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# Monessen Hearth LCUF36CR-BT Owner's Manual

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# Installation Manual

## Installation and Setup

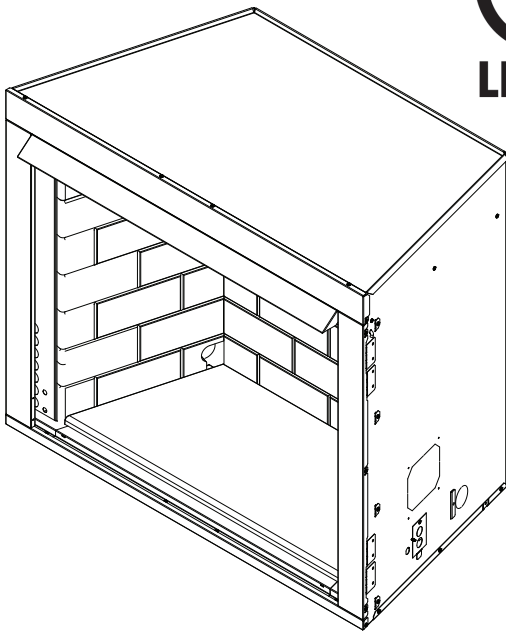
**INSTALLER:** Leave this manual with party responsible for use and operation.  
**OWNER:** Retain this manual for future reference.

**NOTICE:** DO NOT discard this manual!



### Model(s):

LCUF32CR-C, LCUF36CR-C, LCUF42CR-C  
LCUF32CR-GT, LCUF36CR-GT, LCUF42CR-GT  
LCUF32CR-GH, LCUF36CR-GH, LCUF42CR-GH  
LCUF32CR-BT, LCUF36CR-BT, LCUF42CR-BT



### VENT FREE FIREBOX

Carefully review the instructions supplied with the decorative type unvented room heater for the minimum fireplace size requirement.

**DO NOT INSTALL AN APPLIANCE IN THIS FIREBOX UNLESS THIS FIREBOX MEETS THE MINIMUM DIMENSIONS REQUIRED FOR THE INSTALLATION.**

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

- **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **DO NOT** overfire. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

## **⚠ DANGER**



### HOT SURFACES!

Firebox surfaces are hot during operation AND cool down.

### Hot surfaces will cause burns.

- **DO NOT** touch firebox until it is cooled
- **NEVER** allow children to touch firebox
- Keep children away
- **CAREFULLY SUPERVISE** children in same room as firebox.
- Alert children and adults to hazards of high temperatures.

### High temperatures may ignite clothing or other flammable materials.

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

**FOR USE ONLY WITH A LISTED GAS-FIRED UNVENTED DECORATIVE ROOM HEATER NOT TO EXCEED 40,000 BTU/H. DO NOT BUILD A WOOD FIRE.**

## Safety Alert Key:

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Indicates practices which may cause damage to the fireplace or to property.

## Table of Contents

Installation Standard Work Checklist	3	<b>6 Gas Information</b>	
		A. Fuel Type	17
		B. Gas Pressure	17
		C. Gas Connection	17
<b>1 Product Specific Information</b>		<b>7 Finishing</b>	
A. Firebox Certification	4	A. Facing Material	18
B. BTU Specifications	4	B. Mantel and Wall Projections	18
C. High Altitude Installations	4	C. Decorative Fronts	19
D. Non-Combustible Materials Specification	4	D. TV Good Faith Guidelines	20
E. Combustible Materials Specification	4	<b>8 Firebox Setup</b>	
F. Electrical Codes	4	A. Remove the Shipping Materials	21
<b>2 Getting Started</b>		B. Clean the Firebox	21
A. Design and Installation Considerations	5	C. Hood Installation	21
B. Tools and Supplies Needed	5	<b>9 Reference Materials</b>	
C. Inspect Firebox and Components	5	A. Optional Accessories	22
<b>3 Firebox Dimensions</b>		B. Contact Information	23
A. Firebox Dimensions	6		
B. Hearth Dimensions	7		
C. Framing Dimensions	8		
D. Clearance to Combustibles	9		
E. Constructing the Appliance Chase	10		
<b>4 Firebox Preparation</b>			
A. Securing and Leveling the Firebox	11		
B. Installing Optional Outside Air Kit(s)	11		
<b>5 Electrical Information</b>			
A. Wiring Requirements	12		
B. Wiring the Junction Box	12		
C. Electrical Service and Repair	12		
D. Wiring Diagrams	13		



# 1 Product Specific Information

## A. Firebox Certification

**MODELS:** LCUF32CR-C, LCUF36CR-C, LCUF42CR-C  
LCUF32CR-GT, LCUF36CR-GT, LCUF42CR-GT  
LCUF32CR-GH, LCUF36CR-GH, LCUF42CR-GH  
LCUF32CR-BT, LCUF36CR-BT, LCUF42CR-BT

**LABORATORY:** Underwriters Laboratories, Inc. (UL)

**TYPE:** Ventless Firebox Enclosures for Gas-Fired Unvented Gas Log Type Room Heaters


**STANDARD:** CSA/ANSI Z21.91:20

This product is listed to ANSI standards for "Ventless Gas Firebox Enclosures for Gas-Fired Unvented Gas Log Type Room Heaters".

**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/NFPA 54.

**Note: Smoke, carbon monoxide or combination alarms** Alarm manufacturers recommend that alarms be kept at least 15 ft. to 20 ft. laterally away from fuel-burning sources. Installing the alarm closer than 15 ft. will not harm the alarm, but may increase the frequency of nuisance alarms. Mounting alarms on the wall versus the ceiling will further reduce nuisance alarms.

**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.

 **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](http://www.P65Warnings.ca.gov).

## B. BTU Specifications

This product is for use ONLY with a listed decorative "Gas-Fired Unvented Room Heaters".

Model(s)		Maximum Allowable BTU/hr
LCUF32CR-C/GT/GH/BT	(0-2000 FT)	30,000
LCUF36CR-C/GT/GH/BT	(0-2000 FT)	40,000
LCUF42CR-C/GT/GH/BT	(0-2000 FT)	40,000

## 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:

- In the USA: 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 °C** 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**.

# 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 firebox is to be installed.
- Gas supply piping requirements.
- Electrical wiring requirements.
- Framing and finishing details.
- Whether optional accessories - are desired.

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



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   | Framing material |
| Pliers   | Hammer           |
| Phillips screwdriver   | Level            |
| Gloves   | Framing square   |
| Electric drill and bits                                      |                  |
| Safety glasses   |                  |
| Reciprocating saw  |                  |
| Caulking material (300°F minimum continuous exposure rating) |                  |

Note: Refer to the installation instructions provided with the log set for items required for log set installation.

## C. Inspect Firebox and Components

- Carefully remove the firebox and components from the packaging.
- Report to your dealer any parts damaged in shipment.
- **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 firebox dry.**

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

- Installation and use of any damaged firebox or system component.
- Modification of the firebox.
- Installation other than as instructed by Hearth & Home Technologies.
- Improper positioning of the gas logs.
- 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 firebox if any part has been under water. Call a qualified service technician to inspect the firebox and to replace any part of the control system and/or gas control which has been under water.**

# 3 Firebox, Hearth, Framing Dimensions and Clearances

## A. Firebox Dimensions

Dimensions are actual firebox dimensions. Use for reference only. For framing dimensions and clearances refer to page 8.

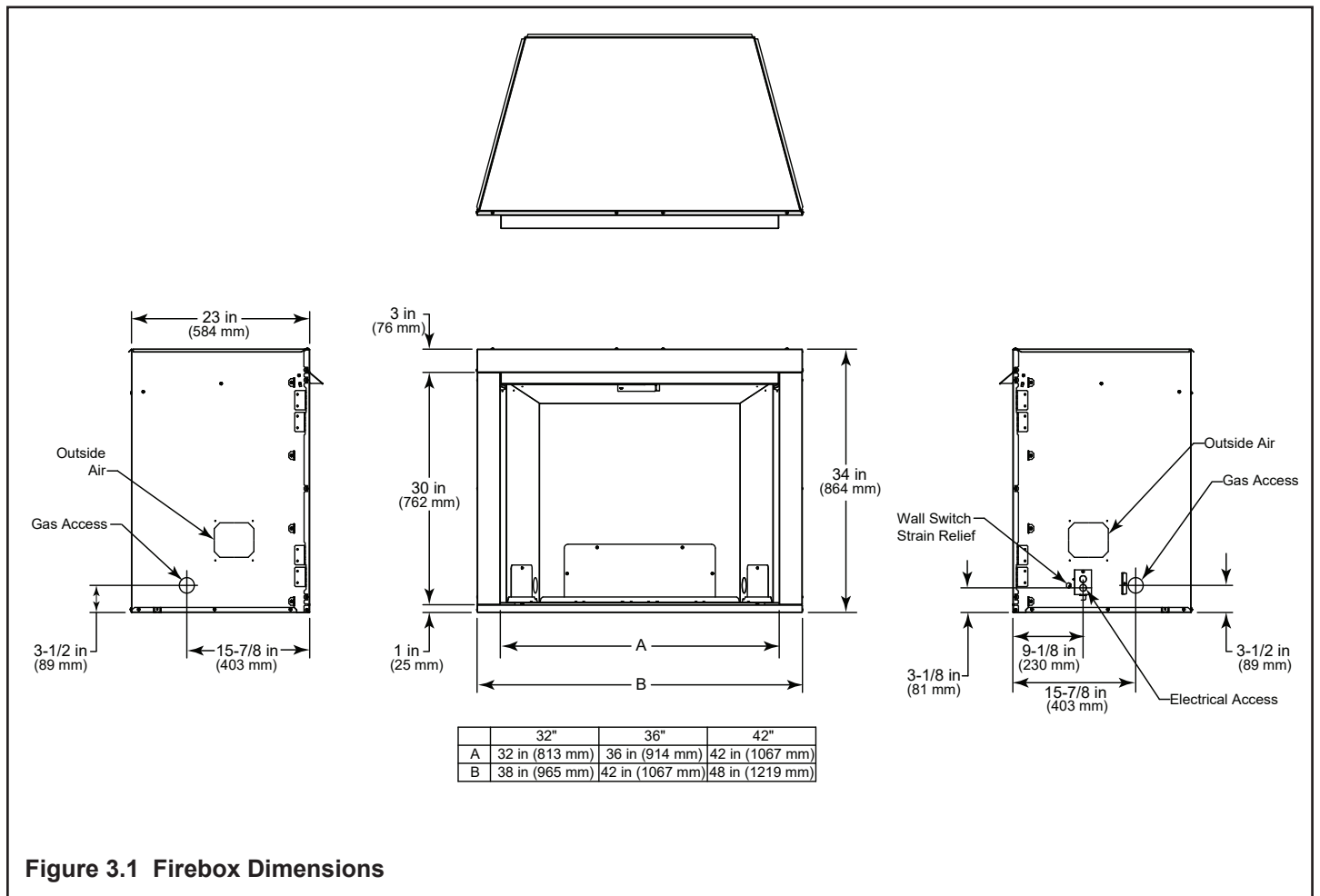


Figure 3.1 Firebox Dimensions

## B. Hearth Dimensions



Figure 3.2 Minimum Hearth Dimensions

Model	A	B	C	D	E
LCUF32	28-7/8 in.	15 in.	20-3/8 in.	28-1/2 in.	22-5/8 in.
LCUF36	32-7/8 in.	15 in.	24-3/8 in.	28-1/2 in.	22-5/8 in.
LCUF42	38-7/8 in.	15 in.	30-3/8 in.	28-1/2 in.	22-5/8 in.

### C. Framing Dimensions

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

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

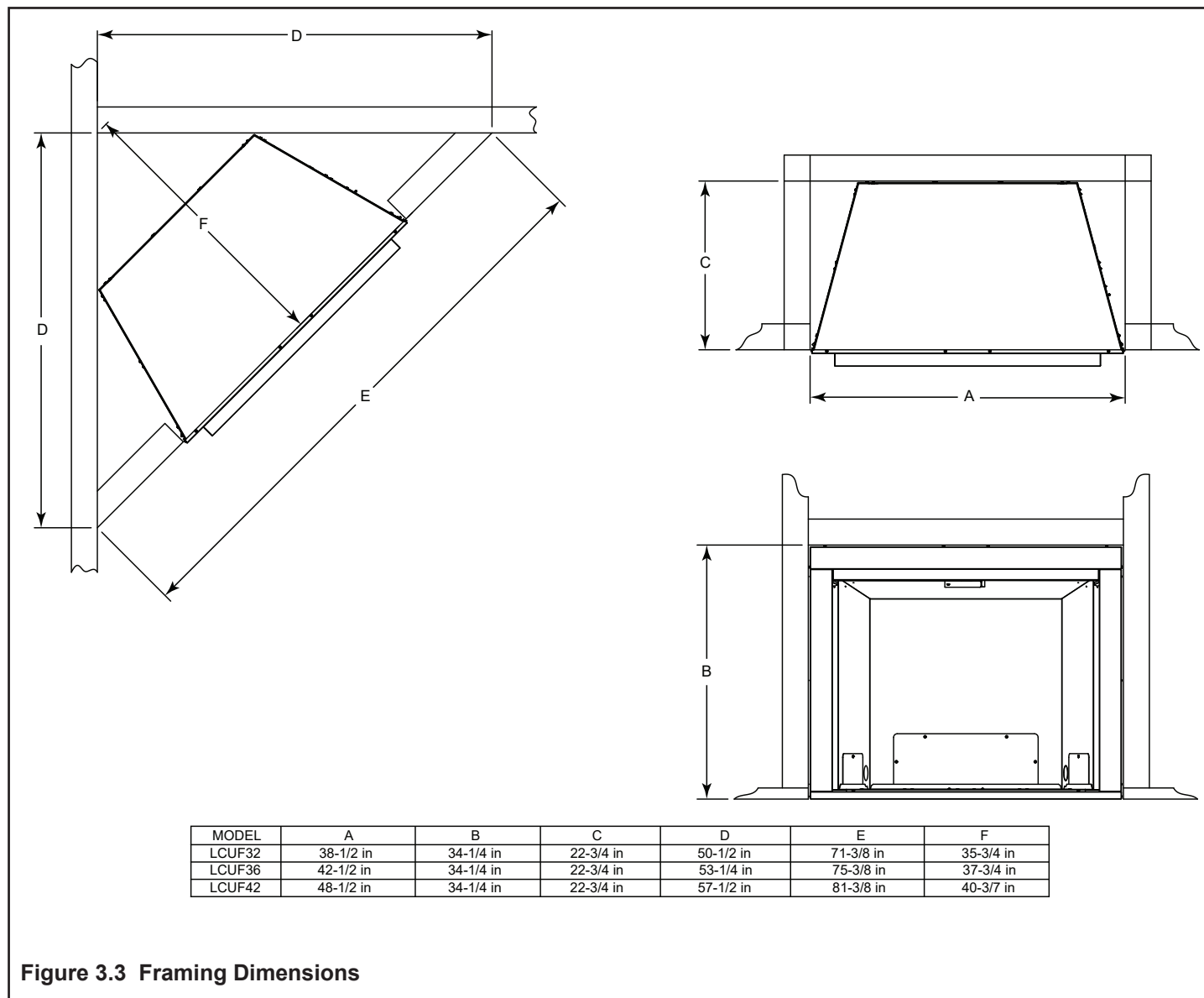


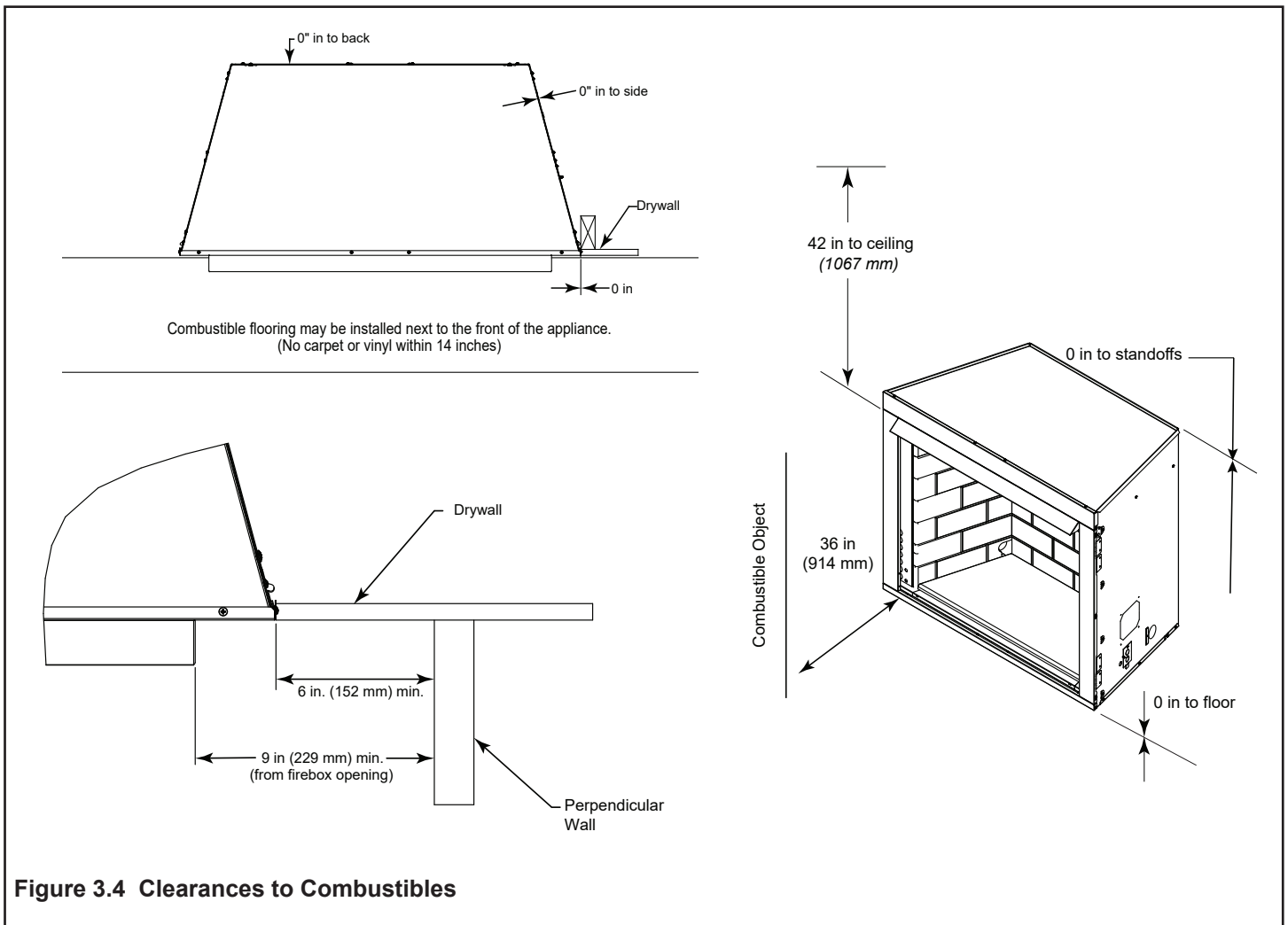
Figure 3.3 Framing Dimensions

## D. Clearances to Combustibles

Carefully select the best location for installation of your vent-free firebox. The following factors should be taken into consideration:

- Clearance to side walls and ceiling. 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.

- Location should be out of high traffic or windy or drafty areas.
- **DO NOT INSTALL WHERE CURTAINS, FURNITURE, CLOTHING OR OTHER FLAMMABLE OBJECTS ARE LESS THAN 36" FROM FRONT OF FIREBOX.**
- Never obstruct the front opening of the vent-free firebox or restrict the flow of combustion and ventilation air.



## Raised Hearth Extension

A hearth extension may be used, but is not required for these fireboxes.

A combustible hearth extension can be constructed flush with, but not above the firebox floor. On flush installations, carpet or vinyl is not allowed within 14 inches of the firebox opening. See Figure 3.5.

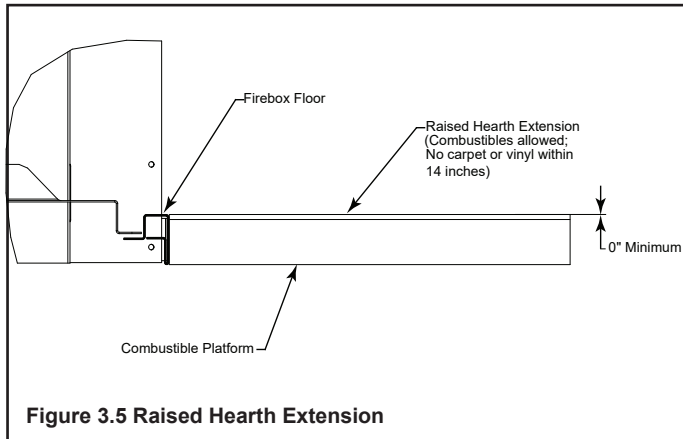


Figure 3.5 Raised Hearth Extension

Firebox framing can be built before or after the appliance is set in place. Construct firebox framing following Figure 3.3 for your specific installation requirements. Refer to Figure 3.1 on page 6 for firebox dimensions.

The firebox may be installed directly on a combustible floor or raised on a platform. When the firebox is installed directly on carpeting, tile, or other combustible material, other than wood flooring, the firebox shall be installed on a metal or wood panel extending the full width and depth of the enclosure.

**WARNING! Risk of Fire! DO NOT fill spaces around firebox with insulation or other materials. This could cause a fire.**

**WARNING! Risk of Fire! The firebox must be installed giving full consideration to the clearance and height requirements identified in this manual.**

## E. Constructing the Appliance Chase

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

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

**NOTICE:** Install firebox 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 firebox:**

- 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 firebox.
- Failure to maintain airspace may cause overheating and a fire.

# 4 Firebox Preparation

## A. Securing and Leveling the Firebox

**WARNING! Risk of Fire! Prevent contact with:**

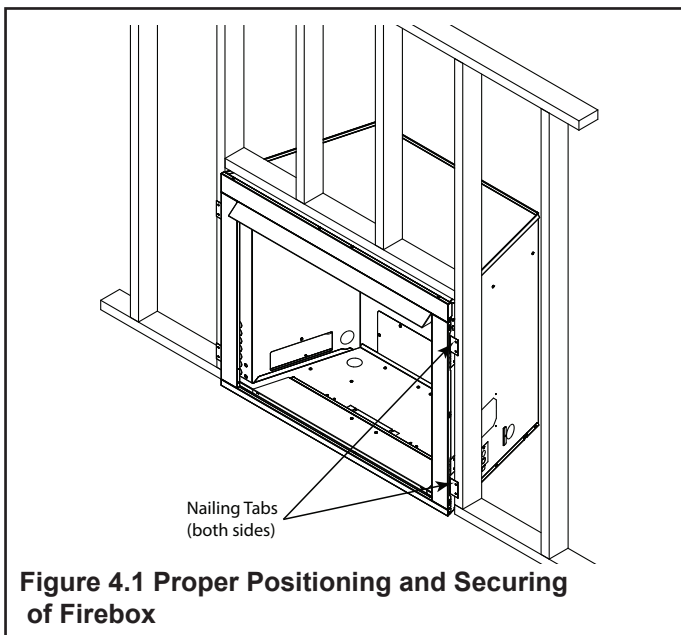
- Sagging or loose insulation
- Insulation backing or plastic
- Framing and other combustible materials

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

The diagram shows how to properly position and secure the firebox. See Figure 4.1. Nailing tabs are provided to secure the firebox to the framing members.

- Bend out nailing tabs on each side.
- Place the firebox into position.
- Keep nailing tabs flush with the framing.
- Level the firebox from side to side and front to back.
- Shim the firebox as necessary. It is acceptable to use wood shims underneath the firebox.
- Secure the firebox to the framing by using nails or screws through the nailing tabs.



## B. Installing Optional Outside Air Kit(s)

Note: The outside air kit is an optional accessory that can be used to bring in fresh air. Use of the air kit is not required for operation unless specified by local codes.

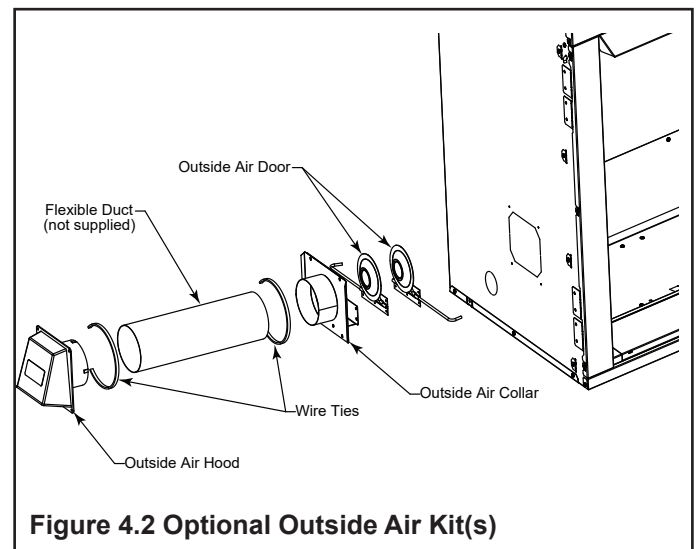
**CAUTION! Risk of cuts/abrasions/flying debris.** Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

**WARNING! Risk of fire/asphyxiation. DO NOT** draw outside combustion air from:

- Wall, floor or ceiling cavity.
- Enclosed space such as an attic or garage.
- Close proximity to exhaust vents or chimneys. Fumes or odor may result.

Note: The outside air kit(s) can be installed on the left and/or right side of the firebox.

Refer to the Installation Instructions provided with the Outside Air Kit for specific step by step instructions.



**WARNING! Risk of Fire! DO NOT** remove the cover on side of firebox if the outside air will not be connected.

# 5 Electrical Information

## A. Wiring Requirements

**WARNING! Risk of Shock or Explosion! DO NOT wire 110-120 VAC to the valve. Incorrect wiring will damage controls.**

**NOTICE:** This firebox 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 firebox junction box to unswitched 110-120 VAC. This is required for proper operation of the firebox ignition.
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.

## B. Wiring the Junction Box

Junction box wiring on this firebox can be done from either inside or outside of the firebox. However, for ease of installation, it is recommended that the junction box be wired from outside of the firebox.

If the junction box is wired from OUTSIDE firebox:

- Remove the screw attaching the junction box cover to the outer shell. Pull junction box cover out to disengage it from the outer shell. See Figures 5.1.

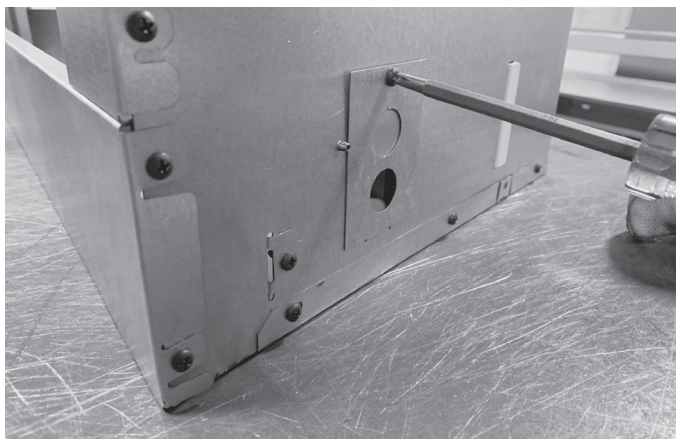


Figure 5.1 Junction Box Cover Removal

- Install electrical wires from outside the appliance through the hole in the cover plate and secure wires with a Romex connector.
- Make all necessary wire connections to the junction box and reattach the cover plate to firebox outer shell. See Figure 5.2.

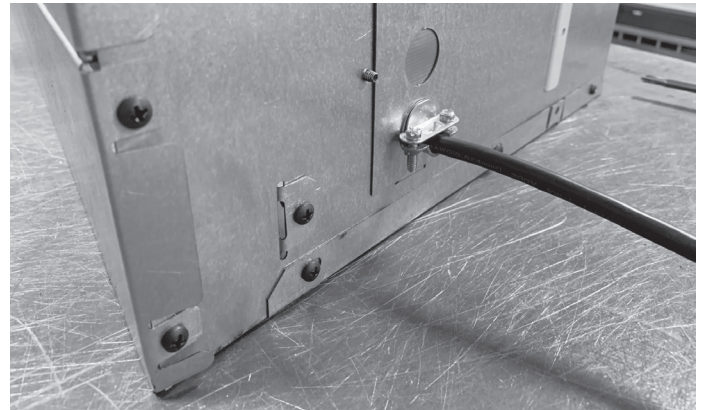


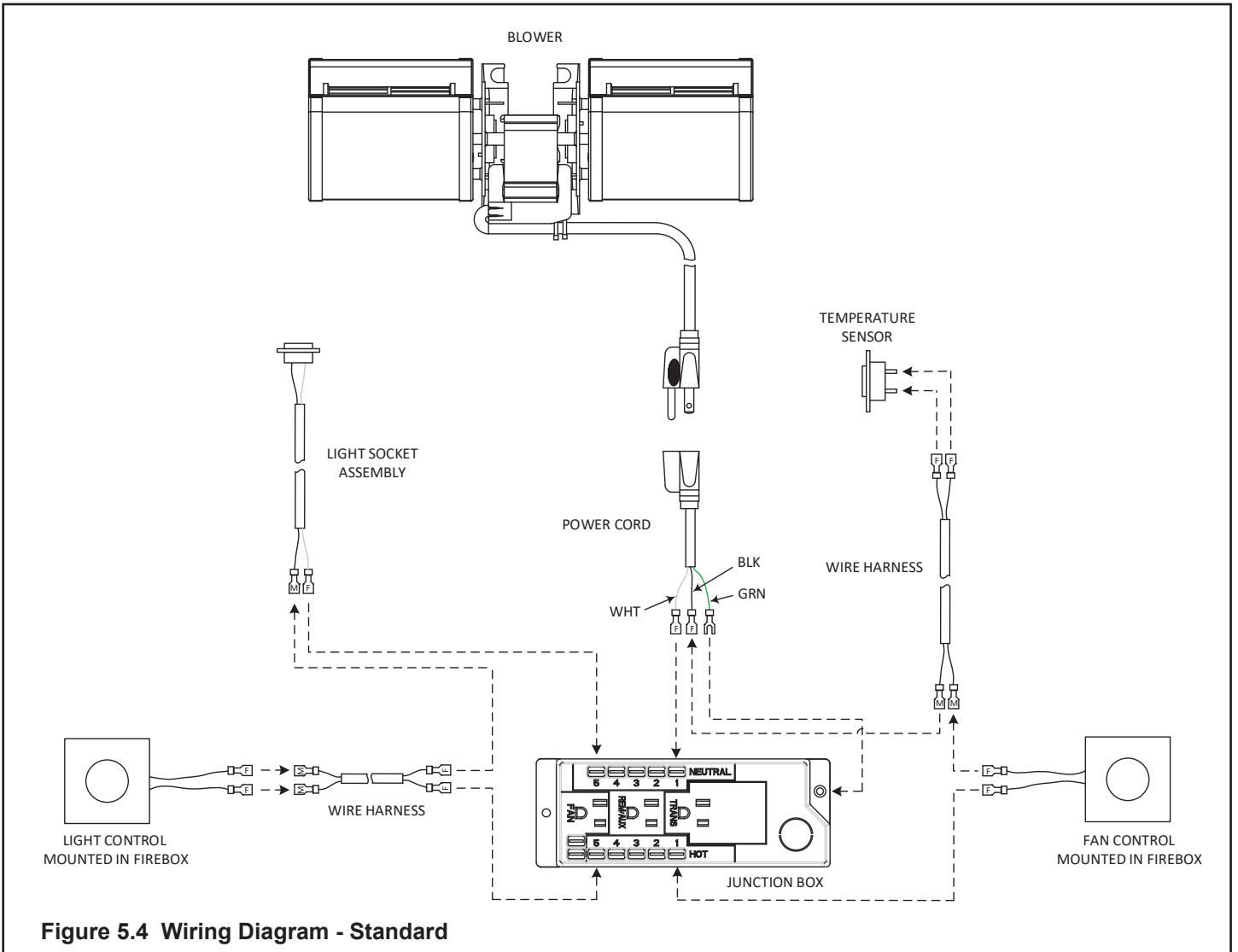
Figure 5.2 Reattaching Junction Box Cover

## C. Electrical Service and Repair

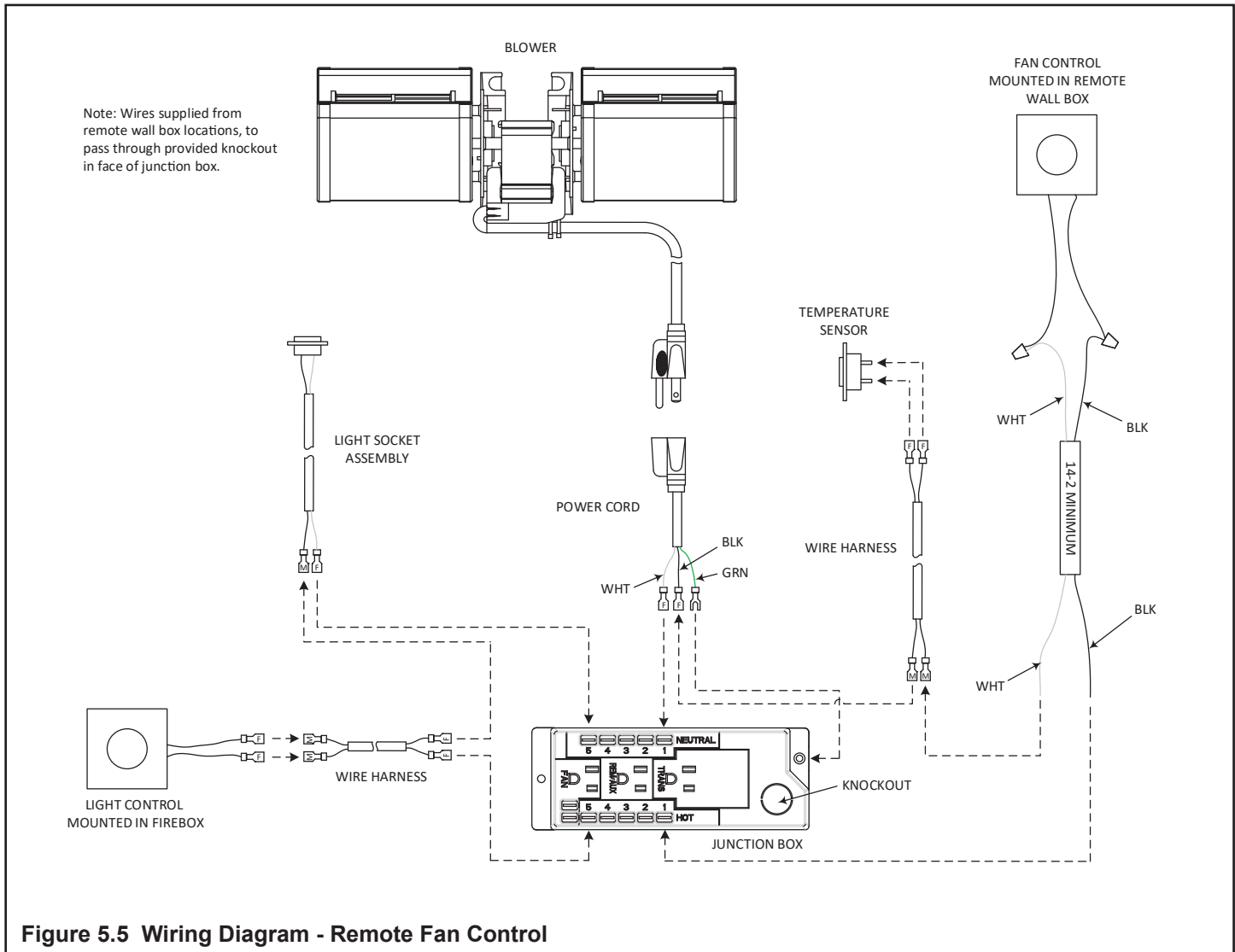
**WARNING! Risk of Shock! Label all wires prior to disconnection when servicing controls. Wiring errors could cause improper and dangerous operation. Verify proper operation after servicing.**

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

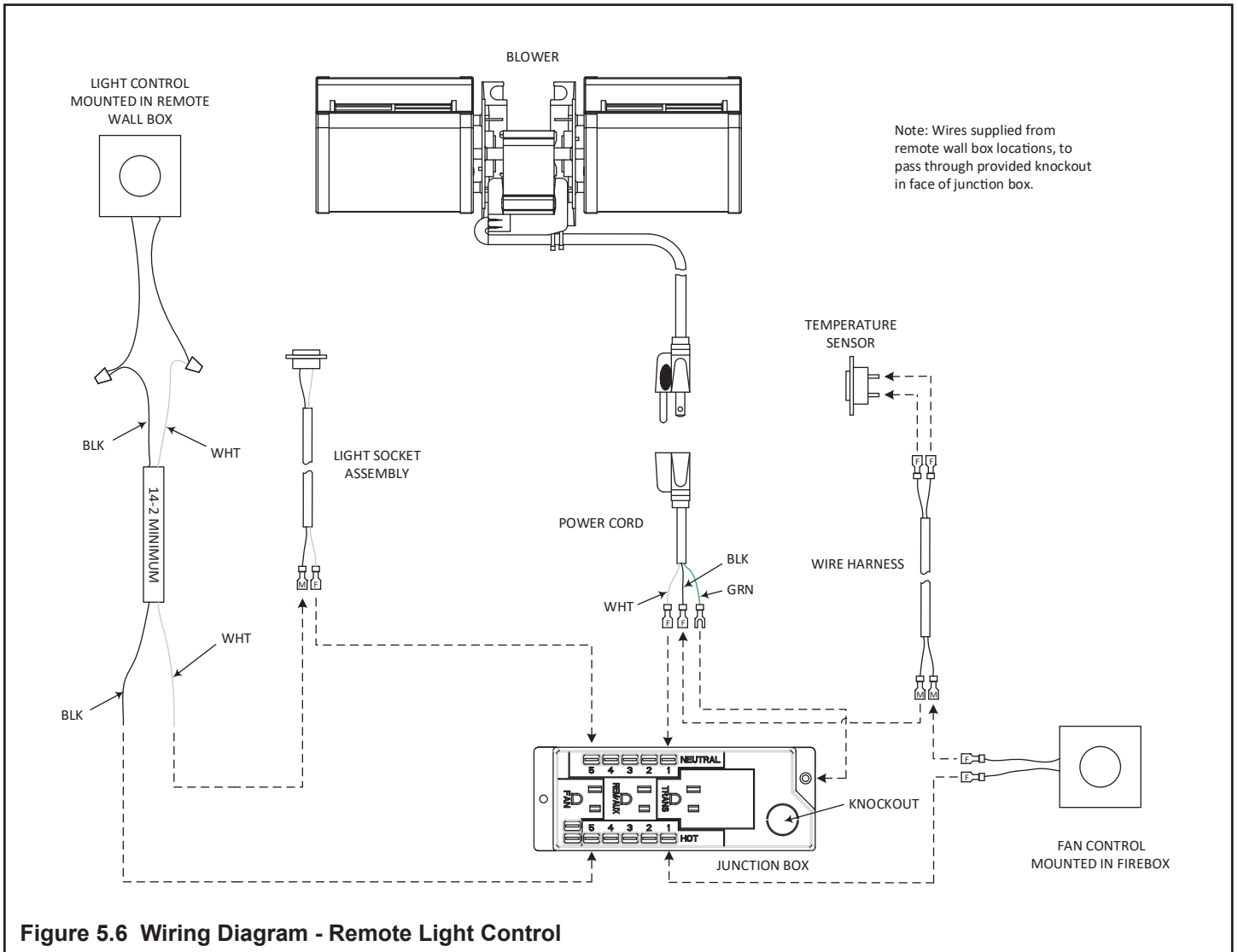
## D. Wiring Diagrams



**Figure 5.4 Wiring Diagram - Standard**



**Figure 5.5 Wiring Diagram - Remote Fan Control**



**Figure 5.6 Wiring Diagram - Remote Light Control**

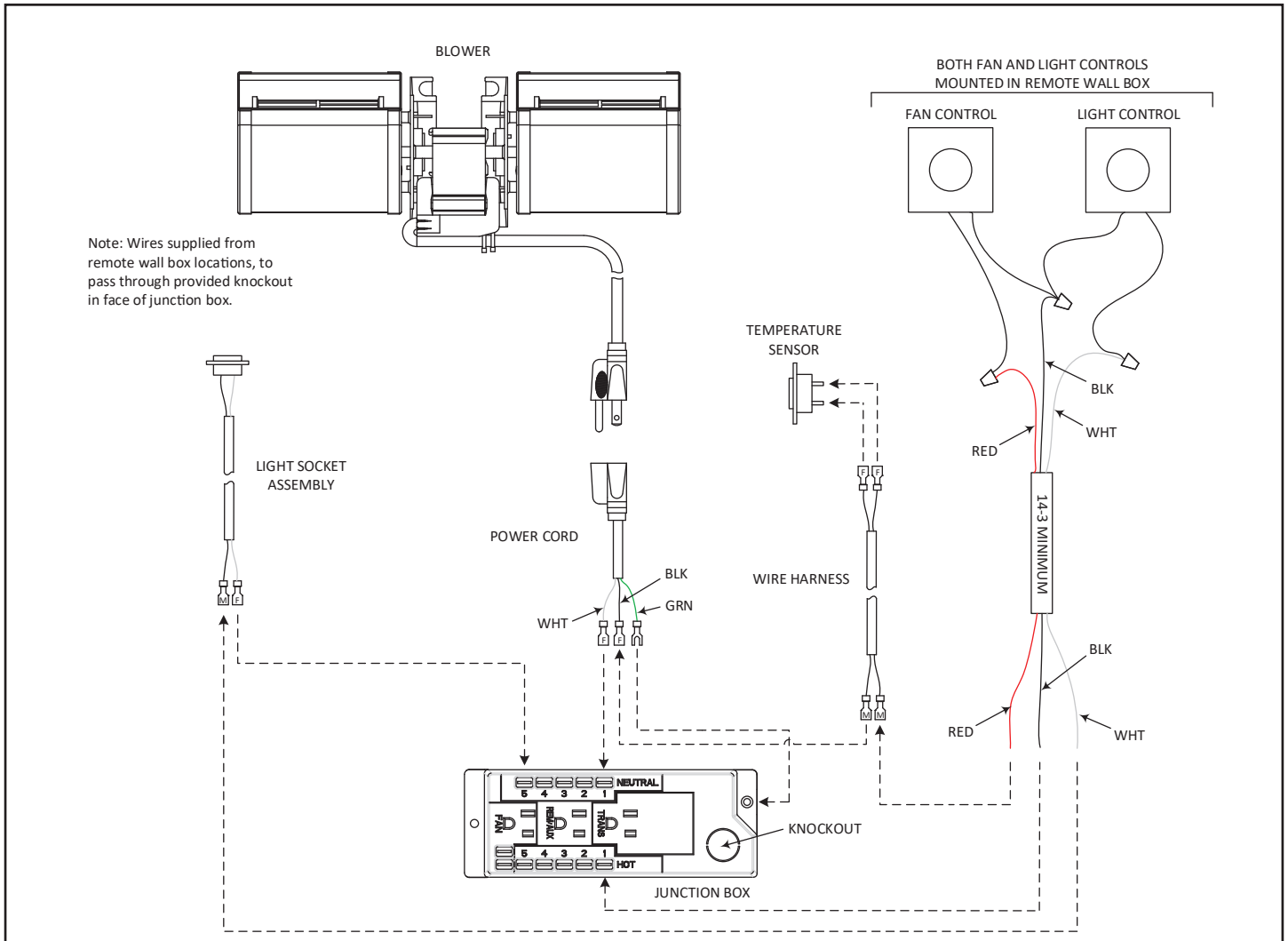


Figure 5.7 Wiring Diagram - Remote Fan and Light Controls

# 6 Gas Information

## A. Fuel Type

Check gas type: The gas supply must be the same as stated on the appliance rating plate. If the gas supply is different, **DO NOT INSTALL THE APPLIANCE**. Contact your dealer for the correct model.

## 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:

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

**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.

**⚠ WARNING**



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

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

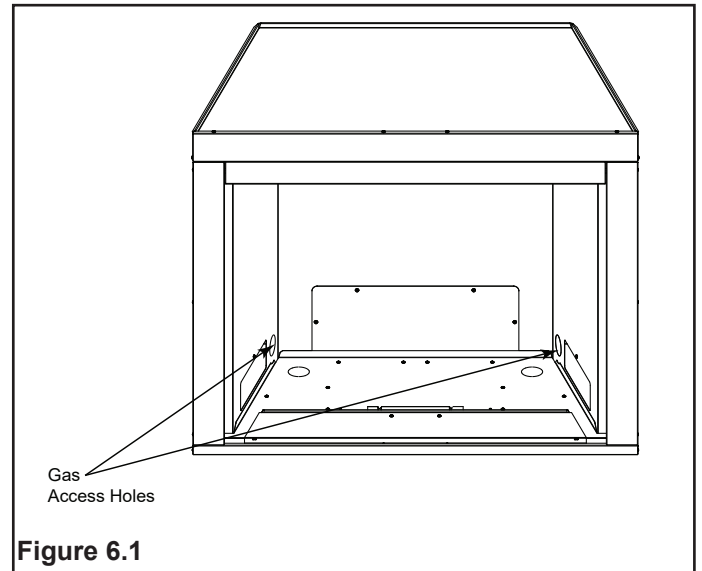
**Note:** Have the gas supply line installed in accordance with local codes, if any. If not, follow ANSI Z223.1. Installation should be done by a qualified installer approved and/or licensed as required by the locality. (In the Commonwealth of Massachusetts installation must be performed by a licensed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

**Note:** A listed (and Commonwealth of Massachusetts approved) 1/2 in. (13 mm) T-handle manual shut-off valve must be installed upstream of the appliance. A union tee and plugged 1/8" NPT pressure tapping point should also be installed upstream of the appliance.

**IMPORTANT:** Install manual shut-off valve (equipment shutoff valve) in an accessible location. The manual shut-off valve is for turning on or shutting off the gas to the firebox.

## C. Gas Connection

- Reference Section 3 for location of gas line access in appliance.
- The gas line may enter from the left side or right side of the firebox. Gas knockouts are provided on both side of the firebox. See Figure 6.1.



**Figure 6.1**

- The gap between supply piping and gas access hole may be caulked with caulk with a minimum of 300°F continuous exposure rating or stuffed with non-combustible, unfaced insulation to prevent cold air infiltration.
- Ensure that gas line does not come in contact with outer wrap of the firebox. Follow local codes.
- Pipe incoming gas line into firebox.
- Refer to vent-free gas appliance installation instructions for gas connection and lighting instructions.

**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.**

# 7 Finishing

## A. Facing Material

**WARNING! Risk of Fire! Metal front faces may be covered with non-combustible materials only.**

- Facing and/or finishing materials must not interfere with air flow through the front of the firebox.
- Facing and/or finishing materials must never overhang into the firebox opening.
- See Figures 7.1, 7.2 and 7.3 for combustible and non-combustible finishing material thickness and clearance requirements.
- Maintain all listed clearances when applying combustible materials.
- Seal joints between the finished wall and firebox top and sides using a 300° F minimum sealant.

**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 may interfere with proper operation.**

### Combustible/Noncombustible Mantels

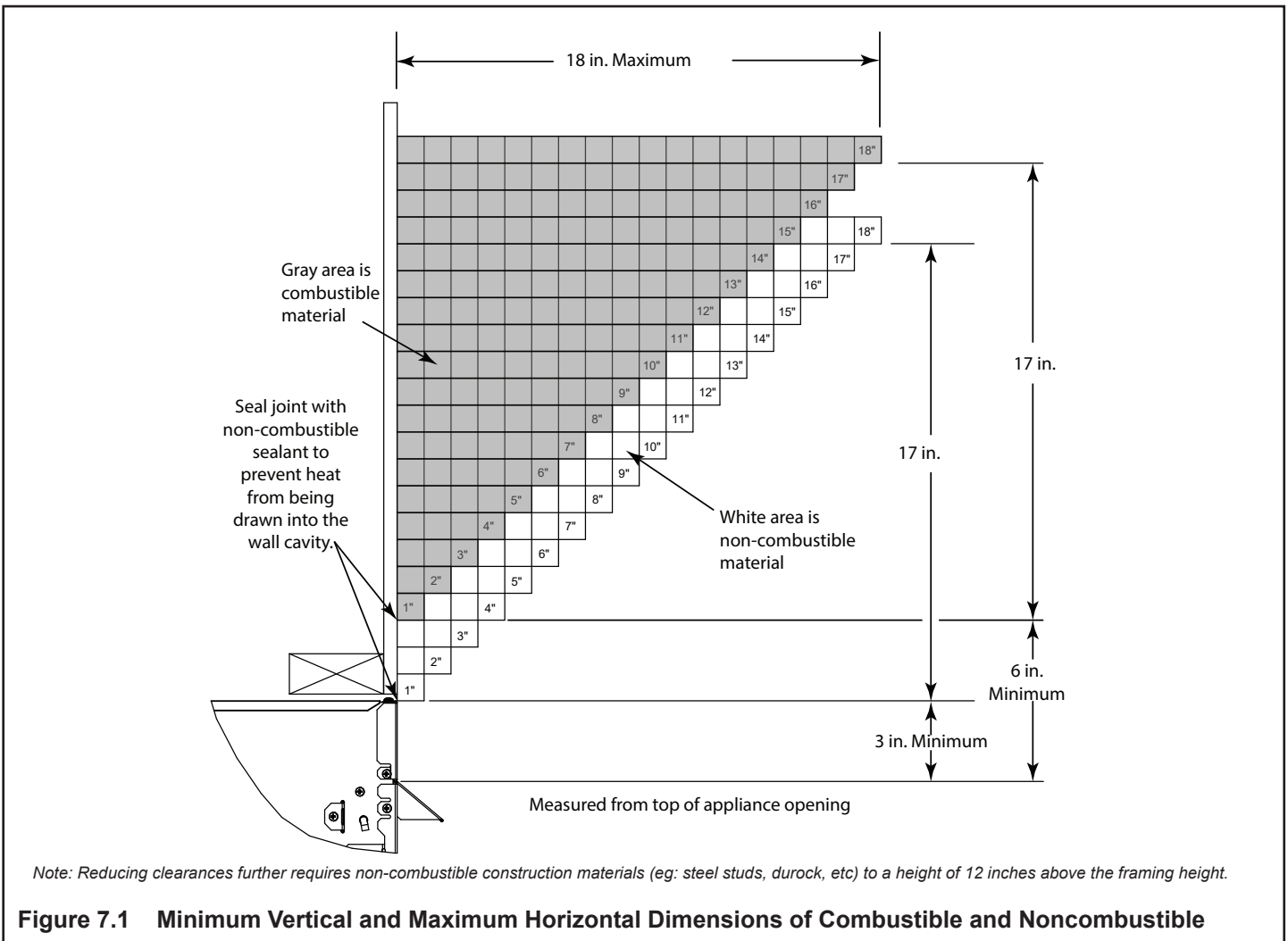
**NOTICE:** Surface temperatures around the firebox will become warm while the firebox is in operation. Ensure finishing materials used for all surfaces (floor, walls, mantels, etc.) will withstand temperatures up to 190°F.

## B. Mantel and Wall Projections

**WARNING! Risk of Fire! Comply with all minimum clearances as specified.**

- Reducing non-combustible mantel and/or mantel leg clearances closer than those listed in this manual requires the use of non-combustible construction materials (eg: steel studs, concrete boards, etc.) to a minimum height of 12 inches (305 mm) above the listed framing height.

**Note:** Mantel Measurement is taken from top of the firebox opening, NOT the top of the unit.

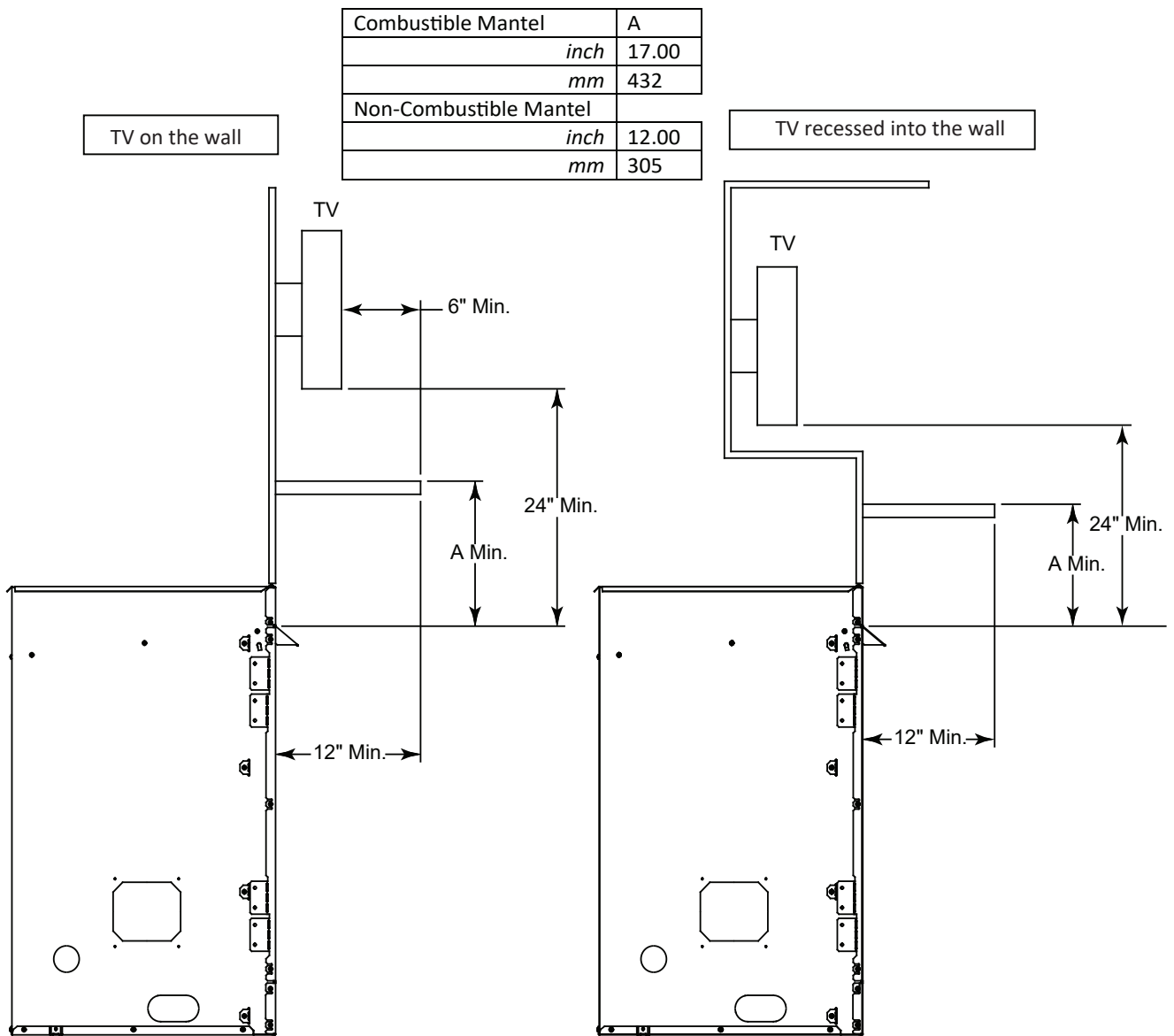


**Figure 7.1 Minimum Vertical and Maximum Horizontal Dimensions of Combustible and Noncombustible**



## D. TV Good Faith Guidelines.

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



#### 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 fireplace 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 24" minimum TV height dimensions.

**Figure 7.3 Good Faith Clearances**

## 8 Firebox Setup

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### A. Remove the Shipping Materials

Remove the shrink film, corrugated top cap, bottom cap and column protectors from the firebox.

Remove shipping materials from inside or underneath the firebox.

### B. Clean the Firebox

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

### C. Hood Installation

**WARNING:** A hood is furnished with each firebox and **MUST** be installed for safe operation.

Locate the (6) screws, (4 on the top and 1 on each end), slide hood into position and secure. See Figure 8.1.

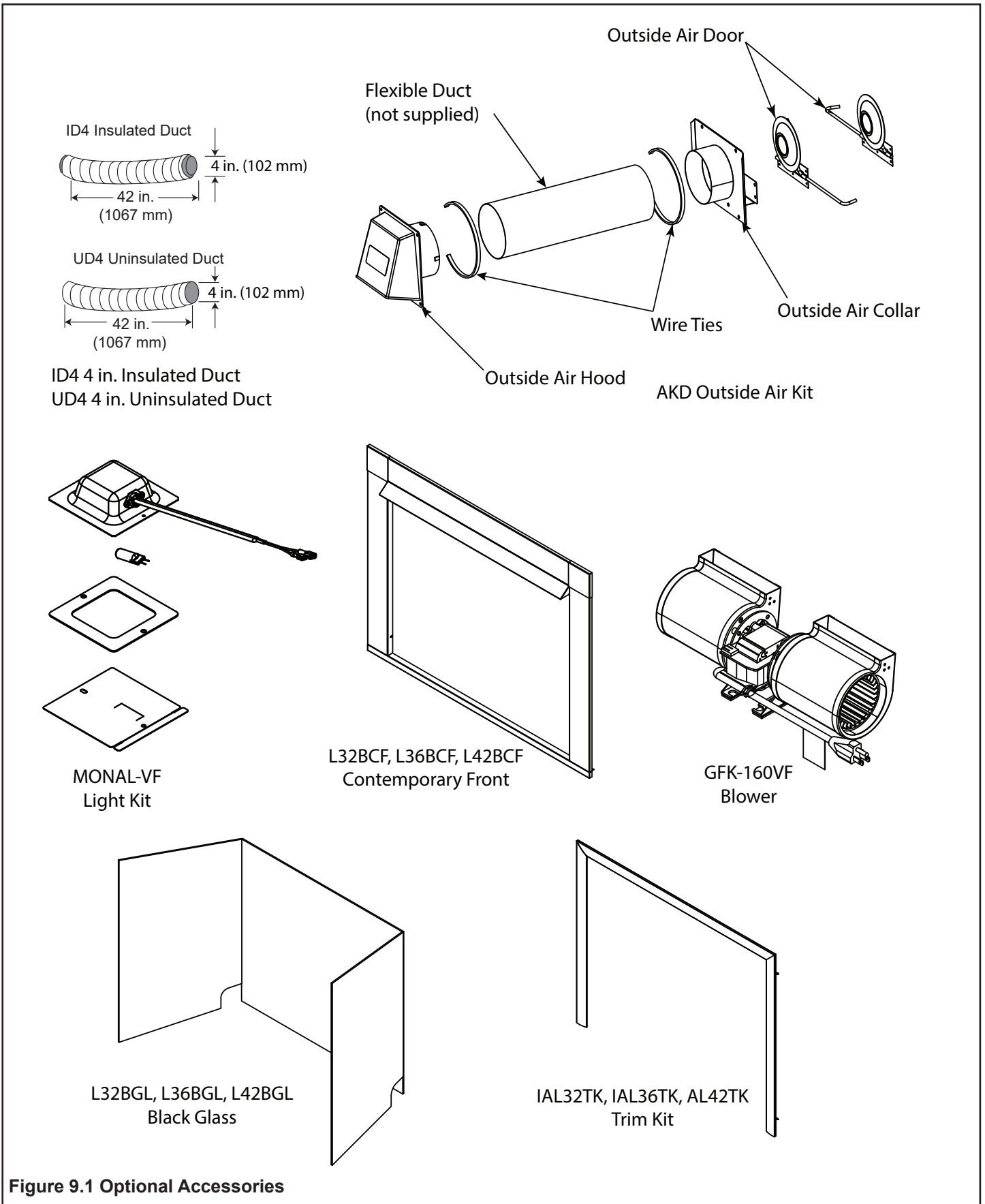


Figure 8.1

**WARNING! Risk of Fire!** The firebox hood must not be modified or replaced with a hood that may be provided with the vent free appliance.

# 9 Reference Materials

## A. Optional Accessories



**Figure 9.1 Optional Accessories**

**B. Contact Information**

**– NOTES –**

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LOVE AT FIRST LIGHT

Monessen, a brand of Hearth & Home Technologies  
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