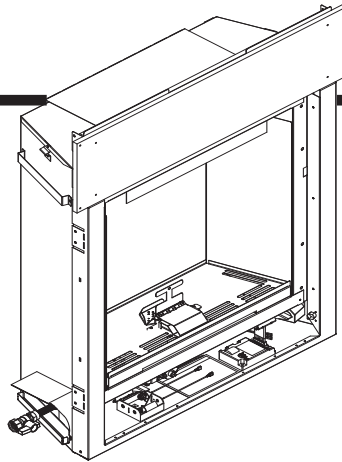


Model: Soho24B



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.

This appliance may be installed as an OEM installation in manufactured home (USA only) or mobile home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, *Title 24 CFR, Part 3280* or *Standard for Installation in Mobile Homes, CAN/CSA Z240MH*, in Canada.

This appliance is only for use with the type(s) of gas indicated on the rating plate.

⚠ WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- **DO NOT** touch glass until it is 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.**
- Keep clothing, furniture, draperies and other flammable materials away.

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

In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter.

See Table of Contents for location of additional Commonwealth of Massachusetts requirements.



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.

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

Congratulations

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

As the owner of a new appliance, 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 appliance will give you years of durable use and trouble-free enjoyment. Welcome to the Heat & Glo family of appliance products!

| | |
|---|--|
| <h3>Homeowner Reference Information</h3> <p>Model Name: _____ Date purchased/installed: _____</p> <p>Serial Number: _____ Location on appliance: _____</p> <p>Dealership purchased from: _____ Dealer Phone: _____</p> <p>Notes: _____</p> <p>_____</p> | <p><i>We recommend that you record the following pertinent information about your appliance.</i></p> |
|---|--|

Listing Label Information/Location


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



No one builds a better fire

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

GAS-FIRED



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

Type of Gas (Sorte De Gaz): 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.)*

NATURAL GAS

ANSI Z21XX-XXXX · CSA 2.XX-MXX · UL307B

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

MADE IN USA

| | | | | |
|------------------|------------|---------------------------|---------------------|------------|
| ALTITUDE: | 0-0000 FT. | IN CANADA 0000-0000FT. | Model: (Modele): | XXXXXXXXXX |
| MAX. INPUT BTUH: | 00,000 | 00,000 | | |
| MIN. INPUT BTUH: | 00,000 | 00,000 | | |
| ORIFICE SIZE: | #XXXXXX | #XXXXXX | Serial (Serie): | XXXXXXXXXX |

Type of Gas →

Gas and Electric Information →

Model Number →

Serial Number →

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→ = Contains updated information.

1 Listing and Code Approvals

A. Appliance Certification

MODELS: Soho24B

LABORATORY: Underwriters Laboratories, Inc. (UL)

TYPE: Direct Vent Gas Appliance Heater

STANDARD: ANSI Z21.88a-2007 • CSA2.33a-2007

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

NOT INTENDED FOR USE AS A PRIMARY HEAT SOURCE.

This appliance is tested and approved as either supplemental room heat or as a decorative appliance. It should not be factored as primary heat in residential heating calculations.

B. Glass Specifications

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

This statement is in compliance with **CPSC 16 CFR Section 1201.5** “Certification and labeling requirements” which refers to **15 U.S. Code (USC) 2063** stating “...Such certificate shall accompany the product or shall otherwise be furnished to any distributor or retailer to whom the product is delivered.”

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

Note: 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.

C. BTU Specifications

| Models <i>U.S. (0-2000 ft.) or Canada (2000-4500 ft.)</i> | | Maximum Input BTU/h | Minimum Input BTU/h | Orifice Size (DMS) |
|--|------------|------------------------|------------------------|--------------------------|
| Soho24 (NG) | US | 14,000 | N/A | 50 |
| | CAN | 12,600 | N/A | 51 |
| Soho24LP | US | 13,000 | N/A | 59 |
| | CAN | 11,700 | N/A | 60 |

D. High Altitude Installations

U.L. Listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and Canada.

When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A., or 10% for elevations between 2000 and 4500 feet in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.

If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.

WARNING

Do NOT use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

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 whether 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) inch 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.

2 Getting Started

A. 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.

CAUTION

Check building codes prior to installation.

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

When planning an appliance installation, it's necessary to determine the following information before installing:

- Where the appliance is to be installed.
- The vent system configuration to be used.
- Gas supply piping.
- Electrical wiring.
- Framing and finishing details.
- Whether optional accessories—devices such as a fan, wall switch, or remote control—are desired.



WARNING

- Keep appliance dry.
- Mold or rust may cause odors.
- Water may damage controls.



B. Tools and Supplies Needed

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

| | |
|--|--|
| Reciprocating saw | Framing material |
| Pliers | Noncorrosive leak check solution |
| Hammer | Gloves |
| Phillips screwdriver | Framing square |
| Flat blade screwdriver | Electric drill and bits (1/4 in.) |
| Plumb line | Safety glasses |
| Level | 1/2 - 3/4 inch length, #6 or #8 Self-drilling screws |
| Manometer | Voltmeter |
| Tape measure | |
| Caulking material (300°F minimum continuous exposure rating) | |

C. Inspect Appliance and Components



WARNING

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
 - Do NOT install incomplete components.
 - Do NOT install substitute components.
- Report damaged parts to dealer.



- Carefully remove the appliance and components from the packaging.
- The vent system components and trim doors are shipped in separate packages.
- The gas logs may be packaged separately and must be field 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

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.

3 Framing and Clearances

Note:

- 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.

A. Selecting Appliance Location

When selecting a location for your appliance it is important to consider the required clearances to walls (see figure 3.1).

⚠ WARNING



Fire Risk

Provide adequate clearance:

- Around air openings
- To combustibles
- For service access

Locate appliance away from traffic areas.

NOTE: For actual appliance dimensions refer to Section 16.

B. Mantel Projections

A Studio front is required for all installs. No mantels are allowed when using Studio fronts.

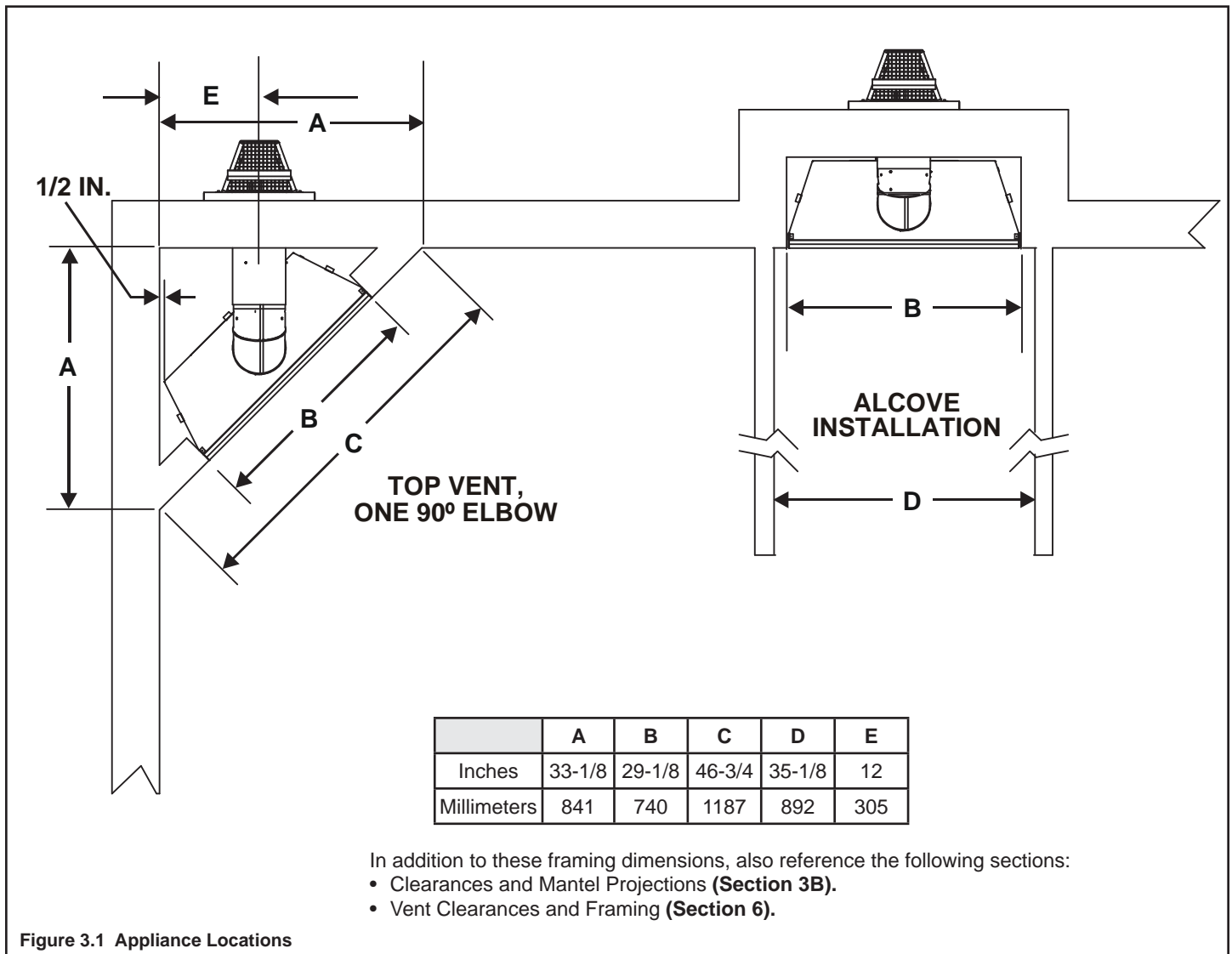


Figure 3.1 Appliance Locations

C. Constructing the Appliance Chase

A chase is a vertical boxlike structure built to enclose the gas appliance and/or its vent system. Vertical vents that run on the outside of a building may be, but are not required to be, installed inside a chase.

Construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Local building codes **MUST** be checked.

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 airtightness.

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.

D. Clearances

⚠ WARNING



Fire Risk.

Odor Risk.

- Install appliance on hard metal or wood surfaces extending full width and depth of appliance.
- Do NOT install appliance directly on carpeting, vinyl, tile or any combustible material other than wood.

⚠ WARNING

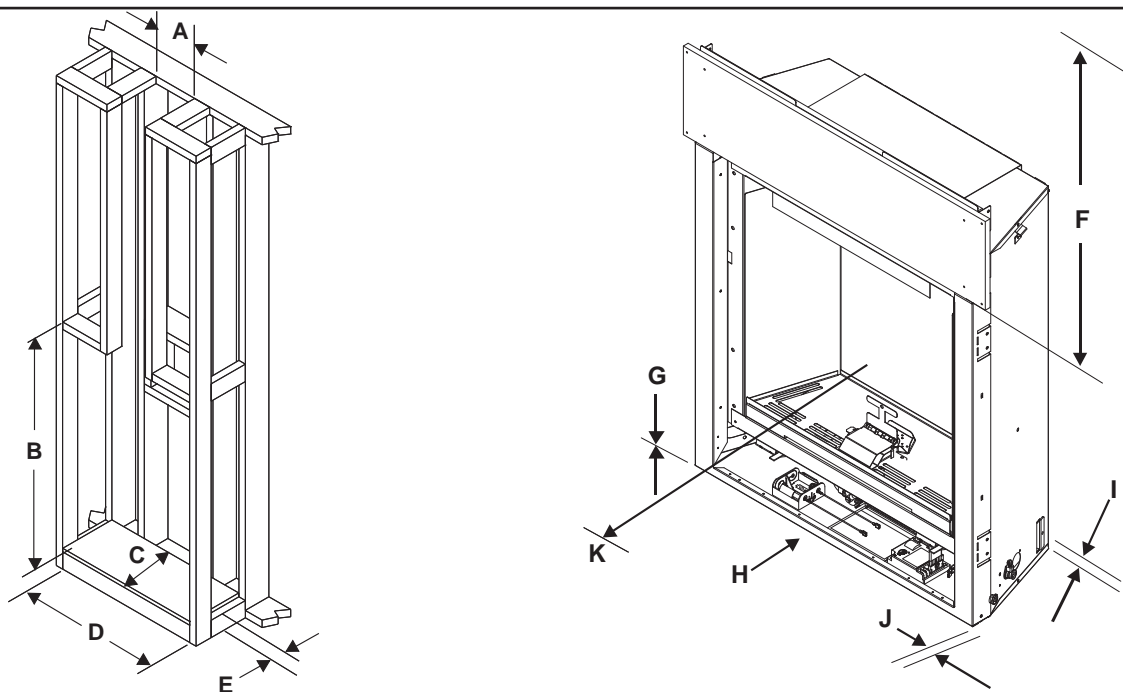


Fire Risk.

- Construct chase to all clearance specifications in manual.
- Locate and install appliance to all clearance specifications in manual.

CAUTION

The Soho24B requires an elevated platform construction to accommodate the Studio fronts, which are larger than the appliance.



CLEARANCES TO COMBUSTIBLES:

| | A | B | C | D | E | F | G | H | I | J | K |
|--------|---------------------------|------------------------|-----------------------|-----------------------|-------------------------|----------------------|-------------------|----------------------|------------------|--------------------|--------------------|
| | Rough Opening (Vent Pipe) | Rough Opening (Height) | Rough Opening (Depth) | Rough Opening (Width) | Minimum Platform Height | Clearance to Ceiling | Combustible Floor | Combustible Flooring | Behind Appliance | Sides of Appliance | Front of Appliance |
| Inches | 8-5/8 | 44 | 11-1/2 | 30-1/8 | 3 | 28 | 0 | 0 | 1/2 | 1/2 | 36 |
| mm | 219 | 1118 | 292 | 765 | 76 | 711 | 0 | 0 | 13 | 13 | 914 |

Figure 3.2 Clearances to Combustibles

4 Termination Locations

A. Vent Termination Minimum Clearances

⚠ WARNING

Fire Risk.
Explosion 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 fire.

Measure vertical clearances from this surface.

Measure horizontal clearances from this surface.

(See Figure 4.4 for specific clearances)

Figure 4.1

| 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 4.2 Minimum height from roof to lowest discharge opening

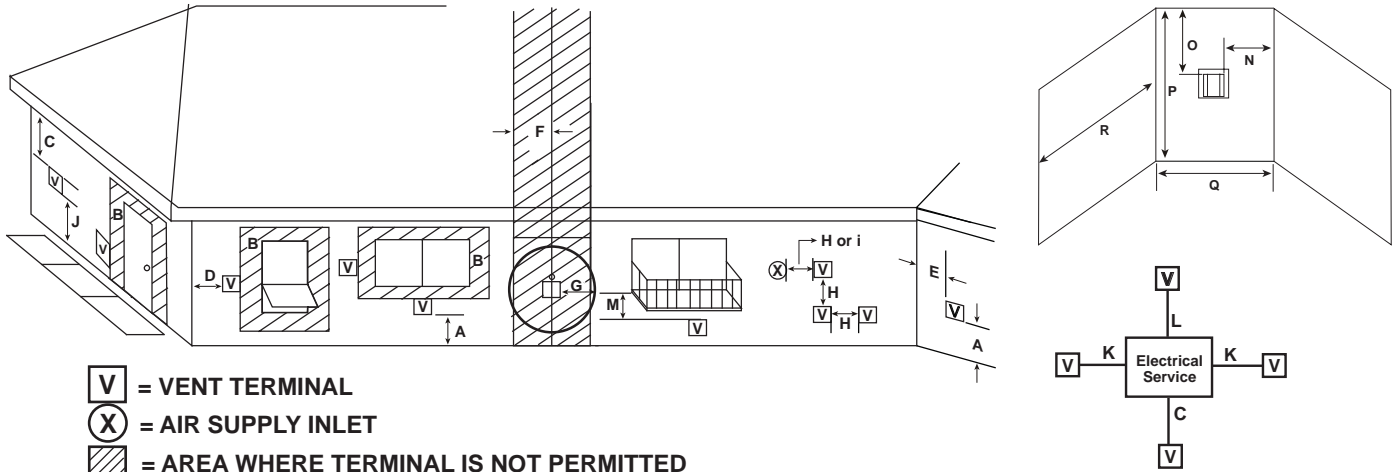
Figure 4.2 specifies minimum vent heights for various pitched roofs.

| 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 4.3 Multiple Vertical Termination



- V** = VENT TERMINAL
- X** = AIR SUPPLY INLET
- ▨** = AREA WHERE TERMINAL IS NOT PERMITTED

- A = 12 inches.....clearances above grade, veranda, porch, deck or balcony
- B = 12 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 = 9 inches (U.S.A)
12 inches (Canada).....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

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.

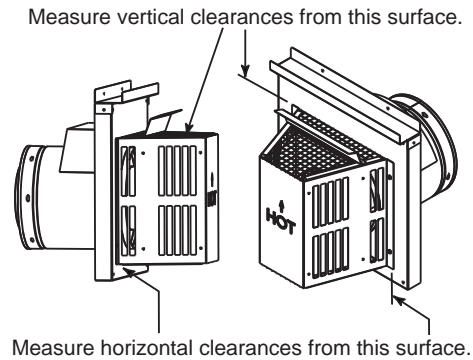
Covered Alcove Applications

(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

5 Vent Information and Diagrams

A. 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 | Second section of horizontal length |

⚠ WARNING



Fire Hazard.

Explosion Risk.

Asphyxiation Risk.

Do NOT connect this gas appliance to a chimney flue serving a separate solid-fuel or gas burning appliance.



- Vent this appliance directly outside.
 - Use separate vent system for this appliance.
- May impair safe operation of this appliance or other appliances connected to the flue.

B. Use of Elbows

CAUTION

ALL vent configuration specifications MUST be followed.

- This product is tested and listed to these specifications.
- Appliance performance will suffer if specifications are not followed.

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 5.1).

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 (216 mm) inches horizontal run and 8-1/2 (216 mm) inches vertical run. A length of straight pipe is allowed between two 45° elbows (see Figure 5.1).

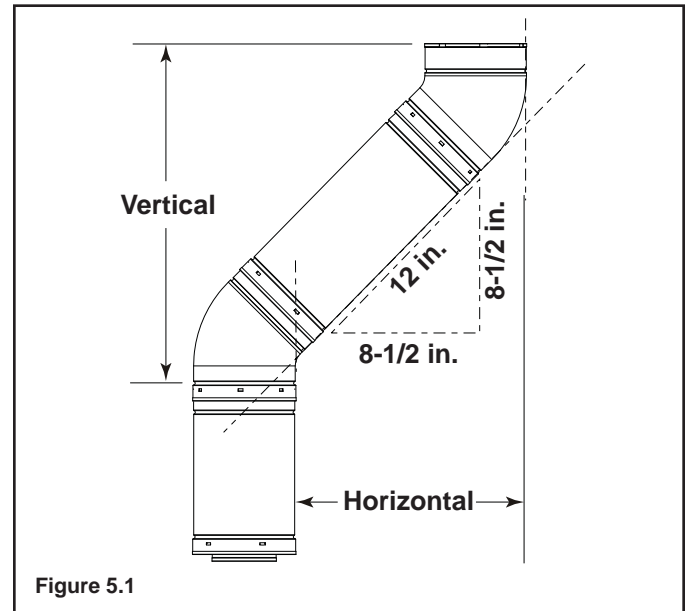


Figure 5.1

C. Measuring Standards

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

1. Pipe measurements are shown using the effective length of pipe (see Figure 5.2).
2. Horizontal terminations are measured to the outside mounting surface (flange of termination cap) (see Figure 4.1).
3. Vertical terminations are measured to bottom of termination cap.
4. Horizontal pipe installed level with no rise.

| | Effective Height/Length | | |
|--|-------------------------|--------|----------|
| | Pipe | inches | mm |
| | SLP4 | 4 | 102 |
| | SLP6 | 6 | 152 |
| | SLP12 | 12 | 305 |
| | SLP24 | 24 | 610 |
| | SLP36 | 36 | 914 |
| | SLP48 | 48 | 1219 |
| | SLP6A | 2 - 6 | 51 - 152 |
| | SLP12A | 2 - 12 | 51 - 305 |

Figure 5.2 SLP Pipe Effective Length

D. Vent Diagrams

⚠ WARNING

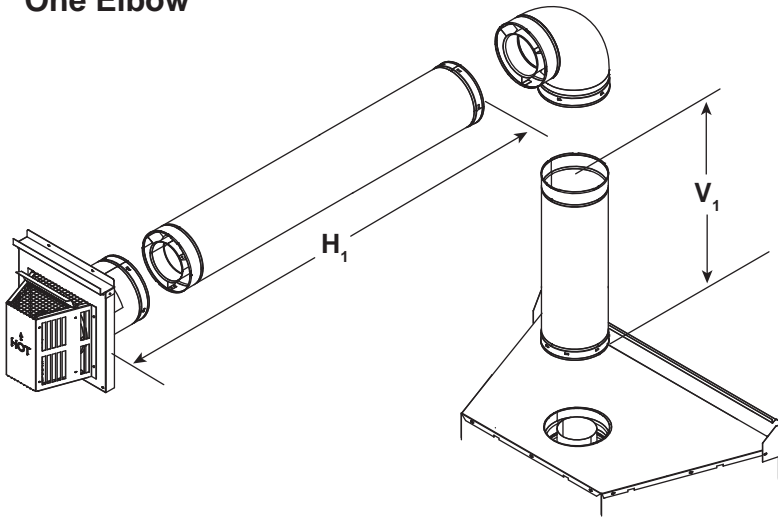


Fire Risk. Explosion Risk.
 Do NOT pack insulation or other combustibles between ceiling firestops.
 • ALWAYS maintain specified clearances around venting and firestop systems.
 • Install wall shield and ceiling firestops as specified.
 Failure to keep insulation or other material away from vent pipe may cause fire.



1. Top Vent - Horizontal Termination

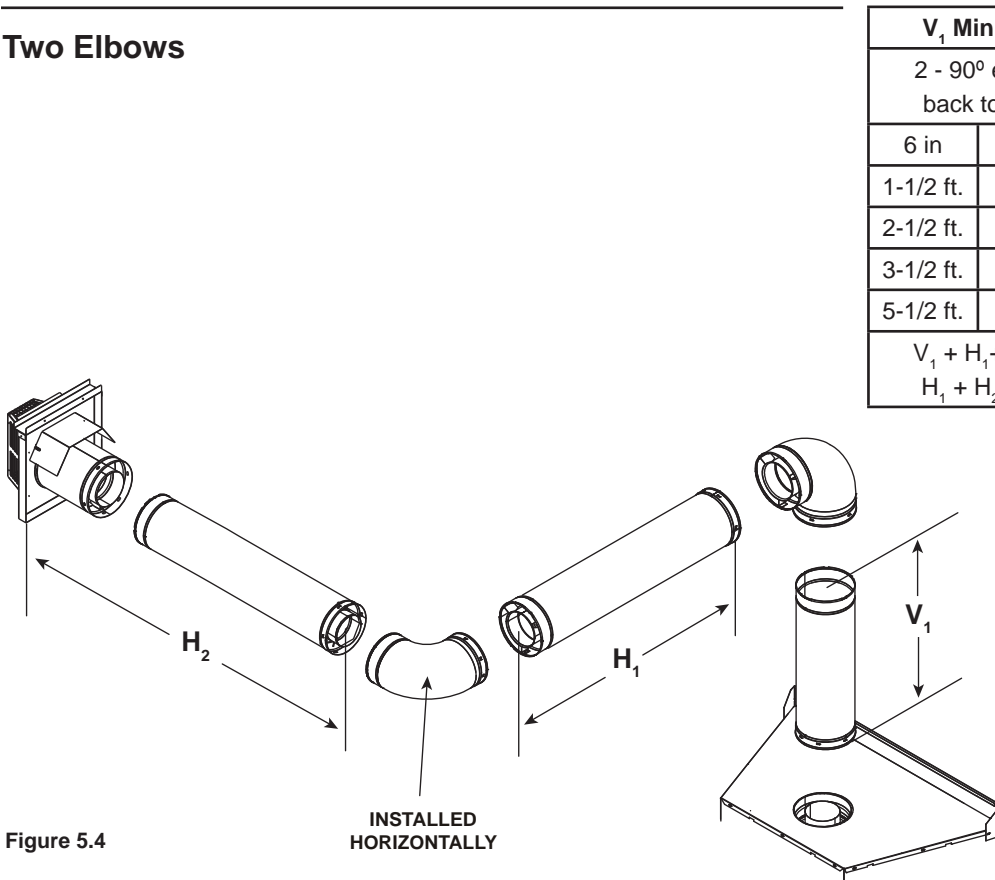
One Elbow



| V ₁ Minimum | | H ₁ Maximum | |
|---|--------|------------------------|--------|
| Elbow only | | 1-1/2 ft. | 457 mm |
| 1 ft. | 305 mm | 2-1/2 ft. | 762 mm |
| 1-1/2 ft. | 457 mm | 3-1/2 ft. | 1.1 m |
| 2-1/2 ft. | 762 mm | 5-1/2 ft. | 1.7 m |
| 3-1/2 ft. | 1.1 m | 7-1/2 ft. | 2.3 m |
| 4-1/2 ft. | 1.4 m | 15-1/2 ft. | 4.7 m |
| V ₁ + H ₁ = 39 ft. (11.9 m) Maximum | | | |
| H ₁ = 15-1/2 ft. (4.7 m) Maximum | | | |

Figure 5.3

Two Elbows



| V ₁ Minimum | | H ₁ + H ₂ Maximum | |
|--|--------|---|--------|
| 2 - 90° elbows back to back | | Cannot do | |
| 6 in | 152 mm | 1 1/2 ft. | 457 mm |
| 1-1/2 ft. | 457 mm | 2-1/2 ft. | 762 mm |
| 2-1/2 ft. | 762 mm | 4-1/2 ft. | 1.4 m |
| 3-1/2 ft. | 1.1 m | 6-1/2 ft. | 1.9 m |
| 5-1/2 ft. | 1.7 m | 15-1/2 ft. | 4.7 m |
| V ₁ + H ₁ + H ₂ = 48 ft. (14.6 m) Maximum | | | |
| H ₁ + H ₂ = 15-1/2 ft. (4.7 m) Maximum | | | |

Figure 5.4

1. Top Vent - Horizontal Termination - (continued)

Three Elbows

| V ₁ Min. | | H ₁ Max. | | V ₂ Min. | H ₂ Max. |
|---------------------|--------|---------------------|--------|---------------------|---------------------|
| Elbow only | | 2 ft. | 610 mm | * | = V ₂ |
| 1 ft. | 304 mm | 2 ft. | 610 mm | * | = V ₂ |
| 1-1/2 ft. | 457 mm | 3 ft. | 914 mm | * | = V ₂ |
| 2-1/2 ft. | 762 mm | 5 ft. | 1.5 m | * | = V ₂ |
| 3-1/2 ft. | 1.1 m | 7 ft. | 2.1 m | * | = V ₂ |
| 4-1/2 ft. | 1.4 m | 15 ft. | 4.6 m | * | = 0 |

*When using V₂, H₂ Max = V₂. If V₂ = 0, then H₂ Max = 1-1/2 ft. (38 mm)
(H₁ + H₂) cannot exceed 15 ft. (4.6 m) when using appropriate V₂.

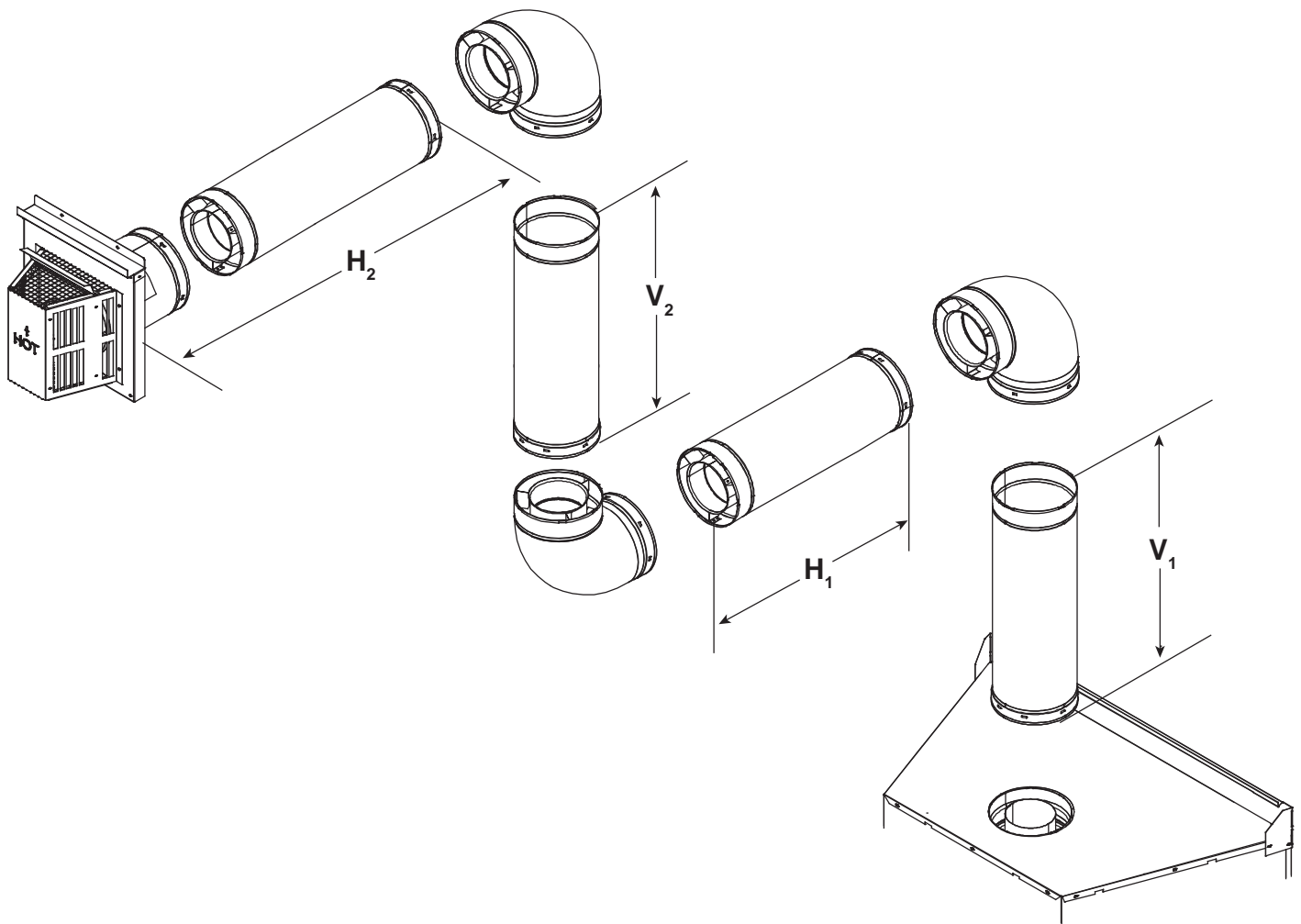
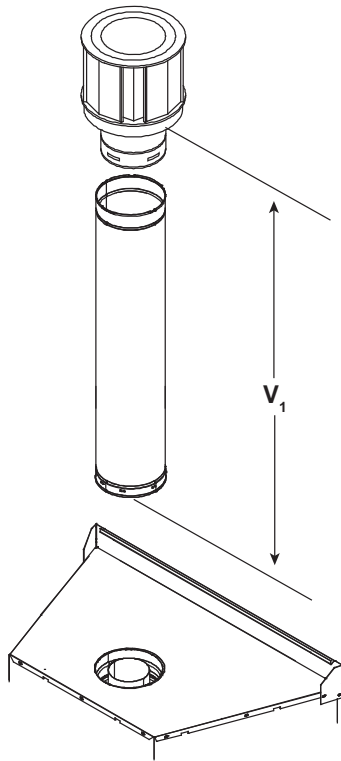


Figure 5.5

2. Top Vent - Vertical Termination

No Elbow

$V_1 = 45 \text{ ft Max. (13.72 m)}$
 $V_1 = 3 \text{ ft Min. (914 mm)}$



Note: The vertical termination baffle should be used for runs of 7 feet or greater. Use the vertical termination baffle for these applications:

- Extended vertical vent runs
- Extended vertical and horizontal vent runs with PVK-80 Power Vent.

The vertical restrictor has a break away portion that creates a larger hole. If venting 7-15 feet, the break away portion **MUST** be removed and the larger hole must be used. If venting over 15 feet, the break away portion should be left in place and the small hole should be used. For PVK-80 Power Vent applications, the break away portion should be left in place and the small hole should be used.

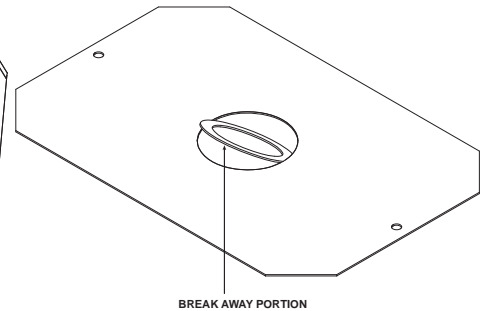
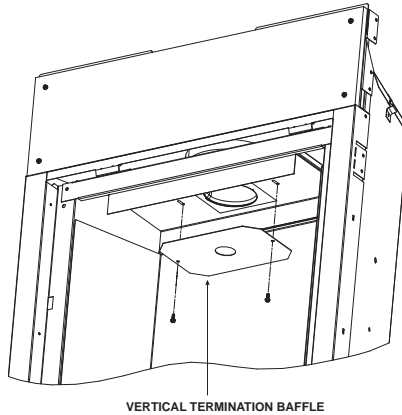
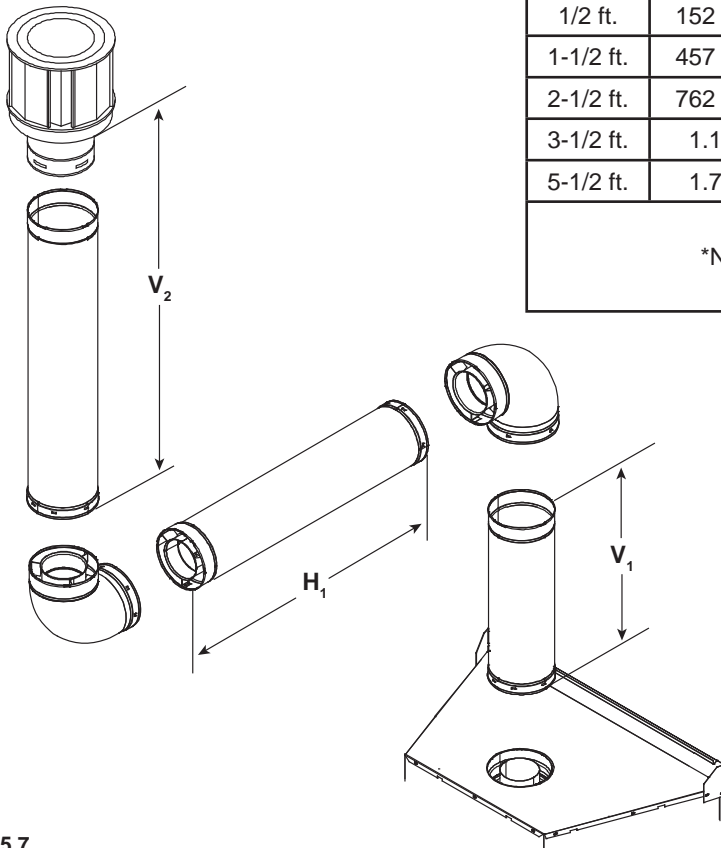


Figure 5.6

Two Elbows



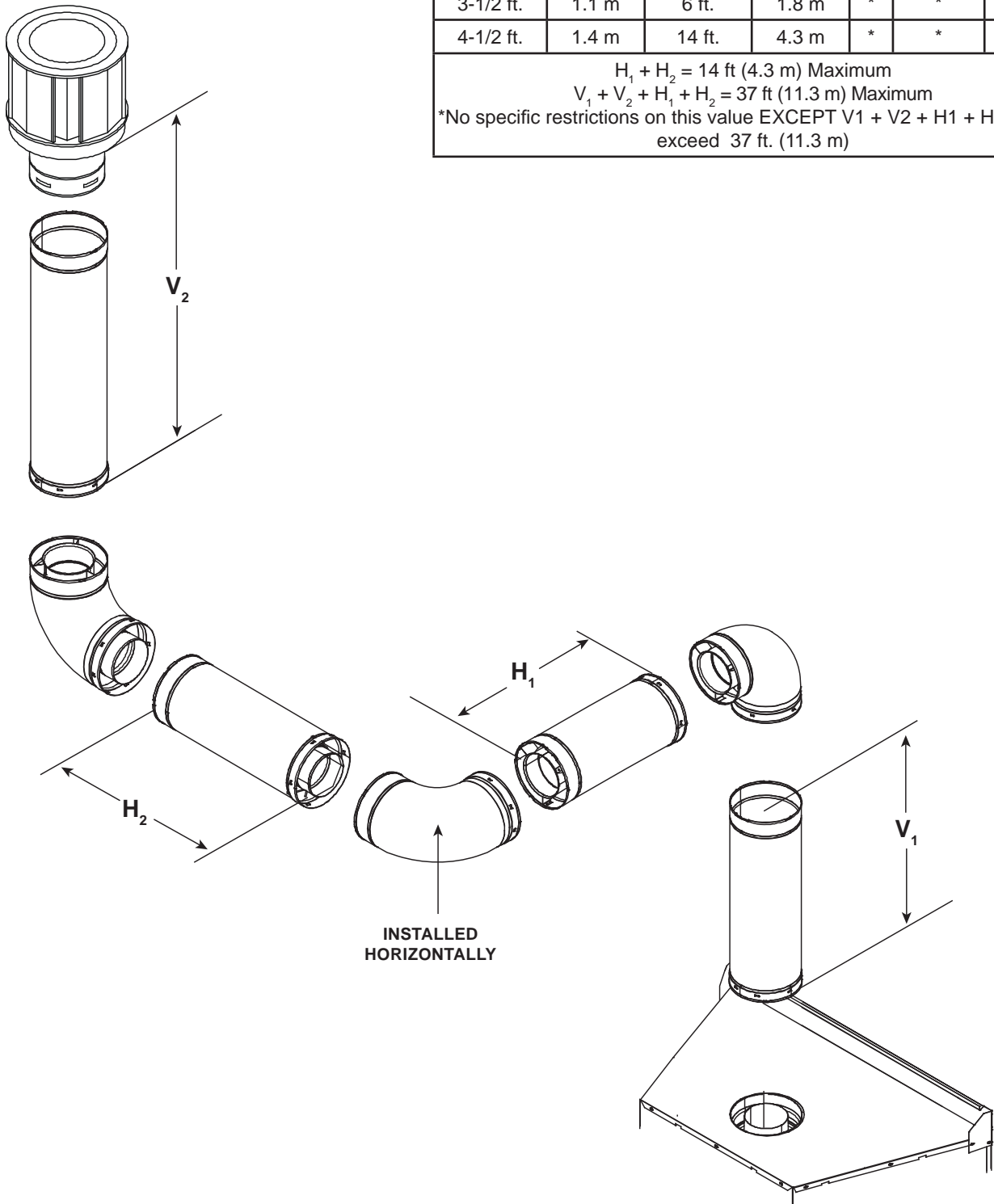
| V_1 Minimum | | H_1 Maximum | | V_2 | $V_1 + V_2$ Minimum | |
|---------------|--------|---------------|--------|-------|---------------------|---|
| One Elbow | | 1-1/2 ft. | 457 mm | * | * | * |
| 1/2 ft. | 152 mm | 2 ft. | 610 mm | * | * | * |
| 1-1/2 ft. | 457 mm | 3 ft. | 914 mm | * | * | * |
| 2-1/2 ft. | 762 mm | 5 ft. | 1.5 m | * | * | * |
| 3-1/2 ft. | 1.1 m | 7 ft. | 2.1 m | * | * | * |
| 5-1/2 ft. | 1.7 m | 15 ft. | 4.6 m | * | * | * |

$V_1 + V_2 + H_1 = 38 \text{ ft. (11.6 m) Max.}$
 *No specific restrictions on this value EXCEPT
 $V_1 + V_2 + H_1$ cannot exceed 38 ft. (11.6 m)

Figure 5.7

2. Top Vent - Vertical Termination - (continued)

Three Elbows



| V ₁ Minimum | | H ₁ + H ₂ Maximum | | V ₂ | V ₁ + V ₂ Minimum | |
|------------------------|--------|---|--------|----------------|---|---|
| Elbow only | | 1/2 ft. | 152 mm | * | * | * |
| 1/2 ft. | 152 mm | 1 ft. | 305 mm | * | * | * |
| 1-1/2 ft. | 457 mm | 2 ft. | 610 mm | * | * | * |
| 2-1/2 ft. | 762 mm | 4 ft. | 1.2 m | * | * | * |
| 3-1/2 ft. | 1.1 m | 6 ft. | 1.8 m | * | * | * |
| 4-1/2 ft. | 1.4 m | 14 ft. | 4.3 m | * | * | * |

$H_1 + H_2 = 14 \text{ ft (4.3 m) Maximum}$
 $V_1 + V_2 + H_1 + H_2 = 37 \text{ ft (11.3 m) Maximum}$
 *No specific restrictions on this value EXCEPT $V_1 + V_2 + H_1 + H_2$ cannot exceed 37 ft. (11.3 m)

Figure 5.8

6 Vent Clearances and Framing

A. Pipe Clearances to Combustibles

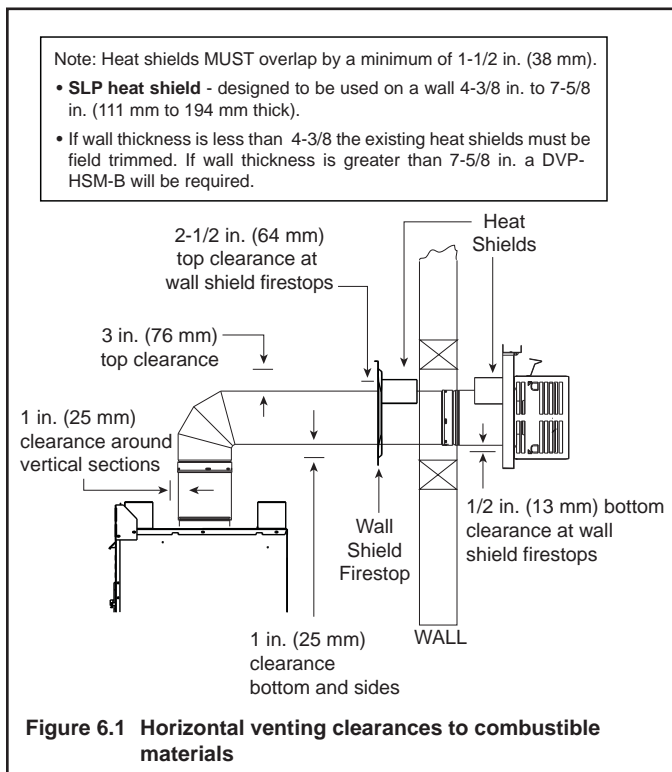
WARNING

Fire Risk.
Explosion 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 fire.



B. Wall Penetration Framing

Combustible Wall Penetration

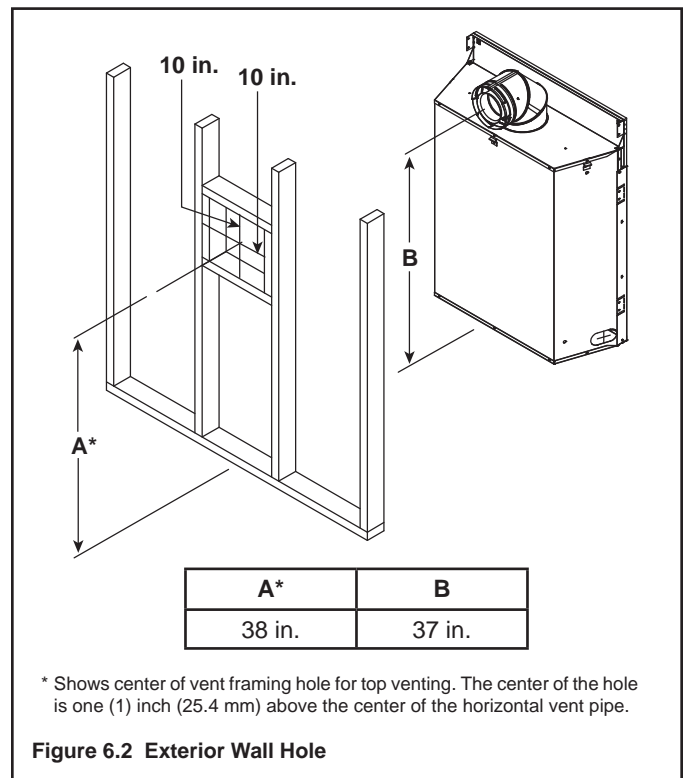
Whenever a combustible wall is penetrated, you must frame a hole for the wall shield firestop. The wall shield firestop maintains minimum clearances and prevents cold air infiltration.

- The opening must be framed on all four sides using the same size framing materials as those used in the wall construction.
- SLP pipe - A wall shield firestop must be placed on each side of an interior wall. A minimum 1-1/2 in. (38 mm) overlap of attached heat shields must be maintained.
- See Section 8.L. for information for regarding the installation of a horizontal termination cap.

Non-Combustible Wall Penetration

If the hole being penetrated is surrounded by noncombustible materials such as concrete, a hole with diameter one in. greater than the pipe is acceptable.

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



C. Vertical Penetration Framing

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

- Frame opening 9 in. x 9 in. (229 mm x 229 mm) whenever the vent penetrates a ceiling/floor (see Figure 6.3).
- Frame the area with the same sized lumber as used in ceiling/floor joist.
- The ceiling firestop may be installed above or below the ceiling joists when installed with an attic insulation shield. It must be under joists between floors that are not insulated. Refer to Figure 6.4.
- Secure with three fasteners on each side.

WARNING! Risk of Fire! DO NOT pack insulation around the vent. Insulation must be kept back from the pipe to prevent overheating.

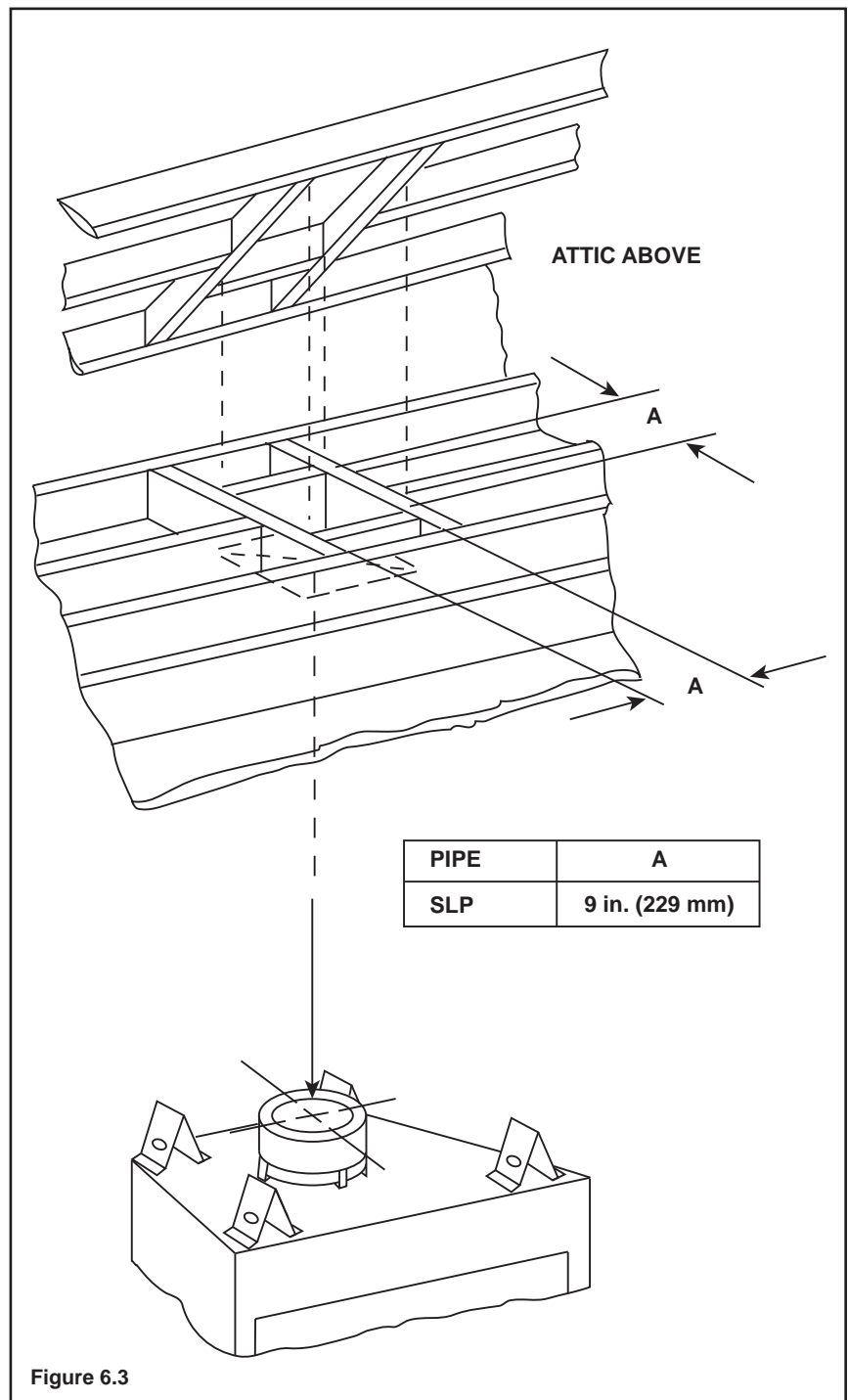


Figure 6.3

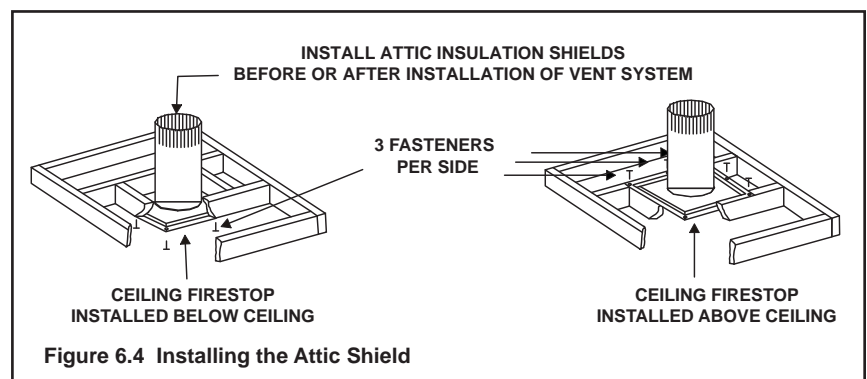


Figure 6.4 Installing the Attic Shield

D. Install Attic Insulation Shield

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

The National Fuel Gas Code ANSI Z223.1 and NFPA 54 requires an attic shield constructed of 26 gauge minimum metal that extends at least 2 in. (51 mm) above insulation.

Attic shields must meet specified clearance and be secured in place.

Flat Ceiling Installation

- Remove one shield from box.

NOTICE: Cut previously installed batt insulation to make room for the attic insulation shield.

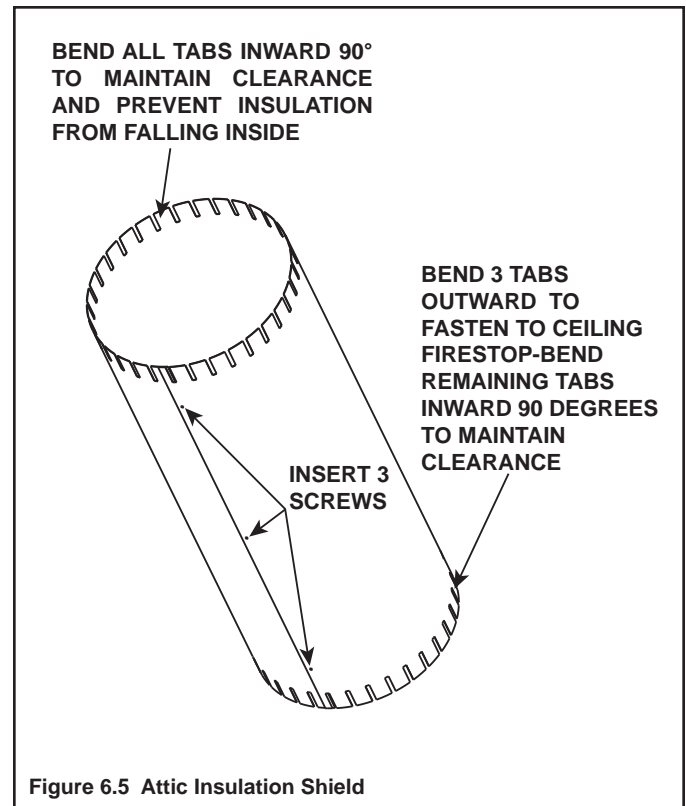
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.

Vaulted Ceiling Installation

- Remove one shield from box.

NOTICE: Cut previously installed batt insulation to make room for the attic insulation shield.

- Cut the attic insulation shield (if application is for vaulted ceiling) to fit your ceiling pitch. Snip cut edge to recreate 1 in. bend tabs all the way around the bottom.
- Wrap shield around pipe if pipe is already installed in area to be insulated.
- Match the three holes in each side and fasten with three screws to form a tube.
- Bend three tabs on the bottom of the shield outward to allow attachment to the ceiling firestop.
- Bend the remaining bottom tabs inward 90° to maintain the air space between the pipe and the shield. Set the shield on the ceiling firestop and attach to the firestop.
- Bend all tabs inward 90° around the top of the shield. These tabs must be used to prevent blown insulation from getting between the shield and vent pipe, and to maintain air space clearance.



7 Appliance Preparation

A. Top Vent

| | |
|---|---|
|  | CAUTION |
| | Sharp Edges • Wear protective gloves and safety glasses during installation.  |



Figure 7.1

An elbow heat shield is attached to the Soho24B. **Do not remove this heat shield.**

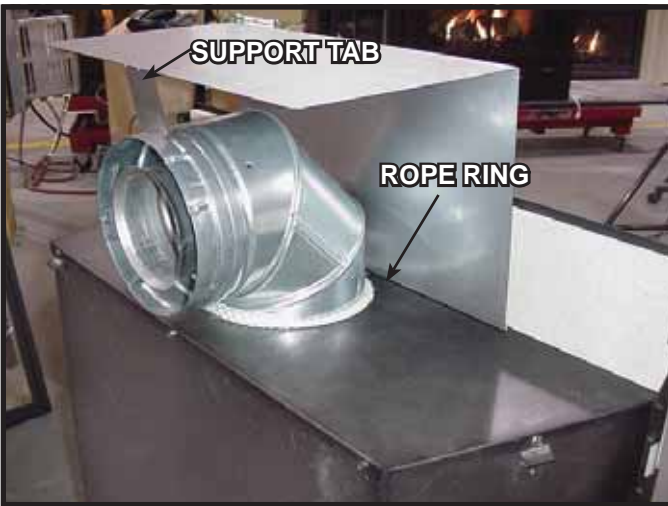


Figure 7.2

If venting with a 90 degree elbow directly off of the top of the unit, the heat shield should be placed as shown. Rotate the heat shield up to the vertical position and fold the tab down to contact the elbow. Make sure the rope ring, found in the manual bag, is in place around the elbow before attaching more pipe.



Figure 7.3

This is a view from the front of the unit when the elbow heat shield is properly in place.



Figure 7.4

If venting vertically or using vertical pipe before the elbow, rotate the elbow heat shield to a vertical position and fold the heat shield in half as shown. Make sure the rope ring, found in the manual bag, is in place around the first section of vent pipe.

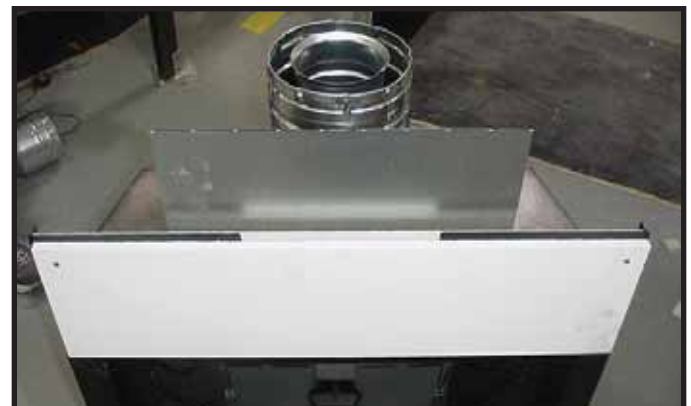


Figure 7.5

This is a view from the front of the unit when not using an 90 degree elbow directly off the top of the unit.

B. Installation of Non-combustible Facing Material

The non-combustible assembly is located on the left side of appliance.

CAUTION

- Handle with care.
- Non-combustible material may be damaged if dropped.

- Remove and save two screws from upper bracket.
- Remove non-combustible pieces.
- Remove and save two screws from lower bracket.
- Discard brackets.
- Replace screws in holes where brackets were attached to appliance.
- Attach non-combustible panel to appliance and framing with supplied screws. See Figures 7.6, 7.7 and 7.8.

⚠ WARNING



- Fire Risk.
- Follow these instructions exactly.
 - Facing materials must be installed properly to prevent fire.
 - No materials may be substituted without authorization by Hearth & Home Technologies.

- Use regular sheetrock screws in non-shaded areas.
- Use a wet or dry towel or soft brush to remove dust or dirt from facing material.
- Apply a non-combustible adhesive to attach tile, stone or other non-combustible finishing materials per manufacturer's instructions.

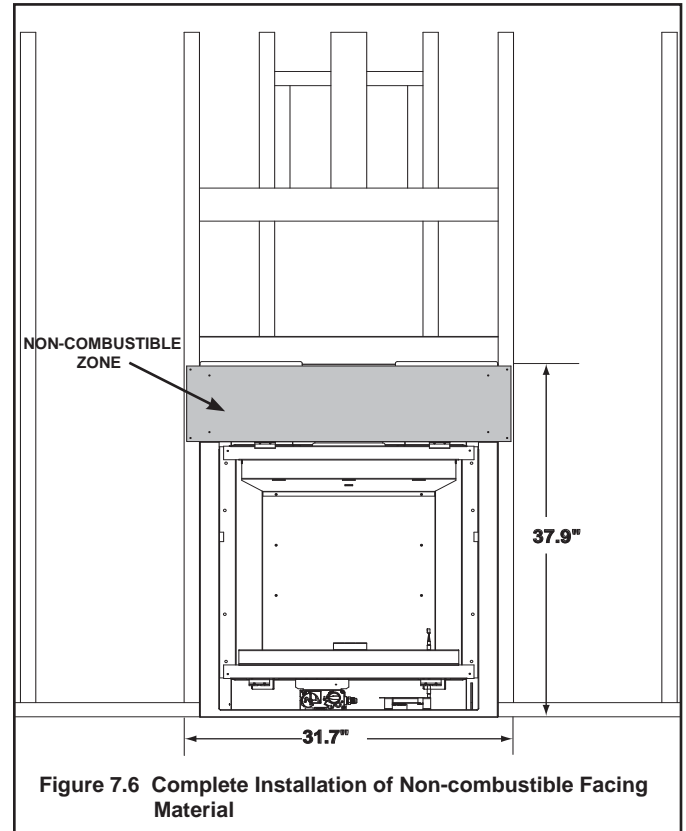


Figure 7.6 Complete Installation of Non-combustible Facing Material

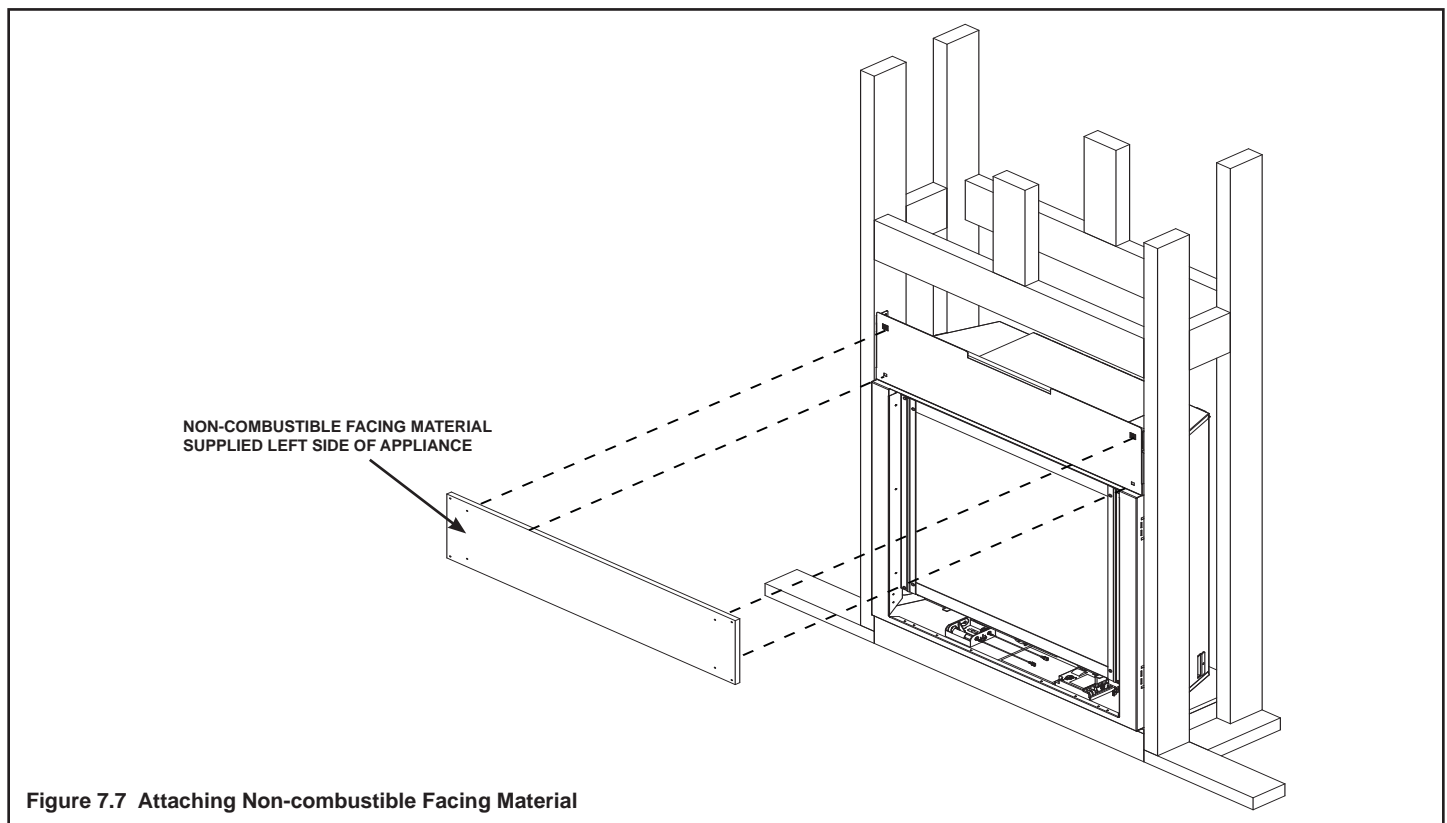


Figure 7.7 Attaching Non-combustible Facing Material

C. Securing and Leveling the Appliance

WARNING



Fire Risk.

- Prevent contact with sagging, loose insulation.
- Do NOT install against combustible materials such as exposed insulation, plastic and insulation backer.

The diagram shows how to properly position, level, and secure the appliance (see Figure 7.8). Nailing tabs are provided to secure the appliance to the framing members.

- Place the appliance into position.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims.
- Bend out nailing tabs on each side.
- Keep nailing tabs flush with the framing.
- Secure the appliance to the framing by using nails or screws through the nailing tabs and two holes in each end of outer non-combustible panel.

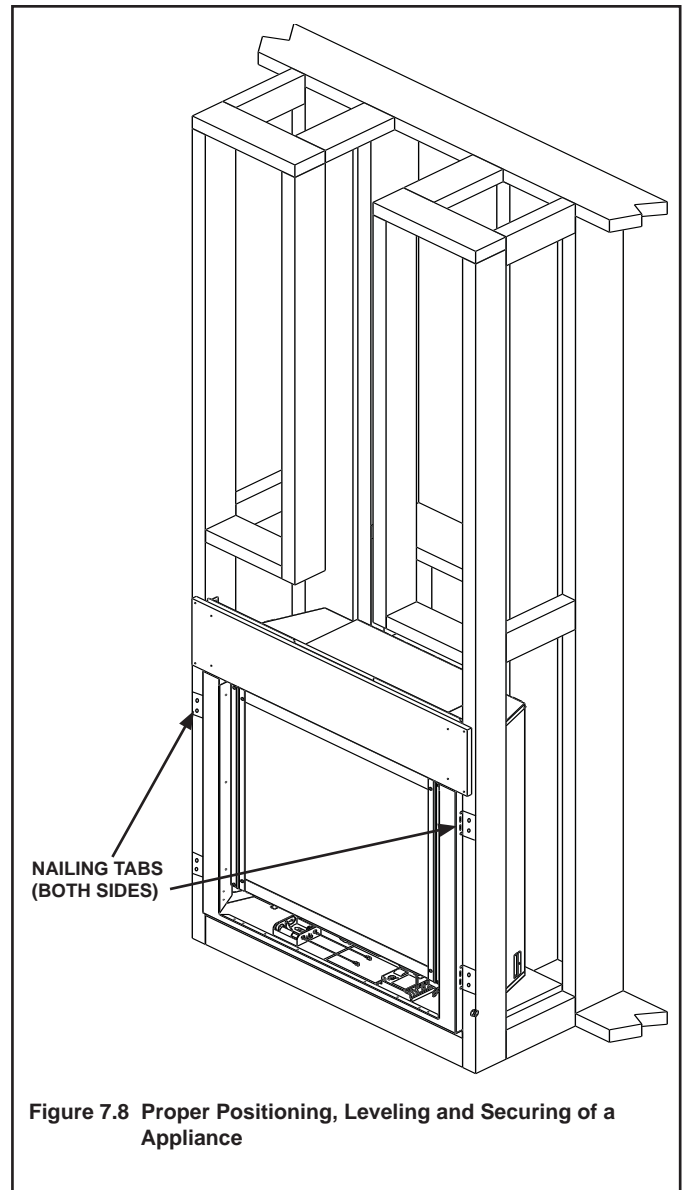


Figure 7.8 Proper Positioning, Leveling and Securing of a Appliance

WARNING

Fire Risk.

- ALWAYS maintain specified clearances around the appliance.
 - Do NOT notch into the framing around the appliance spacers.
- Failure to keep insulation, framing or other material away from the appliance may cause fire.



8 Installing Vent Pipe

A. Assemble Vent Sections

To attach the first vent component to the starting collars of the appliance:

- Lock the vent components into place by sliding the pipe section onto the collar.
- Align the seam of the pipe and seam of collar to allow engagement. Rotate the vent component to lock into place. Use this procedure for all vent components. See Figure 8.1.
- Slide the gasket over the first vent section and place it flush to the appliance. This will prevent cold air infiltration. Caulk with a minimum of 300°F continuous exposure rating may be used to hold the part in place.
- Continue adding vent components, locking each succeeding component into place.
- Ensure that each succeeding vent component is securely fitted and locked into the preceding component.

Commercial, Multi-family (Multi-level exceeding two stories), or High-Rise Applications

For Installation into a commercial, multi-family (multi-level exceeding two stories) or high-rise applications: All outer pipe joints must be sealed with silicone with a minimum of 300°F continuous exposure rating, including the slip section that connects directly to the horizontal termination cap.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections. See Figure 8.2
- Only outer pipes need to be sealed. All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed in this manner, unless otherwise stated.

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.

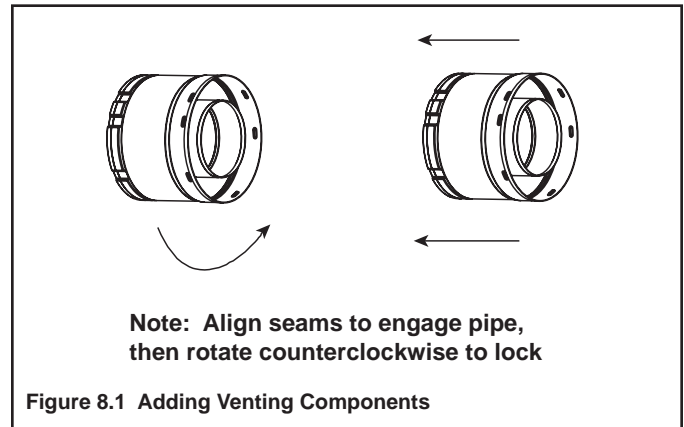


Figure 8.2 High Temperature Silicone Sealant

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 8.3.
- Slide together to the desired length.

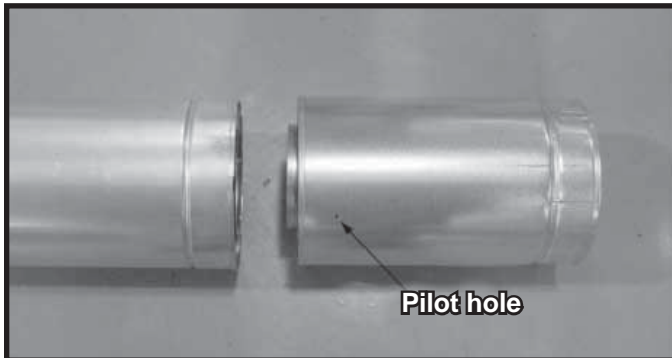


Figure 8.3 Slip Section Pilot Holes

- Maintain a 1-1/2 in. (38 mm) overlap between the slip section and the pipe section.
- Secure the pipe and slip section with two screws no longer than 1/2 in. (13 mm), using the pilot holes in the slip section. See Figure 8.4.

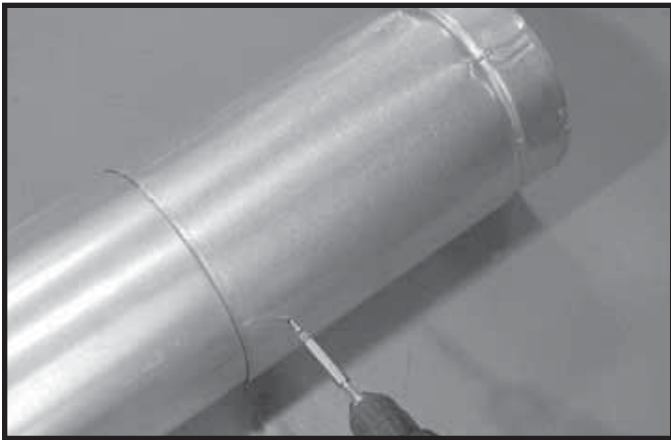


Figure 8.4 Screws into Slip Section

- 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.

NOTICE: When installing a vent system with an HRC termination cap, all pipe system joints shall be sealed using a high temperature silicone sealant.

- Apply a bead of silicone sealant inside the female outer pipe joint prior to joining sections.
- Only outer pipes are sealed, sealing the inner flue is not required.
- All unit collar, pipe, slip section, elbow and cap outer flues shall be sealed.

C. Secure the Vent Sections

- Vertical runs of SLP pipe must be supported every 8 ft. (2.44 m).
- Horizontal sections must be supported every 5 feet (1.52 m).
- Vent supports or plumbers strap (spaced 120° apart) may be used to support. See Figures 8.5 and 8.6.
- Wall shield firestops may be used to provide horizontal support.
- SLP ceiling firestops have tabs that may be used to provide vertical support.

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.

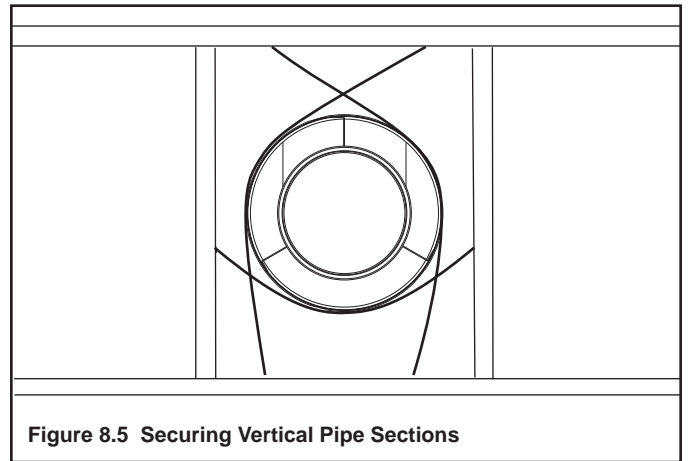


Figure 8.5 Securing Vertical Pipe Sections

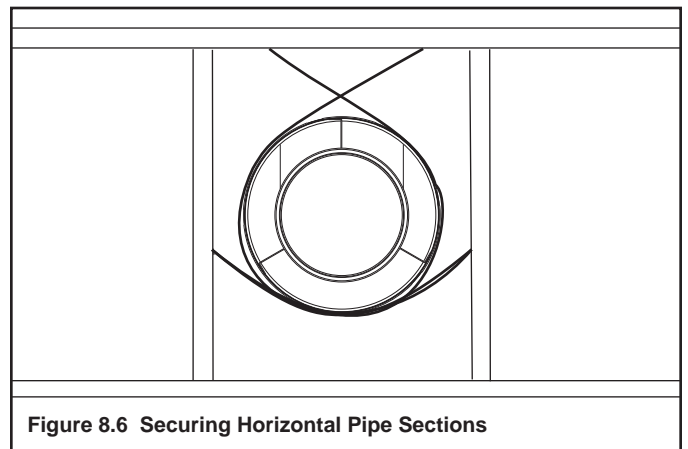


Figure 8.6 Securing Horizontal Pipe Sections

D. Disassemble Vent Sections

- Rotate either section (see Figure 8.7) so the seams on both pipe sections are aligned as shown in Figure 8.8.
- Pull carefully to separate the pieces of pipe.

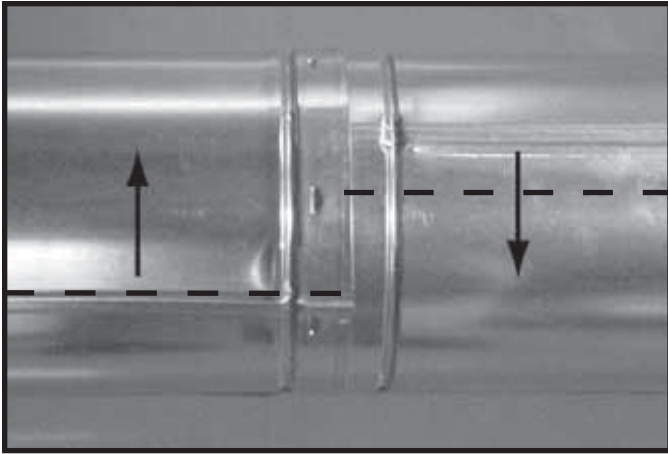


Figure 8.7 Rotate Seams for Disassembly

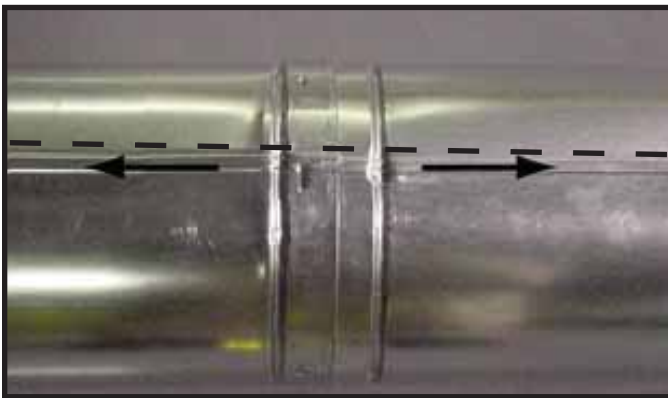


Figure 8.8 Align and Disassemble Vent Sections

E. Install Decorative Ceiling Components

A decorative ceiling thimble can be installed on a flat ceiling through which the vent passes. The decorative ceiling thimble is used to cover the firestop.

- Seal the gap between the vent pipe and firestop using silicone with a minimum of 300°F continuous exposure rating to prevent cold air infiltration.
- Install the decorative ceiling thimble by sliding it up to the ceiling and attaching it using the provided screws.

A decorative cathedral ceiling support box can be installed on a cathedral ceiling through which the vent passes.

- Use a plumb-bob to mark the center line of the venting system on the ceiling and drill a small hole through the ceiling and roof at this point. Locate the hole and mark the outline of the cathedral ceiling support box on the outside roof.
- Remove shingles or other roof covering as necessary to

cut the rectangular hole for the support box. Cut the hole 1/8 in. (3 mm) larger than the support box outline.

- Lower the support box through the hole in the roof until its bottom is at least 2 in. (51 mm) below the ceiling (Figure 8.9).
- Level the support box both vertically and horizontally and temporarily tack it in place through the inside walls into the roof sheathing.
- Use tin snips to cut the support box from the top corners down to the roof line and fold the resulting flaps to the roof. See Figure 8.10.
- Nail the flaps to the roof AFTER running a bead of non hardening sealant between the flaps and the roof.

WARNING! Risk of Fire! Clean out ALL materials from inside the support box and complete the vertical vent run and termination.

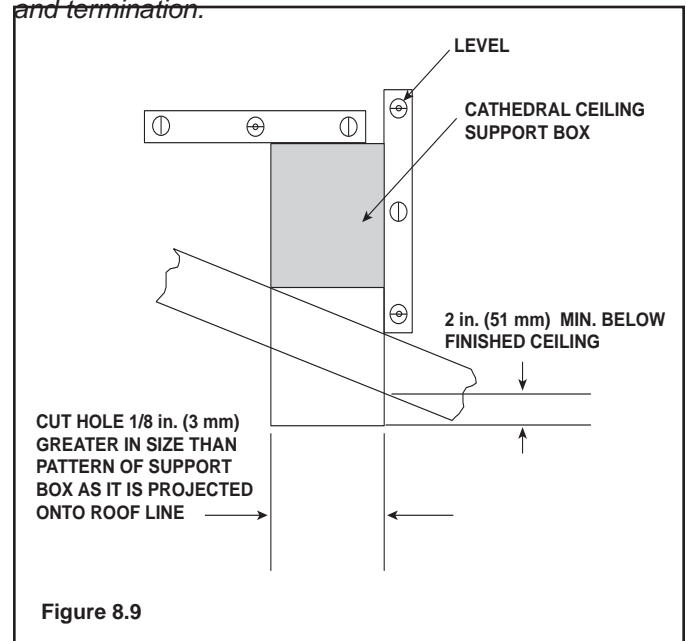


Figure 8.9

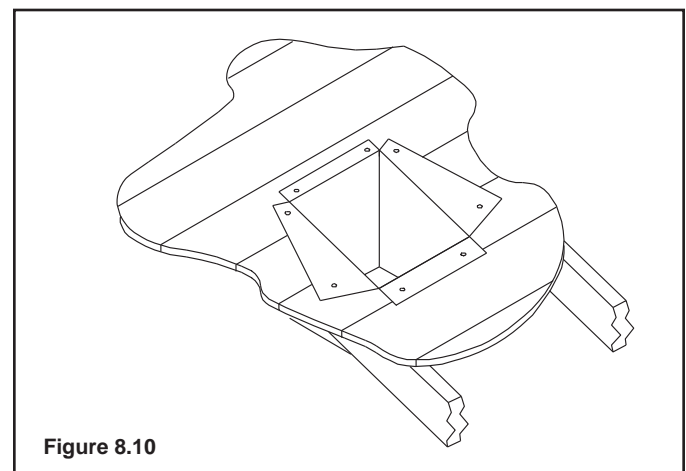
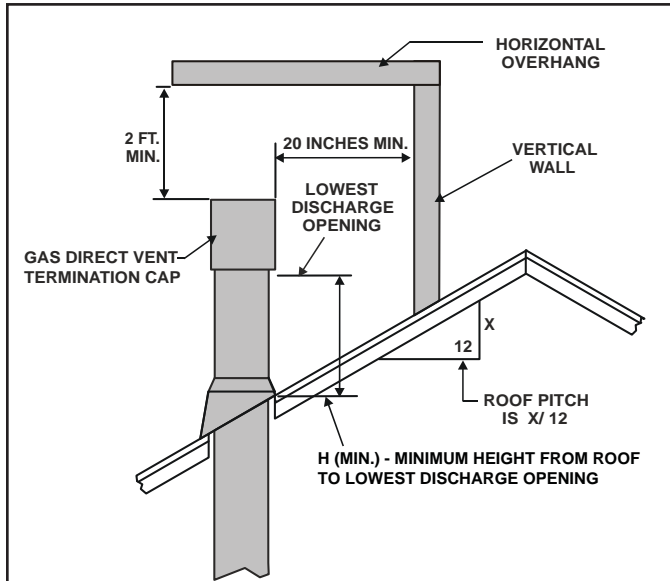


Figure 8.10

F. Install Metal Roof Flashing

- See minimum vent heights for various pitched roofs (Figure 8.11) to determine the length of pipe to extend through the roof.
- Slide the roof flashing over the pipe sections extending through the roof as shown in Figure 8.12.



| 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 8.11 Minimum Height From Roof To Lowest Discharge Opening

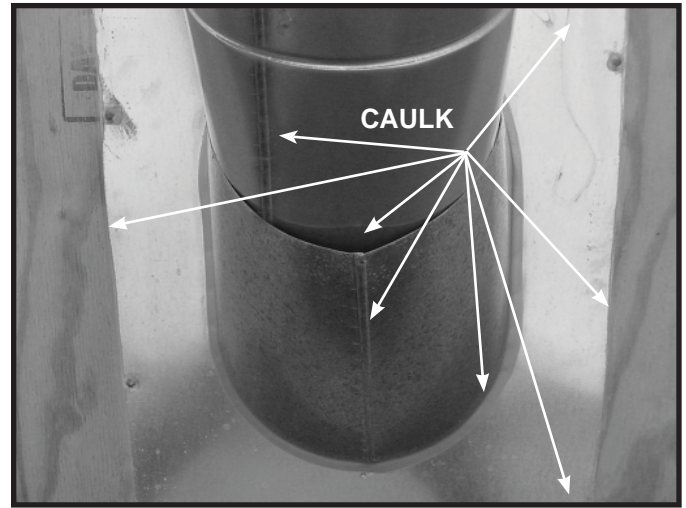


Figure 8.12

G. Assemble and Install Storm Collar

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

- Connect both halves of the storm collar with two screws (see Figure 8.13).
- Wrap the storm collar around the exposed pipe section closest to the roof and align brackets. Insert a bolt (provided) through the brackets and tighten the nut to complete the storm collar assembly. Make sure the collar is tight against the pipe section.
- Slide the assembled storm collar down the pipe section until it rests on the roof flashing (see Figure 8.14).
- Caulk around the top of the storm collar (see Figure 8.15).

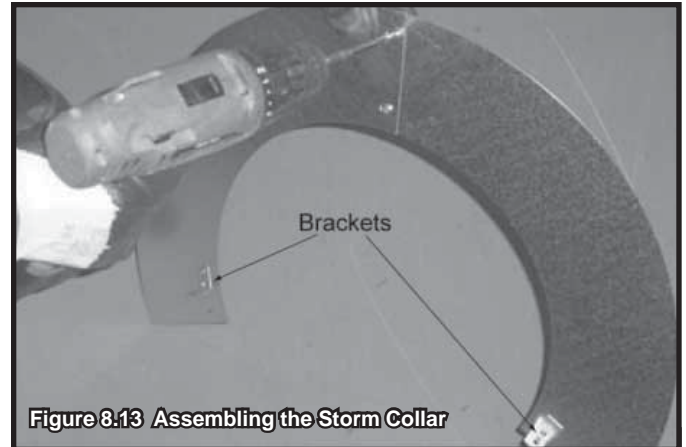


Figure 8.13 Assembling the Storm Collar



Figure 8.14 Assembling the Storm Collar Around the Pipe

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.
- Caulk the perimeter of the flashing where it contacts the roof surface. See Figure 8.12.
- Caulk the overlap seam of any exposed pipe sections that are located above the roof line.

H. Install Vertical Termination Cap

- Attach the vertical termination cap by sliding the inner collar of the cap into the inner flue of the pipe section while placing the outer collar of the cap over the outer flue of the pipe section.
- Secure the cap by driving three self-tapping screws (supplied) through the pilot holes in the outer collar of the cap into the outer flue of the pipe (see Figure 8.15).



Figure 8.15

I. Install Decorative Wall Components

A decorative wall thimble can be installed on wall through which the vent passes. The decorative wall thimble is used to cover the firestop.

- Slide the decorative wall thimble over the last section of horizontal pipe before connecting the termination cap to the pipe.
- Once the pipe section and the termination cap have been connected, slide the wall thimble up to the interior wall surface and attach with screws provided. See Figure 8.16.

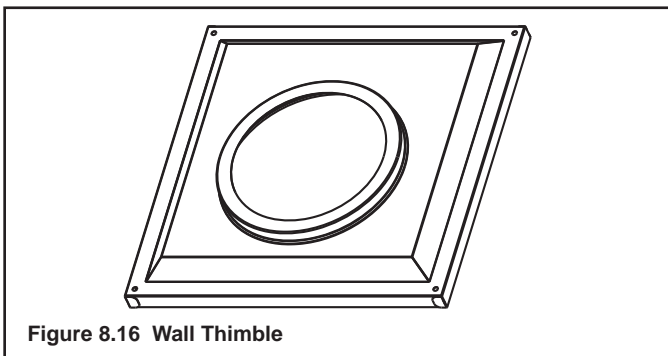


Figure 8.16 Wall Thimble

J. Heat Shield Requirements for Horizontal Termination

WARNING! Risk of Fire! To prevent overheating and fire, heat shields must extend through the entire wall thickness.

- **DO NOT** remove the heat shields attached to the wall shield firestop and the horizontal termination cap (shown in Figure 8.17).
- Heat shields must overlap 1-1/2 in. (38 mm) minimum.

There are two sections of the heat shield. One section is factory-attached to the wall shield firestop. The other section is factory-attached to the cap. See Figure 8.17.

If the wall thickness does not allow the required 1-1/2 in. (38 mm) heat shield overlap when installed, an extended heat shield must be used.

- If the wall thickness is less than 4-3/8 in. (111 mm), the heat shields on the cap and wall shield firestop must be trimmed. A minimum 1-1/2 in. (38 mm) overlap **MUST** be maintained.
- Use an extended heat shield if the finished wall thickness is greater than 7-1/4 in. (184 mm).
- The extended heat shield may need to be cut to length maintaining sufficient length for a 1-1/2 in. (38 mm) overlap between heat shields.
- Attach the extended heat shield to either of the existing heat shields using the screws supplied with the extended heat shield. Refer to vent components diagrams in the back of this manual.
- Rest the small leg on the extended heat shield on top of the pipe section to properly space it from the pipe section.

Important Notice: Heat shields may not be field constructed.

K. Install Horizontal Termination Cap

WARNING! Risk of Fire! The telescoping flue section of the termination cap **MUST** be used when connecting vent.

- 1-1/2 (38 mm) minimum overlap of flue telescoping section is required.

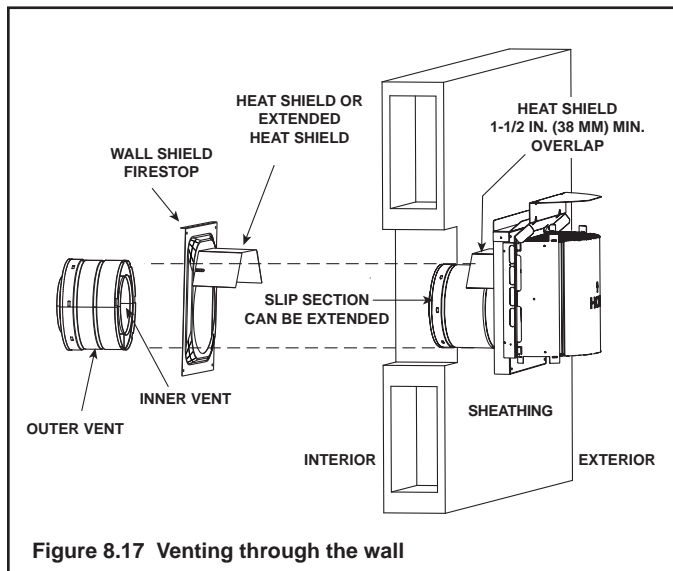
Failure to maintain overlap may cause overheating and fire.

- 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.

NOTICE: For certain exposures which require superior resistance to wind-driven rain penetration, a flashing kit and HRC caps are available. When penetrating a brick wall, a brick extension kit is available for framing the brick.

Note: When using termination caps with factory-supplied heat shield attached, no additional wall shield firestop is required on the exterior side of a combustible wall.



9 Gas Information

A. Fuel Conversions


Before making gas connections ensure that appliance being installed is compatible with the available gas type.

Any natural or propane gas conversions necessary to meet the appliance and locality needs must be made by a qualified technician using Hearth & Home Technologies specified and approved parts.

B. Gas Pressures

Proper input pressures are required for optimum appliance performance. Gas line sizing requirements need to be made following NFPA54.


⚠ 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.

⚠ WARNING



Verify inlet pressures.

- High pressure may cause overfire condition.
- Low pressure may cause explosion.
- Verify minimum pressures when other household gas appliances are operating.

Install regulator upstream of valve if line pressure is greater than 1/2 psig.

Pressure requirements for appliance are shown in the table below. Minimum pressures must be met when other household gas appliances are operating.

| Pressure | Natural Gas | Propane |
|----------------------------|---------------------|---------------------|
| Minimum inlet pressure | 5.0 inches w.c. | 11.0 inches w.c. |
| Maximum inlet gas pressure | 14.0 inches w.c. | 14.0 inches w.c. |
| Manifold pressure | 3.5 inches w.c. | 10.0 inches w.c. |

C. Gas Connection

Note: Have the gas supply line installed in accordance with local building 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 inch (13 mm) T-handle manual shut-off valve and flexible gas connector are connected to the 1/2 inch (13 mm) control valve inlet.

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

Refer to **Reference Section 16** for location of gas line access in appliance.

Note: Gas line may be run from either side of the appliance provided the hole in the outer wrap does **NOT** exceed 2-1/2 inches in diameter and does not penetrate the firebox.

⚠ WARNING





Gas Leak Risk



- Support control when attaching pipe to prevent bending gas line.


NOTE: The gap between supply piping and gas access hole may be caulked with high temperature caulk 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 appliance. Follow local codes.
- Incoming gas line should be piped into the valve compartment and connected to the 1/2 inch connection on the manual shutoff valve.

| | |
|---|--|
| ⚠ WARNING | |
|  | <p>Fire or Explosion Hazard</p> <ul style="list-style-type: none"> • Gas buildup during line purge may ignite. • Purge should be performed by qualified technician. • Ensure adequate ventilation. • Ensure there are no ignition sources such as sparks or open flames. |
|  | |

- A small amount of air will be in the gas supply lines. When first lighting 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 | |
|  | <p>CHECK FOR GAS LEAKS</p> <p>Explosion Risk Fire Risk Asphyxiation Risk</p> <ul style="list-style-type: none"> • Check all fittings and connections. • Do not use open flame. • After the gas line installation is complete, all connections must be tightened and checked for leaks with a commercially-available, non-corrosive leak check solution. Be sure to rinse off all leak check solution following testing. |
|  | <p>Fittings and connections may have loosened during shipping and handling.</p> |

| | |
|---|--|
| ⚠ WARNING | |
|  | <p>Fire hazard.</p> <p>Do NOT change the valve settings.</p> <ul style="list-style-type: none"> • This valve has been preset at the factory. • Changing valve settings may result in fire hazard or bodily injury. |

| |
|--|
| <p>HIGH ALTITUDE INSTALLATIONS</p> <p>U.L. Listed gas appliances are tested and approved without requiring changes for elevations from 0 to 2000 feet in the U.S.A. and Canada.</p> <p>When installing this appliance at an elevation above 2000 feet, it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input rate should be reduced by 4% for each 1000 feet above a 2000 foot elevation in the U.S.A., or 10% for elevations between 2000 and 4500 feet in Canada. If the heating value of the gas has been reduced, these rules do not apply. To identify the proper orifice size, check with the local gas utility.</p> <p>If installing this appliance at an elevation above 4500 feet (in Canada), check with local authorities.</p> |
|--|

10 Electrical Information



A. Recommendation for Wire

This appliance requires 110-120 VAC be wired to the junction box either for proper operation of the appliance.

NOTE: This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/NFPA 70-latest edition** or the **Canadian Electric Code, CSA C221.1**.

- 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.

B. Connecting to the Appliance

| | |
|---|--|
|  | ⚠ WARNING |
|  | <p>Wire 110V to electrical junction box. Do NOT wire 110V to valve. Do NOT wire 110V to wall switch.</p> <ul style="list-style-type: none">• Incorrect wiring will damage millivolt valves.• Incorrect wiring will override IPI safety lockout and may cause explosion. |

- If using thermostat use one compatible with a millivolt gas valve system.
- Follow parameters for locating thermostat (see individual thermostat instructions) to ensure proper operation of appliance.
- Use low resistance thermostat wire for wiring from ignition system to the wall switch and thermostat.
- Keep wire lengths as short as possible by removing any excess wire length.
- Low voltage and 110 VAC voltage cannot be shared within the same wall box.

Note: This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with **National Electric Code ANSI/NFPA 70-latest edition** or the **Canadian Electric Code, CSA C221.1**.


C. IntelliFire Ignition System Wiring

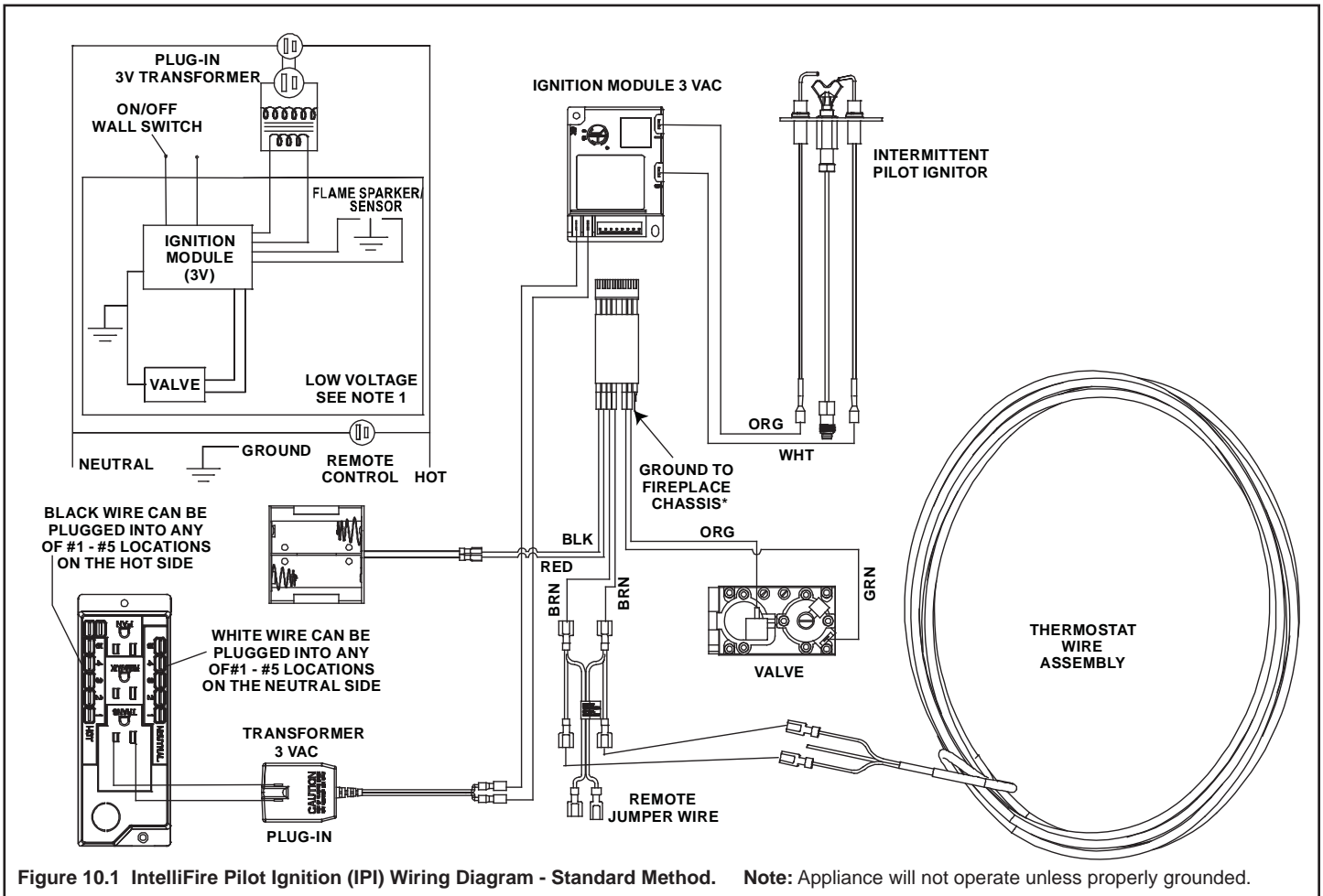
This appliance requires a 110 VAC supply to the appliance junction box for operation. A wiring diagram is shown in Figure 10.1.

This appliance is equipped with an IntelliFire control valve which operates on a 3 volt system.

This appliance is supplied with a 3 volt AC transformer which requires the installation of the supplied junction box. It is highly recommended that the junction box be installed at this time to avoid reconstruction.

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

| | |
|--|--|
|  | ⚠ WARNING |
| | <p>Shock hazard.</p> <ul style="list-style-type: none">• Replace damaged wire with type 105° C rated wire.• Wire must have high temperature insulation. |



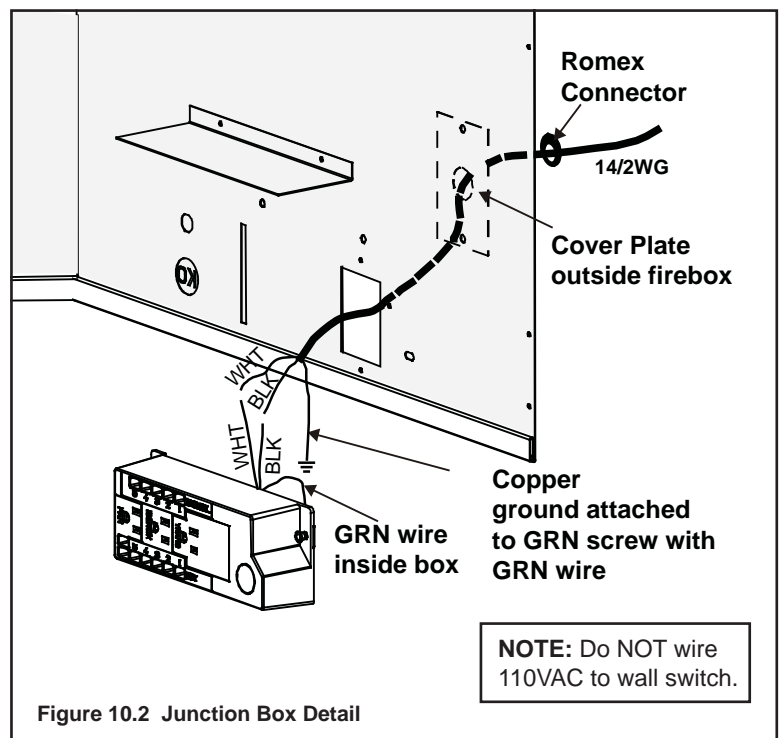
D. Junction Box Installation

If the box is being wired from the **OUTSIDE** of the appliance:

- Remove the cover plate located on the outer shell - right side (see Figure 10.2).
- Install the supplied Romex™ connector in the cover plate.
- Feed the necessary length of wire through the connector.
- Make all necessary wire connections and reattach the cover plate to the outer shell.

If the box is being wired from the **INSIDE** of the appliance:


- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell (see Figure 10.2).
- Pull the electrical wires from outside the appliance through this opening into the valve compartment.




- Feed the necessary length of wire through the connector.
- Make all necessary wire connections to the junction box/receptacle and reassemble the junction box/receptacle to the outer shell.

11 Finishing

A. Facing Material

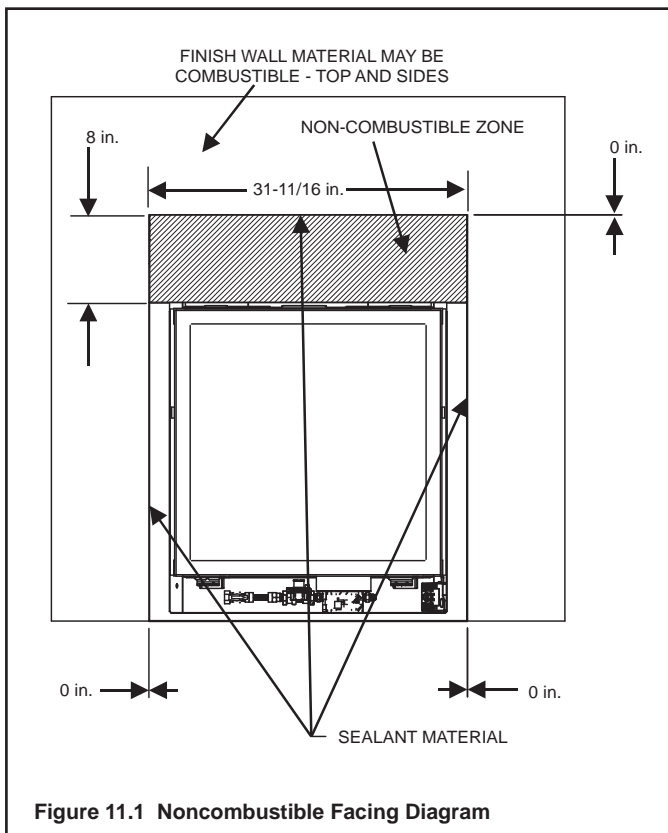
 **WARNING**


 Fire Risk.
Do NOT obstruct air inlet or outlet grilles.
Do NOT modify grilles.


- Modifying or covering grilles could cause temperature rise and fire hazard.

Finishing materials must not interfere with:

- Air flow through grilles or louvers.
- Operation of louvers or doors.
- Access for service.



 **WARNING**


 Fire Risk.


Finish all edges and fronts to clearances and specifications listed in manual.

- Black metal appliance front may be covered with noncombustible material only.
- Do NOT overlap combustible materials onto appliance front.
- Install combustible materials up to specified clearances on top, front and side.
- Seal joints between the finished wall and appliance top and sides using only a 300°F minimum sealant.


B. Mantel Projections

A Studio front is required for all installs. No mantels are allowed when using Studio fronts.

 **WARNING**

 Risk of Fire

- Non-combustible clearances **MUST** be maintained.
- Sheetrock, wood or other combustibles must **NOT** be used as sheathing or facing in the non-combustible zone.
- See **Section 11** for proper clearances.
- See **Section 1** for combustible/non-combustible definitions.



C. Installation of Non-Combustible Facing Materials

Gypsum wallboard (drywall) joints adjacent to the fireplace opening require special attention to minimize potential development of cracking. Hearth and Home Technologies recommends the following steps to minimize potential cracks in the finished drywall around the fireplace opening:

- When installing gypsum wallboard around the fireplace, install the hole for the fireplace opening in a single wallboard sheet, if possible. This will minimize the joints adjacent to the fireplace opening.
- The factory-supplied non-combustible board and the gypsum wallboard must join on the structural framing, where applicable. Wallboard and non-combustible board should be fastened to the framing with at least 1.25" long screw fasteners, located within 1.5" from each corner, and at no more than 12" intervals along the joint length.
- The wall-board joints should be finished with a Taping Coat, followed by at least two subsequent Finish Coats of joint compound.
- For the initial Taping Coat, it is critical that a general-purpose chemically hardening joint compound, such as SHEETROCK™ Brand Durabond™ Setting-Type Joint Compound, be used to fill the joint and embed the mesh tape. Fiberglass-mesh tape is recommended because it will provide a more crack-resistant joint than one finished with paper tape. Let the Taping Coat properly cure before applying subsequent Finish Coats.
- For the second and third finishing coats, it is acceptable to use a light-weight joint compound and standard application, curing and sanding methods.
- Do not operate the fireplace during the drywall finishing process. Allow the finish coat to cure for at least 24 hours prior to using the appliance.

Painting

If desired finishing includes a painted wall, 100% acrylic latex with compatible primer is recommended around the appliance. Oil-based or standard acrylic paints may discolor due to heat exposure.

Wallboard Joint-Crack Prevention and Repair

Wallboard joints around the fireplace will be affected by exposure to elevated temperatures, along with other environmental and structural factors. The specific methods presented in the previous section will help prevent or minimize development of cracks.

If a crack does emerge adjacent the fireplace, it can be permanently repaired by filling it with spackling paste or paintable latex caulk, followed by repainting.

12 Appliance Setup

A. Remove Shipping Materials


Remove shipping materials from inside or underneath the firebox.

B. Clean the Appliance

Clean/vacuum any sawdust that may have accumulated inside the firebox or underneath in the control cavity.

C. Accessories

Install approved accessories per instructions included with accessories. See Service Parts List for appropriate accessories. Refer to **Section 16**.

| | |
|--|--|
|  | ⚠ WARNING |
|  | <p>Shock or fire risk. Use ONLY optional accessories approved for this appliance.</p> <ul style="list-style-type: none">• Using non-listed accessories voids warranty.• Using non-listed accessories may result in a safety hazard.• Only Hearth & Home Technologies approved accessories may be used safely. |

D. Positioning Stones

For proper performance and safety, it is critical that the Black Onyx stones are set up in accordance with these instructions.

WARNING! Choking Hazard! Keep stones out of reach of children.

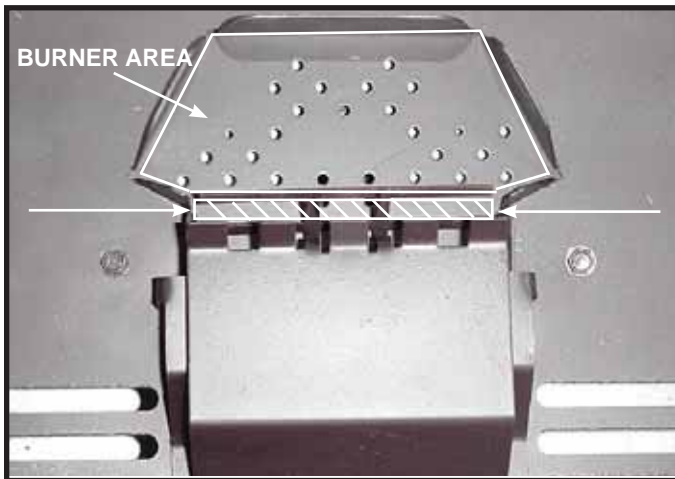


Figure 12.1.

As you are positioning the stones, make sure that no stones are in the cross-hatched area shown between the two arrows above. This is to ensure proper lighting and avoid interference with the pilot flame.

⚠ WARNING



Delayed Ignition Risk

- Place stones according to instructions.
- Do NOT place stones in area in front of pilot shield.
- Do NOT place stones in a position that they may fall into area in front of pilot shield.
- Do NOT use any media other than the stones supplied with this fireplace.

Fireplace will not function properly.
Delayed ignition may occur.

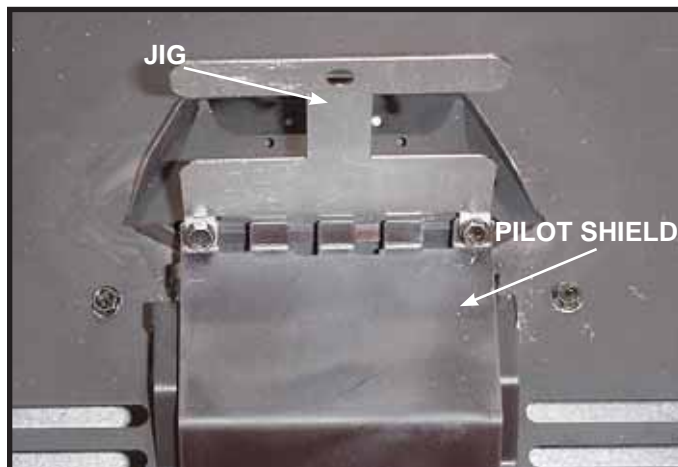


Figure 2.

Step 1. The included stone placement jig **MUST** be used any time stones are placed on the burner to ensure that none end up in the cross-hatched area noted in Figure 1.

Stone Placement: Soho24B



Figure 12.3.

Step 2. The stone placement jig is shipped in its proper position. Remove the two screws securing the jig, making sure the jig stays in the proper position. See Figure 3.



Figure 12.4.

Step 3. Place a single layer of stones over the burner area inside of the tabs surrounding the burner and behind the pilot shield.



Figure 12.5.

Step 4. Place the remaining stones over the basepan taking care not to add more stones to the burner area.

2137-936C



Figure 12.6.

Step 5. Carefully place a layer of stones over the pilot shield to disguise it.



Figure 12.7.

Step 6. Spread the stones out evenly. Double check that there is only one layer of stones on the burner area and that the cross-hatched area in Figure 1 is still free of stones.



Figure 12.8.


Step 7. Carefully remove the stone placement jig making sure that no stones fall into the pilot area.



Figure 12.9.

Step 8. This is a view of the front area of the pilot shield. This area must be free of stones for safe operation.

E. Glass Assembly

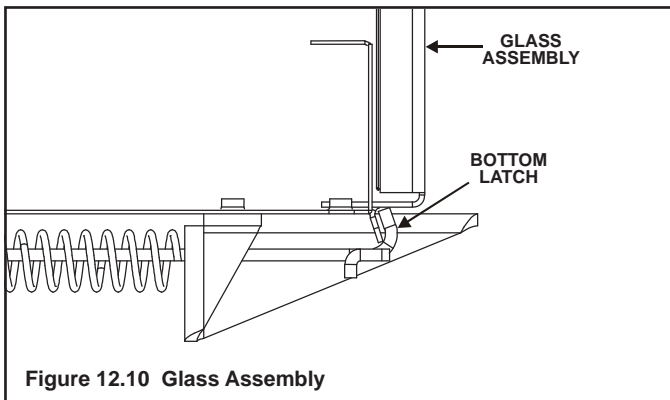
| | |
|---|---|
|  | WARNING |
| | <p>Handle glass doors with care.</p> <ul style="list-style-type: none">• Inspect the gasket to ensure it is undamaged.• Inspect the glass for cracks, chips or scratches.• Do NOT strike, slam or scratch glass.• Do NOT operate appliance with glass door removed, cracked, broken or scratched.• Replace glass door assembly as a complete appliance. |

Removing Glass Assembly

Pull the two glass assembly latches out of the groove on the glass frame. Remove glass door from the appliance (see Figure 12.10).

Replacing Glass Assembly

Replace the glass door on the appliance. Pull out and latch the two glass assembly latches into the groove on the glass frame.



F. Air Shutter Setting

| | NG | LP |
|--------|----------|-----------|
| Burner | 1/16 in. | Full Open |

G. Reflective Panel

The back and sides of the SOHO are covered with a reflective panel. This panel will bronze with burning, but it will retain its reflectivity.

13 Operating Instructions

A. Before Lighting Appliance

CAUTION

If installing IntelliFire ignition battery backup:

- Do not install batteries if the backup mode may not be used for extended time.
- Batteries may leak.
- Install batteries only when needed for power outage.

Before operating this appliance have a qualified technician:

- Remove all shipping materials from inside and/or underneath the firebox.
- Review proper placement of logs, rockwool, lava rock, and vermiculite.
- Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position.
- Ensure that the flow of combustion and ventilation air is not obstructed (front grilles and vent caps).



WARNING

Glass door must be in place when appliance is operating.

Risk of:

- Combustion Fumes
- Fire

Do NOT operate appliance with glass door removed.

- Open viewing glass for servicing only.



- Glass door MUST be in place and sealed before operating appliance.
- Only use glass door certified for use with appliance.
- Glass replacement should be done by qualified technician.

WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- DO NOT touch glass until it is 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.

- Keep clothing, furniture, draperies and other flammable materials away.

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

WARNING

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

WARNING

Do NOT use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

B. Lighting Instructions (IPI)

The IPI system may be operated with two D-cell batteries. When using batteries, unplug the transformer. To prolong battery life, remove them when using the transformer.

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 is equipped with an intermittent pilot ignition (IPI) 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.
- **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.

WHAT TO DO IF YOU SMELL GAS

- **DO NOT** try to light any appliance.

WARNING:

DO NOT CONNECT LINE VOLTAGE (110/120 VAC OR 220/240 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.fireplaces.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 fixed glass assembly 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.

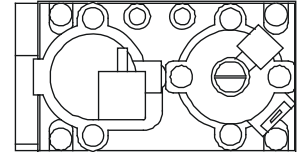
Also Certified for Installation in a Bedroom or a Bedsitting Room.

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

LIGHTING INSTRUCTIONS (IPI)

1. This appliance is equipped with an ignition device which automatically lights the burner. **DO NOT** try to light the burner by hand.

**GAS
VALVE**



2. 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 do not smell gas, go to next step.

3. To light the burner:

Equipped with wall switch: Turn ON/OFF switch to ON.

Equipped with remote or wall control: Press ON or FLAME button.

Equipped with thermostat: Set temperature to desired setting.

4. If the appliance does not light after three tries, call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Equipped with wall switch: Turn ON/OFF switch to OFF.

Equipped with remote or wall control: Press OFF button.

Equipped with thermostat: Set temperature to lowest setting.

2. Service technician should turn off electric power to the control when performing service.

593-913G

Final inspection by _____



C. After Appliance is Lit

Initial Break-in Procedure

When you light the appliance, you may notice that it produces heat which does have an associated odor or smell. If you feel this odor is excessive it may require the initial three to four hour continuous burn on high followed by a second burn up to 12 hours to fully drive off any odor from paint and lubricants used in the manufacturing process. Condensation of the glass is normal.



NOTE: The appliance should be run three to four hours on the initial start-up. Turn it off and let it cool completely. Remove and clean the glass. Replace the glass and run the appliance for an additional 12 hours.

During this break-in period it is recommended that some windows in the house be opened for air circulation. This will help avoid setting off smoke detectors, and help eliminate any odors associated with the appliance's initial burning.

|  WARNING | |
|--|--|
|  | <p>Fire Risk.</p> <p>High Temperatures.</p> <p>Keep combustible household items away from appliance.</p> <p>Do NOT obstruct combustion and ventilation air.</p> <ul style="list-style-type: none"> Do NOT place combustible items on top of or in front of appliance. Keep furniture, draperies away from appliance. |

| CAUTION |
|--|
| <ul style="list-style-type: none"> Prevent accidental appliance operation when not attended. Unplug or remove batteries from remote control if absent or if appliance will not be used for an extended period of time. Property damage possible from elevated temperatures. |

| CAUTION |
|--|
| <p>Smoke and odors released during initial operation.</p> <ul style="list-style-type: none"> Open windows for air circulation. Leave room during initial operation. Smoke may set off smoke detectors. <p>Smoke and odors may be irritating to sensitive individuals.</p> |

|  WARNING | |
|--|--|
|  | <p>Fire Hazard.</p> <p>Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.</p> <ul style="list-style-type: none"> Do NOT store flammable materials in the appliance's vicinity. Do NOT use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids in this appliance. Combustible materials may ignite. |

D. Frequently Asked Questions

| ISSUE | SOLUTIONS |
|---|---|
| Condensation on the glass | This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear. |
| Blue flames | This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes. |
| Odor from appliance | When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Odor may also be released from finishing materials and adhesives used around the appliance. |
| 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 appliance. |
| Is it normal to see the pilot flame burn continually? | In an intermittent pilot ignition system (IPI), the pilot flame should turn off when appliance is turned off. Some optional control systems available with IPI models may allow pilot flame to remain lit. |

14 Troubleshooting

With proper installation, operation, and maintenance your gas appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician.

A. IntelliFire Ignition System

| Symptom | Possible Cause | Corrective Action |
|--|---|---|
| 1. The ignitor/module makes noise, but no spark. | a. Incorrect wiring. | Verify "S" wire (white) for sensor and "I" wire (orange) for ignitor are connected to correct terminals on module and pilot assembly. Reversed wires at the module may cause system to make sparking noise, but spark may not be present at pilot hood. |
| | b. Loose connections or electrical shorts in the wiring. | Verify no loose connections or electrical shorts in wiring from module to pilot assembly. Rod closest to pilot hood should be ignitor. Verify connections underneath pilot assembly are tight; also verify connections are not grounding out to metal chassis, pilot burner, pilot enclosure, mesh screen if present, or any other metal object. |
| | c. Ignitor gap is too large. | Verify gap of igniter to pilot hood. The gap should be approximately .17 inch or 1/8 inch. |
| | d. Faulty module. | Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF Rocker switch or wall switch in ON position. Hold ground wire about 3/16 inch away from "I" terminal on module. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode. |
| 2. Pilot won't light, there is no noise or spark. | a. Transformer installed correctly. | Verify that transformer is installed and plugged into module. Check voltage of transformer under load at spade connection on module with ON/OFF switch in ON position. Acceptable readings of a good transformer are between 3.2 and 2.8 volts AC. |
| | b. A shorted or loose connection in wiring configuration or wiring harness. | Remove and reinstall the wiring harness that plugs into module. Verify there is a tight fit. Verify pilot assembly wiring to module. Remove and verify continuity of each wire in wiring harness. |
| | c. Improper wall switch wiring. | Verify that 110/VAC power is "ON" to junction box. |
| | d. Module not grounded. | Verify black ground wire from module wire harness is grounded to metal chassis of appliance. |
| | e. Faulty module. | Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF Rocker switch or wall switch in ON position. Hold ground wire about 3/16 inch away from "I" terminal on module. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode. |
| 3. Pilot lights but continues to spark, and main burner will not ignite. (If the pilot continues to spark after the pilot flame has been lit, flame rectification has not occurred.) | a. A shorted or loose connection in sensor rod. | Verify all connections to wiring diagram in manual. Verify connections underneath pilot assembly are tight. Verify connections are not grounding out to metal chassis, pilot burner, pilot enclosure or screen if present, or any other metal object. |
| | b. Poor flame rectification or contaminated sensor rod. | Verify that flame is engulfing sensor rod. If the pilot assembly does not have a ground strap, consider installing one to increase flame rectification. Verify correct pilot orifice is installed and inlet gas specifications. Flame carries rectification current, not the gas. If flame lifts from pilot hood, the circuit is broken. A wrong orifice or too high an inlet pressure can cause pilot flame to lift. The sensor rod may be contaminated. Polish sensor rod with fine steel wool. |
| | c. Module is not grounded. | Verify that module is securely grounded to metal chassis of appliance. Verify that wire harness is firmly connected to module. |

IntelliFire Ignition System - (continued)

| Symptom | Possible Cause | Corrective Action |
|--|--|---|
| 3. Continued | d. Damaged pilot assembly or dirty sensor rod. | Verify that ceramic insulator around the sensor rod is not cracked, damaged, or loose. Verify connection from sensor rod to white sensor wire. Polish sensor rod with fine steel wool to remove any contaminants that may have accumulated on sensor rod. Verify continuity with a multimeter with ohms set at lowest range. |
| | e. Faulty module. | Turn ON/OFF rocker switch or wall switch to OFF position. Remove ignitor wire "I" from module. Place ON/OFF Rocker switch or wall switch in ON position. Hold ground wire about 3/16 inch away from "I" terminal on module. If there is no spark at "I" terminal module must be replaced. If there is a spark at "I" terminal, module is fine. Inspect pilot assembly for shorted sparker wire or cracked insulator around electrode. |
| 4. Pilot sparks, but Pilot will not light. | a. Correct gas supply. | Verify that incoming gas line ball valve is "open". Verify that inlet pressure reading is within acceptable limits. |
| | b. Ignitor gap is too large. | Verify that spark gap from ignitor to pilot hood is .17 in. or 1/8 in. |
| | c. Module is not grounded. | Verify module is securely grounded to metal chassis of appliance. |



15 Maintaining and Servicing Appliance

A. Maintenance Tasks

Although the frequency of appliance servicing and maintenance will depend on use and the type of installation, a qualified service technician should perform an appliance checkup at the beginning of each heating season.

WARNING

Risk of injury or property damage.

Before servicing:

- Turn off gas.
- Turn off electricity to appliance.
- Disable remote control, if one is present.
- Ensure appliance is completely cooled.

After servicing:

- Replace any screen or barrier that was removed.
- Reseal and reinstall any venting removed for servicing.

WARNING

Annual inspection by qualified technician recommended.

Check:

- Condition of doors, surrounds and fronts.
- Condition of glass, glass assembly and glass seal.
- Obstructions of combustion and ventilation air.
- Condition of logs.
- Condition of firebox.
- Burner ignition and operation.
- Burner air shutter adjustment
- Gas connections and fittings.
- Obstructions of termination cap.

Clean:

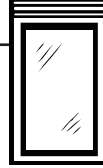
- Glass
- Air passageways, grilles, control compartment
- Burner, burner ports

Risk of:

- Fire
- Delayed ignition or explosion
- Exposure to combustion fumes
- Odors



CAUTION



Handle glass assembly with care.

NOTE: Clean glass after initial 3-4 hours operation. **Longer operation without cleaning glass may cause a permanent white film on glass.**

When cleaning glass door:

- Avoid striking, scratching or slamming glass.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Do NOT clean glass when hot.
- Turn off appliance after 3-4 hours of operation and **ALLOW TO COOL.**
- Remove and clean glass assembly.
- Replace glass assembly and operate appliance for additional 12 hours.

Refer to maintenance instructions.

WARNING



Inspect external vent cap regularly.

- Ensure no debris blocks cap.

- Combustible materials blocking cap may ignite.
- Restricted air flow affects burner operation.

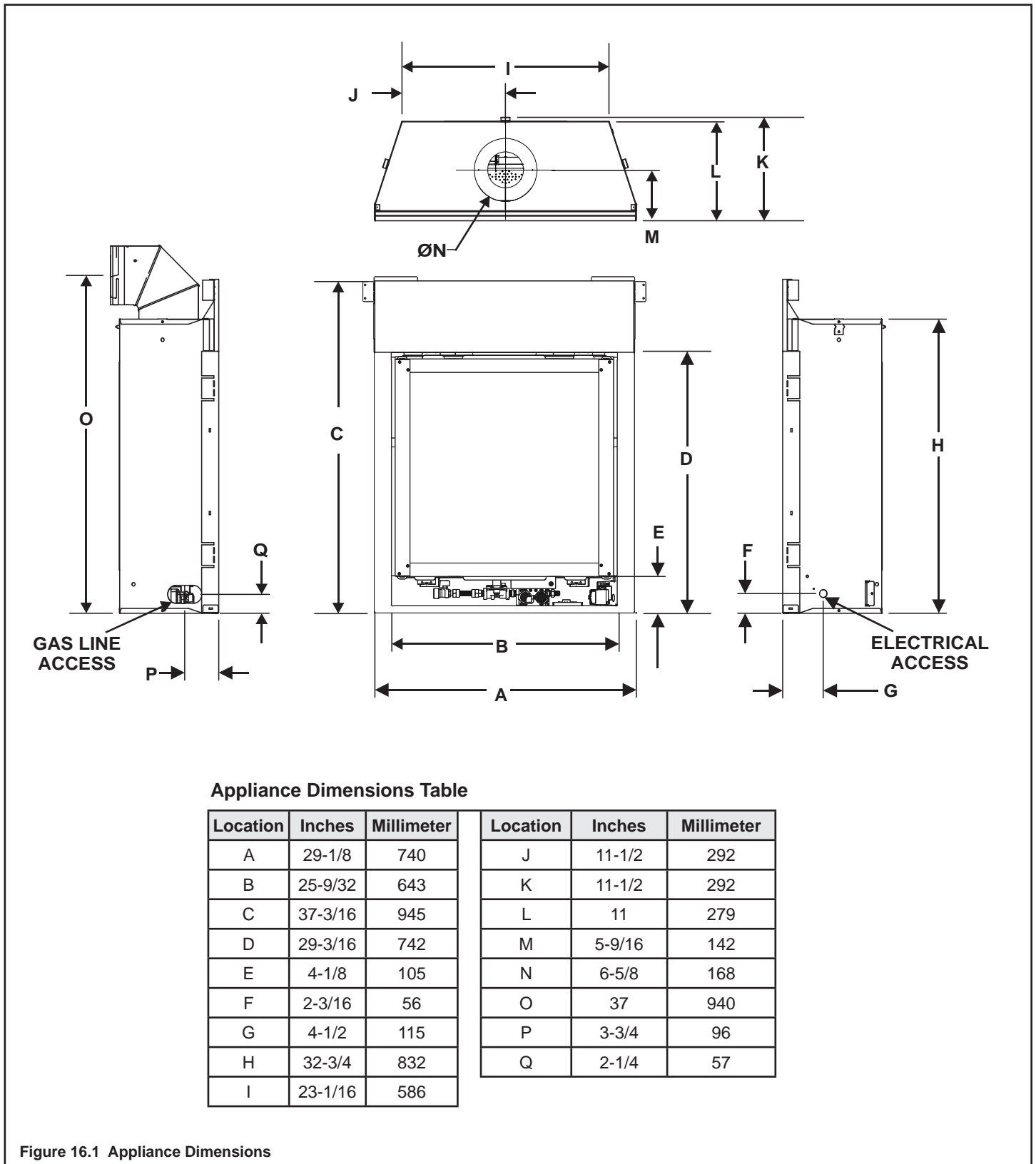


| Inspect | Maintenance Tasks |
|---------------------------------------|---|
| Doors, Surrounds and Fronts | 1. Assess condition of screen and replace as necessary. Recommend addition of screen if one is not present. |
| | 2. Inspect for scratches, dents or other damage and repair as necessary. |
| | 3. Verify no obstructions to airflow through the louvers. |
| | 4. Verify maintenance of proper clearance to combustible household objects. |
| Gasket Seal, Glass Assembly and Glass | 1. Inspect gasket seal and its condition. |
| | 2. Inspect glass panels for scratches and nicks that can lead to breakage when exposed to heat. |
| | 3. Confirm there is no damage to glass or glass frame. Replace as necessary. |
| | 4. Verify that latches engage properly, clip studs are not stripped, and glass attachment components are intact and operating properly. Replace as necessary. |
| | 5. Clean glass. Replace glass assembly if severely coated with silicate deposits that cannot be removed. |
| Valve Compartment and Firebox Top | 1. 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. |
| | 2. Remove any foreign objects. |
| | 3. Verify unobstructed air circulation. |
| Logs | 1. Inspect for broken, damaged, or missing logs. Replace as necessary. |
| | 2. Verify correct log placement and no flame impingement causing sooting. Correct as necessary. |
| Firebox | 1. Inspect for paint condition, warpage, corrosion or perforation. Sand and repaint as necessary. |
| | 2. Replace appliance if firebox has been perforated. |
| Burner Ignition and Operation | 1. Verify burner is properly secured and aligned with pilot or igniter. |
| | 2. Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary. |
| | 3. Replace ember materials with new dime-size and shape pieces. Do not block ports or obstruct lighting paths. |
| | 4. Check for smooth lighting and ignition carryover to all ports. Verify there is no ignition delay. |
| | 5. Inspect for lifting or other flame problems. |
| | 6. Verify air shutter is clear of dust and debris. |
| | 7. Inspect orifice for soot, dirt or corrosion. |
| | 8. Verify manifold and inlet pressures. Adjust regulator as required. |
| | 9. Inspect pilot flame strength. Clean or replace orifice as necessary. |
| | 10. Inspect thermocouple/thermopile or IPI sensor rod for soot, corrosion and deterioration. Polish with fine steel wool or replace as required. |
| | 11. Verify millivolt output. Replace as necessary. |
| Venting | 1. Inspect venting for blockage or obstruction such as bird nests, leaves, etc. |
| | 2. Confirm that termination cap remains clear and unobstructed by plants, etc. |
| | 3. Verify that termination cap clearance to subsequent construction (building additions, decks, fences or sheds) has been maintained. |
| | 4. Inspect for corrosion or separation. |
| | 5. Verify weather stripping, sealing and flashing remains intact. |
| | 6. Inspect draft shield to verify it is not bent, damaged or missing. |
| Remote controls | 1. Verify operation of remote. |
| | 2. Replace batteries in remote transmitters and battery-powered receivers. |
| | 3. Verify batteries have been removed from battery back-up IPI systems to prevent premature battery failure or leaking. |

16 Reference Materials

A. Appliance Dimension Diagram

Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 3.



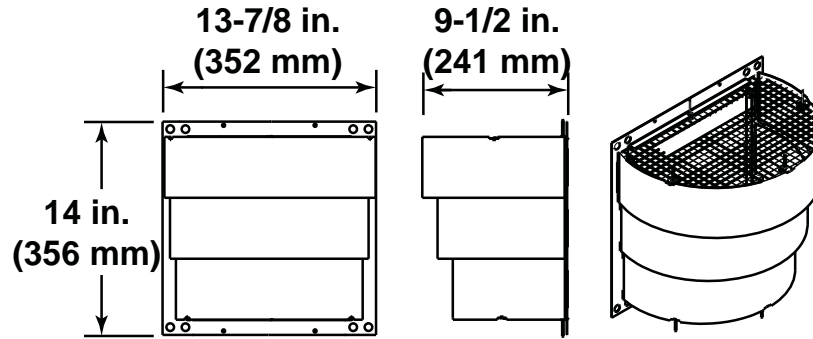
Appliance Dimensions Table

| Location | Inches | Millimeter | Location | Inches | Millimeter |
|----------|---------|------------|----------|--------|------------|
| A | 29-1/8 | 740 | J | 11-1/2 | 292 |
| B | 25-9/32 | 643 | K | 11-1/2 | 292 |
| C | 37-3/16 | 945 | L | 11 | 279 |
| D | 29-3/16 | 742 | M | 5-9/16 | 142 |
| E | 4-1/8 | 105 | N | 6-5/8 | 168 |
| F | 2-3/16 | 56 | O | 37 | 940 |
| G | 4-1/2 | 115 | P | 3-3/4 | 96 |
| H | 32-3/4 | 832 | Q | 2-1/4 | 57 |
| I | 23-1/16 | 586 | | | |

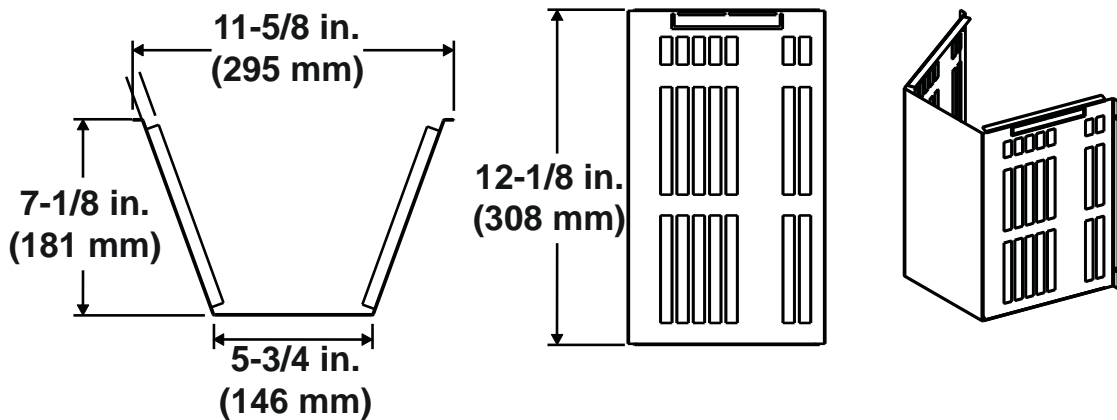
Figure 16.1 Appliance Dimensions

B. Vent Components Diagrams

SL Series Components



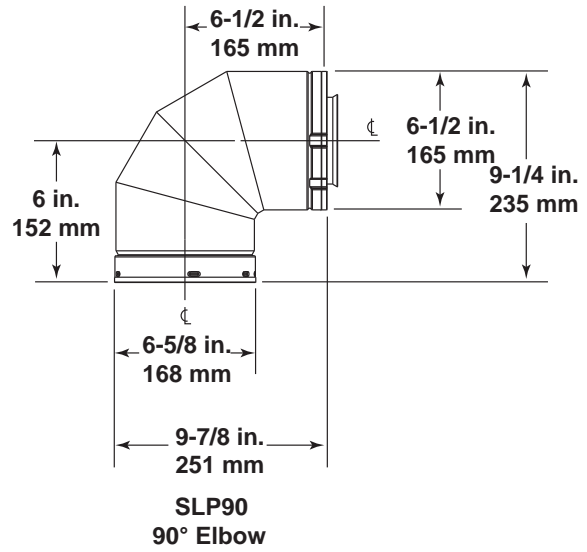
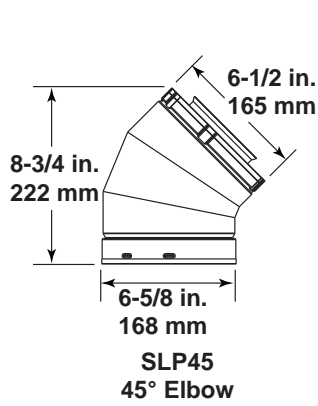
**DRC-RADIUS
Cap Shield**



**COOL-ADD
Cap Shield**

Figure 16.1 SLP Series Vent Components

→ B. Vent Components Diagrams (continued)



Effective Height/Length

| Pipe | inches | mm |
|--------|--------|----------|
| SLP4 | 4 | 102 |
| SLP6 | 6 | 152 |
| SLP12 | 12 | 305 |
| SLP24 | 24 | 610 |
| SLP36 | 36 | 914 |
| SLP48 | 48 | 1219 |
| SLP6A | 2 - 6 | 51 - 152 |
| SLP12A | 2 - 12 | 51 - 305 |

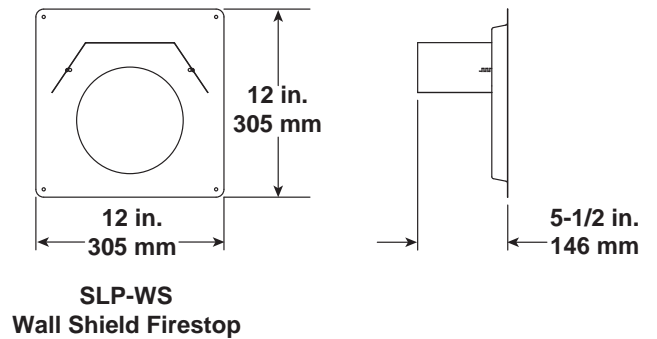
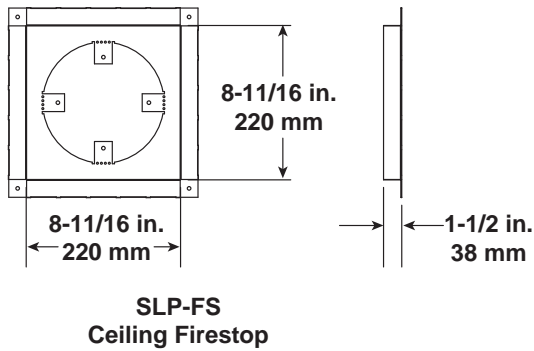
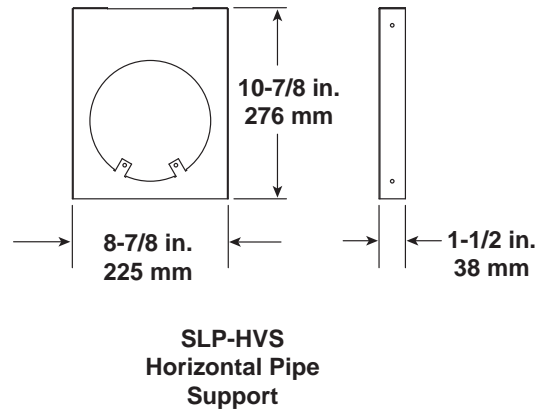
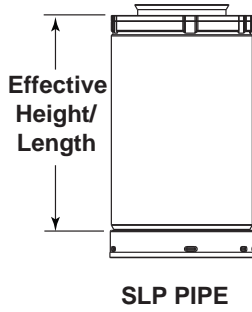
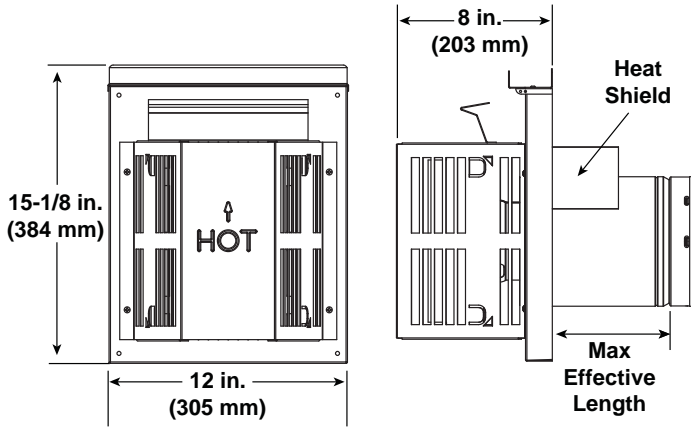


Figure 16.2 SLP Series Vent Components

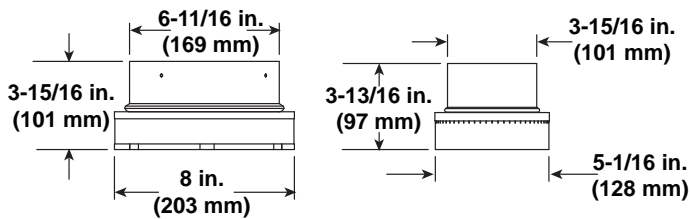
B. Vent Components Diagrams (continued)

Note: Heat shields MUST overlap by a minimum of 1-1/2 in. (38 mm). The heat shield is designed to be used on a wall 4 in. to 7-1/4 in. (102 mm to 184 mm) thick. If wall thickness is less than 4 in. (102 mm) the existing heat shields must be field trimmed. If wall thickness is greater than 7-1/4 in. (184 mm) a DVP-HSM-B will be required.

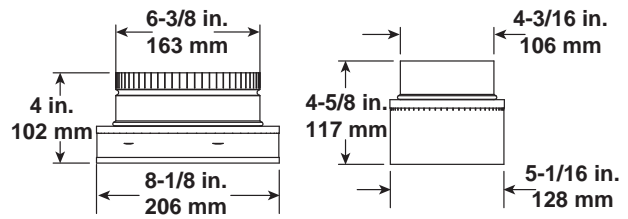


SLP-TRAP
Horizontal Termination Cap

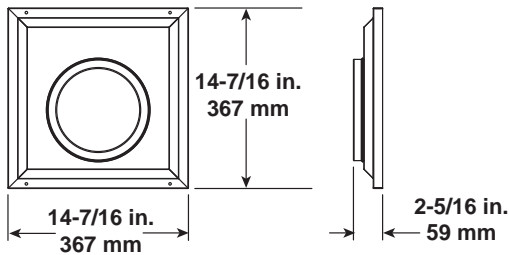
| Term Cap | Minimum Effective Length | Maximum Effective Length |
|----------|--------------------------|--------------------------|
| Trap1 | 3-1/8 in. | 4-3/4 in. |
| | 79 mm | 121 mm |
| Trap2 | 5-1/4 in. | 9-1/4 in. |
| | 133 mm | 235 mm |



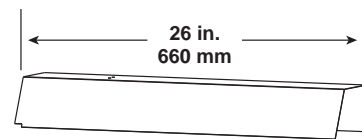
SL-2DVP
Adapter



DVP-2SL
Adapter



SLP-WT-BK
Wall Thimble-Black



DVP-HSM-B
Extended Heat Shield

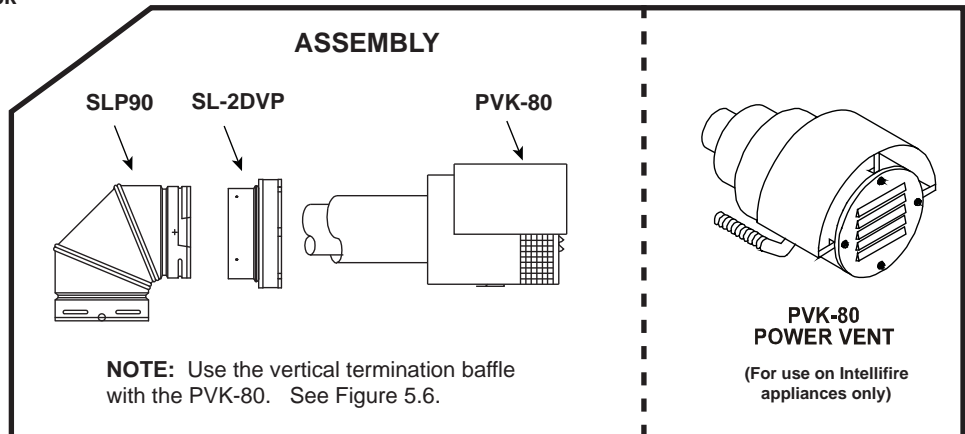
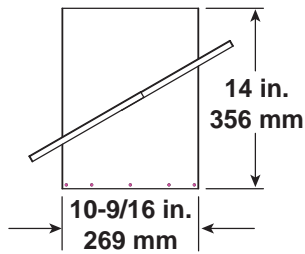
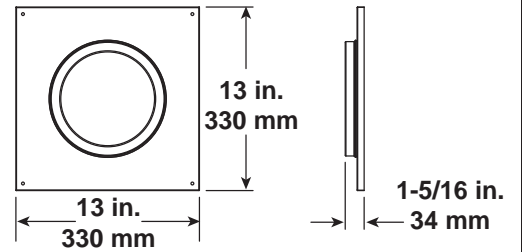


Figure 16.3 SLP Series Vent Components

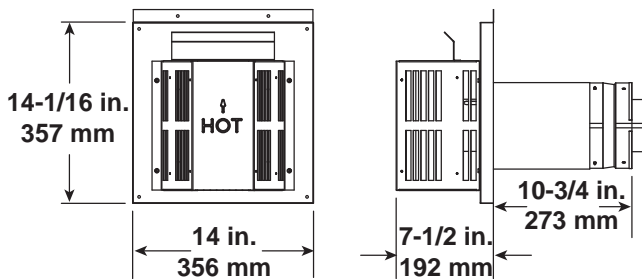
B. Vent Components Diagrams (continued)



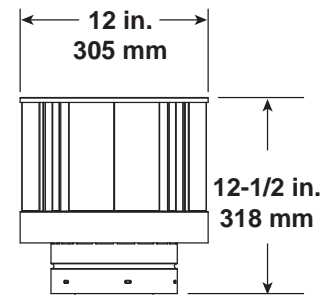
SLP-CCS-BK
Cathedral Ceiling
Support Box-Black



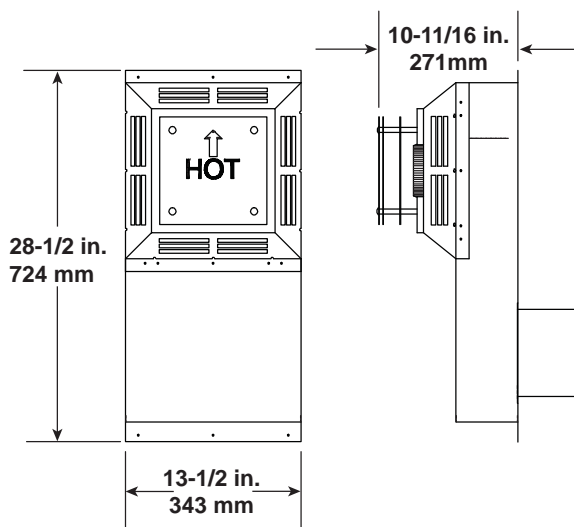
SLP-DCF-BK
Ceiling Firestop
Black



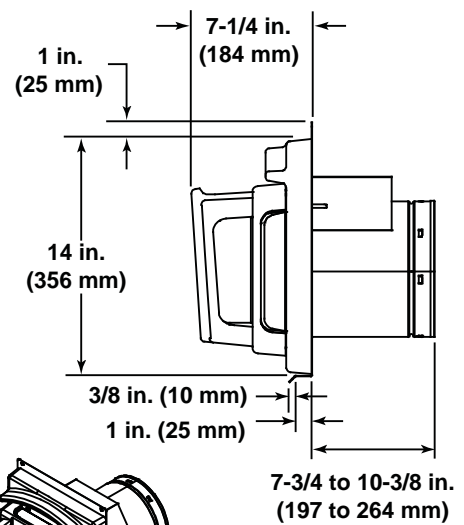
SLP-FLEX-TRAP
Horizontal
Termination Kit



SLP-TVHW
Vertical
Termination Cap

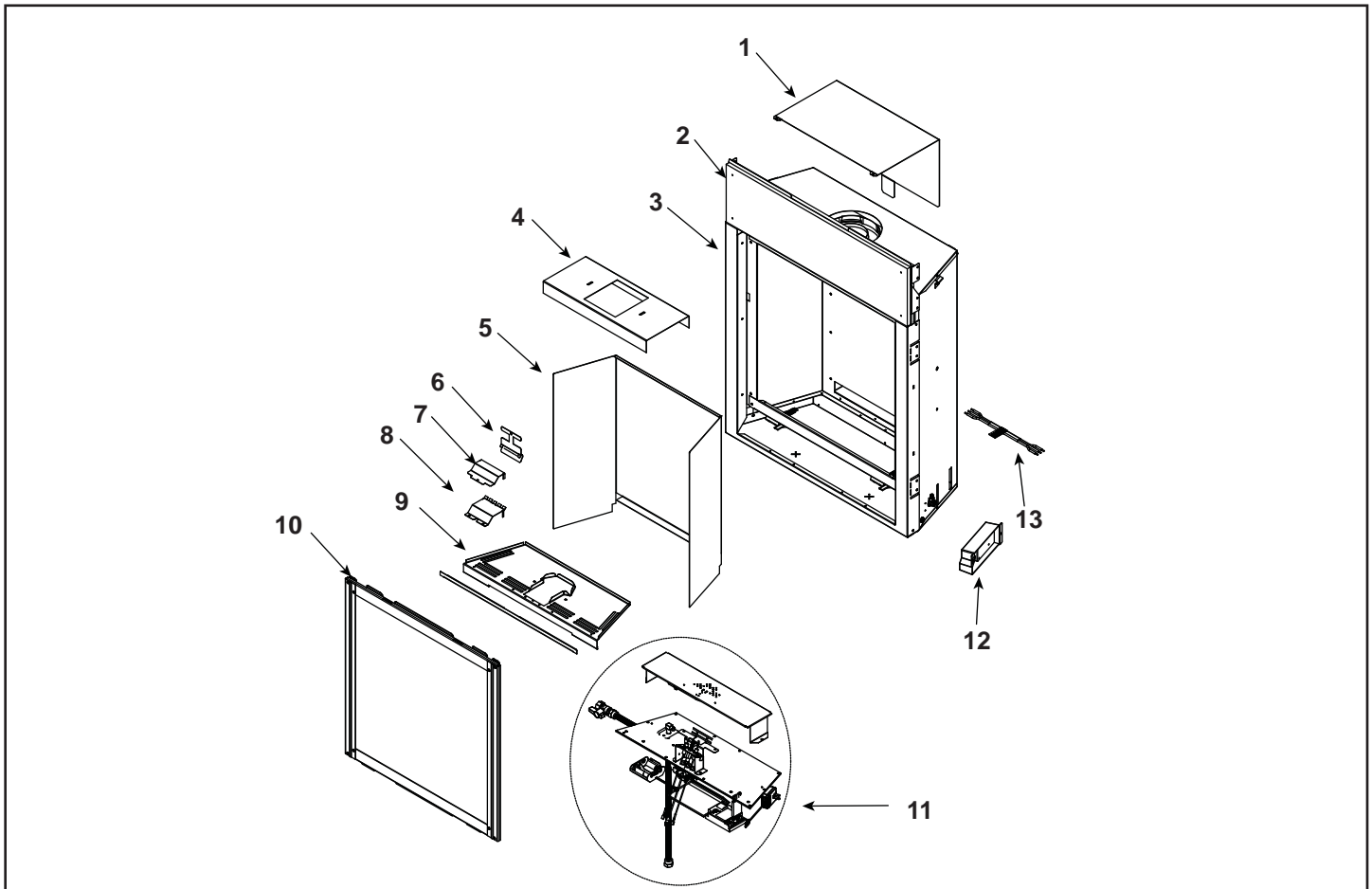


SLK-SNKD
Snorkel
Termination Cap



DVP-FBHT
Horizontal
Termination Cap

Figure 16.3 SLP Series Vent Components



IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

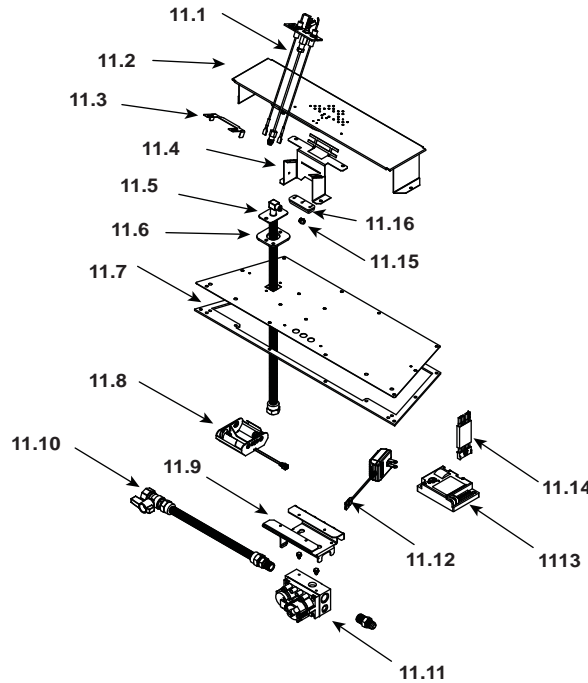


**Stocked
at Depot**

| ITEM | DESCRIPTION | COMMENTS | PART NUMBER | |
|------|---------------------------------|----------|---------------------|---|
| 1 | Heat Shield | | 2137-138 | |
| 2 | Non-combustible Board (Outside) | | 2111-148 | |
| | Bracket Non-combustible Board | | 2111-128 | |
| | Non-combustible Board (Inside) | | 2077-148 | |
| 3 | Surround | | 2077-112 | |
| 4 | Heat Shield Retainer | | 2137-134 | |
| 5 | Reflective Panel | | 2137-135 | |
| 6 | Stone Placement Jig | | 2137-140 | |
| 7 | Pilot Cover (Outer) | | 2137-137 | |
| 8 | Pilot Cover (Inner) | | 2137-136 | |
| 9 | Base Pan | | 2137-129 | |
| 10 | Glass Door Assembly | | GLA-SOHO24B | Y |
| 11 | Valve/ Burner Assembly | | Refer to valve page | |
| 12 | Junction Box | | 4021-013 | Y |
| 13 | Wire, Wall Switch | | 2045-024 | Y |

Additional service part numbers appear on following page.

#11 IPI Valve Assembly



IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.



Stocked at Depot

| ITEM | DESCRIPTION | COMMENTS | PART NUMBER | |
|-------|--------------------------|----------|-------------|---|
| 11.1 | Pilot Assembly NG | | 2090-012 | Y |
| | Pilot Assembly LP | | 2090-013 | Y |
| 11.2 | Burner Assembly NG | | 2137-010 | Y |
| | Burner Assembly LP | | 2137-011 | Y |
| 11.3 | Pilot Cover Bracket | | 2137-141 | |
| 11.4 | Pilot Bracket | | 2137-102 | |
| 11.5 | Flexible Gas Connector | | 530-302A | Y |
| 11.6 | Burner Neck Gasket | | 438-407 | |
| 11.7 | Valve Plate Gasket | | 2077-138 | |
| 11.8 | Battery Pack | | 593-594A | Y |
| 11.9 | Valve Bracket | | 2111-186 | |
| 11.10 | Flex Ball Valve Assembly | | 302-320A | Y |
| 11.11 | Valve NG | | 593-500 | Y |
| | Valve LP | | 593-501 | Y |
| 11.12 | 3 Volt Transformer | | 593-593A | Y |
| 11.13 | Module | | 593-592 | Y |
| 11.14 | Module Wire Assembly | | 593-590A | Y |
| 11.15 | Orifice NG (#50C) | | 582-850 | Y |
| | Orifice LP (#59C) | | 582-859 | Y |
| 11.16 | Grommet, 3-Hole | | 2118-420 | |

Additional service part numbers appear on following page.

D. Limited Lifetime Warranty

Hearth & Home Technologies Inc. LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., 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.

D. 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.
- 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, light bulbs, 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.

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