

DO NOT notch the framing around the appliance standoffs.

Failure to maintain air space clearance may cause overheating and fire.

WARNING! Risk of Injury! DO NOT disengage firebox from appliance outer shell until after appliance has been secured and levelled. Appliance is heavy.

- Damage to finished wall may occur if firebox tips forward while detached from appliance outer shell.

Figure 9.1 shows how to properly position and secure the appliance. Nailing tabs are provided to secure the appliance to the framing members.

- Bend out nailing tabs on each side.
- Place the appliance into position.
- Keep nailing tabs flush with the framing.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims underneath the appliance.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.
- Secure the appliance to the floor by inserting eight #10 screws or four 1/4 inch lag bolts through the pilot holes at the bottom of the appliance.
- Appliance should be secured to a flooring structure that is a minimum of 3/4 inch thick.
- For surfaces other than wood, anchors should be used.

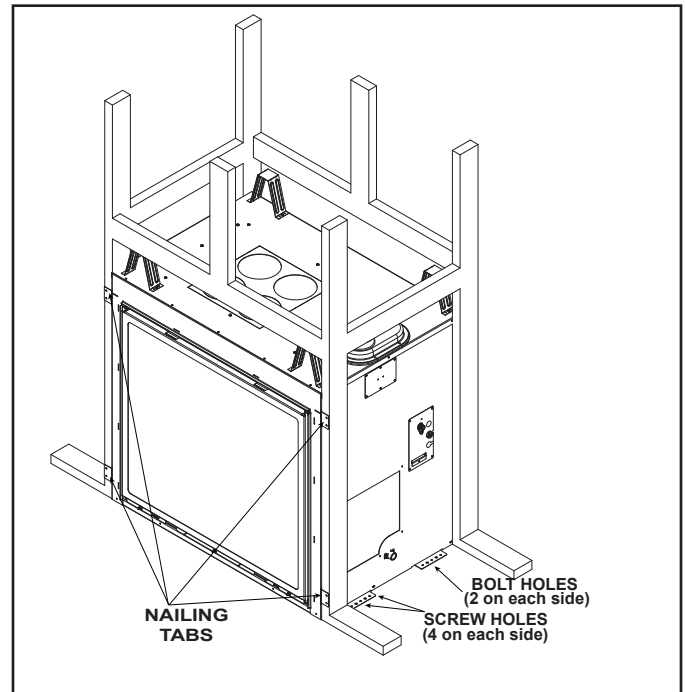


Figure 9.1 Proper Positioning and Securing of an Appliance

B. Heat Ducting Installation

This appliance requires a minimum of two 6 inch diameter heat ducts for proper ventilation. The knockouts can be removed from the appliance top to accommodate additional heat ducts. A square knockout is also available on the top of the appliance for square HVAC ducting. Insulated ducting is recommended for maximum efficiency.

Fireplace ducting may be connected to an existing duct system on the branches only. A backdraft damper must be used. **DO NOT** terminate fireplace ducting to the main trunk line.

- Duct may be terminated into return air system

WARNING! Risk of Fire! DO NOT terminate duct into an attic, crawl space, or the appliance chase. Duct must terminate on an interior wall.

DAMPERS

Field-supplied dampers may be used to control the heat output. It is important to remember that even when a damper is used, at least two ducts must remain open. Additional ducts are desired when using dampers. See Section 14.C for wiring requirements.

LENGTH OF DUCTING

6 Inch Duct Length

Fifty feet of ducting and a maximum of three elbows are allowed per duct. After the three elbow maximum requirement is met, eight feet of ducting needs to be subtracted for each additional elbow added to the configuration up to a total of 6 elbows per duct run.

For example:

1 heat duct = 5 elbows

2 additional elbows x 8 ft = 16 ft.

50 ft. - 16 ft. = 34 ft.

Max length of duct run = 34 ft.

- For optimum appliance performance, Hearth & Home Technologies suggests using rigid ducting.

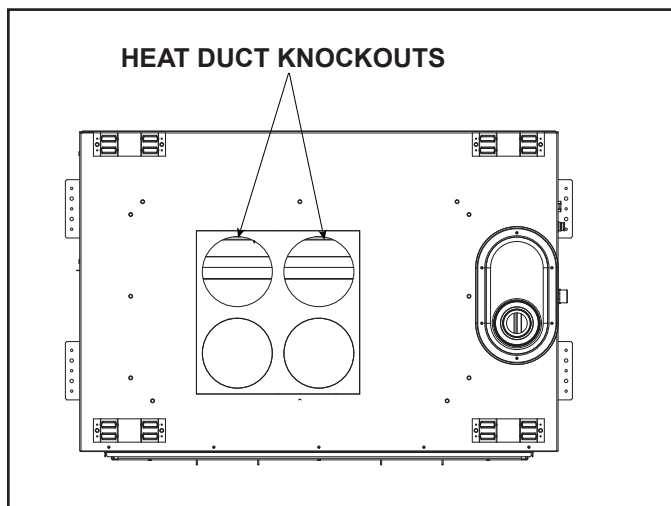


Figure 9.2 Heat Duct Knockouts

C. Filtered Return Air Duct

The filtered return air duct must be a minimum area of 56 square inches. For maximum performance a larger air duct is desired. The filtered return air duct may be terminated to an existing HVAC return air system.

Filter

This appliance requires a filtered return air duct. A slot is located on the lower left of the appliance for a standard 12 x 24 x 1 filter. See Figure 9.3. The filter may be used in the slot provided on this appliance or elsewhere in the ducting system between the intake(s) and the appliance. If multiple air intake locations exist, each must have its own filter. Filters are not included with this appliance.

WARNING! Risk of Injury! Filter removal and replacement must be performed by a qualified service technician.

To install or replace filter, disengage latch and pull firebox out. See Section 16.D and 16.E. Remove the screw that secures the filter door to the appliance. See Figure 9.3. Remove the filter door, place the filter in the slot so that the air flow is directed toward the inside of the appliance. Reattach the filter door. Push firebox back in and latch.

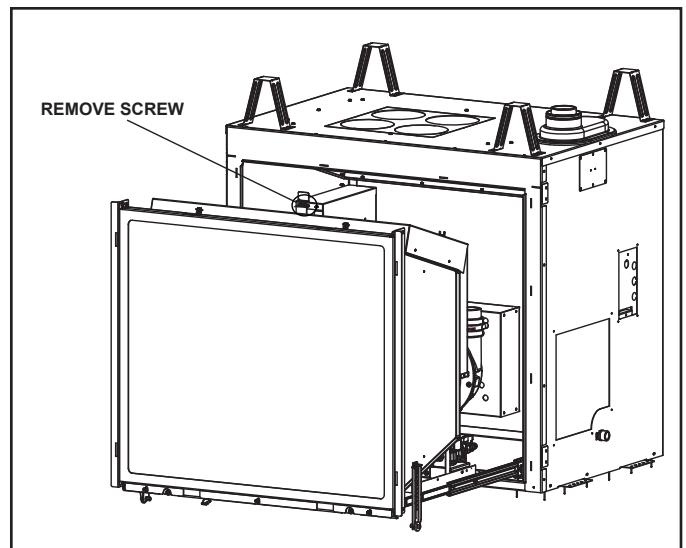


Figure 9.3 Filter Replacement

10 Installing Vent Pipe

A. Assemble Vent Sections (CVP Pipe only)

Note: The end of the pipe sections that do not have O-rings will face toward the appliance.

Attach the first pipe section to the starting collar:

- Inner pipe over inner collar.
- Push the pipe section until the outer pipe contacts the rib. See Figure 10.2.
- Secure pipe section together with three screws in the existing pilot holes.

All outer pipe joints must be sealed with high temperature silicone (300°F minimum continuous exposure rating), or foil tape including the slip section that connects directly to the horizontal termination cap.

WARNING! Risk of Fire or Explosion! DO NOT break silicone seals on slip sections. Use care when removing termination cap from slip pipe. If slip section seals are broken during removal of the termination cap, vent may leak.



Figure 10.1



Figure 10.2

B. Assemble Slip Sections

- Slide the inner flue of the slip section into the inner flue of the pipe section and the outer flue of the slip section over the outer flue of the pipe section. See Figure 10.3.
- Slide together to the desired length.



Figure 10.3 Slip Section Pilot Holes

- Maintain a 1-1/2 in. (38 mm) overlap between the slip section and the pipe section.
- Secure the pipe and slip section with three screws no longer than 1/2 in. (13 mm), using the pilot holes in the slip section. See Figure 10.4.
- Seal slip joint with foil tape or high temperature silicone (300°F minimum continuous exposure rating).



Figure 10.4 Screws into Slip Section

- Continue adding pipe as necessary following instructions in “Assembling Pipe Sections.”

NOTICE: If slip section is too long, the inner and outer flues of the slip section can be cut to the desired length.

- All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed with foil tape or high temperature silicone (300°F minimum continuous exposure rating).

C. Secure the Vent Sections

- Vertical runs of CVP pipe originating off the top of the appliance, with no offsets, must be supported every 8 ft. (2.44 m) after the maximum allowed 25 ft. (7.62 m) of unsupported rise.
- Horizontal runs must be supported every 4 feet (1.2 m).
- Vent supports or plumbers strap (spaced 120° apart) may be used to support vent sections. See Figures 10.5 and 10.6.
- Wall shield firestops may be used to provide horizontal support to vent sections.
- Vent pipe must slope upward 1/2 inch for every foot of horizontal vent run to allow for proper drainage of condensate.

WARNING! Risk of Fire, Explosion or Asphyxiation! Improper support may allow vent to sag and separate. Use vent run supports and connect vent sections per installation instructions. **DO NOT** allow vent to sag below connection point to appliance.

D. Disassemble Vent Sections

- Remove three screws that secure the pipe sections together.
- Pull carefully but firmly to separate the pieces of pipe.



Figure 10.7 Securing Horizontal Pipe Sections

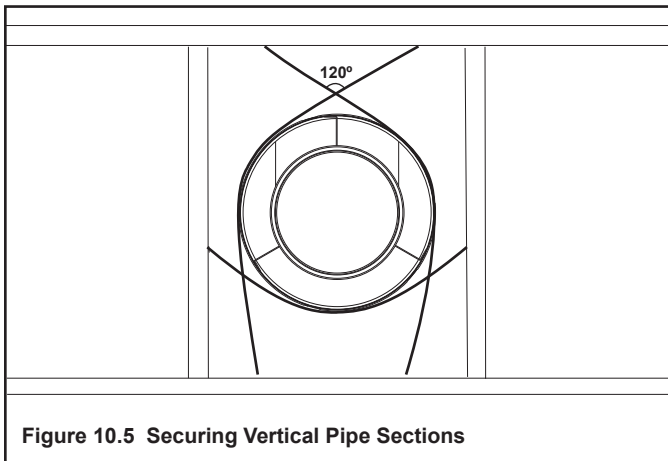


Figure 10.5 Securing Vertical Pipe Sections

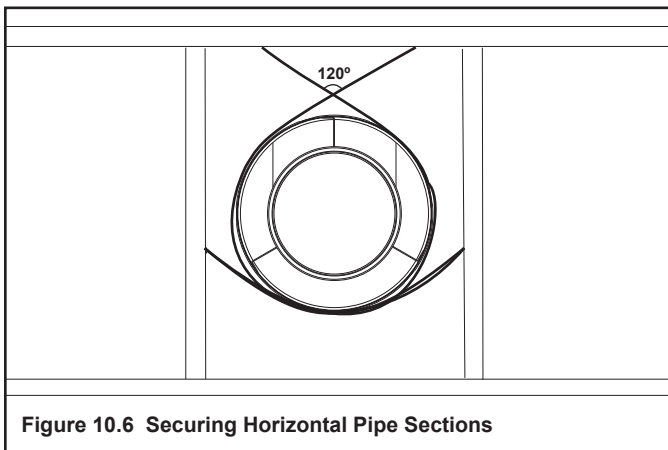
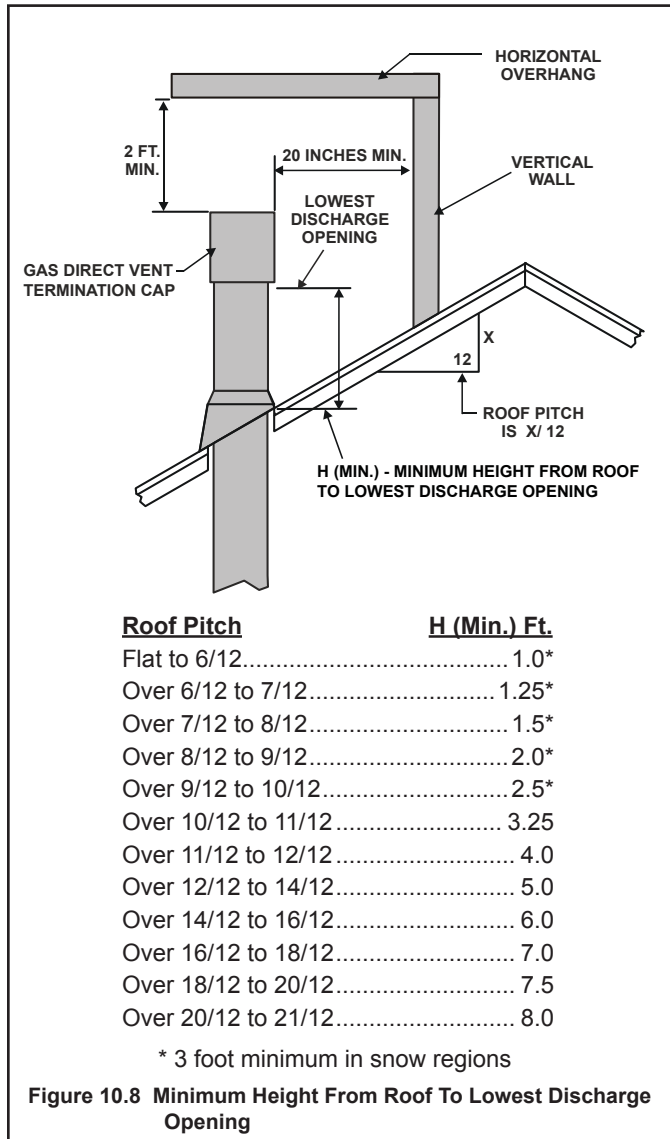


Figure 10.6 Securing Horizontal Pipe Sections

E. Vertical Termination

- See minimum vent heights for various pitched roofs (Figure 10.8) to determine the length of pipe to extend through the roof.



NOTICE: Failure to properly caulk the roof flashing and pipe seams may permit entry of water.

- Caulk the gap between the roof flashing and the outside diameter of the pipe. See Figure 10.10.
- Caulk the perimeter of the flashing where it contacts the roof surface. See Figure 10.9.
- Caulk the overlap seam of any exposed pipe sections that are located above the roof line. See Figure 10.12.

F. Install Storm Collar & Vertical Vent Cap

CAUTION! Risk of Cuts, Abrasions or Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

1. Slide plastic storm collar over metal roof flashing. Collar can be rotated 180° to accommodate various roof pitches.

2. Secure plastic storm collar to metal roof flashing with the four screws provided. Caulk around all seams with caulk with a minimum of 300°F continuous exposure rating. See Figure 10.9 and 10.10.
3. Slide vent assembly through the plastic storm collar until the flange on the vent assembly rests on the storm collar. See Figure 10.11.
4. Secure pipe to the interior roof with the roof clamp provided. Caulk around the seam. See Figure 10.12, Figure 10.13 and Figure 10.14 in reference to correct installation.

Note: CVP-VC can adjust 9 in. (14 in. to 23 in.).



Figure 10.9 Caulk Around Flashing



Figure 10.10 Caulk Around Metal/Plastic Seam



Figure 10.11 Vent Flange Installed on Storm Collar

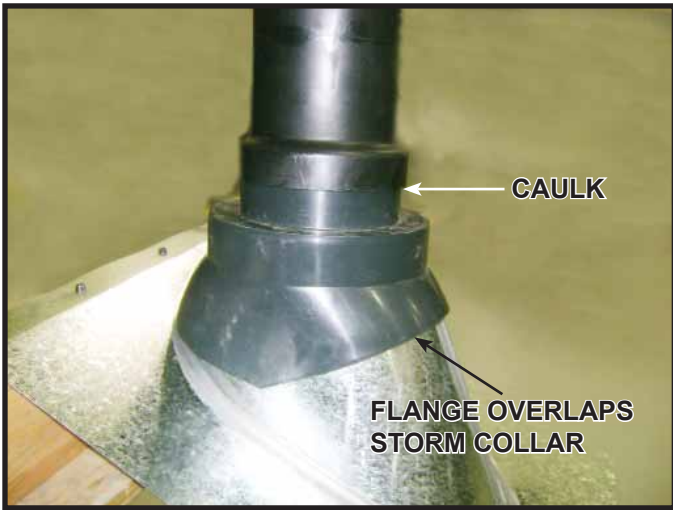


Figure 10.12 Caulk Flange Storm Collar Overlap



Figure 10.14 Correct Vertical Termination Installation

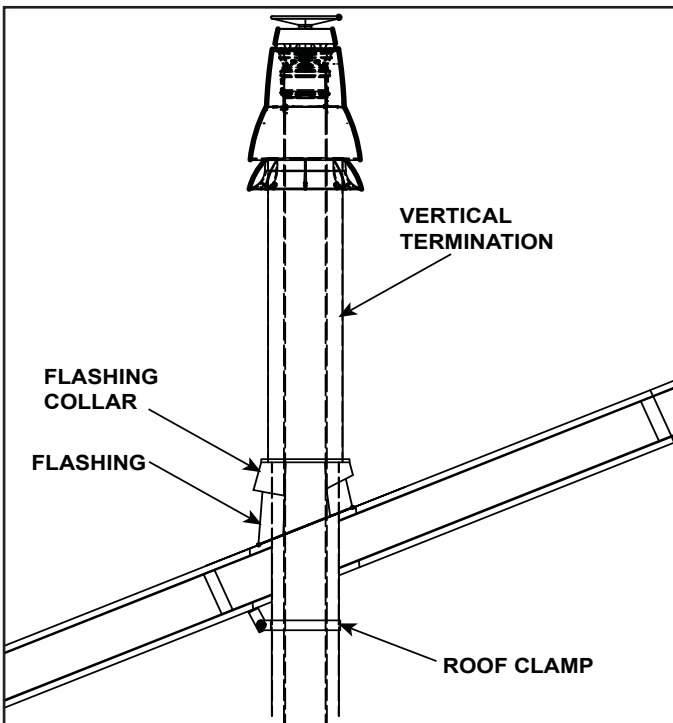


Figure 10.13 Vertical Termination Installation.

G. Install Horizontal Termination Cap (CVP-HCK)

- Vent termination must not be recessed in the wall. Siding may be brought to the edge of the cap base.
- Flash and seal as appropriate for siding material at outside edges of cap.
- When installing a horizontal termination cap, follow the cap location guidelines as prescribed by current **ANSI Z223.1** and **CAN/CGA-B149** installation codes and refer to Section 6 of this manual.

CAUTION! Risk of Burns! Local codes may require installation of a cap shield to prevent anything or anyone from touching the hot cap.

CVP-HCK can adjust 9 inches (14 in. to 23 in.).

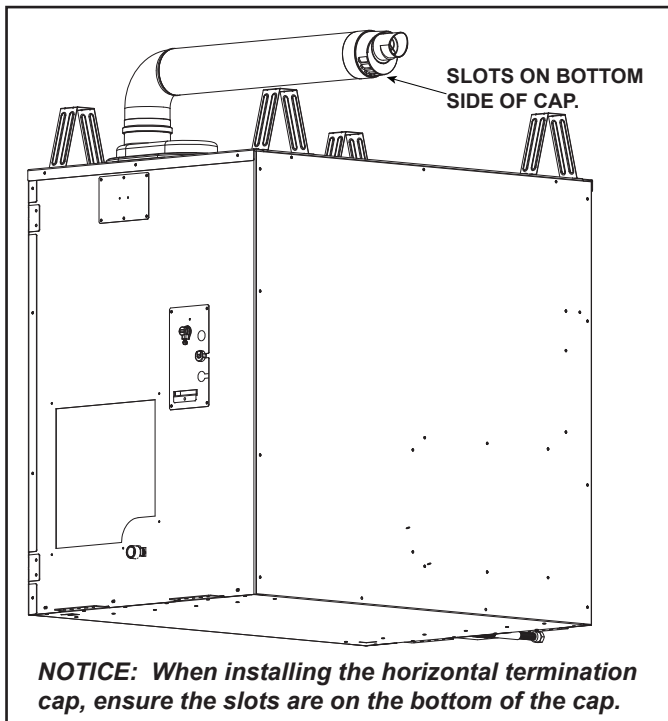


Figure 10.15 CVP-HCK Orientation

11 Condensate Removal System

A. Condensate Removal System

This appliance will create condensate. The condensate must be piped directly to a drain via approved piping or with a condensate pump. The condensate drain is located on the lower right side of the appliance. See Figure 11.1.

Drain pipe and fittings must conform to ANSI standards and ASTM D1785, D2466 or D2846. CPVC or PVC cement must conform to ASTM D2564 or F493. Primer must conform to ASTM F656. In Canada, use CSA or ULC certified schedule 40 CPVC or ULC certified schedule 40 CPVC or PVC drain pipe, fittings and cement.

The condensate drainage system and pump use gravity and should be located lower than the discharge location on the appliance. The condensate must be drained efficiently in order for the appliance to operate at peak performance.

CAUTION! Risk of Injury!

- Remove any excess condensate or spillage immediately to avoid slips and falls.
- Do not allow condensate to come into contact with mouth or eyes.

If a condensate pump will be used with the appliance, it is recommended that the pump meet these criteria:

- The pump has a safety switch that will not allow the appliance to operate in the event of a power failure.
- The pump is approved for condensate producing appliances and have a safety switch.

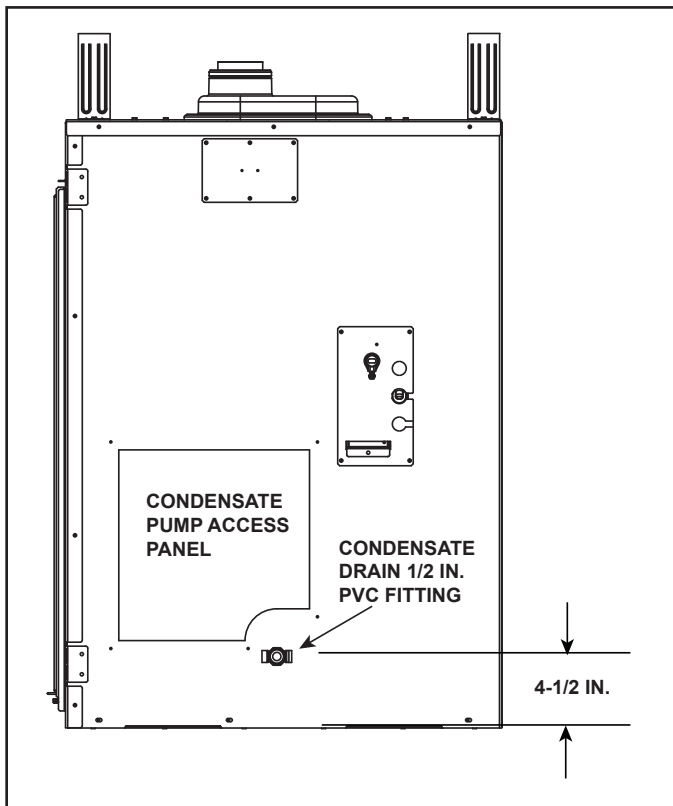


Figure 11.1 Condensate Removal Access

CAUTION! Risk of Injury!

- Condensate pump should be located as close to the appliance as possible for efficient removal of condensate.

Furnace condensate is mildly acidic and may be corrosive. A pH neutralizing filter may be needed. Check with local authorities if this type of filter is required.

An access panel is located on the right side of the appliance. This panel is for servicing the condensate system after appliance installation. The removal of five screws is required to remove the panel. See Figure 11.1.

B. Winterizing Condensate Removal System

NOTICE: The appliance must be winterized if the appliance is subjected to ambient temperatures of 32°F (0°C) or lower if left idle.

Some water will accumulate in the heat exchanger as a result of the heat transfer process. To winterize your appliance:

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Disconnect electrical supply to the appliance.
3. Disengage firebox from outer shell approximately 12 inches. Adjust support wheels and/or provide additional support if necessary. See Section 16.D and 16.E.
4. Remove upper inducer tube from inducer housing. See Figure 11.2.

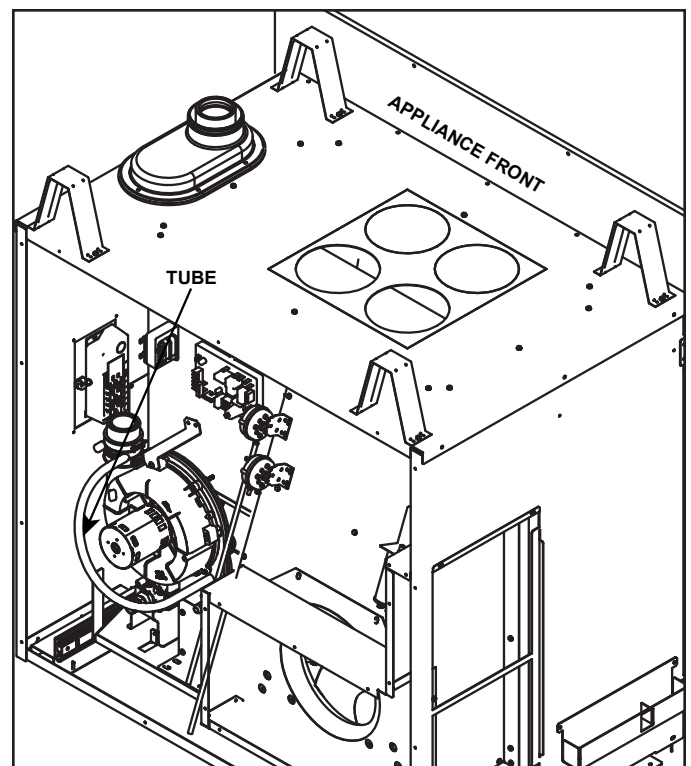


Figure 11.2 Upper Inducer Housing Tube - Connected to Inducer

5. Insert 3/8 inch (ID) field-supplied funnel into tube. See Figure 11.3.
6. Pour one quart propylene glycol (swimming pool/RV antifreeze) into funnel.

NOTICE: DO NOT use any antifreeze other than propylene glycol. Damage to plastic components may occur.

Propylene glycol should run through inducer housing, fill condensate trap, and overflow into condensate drain. Propylene glycol should remain in condensate system. It does not need to be removed before appliance startup.

7. Remove funnel and reconnect upper inducer tube to the housing.
8. Disengage support wheels, return firebox to closed position and engage latch. See Section 16.D and 16.E.
9. Reconnect electrical supply.
10. Turn on gas supply at valve.

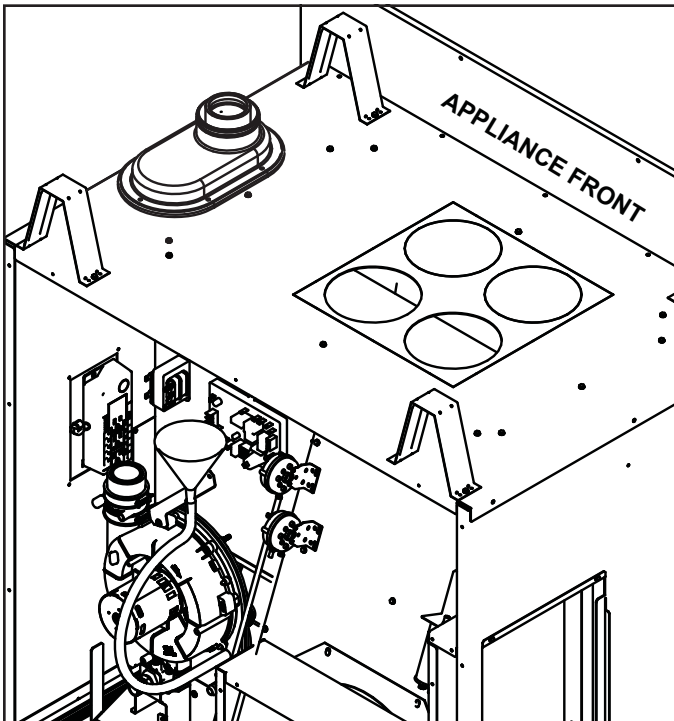


Figure 11.3. Upper Inducer Housing Tube Connected to Field-Supplied Funnel

12 Control Module Sequence of Operation

A. Sequence of Operation

1. Normal Heat Cycle

A. Call for Heat

The thermostat calls for heat by energizing the “W” terminal. The control checks to see the limit circuit is closed and pressure switch is open. If the limit circuit is open, the control de-energizes the gas valve and runs the circulating fan and the induced draft motor. If the pressure switch is closed and remains closed for 5 seconds, the control will flash proper error code and wait for the pressure switch to open or the call for heat to end. If the pressure switch is open, or opens during the wait time, the control proceeds to pre-purge.

B. Pre-Purge (150 seconds)

The control energizes the induced draft motor and waits for the pressure switch to close. If the pressure switch does not close within 30 seconds of the inducer being energized an error code will flash. The control will keep the inducer running and wait until the pressure switch closes or the call for heat is removed. If the pressure switch closes the error code is reset and the ignition sequence continues.

When the pressure switch is proven closed, the control begins the pre-purge time. If flame is sensed any time while in pre-purge, the pre-purge time is restarted. If flame is sensed long enough to cause lockout, the control responds as defined in the “Flame Sensed Out of Sequence” portion of the “Fault Modes” section on the next page. The control runs the inducer for the pre-purge time, and then proceeds to the ignition trial period.

C. Ignition Trial

The control energizes the spark and gas valve solenoids. The inducer remains energized. Any time flame is sensed above the Spark Off level, spark is turned off. If flame signal drops below the Flame Lost level during Ignition Trial, the spark turns back on. The control monitors flame signal level for the entire Ignition Trial time. If, at the end of Ignition Trial, flame is sensed above the Run level, the control keeps the gas valve energized and begins the heat blower on delay. If flame is not sensed above the Run level at the end of Ignition Trial, the control de-energizes the gas valve and proceeds with ignition re-try as defined in the “Ignition Re-Try” portion of “Abnormal Heat Cycle” section on this page.

D. Circulating Fan On Delay (120 Seconds)

The control waits for the specified time after the start of a successful Ignition Trial, and then energizes the circulating fan. The gas valve and inducer remain energized with the burner on. The control proceeds to run mode.

E. Run

Control inputs are continuously monitored to ensure limit circuit and pressure switch are closed, flame remains established, and the thermostat call for heat remains. When the thermostat call for heat is removed, the control de-energizes the gas valve and begins post-purge and blower

off delay timing.

F. Post Purge (150 Seconds)

The Inducer output remains on for the specified post-purge period after the thermostat is satisfied.

G. Circulating Fan Off Delay (210 Seconds)

The control waits for the specified time after the call for heat is ended and de-energizes the circulating fan.

2. Abnormal Heat Cycle

A. Interrupted Thermostat Call for Heat

If the thermostat demand for heat is removed before the flame is recognized, the control will run the inducer for the post purge period and de-energize all outputs.

If the thermostat demand for heat is removed after successful ignition (i.e. the control entered Circulating fan On Delay or Run states), the control will de-energize the gas valve, run the induced draft motor through a post purge, and run the circulating fan for the specified delay off time.

B. Ignition Re-Try

If flame is not established on the first Ignition Trial period, the control de-energizes the gas valve and the inducer remains energized for the inter-purge period. The spark and gas valve are re-energized and the control initiates another trial for ignition.

If flame is not established on the second Ignition Trial, the control de-energizes the gas valve, and the inducer remains energized for the inter-purge period. The spark and gas valve are re-energized and the control initiates another trial for ignition.

If flame is not established on the third Ignition Trial period, the control de-energizes the gas valve and the inducer remains energized for the inter-purge period. The spark and gas valve are re-energized and the control initiates another trial for ignition.

If flame is not established on the fourth Ignition Trial (initial try + 3 re-tries), the control de-energizes the gas valve, runs inducer for the established post purge and goes into soft lockout. The proper LED diagnostic will flash during soft lockout.

C. Ignition Re-Cycle

If flame is lost during the circulating fan On Delay or Run, the control de-energizes the gas valve within 2.0 seconds. The induced draft motor continues to run and the control begins timing the inter-purge delay. The control energizes (or keeps energized) the circulating fan for the selected delay off time.

When the inter-purge delay is over, the gas valve and spark are re-energized, and the control initiates another ignition activation period. The control will re-cycle up to 5 flame losses (4 re-cycles) within a single call for heat before going to soft lockout. The proper LED diagnostic will flash during the auto reset delay before reset from soft lockout.

D. Limit Switch Circuit Operation

The limit switch circuit is ignored unless a call for heat is present (W energized). If the limit switch circuit is open and a call for heat is present, the control de-energizes the gas valve and runs the circulating fan and the induced draft motor.

When the switch re-closes or the call for heat is lost, the control runs the induced draft motor through post-purge and runs the circulating fan through the selected fan off delay. The control will return to normal operation after the blower off delay is completed.

E. Pressure Switch

If the pressure switch opens during prepurge before the Ignition Trial period, the induced draft motor will run through the pressure switch recognition delay (2 seconds). If the pressure switch is still open the control will re-start the pressure switch proving sequence if the call for heat still exists.

Pressure switch opening for less than 2 seconds during the Ignition Trial period shall not interrupt the heat cycle. (Gas valve will de-energize while the pressure switch is open). If the Ignition Trial is not successful, the control will flash appropriate code during the inter-purge period.

If the pressure switch opens during run mode, the pressure switch will de-energize the gas valve. If flame is lost before the end of the 2-second pressure switch recognition delay, the control will respond to the loss of flame. If the pressure switch remains open for 2 seconds and flame remains, the control de-energizes the gas valve, the induced draft motor runs through post-purge, and the circulating fan runs through the selected fan off delay. When the fan off delay is over, the circulating fan is de-energized, and a heat cycle is initiated if the call for heat still exists.

3. Damper Operation

With no call for Damper Transition, Damper 1 is powered open while Damper 2 is closed.

When the thermostat calls for Damper Transition (“D”) the damper control relay switches to close Damper 1 and open Damper 2

When the thermostat removes the call for Damper Transition, the control relay switches to open Damper 1 and close Damper 2.

Damper Transition has no impact on Call for Heat or Manual Fan Operation.

4. Manual Fan Operation

When the thermostat calls for fan (“G”) without a call for heat, the circulating fan is energized after an approximately 2.5 second delay. It remains energized as long as the call for fan remains in place. If a call for heat (“W”) occurs during call for fan, the circulating fan is de-energized and a normal heating sequence will occur. A call for fan is ignored while in soft lockout.

5. Fault Modes

A. Flame Sensed Out of Sequence

Flame sensing only occurs when the inducer is running. If flame is sensed longer than 20 seconds while the gas valve is de-energized, the control shall continue running the inducer and will turn on the circulating fan. When flame is no longer sensed, the inducer will run through post-purge and the circulating fan will run through the selected heat fan off delay time. The control will proceed to soft lockout. The proper diagnostic code will flash.

B. Gas Valve Relay Fault

If the control senses the gas valve as energized for more than 1 second when the control is not attempting to energize the gas valve, the control will go to soft lockout. The control assumes either the contacts of the relay driving the gas valve have welded shut, or the sensing circuit has failed. The inducer is turned off to open the pressure switch and stop gas flow by shutting off power to the gas valve circuit, unless a flame is present. The proper diagnostic code will flash.

6. Lockout

A. Soft Lockout

The control shall not initiate a call for heat or call for fan while in soft lockout. The control will respond to an open limit if a call for heat is pending. Soft lockout shall automatically reset after 1 hour and a new light off sequence will begin if the call for heat is still in place. Soft lockout may be manually reset by removing power from the control for more than 1 second or removing the thermostat call for heat for more than 3 and less than 20 seconds.

B. Hardware Failure Lockout

If the control detects a fault on the control board, the proper diagnostic code will flash and the control will lockout as long as the fault remains. This lockout will automatically reset if the hardware fault clears.

7. Power Interruption

During a momentary power interruption or at voltage levels below the minimum operating voltage (line voltage or low voltage) the system will self-recover when voltage returns to the operating range.

Power interruptions of less than 80mS shall not cause the control to change operating states. Power interruptions greater than 80mS may cause interruption of the operating cycle and re-start.

NOTE: 80mS power interruption may cause gas valve to close. If flame sense is lost, control will go to Ignition Recycle.

8. Status Indicators

See Service Technician’s Manual for Control Module Troubleshooting.

13 Gas Information

A. Fuel Conversion

- Make sure the appliance is compatible with available gas types.
- Conversions must be made by a qualified service technician using Hearth & Home Technologies specified and approved parts.

B. Gas Pressure


- Optimum appliance performance requires proper input pressures.
- Gas line sizing requirements will be determined in ANSI Z223.1 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.
- Pressure requirements are:

Gas Pressure	Natural Gas	Propane
Minimum inlet pressure	5.0 in. w.c.	11.0 in. w.c.
Maximum inlet pressure	10.0 in. w.c.	13.0 in. w.c.
Manifold pressure	3.5 in. w.c.	10.0 in. w.c.

WARNING! Risk of Fire or Explosion! High pressure will damage valve. Low pressure may cause explosion.

- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating.
- Install regulator upstream of valve if line pressure is greater than 1/2 psig.

⚠ WARNING



Fire Risk.
Explosion Hazard.
High pressure will damage valve.

- Disconnect gas supply piping BEFORE pressure testing gas line at test pressures above 1/2 psig.
- Close the manual shutoff valve BEFORE pressure testing gas line at test pressures equal to or less than 1/2 psig.

Note: Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI 223.1. Installation should be done 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).

Note: A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 in. (13 mm) control valve inlet.

- **If substituting for these components, please consult local codes for compliance.**

C. Gas Connection

- Refer to Section 16.D instructions on pulling the firebox out.
- Refer to Section 17 for location of gas line access on appliance.
- Gas valve is located on right hand side at rear of firebox once the firebox has been pulled out. See Figure 13.1.
- The gap between supply piping and gas access hole may be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.
- Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.
- Connect appliance to gas supply outside of appliance at gas line access point as shown in Figure 13.2.

WARNING! Risk of Fire or Explosion! Support control when attaching pipe to prevent bending gas line.

- A small amount of air will be in the gas supply lines.

WARNING! Risk of Fire or Explosion! Gas build-up during line purge could ignite.

- Purge should be performed by qualified service technician.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.

Light the appliance. It will take a short time for air to purge from lines. When purging is complete the appliance will light and operate normally.

WARNING! Risk of Fire, Explosion or Asphyxiation! Check all fittings and connections with a non-corrosive commercially available leak-check solution. **DO NOT** use open flame. Fittings and connections could have loosened during shipping and handling.

WARNING! Risk of Fire! DO NOT change valve settings. This valve has been preset at the factory.

WARNING! Risk of Explosion! DO NOT remove or adjust factory-installed flexible gas supply inlet at the valve.



Figure 13.1 Location of Gas Ball Valve

D. High Altitude Installations

NOTICE: If the heating value of the gas has been reduced, these rules do not apply. Check with your local gas utility or authorities having jurisdiction.

When installing above 2000 feet elevation:

- In the USA: Reduce burner orifice 4% for each 1000 feet above 2000 feet.
- In CANADA: Reduce burner orifice 10% for elevations between 2000 feet and 4500 feet. Above 4500 feet, consult local gas utility.

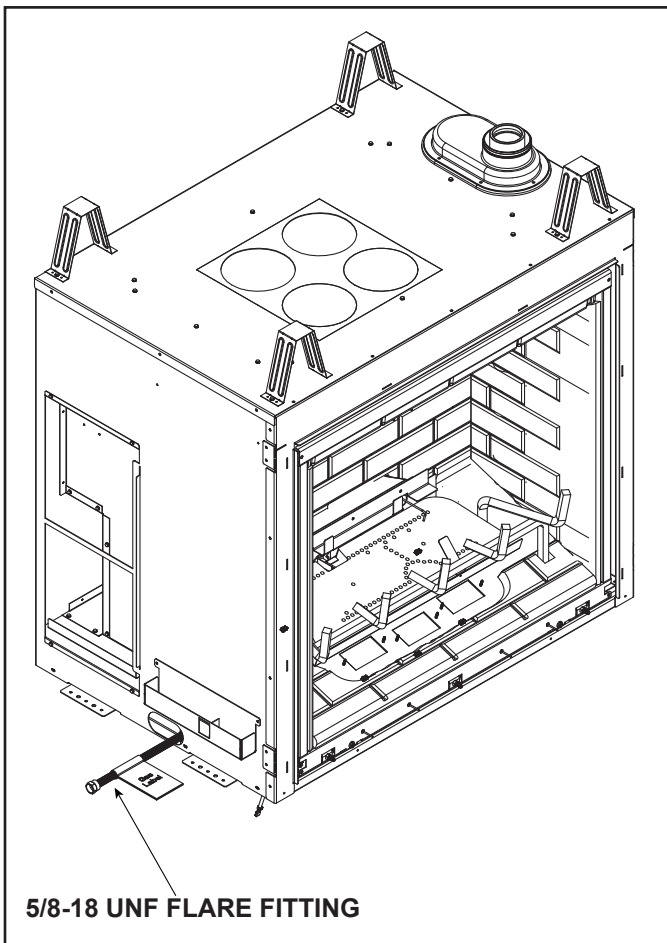


Figure 13.2 Location of Gas Line Access

14 Electrical Information

A. Wiring Requirements

NOTICE: 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.**

NOTICE: *Hearth & Home Technologies recommends that this appliance be wired on its own circuit with its own circuit breaker.*

- Wire the appliance junction box to 110-120 VAC.
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.

WARNING! Risk of Shock or Explosion! DO NOT wire 110V to the valve or to the Equipment Interface Module. Incorrect wiring will damage controls.

WARNING! Risk of Shock! Keep electrical wires away from condensate drainage system.

B. Optional Components

Wiring for optional components should be done now to avoid reconstruction. Follow manufacturer's instructions that accompany those components.

Examples of optional components:

- Condensate Pump
- Heat Duct Dampers

C. Dampers Wiring Requirements

The appliance is supplied with two (eight foot) lengths of low voltage wire. The control module supplies 24V AC to these wires. A switch must be installed to operate any power dampers. The switch should be located between the yellow and red wires. See Figure 14.2. The power relay on the control module is activated or deactivated by switching these wires. The control switch will not operate the dampers.

D. Electrical Service and Repair

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

WARNING! Risk of Shock! Replace damaged wire with type 105° C rated wire. Wire must have high temperature insulation.

E. Equipment Interface Module (EIM)

The Equipment Interface Module (EIM) is used for communication to take place between the appliance and the wireless thermostat. The EIM can be installed in a remote area, but will need to be accessible after installation and finishing of the appliance are complete. The appliance is supplied with 25 feet of low voltage wire that will be used to wire the EIM to the appliance. See Figure 14.1 and 14.2 for wiring. Refer to the manufacturer's instructions included with the EIM for further operating instructions.

NOTICE: *The wireless thermostat must be located no less than two feet and no more than 80 feet from the Equipment Interface Module.*

WARNING! Risk of Shock! Disconnect 110-120 VAC power supply before installing EIM.

Wire the EIM as shown in Figure 14.1.

WARNING! Risk of Shock! DO NOT wire 110V to the Equipment Interface Module. Incorrect wiring will damage EIM.

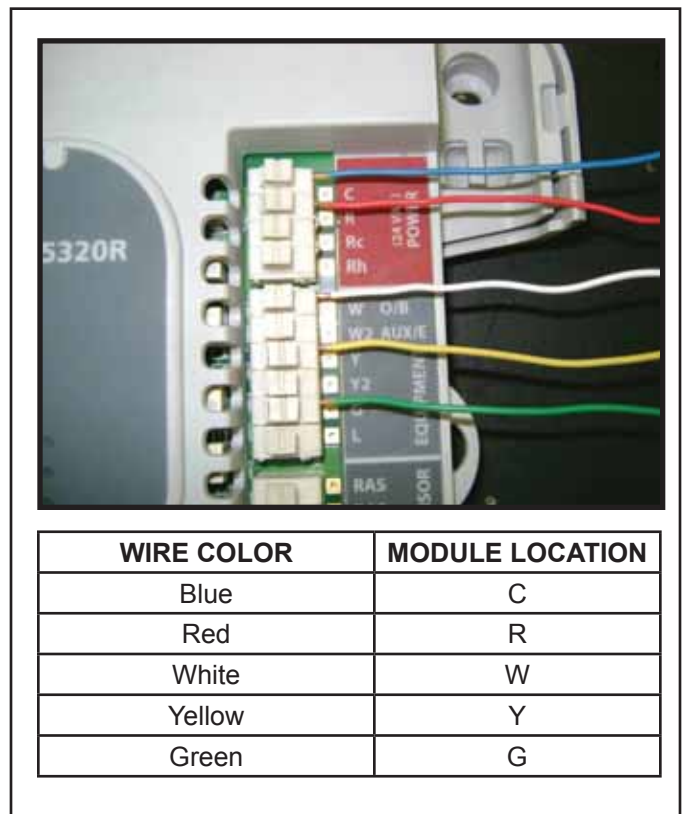
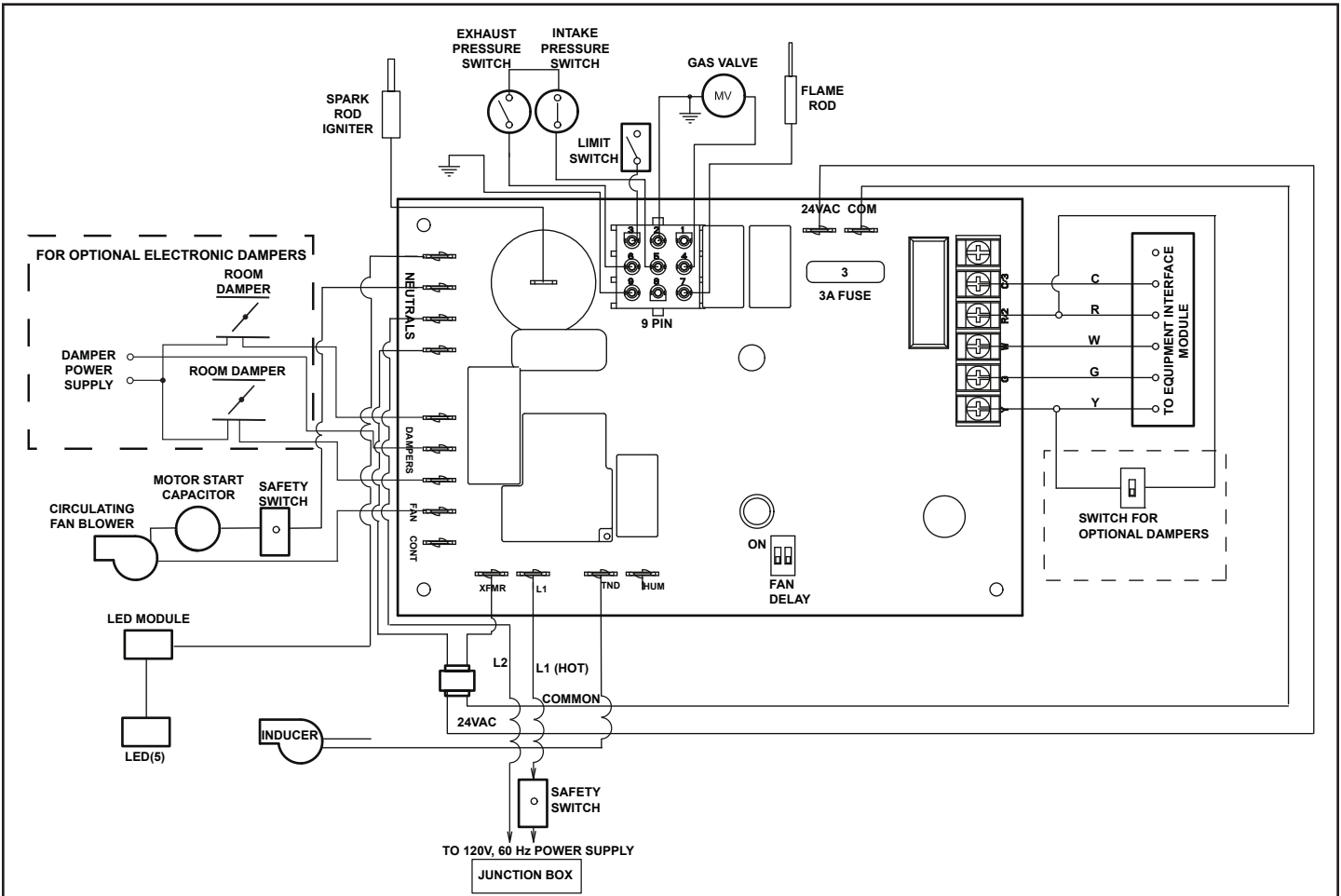


Figure 14.1 EIM Wiring

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



TERMINALS		
Pin #	Thermostat	Function
1	D (Yellow)	Toggle dampers on/off
2	G (Green)	Call for continuous low speed fan
3	W (White)	Call for heat from thermostat
4	R/2 (Red)	24 VAC hot for thermostat
5	C/3 (Blue)	24VAC system common

DAMPERS	
Pin #	Function
D1	Damper 1 power
D_IN	24 VAC supply
D2	Damper 2 power

9-PIN	
Pin #	Function
1	Not used
2	Gas valve 24 VAC common – Must be wired to appliance chassis for proper flame sense operation.
3	Limit switch input (Common with pin 6)
4	Main gas valve output
5	Pressure switch input
6	Pressure switch output (common with pin 3)
7	Flame sense output
8	Limit switch output
9	Flame sense/chassis ground (24VAC common)

Figure 14.2 Appliance Wiring Diagram

F. Junction Box Installation

To wire the junction box from the **INSIDE** of the appliance:

- Disengage the latch and pull the firebox out. Refer to Section 16 for instructions and see Figure 16.1.
- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell.
- Pull the electrical wires from outside the appliance through the opening into the valve compartment and secure wires with a Romex connector.
- Make all necessary wire connections to the junction box/receptacle and reattach the junction box/receptacle to the outer shell.

NOTICE: *Hearth & Home Technologies recommends that this appliance be wired on its own circuit with its own circuit breaker.*

This appliance is equipped with an exhaust safety switch that will shut down the appliance in the event of an exhaust hose disconnection. See Figure 14.3. The exhaust safety switch is wired to the supplied junction box to the “FAN” terminals. See Figure 14.4. The power cord from the wire harness is then plugged into the “FAN” receptacle on the supplied junction box. See Figure 14.5.



Figure 14.3 Exhaust Safety Switch

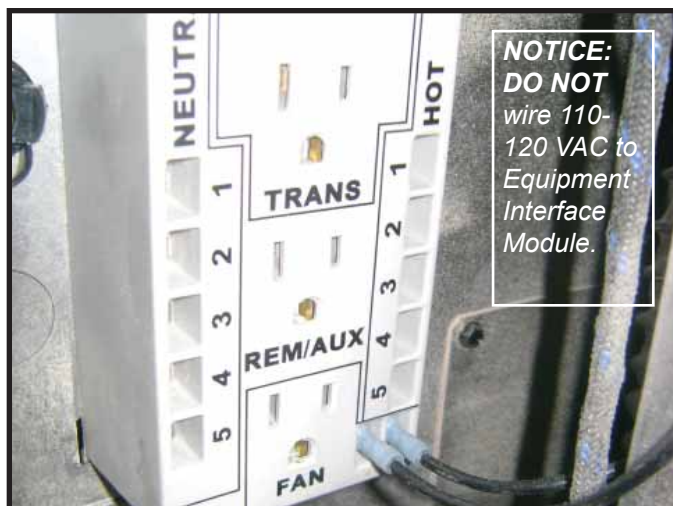


Figure 14.4 Junction Box Detail

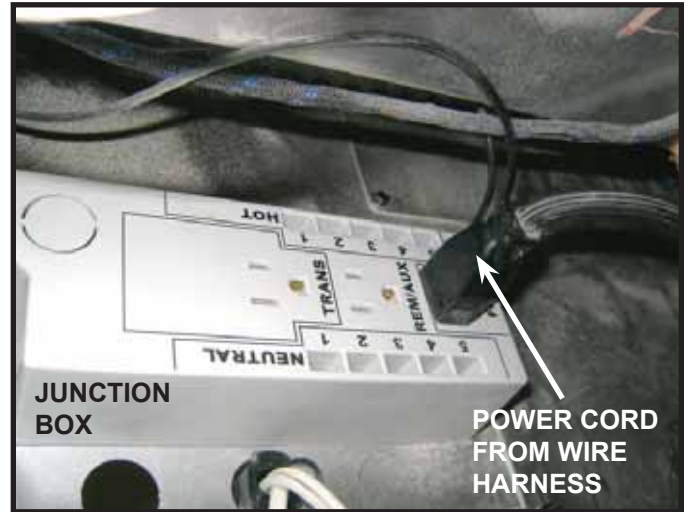


Figure 14.5 Power Cord from Wire Harness Plugged into Junction Box

G. Convection Blower Safety Switch

The convection blower is wired through a safety switch so the convection blower will not operate when the firebox is disengaged from the outer wrap and/or being serviced. See Figure 14.6.

WARNING! Risk of Injury! DO NOT bypass the safety switch. Fan blades will cause injury.

WARNING! Risk of Shock! Capacitor contains stored voltage. Discharge capacitor before servicing.



Figure 14.6 Capacitor and Safety Switch

15 Finishing

A. Splatter Guard

The splatter guard is a piece of corrugated material used to protect the appliance during the installation process before finishing work on the whole hearth is complete. The splatter guard is factory-installed on this model. Splatter guards must be removed before appliance is fired.

WARNING! Risk of Fire! Close the ball valve before installing the splatter guard to prevent accidental lighting. Remove the splatter guard before lighting the appliance.

Step 1. Turn off gas to valve. Red gas shutoff knob is located on ball valve. See Figure 15.1. Refer to Section 16.D and 16.E for instructions on how to disengage latch and pull the firebox out from the outer shell of the appliance.



Figure 15.1 Location of Gas Shutoff Knob

Step 2. Disconnect the power cord from the junction box.

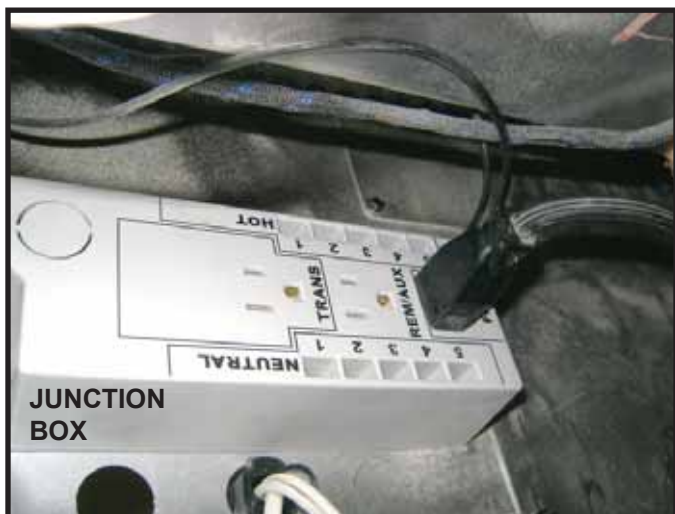


Figure 15.2 Location of Junction Box

To install the Splatter Guard:

Step 3. Crease flap on top and sides of splatter guard using the scored lines for a guide. See Figure 15.3



Figure 15.3 Bend Flaps at Creases

Step 4. Center the splatter guard in front of the appliance. Place the splatter guard in the appliance by guiding the top and side flaps into the openings on the top and sides of the appliance. See Figure 15.4 and Figure 15.5.

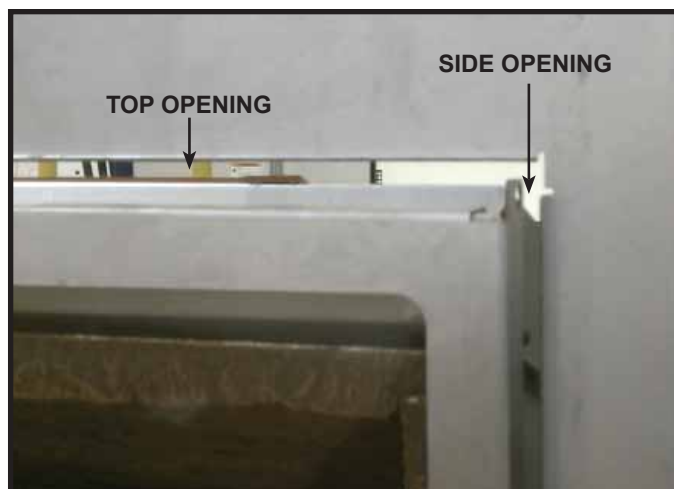


Figure 15.4 Splatter Guard Openings



Figure 15.5 Splatter Guard Installation



Figure 15.6 Splatter Guard Installed

To Remove the Splatter Guard:

Grab splatter guard at the bottom with both hands and pull outward as shown in Figure 15.7.

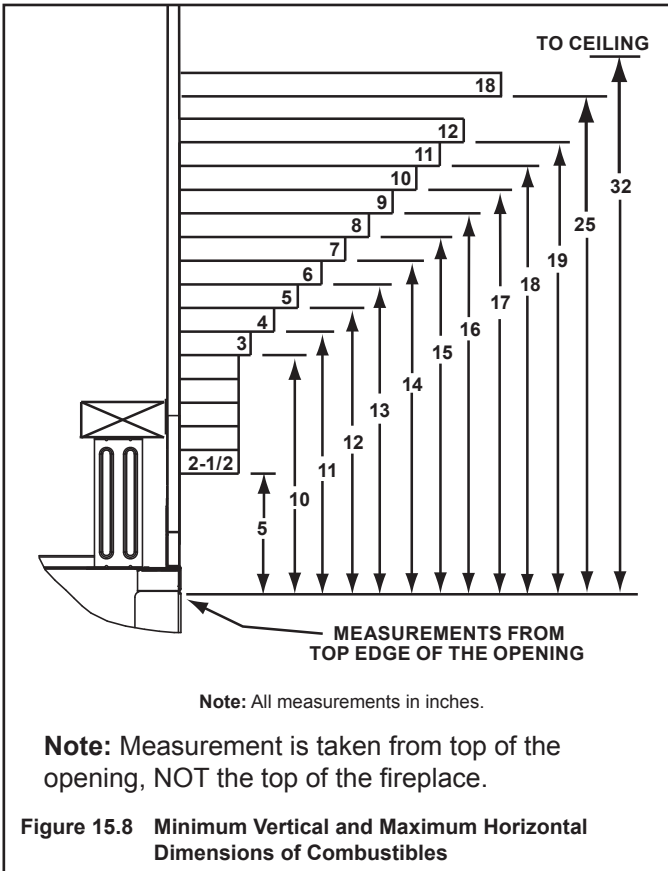


Figure 15.7 Removing Splatter Guard

B. Mantel and Wall Projections

WARNING! Risk of Fire! Comply with all minimum clearances as specified. Framing closer than the minimums listed must be constructed entirely of non-combustible materials (i.e., steel studs, concrete board, etc.).

Combustible Mantels

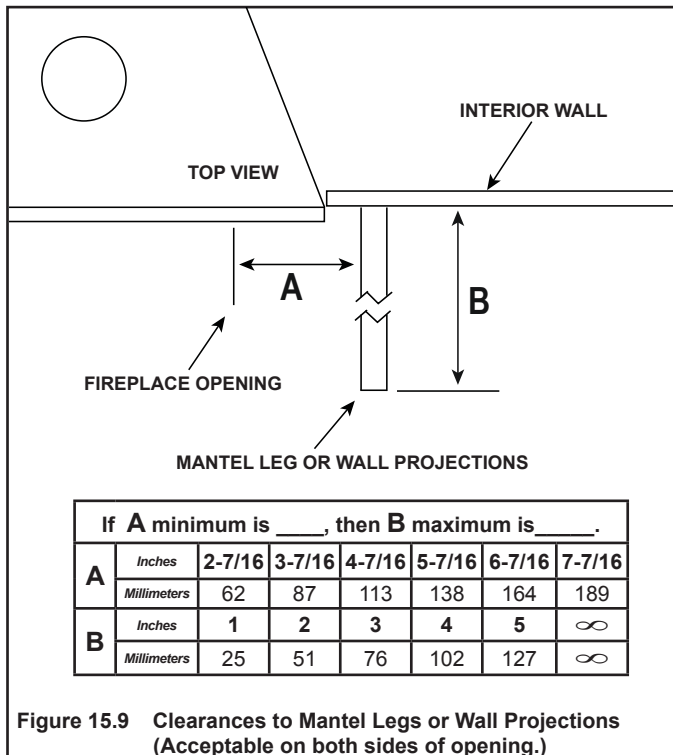


C. Facing Material

- Metal front faces may be covered with non-combustible materials only.
- Facing and/or finishing materials must not interfere with air flow through louvers, operation of doors, or access for service or separation of firebox from outer appliance wrap.
- Facing and/or finishing materials must never overhang the top edge of the firebox or separation of firebox and appliance outer wrap will not be possible.
- Observe all clearances when applying combustible materials.

WARNING! Risk of Fire! DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Overlapping materials could ignite and will interfere with proper operation of doors and louvers.

Combustible Mantel Legs or Wall Projections



D. Doors

Only doors approved for use with this appliance model may be used. Contact your dealer for a list of approved doors. Once you have determined what kind of door and finishing material is going to be used on the fireplace, you may use the table below which shows the door models and the finishing material thickness allowed.

HE36CLX-S					
DOOR	FIT	FINISH MATERIAL THICKNESS (INCHES)	SEE FIGURE	X (INCHES)	Y (INCHES)
Halston	Inside	4	15.11	38-1/4	34-3/8
	Overlap	1	15.10	NA	NA
Forge	Inside	4	15.11	38-1/4	34-3/8
	Overlap	1	15.10	NA	NA
Folio	Inside	4	15.11	38-1/4	34-3/8
	Overlap	1	15.10	NA	NA

Table 1. Finishing Material Thicknesses

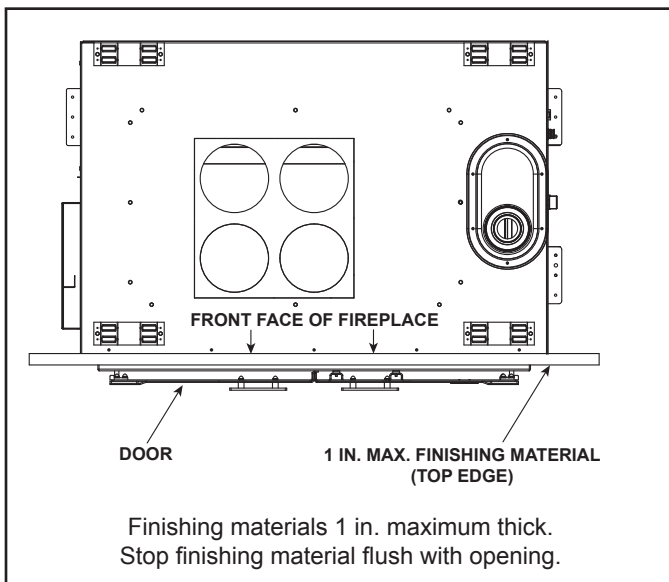


Figure 15.10 Overlap Fit Door

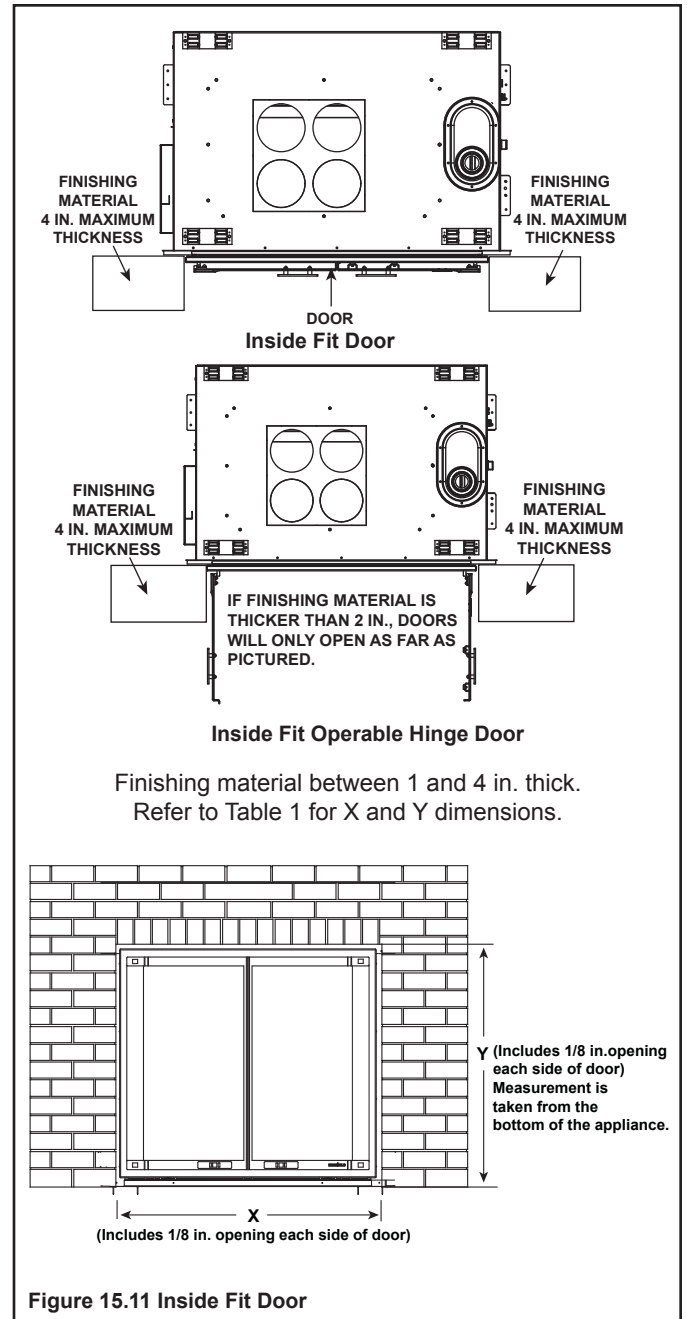


Figure 15.11 Inside Fit Door

16 Appliance Setup

A. Remove the Shipping Materials

Remove shipping materials from inside or underneath the firebox.

B. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside or behind the firebox.

C. Accessories

Install approved accessories per instructions included with accessories. Contact your dealer for a list of approved accessories.

WARNING! Risk of Fire and Electric Shock! Use ONLY *Hearth & Home Technologies-approved optional accessories with this appliance. Using non-listed accessories could result in a safety hazard and will void the warranty.*

D. Disengage Firebox from Outer Shell

In order to perform certain setup and maintenance tasks, it will be necessary to partially separate the firebox from the outer shell of the appliance. Use a Phillips screwdriver to loosen the 1/4 turn fasteners on the two latches on the lower front face of the appliance and pull the firebox out carefully using both hands. See Figure 16.1.

CAUTION! Risk of injury! Avoid pinch points by grasping only front and side of appliance door when pushing back into place.

NOTICE! Appliance is heavy. Slide out and in carefully to avoid scratching floor or hearth.

E. Engage Support Wheels

This appliance is fitted with linear motion slide mechanisms to provide guidance and support of the appliance as it is separated from the outer shell. These slide mechanisms will deflect under the weight of the firebox. This deflection presents the possibility of the firebox contacting flooring materials as it is transferred in and out of the outer shell. The appliance is equipped with support wheel assemblies to carry the load and to reduce the possibility of damage to flooring.

There is one adjustable support wheel on both the left and right sides of the firebox to help support the weight of the firebox when it is being pulled out. Pull appliance out approximately four inches to access the support wheels. To utilize the support wheel, loosen the nuts and adjust the wheel to the desired height. Use care when pulling appliance out to avoid scratching the floor or hearth. Rest the slide in the slot at the appropriate height and tighten the nuts. If the firebox will be extended to a point where the wheel does not touch the surface, an additional means of support will be needed.

WARNING! Risk of injury! Support firebox with support wheels. Firebox may tip when pulled away from outer shell.

When finished with appliance maintenance task, push the firebox back to within four inches of closing, adjust the support wheels to the original stowed position and secure in place. Engage the 1/4 turn fasteners on the latches on the lower front face of the appliance, to secure it within the outer shell. Pull gently on the firebox to verify the firebox is correctly secured and latched.

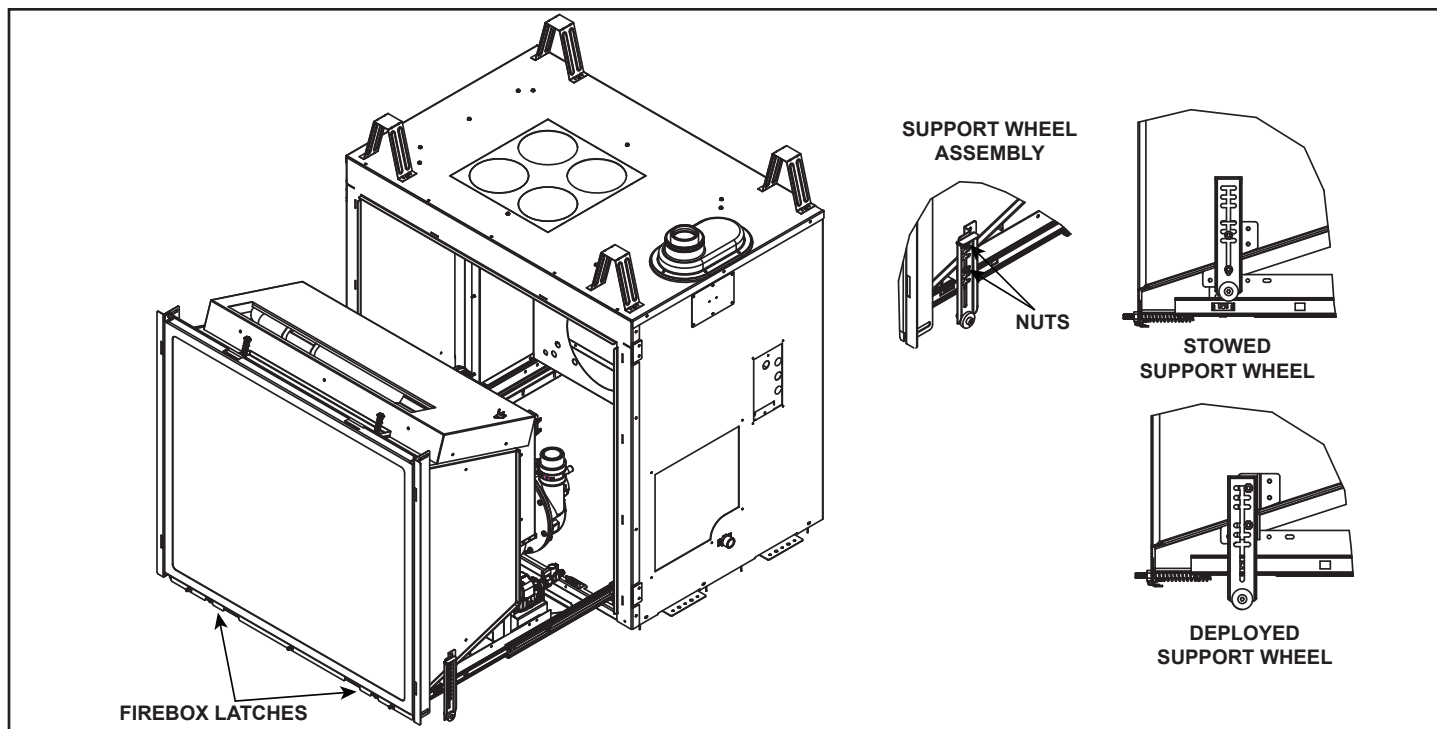


Figure 16.1 Disengage Firebox from Outer Shell

F. Fixed Glass Assembly

WARNING! Risk of Asphyxiation! Handle fixed glass assembly with care. Inspect the gasket to ensure it is undamaged and inspect the glass for cracks, chips or scratches.

- **DO NOT** strike, slam or scratch glass.
- **DO NOT** operate fireplace with glass removed, cracked, broken or scratched.
- Replace as a complete assembly.

Removing Fixed Glass Assembly

1. Remove the three 1/4 inch nuts on the bottom of the glass frame. See Figure 16.2.
2. Use a Phillips screwdriver to turn the 1/4 turn latching fasteners counterclockwise and pull the firebox out approximately two inches.
3. Grasp the lower portion of the glass assembly and pivot out and up.

Replacing Fixed Glass Assembly

1. Insert the top glass frame hook on the return bend on the top side of the firebox. See Figure 16.3.
2. Pivot the bottom of the glass assembly toward the firebox.
3. Reinstall the three 1/4 inch nuts on the bottom of the glass frame and tighten.
4. Push the firebox back into the outer shell.
5. Put the 1/4 turn latching fasteners back in place and turn clockwise to tighten. Pull gently on the firebox to verify the firebox is correctly secured and latched.

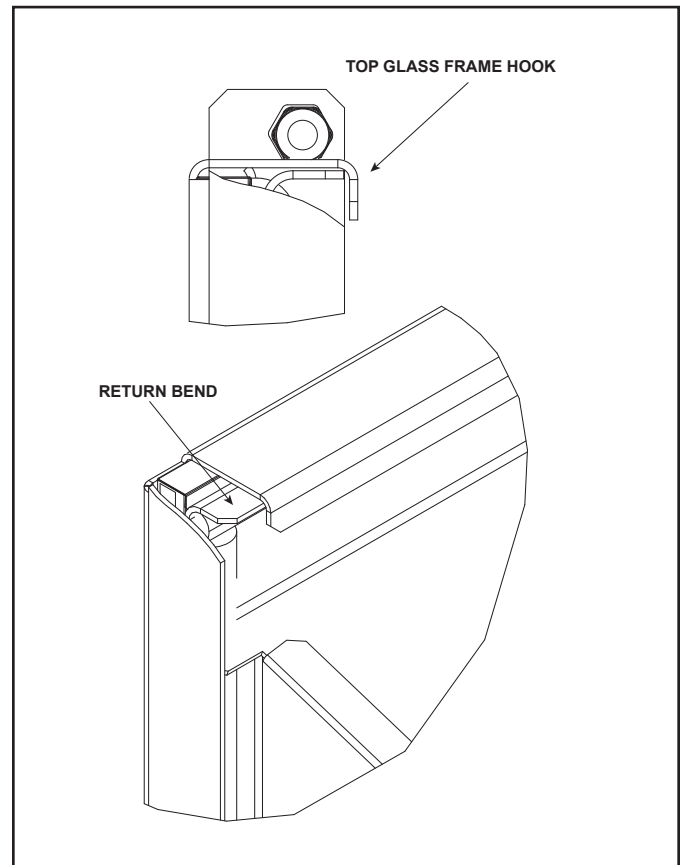


Figure 16.3 Top Glass Frame Hook

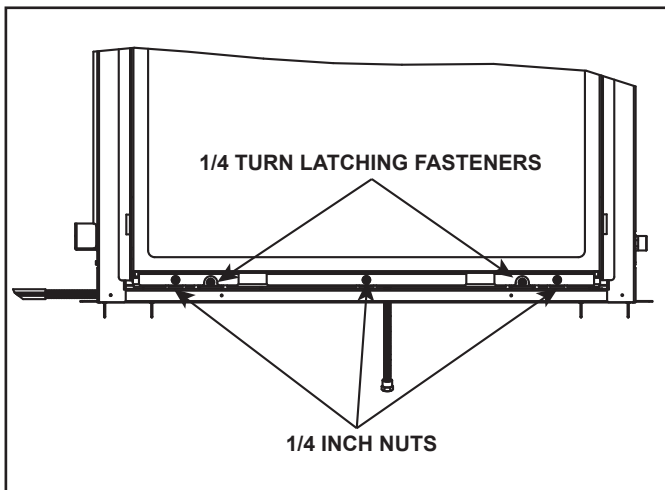


Figure 16.2 Door Latching Fasteners

G. Refractory

CAUTION! Risk of Cuts or Abrasions. Wear protective gloves and safety glasses during installation.

NOTICE: Handle refractory panels with care. Refractory may chip or crack if dropped or impacted.

KIT COMPONENTS

- (1) Left Refractory
- (1) Right Refractory
- (1) Back Refractory
- (1) Top Refractory
- (1) Left Refractory Base
- (1) Right Refractory Base
- (1) Front Refractory Base

INSTALLATION

1. Install back refractory by placing against the back wall of the firebox. See Figure 1.



Figure 1. Rear Refractory Installation

2. Install left side refractory by placing the left refractory panel against the side of the firebox and pushing toward the back of the firebox until side refractory contacts back refractory panel. See Figure 2. Ensure side panels contact back panel so that no gaps exist. Follow the same procedure to place the right side refractory panel.



Figure 2. Right and Left Refractory Installed

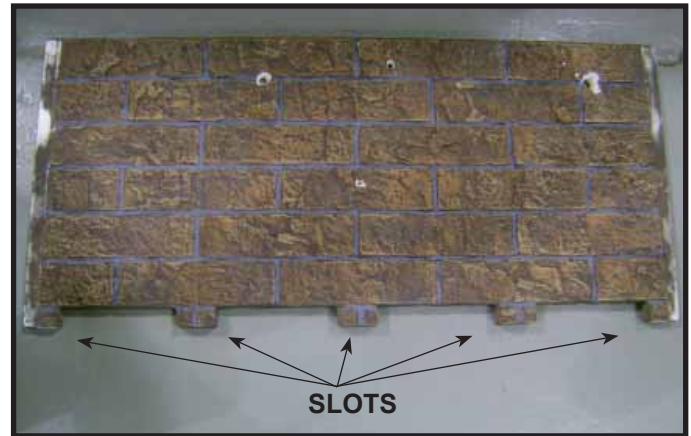


Figure 3. Refractory Tabs

3. Using both hands, hold the top refractory panel with the brick pattern facing down and the slots toward the rear of the firebox. See Figure 3.
4. Insert the top refractory panel into the firebox and lift it toward the top. Keep top refractory panel close to upper firebox lip. This will allow for easier installation due to the wider dimension of the front of the firebox. Slide the top refractory panel in toward the back wall of firebox, maintaining the same angle as the top section of the side panels.

5. Lower the top refractory panel onto the side and back refractory panels. There is a lip on the top panel that allows it to sit on the top edge of the side panels. Push tight against back refractory panel.
6. Installation is complete when top refractory panel is set securely in place. Top refractory panel may need to be pulled down to fit correctly. Chamfers should properly fit together and gaps should be minimized with correct installation. See Figure 4.

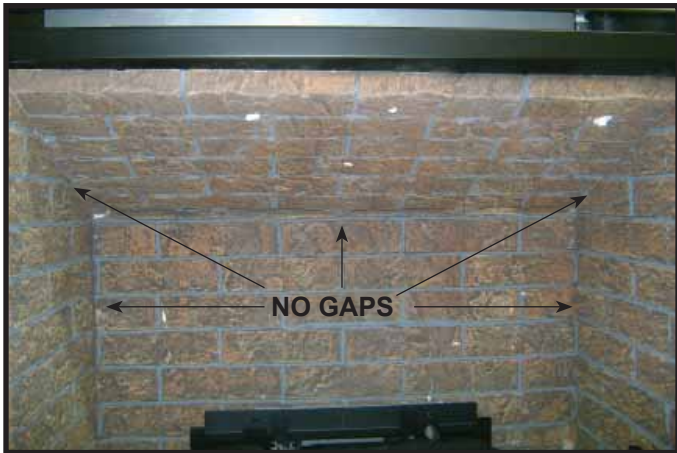


Figure 4. Top Refractory Panel Installed

4. Install left and right base refractory by pivoting and sliding under the grate assembly. Panels will fit flush with the bottom of the firebox. See Figure 5.



Figure 5. Left and Right Base Refractory Installed

5. Install front base refractory by placing it on the bottom of the firebox. The front edge should be flush with the front of the firebox. See Figure 6.



Figure 6. Front Base Refractory Installed

H. Teco-Sil Placement

1. Pour Teco-Sil between the base refractory and burner as shown in Figure 16.4.

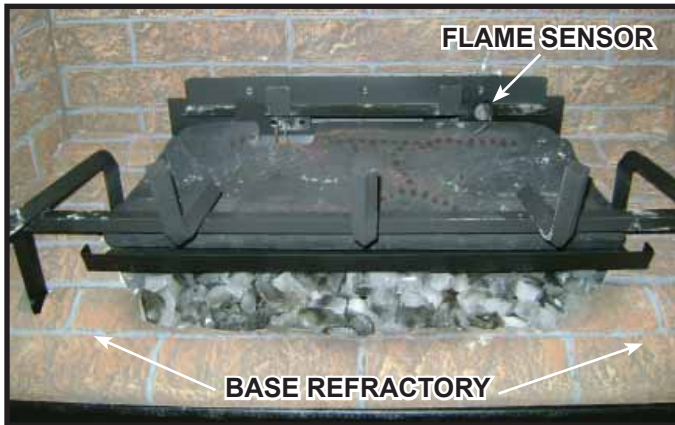


Figure 16.4 Placement of Embers

2. Using a high temperature black paint, fog the Teco-Sil to the desired look. See below for fogging tips.

Fogging Tips

- Apply paint with the ember lights turned on. This will help you avoid over fogging or under fogging. Prior to painting, take precautions to prevent any overspray from reaching the flame sensor. See Figure 16.4.
- Reduce the lighting in the room while applying the paint.
- Fog the Teco-Sil to create a realistic coal bed appearance.



Figure 16.5 Teco-Sil Not Painted

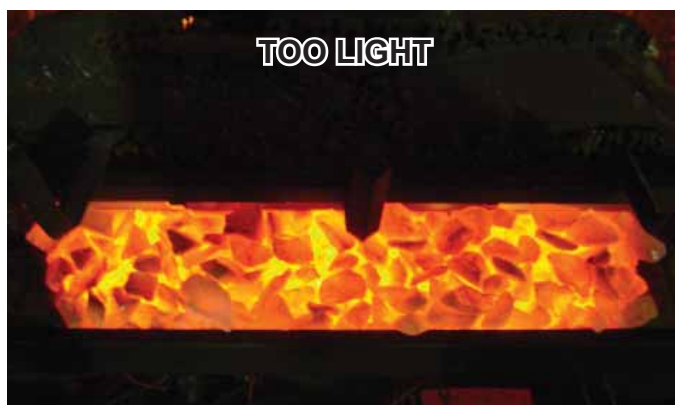


Figure 16.6 Teco-Sil Too Light

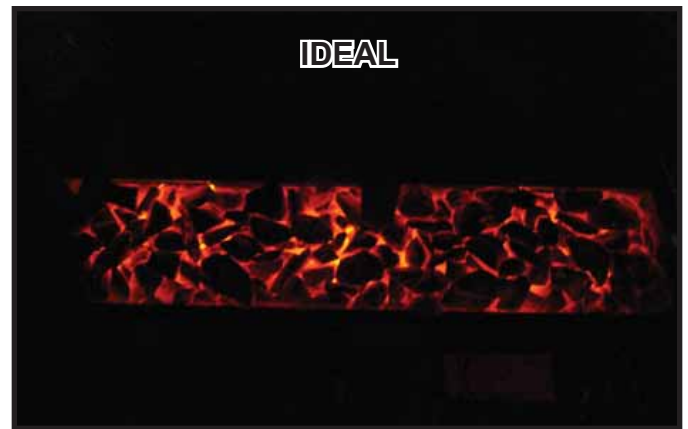


Figure 16.7 Teco-Sil Ideal

I. Ember Placement

WARNING! Risk of Explosion! Follow ember placement instructions in manual. DO NOT completely block burner ports with ember material. Replace ember material annually. Improperly placed embers interfere with proper burner operation.

1. Locate the guide sleeves on the burner assembly. See Figure 16.8. Position the fiber burner top on the pins and carefully push burner top into place.
2. Ember material is shipped with this gas appliance. To place the ember material:
 - Embers CANNOT completely block burner ports. Care should be taken not to block the lighting trail of ports.
 - Embers may only be placed in areas as shown in Figure 16.9.
 - **LP Only:** Using dime-size pieces of Glowing Embers®, overlap the burner ports. See Figure 16.10. The impingement created by the embers will help blend the fire.
 - Save the remaining ember materials for use during appliance servicing. The embers provided should be enough for 3 to 5 applications.

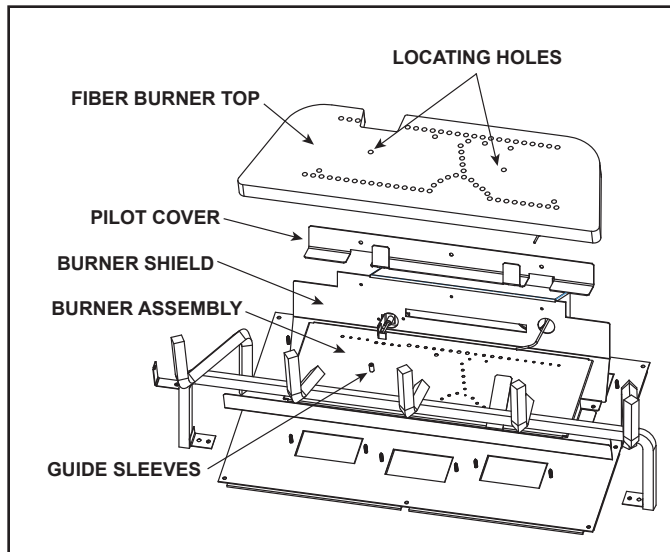


Figure 16.8 Place Fiber Burner Top on Pins

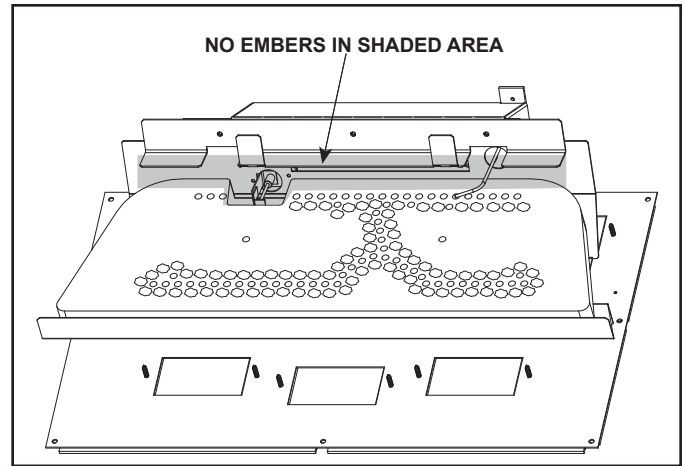


Figure 16.9 Placement of Embers

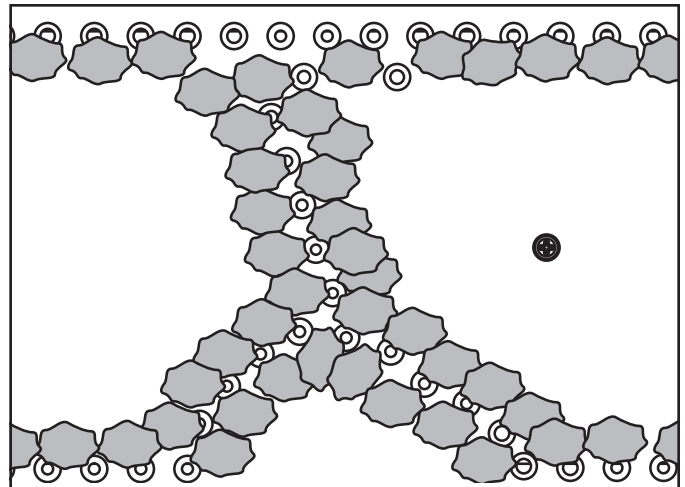


Figure 16.10 Embers Overlapping Burner Port Holes (LP only).

LOG PLACEMENT INSTRUCTIONS

J. Install the Log Assembly

Log Set Assembly: LOGS-6000CLX

Models: 6000CLX-IPI-S, 6000CLX-IPILP-S 6000CLX-IPI-T,
6000CLX-IPILP-T, HE36CLX-S, HE36CLXLP-S

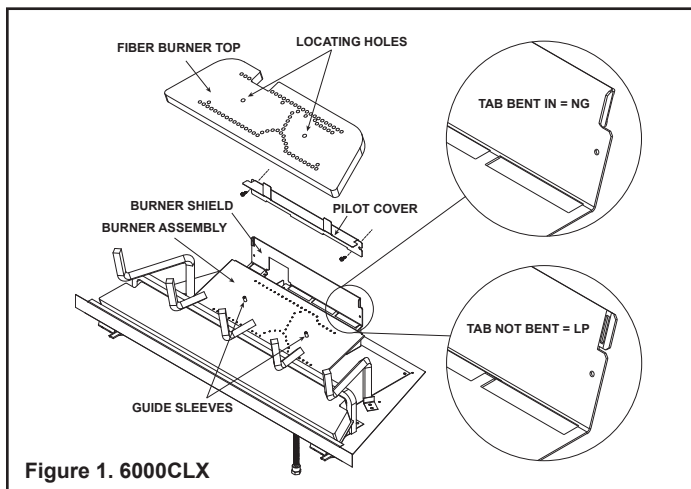


Figure 1. 6000CLX

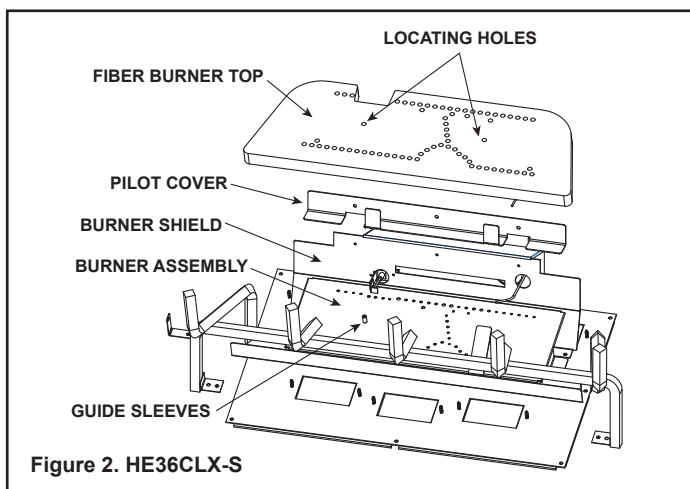


Figure 2. HE36CLX-S

CAUTION: Logs are fragile, handle with care. **Log #1 (2166-721):** Locate log placement tabs on the pilot cover. Bend tabs upward as shown in Figure 3. Tabs should be in a vertical orientation. A pliers may need to be used. Locate the log placements slots on the bottom of Log #1. See Figure 4. Mate the slots located on the bottom of Log #1 with the placement log tabs on the pilot cover. Log #1 is properly installed when it sits squarely and completely on pilot cover with tabs engaged. See Figure 5.

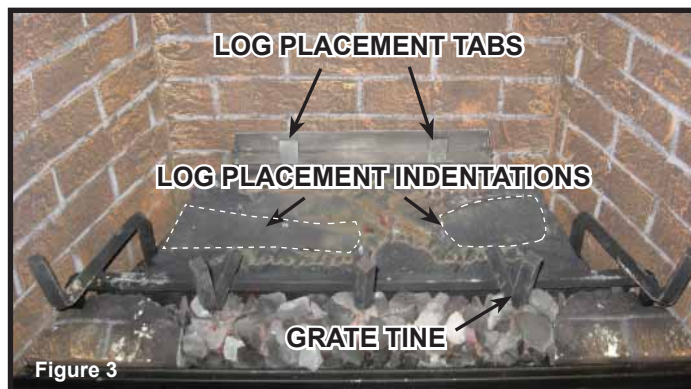


Figure 3

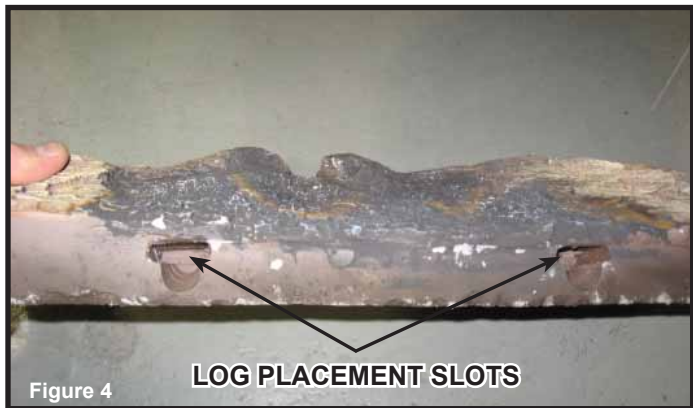


Figure 4

Figure 5 shows the log placement protrusions located on the top of Log #1. The protrusions will be mated with the grooves located on the bottom of Log #2 and Log #3. See Figure 6. Log #2 and Log #3 also have grooves that allow the logs to be seated properly on the grate. See Figure 6. Hold Log #1 upright while placing Log #2.

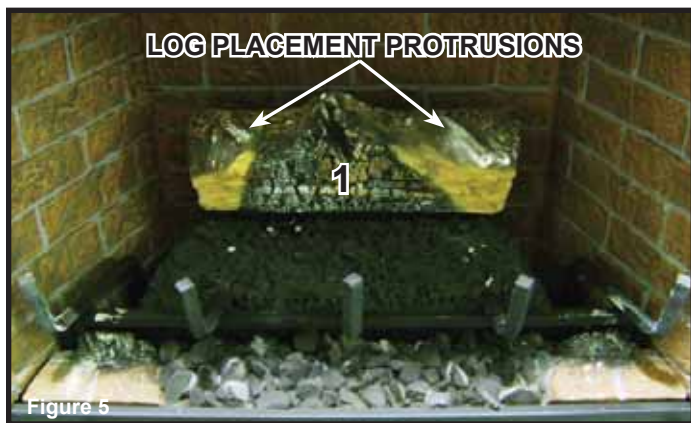


Figure 5

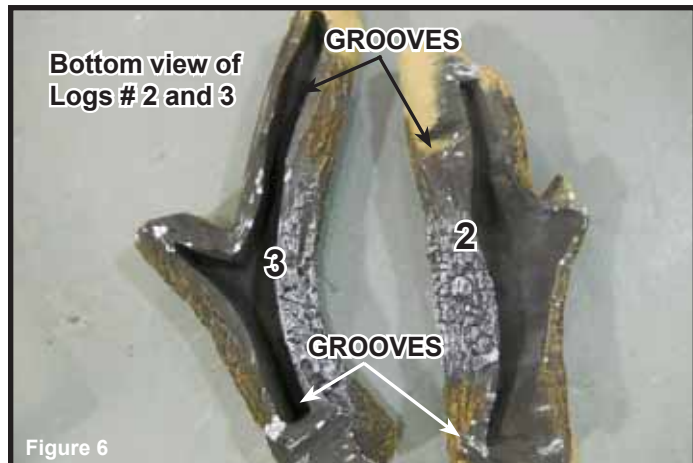
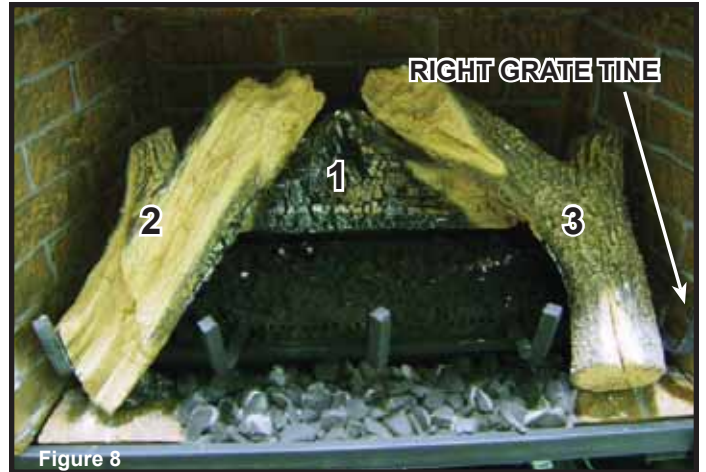


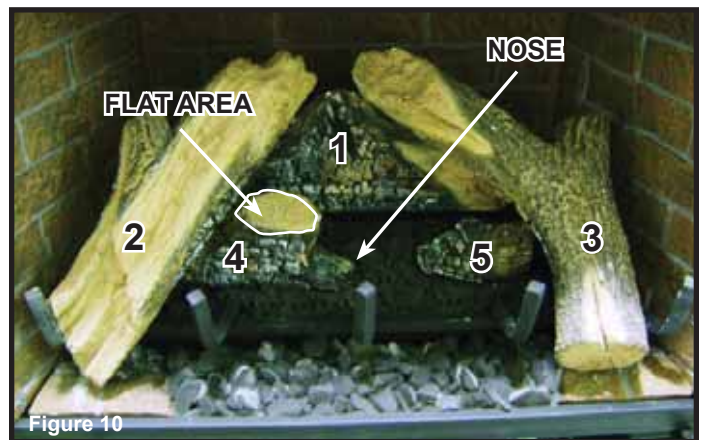
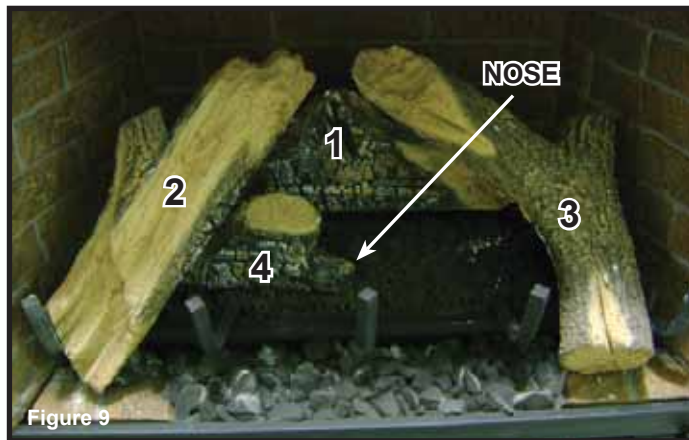
Figure 6

Log #2 (2166-722): Mate the groove located on the bottom of Log #2 with the left protrusion on top of Log #1. After groove and protrusion have been fitted together, mate the groove located on the bottom of Log #2 with the horizontal grate bar and slide Log #2 toward the left until it rests against the far left grate tine. See Figure 7.



Log #3 (2166-723): Mate the groove located on the bottom of Log #3 with the right log placement protrusion on top of Log #1. After groove and protrusion have been fitted together, mate the groove located on the bottom of Log #3 with the horizontal grate bar and slide Log # 3 toward the right until it rests against the far right grate tine. See Figure 8.

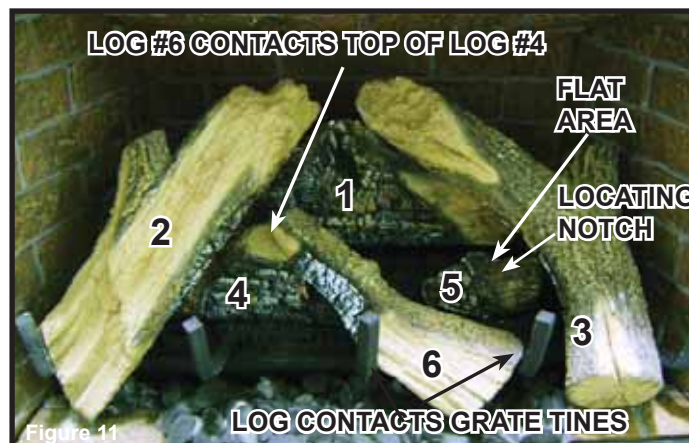
Log #4 (2166-724): Place Log #4 in the left log indentation on the burner top. See Figure 3. Slide Log # 4 from right to left under Log #2 to fit completely and securely into the indentation. See Figure 9. Nose of log #4 should be pulled to fit securely against right hand side of log indentation.



Log #5 (2166-725): Place Log #5 in the right log indentation on the burner top. See Figure 3. Ensure the log fits completely and securely in the recessed indentation. See Figure 10. Log #5 should be pulled to the left hand side of log indentation. Rotate right side of Log #5 toward the back of the indentation.

Log #6 (2166-726): Mate the groove located on the lower end of Log #6 with the fourth grate tine (from left to right) as shown in Figure 11. Set the other end of Log #6 on the flat area located on top of Log #4. See Figure 10. Log #6 will also rest against center grate tine. When properly installed, Log #6 will rest securely on all 3 contact points, not allowing movement or shifting.

Log #7 (2166-727): Place back (unnotched) end of Log #7 on the flat area on the top of Log #5. Log #7 must be pulled tight to the locating notch. Pivot the front (notched) end of Log #7 to the right until the notch of Log #7 contacts the grate tine located 4th from the left as shown in Figure 12.



K. Air Shutter Setting

Air shutter settings should be adjusted by a qualified service technician at the time of installation. The air shutter is set at the factory for minimum vertical vent run. Adjust air shutter for longer vertical runs. See Figure 16.11.

NOTICE: *If sooting occurs, provide more air by opening the air shutter.*

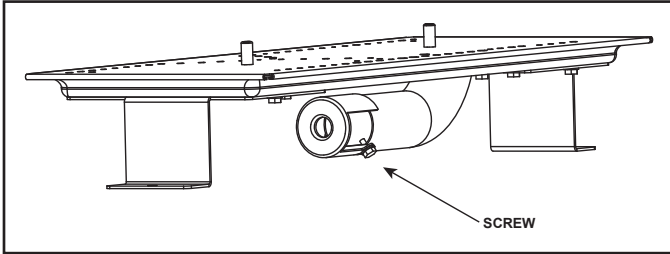


Figure 16.11 Air Shutter

Air Shutter Settings

	NG	LP
HE36CLX-S	3/8 IN.	Full Open

L. Wireless Thermostat

This appliance is operated using the provided wireless thermostat. The wireless thermostat utilizes Honeywell RedLINK™ technology (RedLINK is a trademark of Honeywell International Inc.). Refer to the instructions included with the thermostat for mounting, setup and operation.

It is normal to experience a slight time delay (approximately 5 seconds) between the time a command button is pressed and the command taking effect.

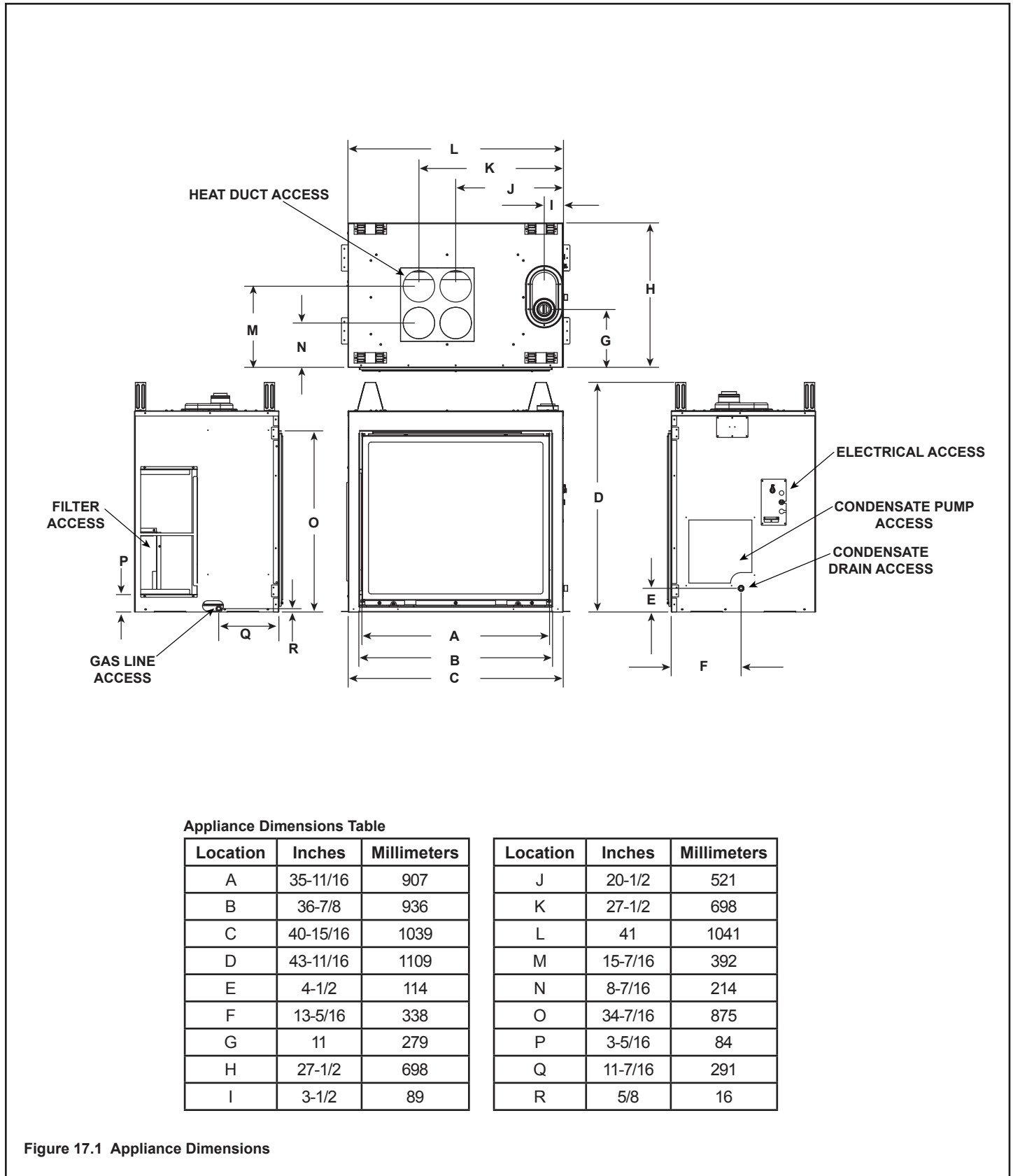
NOTICE: *The wireless thermostat must be located no less than two feet and no more than 80 feet from the Equipment Interface Module.*

To maximize the heating function of the appliance, do not install the thermostat close to the front of the appliance or any heat ducts. Short cycling may occur.

17 Reference Materials

A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 5.



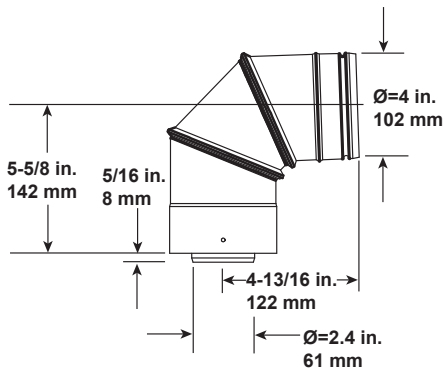
Appliance Dimensions Table

Location	Inches	Millimeters
A	35-11/16	907
B	36-7/8	936
C	40-15/16	1039
D	43-11/16	1109
E	4-1/2	114
F	13-5/16	338
G	11	279
H	27-1/2	698
I	3-1/2	89

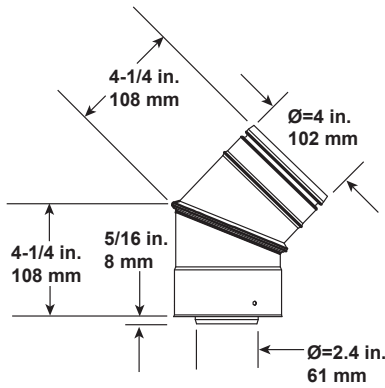
Location	Inches	Millimeters
J	20-1/2	521
K	27-1/2	698
L	41	1041
M	15-7/16	392
N	8-7/16	214
O	34-7/16	875
P	3-5/16	84
Q	11-7/16	291
R	5/8	16

Figure 17.1 Appliance Dimensions

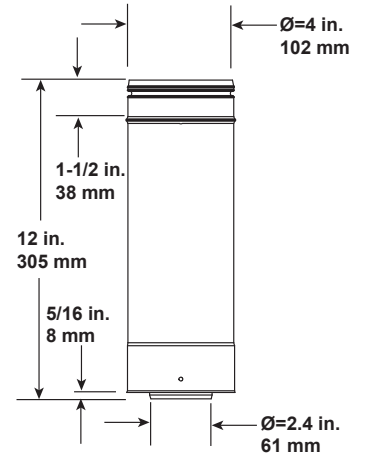
B. Vent Components Diagrams



CVP90
90 Degree Elbow

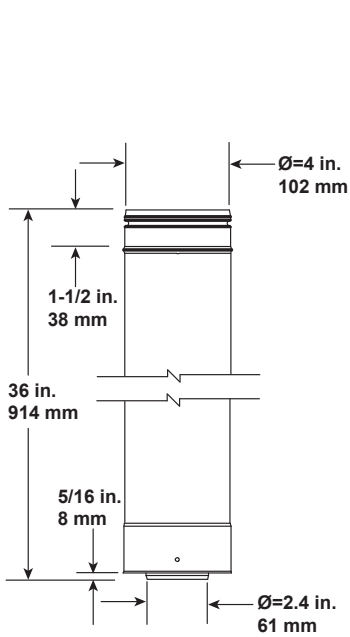


CVP45
45 Degree Elbow

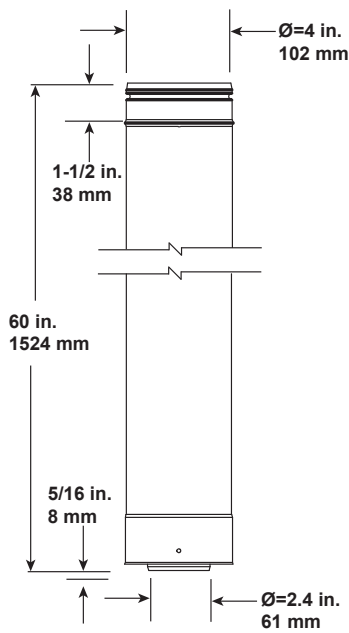


CVP12
12 Inch Pipe

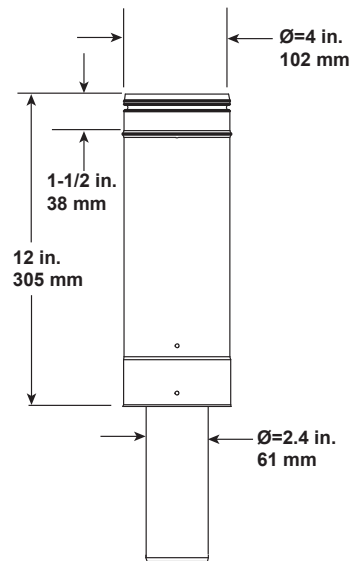
Pipe	Effective Length	
	Inches	Millimeters
CVP60	60	1524
CVP36	36	914
CVP12	12	305
CVP12A	12-18	305-457



CVP36
36 Inch Pipe



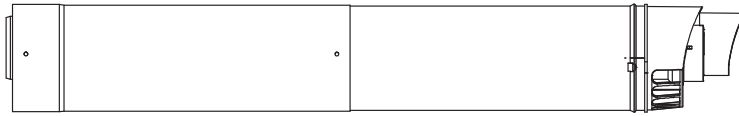
CVP60
60 Inch Pipe



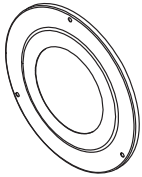
CVP12A
Adjustable Assembly

Figure 17.2 CVP Pipe Components

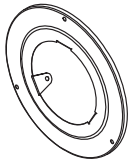
B. Vent Components Diagrams (continued)



CVP-HCK
Horizontal Termination

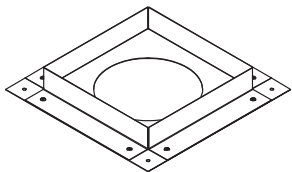


CVP-TRO (EXTERIOR)

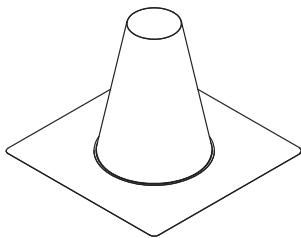


CVP-TRI (INTERIOR)

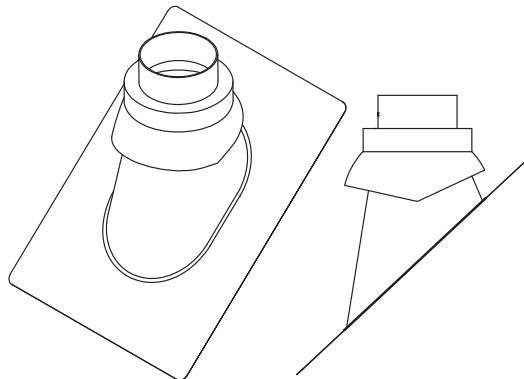
PART NUMBER	DESCRIPTION
CVP-VC	Vertical Termination
CVP-TRO	Trim Ring Outer
CVP-TRI	Trim Ring Inner
CVP-RF12	7-12 Pitch Roof Flashing
CVP-HCK	Horizontal Termination
CVP-FS	Firestop
CVP-FF	Flat Roof Flushing



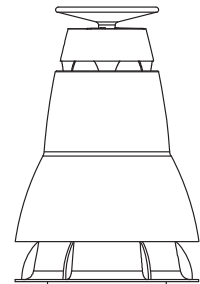
CVP-FS



CVP-FF



CVP-RF12



CVP-VC
Vertical Termination



Figure 17.3 CVP Pipe Components

