Installation Manual
Installation and Appliance Setup

INSTALLER: Leave this manual with party responsible for use and operation.
OWNER: Retain this manual for future reference.

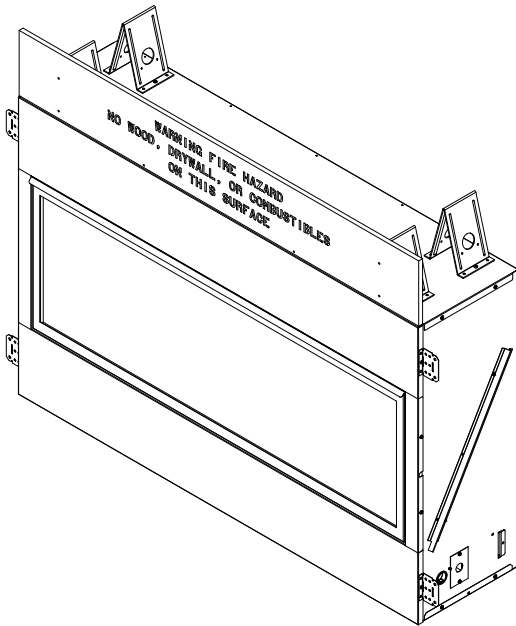*NOTICE: DO NOT discard this manual!*

ARTISAN SERIES

MONESSEN

Models:
AVFL42NIF-BU/PIF-BU
AVFL42NIF-RB/PIF-RB
AVFL48NIF/PIF
AVFLST48NIF/PIF
AVFL60NIF/PIF

UL LISTED

⚠ **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.

DO NOT install this appliance in a bedroom or bathroom. Please refer to page 6 Section F for proper appliance placement.

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to Page 6.

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.

This appliance may be installed in an after-market, permanently located, manufactured (mobile) home, where not prohibited by local codes. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.

⚠ Safety Alert Key:

- *DANGER!* *Indicates a hazardous situation which, if not avoided <u>will</u> result in death or serious injury.*
- *WARNING!* *Indicates a hazardous situation which, if not avoided <u>could</u> 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.*

Table of Contents

> **⚠*WARNING! RISK OF FIRE OR EXPLOSION AND ASPHYXIATION HAZARD***
>
> Improper adjustment, alteration, service, maintenance, or installation of this heater or its controls can cause death or serious injury.
> Read and follow instructions and precautions in User's Information Manual provided with this heater.

Installation Standard Work Checklist

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: _____

Lot/Address: _____
_____

Model (circle one): AVFL42NIF-BU/PIF-BU, AVFL42NIF-RB/PIF-RB
AVFL48NIF/PIF, AVFLST48NIF/PIF, AVFL60NIF/PIF

Date Installed: _____

Location of Appliance: _____

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.*

	YES	IF NO, WHY?
Appliance Install Sections 3 and 4		
Verified that the chase is insulated and sealed.	☐	_____
Required non-combustible board is installed.	☐	_____
Verified clearances to combustibles.	☐	_____
Fireplace is leveled and secured.	☐	_____
Adequate provisions for combustion and ventilation air have been verified.	☐	_____
Gas Section 5		
Proper appliance for fuel type.	☐	_____
Leak check performed and inlet pressure verified.	☐	_____
Verified proper air shutter setting for installation type.	☐	_____
Electrical Section 6		
Unswitched power (110-120 VAC) provided to the appliance.	☐	_____
Switch wires properly installed.	☐	_____
Crushed Glass Media & Logs Section 7		
All packaging and protective materials removed (inside & outside of appliance).	☐	_____
Crushed glass media installed correctly.	☐	_____
Accessories installed properly.	☐	_____
Finishing Section 8		
Verified all clearances meet installation manual requirements.	☐	_____
Mantels and wall projections comply with installation manual requirements.	☐	_____
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 _____
(Builder / Gen. Contractor/) (Installer)   (Date)

➔ = Contains updated information.

1 Product Specific and Important Safety Information

A. Appliance Certification

> **MODEL:** AVFL42NIF-BU, AVFL42PIF-BU, AVFL42NIF-RB, AVFL42PIF-RB, AVFL48NIF, AVFL48PIF, AVFLST48NIF, AVFLST48PIF, AVFL60NIF, AVFL60PIF
>
> **LABORATORY: UNDERWRITERS LABORATORIES, INC. (UL)**
>
> **TYPE:** Unvented Room Heaters
>
> **STANDARD: ANSI Z21.11.2:19**

This product is listed to ANSI standards for "Unvented Room Heaters" and applicable sections of "Gas Burning Heating Appliances for Manufactured Homes" and "Gas Fired Appliances for Use at High Altitude."

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.

> **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. BTU Specifications

Models		Maximum Input BTU/h	Minimum Input BTU/h	Orifice Size (DMS)
AVFL42NIF-BU (NG)	*(0-2000 FT)*	34,000	23,500	.1110(#34)
AVFL42PIF-BU (PROPANE)	*(0-2000 FT)*	33,000	26,000	.070(#50)
AVFL42NIF-RB (NG)	*(0-2000 FT)*	24,500	17,500	.096(#41)
AVFL42PIF-RB (PROPANE)	*(0-2000 FT)*	24,000	19,000	.0595(#53)
AVFL48NIF (NG)	*(0-2000 FT)*	39,000	27,500	.120(#31)
AVFL48PIF (PROPANE)	*(0-2000 FT)*	38,000	31,000	.076(#48)
AVFLST48NIF (NG)	*(0-2000 FT)*	39,000	27,500	.120(#31)
AVFLST48PIF (PROPANE)	*(0-2000 FT)*	38,000	31,000	.076(#48)
AVFL60NIF (NG)	*(0-2000 FT)*	40,000	28,000	.120(#31)
AVFL60PIF (PROPANE)	*(0-2000 FT)*	39,000	30,500	.076(#48)

NOTE: For LP models an external regulator is required to reduce supply pressure to a maximum of 13" w.c.

GAS PRESSURES

	NATURAL	PROPANE (LP)
Inlet Minimum	5.0" w.c.	11.0" w.c.
Inlet Maximum	10.0" w.c.	13.0" w.c.
Regulator Pressure Setting	3.5" w.c.	10" w.c.
Pilot Regulator	3.5" w.c.	—

C. 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: Reduce input rate 4% for each 1000 feet above 2000 feet.

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

D. 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 ºC** shall be considered non-combustible materials.

E. 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.

F. 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.

> ⚠️ **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.**
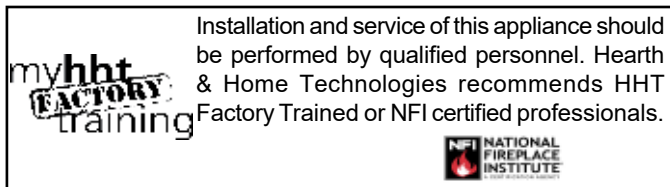
2 Getting Started

A. Design and Installation Considerations

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.

• Gas supply piping.

• Electrical wiring requirements.

• Framing and finishing details.

• Whether optional accessories—devices such as a wall switch or remote control—are desired.

myhht FACTORY training	Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals. NFI NATIONAL FIREPLACE INSTITUTE

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. Tools and Supplies Needed

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

• Tape measure	• Manual shutoff valve
• Pliers	• Sediment trap
• Hammer	• Tee joint
• Gloves	• Pipe wrench

• Voltmeter
• Level
• Manometer
• Framing material
• Phillips screwdriver
• Framing square
• Plumb line
• Safety glasses
• Reciprocating saw
• Flat blade screwdriver
• 1/2 - 3/4 in. length, #6 or #8 Self-drilling screws
• Non-corrosive leak check solution
• Electric drill and bits (1/4 in. magnetic)
• External regulator (for propane/LPG only)
• Piping which complies with local codes
• Pipe sealant approved for use with propane/LPG (Resistant to sulfur compounds)

C. Inspect Appliance and Components

• Carefully remove the appliance and components from the packaging.

• The accessories and fronts may be shipped in separate packages.

• Crushed Glass Media may be packaged separately.

• Report to your dealer any parts damaged in shipment, particularly the condition of the glass.

• **Read all of the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

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

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

• Installation and use of any damaged appliance.

• Modification of the appliance.

• Installation other than as instructed by Hearth & Home Technologies.

• Installation and/or use of any component part not approved by Hearth & Home Technologies.

Any such action may cause a fire hazard.

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

⚠ WARNING

This appliance is equipped for (natural or propane) gas. Field conversion is not permitted.

D. Getting Started

Verify that all listed parts have been received. You should have the following:

- Unvented gas heater
- Two (2) anchoring screws
- Installation and Owner's instructions
- 7.25" non-combustible board
- Deflector glass
- Five (5) bags crushed glass media (60" appliances)
- Four (4) bags crushed glass media (42" and 48" appliances)
- RC450 remote control (48" and 60" appliances)

Carefully inspect the contents for shipping damage. If any parts are missing or damaged, immediately inform the dealer from whom you purchased the appliance. ***Do not attempt to install any part of the appliance unless you have all parts in good condition.***

⚠ WARNING

Do not install the heater:

- **Where curtains, furniture, clothing, or other flammable objects are less than 36" from the front of the heater.**
- **In high traffic areas.**
- **In windy or drafty areas.**

⚠ WARNING

Gloves are recommended when handling ceramic fiber logs to prevent skin irritation from loose fibers. Logs are fragile—handle with care.

E. Planning the Installation

When planning the installation of the appliance it is necessary to determine where the appliance is to be installed and whether optional accessories are desired. Gas supply piping should also be planned. The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.

1. Position appliance in desired location. Refer to the *Appliance Location* (*page 7, Figure 2.2)* and *Clearances* and *Height Requirements (page 16, Section 3.B)* sections and *Appliance and Framing Dimensions (page 10 and 11, Section 3.A)* illustration found in this manual.

   NOTE: Be sure all packing material has been removed from under and behind the unit.

2. Install following the instructions found in this manual.

3. Field wire main power supply to junction box. Refer to the *Electrical Installation* section *(page 28)*. (Electrical connections should only be performed by an experienced, licensed certified service person).

4. Plumb gas line. Gas line may be run either through bottom of unit or left side. There is no right side access. Refer to the *Connect the Gas (page 25, Figure 5.3)* section found in this manual. (Gas connections should only be performed by an experienced, licensed/certified service person).

5. Complete finish wall material and/or surround.

F. Adequate Combustion Ventilation Air

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

The National Fuel Gas Code, (ANSI Z223.1/NFPA54), defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 BTU per hour (4.8m^3 per kw) of the aggregate input rating of all appliances installed in that space, and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 BTU per hour (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of a confined space.

Unusually tight construction is defined as construction where:

a. Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 perm (6 x 10^{11} kg per pa/sec-m^2) or less with openings gasketed or sealed, and

b. Weather stripping has been added to windows and doors, and

c. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines and other openings.

The following formula can be used to determine the maximum heater rating per the definition of unconfined space:

$$\text{BTU/Hr} = \frac{(L_1 + L_2)\ \text{Ft} \times (W)\ \text{Ft} \times (H)\ \text{Ft}}{50}$$

Consider two connecting rooms with an open area between, with the following dimensions:

$$L_1 = 15\tfrac{1}{2}\ \text{Ft.},\ L_2 = 12\ \text{Ft.},\ W = 12\ \text{Ft.},\ H = 8\ \text{Ft.}$$

$$\text{BTU/Hr} = \frac{(15\tfrac{1}{2} + 12) \times (12) \times (8)}{50}$$

If there were a door between the two rooms the calculation would be based only on the room with the heater.

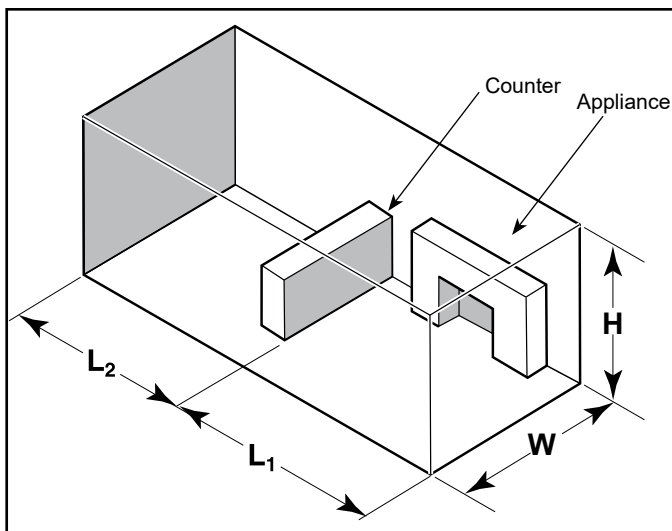$$\text{BTU/Hr} = \frac{(15\tfrac{1}{2}) \times (12) \times (8)}{50}$$

Figure 2.1

⚠ WARNING

If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the *International Fuel Gas Code* or applicable local codes.

APPLIANCE LOCATION

This unvented gas heater requires no outside venting and burns cleanly and efficiency. As a zero-clearance unvented gas heater, it can be installed against (or recessed into) any wall that is accessible to a gas line.

Carefully select the best location for installation of your unvented appliance. The following factors should be taken into consideration.

- Clearance to side wall, ceiling, woodwork and window or other combustibles. Refer to *Clearance and Height Requirements* section on *Page 16*. Minimum clearances to combustibles **must be maintained.**

- Location must not be affected by drafts caused by kitchen exhaust fans, ceiling fans, return air registers for forced air furnaces / air conditioners, windows or doors.

- Installation must provide adequate ventilation and combustion air.

- **DO NOT INSTALL THIS MODEL IN A BEDROOM OR BATHROOM.**

- Location should be out of high traffic areas and away from furniture and draperies due to heat from firebox.

- Never obstruct the front opening of the unvented appliance or restrict the flow of combustion and ventilation air.

- Minimize modifications to existing construction. Refer to Figure 2.2 below for location suggestions.

- Do not install in the vicinity where gasoline or other flammable liquids may be stored. The unvented firebox must be kept clear and free from the combustible materials.

Figure 2.2

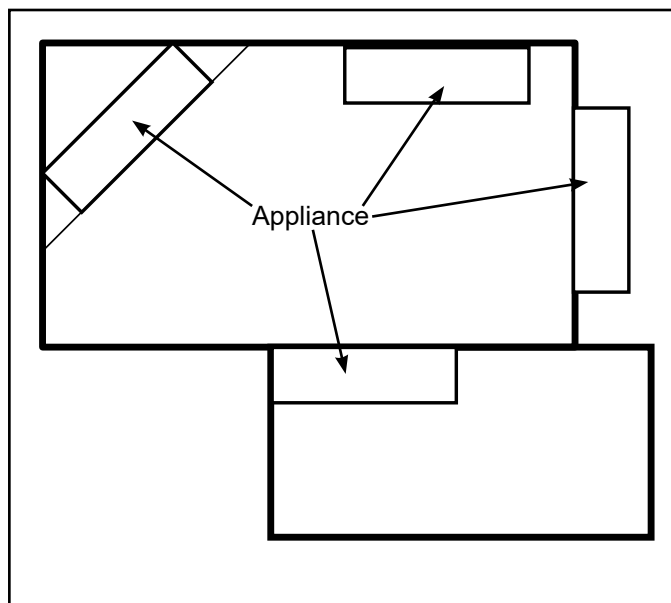***NOTICE:*** *Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY. Illustrations/diagrams are not drawn to scale. Actual installation could vary due to individual design preference.*

It is important to follow the framing and finishing instructions step by step to ensure proper placement of appliance in the surrounding framing/finishing materials.

G. Important Safety and Operating Information

> ## ⚠ WARNING
>
> - **Any change to this appliance or its controls can be dangerous.**
> - **Improper installation or use of the appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.**
> - **Do not allow fans to blow directly into the appliance. Avoid any drafts that alter burner flame patterns.**
> - **Do not use a blower insert, heat exchanger insert or other accessory, not approved for use with this heater where applicable.**

1. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

2. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.

3. Young children should be carefully supervised when they are in the same room with the appliance.

4. Do not place clothing or other flammable material on or near the appliance.

5. Any safety screen or guard removed for servicing an appliance, must be replaced prior to operating the heater.

6. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.

7. This appliance is intended for supplemental heating.

8. **CARBON MONOXIDE POISONING:** Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating properly.

9. The installation must conform with local codes or, in the absence of local codes, with the **National Fuel Gas Code, ANSI Z223.I/NFPA54.**

10. Do not install this appliance in a bathroom or bedroom.

11. Correct installation of the crushed glass media, optional stone and ceramic fiber logs, proper location of the appliance, and annual cleaning are necessary to avoid potential problems with sooting. Sooting, resulting from improper installation or operation, can settle on surfaces outside the appliance. Refer to log placement instructions for proper installation.

12. WARNING: Do not allow fans to blow directly into the appliance. Avoid any drafts that alter burner flame patterns. Do not place a blower inside burn area of appliance. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur.

13. **Caution:** Candles, incense, oil lamps, etc. produce combustion by-products including soot. Vent-free appliances will not filter or clean soot produced by these types of products. In addition, the smoke and/or aromatics (scents) may be reburned in the vent-free appliance which can produce odors. It is recommended to minimize the use of candles, incense, etc. while the vent-free appliance is in operation.

14. This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the *International Fuel Gas Code* or applicable local codes.

15. Keep room area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

16. Unvented appliances emit moisture into the living area. In most homes of average construction, this does not pose a problem. In houses of extremely tight construction, additional mechanical ventilation is recommended.

17. During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance; possibly causing headaches or eye or lung irritation. This is a normal and temporary occurrence.

    The initial break-in operation should last three to four hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in period will be slight and will disappear with continued use.

18. Input ratings are shown in BTU per hour and are for elevations up to 2,000 feet. For elevations above 2,000 feet, input ratings should be reduced 4 percent for each 1,000 feet above sea level. Refer to the National Fuel Gas Code.

19. The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psig (3.5 kPa).

20. The appliance must be isolated from gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.5 kPa).

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

22. Never burn solid fuels in a appliance where a unvented room heater is installed.

23. WARNING: Failure to keep the primary air opening of the burner clean may result in sooting and property damage.

24. WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.

BUILDING CODE INFORMATION

Adhere to all local codes or, in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSI Z223.1 or NFPA54 which can be obtained from:

American National Standards Institute, Inc.
1430 Broadway
New York, NY 10018

or

National Fire Protection Association, Inc.
Batterymarch Park
Quincy, MA 02269

General Operating Parts

Figure 3.2 references the general operating parts of the appliance and the section of this manual in which they are discussed.

Figure 2.3 General Operating Parts

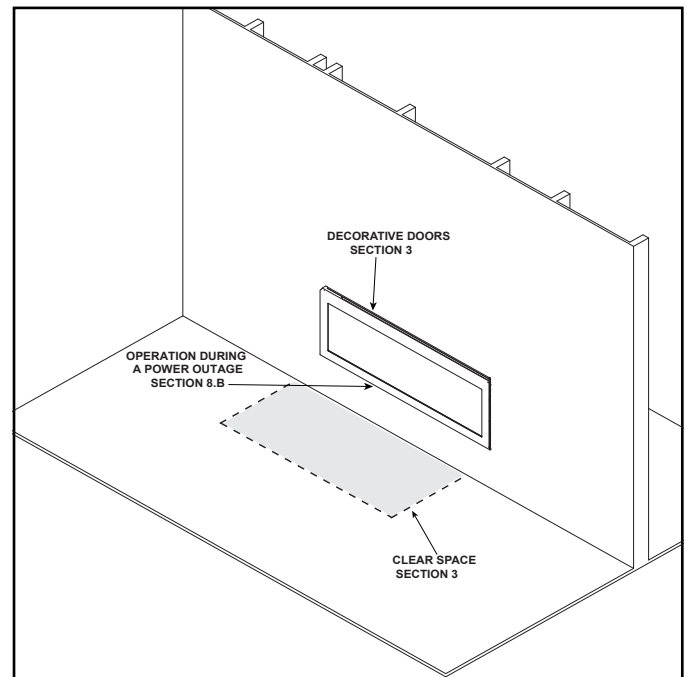## H. Fuel Specifications

WARNING! Risk of Fire or Explosion! Appliance must be set up for compatible gas type!

• This appliance is designed to operate on either natural gas or propane. Make sure the appliance is compatible with gas type selected for installation site.

WARNING! Risk of Fire! Comply with all minimum clearances to combustibles as specified in the installation instructions.

3 Framing and Clearances

A. Appliance and Framing Dimensions/Weight

Appliance Weight

Model	Weight (Pounds)
AVFL42	195
AVFL48	220
AVFL60	250

WARNING FIRE HAZARD
NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

13-3/8 in

7-1/4 in

8 in

17 in

8-1/8 in

40-1/4 in

3 in

6-1/2 in

3-1/8 in

9-1/8 in

A

B

C

33 in

39-1/2 in

3-3/4 in

3-1/8 in

5-3/8 in

	AVFL42	AVFL48	AVFL60
A	42 in	48 in	60 in
B	45-1/4 in	51-1/4 in	63-1/4 in
C	46-1/8 in	52-1/8 in	64-1/8 in
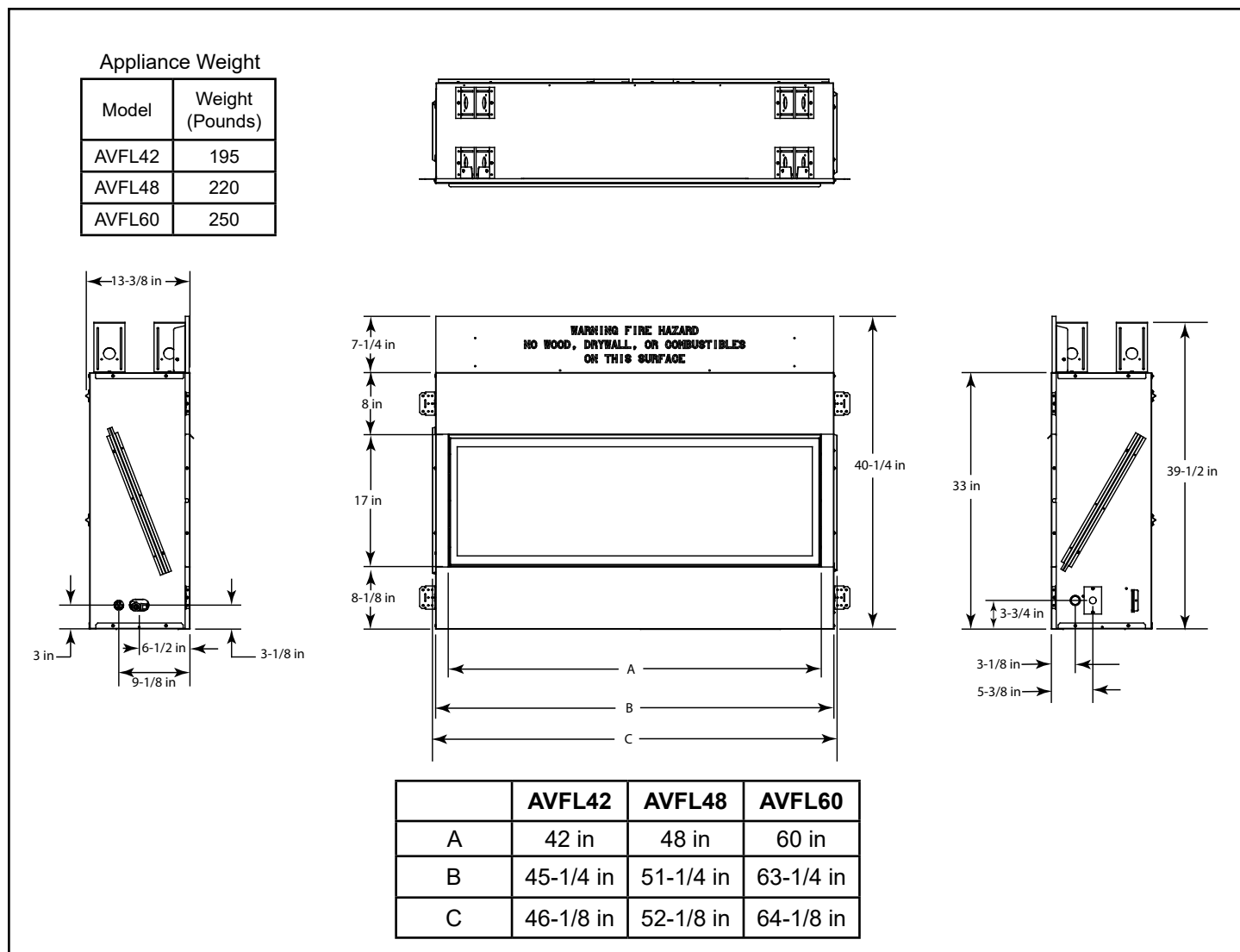
Figure 3.1 - Appliance Dimensions

Appliance Weight

Model	Weight (Pounds)
AVFLST48	205

WARNING FIRE HAZARD
NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

13 in
7-1/4 in
8 in
17 in
8-1/8 in
3-1/8 in
6-1/2 in
3-1/8 in
8-7/8 in
40-1/4 in
48 in
51-1/4 in
52-1/8 in
33 in
39-1/2 in
3-3/4 in
3-1/8 in
5-3/8 in
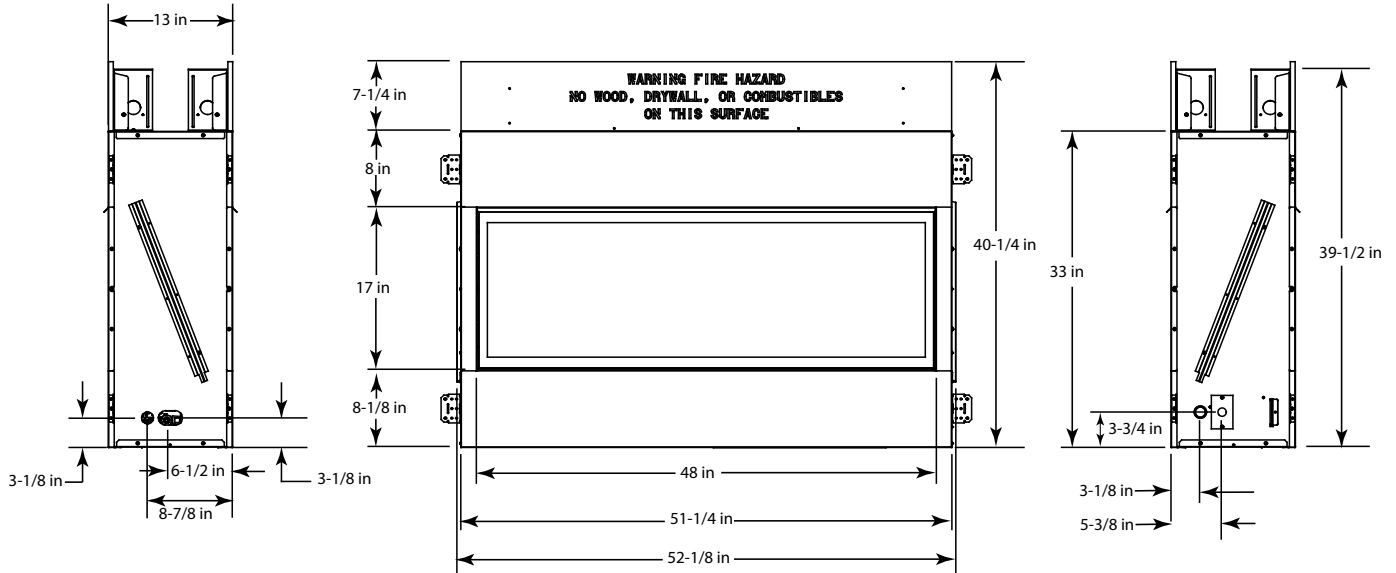
Figure 3.2 - AVFLST48 Appliance Dimensions

14-7/8 in
5-7/8 in
6 in
21-1/8 in
6-1/8 in
3-3/4 in
3-1/8 in
5-3/8 in
39-1/8 in
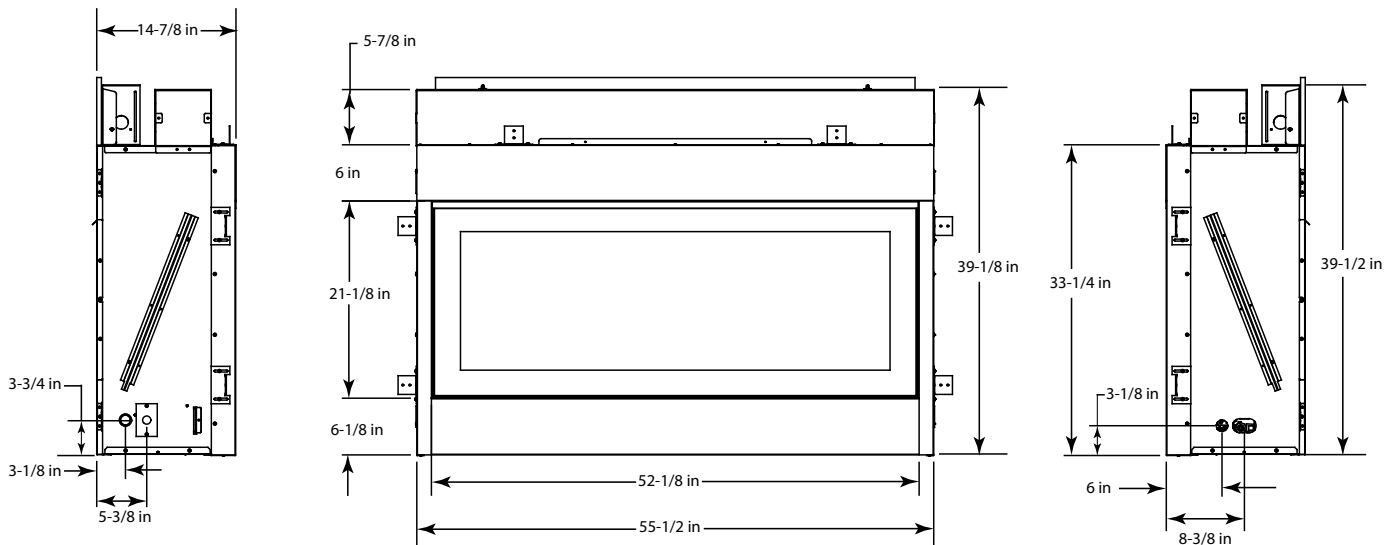52-1/8 in
55-1/2 in
33-1/4 in
39-1/2 in
3-1/8 in
6 in
8-3/8 in
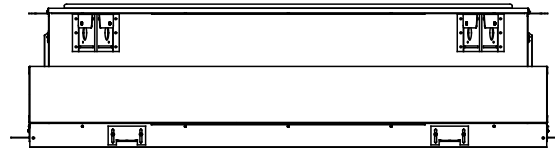
Figure 3.3 - AVFLST48 With Outdoor Kit Appliance Dimensions

	AVFL42	AVFL48	AVFL60
A	42 in	48 in	60 in
B	46-5/8 in	52-5/8 in	64-5/8 in
C	47-7/8 in	55-3/8 in	63-7/8 in
D	71-1/4 in	78-1/4 in	90-3/8 in

13-3/4" if finishing with Option 2 on page 38 and 39

39-3/4" Framing

WARNING FIRE HAZARD
NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

If finishing with Option 2 on Page 38 and 39, move nailing flanges so they attach as shown. Attach to the appliance using the top screw hole in the flange.

Figure 3.4 - Framing Dimensions

Exterior Wall Installation

39-3/4" Framing

48"

52-5/8"

52-5/8" Interior framing

1/2"

1/2"

13-1/2"

55-7/8" Exterior framing

Interior Wall Installation

1/2"

11-5/8"

12-7/8" if finishing with Option 2 on page 38 and 39

52-5/8"

WARNING FIRE HAZARD
NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

If finishing with Option 2 on Page 38 and 39 move nailing flanges so they attach as shown. Attach to the appliance using the top screw hole in the flange.
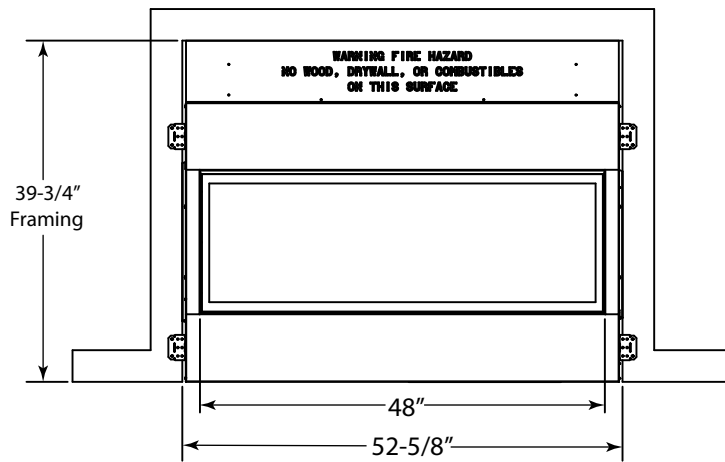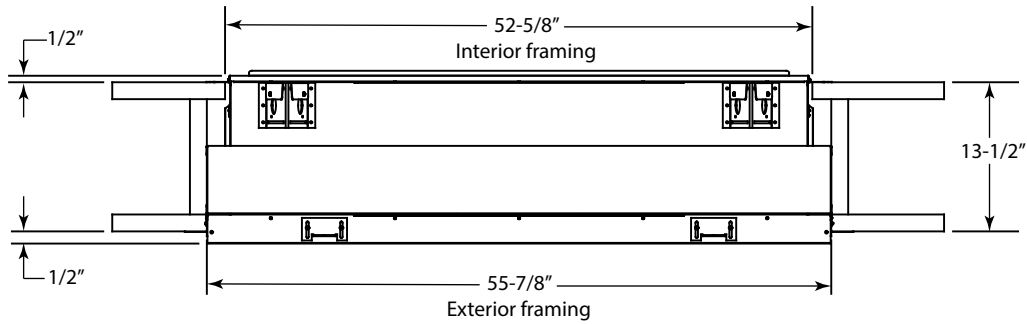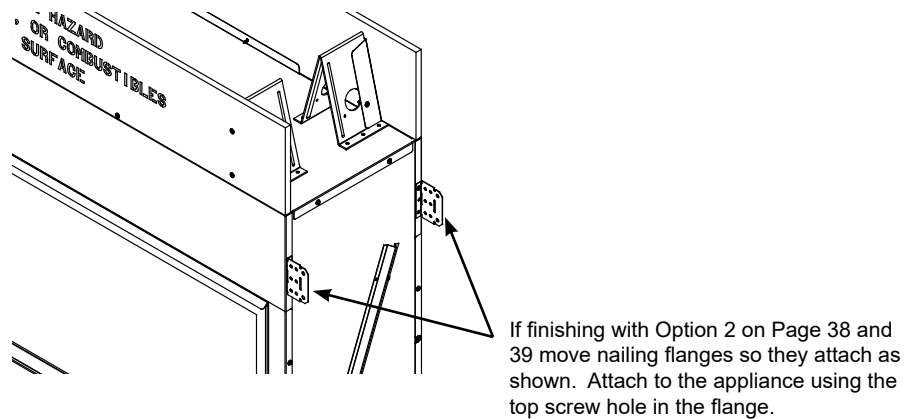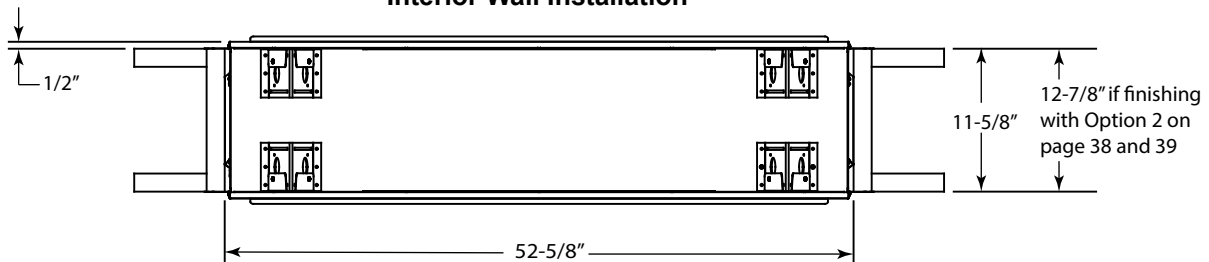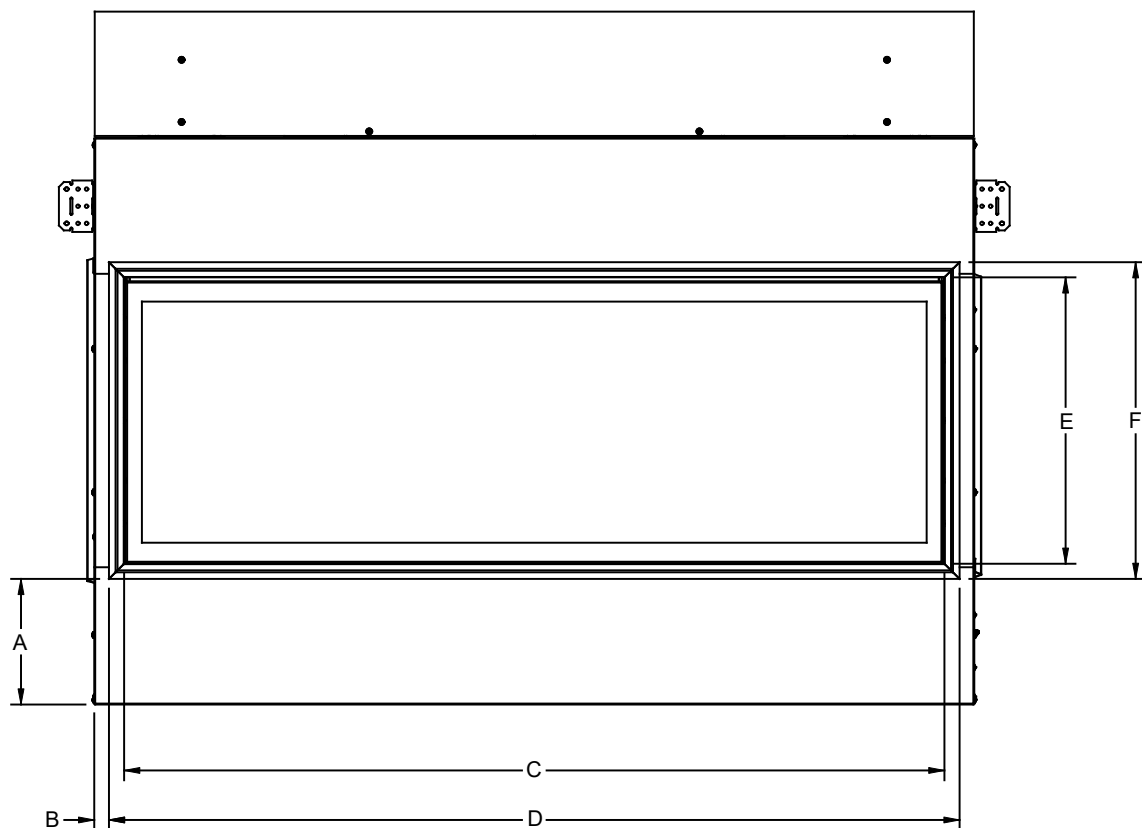
Figure 3.5 - AVFL48ST Framing Dimensions

AVFL42TKI-B, AVFL48TKI, and AVFL60TKI-B Trim Kit

LOCATION	AVFL42TKI-B	AVFL48TKI	AVFL60TKI-B
	INCHES	INCHES	INCHES
A	7-3/8	7-3/8	7-3/8
B	7/8	7/8	7/8
C	41-7/8	47-7/8	59-7/8
D	43-5/8	49-5/8	61-5/8
E	16-3/4	16-3/4	16-3/4
F	18-1/2	18-1/2	18-1/2

The minimum finishing material thickness that can be used with the AVFL TKI trim kit is ¼" and the maximum finishing material thickness that can be used is 1". The finishing material thickness is measured from the front face of the fireplace to the back edge of the AVFL TKI trim kit.

Figure 3.6 - AVFL TKI Trim Kit Dimensions

AVFL42CF, AVFL48CF, and AVFL60CF Front
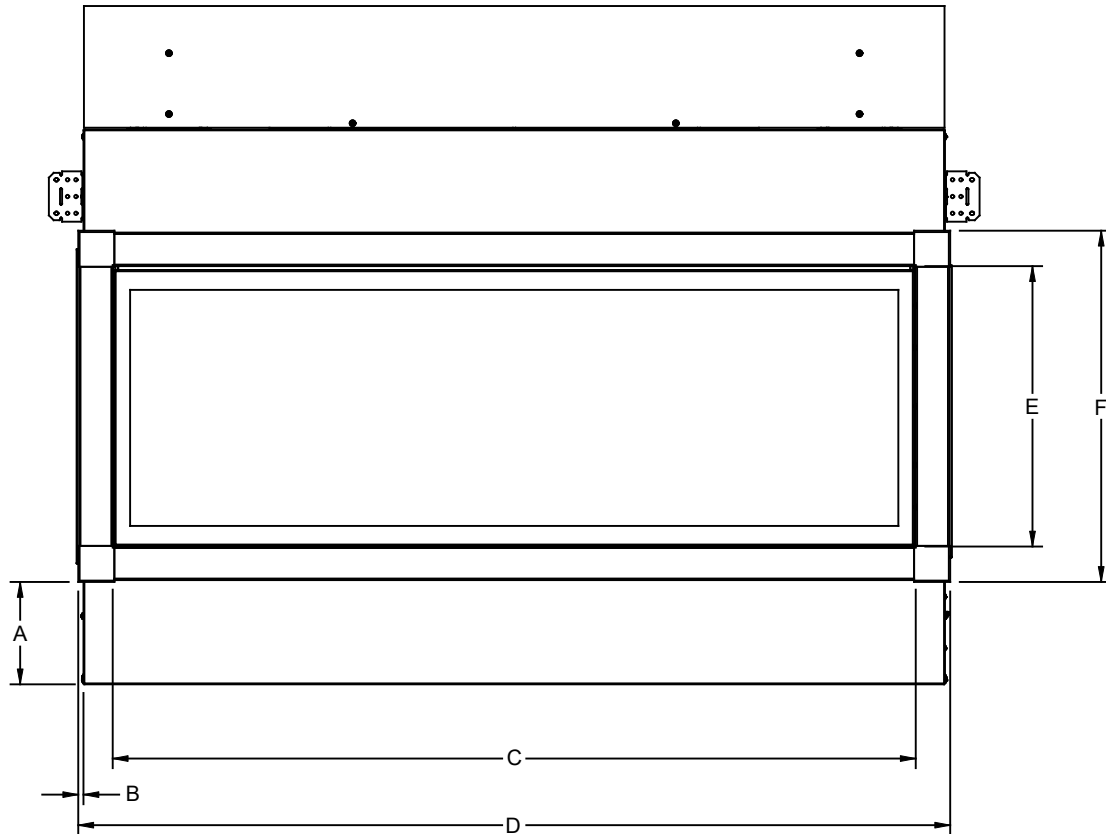
LOCATION	AVFL42CF	AVFL48CF	AVFL60CF
	INCHES	INCHES	INCHES
A	6-1/8	6-1/8	6-1/8
B	1/4	1/4	1/4
C	41-7/8	47-7/8	59-7/8
D	45-7/8	51-7/8	63-7/8
E	16-3/4	16-3/4	16-3/4
F	20-7/8	20-7/8	20-7/8

The minimum finishing material thickness that can be used with the AVFL CF front is ¼" and the maximum finishing material thickness that can be used is 1". The finishing material thickness is measured from the front face of the fireplace to the back edge of the AVFL CF front.

Figure 3.7 - AVFL CF Contemporary Front Dimensions

B. Clearances and Height Requirements

Ensure that minimum clearances shown in Figures 3.8, 3.9, 3.10 and 3.11 are maintained. Left and right clearances are determined when facing the front of the appliance.

Follow these instructions carefully to ensure safe installation. Failure to follow these requirements may create a fire hazard.

Sidewall and Mantel Clearances — The clearance from the inside of the appliance to any combustible adjacent wall should not be less than 6". Mantel leg clearances are projected out at a 45° angle. Figure 3.8, 3.9, 3.10 and 3.11 .

Ceiling Clearance — The ceiling must be at least 36" from the appliance opening. Figure 3.8, 3.9, 3.10 and 3.11.

Back Wall Clearance — The appliance may be placed against a combustible back wall.
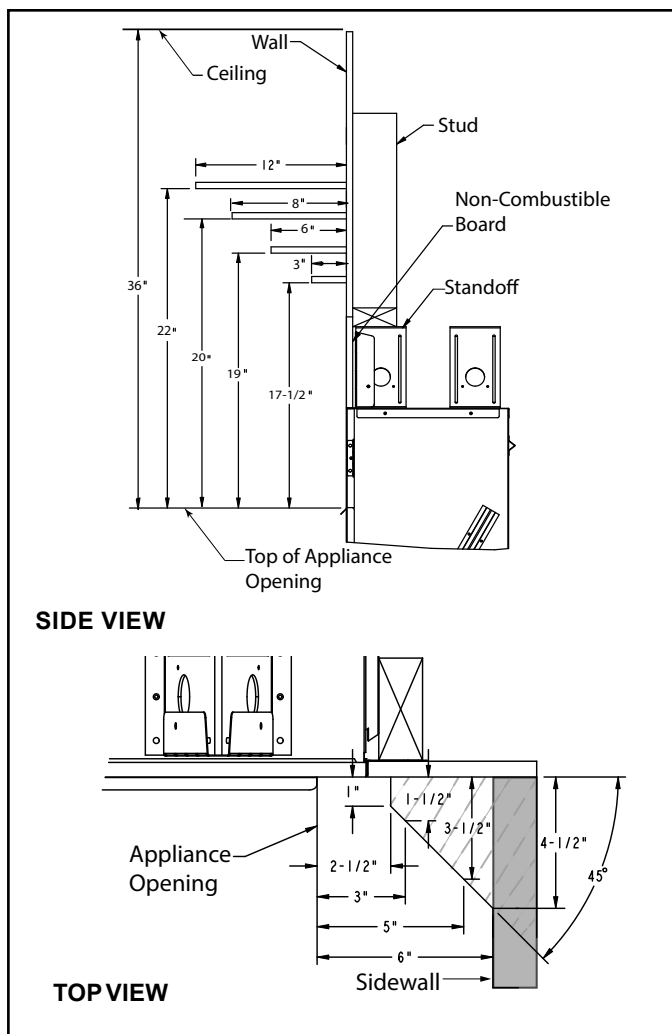

SIDE VIEW

TOP VIEW

Figure 3.8 - Combustible Mantel Clearances (AVFL42N(P)IF-BU, AVFL48N(P)IF, AVFL60N(P)IF, AND AVFLST48N(P)IF appliances)

See Good Faith Guidelines for TV Installations on pages 18 & 19, Figure 3.12 & 3.13.

⚠ WARNING

The dimensions shown in Figures 3.8, 3.9, 3.10 and 3.11 are minimum clearances to maintain when installing this appliance. Left and right clearances are determined when facing the front of the heater.

Follow these instructions carefully to ensure safe installation. Failure to follow instructions exactly can create a fire hazard.

Floor Clearance — The appliance may be installed directly on a combustible floor or a raised platform of an appropriate height. Do not place appliance on carpeting, vinyl, tile or other soft floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard surfaces. Be sure appliance rests on a solid continuous floor or platform with appropriate framing for support so that no cold air can enter from under the firebox.

Note: For installations with vinyl flooring, special clearance recommendations apply. See section 3E Vinyl Flooring.

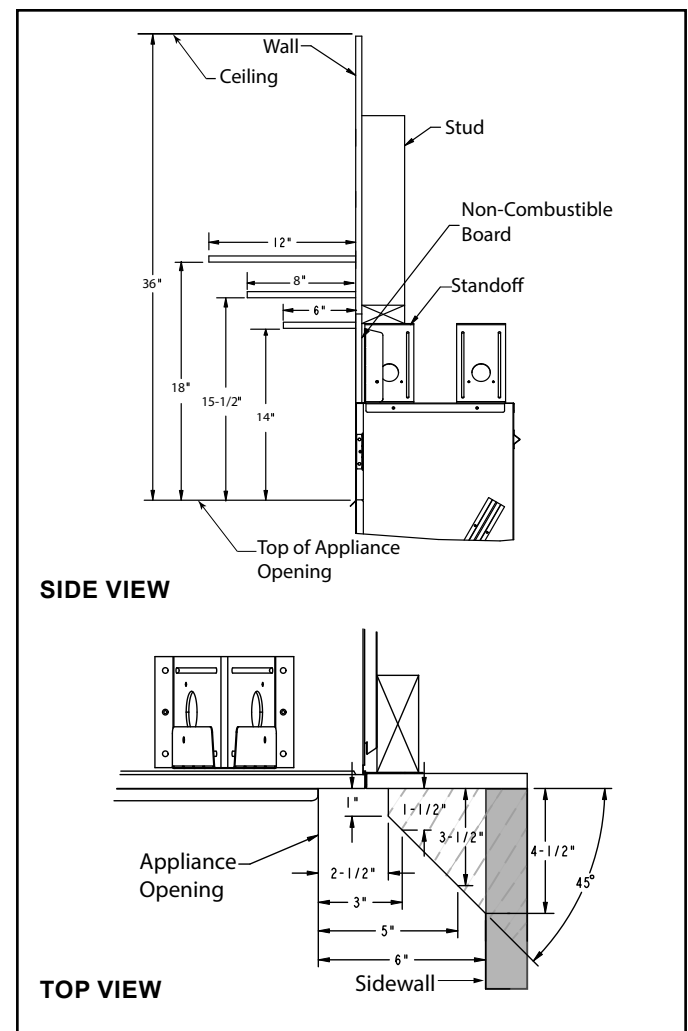**Mantel clearances** — Must meet the clearance requirements detailed in Figures 3.8, 3.9, 3.10 and 3.11.

SIDE VIEW

TOP VIEW

Figure 3.9 - Combustible Mantel Clearances (AVFL42N(P)IF-RB)

SIDE VIEW

Note: Reducing clearances further requires non-com-bustible construction materials (eg: steel studs, du-rock, etc) to a height of 12 inches above the framing height.

TOP VIEW

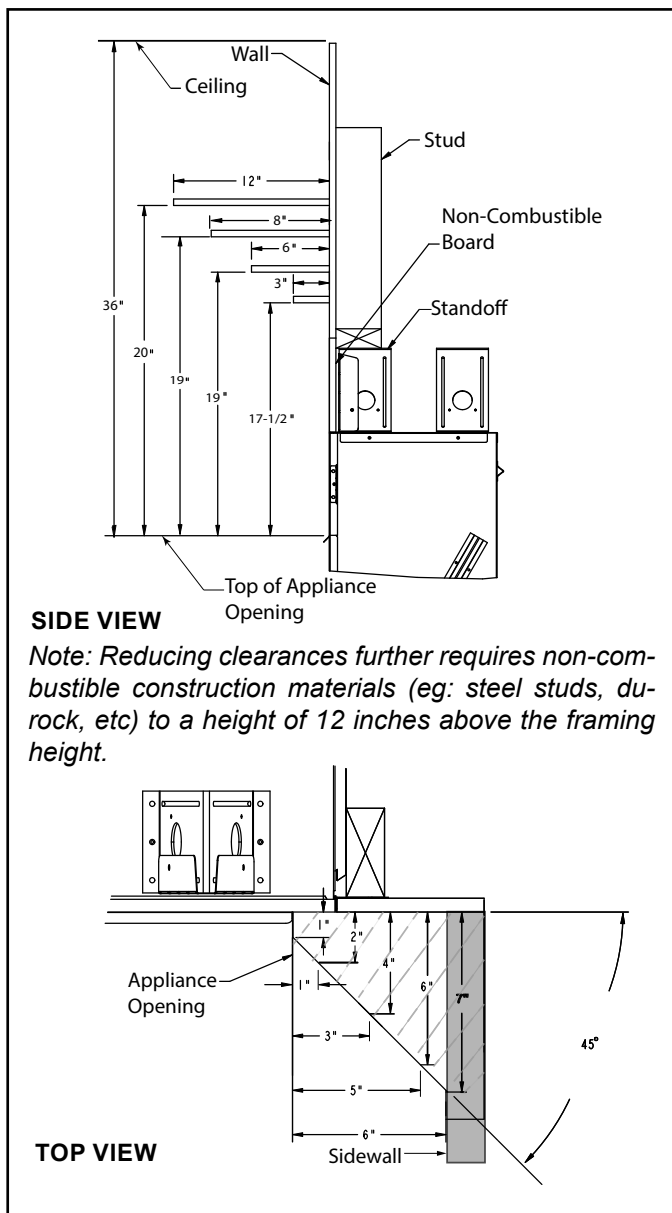**Figure 3.10 - Non-Combustible Mantel Clearances (AVFL42N(P)IF-BU, AVFL48N(P)IF, AVFL60N(P)IF, AND AVFLST48N(P)IF appliances)**

SIDE VIEW

Note: Reducing clearances further requires non-com-bustible construction materials (eg: steel studs, du-rock, etc) to a height of 12 inches above the framing height.
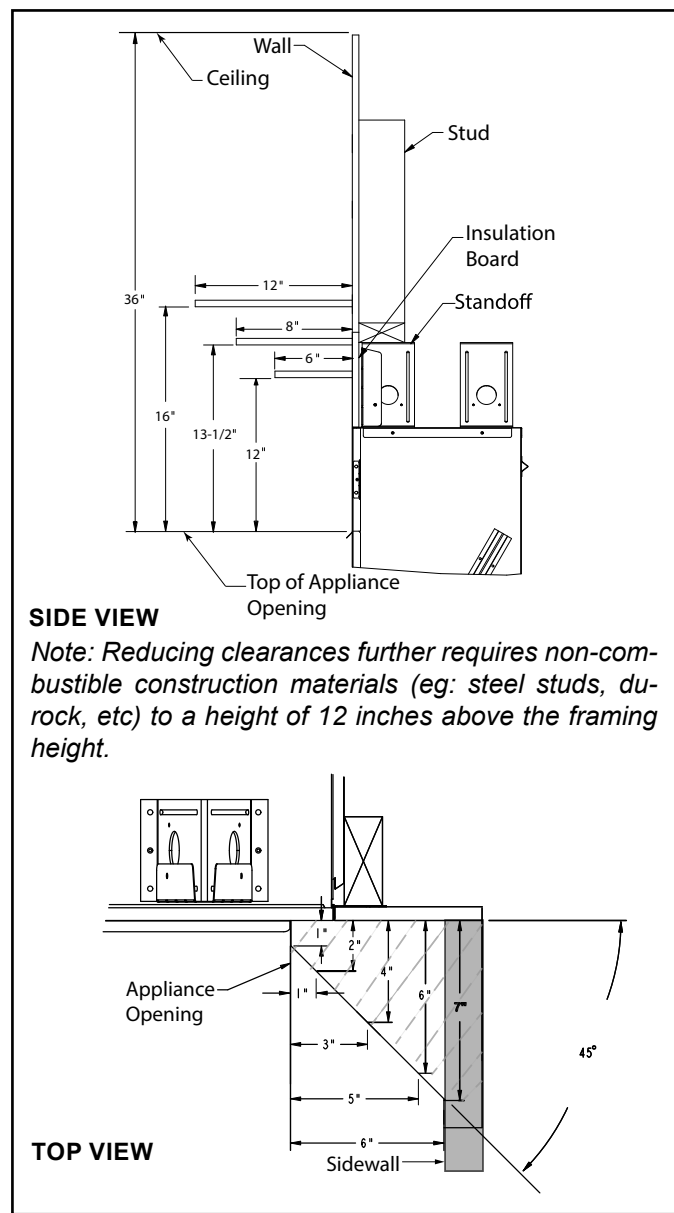
TOP VIEW

Figure 3.11 - Non-Combustible Mantel Clearances (AVFL42N(P)IF-RB)

C. Good Faith Wall Surface TV Guidelines

(AVFL42N(P)IF-BU, AVFL48N(P)IF, AVFL60N(P)IF, AND AVFLST48N(P)IF appliances)

Good Faith Guidelines for TV Installation's above a Typical Gas Fireplace

Combustible Mantel	A
inch	22.00
Non-Combustible Mantel	
inch	20.00

TV on the wall

TV recessed into the wall

TV

TV

6" Min.

28" Min.

A Min.

28" Min.

A Min.

12" Min.

12" Min.

Top of appliance opening

Top of appliance opening

Notes:
1. These are good faith recommended clearances only and not a guarantee of compliance with all TV manufacturers' maximum allowable operating temperatures.
2. Since every home has unique air flow characteristics and maximum allowable operating temperatures can vary from manufacturer to manufacturer and from model to model, actual TV temperatures should be validated at the time of each installation. TVs should not be used in situations where the actual TV temperature exceeds the manufacturers' maximum allowable operating temperatures identified in the TV's technical specifications. Contact the TV's manufacturer directly if you cannot locate this information or have questions regarding the information.
3. Mantel height and depth must conform to mantel requirements specified in the installation manual.
4. "A" dimension taken from the top of the appliance opening.
5. Suggestions on how to further reduce TV temperatures:
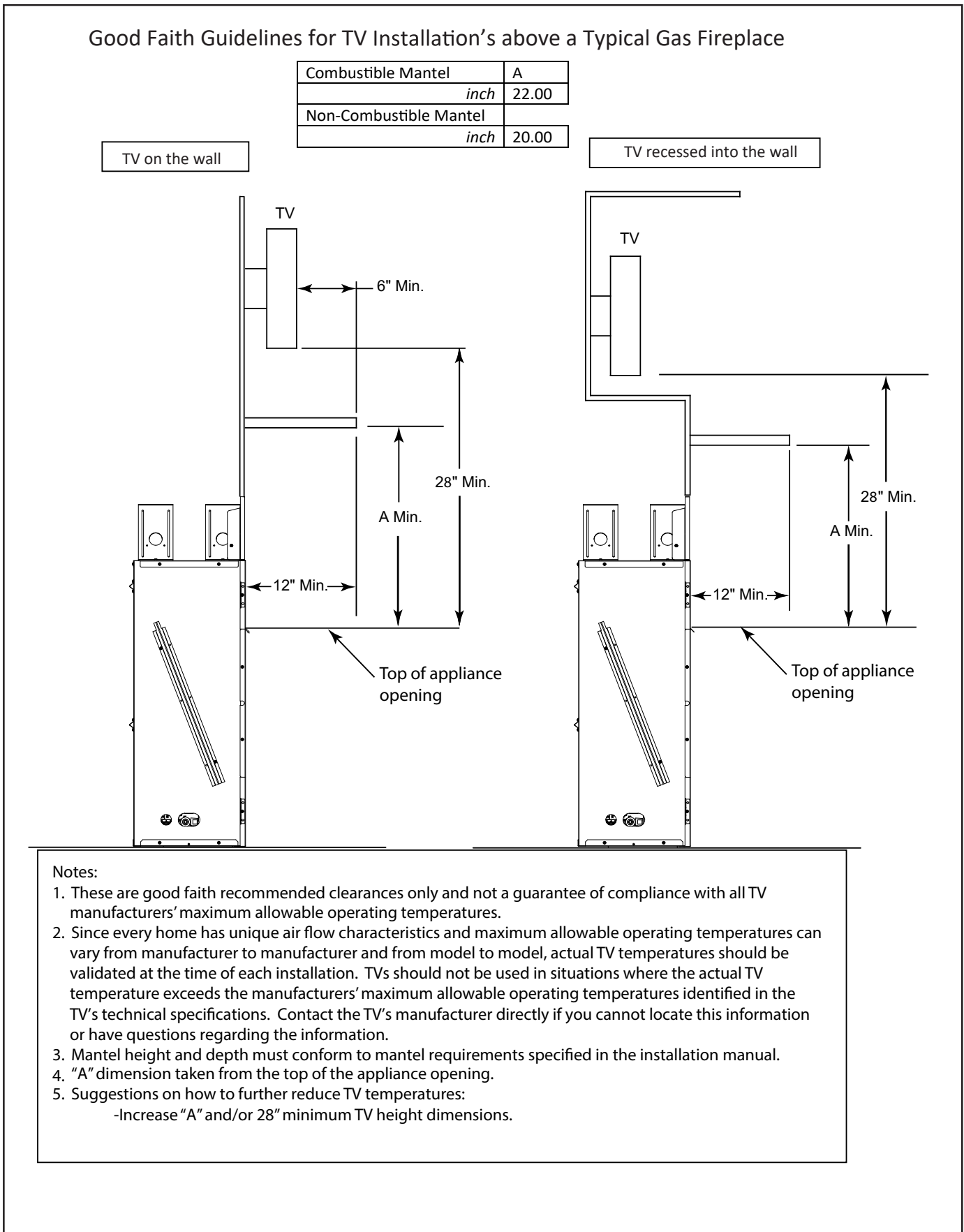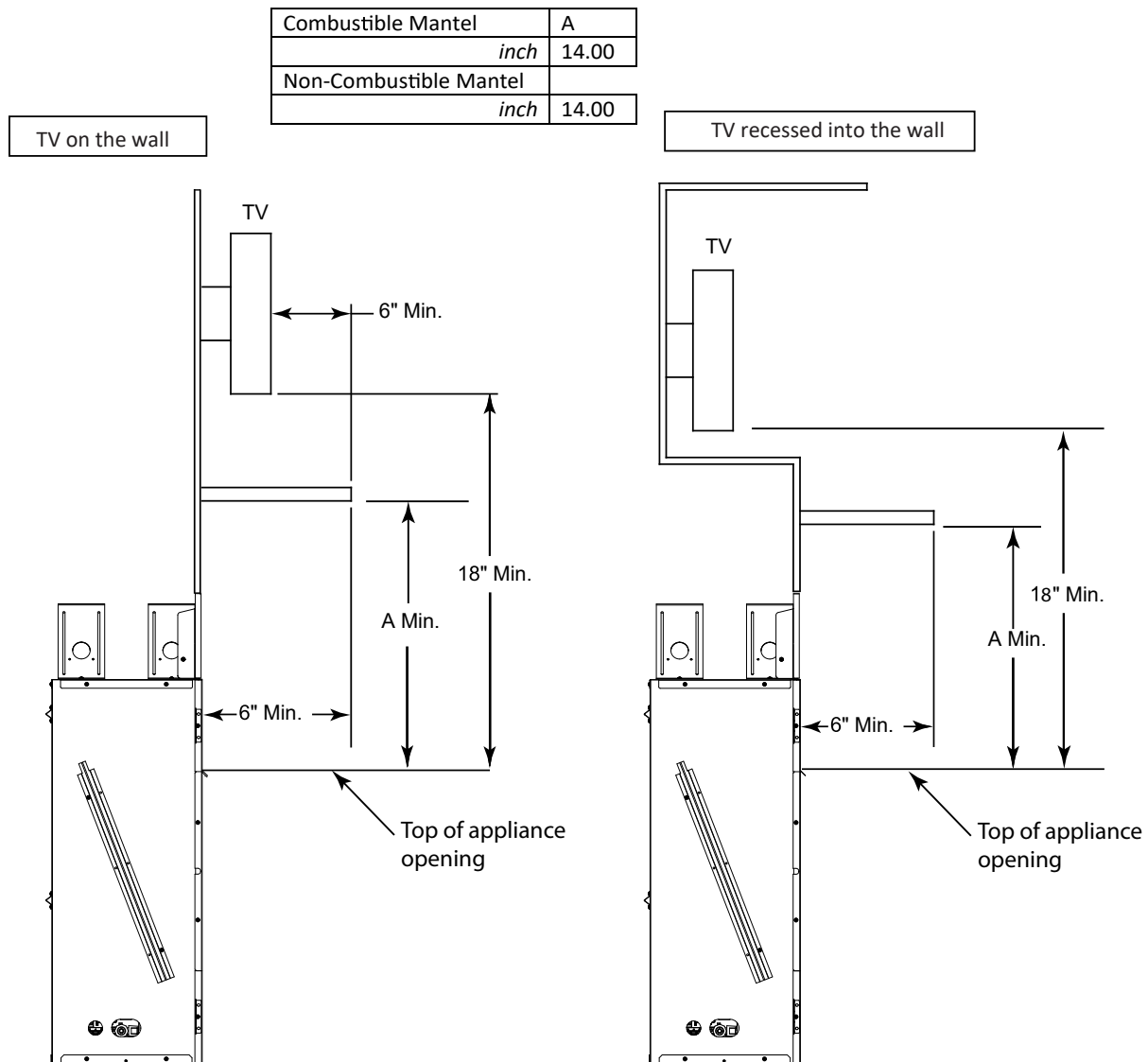   -Increase "A" and/or 28" minimum TV height dimensions.

Figure 3.12 - Good Faith TV Guidelines

Good Faith Wall Surface TV Guidelines (continued)

(AVFL42N(P)IF-RB)

Good Faith Guidelines for TV Installation's above a Typical Gas Fireplace

Combustible Mantel	A
inch	14.00
Non-Combustible Mantel	
inch	14.00

TV on the wall

TV recessed into the wall

TV

6" Min.

18" Min.

A Min.

6" Min.

Top of appliance opening

TV

6" Min.

18" Min.

A Min.

6" Min.

Top of appliance opening

Notes:
1. These are good faith recommended clearances only and not a guarantee of compliance with all TV manufacturers' maximum allowable operating temperatures.
2. Since every home has unique air flow characteristics and maximum allowable operating temperatures can vary from manufacturer to manufacturer and from model to model, actual TV temperatures should be validated at the time of each installation. TVs should not be used in situations where the actual TV temperature exceeds the manufacturers' maximum allowable operating temperatures identified in the TV's technical specifications. Contact the TV's manufacturer directly if you cannot locate this information or have questions regarding the information.
3. Mantel height and depth must conform to mantel requirements specified in the installation manual.
4. "A" dimension taken from the top of the firebox opening.
5. Suggestions on how to further reduce TV temperatures:
    -Increase "A" and/or 18" minimum TV height dimensions.

Figure 3.13 - Good Faith TV Guidelines

D. Constructing the Appliance Chase

A chase is a vertical box-like structure built to enclose the gas appliance.

NOTICE: Construction of the chase may vary with the type of building. These instructions are not substitutes for the requirements of local building codes. Therefore, you MUST check local building codes to determine the requirements to these steps.

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

Walls, ceiling, base plate and cantilever floor of the chase should be insulated. Vapor and air infiltration barriers should be installed in the chase as per regional codes for the rest of the home. Additionally, in regions where cold air infiltration may be an issue, the inside surfaces may be sheet rocked and taped (or an equivalent method may be used) to achieve maximum air tightness.

To further prevent drafts, the wall shield and ceiling firestops should be sealed with caulk with a minimum of 300ºF continuous exposure rating to seal gaps. Gas line holes and other openings should be sealed with caulk with a minimum of 300ºF 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.

> **Note:** Figures 3.14 and 3.15 show the appliance installed on the floor. However, this appliance can be elevated off the floor provided that the appliance is properly supported by framing materials and the ceiling clearances are maintained.

E. Floor Protection

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

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

- Insulation and other materials must be secured to prevent accidental contact.

- The chase must be properly blocked to prevent blown insulation or other combustibles from entering and making contact with appliance or chimney.

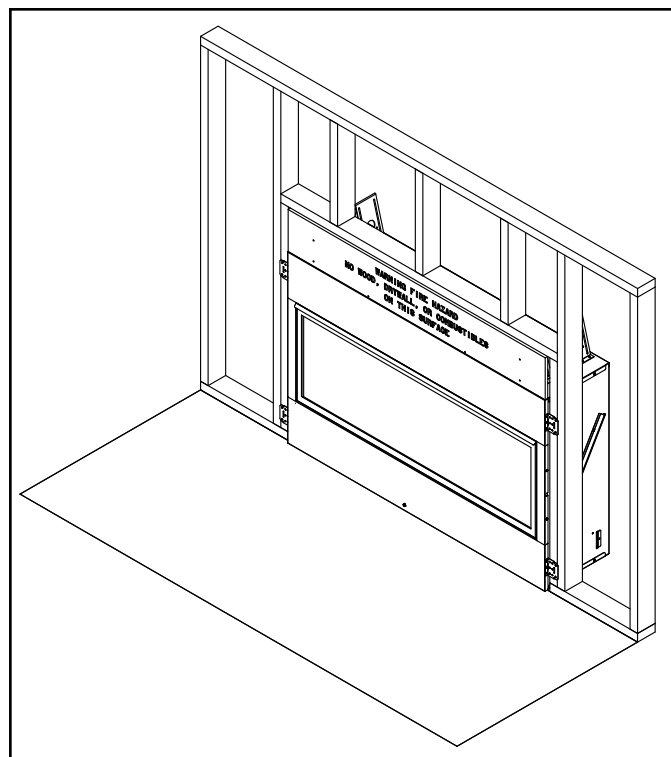- Failure to maintain airspace could cause overheating and fire.

Figure 3.14 - Floor Protection

Vinyl Flooring

Vinyl Flooring is sensitive to heat. A 14 inch minimum depth hearth extension is recommended when using vinyl flooring up to the wall. See Figure 3.15.

NOTICE: Clearances that do not meet the minimum guidelines could result in damage or buckling to the vinyl flooring and is done at the installer's or homeowner's risk. Hearth and Home Technologies does not recommend adhesive based vinyl flooring due to thermal expansion. Floating-style flooring can be used, but will reach temperatures up to 110°F in a room with ambient temperature of 70°F. Consult flooring specifications to ensure compatibility.
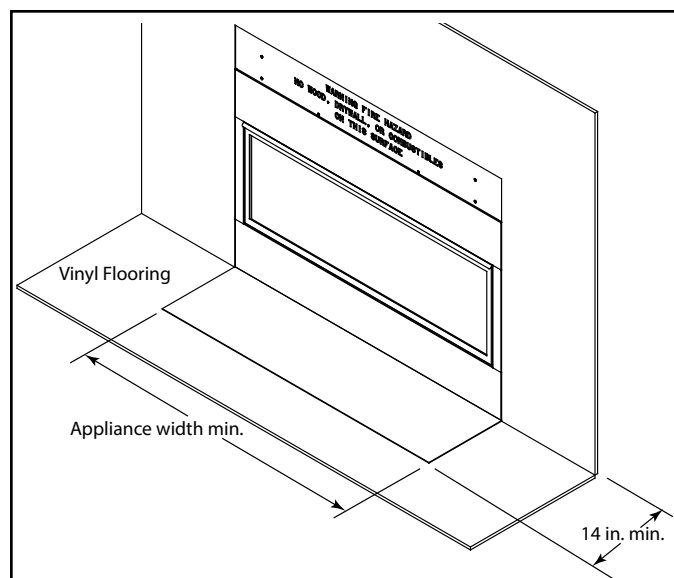

Figure 3.15 - Vinyl Flooring Exception

4 Appliance Preparation

A. Securing and Leveling the Appliance

WARNING! Risk of Fire! Prevent contact with:

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

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

DO NOT *notch the framing around the appliance standoffs. Failure to maintain air space clearance could cause overheating and fire.*

To properly position, level, and secure the appliance, see below. Nailing tabs are provided to secure the appliance to the framing members.

- Bend out the two nailing tabs on each side.

- Place the appliance into position.

- Keep nailing tabs flush with the framing. See Figure 4.2.

- 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.

Some figures in manual show the appliance installed on the floor. However, this appliance can be elevated off the floor provided that the appliance is properly supported by framing materials and the ceiling clearances are maintained.
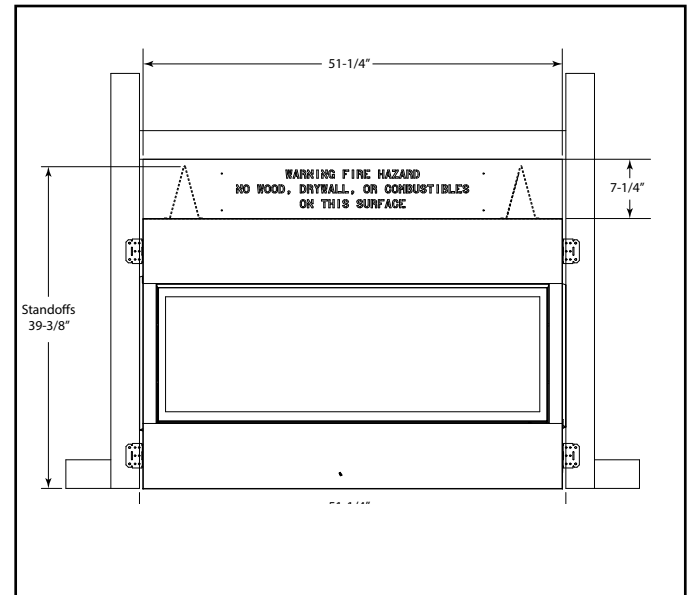

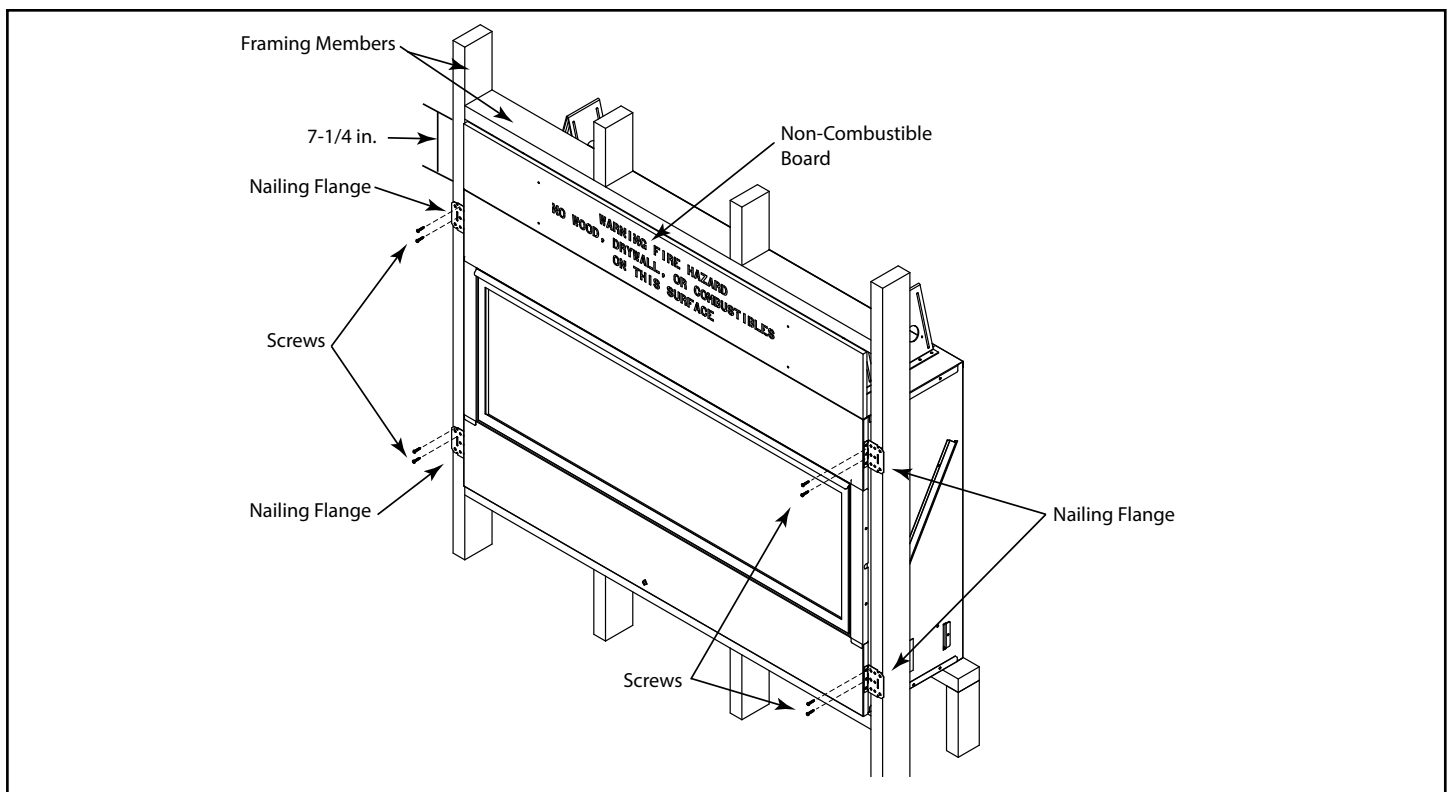**Figure 4.1 - Non-Combustible Board Installation**

Figure 4.2 - Securing Appliance to Framing

Setting the Appliance into the Framing

The left and right nailing tabs were designed as a means to ensure the appliance is mounted flush with the framing materials. See Figures 4.2 and 4.3.

1. Bend out all nailing tabs. The AVFL60 has four nailing tabs, two on each side in the middle of the appliance.

2. Screw each nailing tab to the adjoining framing material. See Figures 3.1-3.7 for framing and clearance details.
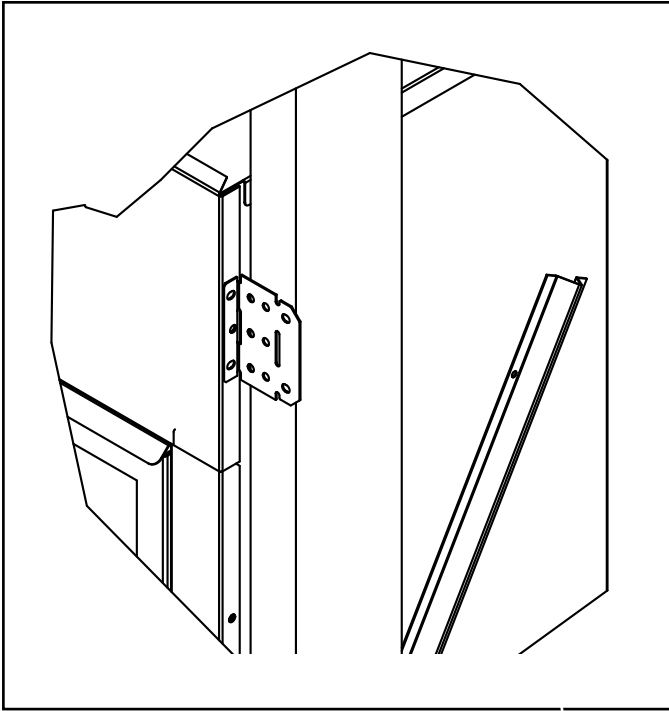

Figure 4.3 - Nailing Tabs

B. Installing Non-Combustible Facing Material

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

- Non-combustible facing material needs to be at least 7-1/4" high and the full width of the appliance.

- Attach non-combustible facing material to the framing members with regular sheetrock screws.

- Use a wet or dry towel or soft brush to remove dust or dirt from facing material.
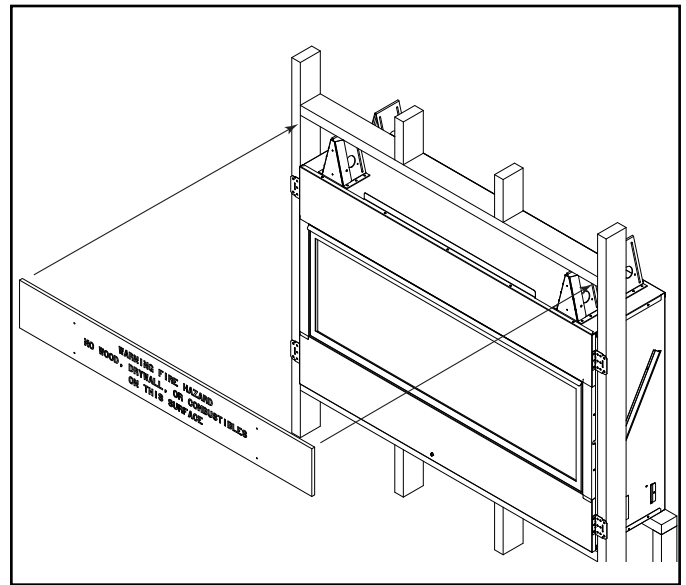
- See Section 8 for finishing materials guidelines.

Figure 4.4 - Install Non-Combustible Facing Material

5 Gas Information

A. Fuel Type

• This appliance is equipped for either natural or propane gas. **Field conversion is not permitted.**

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

B. Gas Pressure

• Optimum appliance performance requires proper input pressures.

• Gas line sizing requirements will be determined in ANSI Z223.1 National Fuel Gas Code in the USA.

• Pressure requirements are:

	NATURAL	PROPANE (LP)
Inlet Minimum	5.0" w.c.	11.0" w.c.
Inlet Maximum	10.0" w.c.	13.0" w.c.
Regulator Pressure Setting	3.5" w.c.	10" w.c.
Pilot Regulator	3.5" w.c.	—

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

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

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

• Valve pressure taps are accessible by lifting the engine assembly. See Figures 5.1 & 5.2.

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 Service Access

NOTE: This appliance does include a manual gas shutoff valve that is located in the valve compartment. This manual gas shutoff valve is accessible for service by lifting the engine assembly. See Figure 5.2. The valve is most accessible if it is located forward in the control cavity of the appliance.

Depending upon local code, an additional manual gas shutoff, in a readily accessible area may be required and located upstream from the appliance.

⚠ 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.

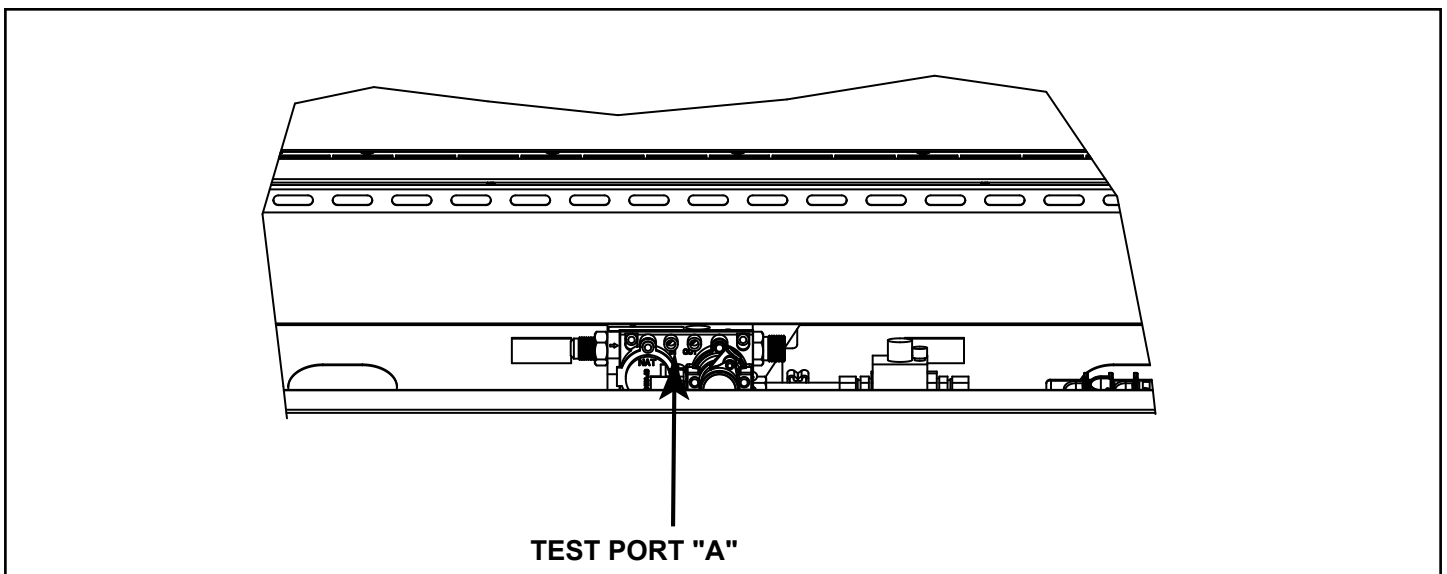• Close the manual shutoff valve BEFORE pressure testing gas line at test pressures equal to or less than 1/2 psig.

TEST PORT "A"
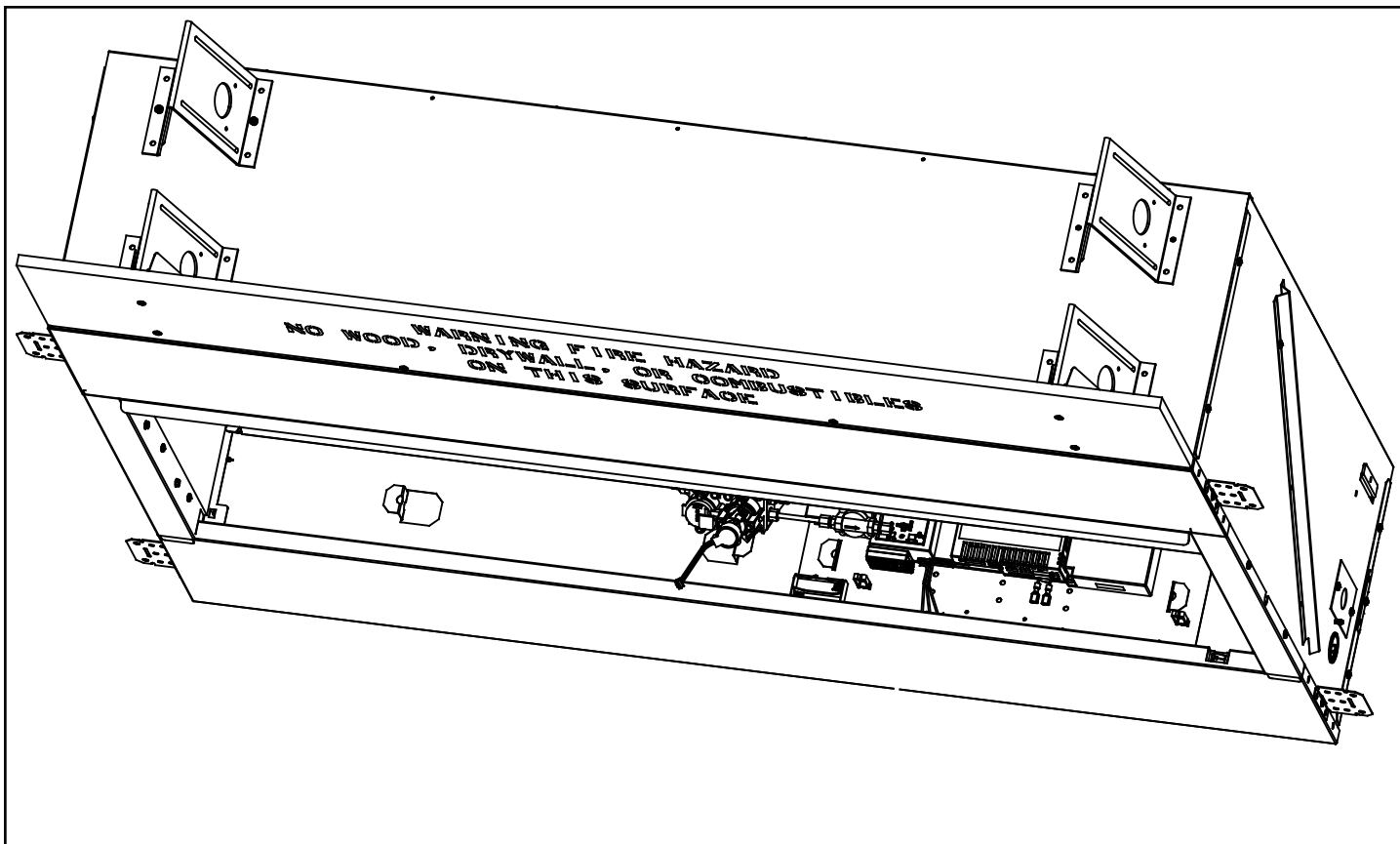
Figure 5.1.- Valve Pressure Tap

Figure 5.2 - Valve Access

D. Connect to Gas

NOTICE: A qualified gas appliance installer must connect the heater to the gas supply. Consult all local codes.

⚠ WARNING

THIS APPLIANCE IS EQUIPPED FOR EITHER NATURAL OR PROPANE GAS. FIELD CONVERSION IS NOT PERMITTED.

⚠ WARNING

Use new black iron or steel pipe. Internally tinned copper or copper tubing can be used per National Fuel Code, section 2.6.3, providing gas meets hydrogen sulfide limits, and where permitted by local codes. Gas piping system must be sized to provide minimum inlet pressure (Listed on Data Plate) at the maximum flow rate (BTU/hr). Undue pressure loss will occur if the pipe is too small.

A manual shutoff valve must be installed upstream of the appliance. Union tee and plugged ⅛" NPT pressure tapping point should be installed upstream of the appliance. Figure 5.3

A sediment trap should be installed upstream to prevent moisture and contaminants from passing through the pipe to appliance controls and burners. Failure to do so could prevent the appliance from operating reliable. Figure 5.3

When an appliance is connected to a fixed piping system, the installation must conform with local codes,or in the absence of local codes with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54 or International Fuel Gas Code.*

⚠ WARNING

CHECK GAS TYPE: The gas supply must be the same as stated on the heater's rating plate. If the gas supply is different, DO NOT INSTALL THE HEATER. Contact your dealer for the correct model.

IMPORTANT: Loosen the pipe adapter on the flex tube before installing to the system piping.

Always use an external regulator for all propane/LPG heaters only, to reduce the supply tank pressure to a maximum of 13" w.c. This is in addition to the internal regulator in the heater valve.

When tightening the joint to the valve, hold the valve securely to prevent movement.

Test all gas joints from the gas meter to the heater valve for leaks using a gas analyzer or soap and water solution after completing connection. **DO NOT USE AN OPEN FLAME.**

⚠ WARNING

Connecting directly to an unregulated propane/LP tank can cause an explosion.

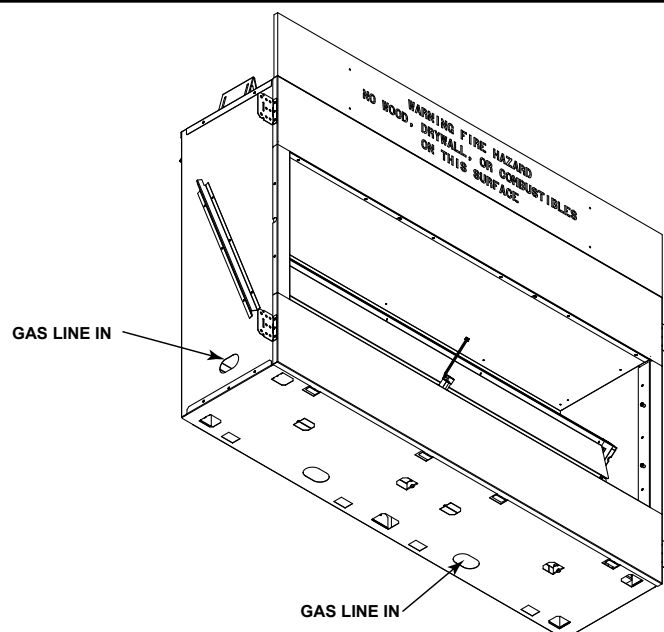**DO NOT USE OPEN FLAME TO CHECK FOR GAS LEAKS.**

Figure 5.3 - Gas Line In

E. Valve Access

The valve and controls are located in the appliance control area. See Figure 5.4.

The controls area can be accessed by lifting engine assembly as shown in Figure 5.4.

- Make sure appliance is off and cool.
- Remove crushed glass media and deflection glass panel from hearth pan.
- Remove two (2) screws securing burner assembly to appliance, set aside.
- Lift the burner assembly and place the two engine supports, provided under the engine, against lower front space at the bottom of the face, and slide into the slots at the bottom of the engine assembly. See Figure 5.4.
- Locate valve on face of engine assembly.
- Gas line sizing requirements will be determined in ANSI Z223.1 National Fuel Gas Code in the USA.
- Pressure requirements are:

These pressures can be verified by lifting engine and removing control cover to reveal the valve.

When an appliance is connected to a fixed piping system, the installation must conform with local codes,or in the absence of local codes with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54 or International Fuel Gas Code.*

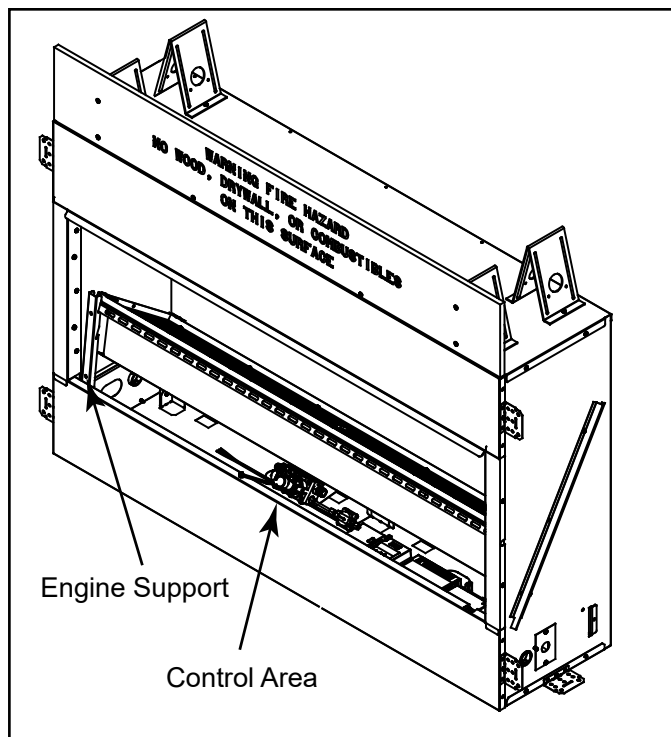Engine Support

Control Area

Figure 5.4 - Valve Access

F. Check Gas Pressure

Check the gas pressure with the appliance burning and the control set to **HIGH**.

The valve regulator controls the burner pressure which should be checked at the pressure test point.

Turn captured screw counterclockwise two or three turns and then place tubing to pressure gauge over test point. Use test point "A" closest to gas inlet. After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check for gas leaks. See Figure 5.5.
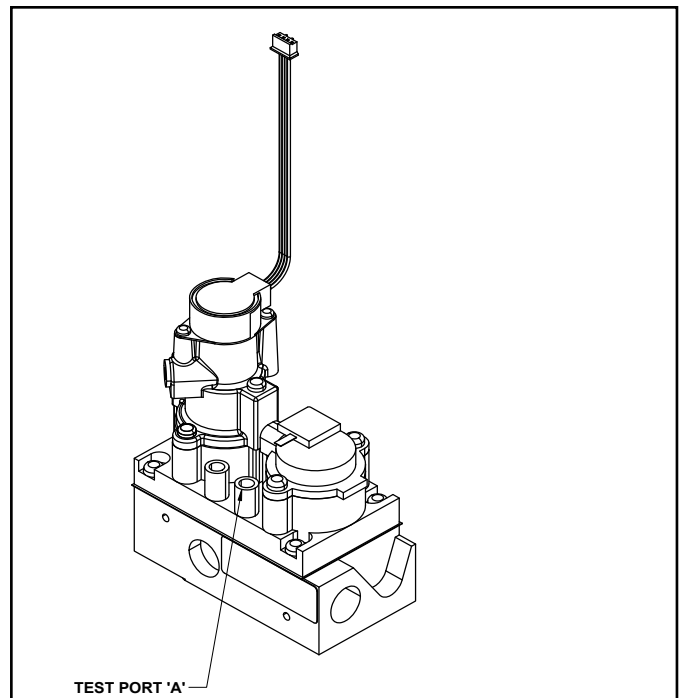

TEST PORT 'A'

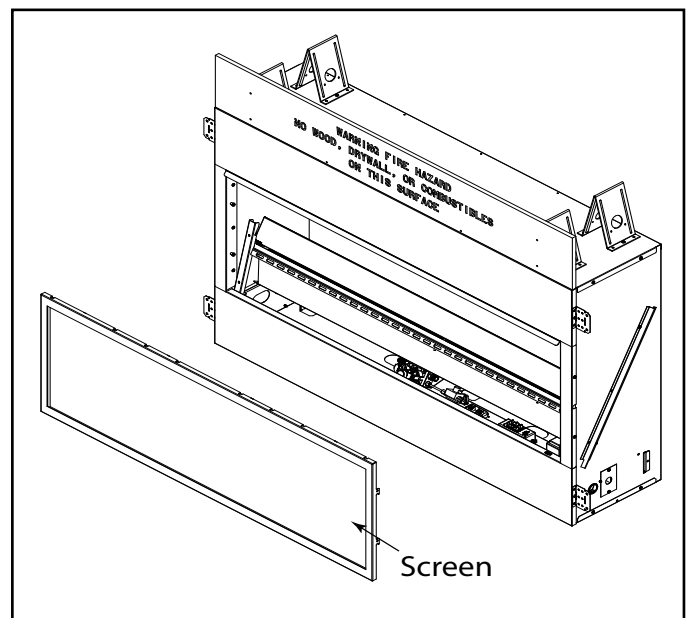**Figure 5.5 - Pressure Test Point Location**

Screen

Figure 5.6 - Gas and Electrical Access - Remove Screen

G. Gas Connection

- Refer to Figure 5.7 for location of gas flex line access in appliance.

- Gas line may be run through the left side or right bottom of the appliance. See Figure 5.3.

- The gap between supply piping and gas access hole may be sealed with caulk or aluminum foil tape with a minimum of 300ºF 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) connection on manual shutoff valve.

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

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

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

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

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

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

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

H. 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 reduce input 4% for each 1000 feet above 2000 feet.

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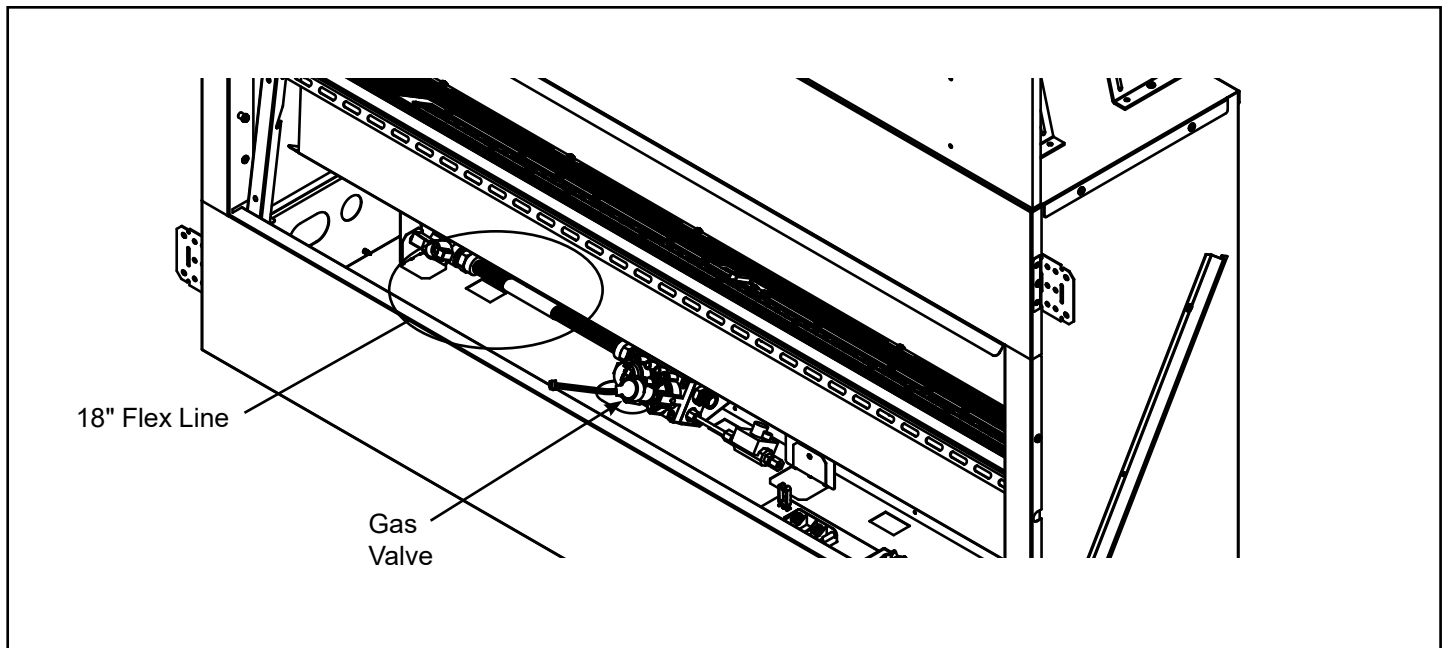

18" Flex Line

Gas Valve

Figure 5.7 - Gas Fitting Access

6 Electrical Information

A. General Information

WARNING! Risk of Shock or Explosion! DO NOT wire 110-120 VAC to the valve 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**.*

- Wire the appliance junction box to unswitched 110-120 VAC. This is required for proper operation of the appliance.

- 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.

Electrical Service and Repair

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

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

Accessories Requirements

- The AVFL48 and AVFL60 ship standard with a remote to turn the appliance on and off as well as control the LED lights. The AVFL42 appliances ship without a remote and LED lights but the IFT2-AVFL42LED light kit can be purchased separately. This kit includes LED lights, wiring and a remote to control the lights.

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

Junction Box Installation

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

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

Junction Box Wiring

1. This should be done before framing the appliance. Wire the receptacle into an electrical circuit.

2. The junction box cover has a Romex style strain relief connector located in the Owner's Manual. After con-

necting the wires, route the wire leads through this connector. Refer to the wiring diagram in Figure 6.2.

Cover Plate for Junction Box
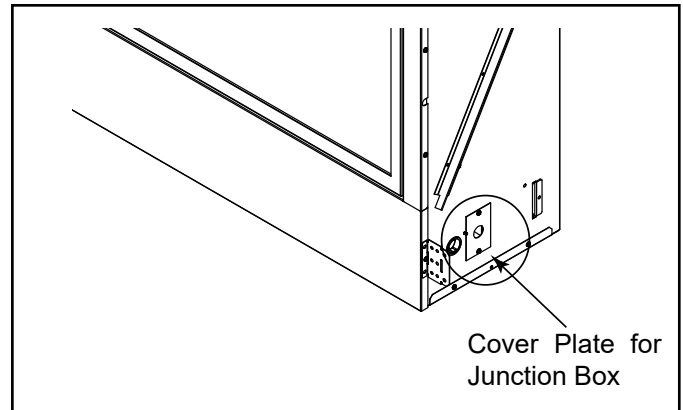
Figure 6.1 - Cover Plate for Junction Box

⚠ WARNING

Electrical connections should only be performed by a qualified, licensed electrician. Main power must be off when connecting to main electrical power supply or performing service. All wiring shall be in compliance with all local, city and state codes. The appliance, when installed, must be electrically grounded in accordance with local codes or in the absence of local codes, with the National Electrical Code ANSI/ NFPA 70 (latest edition) and Canadian Electrical Code, CSA C22.1.

⚠ WARNING

Do not connect wall switch to 110 V circuit.

CAUTION | **Label all wires before disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation.**

120V AC 60Hz

—— Factory Supplied
- - - Not Supplied

Junction Box

Figure 6.2 - Junction Box Wiring Diagram

B. Wiring Requirements

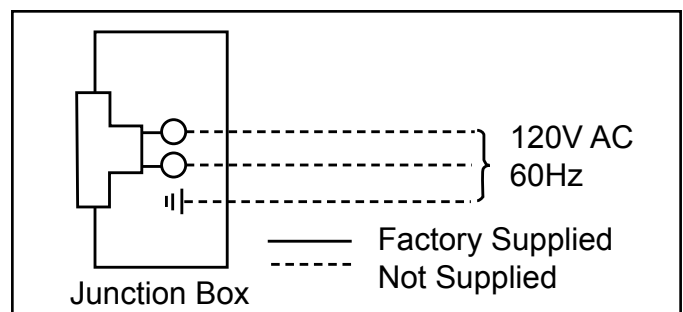## Intellifire Touch with ODS Ignition System Wiring

• Wire the appliance junction box to 110-120 VAC for proper operation of the appliance.

WARNING! Risk of Shock or Explosion! DO NOT *wire IFP ODS controlled appliance junction box to a switched circuit. Incorrect wiring will override IFP ODS safety lock-out.*

• Refer to Figure 6.3, Intellifire Touch with ODS Wiring Diagram.

• This appliance is equipped with an Intellifire Touch control valve which operates on a 6 volt/1.5 AMP system.

• Plug the 6 volt transformer plug into the appliance junction box to supply power to the unit OR install 4 AA cell batteries (not included) into the battery pack before use.

NOTICE: *Batteries should only be used as a power source in the event of an emergency power outage. Batteries should not be used as a primary long-term power source. Battery polarity must be correct when installing batteries. When using batteries as a power source, the 6-volt transformer must be unplugged from the receptacle.*

Do not store batteries in the battery pack when the appliance is powered by the 6 volt transformer connected to permanent electrical service.
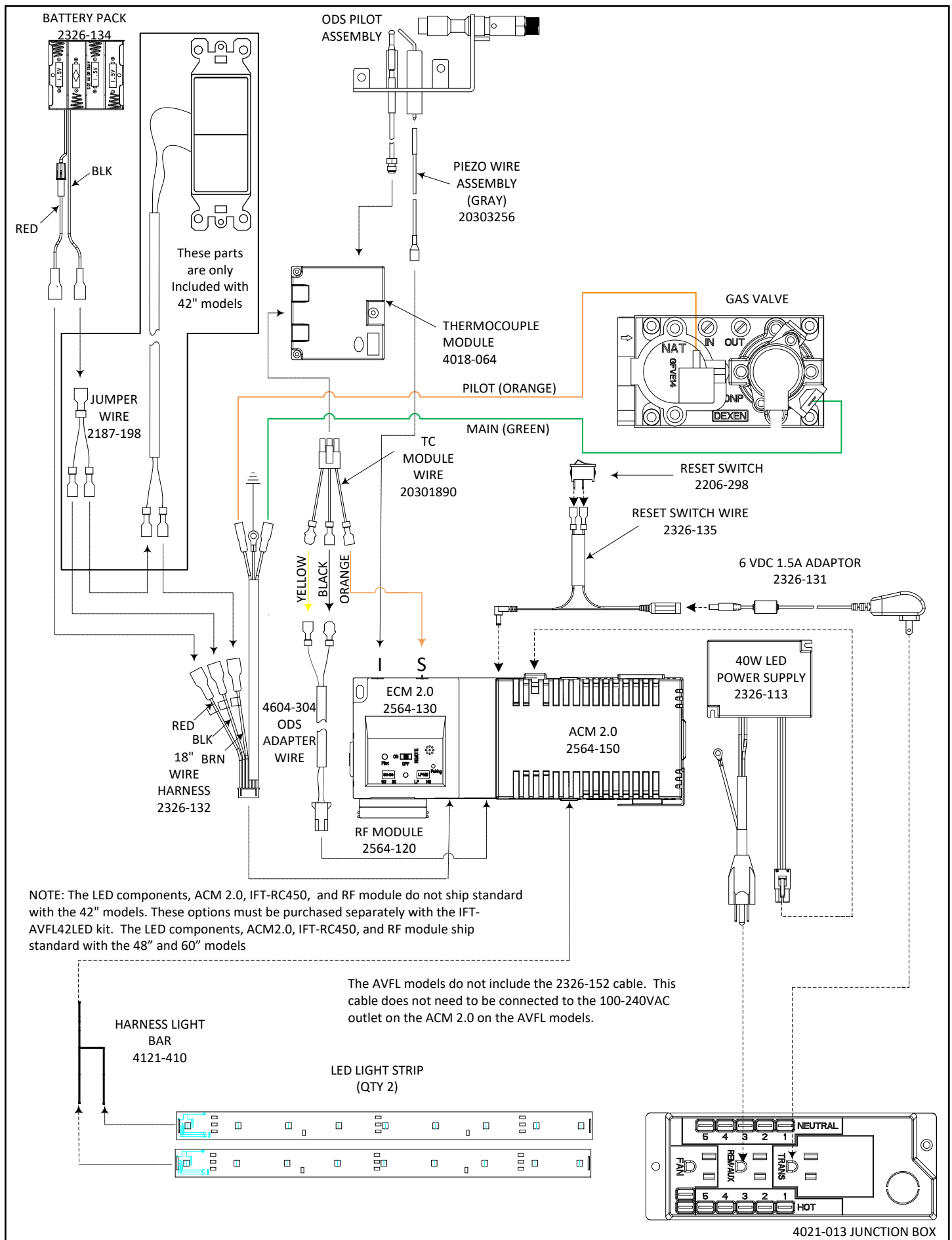
BATTERY PACK
2326-134

BLK

RED

These parts are only Included with 42" models

ODS PILOT ASSEMBLY

PIEZO WIRE ASSEMBLY (GRAY) 20303256

THERMOCOUPLE MODULE 4018-064

GAS VALVE

NAT
IN   OUT
DEVEX4
ONP
DEXEN

PILOT (ORANGE)

MAIN (GREEN)

JUMPER WIRE 2187-198

TC MODULE WIRE 20301890

RESET SWITCH 2206-298

RESET SWITCH WIRE 2326-135

6 VDC 1.5A ADAPTOR 2326-131

YELLOW   BLACK   ORANGE

I   S

ECM 2.0 2564-130

ON OFF
REMOTE
Pilot
SQ 30   LP NG
HI

ACM 2.0 2564-150

40W LED POWER SUPPLY 2326-113

RED
BLK
18" BRN
WIRE HARNESS 2326-132

4604-304 ODS ADAPTER WIRE

RF MODULE 2564-120

NOTE: The LED components, ACM 2.0, IFT-RC450, and RF module do not ship standard with the 42" models. These options must be purchased separately with the IFT-AVFL42LED kit. The LED components, ACM2.0, IFT-RC450, and RF module ship standard with the 48" and 60" models

The AVFL models do not include the 2326-152 cable. This cable does not need to be connected to the 100-240VAC outlet on the ACM 2.0 on the AVFL models.

HARNESS LIGHT BAR 4121-410

LED LIGHT STRIP (QTY 2)

NEUTRAL
5 4 3 2 1
FAN   REM/AUX   TRANS
5 4 3 2 1
HOT

4021-013 JUNCTION BOX

Figure 6.3 - IntelliFire Touch with ODS Wiring Diagram

7 Final Installation

A. Black Magic Glass Installation

NOTE: Black Magic Glass does not ship standard with the 42" appliances. This option must be purchased separately with the AVFL42BGL kit.

NOTE: After gas and electric are connected and the appliance has been test fired the glass can be installed.

1. Remove the screen from the front of the appliance.

2. Remove and discard the 2 screws holding the burner tray to the side of the appliance for shipping.

3. Remove the right and left black glass bracket that are shipped in place. Save bracket and screws for installing black glass. See Figure 7.1.

Figure 7.1 - Remove Left and Right Black Magic Glass Brackets

4. Remove the rear black glass bracket that is shipped in place. Save bracket and screws for installing black glass. (Not needed on See Through Appliances) See Figure 7.2.

Figure 7.2 - Remove Rear Black Magic Glass Bracket

5. (Skip this step for See Through Appliances) Slide the burner assembly forward approximately 3/8" to allow more room to install the rear black glass.

6. (Skip this step for See Through Appliances) Place the rear glass panel against the rear wall of the firebox, resting behind the burner assembly. The dimples in the glass will face the firebox. Slide the burner assembly back against the rear black glass. Reinstall the rear black glass bracket.

7. Place the left side panel between the burner assembly and firebox, resting to the left of the burner assembly. Reinstall the left black glass bracket.

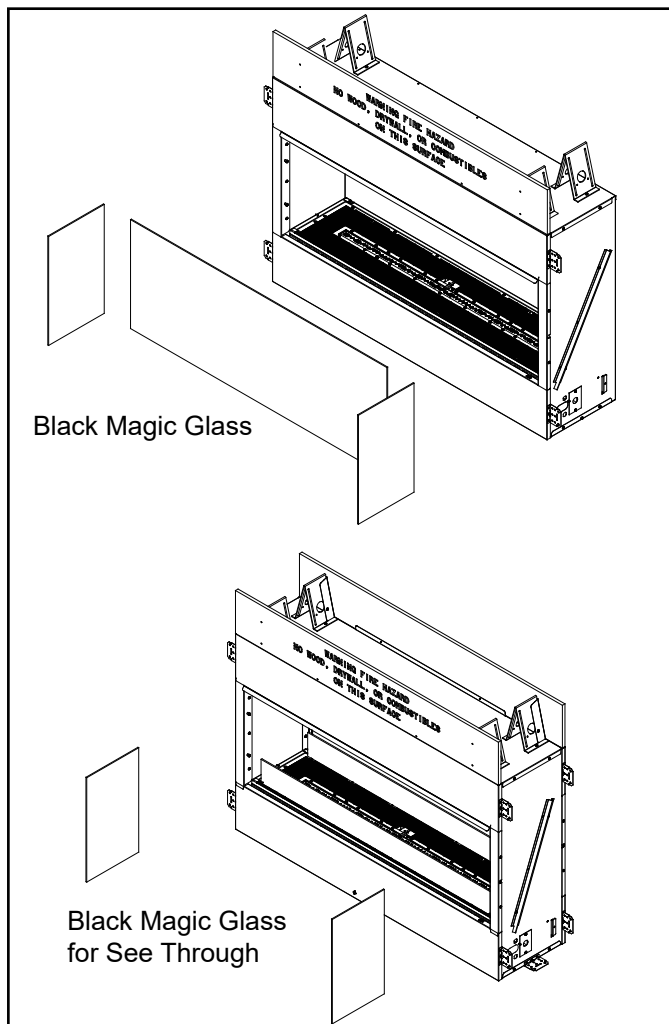8. Repeat step 6 on the right side black glass.

Black Magic Glass

Black Magic Glass for See Through

Figure 7.3 - Black Magic Glass Installation

B. Installation of Air Deflection Glass

NOTE: If installing optional driftwood logs be sure to install log pin brackets prior to installing air deflection glass or crushed glass media. See pages 34-36 for instructions.

NOTE: The air deflection glass must be installed prior to placing any crushed glass media, stone kit or log set. Bend the deflection glass tabs up at a 45° angle. Place the edge of the deflection glass into the two position tabs (located at the front of the engine base) and slide into fingers until reaching the bottom of the tab slots, in front of the burner ports. The glass should stand upright, neither leaning forward nor backward. See Figure 7.4.

NOTE: The optional stone kit and log kit are to be installed alone and never in combination.

C. Crushed Glass Media Only Placement

NOTE: Five (5) bags of crushed glass media are supplied with the 60" appliance and Four (4) bags of crushed glass media are supplied with the 42" and 48" appliance.

The crushed glass media is used to cover the entire floor and burner. We advise against using additional crushed glass media as too much can cut off the proper amount of air the burner needs to burn cleanly. This may cause sooting.

1. Spread crushed glass media evenly in one layer over the entire floor and burner. It is important to not have the crushed glass media too thick on ported area (single layer only).

2. Turn burner on and adjust crushed glass media over ported areas to achieve an even, clean flame.

D. Glass and Optional Stone Kit Placement

1. For best results, spread crushed glass media evenly over the entire floor and burner making sure the glass is not too thick over the burner ports (single layer only). See Figure 7.4.

2. Place the stones randomly in front of and behind the burner. **CAUTION: Do not allow stones to sit directly on burner or in flame.** See Figure 7.4.

3. Turn burner on and adjust crushed glass media over the ported area to achieve an even, clean flame.
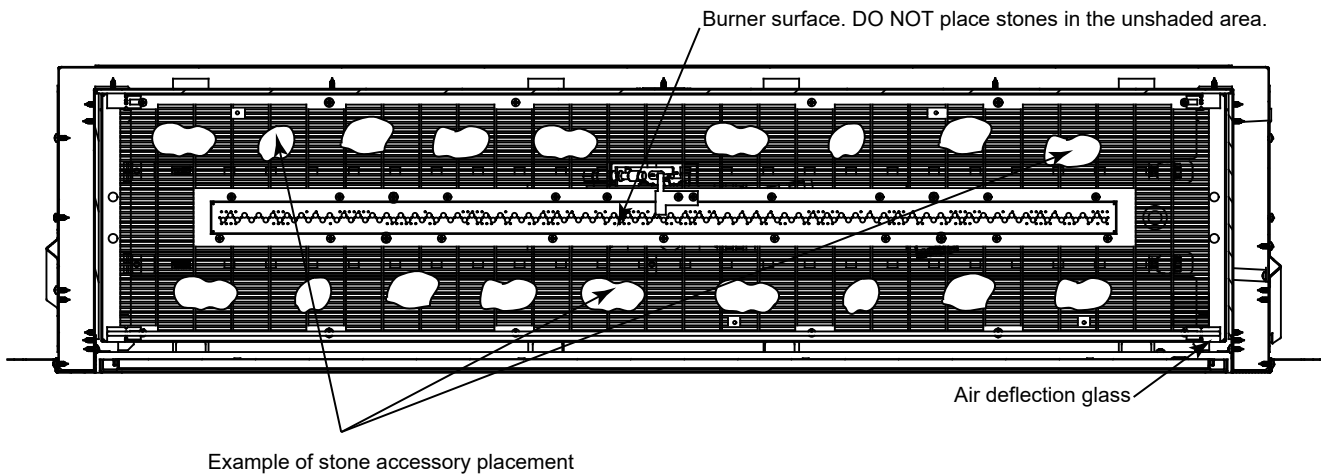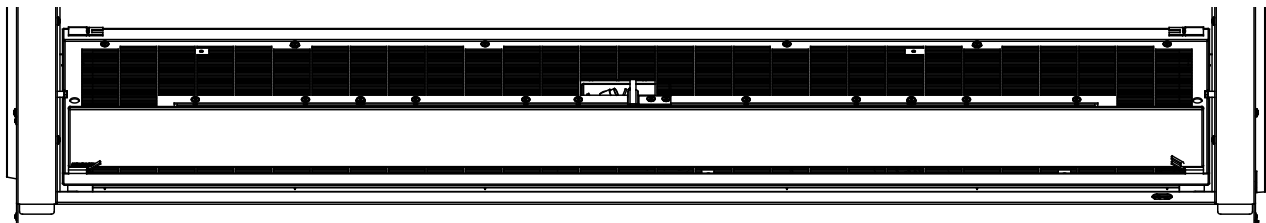
WARNING FIRE HAZARD
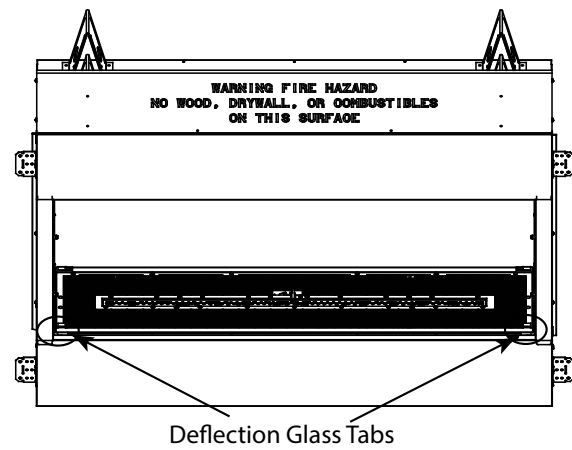NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

Deflection Glass Tabs

Burner surface. DO NOT place stones in the unshaded area.

Air deflection glass

Example of stone accessory placement

Figure 7.4– Air Deflection Glass and Stone Placement

E. Placement of Optional Logs

> ### ⚠ WARNING
>
> **The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly positioned in the appliance. Never add additional logs or embellishments such as pine cones, vermiculite or rock wool to the heater. Only use the logs supplied with the optional log kit (CDLS).**
>
> **Failure to position the parts in accordance with diagrams below or to use only parts specifically approved for this heater may result in property damage or personal injury.**

WARNING: Turn off appliance and allow to cool completely before beginning installation. DO NOT use this kit with any other internal hearth option such as stones.

Kit Contents:

• Four (4) driftwood logs

• Six (6) log support pin brackets

• Six (6) #8 bracket mounting screws

NOTE: Do not handle logs with your bare hands. **Always wear gloves to prevent skin irritation from log material.** After handling the logs, wash your hands with soap and water to remove any traces of fibers.

NOTE: Prior to installing the log set, you must first install the pin brackets on the burner. The air deflection glass and glass media should only be installed after the pin brackets are in place. The air deflection glass should be installed prior to placing glass media on the burner. The logs must then be placed in the unit after the glass media and air deflection glass. If the optional logs are added to the appliance after installation of deflective glass and glass media, move the glass media away from the pin location holes on the firebox bottom assembly as per Figure 7.5 or 7.7.

AVFL42N(P)IF-BU, AVFL42N(P)IF-RB, AVFL48N(P)IF, and AVFLST48N(P)IF

1. Mount the four log support pin brackets using mounting holes and screws provided in locations indicated in Figure 7.5 for the front and rear log. Only one hole of the pin bracket will be used to secure the pin to the outside of the burner assembly base. The other hole remains unused and rests on the mesh area. Next, arrange glass media evenly across the burner again.
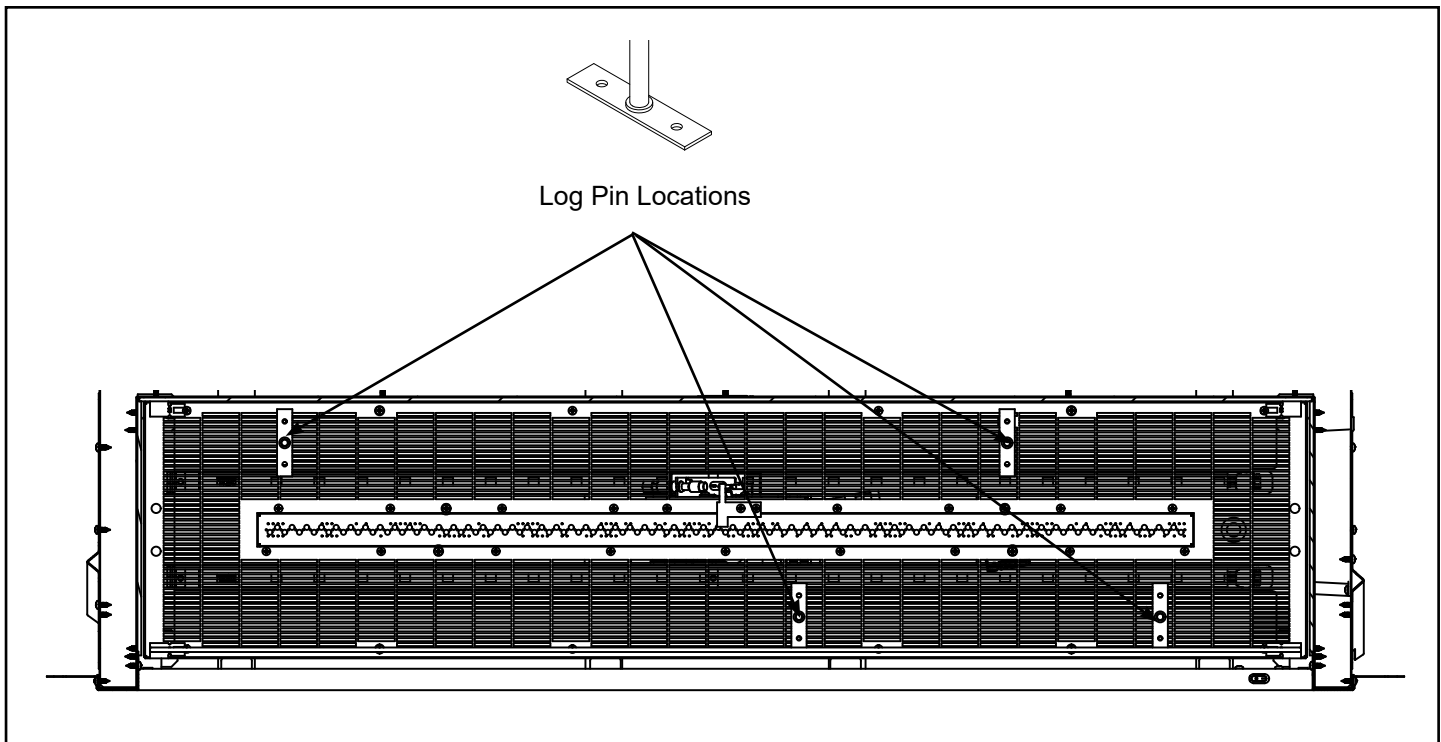

Log Pin Locations

Figure 7.5– Log Pin Placement for AVFL42N(P)IF-BU, AVFL42N(P)IF-RB, AVFL48N(P)IF, AVFLST48N(P)IF, ODLANAIG-48 AND ODLANAIGST-48

2. Place the left rear log (#1A) by aligning the hole in the left side of the log with the pin on the left rear of the burner. See Figure 7.6. Place the right rear log (#1B) by aligning the holes in the bottom of the log with the pin on the right rear of the burner and the pin in log (#1A). See Figure 7.6.

3. Place the front log (#2) by aligning the holes in the bottom of the log with the two pins in front of the burner. See Figure 7.6.

WARNING: Log #3 does not get used with the AVFL42N(P)IF-BU, AVFL42N(P)IF-RB, AVFL48N(P)IF, and AVFLST48N(P)IF. This log should be discarded when installing this kit with these appliances. Do not install any extra logs in these appliances.

Figure 7.6 – Log Placement for AVFL42N(P)IF-BU, AVFL42N(P)IF-RB, AVFL48N(P)IF, and AVFLST48N(P)IF,

AVFL60N(P)IF AND ODLANAIG-60

1. Mount the six log support pin brackets using mounting holes and screws provided in locations indicated in Figure 7.7 for the front logs and rear log. Only one hole of the pin bracket will be used to secure the pin to the outside of the burner assembly base. The other hole remains unused and rests on the mesh area. Next, arrange glass media evenly across the burner again.
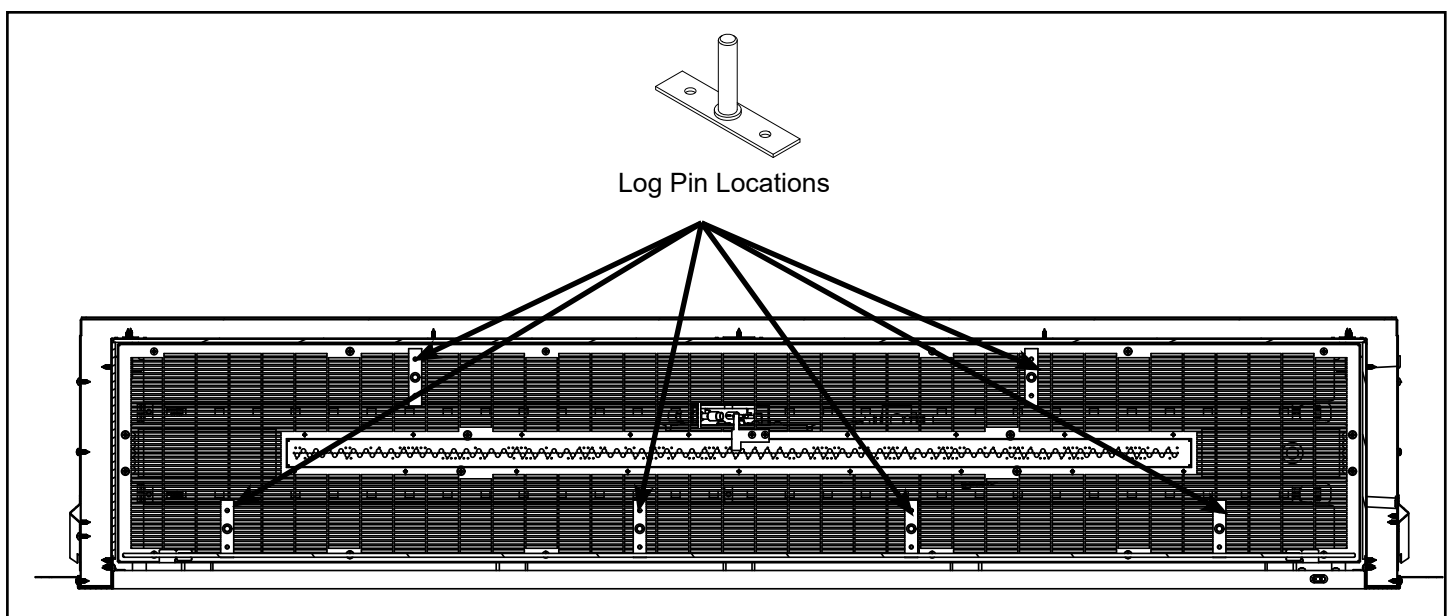

Figure 7.7 – Log Pin Placement for AVFL60N(P)IF AND ODLANAIG-60

2. Place the left rear log (#1A) by aligning the hole in the left side of the log with the pin on the left rear of the burner. See Figure 7.8. Place the right rear log (#1B) by aligning the holes in the bottom of the log with the pin on the right rear of the burner and the pin in log (#1A). See Figure 7.8.

3. Place the front right log (#2) by aligning the holes in the bottom of the log with the two pins in front of the burner. See Figure 7.8.

4. Place the front left log (#3) by aligning the holes in the bottom of the log with the two pins in front of the burner. See Figure 7.8.

WARNING: Logs must be located in the correct position on the pins so they do not interfere with the burner surface.

▶ **Figure 7.8 – Log Placement for AVFL60N(P)IF AND ODLANAIG-60**

F. Lighting Instructions (IPI)

### 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.

WHAT TO DO IF YOU SMELL GAS

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

• **DO NOT** touch any electric switch; do not use any phone in your building.

• Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

• If you cannot reach your gas supplier, call the fire department.

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

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
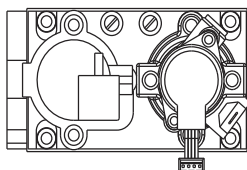
2. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the Safety Information located on the top of this label. If you do not smell gas, go to next step.

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.

4604-200

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

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

CAUTION:

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

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

NOT FOR USE WITH SOLID FUEL

This appliance must be installed in accordance with local codes, if any; if none, follow the *National Fuel Gas Code, ANSIZ223.1/ NFPA 54, or the National Gas and Propane Installation code, CSA B149.1.*

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

.

4604-201

8 Finishing

A. Facing and Finishing Instructions

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

Finishing Instructions

It is important to follow the framing and finishing instructions to ensure proper placement of appliance into the surrounding framing/finishing materials.

Wall sheathing materials 1/2 in. thick are specified in this installation manual to properly align with the non-combustible material.

WARNING! Risk of Fire! Non-combustible board MUST be installed. DO NOT remove or cover it with combustible material, such as:

- *Drywall (gypsum board)*
- *Plywood*
- *Materials that do not meet the ASTM E 136 Non-combustibility standard (below).*

Removal of installed, non-combustible board and/or use of materials not meeting the ASTM E 136 standard could cause fire.

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.

Or materials that are reported as passing **ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 ºC.**

WARNING! Risk of Fire! Maintain specified air space clearances to combustibles. Inadequate air space could cause overheating and fire.

Finishing Materials

NOTICE: The maximum finishing material not only includes the decorative finish materials (marble, tile, slate, etc) but also the thin set, lath, and adhesive used to attach the decorative finish material.

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.

This section discusses installation details associated with the Inside and Overlap Fit methods and specifies additional non-combustible materials required.

The appliance is designed to mate with 1/2 in. wall sheathing materials such as drywall, plywood, wood composites, or non-combustible materials.

- **Finishing Around Perimeter of Appliance (Install Option #1)**

  Gypsum wallboard (drywall) joints can be finished up to the perimeter of the left, right and bottom edge of the appliance flush with the face. The 7-1/4"of supplied non-combustible must be used at the top of the appliance where the gypsum board can then be finished to the left, right and top edge of the non-combustible board.

- **Finishing Around Opening of Appliance (Install Option #2)**

  NOTE: With this installation option, the appliance must be recessed to the depth of the non-combustible being used to ensure finish is flush with surrounding wall. This is the recommended install option for all finish kits shown on page 39. Refer to Trim Kit instructions for Option #2 installation before starting.

  The 7-1/4" non-combustible must first be installed above the unit in the same manner as installation option #1, flush with the top face of the unit. In this option, non-combustible is required for all material covering the face of the unit. The non-combustible may be installed up to the firebox opening but must not overlap which would impede the removal of the screen. When installing material around the firebox opening, install the sheet with a pre-cut hole for the firebox opening in a single sheet, if possible. This will minimize joints across the appliance face and reduce cracking.

Tape wall board joints around the appliance opening with fiberglass-mesh tape. It will provide a more crack-resistant joint than paper tape. Fill, smooth and finish wall joints with chemically setting-type joint compound. It will provide a more crack-resistant joint than air-drying lightweight compound.

Finish and Sealing Joints

All joints between the finished wall sheathing and the appliance must be sealed with non-combustible materials. Sealants, such as caulk or mastic used to seal the gap between the wall and the appliance, should be rated at a minimum continuous exposure to 300ºF.

Painting

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

In extreme cases, lab tests have shown yellow pigments fading out of paints over time due to heat. Vent run and installation location will have an effect on wall temperature and fading. If fading occurs, consider avoiding paint that contains yellow pigment.

In regards to the sheetrock mud, apply a smooth, even layer, covering a wide area of the wall for the best results. For best results, follow the tips below.

To Reduce the Risk of Sheetrock Cracking: DO
Use all purpose joint compound.
Use eggshell paint (100% acrylic latex paint, gloss or semi-gloss).

To Avoid Sheetrock Cracking: DO NOT
Use a quick set or light weight joint compound.
Use flat paint.

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

WARNING! Risk of Fire! DO NOT install drywall or other combustible materials directly onto the installed non-combustible board. Overlapping materials could ignite.
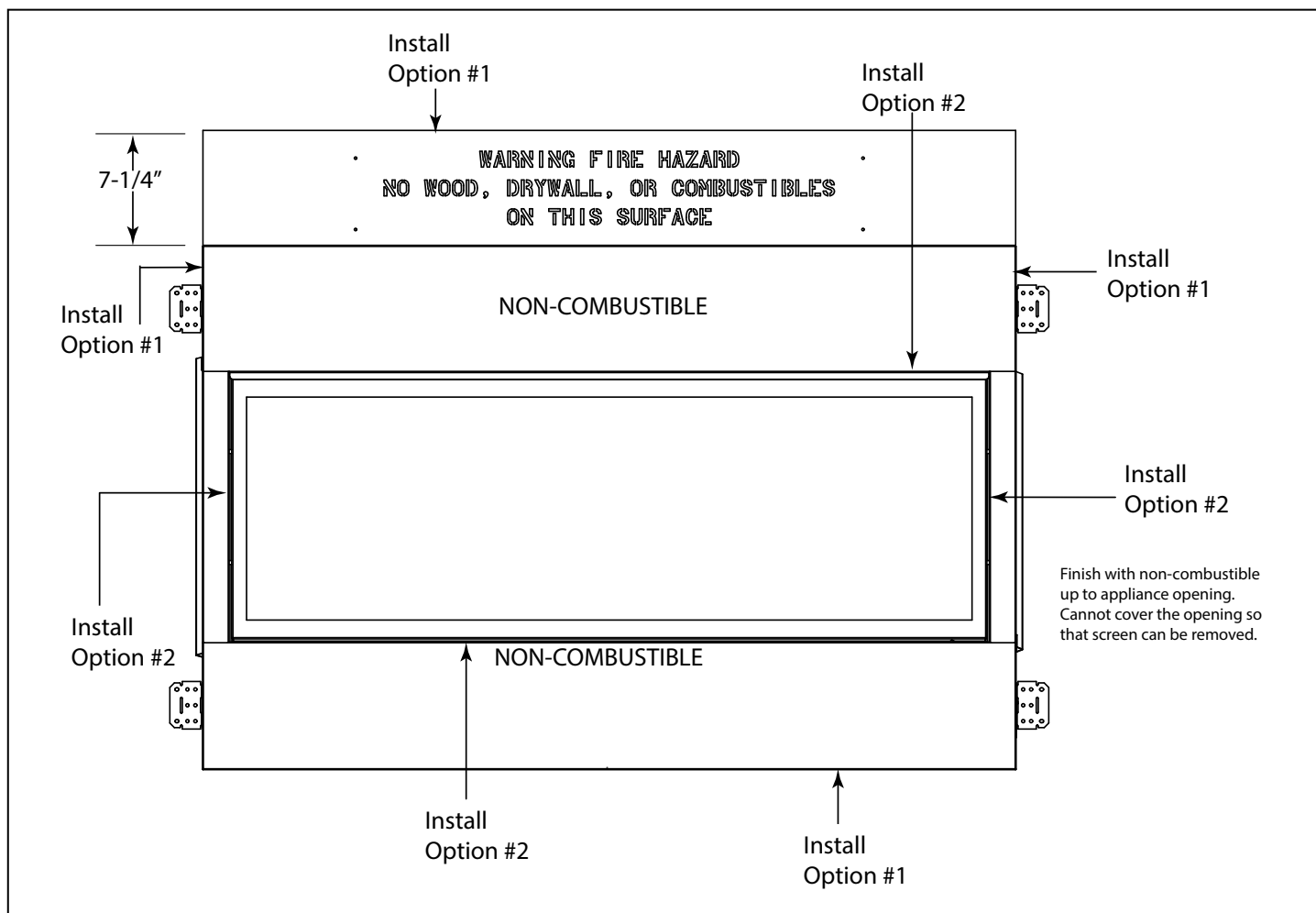

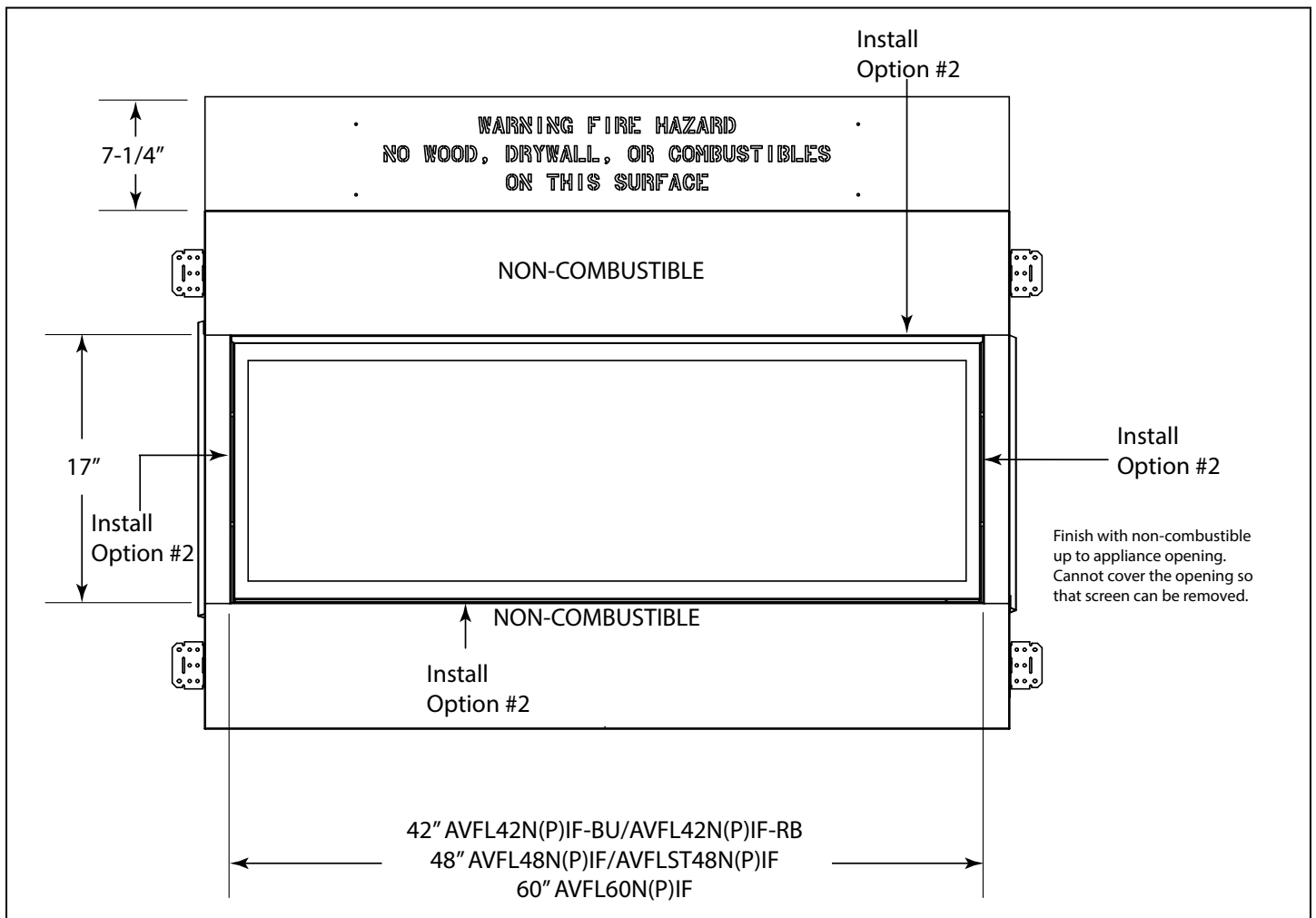**Figure 8.1 - Finishing Around Appliance**

Install
Option #2

7-1/4"

WARNING FIRE HAZARD
NO WOOD, DRYWALL, OR COMBUSTIBLES
ON THIS SURFACE

NON-COMBUSTIBLE

Install
Option #2

17"

Install
Option #2

Finish with non-combustible
up to appliance opening.
Cannot cover the opening so
that screen can be removed.

NON-COMBUSTIBLE

Install
Option #2

42" AVFL42N(P)IF-BU/AVFL42N(P)IF-RB
48" AVFL48N(P)IF/AVFLST48N(P)IF
60" AVFL60N(P)IF

Figure 8.2 - Minimum Finished Opening Dimension for Install Option 2

B. Operation During A Power Outage

The IntelliFire Touch with ODS intermittent pilot ignition system comes with a battery backup system that enables the system to operate in a power outage. The system offers seamless transition from household AC power to battery backup. A factory-installed battery pack is located in the control cavity of the appliance. See Figure 8.3. Battery longevity and performance will be affected by long term exposure to the service temperatures of this appliance.

NOTICE: Batteries should only be used as a power source in the event of an emergency power outage. Batteries should not be used as a primary long-term power source.

To Operate Appliance Using Battery Power (DC):

1. Access the control cavity of the appliance. See Figure 8.3 for location. Lift the screen frame off of the appliance. Remove the deflection glass and crushed glass media from the burner assembly. Lift the burner assembly and support with the 2 burner supports.

2. Locate the battery tray and insert four AA cell batteries. See Figure 8.4. Battery polarity must be correct or module damage will occur. A complete wiring diagram is included in the Electrical section of the appliance Installation Manual.

3. Lower the burner assembly. Reinstall the crushed glass media and deflection glass.

4. Turn the appliance on according to the instructions below for the appropriate type of control:

Standard Wall Switch or Factory-Installed ON/OFF Switch:

*   Toggle the switch as you would under normal circumstances.

Wireless Remote:

*   Remote receiver is integrated into the ignition module

*   Use the remote to turn the appliance on.

*   To preserve battery life, do not use the HI/LO flame or THERMOSTAT options.

NOTICE: Some functionality will be lost when using battery backup including lights, or any other auxiliary functions that require household 110-120 VAC power.

**Standard Wall Switch or Factory-Installed ON/OFF Switch:**

*   Toggle the switch to OFF.

*   Remove the deflection glass and crushed glass media from the burner assembly. Lift the burner assembly and support with the 2 burner supports.

*   Remove the batteries from the battery tray.

*   Lower the burner assembly. Reinstall the crushed glass media and deflection glass.

Wireless Remote:

*   Use the remote to turn the appliance off.

*   Remove the deflection glass and crushed glass media from the burner assembly. Lift the burner assembly and support with the 2 burner supports.

*   Remove the batteries from the battery tray.

*   Lower the burner assembly. Reinstall the crushed glass media and deflection glass.
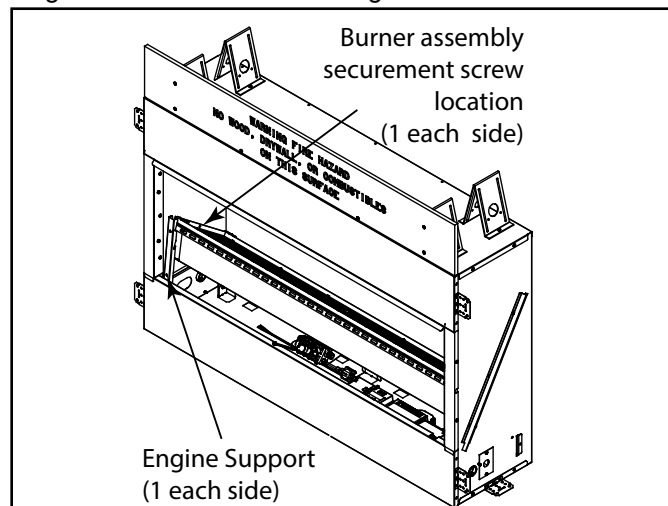
8.3 - Control Cavity Location (Cut away front view only for location purpose, no direct access from front)
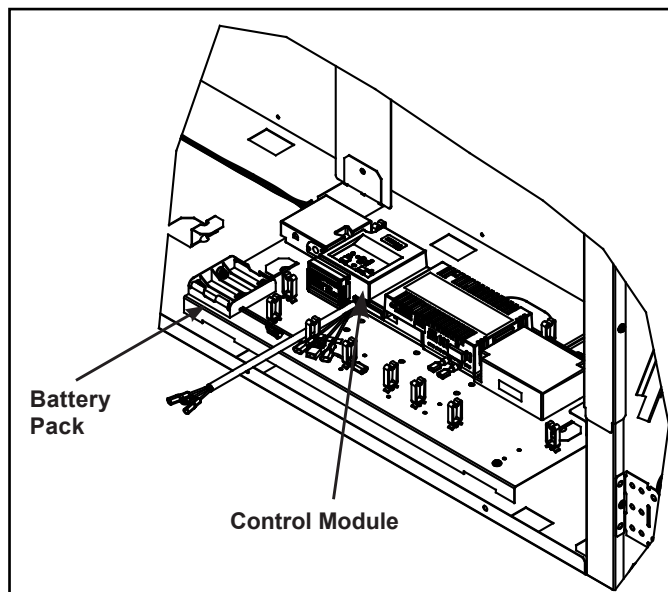
8.4 - Battery Tray Location

C. Detailed Component Operating Instructions

IFT2-ECM Detailed Operating Instruction

The 48" and 60" models ship from the factory equipped with the IFT2-RC450 remote. The IFT2-RC450 is available as an option for the 42" models. The IntelliFire Wi-Fi module (IFT-WFM) is an available option for all models.

1. The Electronic Control Module (IFT2-ECM) has a three-position ON/OFF/REMOTE selector switch that must be set for proper operation. See Figure 8.5. When changing switch positions,it is important to pause in each position for 1-2 seconds.

   OFF Position:

   The appliance will not respond to any commands from the IntelliFire Mobile App, IFT-RC150U or IFT2-RC450 remote controls. The unit should be in the OFF position during installation, service, fuel conversion and to reset the IFT2-ECM in the event the system goes into a LOCK-OUT mode as the result of a system error. When switched to the OFF position while the appliance is operating, the system will shut down.

   ON Position:

   The appliance will ignite and run continuously at the HIGH flame setting. No adjustment in flame height is possible.

NOTICE! When the IFT2-ECM selector switch is in the ON position, the ECM shall not respond to the wired wall switch, mobile app or wireless remote controls.

> **The IFT2-ECM has a safety feature that will automatically shut down the fireplace after 9 hours of continuous operation in the ON position.**

   Remote Position:

   The remote position allows operation of the appliance from the IntelliFire app, IFT2-RC450 or IFT-RC150U remote controls. The IFT2-ECM switch must be in the REMOTE position to pair the IFT2-ECM with the IFT2-PACM and/or IFT2-RC450 and RC150U remote controls. See the IFT2-RC450 or IFT-RC150U installation manual for detailed instructions on pairing the IFT2-ECM with the remote controls. After successfully pairing a IFT2-RC450, all installed accessories can be controlled by the IFT2-RC450 (see IFT2-RC450 user manual). The IFT-RC150U allows the user to turn ON/OFF the flame in the appliance and activate the Cold Climate mode if desired. The IFT2-ECM has a safety feature that will automatically shut down the fireplace after 9 hours of continuous operation without receiving a command from the IFT2-RC450 or IFT-RC150U .

2. If multiple control options are installed, the IFT2-ECM will respond to the last command from the wired wall switch, IFT2-RC450 or IFT-RC150U . The wired wall switch is NOT available if a Power Vent is used.
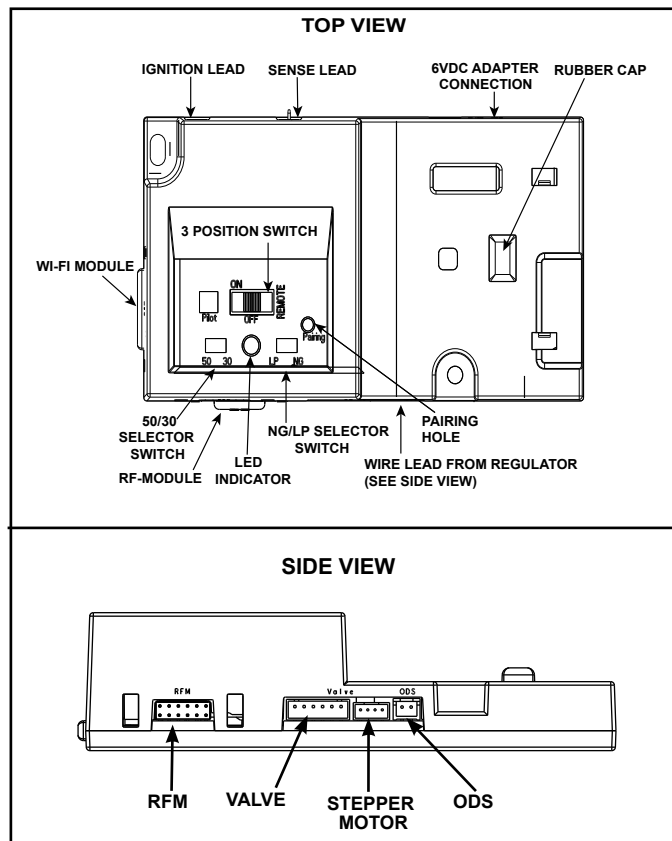

Figure 8.5   IFT-ECM 2.0

3. An IFT2-ECM reset is required if the module is in a lock-out condition. When this occurs, the appliance is shut down and the IFT2-ECM status indicator LED will be blinking a RED/GREEN error code along with a one-time audible double- beep. If the IFT2-ECM is in a lock-out condition, refer to the troubleshooting chart to interpret the error code and take corrective action as required.

CAUTION! Risk of burns! Appliance surfaces are hot when operating and during cool down. Use care and wear gloves when opening the front and accessing components inside the appliance.

NOTE: A reset is achieved by cycling the circuit breaker to which the appliance is wired. For appliances that have been converted to Propane, the RESET switch may also be cycled.

Appliance ON/OFF:

A remote control, wireless wall switch or optional Wi-Fi may be used to control the ON/OFF function of the appliance. Follow instructions included with the installed control.

LED's

Use the IFT2-RC450 remote to control the functions of the LED's, including ON/OFF, color choice and color intensity.

Wi-Fi (Optional)

If desired, a Wi-Fi module (IFT-WFM) may be added to allow the appliance to be run via an app. Contact your dealer to order.

Manual Appliance Shutoff

In the unlikely event that the remote wall switch malfunctions and will not turn off the appliance, call your dealer for service assistance. In the meantime, you may choose one of the following actions to turn off the appliance:

CAUTION! Risk of burns! Appliance surfaces are hot when operating and during cool down. Use care and wear gloves when opening the front and accessing components inside the appliance.

Check remote screen for battery level indicator, replace the batteries if low battery is indicated.

The appliance may be manually shut down by one of the following methods:

Turn off power to the appliance (if back-up batteries are not installed):

- Unplug appliance from electrical source, if you cannot unplug then:

- Locate house circuit breaker for appliance.

- Turn off the circuit breaker.

- Turn the reset switch in the front face to the off position. See Figure 8.6.
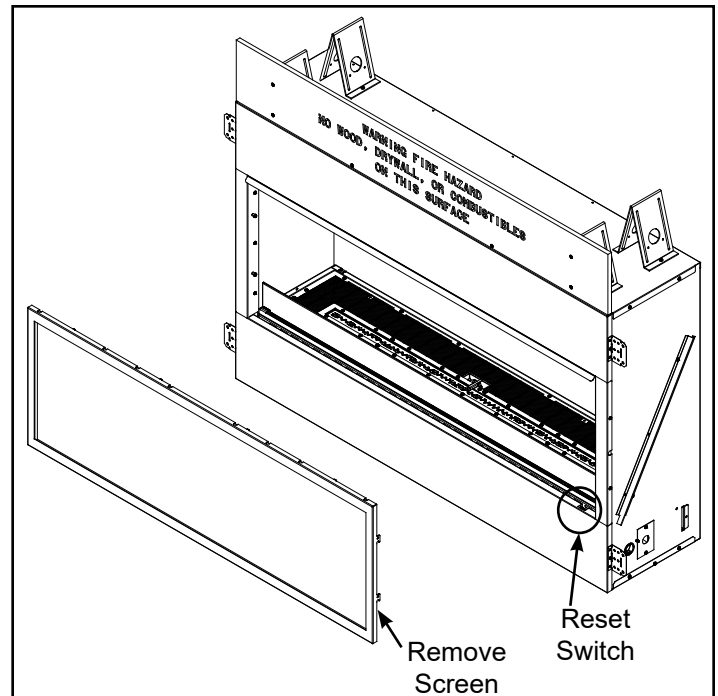

Figure 8.6 Reset Switch

D. Frequently Asked Questions - IntelliFire Touch® Controls (IFT2-RC450)

Symptom	Possible Cause	Corrective Action
The appliance does not respond to commands from the remote control display does not light up when screen is touched.	Batteries are depleted.	Verify batteries are new.
	Batteries are incorrectly oriented.	Verify batteries are installed in correct orientation as shown on batteries receptacle.
The display on remote lights up when screen is touched but it does not respond to commands.	Touchscreen has lost calibration.	Touchscreen needs to be re-calibrated. Call dealer to have screen re-calibrated.
	Child Lock is ON.	Check child lock icon located at the top of the remote display. If ON, it will show as a 'locked' symbol. To unlock, remove battery compartment door, locate child lock switch and move to 'unlock' position. Verify child lock icon on screen is now displayed in 'unlock' position.
The remote displays the following message on-screen: No dealer info available	Dealer information not programmed into remote.	Remote will still provide all available functions, and appliance is fully available for use. Call dealer to have them program.
The remote displays the following message on-screen: Call "Dealer Name & Number" to schedule maintenance.	300 hours of use. Appliance is still fully functional.	The appliance has been burning for 300 hours and is due for a regular maintenance. Call dealer to have them perform maintenance.
Thermostat mode is displayed on remote.	Thermostat mode has not been disabled.	Call your dealer.
The appliance turns OFF the flame after extended periods of operation	9 hour safety shutdown timer	This is normal behavior. The appliance has a safety timer that will automatically turn OFF the flame after nine hours of uninterrupted operation.
The remote displays the following message on-screen: Fan will turn on within 3 minutes	Functioning as intended.	The appliance has a three minute delay timer before the fan is turned ON. This allows the air surrounding the appliance to be heated before being pushed into the room.
The remote displays the following message on-screen: "Replace remote batteries."	Low batteries in remote.	Install new batteries in the remote.
The remote is displaying an incorrect brand.	Remote was programmed incorrectly.	Call dealer to have them program the remote with correct branding. Remote is still fully functional and the appliance is unaffected.
After turning flame ON using remote, the flame does not turn ON immediately and instead a two minute timer is displayed.	Power vent is installed on the appliance.	This is expected behavior and the two minute timer is called a pre-purge timer. The flame will turn ON at the expiration of the timer.
The remote displays the following message on-screen: "Remote Control Communication Error."	No power to appliance.	Verify home circuit breaker is on and master reset is on (if equipped).
	Power outage.	Wait for power to be restored to appliance.
The remote displays the following message on -screen: Sorry your appliance did not start. Try again by pressing Flame On.	No power to appliance. No gas to appliance. Accumulation of air in gas line from extended period of appliance inactivity. Gas control system failure.	Verify that appliance has power and gas. Verify that the appliance accepts flame ON commands with an audible beep, and successfully turns flame on within 90 seconds. If this failure persists, contact dealer for service.

E. Troubleshooting - IntelliFire Touch 2.0 Ignition System

DANGER

Risk of Explosion

DO NOT cycle the ON/OFF/REM selector switch more than one time within a five minute period. Gas may accumulate in firebox. Call a qualified service technician.

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 technician 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.

Note to Qualified Service Technician: Additional resources including troubleshooting guides and service videos are available through Hearth & Home Technologies. Contact your dealer or access resources through your myhht.com account.

IntelliFire Touch 2.0 Ignition System
Error Codes:

IFT2-ECM LED Error Codes	Description
2 Red: 1 Green	RC450 display: "Error Pilot Flame", pilot valve solenoid not detected or open pilot flame coil.
2 Red: 2 Green	CSA error message. Ignition feedback signal error, spark coil failure, low-impedance short.
3 Red: 1 Green	RC450 error message: "Appliance Safely Disabled", pilot sparks for 90 seconds, no flame rectification.
4 Red: 1 Green	110VAC power is connected to the wall switch.
6 Red: 1 Green	RC450 error message: "Error ODS". Clear Error Message requires the On/Off/Remote switch to be moved to Off for 3 seconds before moving back to Remote.
7 Red: 1 Green	RC450 display: "Error Power Vent" Clear Error Message requires the On/Off/Remote switch to be moved to Off for 3 seconds before moving back to Remote.
8 Red: 1 Green	RC450 error message: "ECM error".

See Troubleshooting matrix for more detail on Lock-out Error Codes, Possible Causes and Corrective Actions.

Troubleshooting:

NOTICE! Please contact your Hearth & Home Technologies dealer if the Corrective Actions do not resolve the issues with your appliance.

Symptom	Possible Cause	Corrective Action
Pilot does not light, module clicks but no spark 90 seconds, 3 Red/1 Green Lock out.	Incorrect wiring.	Verify "S" (White) sense wire and "I" (orange) ignitor wire are connected to correct terminals on IFT2-ECM.
	Loose connections or electrical shorts in wiring.	Verify no loose connections or electrical shorts in wiring from module to pilot assembly. Verify wire insulation is not damaged. Verify wires are not grounding out to chassis, pilot burner, or any other metal object. Replace any damaged wires.
	Ignitor gap is too large.	Verify spark gap is approximately 0.095" (2.41 mm) to 0.135" (3.43 mm).
Pilot does not light, there is no noise or spark.	No AC power, AC/DC adaptor faulty, IFT2-ECM slider switch in OFF position.	Verify IFT2-ECM slider switch is in ON or REMOTE position. Verify AC power available to junction box. Verify 6 VDC power adapter is plugged into junction box and IFT2-ECM. Verify 6 VDC power adapter output voltage is between 5.7-6.3 Vdc.
	Shorted or loose connection in system wiring or wiring harness.	Verify system wiring configuration. Remove and reinstall wiring harness that plugs into module. Check continuity of wires in valve wiring harness. Replace any damaged components.
	Poor or no system ground.	Verify black ground wire in valve harness is connected to metal chassis of fireplace.
Pilot does not light, there is no noise or spark, 2 Red/1 Green Lockout.	Pilot solenoid not detected.	Check if valve harness orange wire is connected to pilot solenoid valve. Check pilot solenoid resistance, nominal is 40 ohms. If open or shorted, replace valve. Check valve harness wire continuity, if open replace 6-pin harness.

Symptom	Possible Cause	Corrective Action
Pilot does not light, there is no noise or spark, 2 Red/2 Green Lockout.	Spark coil failure.	Replace IFT2-ECM.
Pilot sparks but does not light, after 90 seconds, 3 Red/1 Green Lockout.	No gas supply.	Verify incoming gas line ball valve is "Open". Verify inlet pressure is within requirement for gas type used. Contact gas supplier.
	IFT2-ECM has poor ground.	Verify wiring, check valve harness black wire is securely grounded to metal chassis.
	Gas valve defective.	Check pilot valve solenoid kick and hold voltages during ignition cycle. Kick V should be >1 V, hold V minimum 0.26 V. If voltages are OK, replace gas valve.
Pilot lights but main burner does not light. Pilot continues to spark for 90 seconds then goes into 3 Red/1 Green Lockout.	No flame detected. Flame rectification issue.	Check if white sense lead is securely connected to "S" terminal of IFT2-ECM. Check resistance of sense lead between sense rod tip and connector to IFT2-ECM, should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	Possible Cause: No flame detected or sense rod contamination.	Corrective Action: With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with fine steel wool to remove any contaminants that may have accumulated.
	No flame detected, sense rod short issue.	Remove firebox glass assembly and verify there is no glass media touching the flame sense rod or glass media blocking the pilot orifice.
Pilot lights and rectifies, but main burner does not light.	Main valve solenoid.	Check if green wire in valve harness is connected to green main valve solenoid. Check main valve solenoid resistance, nominal is 60 ohms. If open or shorted, replace valve. Verify valve inlet pressure is correct for gas type.
Pilot and main do not light, IFT2-ECM 2.0 goes into 7 Red/1 Green Lockout.	Combustion Blower Failure.	Combustion blower defective - check wiring to IFT2-PACM, check if combustion blower is working. Check if pressure switch is connected to brown and black wire in 6-pin valve wire harness. Check if pressure switch is closed (shorted) when combustion blower is running. Clear Error Message requires the On/Off/Remote switch to be moved to Off for 3 seconds before moving back to Remote.
Appliance lights and runs for a few minutes then shuts down and/or appliance cycle ON and OFF with less than 90 seconds of ON time.	Shorted or loose connection in flame detection circuit.	Check if white sense lead is securely connected to "S" terminal of IFT2-ECM. Check resistance of sense lead between sense rod tip and connector to IFT2-ECM should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	Poor flame rectification or contaminated sense rod.	With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with fine steel wool to remove any contaminants that may have accumulated. Verify no soot deposits are in sense rod to pilot hood gap.
	Logs are set up wrong.	Remove and re-install logs per the log placement instructions.
	Damaged pilot assembly.	Verify the pilot assembly ceramic insulator around the flame sensing rod is not cracked, damaged or loose. Check resistance between tip of sense rod and IFT2-ECM connector, should be less than 1 ohm. Replace pilot assembly if damage is detected.

F. Accessories

• **Remote Controls, Wall Controls and Wall Switches**

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.

• **Crushed Glass Media**

  -Diamond

  -Bronze

  -Onyx

  -Sapphire

• **42" LED Light Kit (IFT2-AVFL42LED)**

LED light kit for AVFL42 that includes a wall switch for the appliance

• **Driftwood Log Set (CDLS)**

Driftwood log set (2 logs for AVFL42 and AVFL48, 3 logs for AVFL60)

• **Optional Finish Kits**

The AVFL appliances have three optional finish kits for each appliance size

-AVFL42TKI-B, AVFL48TKI, AVFL60TKI-B - Black inside fit trim kit

-AVFL42CFVC, AVFL48CFVC, AVFL60CFVC-B - Contemporary veined copper face

-AVFL42CFSB, AVFL48CFSB, AVFL60CFSB - Contemporary satin black face

• **Optional Stone Kit (STONEKIT)**

  -The look of water tumbled stones adds interest and appeal to your appliance.

• **Outdoor Kit for AVFLST48 (AVFLST48SSODK)**

• **Black Magic Glass Kit for AVFL42 (AVFL42BGL)**

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Please contact your Monessen dealer with any questions or concerns.
For the location of your nearest Monessen dealer,
please visit www.monessenhearth.com