CAUTION! Risk of Fire! DO NOT store instruction manuals inside fireplace cavity. High temperatures could cause a fire.

INSTALLER: Leave this manual with the appliance, not inside the appliance.
CONSUMER: Retain this manual for future reference. Do not store inside the appliance. Contact your dealer with questions regarding installation, operation or service.

NOTICE: DO NOT discard this manual!

Model(s):
- NBV30-IFT
- NBV33-IFT
- NBV36-IFT
- NBV42-IFT

WARNING:
FIRE OR EXPLOSION HAZARD
Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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.
  - Leave the building immediately.
  - Immediately call your gas supplier from a neighbor’s phone. Follow the gas supplier’s instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

CAUTION!
Risk of Fire!
DO NOT store instruction manuals inside fireplace cavity. High temperatures could cause a fire.

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

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

Decorative barrier front must be ordered separately at time of appliance purchase. See Section 3.A.
Safety Alert Key:

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

Note: The term “recommend” or “recommended” does not indicate a requirement. It is a best practice suggested by Hearth & Home Technologies®. Failure to perform the recommended task will not result in a safety concern.

Table of Contents

Installation Standard Work Checklist .......................... 3

1 Product Specific and Important Safety Information

A. Appliance Certification ...................................... 4
B. Glass Specifications ........................................ 4
C. BTU Specifications .......................................... 4
D. High Altitude Installations ................................. 4
E. Non-Combustible Materials Specification ............... 5
F. Combustible Materials Specification ........................ 5
G. Electrical Codes ............................................. 5
H. California ....................................................... 5

2 Getting Started

A. Design and Installation Considerations ................. 6
B. Good Faith Wall Surface ................................... 6
C. Tools and Supplies Needed ................................. 6
D. Inspect Appliance and Components ....................... 7
E. Negative Pressure ............................................ 8

3 Framing and Clearances

A. Appliance/Decorative Front Dimension Diagrams ...... 9
B. Appliance Location and Clearances to Combustibles ... 13
C. Constructing the Appliance Chase ....................... 15

4 Termination Location and Vent Information

A. Vent Termination Minimum Clearances ............... 16

5 Vent Information and Diagrams

A. Vent Guidelines ............................................. 17
B. Vent System Configuration ................................. 17
C. Vent Diagrams .............................................. 17

6 Vent Clearances and Framing

A. Pipe Clearances to Combustibles ....................... 21
B. Wall and Ceiling Penetration Framing .................... 21
C. Vertical Penetration Framing .............................. 21
D. Pipe Clearances to Combustibles ....................... 21
E. Prepare For Heat Management ............................. 21

7 Appliance Preparation

A. Installing Outside Air Kit Damper Assembly ........... 22
B. Gas and Electrical Connections .......................... 22
C. Securing and Leveling the Appliance .................... 22

8 Venting and Chimneys (Installing Vent Pipe)

A. Assemble Vent Sections ................................... 23
B. Attaching Vent to Firebox ................................. 23
C. Securing Vent Sections .................................... 23
D. Install Attic Insulation Shield ............................ 23

9 Electrical Information

A. General Information ....................................... 24
B. Wiring Requirements ....................................... 25

10 Gas Information

A. Fuel Conversion ............................................ 27
B. Gas Pressure ................................................ 27
C. Gas Connection .............................................. 27
D. High Altitude Installations ............................... 27
E. Air Shutter Setting ......................................... 28

11 Finishing

A. Facing Material ............................................. 29
B. Mantel and Wall Projections ............................. 29
C. Non-combustible Mantel and Wall Projections ....... 30

12 Appliance Setup

A. Remove the Shipping Materials ......................... 31
B. Clean the Appliance ....................................... 31
C. Install Optional Refractory Kit ........................... 31
D. Install Burner Mineral Wool ............................. 31
E. Install Fixed Glass Assembly ............................. 32
F. Install Decorative Barrier Front .......................... 32
G. Install the Log Assembly ................................. 33

13 Reference Materials

A. Optional Accessories ...................................... 35

⇒ Contains updated information.
ATTENTION INSTALLER:
Follow this Standard Work Checklist

This standard work checklist is to be used by the installer in conjunction with, not instead of, the instructions contained in this installation manual.

Customer: ____________________________ Date Installed: ____________________________
Lot/Address: ____________________________ Location of Fireplace: ____________________________
Model (circle one): NBV30-IFT, NBV33-IFT, NBV36-IFT, NBV42-IFT
Installer: ____________________________ Dealer/Distributor Phone #: ____________________________
Serial #: ____________________________

WARNING! Risk of Fire or Explosion! Failure to install appliance according to these instructions could lead to a fire or explosion. Install ONLY components and accessories approved by Hearth & Home Technologies. Unapproved components and accessories could cause fireplace to overheat.

### Appliance Install
- Verified that the chase is insulated and sealed. (Pg. 15)
- Verified clearances to combustibles. (Pg. 13-14)
- Fireplace is leveled and secured. (Pg. 22)

### Venting/Chimney Section 8 (Pg 23)
- Venting configuration complies to vent diagrams.
- Venting installed, locked and secured in place with proper clearance.
- Firestops installed.
- Attic insulation shield installed.
- Exterior wall/Roof flashing installed and sealed.
- Terminations installed and sealed.

### Electrical Section 9 (Pg 24-26)
- Unswitched power (110-120 VAC) provided to the appliance.
- Switch wires properly installed.

### Gas Section 10 (Pg 27-28)
- Proper appliance for fuel type.
- Was a conversion performed?
- Leak check performed and inlet pressure verified.
- Verified proper air shutter setting for installation type.

### Finishing Section 11 (Pg 29-30)
- Combustible materials not installed in non-combustible areas.
- Verified all clearances meet installation manual requirements.
- Mantels and wall projections comply with installation manual requirements.

### Appliance Setup Section 12 (Pg 31-34)
- All packaging and protective materials removed (inside & outside of appliance).
- Refractories, logs, mineral wool, lava rock and vermiculite installed correctly.
- Glass assembly installed and secured.
- Accessories installed properly.
- Decorative barrier front properly installed.
- Manual bag and all of its contents are removed from inside/under the appliance and given to party responsible for use and operation.
- Started appliance and verified no gas leaks exist.

Hearth & Home Technologies recommends the following:
- Photographing the installation and copying this checklist for your file.
- That this checklist remain visible at all times on the appliance until the installation is complete.

**Comments:** Further description of the issues, who is responsible (Installer/Builder/Other Trades, etc) and corrective action needed.

Comments Communicated to party responsible ____________________________ by ____________________________ on ____________________________

Hearth & Home Technologies recommends the following:

- Photographing the installation and copying this checklist for your file.
- That this checklist remain visible at all times on the appliance until the installation is complete.

**Comments:** Further description of the issues, who is responsible (Installer/Builder/Other Trades, etc) and corrective action needed.

Comments Communicated to party responsible ____________________________ by ____________________________ on ____________________________

(Builder / Gen. Contractor) (Installer) (Date)

2624-982B 3/20
A. Appliance Certification

**MODELS:** NBV30-IFT, NBV33-IFT, NBV36-IFT, NBV42-IFT  
**LABORATORY:** Underwriters Laboratories, Inc. (UL)  
**TYPE:** Vented Gas Fireplaces  
**STANDARD:** CSA / ANSI Z21.88:19 • CSA 2.33:19

This product is listed to ANSI standards for “Vented Gas Fireplaces”. May be installed in a sleeping room when the provisions for combustion, ventilation and dilution air are met per the requirements of **ANSI Z223.1/NFPA 54 National Fuel Gas Code**. In Canada, installation in a sleeping room requires installation with a thermostat certified for use with this product. Consult your local authorities having jurisdiction.

**NOTICE:** This installation must conform with local codes. In the absence of local codes you must comply with the National Fuel Gas Code, ANSI Z223.1-latest edition in the U.S.A. and the CAN/CGA B149 Installation Codes in Canada.

**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.

C. BTU Specifications

<table>
<thead>
<tr>
<th>Models (U.S. or Canada)</th>
<th>Maximum Input BTU/h</th>
<th>Minimum Input BTU/h</th>
<th>Orifice Size (DMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBV30-IFT (NG) (0-2000 FT)</td>
<td>20,000</td>
<td>14,000</td>
<td>.083 in.</td>
</tr>
<tr>
<td>NBV30-IFT (Propane) (0-2000 FT)</td>
<td>17,000</td>
<td>14,000</td>
<td>.053 in.</td>
</tr>
<tr>
<td>NBV33-IFT (NG) (0-2000 FT)</td>
<td>22,000</td>
<td>15,000</td>
<td>#43</td>
</tr>
<tr>
<td>NBV33-IFT (Propane) (0-2000 FT)</td>
<td>22,000</td>
<td>15,000</td>
<td>#54</td>
</tr>
<tr>
<td>NBV36-IFT (NG) (0-2000 FT)</td>
<td>25,000</td>
<td>17,000</td>
<td>#42</td>
</tr>
<tr>
<td>NBV36-IFT (Propane) (0-2000 FT)</td>
<td>25,000</td>
<td>17,000</td>
<td>.058 in.</td>
</tr>
<tr>
<td>NBV42-IFT (NG) (0-2000 FT)</td>
<td>30,000</td>
<td>20,500</td>
<td>#37</td>
</tr>
<tr>
<td>NBV42-IFT (Propane) (0-2000 FT)</td>
<td>30,000</td>
<td>22,500</td>
<td>#52</td>
</tr>
</tbody>
</table>

D. High Altitude Installations

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

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

Check with your local gas utility to determine proper orifice size.
E. Non-Combustible Materials Specification

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

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

F. Combustible Materials Specification

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

G. Electrical Codes

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

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

H. California

WARNING: This product and the fuels used to operate this product (liquid propane or natural gas), and the products of combustion of such fuels, can expose you to chemicals including benzene, which is known to the State of California to cause cancer and reproductive harm. For more information go to: www.P65Warnings.ca.gov.
A. Design and Installation Considerations

**WARNING! Risk of Fire or Explosion!** Read all instructions before starting the installation.

Heatilator B-vent type gas appliances are designed to operate with all combustion air siphoned from outside of the building and all exhaust gases expelled to the inside. No additional outside air source is required.

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

**Before** installing, determine the following:

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

**Improve Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals.**

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

---

B. Good Faith Wall Surface

**Figure 2.1 Good Faith Wall Surface Temperatures Above Appliance**

**Notice:** Surface temperatures listed above are taken with a temperature measuring probe as prescribed by the test standard used for appliance certification. Temperatures on walls or mantels taken with an infrared thermometer may yield increased temperatures of up to 30 °F (17 °C) or more depending on the thermometer settings and material characteristics being measured. Use appropriate finishing materials that are able to withstand these conditions. For additional finishing guidelines, see Section 11.

C. Tools and Supplies Needed

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

**Hand Tools**
- Tape measure
- Level
- Manometer
- Voltmeter
- Plumb line
- Wrenches
- 1/4 in. nut driver
- Non-corrosive leak check solution
- 1/2 - 3/4 in. length, #6 or #8 Self-drilling screws
- 1/4 in. length, #6 or #8 Self-drilling screws (B-Vent only)
- Caulking material (300 °F minimum continuous exposure rating)

**Building Supplies**
- Framing material
- Framing square
- Electric drill and bits (1/4 in.)
- Safety glasses/Gloves
- Reciprocating saw

---
D. Inspect Appliance and Components

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

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

- Carefully remove the appliance and components from the packaging.
- The vent system components and decorative barrier fronts may be shipped in separate packages.
- If packaged separately, the log set and appliance grate must be installed.
- Report to your dealer any parts damaged in shipment.

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 logs/media (as applicable) or the glass assembly.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.
E. Negative Pressure

**WARNING! Asphyxiation Risk!** Negative pressure can cause spillage of combustion fumes and soot. Fireplace needs to draft properly for safety.

Draft is the pressure difference needed to vent fireplaces successfully. Considerations for successful draft include:

- Preventing negative pressure
- Location of fireplace and chimney

**Negative pressure** results from the imbalance of air available for the fireplace to operate properly. Causes for this imbalance include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water heaters and other combustion appliances
- Clothes dryers
- Location of return-air to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks (recessed lighting, attic hatch opening, duct leaks)

To minimize the effects of negative air pressure, the following must be considered:

- Install the fresh air kit. Install the intake on the side of the house towards prevailing winds during the heating season.
- Ensure adequate outdoor air is supplied for combustion appliances and exhaust equipment.
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the fireplace.
- Avoid installing the fireplace near doors, walkways or small isolated spaces.
- Recessed lighting should be of “sealed can” design; attic hatches weather stripped or sealed; and attic mounted ductwork and air handler joints and seams taped or sealed.
- Basement installations should be avoided due to stack effect. Stack effect creates negative pressure in lower levels. Hearth & Home Technologies recommends the use of direct vent fireplaces in basements.

Location of the fireplace and chimney will affect performance. As shown in Figure 2.2, the chimney should:

- Be installed through the warm space enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind turbulence.
- Be located away from trees, adjacent structures, uneven roof lines and other obstructions.

Offsets can restrict draft so their use should be minimized. Consider the fireplace location relative to floor and ceiling and attic joists.

---

![Figure 2.2](image-url)

**Figure 2.2**
3 Framing and Clearances

A. Appliance/Decorative Front Dimension Diagrams
Dimensions are actual appliance dimensions. Use for reference only. For framing dimensions and clearances refer to Section 5.

Appliance Dimensions Table

<table>
<thead>
<tr>
<th>Location</th>
<th>NBV30-IFT</th>
<th>NBV33-IFT</th>
<th>NBV36-IFT</th>
<th>NBV42-IFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Inches</td>
<td>Millimeters</td>
<td>Inches</td>
<td>Millimeters</td>
</tr>
<tr>
<td>A</td>
<td>35</td>
<td>889</td>
<td>36</td>
<td>965</td>
</tr>
<tr>
<td>B</td>
<td>30</td>
<td>762</td>
<td>33</td>
<td>838</td>
</tr>
<tr>
<td>C</td>
<td>6-3/8</td>
<td>162</td>
<td>6-3/8</td>
<td>162</td>
</tr>
<tr>
<td>D</td>
<td>19-7/8</td>
<td>505</td>
<td>19-7/8</td>
<td>505</td>
</tr>
<tr>
<td>F</td>
<td>31-1/2</td>
<td>800</td>
<td>31-1/2</td>
<td>800</td>
</tr>
<tr>
<td>G</td>
<td>35-1/4</td>
<td>895</td>
<td>35-1/4</td>
<td>895</td>
</tr>
<tr>
<td>I</td>
<td>1-3/4</td>
<td>44</td>
<td>1-3/4</td>
<td>44</td>
</tr>
<tr>
<td>J</td>
<td>3</td>
<td>76</td>
<td>3</td>
<td>76</td>
</tr>
<tr>
<td>K</td>
<td>6-1/2</td>
<td>165 mm</td>
<td>6-1/2</td>
<td>165 mm</td>
</tr>
<tr>
<td>L</td>
<td>34-1/2</td>
<td>876</td>
<td>34-1/2</td>
<td>876</td>
</tr>
<tr>
<td>N</td>
<td>4-3/8</td>
<td>111</td>
<td>5-7/8</td>
<td>149</td>
</tr>
<tr>
<td>Q</td>
<td>2-3/8</td>
<td>60</td>
<td>2-3/8</td>
<td>60</td>
</tr>
<tr>
<td>R</td>
<td>8</td>
<td>203</td>
<td>8</td>
<td>203</td>
</tr>
</tbody>
</table>

Figure 3.1 Appliance Dimensions
DEMI-B DECORATIVE BARRIER FRONTS

IMPORTANT! This fireplace requires an installed decorative barrier front to prevent direct contact with the hot viewing glass. DO NOT operate the fireplace with the barrier removed. Decorative barrier front must be ordered at time of fireplace purchase. If decorative barrier front is not present, contact dealer.

Note: See Section 11 for hearth, mantel and finishing requirements.

Figure 3.2 Decorative Front Dimensions - DEMI-B
**TRES-B DECORATIVE BARRIER FRONTS**

**IMPORTANT!** This fireplace requires an installed decorative barrier front to prevent direct contact with the hot viewing glass. **DO NOT** operate the fireplace with the barrier removed. 

Decorative barrier front must be ordered at time of fireplace purchase. **If decorative barrier front is not present, contact dealer.**

Note: See Section 11 for hearth, mantel and finishing requirements.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRES30-B</td>
<td>in.</td>
<td>26-7/8</td>
<td>21</td>
<td>29-7/8</td>
<td>1-7/8</td>
<td>6-3/4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>683</td>
<td>533</td>
<td>759</td>
<td>48</td>
<td>171</td>
<td>762</td>
</tr>
<tr>
<td>TRES33-B</td>
<td>in.</td>
<td>29-7/8</td>
<td>21</td>
<td>32-7/8</td>
<td>1-7/8</td>
<td>6-3/4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>759</td>
<td>533</td>
<td>835</td>
<td>48</td>
<td>171</td>
<td>762</td>
</tr>
<tr>
<td>TRES36-B</td>
<td>in.</td>
<td>32-7/8</td>
<td>21</td>
<td>35-7/8</td>
<td>1-7/8</td>
<td>6-3/4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>835</td>
<td>533</td>
<td>911</td>
<td>48</td>
<td>171</td>
<td>762</td>
</tr>
<tr>
<td>TRES42-B</td>
<td>in.</td>
<td>38-7/8</td>
<td>21</td>
<td>41-7/8</td>
<td>1-7/8</td>
<td>6-3/4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>987</td>
<td>533</td>
<td>1064</td>
<td>48</td>
<td>171</td>
<td>762</td>
</tr>
</tbody>
</table>

*Figure 3.3 Decorative Front Dimensions - TRES-B*
SIMON DECORATIVE BARRIER FRONTS

IMPORTANT! This fireplace requires an installed decorative barrier front to prevent direct contact with the hot viewing glass. DO NOT operate the fireplace with the barrier removed. Decorative barrier front must be ordered at time of fireplace purchase. If decorative barrier front is not present, contact dealer.

Note: See Section 11 for hearth, mantel and finishing requirements.

Figure 3.4 Decorative Front Dimensions - SIMON-B

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIM-3630</td>
<td>28-3/8</td>
<td>21</td>
<td>29-7/8</td>
<td>1-5/8</td>
<td>2-3/8</td>
<td>30</td>
<td>31-1/2</td>
</tr>
<tr>
<td></td>
<td>721</td>
<td>533</td>
<td>759</td>
<td>41</td>
<td>60</td>
<td>762</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>797</td>
<td>533</td>
<td>835</td>
<td>41</td>
<td>60</td>
<td>762</td>
<td>800</td>
</tr>
<tr>
<td>SIM-4236</td>
<td>34-3/8</td>
<td>21</td>
<td>35-7/8</td>
<td>1-5/8</td>
<td>2-3/8</td>
<td>30</td>
<td>31-1/2</td>
</tr>
<tr>
<td></td>
<td>873</td>
<td>533</td>
<td>911</td>
<td>41</td>
<td>60</td>
<td>762</td>
<td>800</td>
</tr>
<tr>
<td>SIM-4842</td>
<td>40-3/8</td>
<td>21</td>
<td>41-7/8</td>
<td>1-5/8</td>
<td>2-3/8</td>
<td>30</td>
<td>31-1/2</td>
</tr>
<tr>
<td></td>
<td>1026</td>
<td>533</td>
<td>1064</td>
<td>41</td>
<td>60</td>
<td>762</td>
<td>800</td>
</tr>
</tbody>
</table>
B. Appliance Location and Clearances to Combustibles

When selecting a location for the appliance it is important to consider the required clearances to walls and allow sufficient clearance for heat management systems venting. See Figure 3.5 and Figure 3.6.

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

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

* As B increases, E increases accordingly.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBV30-IFT</td>
<td>in. 36</td>
<td>33-1/2</td>
<td>19-5/8</td>
<td>37</td>
<td>8-1/2</td>
<td>47-3/8</td>
</tr>
<tr>
<td></td>
<td>mm 914</td>
<td>851</td>
<td>498</td>
<td>940</td>
<td>216</td>
<td>1204</td>
</tr>
<tr>
<td>NBV33-IFT</td>
<td>in. 39</td>
<td>35-1/2</td>
<td>19-5/8</td>
<td>40</td>
<td>9-1/2</td>
<td>50-1/4</td>
</tr>
<tr>
<td></td>
<td>mm 991</td>
<td>902</td>
<td>498</td>
<td>1016</td>
<td>241</td>
<td>507</td>
</tr>
<tr>
<td></td>
<td>mm 1067</td>
<td>956</td>
<td>498</td>
<td>1092</td>
<td>270</td>
<td>1353</td>
</tr>
<tr>
<td>NBV42-IFT</td>
<td>in. 48</td>
<td>41-7/8</td>
<td>19-5/8</td>
<td>49</td>
<td>12-3/4</td>
<td>59-1/4</td>
</tr>
<tr>
<td></td>
<td>mm 1219</td>
<td>1064</td>
<td>498</td>
<td>1245</td>
<td>324</td>
<td>1505</td>
</tr>
</tbody>
</table>

**NOTICE:** Allow 18 inches minimum clearance on side(s) of appliance for venting of heat management system.

Figure 3.5 Clearance for Heat Management System

Refer to Section 11.B for mantel and wall projection information.

Consider the mantel or cabinet system to be installed and comply with the necessary requirements for elevated hearth. Refer to instructions included with cabinet system.
**Note:** If the inside of the framed cavity is to be finished, the framing dimensions must include the finished surface. Example: If drywall is to be attached to the rear wall, the depth must be measured from the drywall surface.

![Diagram of appliance and combustible object](image)

Combustible flooring may be installed next to the front of the appliance.

**Per Manufacturer’s Specifications**

**Note:** Framing may be constructed of 2 X 4 or 2 X 6 materials

**Combustible Object**

- 30 in. (762 mm) to ceiling
- 36 in. (914 mm)
- 0 in.

**30 in. (762 mm) to ceiling**

**Combustible Object**

- 30 in. (762 mm) to ceiling
- 36 in. (914 mm)
- 0 in.

**0 in. TO LEVEL OF STANDOFFS**

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

---

**Figure 3.7 Clearances to Combustibles**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A (Width)</th>
<th>B (Height)</th>
<th>C (Depth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBV30-IFT</td>
<td>in. 36</td>
<td>34-7/8</td>
<td>19-5/8</td>
</tr>
<tr>
<td></td>
<td>mm 914</td>
<td>886</td>
<td>498</td>
</tr>
<tr>
<td>NBV33-IFT</td>
<td>in. 39</td>
<td>34-7/8</td>
<td>19-5/8</td>
</tr>
<tr>
<td></td>
<td>mm 991</td>
<td>886</td>
<td>498</td>
</tr>
<tr>
<td>NBV36-IFT</td>
<td>in. 42</td>
<td>34-7/8</td>
<td>19-5/8</td>
</tr>
<tr>
<td></td>
<td>mm 1067</td>
<td>886</td>
<td>498</td>
</tr>
<tr>
<td>NBV42-IFT</td>
<td>in. 48</td>
<td>34-7/8</td>
<td>19-5/8</td>
</tr>
<tr>
<td></td>
<td>mm 1219</td>
<td>886</td>
<td>498</td>
</tr>
</tbody>
</table>
C. Constructing the Appliance Chase

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

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

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

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

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

**NOTICE:** When installing a sprinkler head in a fireplace chase, it is recommended to use a sprinkler head with a sprinkler activation temperature classified as Extra High. Keep sprinkler head away from vent and chimney.

Chases should be constructed and insulated in the same manner as the thermal envelope of the home based on the code requirements for that climate zone to prevent air leakage and draft problems. The chase is an extension of the building thermal envelope.

To further prevent drafts and air leakage, the wall shield and ceiling firestops should be sealed with caulk with a minimum of 300 °F continuous exposure rating to seal gaps. Gas line holes and other openings should be sealed 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.
4 Termination Location and Vent Information

A. Vent Termination Minimum Clearances

**WARNING**

Fire Risk.
Maintain vent clearance to combustibles as specified.
- **DO NOT** pack air space with insulation or other materials.
Failure to keep insulation or other materials away from vent pipe could cause overheating and fire.

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

* H minimum may vary depending on regional snowfall. Refer to local codes.

Figure 4.1 Minimum Height From Roof to Lowest Discharge Opening

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 in. (minimum) up to 20 in.</td>
<td>18 in. minimum</td>
</tr>
<tr>
<td>152 mm/508 mm</td>
<td>457 mm</td>
</tr>
<tr>
<td>20 in. and over</td>
<td>0 in. minimum</td>
</tr>
</tbody>
</table>

Wood or Fuel Oil Termination Cap

* If using decorative cap cover(s), this distance may need to be increased. Refer to the installation instructions supplied with the decorative cap cover.

**Gas Termination Cap**

** If two gas terminations are present, they may be level (B = 0 inches) provided A is a minimum of 6 inches.

Figure 4.2 Staggered Termination Caps
A. Vent Guidelines
WARNING! Fire Risk/Asphyxiation! This appliance requires the specified pipe for operation. Incorrect pipe may cause spillage, condensation and overheating.
These models require the following size B-vent double wall vent pipe.

<table>
<thead>
<tr>
<th>Model</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBV30-IFT/NBV33-IFT</td>
<td>5 in. (127 mm)</td>
</tr>
<tr>
<td>NBV36-IFT/NBV42-IFT</td>
<td>5 in. (127 mm)</td>
</tr>
</tbody>
</table>

- Follow pipe manufacturer’s installation guidelines when installing the appliance.

WARNING! Fire Risk/Explosion/Asphyxiation! 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. Vent System Configuration
CAUTION! Risk of Fire! 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.

Rise to Run Ratio = 2:1
Maximum Total Horizontal Run = 30 Feet
Minimum Total Vertical Rise = 12 Feet
Maximum Total Vertical Rise = 60 Feet
Maximum Number of Elbows: Four 90° or Eight 45°

WARNING! Risk of Fire or Explosion! Insulation and other combustibles must not infringe on clearances.
- ALWAYS maintain specified clearances around venting and firestop systems.
- Install firestops as specified.
Failure to keep insulation or other material away from vent pipe may cause fire.

C. Vent Diagrams
To replace the first 90° starter elbow with two 45° elbows, refer to Figure 5.1. All other 90° elbows can be replaced with two 45° elbows.

General Rules:
- The vent system must terminate vertically.
- Vent this appliance directly outside.
- Use a separate vent system for this appliance.
- Rise to run ratio not to exceed 2:1.
- Maximum total horizontal run is 30 feet (9.1 m).
- Maximum total vertical rise is 60 feet (18.3 m).
No Elbow

- $V = 60\text{ ft. (18.3 m)}$ Maximum
- $V = 12\text{ ft. (3.7 m)}$ Minimum

**Figure 5.2**

Two Elbows

- $V_{\text{Total}} = 60\text{ ft (18.3 m)}$ Maximum
- $V_{\text{Total}} = 12\text{ ft (3.7 m)}$ Minimum

Maximum horizontal run is 50% of vertical, but may not exceed 30 ft. (9.1 m)

**Figure 5.3**
Three Elbows

\[ V_{\text{TOTAL}} = 60 \text{ ft. (18.3 m) Maximum} \]
\[ V_{\text{TOTAL}} = 12 \text{ ft. (3.7 m) Minimum} \]

Maximum horizontal run is 50\% of vertical, but may not exceed 30 ft. (9.1 m)
Top Vent - Vertical Termination - (continued)

Four Elbows

\[
\begin{align*}
V_{\text{TOTAL}} &= 60 \text{ ft. (18.3 m)} \text{ Maximum} \\
V_{\text{TOTAL}} &= 12 \text{ ft. (3.7 m)} \text{ Minimum} \\
\text{Maximum horizontal run is 50\% of vertical, but may not exceed 30 ft. (9.1 m)}
\end{align*}
\]

Figure 5.5
A. Pipe Clearances to Combustibles

Vent clearances are per vent manufacturer’s specifications. The vent MUST be Listed B-Vent pipe.

**WARNING! Risk of Fire! MAINTAIN AIR space clearance to vent. DO NOT pack insulation or other combustibles:**
- Between ceiling firestops
- Between wall shield firestops
- Around vent system

Failure to keep insulation or other material away from vent pipe could cause overheating and fire.

B. Wall and Ceiling Penetration Framing

For a wall or ceiling penetration consult B-vent pipe manufacturer’s instructions to provide adequate clearances. Use same size framing materials as those used in the wall or ceiling construction. Firestop spacers must be used in wall and ceiling penetrations per the B-Vent pipe manufacturer’s specifications and national, regional and local codes.

**Note:** MUST terminate vertically.

C. Vertical Penetration Framing

**WARNING! Fire Risk. DO NOT allow loose materials or insulation to touch vent. Hearth & Home Technologies 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.

Use B-vent manufacturer’s firestops to provide adequate clearances.

D. Pipe Clearances to Combustibles

**WARNING! Risk of Fire! Maintain air space clearance to vent. DO NOT pack insulation or other combustibles:**
- Between ceiling firestops
- Between wall shield firestops
- Around vent system

Failure to keep insulation or other material away from vent pipe could cause overheating and fire.

---

E. Prepare For Heat Management

**NOTICE:** Additional clearances are required for heat management systems installations. Provisions must be made in advance to ensure fit within the framing.

- Heat management systems include Heat-Zone® Gas and Heat-Out-Gas. Other systems may be available. Contact your dealer for information.
- Locate the knockouts on the left and right sides of the appliance. Either one or two heat management may be installed. Remove the knockout(s) from the appliance with a tin snips.
- Center the duct collar around the exposed hole and attach it to the appliance with 3 screws.

**Note:** Do this BEFORE final positioning of the appliance.
- Determine the location for the air register/fan housing assembly.

Reference the appropriate instructions included with the kit for the remaining installation steps.

---

Figure 6.1 Horizontal Venting Clearances To Combustible Materials
Appliance Preparation

A. Installing Outside Air Kit Damper Assembly

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

**WARNING! Risk of Fire/Asphyxiation.** DO NOT draw outside combustion air from:
- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.
- Close proximity to exhaust vents or chimneys.

Fumes or odor may result.
- The outside air kit can only be installed on the left side of the appliance.
- Refer to the installation instructions provided with the kit.

![Figure 7.1 Outside Air Kit Installation](image)

B. Gas and Electrical Connections

If applicable, ensure that gas and electrical connections are installed at this time. Refer to Section 10 (Gas Information) and Section 9 (Electrical Information).

C. Securing and Leveling the Appliance

**WARNING! Risk of Fire!** Prevent contact with:
- Sagging or loose insulation
- Insulation backing or plastic
- Framing and other combustible materials

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

**DO NOT** notch the framing around the appliance standoffs.

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

- Bend out nailing tabs on each side.
- Place the appliance into position.
- Keep nailing tabs flush with the framing.
- Level the appliance from side to side and front to back.
- Shim the appliance as necessary. It is acceptable to use wood shims underneath the appliance.
- Secure the appliance to the framing by using nails or screws through the nailing tabs.
- Optional: Secure the appliance to the floor by inserting two screws through the pilot holes at the bottom of the appliance.

![Figure 7.2 Proper Positioning and Securing of Appliance](image)
8 Venting and Chimneys (Installing Vent Pipe)

A. Assemble Vent Sections
This B-Vent appliance requires 5 in. B-vent double-wall pipe. Follow the pipe manufacturer’s installation guidelines when installing the appliance. This will ensure proper operation and prevent safety hazards.

**WARNING! Risk of Fire/Exhaust Fumes!** Assemble pipe sections per B-vent manufacturer’s instructions. Use support tabs for screws. Pipe may separate if not properly joined.

B. Attaching Vent to Firebox
Three tabs extend from appliance collar shield. Attach tabs to first section of B-vent pipe using self-tapping 1/4 in. screws. See Figure 8.1.

![Figure 8.1](image)

C. Securing Vent Sections
Secure vent sections with vent supports following B-vent manufacturer’s instructions.

**WARNING! Risk of Fire or Explosion!** Use vent run supports per vent manufacturer’s installation instructions.
- Connect vent sections per vent manufacturer’s installation instructions.
- Maintain all clearances to combustibles. Maintain specified slope (if required).
- Improper support may allow vent to sag or separate.

D. Install Attic Insulation Shield

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

The 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 vent manufacturer’s specified clearance and be secured in place per vent manufacturer’s instructions.
A. General Information

**WARNING! Risk of Shock! DO NOT** wire 110-120 VAC to the ignition module or to the appliance wall switch. Incorrect wiring will damage controls.

**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.

- Wire the appliance circuit using a minimum 14-2 AWG with ground to unswitched 110-120 VAC. This is required for use of optional accessories or proper operation of the appliance (IntelliFire ignition).
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.
- In some instances, the spark ignition of the fireplace may cause intermittent, non-damaging, interference during the lighting sequence with a TV plugged into the same circuit. It is recommended that the fireplace and TV use different circuits to mitigate the interference potential. If interference is occurring on the same circuit, the use of surge protectors may help alleviate the interference.

Junction Box Installation

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 9.1.
- Pull the electrical wires from outside the appliance through the opening into the valve compartment and secure wires with a Romex connector. See Figure 9.1.
- Make all necessary wire connections to the junction box/receptacle and reattach the junction box/receptacle to the outer shell.

![Figure 9.1 Junction Box Detail](image)

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

**Accessories Requirements**

- This appliance may be used with a wall switch, wall mounted thermostat and/or a remote control.

Wiring for optional Hearth & Home Technologies approved accessories should be done now to avoid reconstruction. Follow instructions that come with those accessories.

### Electrical Service and Repair

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

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

IntelliFire Touch® Ignition System Wiring

- Wire the appliance junction box to 110-120 VAC for proper operation of the appliance.
- This appliance is equipped with a temperature limit switch which is located above the appliance firebox. This switch is used to protect against reverse draft or flue blockage on B-vent appliances. See appliance Owner’s manual trouble shooting section for more details.

WARNING! Risk of Shock or Explosion! DO NOT wire IPI controlled appliance junction box to a switched circuit. Incorrect wiring will override IPI safety lockout.

- Refer to Figure 9.2 IntelliFire Touch (IPI) Wiring diagram.
- This appliance is equipped with an IntelliFire control valve which operates on a 6 volt system.

![IntelliFire Touch Wiring Diagram]

Figure 9.2 IntelliFire Touch Wiring Diagram
Optional Fan Installation Methods

A fan can be added to your appliance to push more warmth into your space.

Option 1:
The optional fan can be used in conjunction with the optional IFT-RC400 remote control. Fan speed is controlled through the remote control only.

Option 2:
The optional fan can be used with the fan control module that is included in the fan kit. Fan speed is controlled through the control knob on the fan control module.

Option 3:
The optional fan can be used in conjunction with a wall mounted switch. See Figure 8.3. To control fan speed a BC10 (Blower Control Wall Switch) must be used:

- The power supply for the appliance must be brought into a switch box.
- The power can then be supplied from the switch box to the appliance using a minimum of 14-2 with ground wire.
- At the switch box connect the black (hot) wire and red (switch leg) wire to the wall switch as shown.
- At the appliance connect the black (hot), white (neutral) and green (ground) wires to the junction box wire assembly as shown.

Figure 9.3 Junction Box Wire Assembly Wired to Wall Switch or BC10
10 Gas Information

A. Fuel Conversion

• Make sure the appliance is compatible with available gas types.

• Conversions must be made by a qualified service technician using Hearth & Home Technologies specified and approved parts.

B. Gas Pressure

\[\text{\textbf{WARNING}}\]

Fire Risk.
Risk of Fire! Risk of Explosion!
Incorrect pressure will damage valve.

- Isolate 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.

- Optimum appliance performance requires proper input pressures.

- Gas line sizing requirements will be determined in ANSI Z223.1 National Fuel Gas Code in the USA and CAN/CGA B149 in Canada.

- Pressure requirements are:

<table>
<thead>
<tr>
<th>Gas Pressure</th>
<th>Natural Gas</th>
<th>Propane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum inlet pressure</td>
<td>5.0 in. w.c.</td>
<td>11.0 in. w.c.</td>
</tr>
<tr>
<td>Maximum inlet pressure</td>
<td>10.0 in. w.c.</td>
<td>13.0 in. w.c.</td>
</tr>
<tr>
<td>Manifold pressure</td>
<td>3.5 in. w.c.</td>
<td>10.0 in. w.c.</td>
</tr>
</tbody>
</table>

- Verify inlet pressures. Verify minimum pressures when other household gas appliances are operating.

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

**Note:** Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI Z223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter).

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

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

C. Gas Connection

• Refer to Reference Section 3 for location of gas line access in appliance.

• Gas line may be run through knockout(s) provided.

• The gap between supply piping and gas access hole may be sealed with caulk or aluminum foil tape with a minimum of 300 °F continuous exposure rating or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.

• Ensure that gas line does not come in contact with outer wrap of the appliance. Follow local codes.

• Pipe incoming gas line into valve compartment.

• Connect incoming gas line to the 1/2 in. (13 mm) NPT connection on manual shutoff valve.

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

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

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

- Ensure adequate ventilation.

- Ensure there are no ignition sources such as sparks or open flames.

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

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

D. High Altitude Installations

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

When installing above 2000 feet elevation:

- In the USA: Reduce input rate 4% for each 1000 feet above 2000 feet.

- In CANADA: Input ratings are certified without a reduction of input rate for elevations up to 4500 feet (1370 m) above sea level. Please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4500 feet (1370 m).

Check with your local gas utility to determine proper orifice size.
E. Air Shutter Setting

Air shutter setting should be adjusted by a qualified installer at the time of installation.

- The air shutter is set at the factory for minimum vertical vent run.
- Adjust air shutter for longer vertical runs. See Figure 10.1.
- Turn the thumbscrew to open or close the air shutter. It may be necessary to use a pliers or crescent wrench to adjust the shutter. See chart below for correct shutter settings. The shutter measurement is taken from the bottom of the tub to the bottom of the thumbscrew. See Figure 10.1.

**Note:** Adjust air shutter after flame has reached full maturity (approximately 20-40 minutes).

**CAUTION! Risk of Burns!** Components are HOT. Wear protective gloves when adjusting shutter.

![Figure 10.1 Adjusting Air Shutter](image)

**Note:** The air shutter is equipped with a compression spring that helps to maintain the shutter position during transportation. It may be necessary to relieve this spring pressure on the thumb screw to adjust the shutter.

### Air Shutter Settings (Factory Set to Minimum Vent Run)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>GAS TYPE</th>
<th>SHUTTER MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBV30-IFT</td>
<td>NG</td>
<td>1-3/8 IN.</td>
</tr>
<tr>
<td></td>
<td>PROPANE</td>
<td>1-3/8 IN.</td>
</tr>
<tr>
<td>NBV33-IFT</td>
<td>NG</td>
<td>1-3/8 IN.</td>
</tr>
<tr>
<td></td>
<td>PROPANE</td>
<td>1-1/4 IN.</td>
</tr>
<tr>
<td>NBV36-IFT</td>
<td>NG</td>
<td>1-1/4 IN.</td>
</tr>
<tr>
<td></td>
<td>PROPANE</td>
<td>1 IN.</td>
</tr>
<tr>
<td>NBV42-IFT</td>
<td>NG</td>
<td>1-1/8 IN.</td>
</tr>
<tr>
<td></td>
<td>PROPANE</td>
<td>1-1/8 IN.</td>
</tr>
</tbody>
</table>

**Note:** All vent runs may need to be evaluated for ideal shutter settings. Shutter distances may vary due to vent run, fuel quality, and elevation.
11 Finishing

A. Facing Material

⚠️ WARNING ⚠️

Risk of Fire!

DO NOT apply combustible materials beyond the minimum clearances. Comply with all minimum clearances to combustibles as specified in this manual. Materials overlapping into non-combustible zones could ignite and will interfere with air flow through decorative barrier fronts.

- Metal front of appliance may be covered with non-combustible materials only.
- Facing and/or finishing materials must not interfere with air flow through decorative barrier fronts, removal of decorative barrier fronts or access for service.
- Facing and/or finishing materials must never overhang into the glass opening.
- Observe all clearances when applying combustible materials.
- Seal gaps between the finished wall and appliance top and sides using a 300 °F minimum sealant.

NOTICE: Surface temperatures around the appliance will become warm while the appliance is in operation. Ensure finishing materials used for all surfaces (floor, walls, mantels, etc.) will withstand temperatures up to 190 °F.

B. Mantel and Wall Projections

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

Note: Mantel measurement is taken from top of the opening, NOT the top of the fireplace.

Combustible Mantels

![Figure 11.1 Minimum Vertical and Maximum Horizontal Dimensions of Combustibles](image)

Measured from top of hood or appliance opening (in inches). Refer to Section 3.8 for additional clearances to combustibles information.

Combustible Mantel Legs or Wall Projections

![Figure 11.2 Combustible Mantel Leg or Wall Projections](image)

STOP FINISHING MATERIAL FLUSH WITH OUTSIDE EDGE OF APPLIANCE.

TOP OF APPLIANCE

DRYWALL

FIREPLACE OPENING

See Dimension B on Appliance Dimension Diagram.

3-1/2 in. (Min)

UNLIMITED

MANTEL LEG OR PERPENDICULAR WALL

1 in. (max)

1 in. (min)
C. Non-combustible Mantel and Wall Projections

Only decorative barrier fronts certified for use with this appliance model may be used. Contact your dealer for a list of decorative fronts that may be used. The finishing material thicknesses allowed are noted below.

**Figure 11.3 Minimum Vertical and Maximum Horizontal Dimensions for Non-Combustibles Mantels**

*Note:* When using a DEMI or TRES decorative barrier front a 1/2 in. clearance must be maintained from the fireplace opening to allow room for decorative barrier front removal / install.

**Non-Combustible Mantel Legs or Wall Projections**

**Figure 11.4 Non-Combustible Mantel Leg or Wall Projections**

*Note:* When using a DEMI or TRES decorative barrier front a 1/4 in. clearance must be maintained on both sides of the fireplace opening to allow room for decorative barrier front removal / install.
12 Appliance Setup

A. Remove the Shipping Materials
Remove shipping materials from inside or underneath the firebox.

- The splatter guard is a piece of corrugated material used to protect the appliance during the installation process before finishing work on the whole hearth is complete. Splatter guards may be factory installed or accompany the decorative barrier front of the appliance, depending on the fireplace model. Splatter guards must be removed before appliance is fired.

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

![Appliance Unwrapped](image)

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

C. Install Optional Refractory Kit
An optional refractory kit is available for the NBV models. Contact your dealer to order the kit. Install according to instructions included with kit.

D. Install Burner Mineral Wool

**WARNING! Risk of Explosion!** Follow mineral wool placement instructions. DO NOT place mineral wool on or near rear burner ports. Replace mineral wool material annually. Improperly placed mineral wool interferes with proper burner operation.

**Note:** It may be helpful to temporarily remove Log #5 to place the mineral wool. If removed, replace log according to log placement instructions.

- Mineral wool is shipped with this gas appliance.
- Place a small amount of 1/2 in. diameter pieces (dime-size) mineral wool on the burner pan as shown in Figure 12.3. The mineral wool may be placed loosely over the front burner port holes in the burner pan. Do NOT press them onto or into the burner port holes. This will provide the “glowing embers” look.
- It is not necessary to use the entire bag. Save the remaining mineral wool for future use.
- It is permissible to place a small amount of mineral wool or lava rock over screw heads that are used to fasten the rear logs.

**WARNING**

**RISK OF EXPLOSION!**

- Place lava rock, mineral wool and vermiculite according to instructions.

  - Do NOT place lava rock, mineral wool or vermiculite in a position that they may fall into pilot area.

  Delayed ignition could occur.

  - Use ONLY Hearth & Home Technologies-approved lava rock, mineral wool or vermiculite.

  - Some models may not require use of entire contents of bag.

Place the Lava Rock
Place the lava rock in an even layer just heavy enough to cover the metal surface. Stay within the zone indicated in Figure 12.3. It is not necessary to use the entire bag. Save the remaining amount for future use.

Place the Vermiculite
Spread vermiculite in a light, even pattern on top of lava rock. Stay within the zone indicated in Figure 12.3. It is not necessary to use the entire bag. Save the remaining amount for future use.
E. Install Fixed Glass Assembly

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

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

**Replacing Fixed Glass Assembly**

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

F. Install Decorative Barrier Front

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

**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.

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

---

**Figure 12.2 Fixed Glass Assembly**

**Figure 12.3 Placement of Mineral Wool, Lava Rock and Vermiculite**
G. Install the Log Assembly

Log Set Assembly:

**SrV2380-070  SrV2381-070  SrV2382-070  SrV2383-070**

**Models:** NDV30-IFT, NDV30L-IFT, NDV33-IFT, NDV33L-IFT, NDV36-IFT-NVR, NDV36-IFT, NDV36L-IFT, NV34-IFT, NV42L-IFT NBV30-IFT, NBV33-IFT, NBV36-IFT, NBV42-IFT

See Table 1 for corresponding log set and individual logs for each size Novus model.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>30</th>
<th>33</th>
<th>36</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLY</td>
<td>SrV2380-070</td>
<td>SrV2381-070</td>
<td>SrV2382-070</td>
<td>SrV2383-070</td>
</tr>
<tr>
<td>LOG 1</td>
<td>SrV2380-071</td>
<td>SrV2380-071</td>
<td>SrV2382-071</td>
<td>SrV2383-071</td>
</tr>
<tr>
<td>LOG 2</td>
<td>SrV2380-072</td>
<td>SrV2381-072</td>
<td>SrV2381-072</td>
<td>SrV2383-072</td>
</tr>
<tr>
<td>LOG 3</td>
<td>SrV2380-073</td>
<td>SrV2381-073</td>
<td>SrV2381-073</td>
<td>SrV2383-073</td>
</tr>
<tr>
<td>LOG 4</td>
<td>SrV2380-074</td>
<td>SrV2380-074</td>
<td>SrV2382-074</td>
<td>SrV2382-074</td>
</tr>
<tr>
<td>LOG 5</td>
<td>SrV2380-075</td>
<td>SrV2380-075</td>
<td>SrV2380-075</td>
<td>SrV2383-075</td>
</tr>
</tbody>
</table>

**Table 1.**

**CAUTION: Logs are fragile, handle with care.**

The log set is shipped from the factory with three logs already in place on the hearth pan. See Figure 1. In case of damage, the log will need to be removed from the base pan. See Figure 2 for locations of fasteners for each log.

LOG #4: Place Log #4 into position by setting the left end of Log #4 into the flat spot on Log #2 and then resting the right end, or nose, of Log #4 on the flat spot on Log #1. Figure 3 shows locations of flat spots. Figure 4 shows Log #4 installed.
Log #5: Place Log #5 into position. The forked end of Log #5 is positioned toward the front of the appliance, with the two slots on the back side resting on the bent lip of the hearth pan. See Figure 6. Slide Log #5 toward the right until it contacts the log pin as shown in Figure 6.
A. Optional Accessories

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

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

Remote Controls, Wall Controls and Wall Switches

After a qualified service technician has installed the remote control, wall control or wall switch, follow the instructions supplied with the control installed to operate your appliance:

For safety:

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

Contact your dealer if you have questions.

IntelliFire Wi-Fi Module with IntelliFire App

After a qualified service technician has installed the Wi-Fi module with IntelliFire app, follow the instructions supplied with the control installed to operate your appliance. Contact your dealer if you have questions.

Optional Fan

After a qualified service technician has installed the fan, follow the instructions supplied with the fan kit to operate your fan. See your dealer if you have questions.

Optional Heat Management Systems Kits

After a qualified service technician has installed the heat management system, follow the instructions supplied with the kit for operation. Contact your dealer if you have questions.

**Note:** Optional heat management systems kit must be installed while the sides of the appliance are accessible.

Optional Refractory Kit

If desired, a refractory kit may be added. Contact your dealer to order the correct refractory kit. Detailed installation instructions are included with the refractory kit.