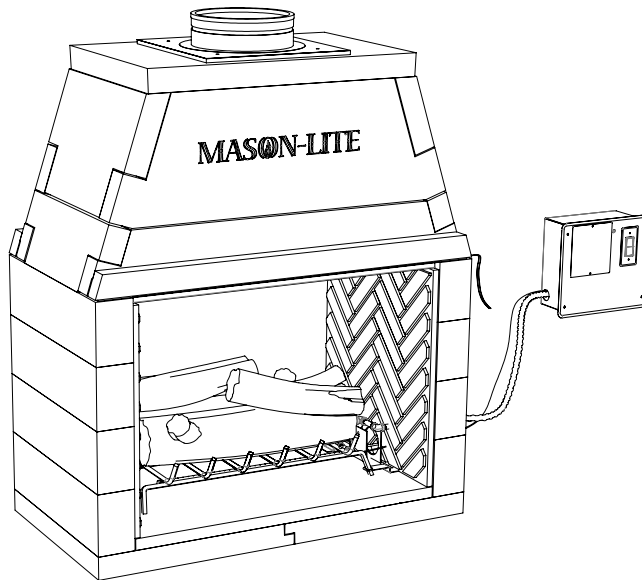


**Models:  
MGFPST-43(P)A  
w/ Remote Valve  
installation**



**Equipped with Safety  
Pilot System / Remote  
Control Valve**

**Low profile or pan  
burners are not  
allowed for use in  
these units without a  
metal base**

## Mason-Lite See-Thru Complete Gas Fireplace

### **⚠️ WARNING:**

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

**Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**

### **WHAT TO DO IF YOU SMELL GAS:**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone and 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.**

### **IMPORTANT: READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION OF THIS FIREPLACE.**

The logs and burner must be permanently installed in and are only for use in this fireplace. This fireplace must be connected to a working flue meeting the requirements of the ANSI Z21.50 standard.

### **Solid-fuels shall not be burned in this fireplace.**

This appliance must be vented vertically through the roof. This appliance is not for installation in manufactured or mobile homes. The installation, including provisions for combustion, ventilation air, and required minimum permanent vent opening, must conform with the *National Fuel Gas Code (ANSI Z223.1/NFPA 54)* and applicable local building codes. **This gas fireplace is designed to burn with yellow flames; thus adequate ventilation is absolutely necessary.**

### **⚠️ WARNING:**

**This gas appliance must not be connected to a chimney fuel servicing a solid fuel burning appliance.**

Do not store gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.



Report No. 08-154





**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 gasses, unless a certified kit is used.**

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Below is a sample picture of the rating plate that is located inside the lower dome side of your fireplace. Serial number and date code should be stamped on the plate where required.

 <p><b>MFI</b> Masonry Fireplace Industries, LLC 6391 Jurupa Ave. Riverside, CA 92514</p> <p>LARR No. 25924</p>	<p><b>DO NOT REMOVE THIS LABEL</b></p> <p>See MFI's installation and operating instructions for this model. Contact local building officials about restrictions and installation specifications in your area.</p>	<p>Tested &amp; Listed By</p>  <p>Report No. 08-154</p>
<p>MODEL No.: <b>MGFPST-43</b></p>	<p>SERIAL No. <input style="width: 100px;" type="text"/></p>	<p>DATE OF MFG. <input style="width: 100px;" type="text"/></p>
<p><b>⚠ WARNING:</b> THIS FIREPLACE HAS BEEN TESTED FOR USE ONLY WITH APPROVED GLASS DOORS. TO REDUCE THE RISK OF FIRE OR INJURY, CONSULT OWNER'S MANUAL.</p> <p><b>⚠ THIS FIREPLACE IS DESIGNED FOR USE ONLY WITH THE ANSI Z21.50 DECORATIVE GAS LOGS AND BURNER TESTED AND APPROVED FOR THIS FIREPLACE. Consult instructions included with this firebox for further information.</b></p>	<p><b>⚠ WARNING:</b> Use only approved, listed chimneys 12" B-Type Vent and DM-12-12" system, UL 103 chimney or a 12" class A chimney if preferred.</p> <p><u>Chimney Heights:</u> Max.: 40 ft. Min.: 14 ft. (17 ft. with 1 or 2 offset sections maximum)</p> <p><b>IMPORTANT: Refer to pipe manufacturer's instructions.</b></p>	<p>GAS TYPE: <input type="checkbox"/> NG <input type="checkbox"/> LP</p> <p><b>FIREPLACE CLEARANCES TO COMBUSTIBLES:</b>  UNIT FRONT, SIDES, REAR.....0" (0 mm)  COMBUSTIBLE FLOOR.....0" (0 mm)  COMB. SHEATHING ABOVE OPENING TOP....8" (200 mm)  SHEATHING OR TRIM TO OPENING SIDES....12" (300 mm)  OPENING TO SIDE WALL.....20" (500 mm)  HEARTH EXTENSION BEYOND SIDES.....12" (300 mm)  INSULATION FROM FIREBOX.....0" (0 mm)</p> <p style="text-align: center;">FOR MANTEL CLEARANCES CONSULT OWNER'S MANUAL</p>
<p><b>THIS APPLIANCE NEEDS FRESH AIR FOR SAFE OPERATION AND MUST BE INSTALLED SO THERE ARE PROVISIONS FOR ADEQUATE COMBUSTION AND VENTILATION AIR.</b></p>		
<p>This appliance is not for installation in manufactured or mobile homes.</p>		
<p>The installation, including provisions for combustion, ventilation air, and required minimum permanent vent opening, must conform with the National Fuel Gas Code (ANSI Z223.1/NFPA 54) and applicable local building codes.</p>		
<p><b>⚠ WARNING:</b> This gas appliance must not be connected to a chimney fuel servicing a solid fuel burning appliance.</p>		

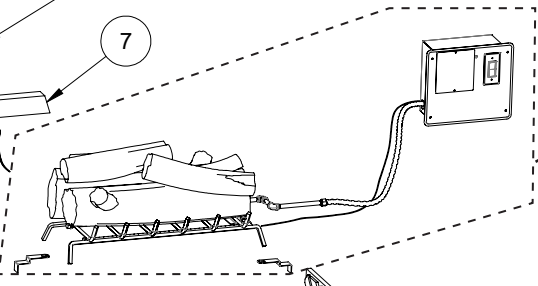
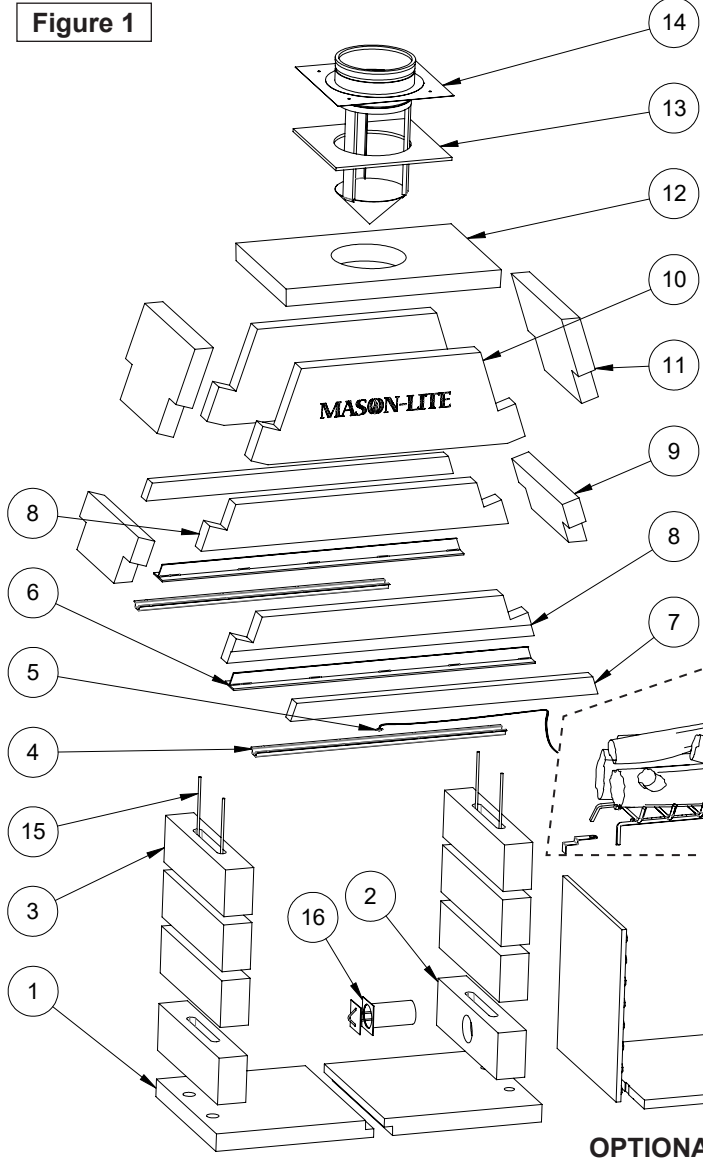
# MGFPST-43(P)A Fireplace Parts List

## WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

ITEM	DESCRIPTION	QTY
1	HEARTH (Left or Right)	2
2	SIDE WALL w/ Ø4" O/S AIR ACCESS HOLE	1
3	SIDE WALL	7
4	SPILL SWITCH CHANNEL	2
5	SPILL SWITCH	2
6	T-BAR	2
7	LINTEL FRONT	2
8	LOWER DOME FRONT	2
9	LOWER DOME SIDE	2
10	UPPER DOME FRONT	2
11	UPPER DOME SIDE	2
12	DOME TOP FOR Ø12" B-VENT	1
13	INSULATION BLANKET (NOT INCLUDED)	
14	Ø12" VENT PLATE ASSEMBLY (NOT INCLUDED)	
15	#3 REBAR (Ø3/8" x 36"	4
16	4" SEE-THRU COMB AIR KIT (OPTIONAL - NOT INCLUDED)	

Figure 1



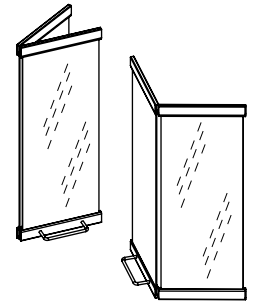
**Burner Assembly  
GML-2-39/44(P)A**

**Optional Outside Ø4" Combustion Air Kit**  
Model No.: MFPST-AK

(Ø4" Ducting not included)

**OPTIONAL - Refractory Firebrick Liners**

Herringbone Pattern shown,  
also available in Running Bond  
MFP43SHBL- Herringbone  
MFP43FRBL- Running Bond



Only Crown-Breckinridge or McKenzie-Pendelton (by PORTLAND WILLAMETTE) doors have been approved for use with this fireplace.

\* If optional Arch is installed, custom doors will be required.

# Burner & Logs Parts List

Before beginning installation, be sure the burner system is complete by comparing its contents with this Parts List. Parts may differ depending upon the size of the set purchased. Be sure you know the model number and size of your set when ordering replacement or optional parts and accessories.

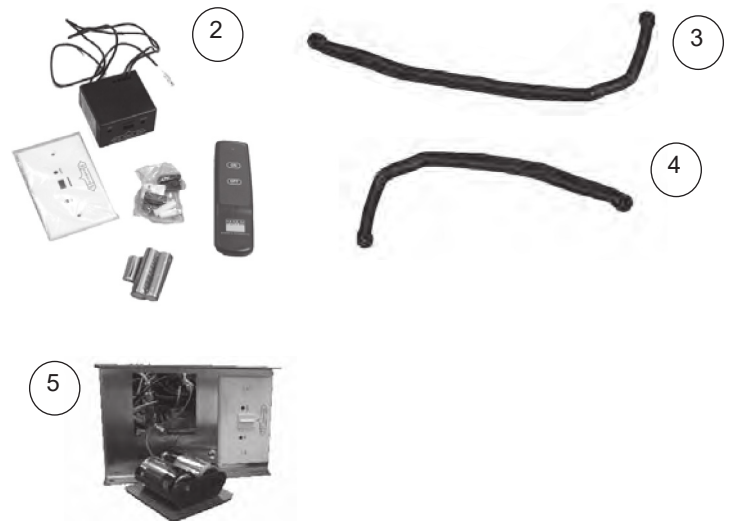
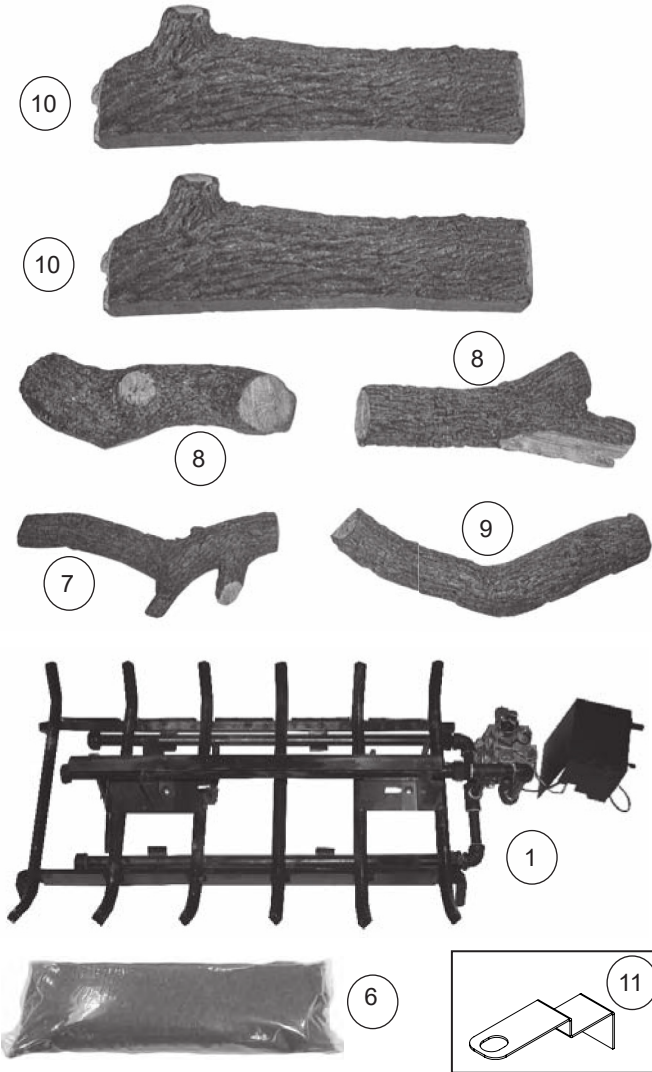
Figure 2

## Burner Assembly GML-2-39/44(P)A

Diagrams shown are not to scale.

Contact MFI for replacement parts and accessories as listed in these parts lists.

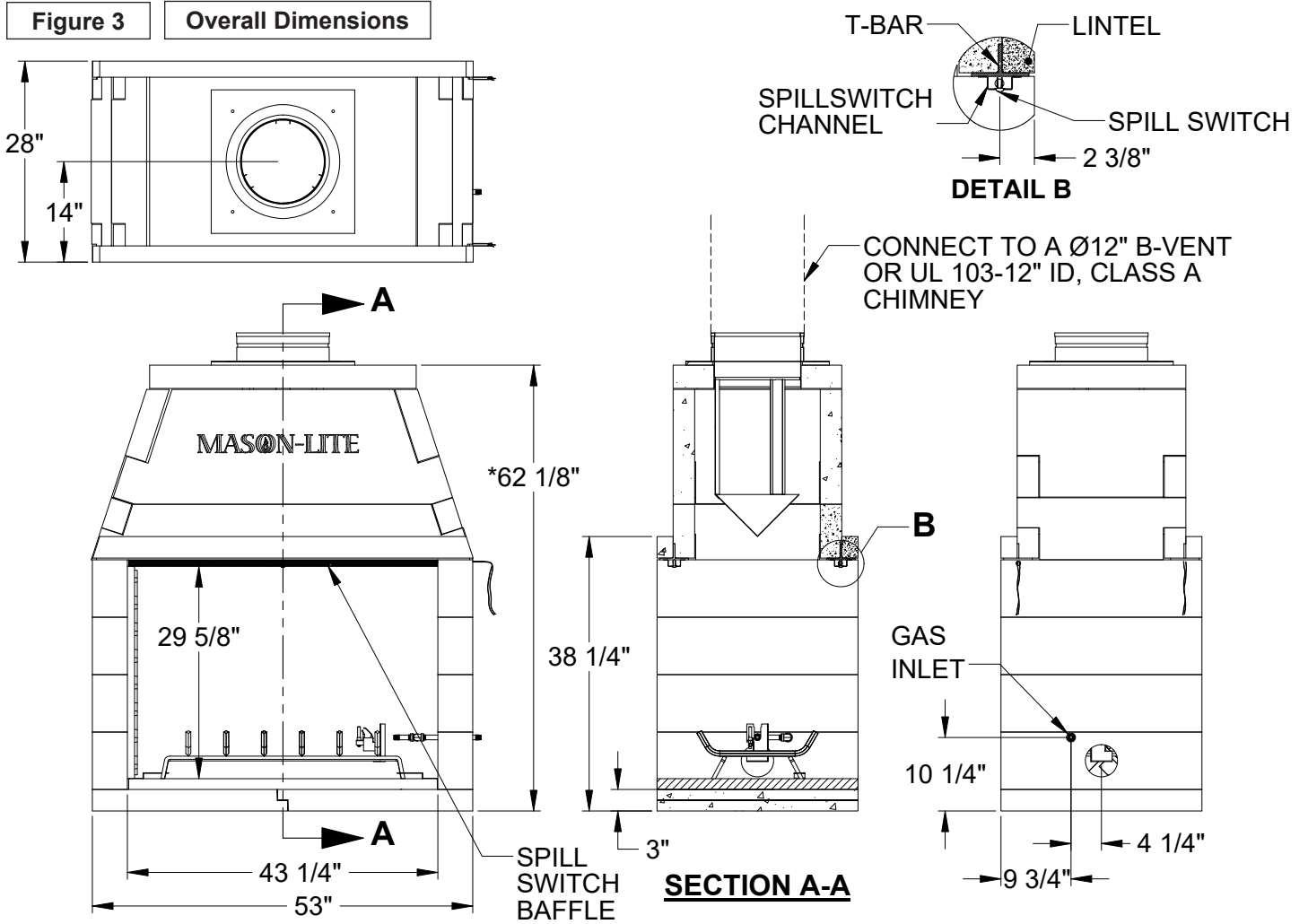
ITEM	P/N	DESCRIPTION	QTY
1	GMLB-39/44-01(P)	Pilot, Burner assembly	1
2	RR-1A	Remote trans./recvr. w/ batt.	1
3	CK-5-18HC	Source connector kit	1
4	CK-5-24HC	Burner connector kit	1
5	CE-01	Valve/Control box w/ batt.	1
6	OCC-10	Lava Rock, 10 lb. bag (4)	1
7	LML-17T	Top log 17"	1
8	LML-18T	Top log 18"	2
9	LML-20T	Top log 20"	1
10	LML-30BF	Front bottom log 30"	2
11	MFP-214	Burner Grate Brackets (2)	2



Receiver pre-assembled into control box.

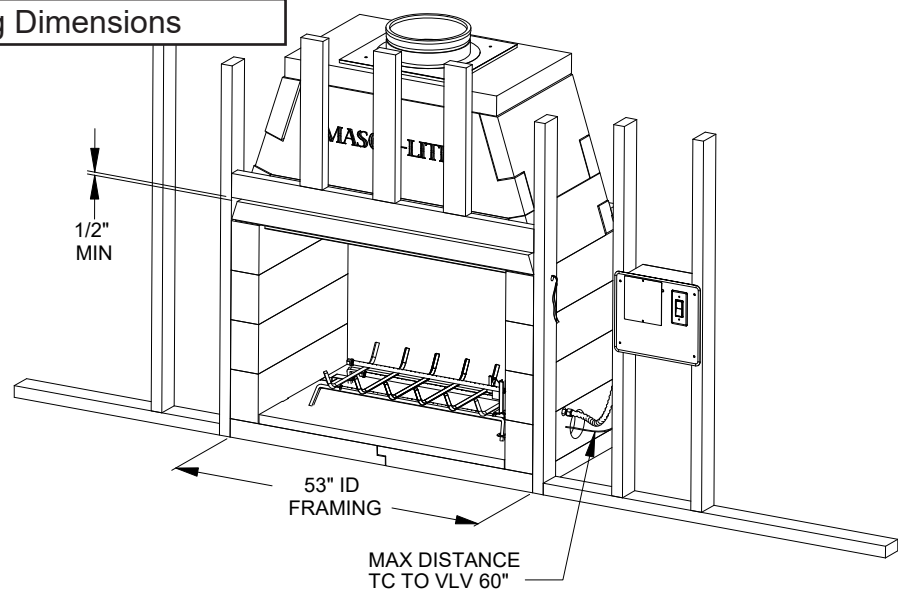
# MGFPST-43(P)A Fireplace Overall Dimensions

**Figure 3 Overall Dimensions**



## Fireplace Framing Dimensions

**Figure 4 Framing Dimensions**



### **⚠ WARNING**

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

## Important Pre-Installation Information

**Before you begin**, review the information and safeguards below regarding the installation and operation of the gas fireplace.

**This fireplace is designed for use only with the ANSI Z21.50 Decorative Gas Logs and Burner tested and approved for this fireplace and may only be connected to the gas supply listed on the label.** Never use propane gas in a gas fireplace designed for natural gas or natural gas in a gas fireplace designed for use with propane gas.

**The gas fireplace must be installed by an NFI Certified or other qualified professional installer.** The installation, including provisions for combustion and ventilation air, must conform with local codes, or, in the absence of local codes, with the latest edition of the National Fuel Gas Code, ANSI Z223-1, and NFPA54.

Keep the fireplace area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

The fireplace must have a gas supply line that has been installed by a qualified technician in accordance with all local codes. The gas supply line must be ½" minimum interior diameter. If the gas line to the fireplace is longer than 5', a larger diameter line may be necessary.

Burner P/N	BTU* (x 1000)	Orifice Drill Size (top/front)		Included in
		NG	LP	
GML-2-39/44(P)A	90	23/45	44/55	MGFPST43

\*Nominal BTU based on gas inlet pressure. Nominal gas inlet pressure for natural gas is 5" W.C..

**Required Gas Pressure:** The minimum inlet gas supply pressure for the purpose of input adjustment is 5" of water column (w.c.) for natural gas. The maximum inlet gas supply pressure is 10.5" w.c. for natural gas. The minimum inlet gas supply pressure for the purpose of input adjustment is 11" of water column (w.c.) for propane gas. The maximum inlet gas supply pressure is 13" w.c. for propane gas.

**Testing the Gas Supply System:** The gas fireplace and its required individual shut-off valve must be disconnected from the gas supply piping system while performing any tests of the piping system at pressures in excess of ½ psig. The gas fireplace must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig. This is accomplished by closing the gas supply line valve required by NFPA 54.

A fireplace screen must be replaced after service and be in place when the appliance is in operation and, unless other provisions are provided, the screen shall have an opening(s)

for introduction of combustion air. When glass fireplace doors are used, operate the gas fireplace with the doors open.

**Important:** To comply with building code acceptances, and for safe operation and proper performance of this fireplace, use ONLY MASON-LITE parts and accessories.

Use of other controls, parts, and accessories which are not designed for use with MASON-LITE gas fireplaces is prohibited and will void all warranties, certifications, listings, and building code approvals, and may cause property damage, personal injury, or loss of life.

The burner included with this gas fireplace is non-convertible and only meant to be used with the gas listed on the rating plate.

**WARNING:**

THIS FIREPLACE HAS **NOT** BEEN TESTED FOR USE WITH AN UNVENTED GAS LOG SET. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO FIREPLACE.

**WARNING:**

This Fireplace has been tested for use **only with** optional Glass Doors Crown-Breckinridge (or) Mckenzie-Pendelton (by Portland Willamette)

If optional arches are used, doors need to be customized.

**WARNING:**

Install only approved, 12" B-Vent or listed UL 103-12" I.D. Class A Chimney System.

Chimney maximum height: 40 feet

Chimney minimum height: 14 feet (with offset = 17 feet)  
2 offsets maximum.

**Important:** Follow the chimney pipe manufacturer's instructions on the installation of their specific flue system.

# Installing The Gas Fireplace

## GUIDELINES FOR USE

As a proud owner of your Mason-Lite Fireplace, it is imperative you familiarize yourself with the information contained in this manual, which includes:

- Strict requirements for assembly.
- Detailed instructions for installation.
- Cautionary guidelines for use.
- On-going maintenance instructions.

It is the responsibility of the distributor, subcontractor and/or the general contractor – whoever assumes the liability for installation of this product – to see to it that the work is in complete compliance with the guidelines and instructions in this manual. Note that the general contractor is the party accountable for seeing that adequate clearances are provided from all firebox surfaces per specifications in this manual.

**DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE WITH THIS FIREPLACE.**

**The Mason-Lite Fireplace is designed for use only with the supplied gas burner system.**

**DO NOT USE OR STORE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR GASES IN OR NEAR THE FIREPLACE!**

**ATTENTION:** A fire or an explosion could occur, causing property damage, injury or loss of life if you do not follow the information in this manual!

**NOTE:** THIS MANUAL MUST BE REPRODUCED ONLY IN ITS ENTIRETY.

## Before Beginning the Installation

Read these instructions carefully before beginning the installation of this fireplace. This fireplace is intended for use with a ANSI Z21.60 Decorative Gas Log, make sure all components of the Log set are complete before beginning the installation into this Enclosure.

## Statement of Intended Use:

The Mason-Lite Masonry Fireplace is a modular refractory masonry unit designed for field assembly. The firebox is constructed using pre-cast, interlocking refractory blocks.

The blocks are then secured to each other using Mortar. The system includes all parts necessary for the assembly of a complete masonry fireplace. In addition to the basic enclosure, a standard 1-1/8" thick, high temperature refractory brick is required to line the interior of the firebox.

These fireplaces are not intended to serve as a primary heat source, rather, the fireplace was expressly created as a supplemental source of heat. The unit is designed for use with burner supplied, Model No.: **GML-2-39/44(P)A**.

## WARNING:

Any application other than the "Intended Use" as stated above is in violation of the manufacturer's instructions and is hereby prohibited. Such violation may cause immediate hazard, property damage or loss of life and will void all liabilities to the manufacturer and will void all warranties explicit or implied.

## Introduction

We extend a warm welcome from all of us at Masonry Fireplace Industries, LLC. (MFI), proud manufacturers of Mason-Lite Fireplaces. Thank you for choosing MFI.

You may have thought long and hard before you chose the fireplace which would grace your home. Rest assured that every component of the Fireplace has been tested to ensure long-term durability.

## Product Overview

Mason-Lite Fireplaces are designed as factory-built blocks to be assembled on-site. These fireplaces may be installed on either combustible or non-combustible floors.

## The Main Components of the Mason-Lite Fireplace are:

- MASON-LITE Firebox and Smoke Dome
- Combustible or Non-Combustible Floor support substructure
- Raised Platforms
- Mantel clearances
- 12" B-vent or UL103-12" class A listed chimney system.

**Important:** Follow the chimney pipe manufacturer's instructions on the installation of their specific flue system. Careful step-by-step instructions for each phase of the installation procedure will be given for the Mason-Lite conventional radiant heat fireplaces. Those instructions generally fall into the following categories:

- Spacing and clearance to combustible materials.
- Familiarity of installation for all components.
- The strength of the floor on which it rests.
- Chimney system measurements.
- Choice of materials and craftsmanship in fireplace and hearth finishing.

Note that each of these topics will be covered in detail and that the installer is expected to understand each phase completely before going on to subsequent instructions.

**Attention:** Be advised that all the illustrations in this manual are for general reference only. Do not scale drawings. Actual design elements will vary from case to case. Pay attention to specified minimum clearances to combustibles.

**Testing and listing for the Mason-Lite Fireplace has been undertaken by PFS Inc. (Report No. 08-154) to UL 127.**

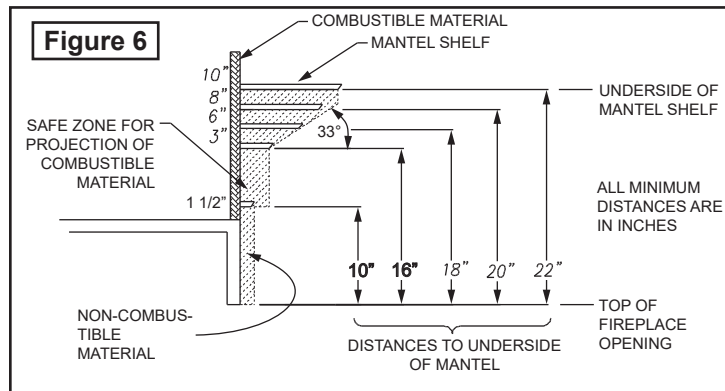
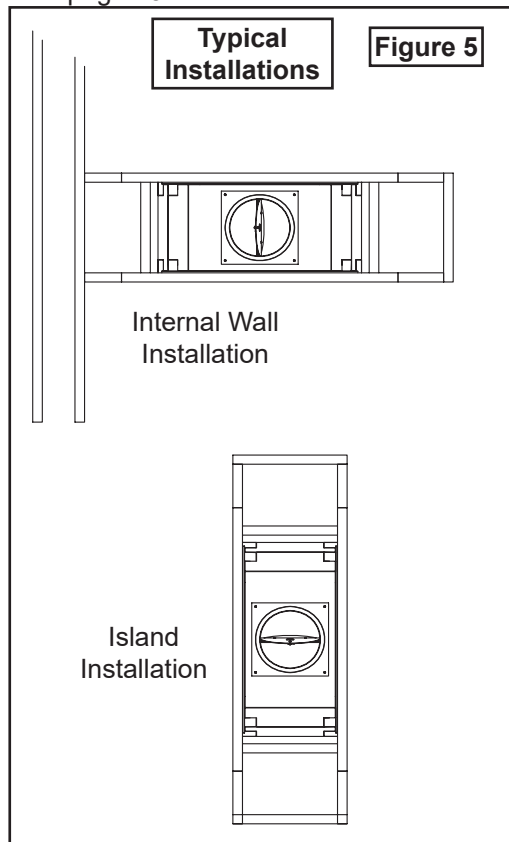
**Attention:** You may need a residential building permit to install a Mason-Lite Fireplace. Consult local jurisdictions before you get started!



# Installing the Gas Fireplace

If asked, advise the local authorities that the Mason-Lite Fireplace is designed for installation per the National Fire Protection Association Standard for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances (NFPA211).

When choosing the location consider outside air requirements to determine if it will be on the left or right side of the Fireplace. In the case of an island installation, outside air accessibility may be obtained through subflooring. See section on Installing Outside Air on page 15.



## Understanding Clearance to Combustibles

There is a build-up of considerable amount of radiant heat on the outer surfaces of the Mason-Lite Fireplace. It's critical that proper clearances to combustibles be maintained so that this radiant heat is maintained to safe limits.

## Combustible Floor Clearances

MGFPST43 Mason-Lite Fireplaces have been designed with zero clearance to combustible floors.

## Mason-Lite Fireplace & Chimney System

Prior to starting the installation, check with local, regional or state codes for any restrictions or required permits regarding your fireplace installation.

- 1) The Mason-Lite is designed to be installed with a listed B-vent or UL-103-12" I.D. Class A, Metal Chimney System.
- 2) This Mason-Lite fireplace is intended as a supplemental heat source only. It is not intended as a primary heat source.
- 3) It is the responsibility of the contractor installer (not the manufacturer) to ensure that adequate combustion air is provided for proper function of this fireplace. Fireplaces take up a large volume of replacement air from outside the house and if the house is of airtight construction, smoke spillage may occur if proper draft is not achieved.
- 4) There are many conditions beyond a manufacturer's control regarding improper fireplace operation. The manufacturer cannot ensure "smoke free" operation, nor can the manufacturer take on the responsibility for problems with surrounding construction; chimneys that have not been built at the right heights; system drafts caused by faulty mechanical systems; adverse weather conditions or any other inclement environmental situations over which the manufacturer has no control.
- 5) Inspect all fireplace & chimney components for evidence of damage prior to starting installation. Consult your local distributor for replacement parts if necessary.
- 6) Under no circumstances should you make any adjustments or modifications to the chimney system during the installation procedure. If you do, you are not only liable for negating the warranty, but you could very well cause a serious malfunction of the fireplace. You must follow your chimney manufacturer's instructions.

## Clearances to Combustibles

The distance to be maintained from the surfaces of the fireplace to combustibles must be observed. Below is a list of the most common combustible materials to name a few:

Drywall	Wood flooring	Plywood
Sub-flooring	Wood Framing	Particle board
Mill board	Plywood paneling	

## Maintain the following clearances:

- Unit front, sides, rear: 0"
- Combustible Floor: 0"
- Combustible Sheathing above opening top: 2" (51 mm)
- Sheathing or trim to opening sides: 8" (203 mm)
- Mantel above opening: (refer to **Figure 6**)
- Opening to sidewall: 24" (609 mm)
- Hearth extension beyond front: 20" (508 mm)
- Hearth extension beyond sides: 12" (305 mm)
- Insulation from firebox: 0"

# Installing the Gas Fireplace

## Chimney System Heights

When installed, the **maximum** overall height of the chimney system from bottom of fireplace to the top/termination chimney is 40 feet.

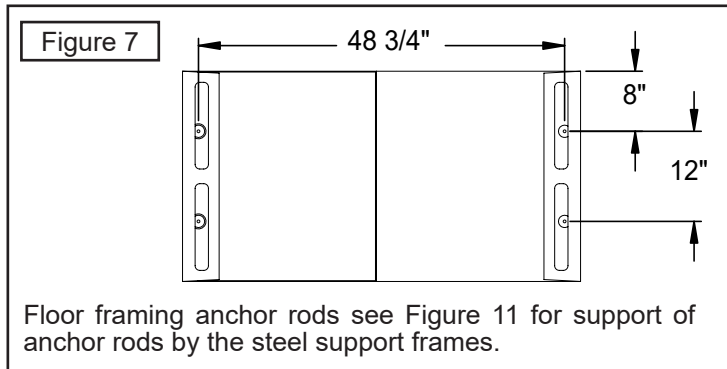
The **minimum** installed height of the completed Chimney System is 14 feet with a straight flue stack, 17 feet if the chimney includes one or two offset sections.

## Supporting Floor Systems

It is the ultimate responsibility of the installer to ensure that proper concrete slab supports are used.

Supporting concrete floors need to be rated at ASTM 90.

**WARNING** to the licensed design professional and/or building contractor: It is your responsibility to be certain that the Mason-Lite can be properly supported by the combustible floor system on which the fireplace will rest.



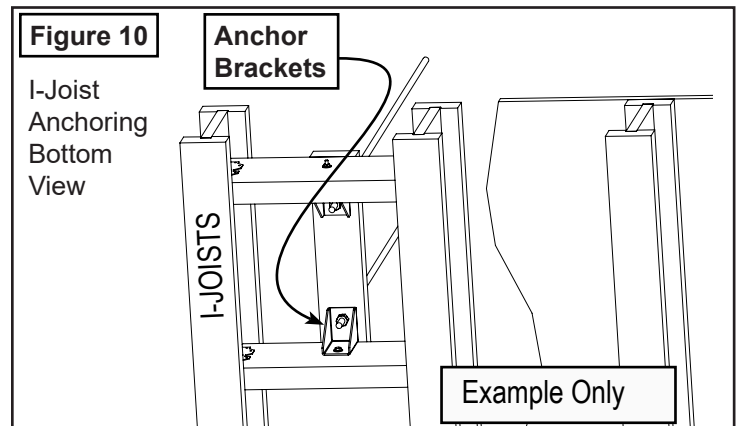
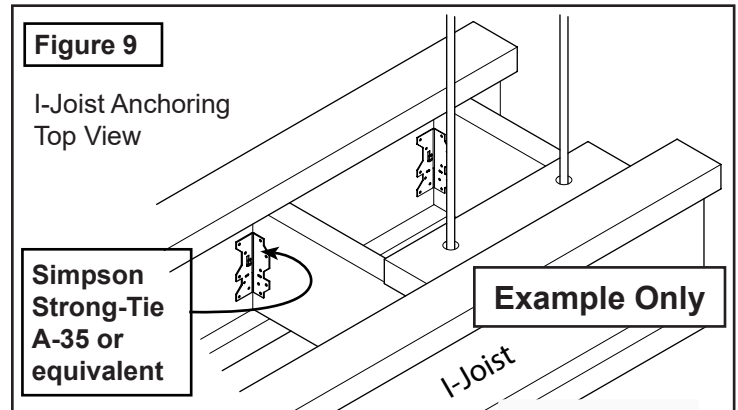
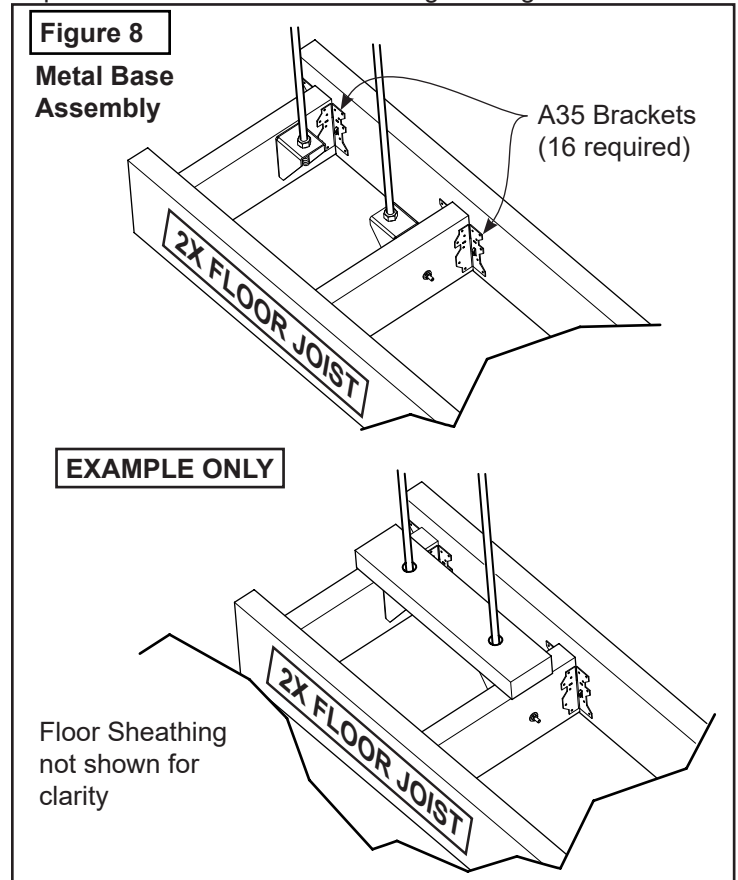
For fireplace support foundations installed on concrete refer to Appendix I and II (pages 20 & 21) for specific instructions.

## Rebar locations

Lay-out the position of the fireplace and drill holes where the rebar will be located. Secure eight #3 rebar 4 inches into concrete foundation with ITW Epoxy or Simpson Epoxy. Follow manufacturer's instructions for installation of rebar into slab.

## Wood Floor

Anchorage of fireplace to wood floor construction is required. Refer to **Figure 11** for anchorage locations. Four anchors are required to attach to the sub-flooring framing.



# Installing the Gas Fireplace

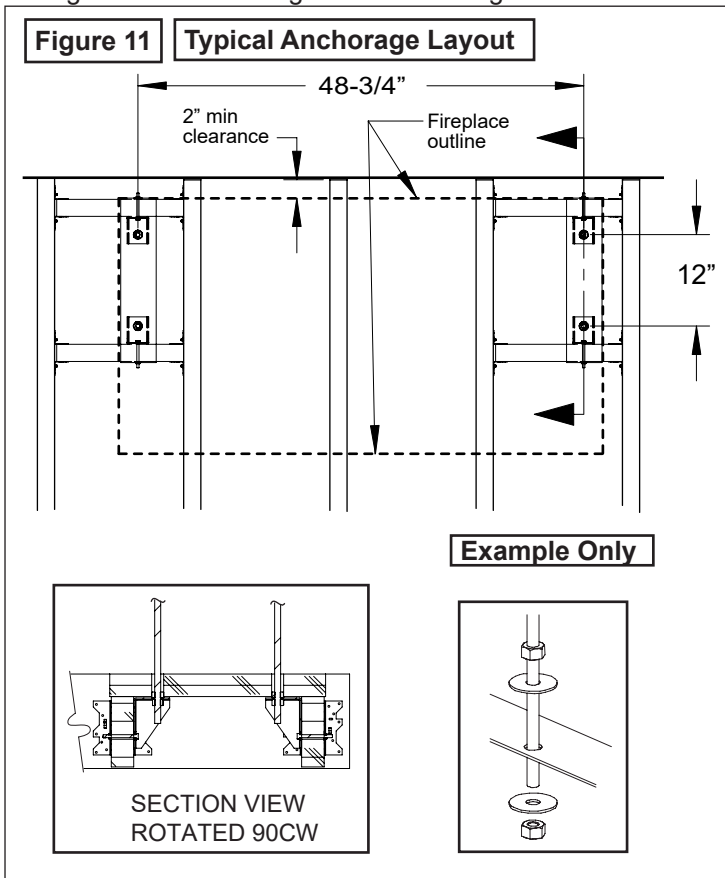
## Crawl Space or Upper Floor:

For installation of firebox over combustible crawl spaces or upper floors, anchorage of the firebox is required. Illustrations of examples of possible anchorage methods are shown in Figures 8 thru 10 depending upon the type of floor framing. Final method of anchorage to be determined by licensed design professional.

For conventional framing where the floor joists are parallel with the sides of the firebox, the addition of floor joists to align with the anchor brackets allows the brackets to be directly connected to the floor joists.

Note that additional floor joists may be required to support the weight of the firebox and chimney. Where the floor joists run parallel to the front of the firebox, anchorage can be accomplished in like manner as shown in Figure 12 using blocking between the floor joist.

For floors supported by I-Joists, the method of anchorage is illustrated in Figures 9 and 10. Figure 11 illustrates the general arrangement of anchorage to floor framing.



It is important to take into consideration that the load for the Mason-Lite Fireplace must be considered as additional dead load that will have to be supported by the floor framing. Additional floor joists or I-joists may be required as determined by the licensed design professional.

The weights to be considered are noted in **Table I**. It is the task and responsibility of the general contractor/installer to see that the proper reinforcement for weight loads are made by a licensed design professional prior to the fireplace installation.

As stated above, it is desirable to place additional framing for alignment of anchor rods. Refer to **Figure 11** for anchor rod locations.

For Raised Steel Platforms, attach the firebox anchors to the steel support frame by inserting all-thread rods through holes on the bottom flange of the steel support frame as shown in **Figure 11**.

Secure with two  $\varnothing 2''$  o.d. x  $\varnothing 9/16''$  i.d. x 0.10" Washers and two 1/2-13 UNC Nuts.

## MASON-LITE Weight Determination

The following are dead load weight estimates for the Mason-Lite Fireplace.

Table I	
Model:	<b>MGFPST-43(P)A</b>
Fireplace	1,606 lbs.
Damper/Anchor Plate, Firebrick & Mortar	350 lbs.
Steel Platform	70 lbs.
Floor Area	53" x 28" (10.3 sf)

## Other Weight Considerations:

- 1) Fireplace finished facing (surround): This information needs to be obtained from the contractor.
- 2) Weight of metal flue: See chimney manufacturer's weight specifications. Some chimney systems can weigh up to 50 lb. per linear foot.

Note that MASON-LITE cannot accept responsibility for structural floor support details. All drawings are presented as mere illustrations to indicate the presence of the underlying floor system. It is the responsibility of the general contractor/installer to consult with a local licensed design professional for guidance in building a proper floor support system.

### ▲ IMPORTANT:

For Steel Platform installations, remember to tighten up nuts below the floor after fireplace installation in order to take up any slack in the threads.

# Installing the Gas Fireplace

## The Firebox and Smoke Dome

### Overview

You will find that the Mason-Lite Fireplace is designed to be completely assembled on-site, consisting of interlocking precast parts. You will need a thin-set type mortar for bonding. The parts of the fireplace are made of Mason-Lite's incredibly strong blend of specialty cement and a lightweight aggregate.

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**IMPORTANT!** When applying mortar, it is imperative that the concrete blocks be maintained moist (not soaking) so they don't absorb the water out of the mortar and cause adhesion to fail. Frequently run a damp sponge to the parts before mortar is applied!

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The installation of an Vent Plate is required but not supplied. You may purchase it from any chimney manufacturer or MFI. Also, an optional combustion air inlet MFP4-AK can be obtained from MFI.

Refractory Firebrick Liners also need to be installed. These should be a minimum of 1-1/8" (one and one-eighth inches) thick. The liner will be applied within the walls and hearth area of the firebox.

### Materials needed for concrete slab installation

1. Eight (8) pieces 3/8" rebar x 36" long (included with unit)
2. Eight (8) pieces of rebar x 12" long (included with unit)
3. Epoxy for securing rebar in footing / foundation
4. Three (3) - 90 lb. bags of ready mix concrete with 1/4" or smaller aggregate
5. Mason-Lite Mortar (one 50 lb. bag)

### Materials needed for wood floor installation:

1. Eight (8) pieces 3/8" rebar x 36" long (included with unit)
2. Eight (8) 12" long, 1/2-13 UNC All-Thread with (24) nuts and washers
3. Four or more fasteners to attach Anchor Brackets to floor joists.
4. Mason-Lite Mortar (at least one 50 lb. bag)

### Tools needed for both above installations:

1. One 4' level
2. Roto-hammer with 1/2" drill bit (needed for concrete slab install only)
3. Drill motor with mixer blade (to mix Mason-Lite Mortar)
4. Two empty 5 gallon buckets (to mix Mason-Lite Mortar)
5. One wheelbarrow and shovel to mix concrete.
6. Grout bag
7. Triangular masonry trowel
8. Rubber hammer
9. Sponge and water bucket to wipe down and moisten parts prior to applying mortar.

## Field Assembly Procedures

- 1) Mixing the MASON-LITE mortar – You will require a 45 pound bucket of MASON-LITE mortar which should be more than enough to adequately affix all the fireplace components. The mortar is premixed and dry and is to be used to adhere all the fireplace components. Be sure to use clean water and work it up into a mixture that is pasty but not lumpy. If it is too thin, and if the concrete pre-cast components are not maintained moist, the components will not adhere. Some trial and error may be necessary for the proper consistency of the mortar mix. You will want to apply the mixture with a standard grout bag.
- 2) Assembly of the Components – Once you have found the proper consistency of the mixture, load it into the grout bag and then place the components together applying the mixture directly to the components where they come together. As a rule, you can figure that you should lay down about 1/2" (one-half inch) of a thread of mortar. The line of mortar should be approximately 1/2" (one-half inch) away from all the edges of each separate component.  
The mortar has a considerable amount of holding power so do not overload the components with too much mortar. Keep the components moist at all times!
- 3) You will notice that some mortar will "ooze out" when you place the next component on top of or next to the component you previously placed. This is to be expected it means the two pieces have properly bonded -- and you will want to swipe the excess away with a trowel. It is never intended that the surfaces of the MASON LITE components are to be completely covered with mortar.
- 4) Do not apply the mortar in thick bands even if the component you are working with is larger than the rest. You will want to apply "stripes" of mortar in these situations.
- 5) Making Sure Components Are Level – It is extremely important that you pay careful attention to how you are assembling the Mason-Lite Fireplace since every component builds on the next. If you have to make any kind of an adjustment, do not try to do it "by loading an opening" with mortar. That is completely unacceptable, resulting in a fireplace that will not be plumb or level. What you are advised to do is make use of wood shims. You will find these small wood shims supplied with the Mason-Lite Fireplace and you can nudge them in between openings to achieve the precision you need in making component adjustments.
- 6) Once you have inserted any shims, you will want to cover any gaps that may have resulted with the grout.

# Installing the Gas Fireplace

## Fireplace Assembly Procedures

1) Plan ahead by placing the hearth components (without mortar) in the place of the intended installation. Make sure the width is 53" and depth is 28". Mark the centers for the rebar drill locations.

### 2) a) Wood Floor Installations:

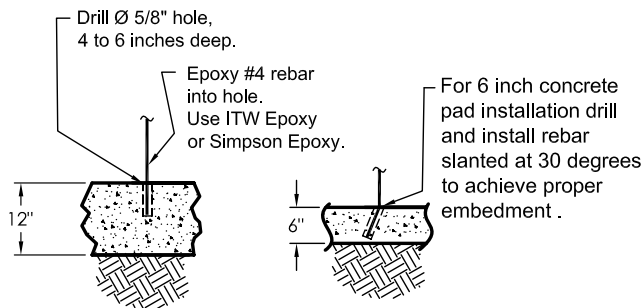
Floor preparation must have been completed as shown in page 8 and if Anchor Brackets have been installed properly, the protruding threaded rods should line up with the rebar holes on the hearth slabs. Mix up a batch of mortar and prepare intended underside and joints with a 1/4" bead, spread out evenly. One half overlaps the other. Carefully place hearth slab that is to be overlapped first. All-thread rods should stick up through the holes on the hearth slab. Complete the overlapping hearth as shown in Figure 13.

### b) Concrete Floor Installations:

Prepare the surface for Epoxy embedded rebar by drilling 5/8 inch diameter holes, 4 to 6 inches deep (see Figure 7 for locations). Thoroughly clean out the holes with compressed air or a wire brush prior to the Epoxy process. Cut your rebar to the desired length. The rebar included with your fireplace is for standard Mason-Lite Fireplace opening heights. If a height extension kit is considered, you will have to purchase a longer length rebar.

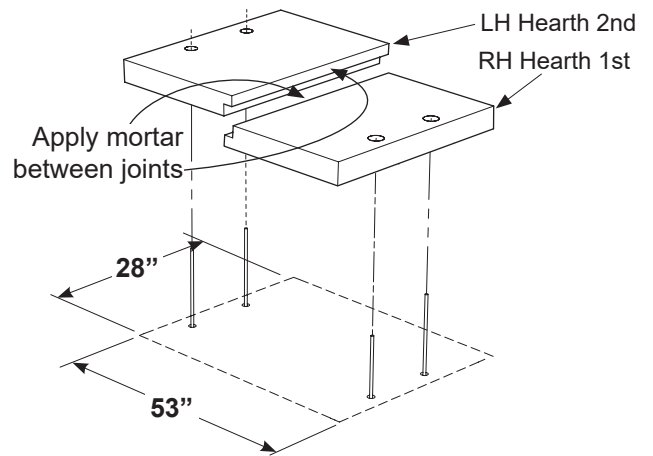
Squeeze the epoxy into the hole and firmly push the rebar to the desired embedment. (Figure 12). Be sure to thoroughly clean out the hole with compressed air or a wire bottle brush prior to placing the epoxy. This will ensure a sufficient bond to the concrete.

**Figure 12**



Note\* A DEPUTY INSPECTOR MAY ME REQUIRED FOR THE EPOXY DOWELS PROCESS. CHECK WITH YOUR LOCAL BUILDING DEPARTMENT PRIOR TO REBAR INSTALLATION.

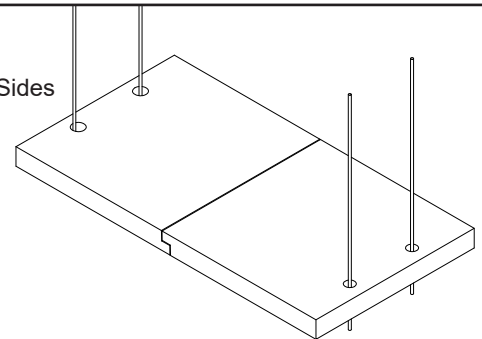
**Figure 13**



- 3) Before installing the side walls, confirm placement of outside combustion air side block (if required), this can be installed either side depending on which side is accessible to outside combustion air. Prepare side wall footprint with the prepared mortar. Note: In an island installation, outside combustion air is obtained by feeding duct through subflooring and then up to supporting structure.
- 4) Keep the assembly of the next sections of the firebox side walls moving up, keeping components moist, mixing mortar as you need it and threading the mortar appropriately as you stack each section, one onto the next. Constantly check for squareness and levelness while building each course of block. As you complete each section, make certain that you adhere the mortar at each and every joint.

**Figure 14**

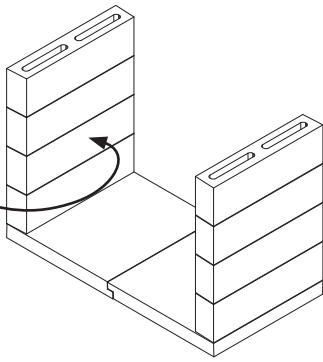
Setting Firebox Sides



- 5) After the last side walls are in place, add #3 rebar rods and fill the firebox cells with mortar mix. Mix approx. 2 cu. ft. of sanded mortar mix. Put 25% in cells and place #3 rebar vertically into holes on the hearth base. If a raised metal platform was installed, place adjacent to all-thread rods sticking through the cells. Make sure the bars are into the hearth and at least 1/2" (one-half inch) below top of firebox top surface. Finish filling cells.

**Figure 15**

Keep damp at all times while applying mortar.



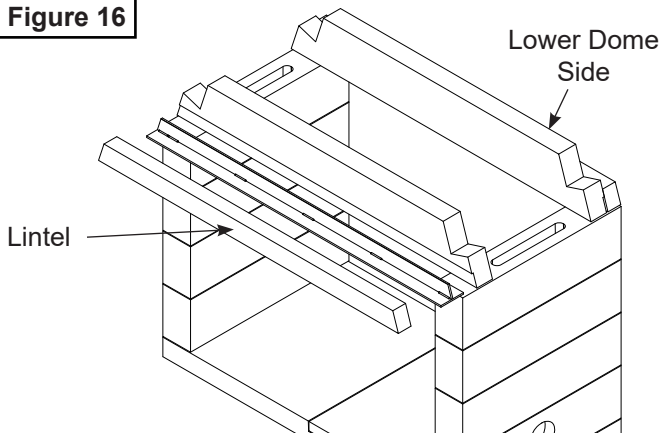
**IMPORTANT! Keep in mind that, when applying the mortar, you must frequently run a damp sponge to the parts before mortar is applied!**

- 6) Set the T-Bar in front of the Lower Dome Front, then set the Lintel in front as shown in **Figure 16**. Check that all is level. If you need to make adjustments, use shims. Place one or more of these shims between the lowest wall component and the top surface of the base plate. Once you are satisfied with the degree of levelness, you can address any gap that may have occurred with an appropriate amount of mortar.

**Note:** Although you are cautioned to use MASON-LITE mortar sparingly because it does have such holding power, you should look over the firebox assembly at the end and fill in any gaps, especially joint connections, with the mortar. Needless to say, you must make adjustments to be sure the fireplace is level and square while the mortar is still wet.

- 7) Set the remaining lintel as shown in **Figure 16**.

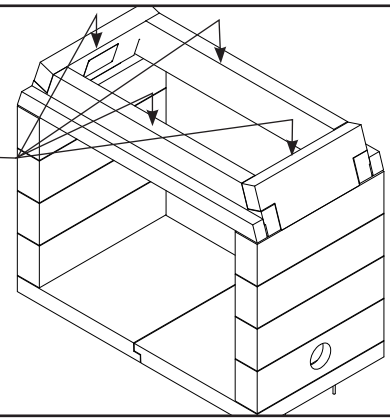
**Figure 16**



- 8) Now you are ready to start the smoke dome assembly. Take the lower side dome positioned so that the beveled face lines up with the inward angles of the lintel sides (see **Figure 17**). Top surfaces should be level.

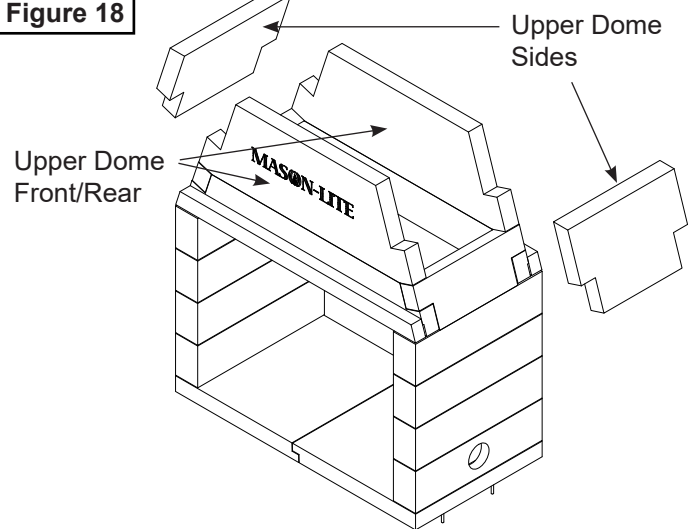
**Figure 17**

Top surfaces to be level.



- 9) Now position the front/rear upper smoke dome parts on top of lower dome. These parts require care in leveling, noting the parts have a slight bevel. Check for vertical with level (**Figure 18**).

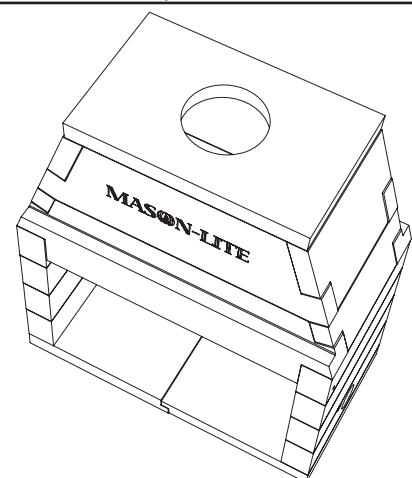
**Figure 18**



- 10) As you are connecting each MASON-LITE component, be certain you are following the instructions given previously for using MASON-LITE mortar. Stop to look at the smoke dome side, front and rear walls to see that they are aligning correctly and that the surfaces be smooth and uniform. Make sure connections are covered with an adequate amount of mortar. Remember that you have the option of using shims and covering them with mortar if you need to. Make any adjustments to the fireplace alignment before continuing to the next step.

**Figure 19**

Completed Firebox

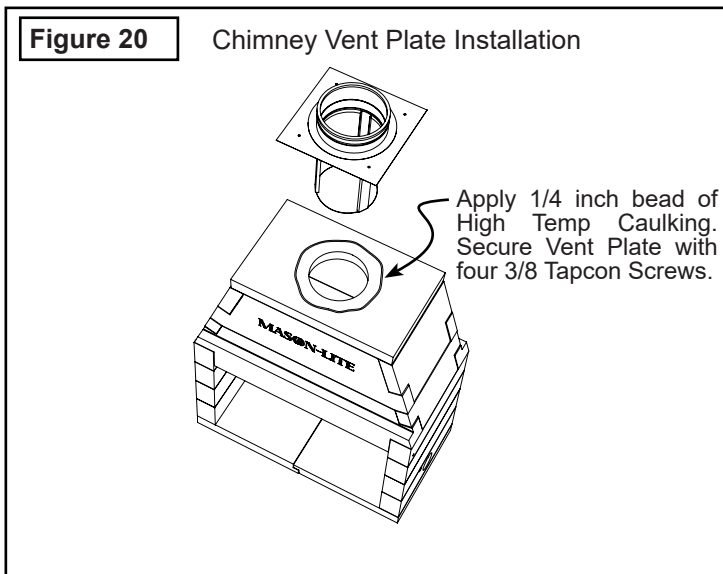


- 11) Check your assembly here. If things are proceeding as they should be, the finished top surface should be flat and level.

### Installing Vent Plate

The first consideration in connecting the Mason-Lite Firebox to a B-vent or UL-103 Metal Chimney System is installation of a steel Vent Plate. The Vent Plate is pre-drilled with holes for four 3/8" Tapcon Concrete Screws.

- 12) Place the plate and mark the top of the firebox. Then remove the plate to carefully pre-drill holes for the 3/8" Tapcon Concrete Screws.
- 13) Apply a 1/4 inch bead of high temp caulking on the Dome Top, approximately 3 inches outside of and around hole as shown in **Figure 20**. Install Vent Plate on top of unit, aligning pre-drilled holes. Press plate into cement. Attach using four (4) 3/8" Tapcon Concrete Screws.



**Attention:** Clearance to combustible construction cannot be reduced during course of construction. For safe operation of the finished fireplace, these clearances must be followed when building the framework to house the chimney system.

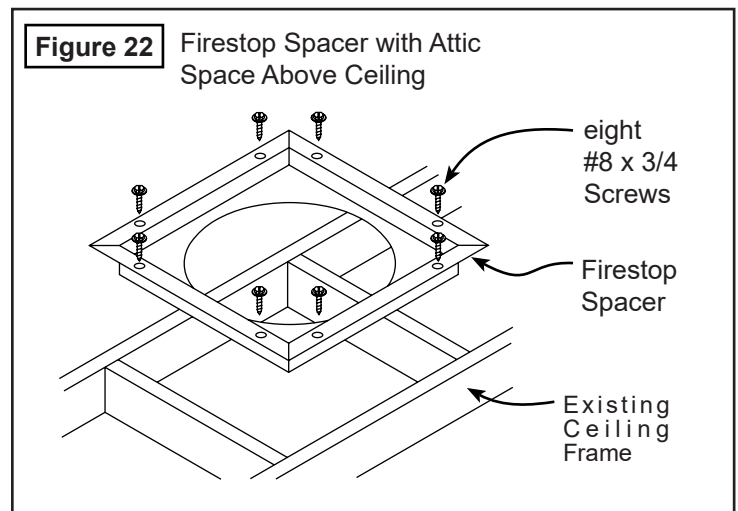
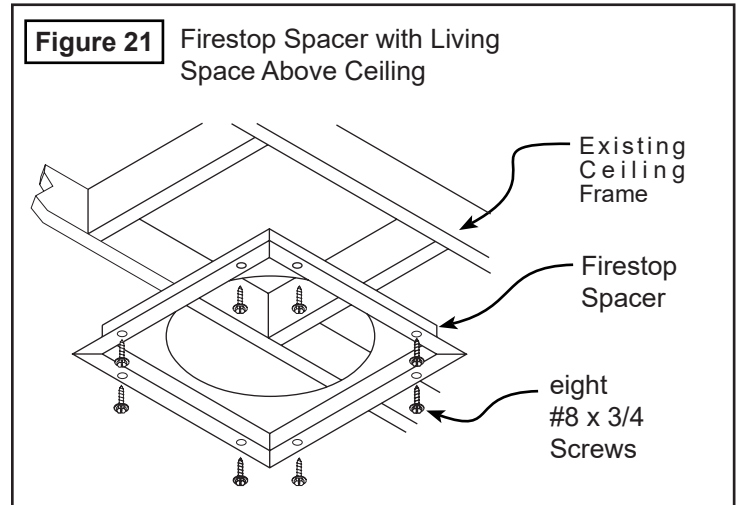
Now that you have completed the smoke dome assembly, all the components should stack up for a smooth transition into the flue components. Setting the smoke dome completes the MASON-LITE Firebox and Smoke Dome assembly. You are now ready to begin the installation of the necessary firebrick lining and the flue components.

**WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.**

### Firestop Radiation Shield

A Firestop Radiation Shield is required in multi-story installations at each floor penetration above that where the Support Box is located.

Firestop Radiation Shields also provide complete separation from one floor space to another or attic space as required by most codes. When the double wall pipe passes through a framed opening into an attic space, the firestop must be placed into an attic floor as shown in **Figures 21 & 22**.



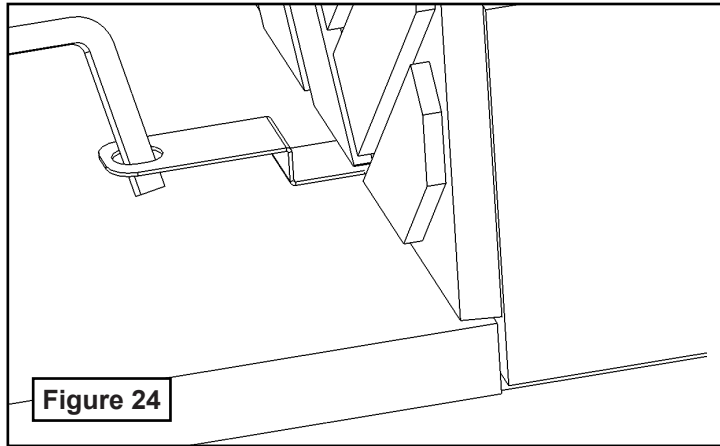
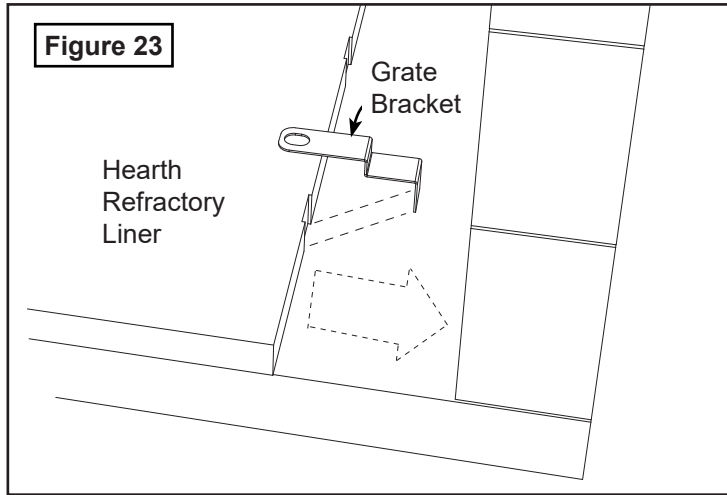
Follow your chimney manufacturer's instructions on specific guidelines pertaining to their chimney and Firestop Radiation Shield installation instructions.

# Mason-Lite Firebrick Liners

## Custom Firebrick Lining

Custom Firebrick lining is not supplied by Masonry Fireplace Industries (MFI). There is, however, the option of **modular** pre-fabricated panels that can be obtained from MFI. See illustrations below.

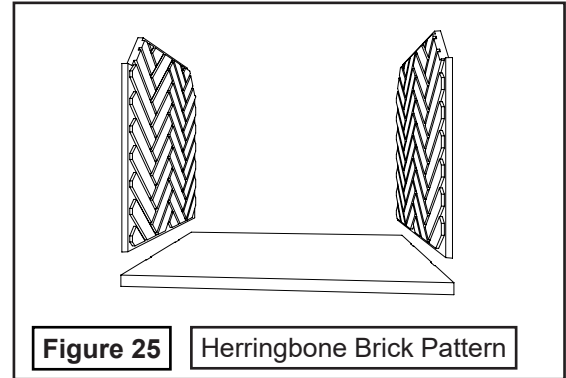
If custom firebrick lining is desired, 1-1/8" inch thick liners will be required. The pattern for the firebrick lining is exclusively your choice. Before you install the lining, remember to consider any holes your contractor may need to drill for gas, electrical or combustion air kit access holes. Also, the Grate/Burner assembly needs to be securely positioned with the grate brackets as shown in Figures 23 and 24.



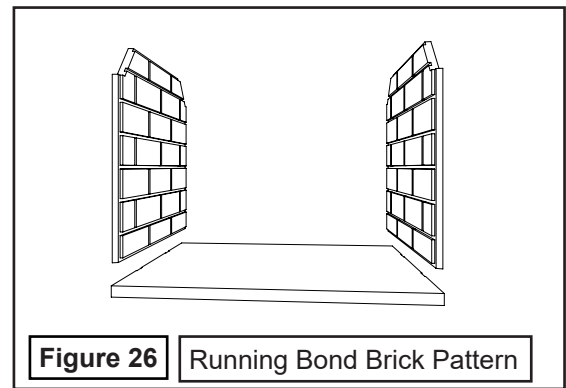
## Modular Firebrick Lining

If using our Mason-Lite Firebrick Liners, simply use an extra bucket of the mortar we supply. Install Hearth Liner first, then continue with sides. Consider if brackets for grates will be required also if pre-drilling is required for gaslines, electrical or if the outside combustion air kit is to be installed. If the optional Arch is used, the top corners of the firebrick side liners will need to be notched.

The following Firebrick Liners are available from MFI:



**MFPST43SHBL- Herringbone**



**MFPST43FRBL- Running Bond**

Please use a certified mason to lay-in the brick. He will follow the proper instructions from the fireplace liner manufacturer and also understand the type of adhesive or cement he is to use.

Make sure the fireplace is installed with the finished firebrick floor of the fireplace so that it is at least 11" (eleven inches) above the combustible floor system.

Disclaimer: Masonry Fireplace Industries wishes to express that as the manufacturer of Mason-Lite Fireplaces, they cannot take any liability or responsibility for they way the firebrick or the firebrick mortar performs. It is not unusual in the course of the life of the firebrick, or the firebrick mortar, for heat stress cracks to appear. MFI cannot be responsible for this and other wear and tear to the firebrick and mortar.



## Fireplace Finishes & Combustible Trim Clearances

Hearth Material & Dimensions – Codes are strict regarding the use of proper materials for hearth extensions and the proper dimensional characteristics.

All hearth extensions must be made of code-rated, noncombustible materials such as tile, brick, concrete or stone. MASON-LITE Fireplaces usually have an opening of approximately 8 sq. ft. (eight square feet) that translates to a hearth extension of about 20" (twenty inches) at the fireplace's opening and about 12" (twelve inches) extension at each side. These relative dimensions are also covered by code.

## Mantle and Mantle Shelf Clearances

As with any radiant heat fireplace, all MASON-LITE Fireplaces must comply with building code safety clearances, for units that have openings of 6 sq. ft. (six square feet) or greater.

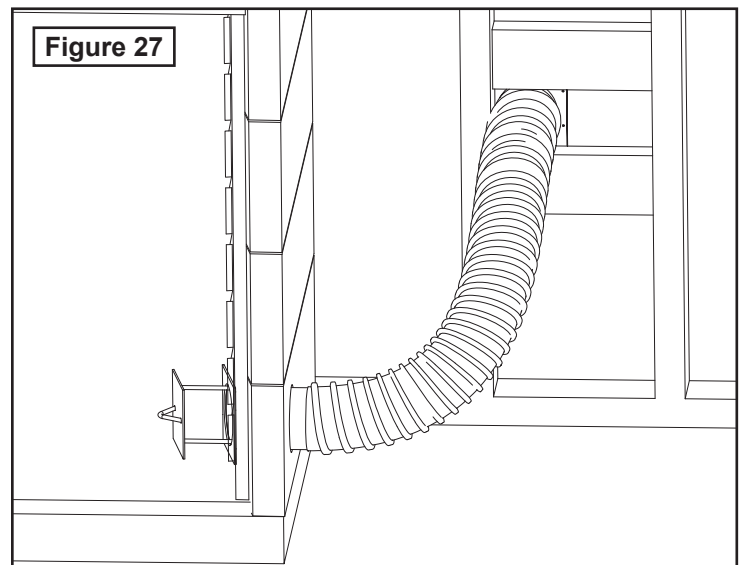
For Mantel clearances see **Figure 6**.

Walls that Adjoin – your fireplace cannot be installed closer than 2 ft. (two feet) to any adjoining walls in the room where the fireplace is.

Caution in Regards to Combustibles – If any part of the fireplace or objects in the room (curtains, rugs, paint, cushions, etc.) start to show warping or discoloration due to heat from the fireplace, it is time to take immediate action. Do not use the fireplace until you have figured out how to address the problem. You are facing a potential fire hazard. MFI cannot be responsible for the make-up of material on the exterior of the fireplace you have chosen, nor can MFI be held responsible for the materials in a room that may be responding negatively to heat. However, in almost all cases, there is a solution to the problem, either by making adjustments to airflow or the modifications to the room itself.

## Installing Outside Combustion (make-up) Air

- 1) The Mason-Lite Fireplace needs enough make-up air to function properly and some local building codes may require outside combustion air to be provided. If no make-up air is provided, improper flue drafting may occur, creating negative pressure whereby smoke may enter the home, especially in homes that are very well insulated and tightly sealed. Check local building codes for specific requirements.
- 2) Install Combustion Air Kit MFPST-AK into the Mason-Lite Firebox through the side wall opening provided. The tubing that goes out of the firebox wall must feed into a flexible metal conduit as the source for outside combustible air. It can go straight out through an outside wall or into a ventilated crawl space. If crawl space is used, check codes for proper termination.
- 3) Be sure that you carefully check the source of the outside air before you choose the site for your air intake. You don't want a place where snow will collect, where it could easily flood, where bushes or trees will be growing or a location that is too close to any other structure.
- 4) Install a screened termination cap to keep out animals.



## MASON-LITE Chimney Systems:

This MGFST43(P)A Mason-Lite Fireplace requires the installation of a Vent Plate Assembly which allows connection to either a 12 inch diameter B-Vent system or UL 103-12 Class A Chimney system.

Installers are cautioned to put the chimney system together exactly as instructed and shown in chimney manufacturer's guide. Any variations may have serious consequences resulting in an accident or malfunction. If instructions are not followed, the warranty on the product will become null and void.

Note that although the fireplace itself is a "zero clearance" fireplace, the most important aspect of the installation is maintaining the minimum required clearances to combustible materials for the flue system according to the chimney pipe manufacturer's recommendations, otherwise a potential fire hazard may occur.

Warning: do not interchange chimney manufacturer's parts with any other parts except those specifically required by the chimney manufacturer's recommendations otherwise a potential hazardous condition may be created.

A "B-type" venting system must be connected to the appliance for venting to outside of building. The following section is provided as a guide to a standard B-type vent installation. Standing codes requirements concerning B-type vent installations may vary within your state, province or local codes jurisdiction. Therefore, it is recommended that you check with your local building codes for specific requirements or in absence of local codes, follow Section 7.0 of the current National Fuel Gas Code ANSI Z223.1/NFPA 54 for Category I systems using double wall B-1 vent pipe.

This gas appliance must be vented to the outdoors only and may not be terminated into an attic space or into a chimney flue servicing a solid fuel burning appliance.

Assuming you have sections of vertical pipe that are more than

10' (ten feet) measuring between elbows, you must insert – at midpoint – a chimney stabilizer. When installing the stabilizer, pull out the support straps with a good amount of tension and hammer to the frame.

This appliance may be vented through a manufactured chimney system or a masonry chimney using a B-vent adapter or a chimney liner system if the system is listed, inspected and approved by local codes and/or building authorities.

The examples shown in Fig.28 are typical of most B-vent installations and codes practices.

Example 1:

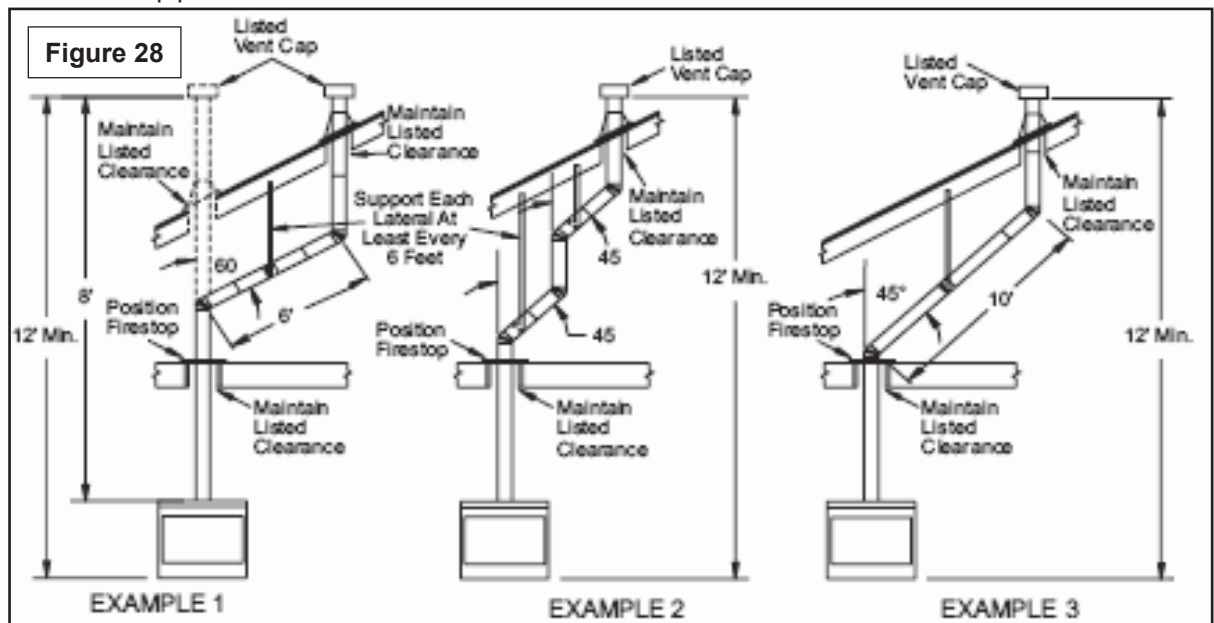
Shows the minimum allowable system height and lateral offset for an inclination of 60° or greater. Code specifies that offsets of 60° or greater are considered horizontal and must follow the 75% rule for lateral to total vertical system height. Codes also allow only one offset in the total system when at 60° or greater. The total vertical height in this example represents the minimum height of 8 ft. and therefore the allowable lateral is 6 ft. when the 75% rule applies. If the lateral length must exceed 75% then the system must be sized in accordance with the Category I venting tables.

Example 2:

Shows a multiple offset each at a 45° inclination. Multiple offsets are permitted if they do not exceed a 45° inclination. The total lengths of the two offsets are not required to meet the 75% allowable rule.

Example 3:

Shows a single offset at 45° of inclination and therefore the lateral length at 10 ft. of offset does not have to meet the 75% rule. In each case the offsets must be supported and firestops must be positioned wherever the vent must pass through a sub-floor, ceiling joist or an attic overhang. The vent pipe must terminate vertically into a listed type vent cap and extend a sufficient height through an approved roof flashing, roof jack or a roof thimble. At all points the listed clearances must be maintained. Vent terminations must be located in accordance with height and proximity rules of NFPA No. 54. These rules



apply to vents at 12" diameter or less and require a minimum height in accordance with the roof pitch and a minimum of 8 ft. distance from a vertical wall or obstruction (see Fig. 29).

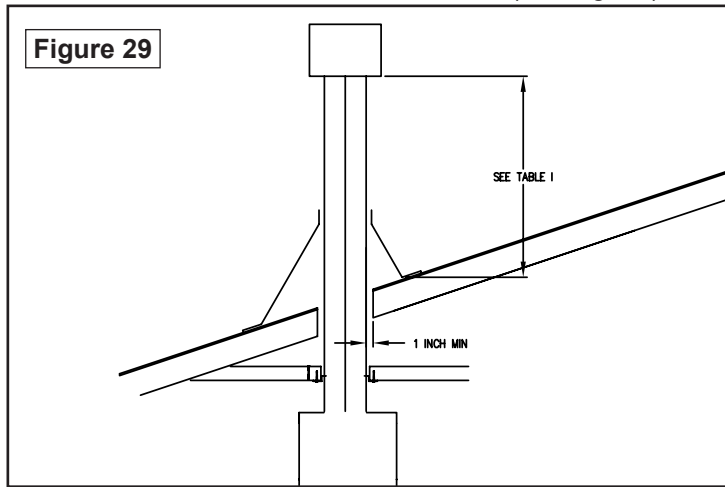


TABLE I		
Roof Pitch	Minimum Height	
	Feet	Meters
Flat to 7/12	1	0.3
7/12 to 8/12	1.5	0.46
8/12 to 9/12	2	0.61
9/12 to 10/12	2.5	0.76
10/12 to 11/12	3.25	0.99
11/12 to 12/12	4	1.22
12/12 to 14/12	5	1.52
14/12 to 16/12	6	1.83
16/12 to 18/12	7	2.13
18/12 to 20/12	7.5	2.29
20/12 to 21/12	8	2.44

If venting horizontally through a side wall becomes necessary, a listed thimble approved for use with B-type vent must be used. Check with your local codes before venting through a side wall.

Some codes areas allow the use of existing B-type vent systems if the system is at or above the recommended diameter of the flue. The flue connection must be made using listed B-type connectors and the existing system must be code inspected for damage and proper installation.

It is not recommended that this appliance be common vented with an existing gas burning appliance. However, if it becomes necessary to common vent this appliance, the venting system must be sized and configured in accordance with the common venting guides Appendix G of the current National Fuel Gas Code NFPA No. 54/ANSI Z223.1.

Note: Before connecting this appliance to an existing vent system or a common venting system, consult with your local architect, planner, or building official.

## Specifying Chimney Heights

If the horizontal distance from the mid-point of the chimney to the peak of the roof ridge is less than 10 feet, the top of the chimney must be at least 2 feet above the roof ridge. This is called the "2 foot in 10 foot" rule.

If the horizontal distance from the chimney's center measured across to the ridge of the roof is more than 10 feet, the top of the chimney still needs to be at least 2 feet above a point measured from a distance of 10 feet horizontally along the roof.

Though there are many configurations in meeting these requirements, chimney height cannot be less than 3 feet above the roof at the edge of the chimney.

If the roof is flat, the chimney must extend no less than 3 feet from where it intersects the roof.

If the chimney is entering the roof at an angle, measure the shorter angle where the chimney intersects the roof which should also be at least 3 feet.

Note: The previous guidelines do not take into consideration outside conditions which may require a higher chimney due to foliage, other buildings, power lines and weather conditions in your area. Follow the chimney manufacturer's installation guide for further information.

## Chimney Termination Units

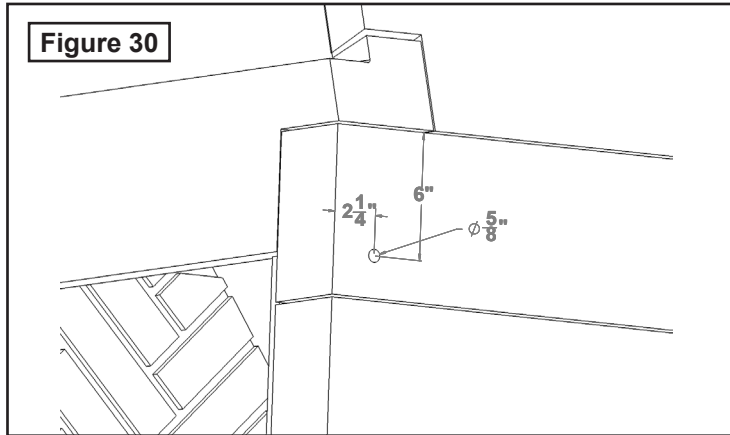
You will be installing at or possibly near the top of the chimney chase flashing. A top termination unit is the essential piece of equipment in keeping sparks out of the atmosphere. Before installing this important piece of equipment, you will have to make a judgment call as to whether or not the termination unit – like all the other exterior exposed chimney components, for that matter – should be painted in order to protect it/them from rusting and weathering. Particularly if you are installing the fireplace and chimney near water or in a high humidity area, the manufacturer recommends a top quality, rust-proof paint especially formulated for metal. Follow the paint manufacturer's directions, applying the paint well before you are scheduled to install the round top termination unit or any of the flashings or flues that will be exposed to outside weather conditions.

Venting terminals shall not be recessed into walls or siding. This appliance, when installed, must be electrically grounded in accordance with local codes and in the absence of local codes, with the National Electrical Code, ANSI NFPA 70, or the Canadian Electrical Code, CSA C22.1.

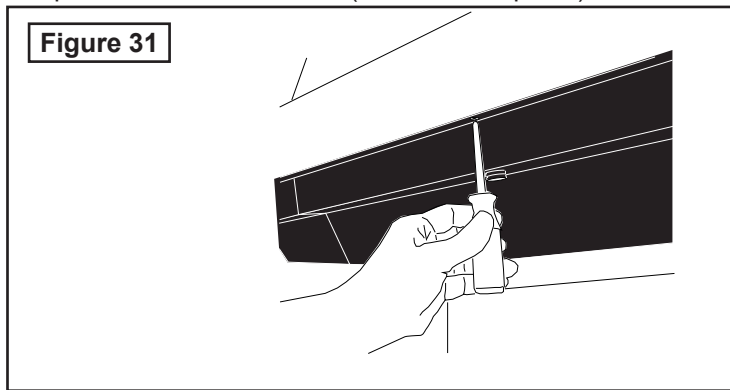
## Installing the valve/control box assembly

1. Fasten the valve/control box assembly to a stud such that the control switch is facing in the desired direction and flush with the future location of the finished wall or other enclosure.
2. Install the two 'D' batteries into the battery holder within the control box.
3. Run the wires for the spill switch through the small hole in the upper wall. Important: This control box must remain accessible and removable for service after installation.

## Installing Spill Switch and Baffle assembly



1. Connect the blade connectors on the spill switch wires to the matching wires from the valve/control box assembly coming through the upper hole in the firebox.
2. Center the black steel baffle with the spill switch sensor pointed toward the room (out of the fireplace).

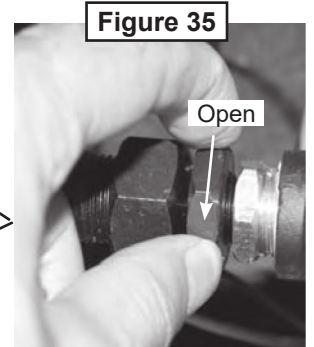
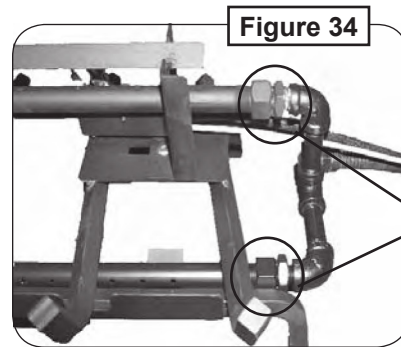
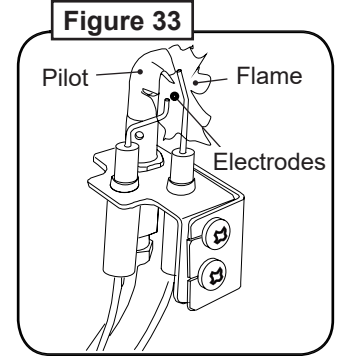
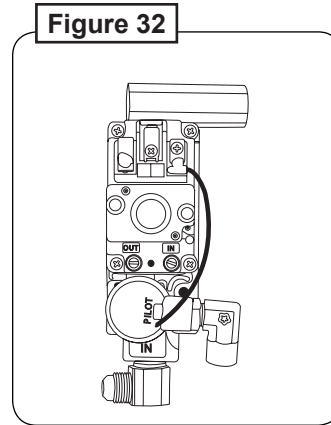


3. Use six (6) drywall screws to fasten it in place on the front-most part of the firebox ceiling as shown through the six (6) pre-drilled holes.
4. Attach the trim plates to the left and right side of the baffle with the sheet metal screws so that the edges are flush with the firebrick.

**Important:** This baffle assembly and only this the supplied assembly (with spill switch) must be properly installed for the safe operation of this gas fireplace.

## Checking and Adjusting the Pilot

1. Follow the lighting instructions to light the pilot. The pilot flame should encircle the generator tip which is preset at the factory (**Figure 33**). Ordinarily, the pilot will not require field adjustment.
2. If adjustment is necessary, remove the cap screw (**Figure 33**) and turn the smaller gas adjustment screw inside counterclockwise to increase the pilot flame and clockwise to decrease the pilot flame. Replace cap screw.



**Note:** This burner system is equipped with an APK-01 valve assembly.

## Placing the Decorative Lava Rock

If desired, open the bag of lava rock and pour its contents around the base of the grating in an attractive pattern. Do not place the Lava Rock on the logs or grate.

## Adjusting Air Mixers

Burners are equipped with air mixers for the top and front burners. Adjust the size and color of the flame by opening (turn outward) or closing (turn inward) as shown in **Figure 33, 34**.

# Lighting and Operating Instructions

## 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.

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

The Mason-lite burner system has a pilot which can be lit by hand using a match or lighter. When lighting the pilot, follow these instructions exactly.

**BEFORE LIGHTING**, smell all around the burner area for gas. Be sure to smell next to the floor as some gas is heavier than air and will settle on the floor. IF YOU SMELL GAS, FOLLOW THE INSTRUCTIONS ON THE COVER (P. 1).

### TO LIGHT THE FIREPLACE WITH THE WALL SWITCH

Move the ON-REMOTE-OFF wall switch to the **ON** position (**Figure 38**). This transmits a rapid series of sparks at the pilot head and will ignite the gas.

### TO SHUT DOWN THE GAS FIREPLACE USING THE WALL SWITCH

Move the switch to the OFF position (**Figure 38**). The gas flow will cease, and all flames (main burner and pilot) will go out (see important note below).

### OPERATING THE BURNER USING THE REMOTE

Move the wall switch to the REMOTE position and follow the instructions included in the remote kit for lighting and shutting down the attached burner.

**IMPORTANT:** Do not allow the fireplace opening to be blocked in any way while operating the fireplace. The fireplace may be operated with a Mason-Lite screen installed and drawn.

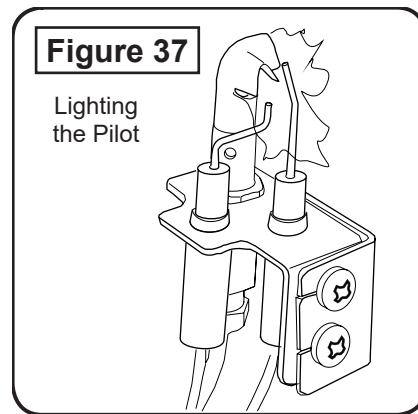
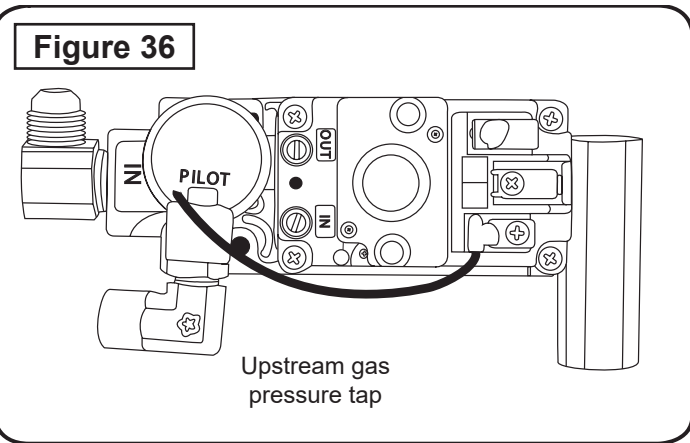
### MAINTAINING THE PILOT

Your gas fireplace is equipped with a safety pilot that will shut off the gas supply in case the pilot is not burning or functioning properly. Regularly verify that the pilot is adjusted properly with the pilot flame hitting the electrodes as shown in **Figure 42**. If the pilot will not stay lit, call your local gas utility or gas supplier.

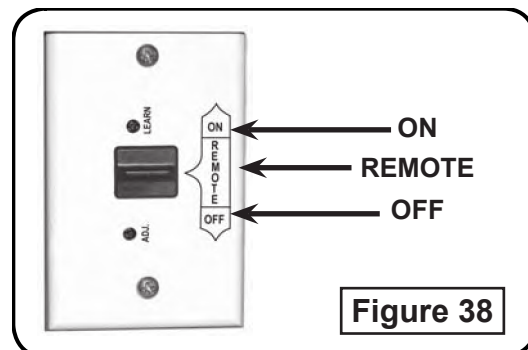
### TO CHECK UPSTREAM GAS PRESSURE

Unscrew the four (4) screws above and below the control panel face, then pull the control panel out far enough to expose the test ports on the valve (**Figure 36**). Unscrew the port marked IN part way and test.

**CAUTION:** Do not kink the flex connectors coming from the valve while accessing it.



**Note:** Pilot flame should encircle top of electrodes. See instructions cover for example of proper main burner flame pattern.

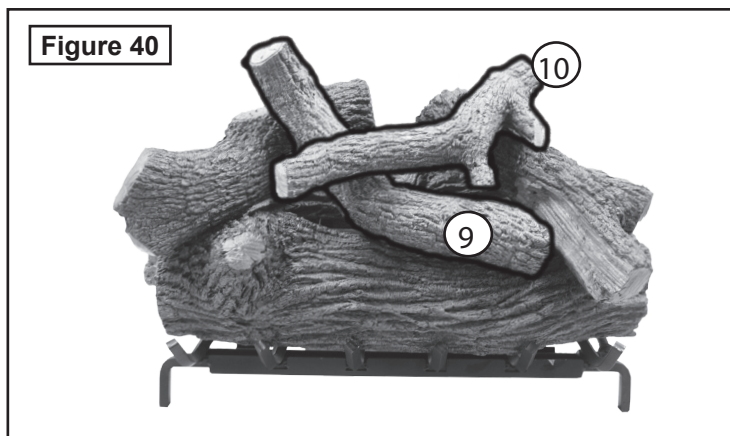
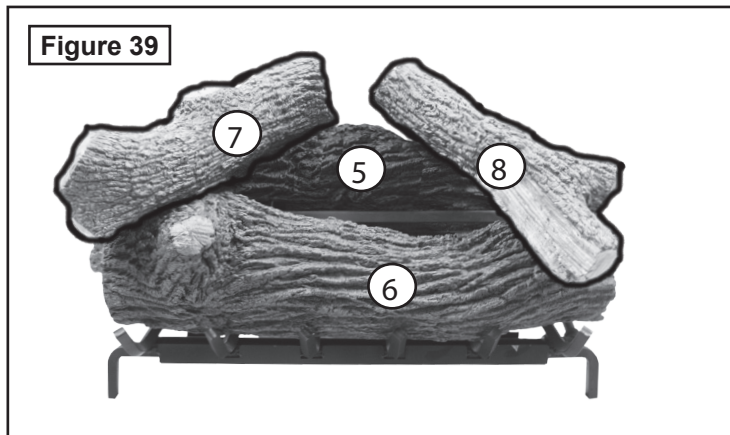


## Finishing Your Installation

To complete your fireplace installation, a fireplace grate will be required for safe operation. The fireplace grate must be sized to 50% of the hearth maximum. Additionally, a fireplace screen must be installed for safety.

### Placing the Logs

1. Place the front log on the grate in front of the burner pipe with the flat down and the heat chambers toward the burner pipe and the log as far forward as possible while keeping the back parallel with the burner pipe. Repeat for the second front log on the opposite side of the see-thru burner.
2. Place the top logs across the two bottom logs in the order and positions shown below.



### Fireplace Door Accessory

**IMPORTANT:** Only Crown-Breckinridge or McKenzie-Pendelton Doors are approved for use with this fireplace. For installation Instructions, see separate instructions included with doors.

### Owner's Operation & Precautions

Installers of the Mason-Lite are urged to call the attention of fireplace owners to the following precautions.

The installer should hand-deliver this owner's manual to the owner or leave behind with the unit after the installation is complete.

**Warning:** Use only the included fireplace grate or manufacturer approved replacement.

**Warning:** Do not attempt to operate your fireplace without a fire safety screen installed.

**CAUTION:** Use only the logs that come with this gas fireplace. The manufacturer cautions against using chemical chimney cleaners. **Never burn solid fuel in this fireplace under any circumstance.**

1. First Lighting of the Mason-Lite – After construction is completed, all elements of the fireplace and chimney system must be completely dry. This means that the unit must stand without any firing for a minimum of 28 days. Only after that period of time can a first lighting take place. Do not let the fire burn for more than one hour. After this first lighting – when the fireplace has started to “cure” Do not set another fire for at least 24 hours.
2. Second Lighting – With the second lighting you can let the fire burn two hours – no more.
3. After First and Second Lighting – When the fireplace has been properly cured with careful “maiden” firings, you will be able to run the burner for as long as you like.

### Attaching the Burner and the Grate

1. Unpack the burner assembly and place the rear legs of the burner into the brackets in the back of the firebox.
2. Thread the pilot lines from the burner pilot assembly and through the hole in the lower side of the firewall to the valve/control box assembly and attach to the valve.
3. Connect the supplied flex connector from the output of the valve, through the hole and to the burner.
4. Connect the second flex connector from the input of the valve to the gas stub down stream from the required manual shut-off valve.

Note: The required 1/8" NPT up stream pressure tap is built into the valve (**Figure 36**).

**CAUTION:** CHECK ALL CONNECTIONS FOR GAS LEAKS USING A HALF-AND-HALF SOAPY WATER SOLUTION.

IF A LEAK IS DETECTED TIGHTEN CONNECTIONS AND TEST AGAIN.

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.

5. Insert a one-way screw into the hole in the front of each bracket and tighten with a long (min. 12") screw driver until contact is made with the grate leg and the grate is permanently locked in place.

**IMPORTANT:** Once installed the burner cannot be removed.

6. Fill in the holes you have drilled around the gas piping with the regular MASON-LITE mortar.

### SURFACE CRACKS

The MASON-LITE FIREPLACES are manufactured

using high quality materials. During the drying process, surface cracking may occur. These small cracks (under 1/16" will not effect the fireplace safety or performance). During the assembly process, fill surface cracks with thin-set mortar and brush when drying for a smooth surface finish.

Removal of Creosote and Soot Formation – Creosote vapors are known to form in the relatively cool chimney flues of slow burning fires, hence, creosote residue collects on the flue lining. Because of soot and creosote build-up, it is recommended that the fireplace and chimney cleaning be done twice a year. In colder climates, cleaning should be done more often.

Always allow the fireplace to completely cool before you work on it, which means, of course, shutting off all gas and electrical connections, also.

Be certain that you use only solid fuel in your fireplace. You may use a natural or LP gas log lighter as a method to start your wood fire.

The flue damper must be in the OPEN position whenever there is heat in the fireplace.

**CUSTOMER SERVICE & PARTS REPLACEMENT:**

Parts and accessories may be purchased from your local dealer. Additional information is available from Masonry Fireplace Industries, LLC.

Accessory orders will be accepted by mail, or you may call your order in Monday through Friday from 8:00 a.m. to 5:00 p.m. (Pacific Standard Time) at: (800)-345-7078.

## Maintenance and Service

### Maintenance

Once installed and operating properly, the Mason-lite gas fireplace requires very little maintenance.

You should inspect the fireplace, chimney, burner and control annually for the following:

1. **Excessive Sooting** - Some sooting of the logs is normal and adds to the natural appearance of burned wood. If soot accumulates, you may brush the soot off with a stiff brush. Logs may also be cleaned by allowing them to heat up, then spraying them with water where soot has accumulated.
2. **Debris around the control** - Inspect the control and pilot to be sure it is free of any dirt or debris.
3. **Insects and burner blockage** - Check the burner ports and the air-mixer, if present, to make sure they are free from debris. Blocked burner ports and orifices may result in poor flame distribution or flame at air mixer (if equipped). Reference SOLUTION, to symptoms 2-4, of **Troubleshooting**.

### Service

It is recommended that a qualified professional service technician be called to service the gas fireplace and its venting system at least annually or should service be required. 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.

The Troubleshooting section of these instructions serves as a guide for ensuring optimum performance of the gas fireplace.

### Flame Appearance

The flames should be blue at the base and a combination of blue/yellow at the body and tips.

## Troubleshooting

PROBLEM	CAUSE	SOLUTION
1. Pilot will NOT stay lit.	a. Pilot generator may not be producing sufficient millivolts.	a. Check with a millivolt meter. Should be 250 millivolts or more.
	b. Pilot flame making a blowing sound	b. Pilot needs adjusting (see "Checking and Adjusting the Pilot" on page 22).
	c. Generator wire leads attached to the wrong terminals on the valve.	c. Connect leads per wiring diagram, previous page.
	d. Defective thermo-magnetic safety in valve.	d. Replace valve.
2. Pilot Burning. No Gas to Burner.	a. Safety valve not turned to the ON position after lighting pilot.	a. Turn to ON position.
	b. Wire leads are not properly connected to valve or switch terminals.	b. Attach all wire leads tightly to proper terminals (See wiring diagram, previous page).
	c. Voltage to pilot generator too low.	c. See section 1a above.
	d. Defective valve.	d. Replace valve.
3. Fireplace Not burning properly.	a. Low flame/uneven flame.	a. Check for low gas pressure; minimum operating pressures of 5" W.C. at manifold.
4. Fireplace will not shut OFF.	a. Control Switch lead wires to the valve may be shorted together or on wrong terminals.	a. See wiring diagram, previous page. System takes 15-20 seconds to complete shutdown (nominal).
5. Frequent pilot outage.	a. Pilot flame is out of adjustment.	a. See section 1b above.
	b. Down drafts from the chimney, extinguishing the pilot.	b. Check draft. Consult with a qualified chimney expert.
6. Fireplace shuts down during operation.	a. Improper venting causing spill switch to trip repeatedly.	a. Check draft. Consult with a qualified chimney expert. Consider installing a combustion air kit.
	b. Spill switch improperly mounted.	b. See section on "Installing Spill Switch and Baffle Assembly" on page 21.
	c. Smoke Diverter not in place.	c. Install Smoke Diverter with Spill Switch per instructions.
7. Excessive soot on logs.	a. Yellow flame impingement.	a. Open air shutter on front burner or main burner as needed.



## Appendix I

For installations regulated by the International Residential Code, the support foundation for the fireplace installed on concrete shall consist of a minimum of 6 inches thick reinforced concrete slab. The minimum specified compressive strength of  $f'_c$ , shall be as required in Table R402.2 of the International Residential Code (IRC). Concrete subject to moderate or severe weathering as indicated in Figure R301.2(3) of the International Residential Code (IRC) shall be air entrained as specified in Table R402.2 of the International Residential Code (IRC). The maximum weight of fly ash, other pozzolans, silica fume, slag or blended cements that is included in concrete mixtures for garage floor slabs and for exterior porches, carport slabs and steps that will be exposed to deicing chemicals shall not exceed the percentages of the total weight of cementitious materials specified in Section 4.2.3 of ACI 318. Materials used to produce concrete and testing thereof shall comply with the applicable standards listed in Chapter 3 of ACI 318.

For installations regulated by the International Building Code (IBC), the support foundation for the fireplace installed on concrete shall consist of a minimum of 6 inches thick reinforced concrete slab. The concrete strength and durability shall comply with Sections 1903, 1904 and 1905 of the International Building Code (IBC).

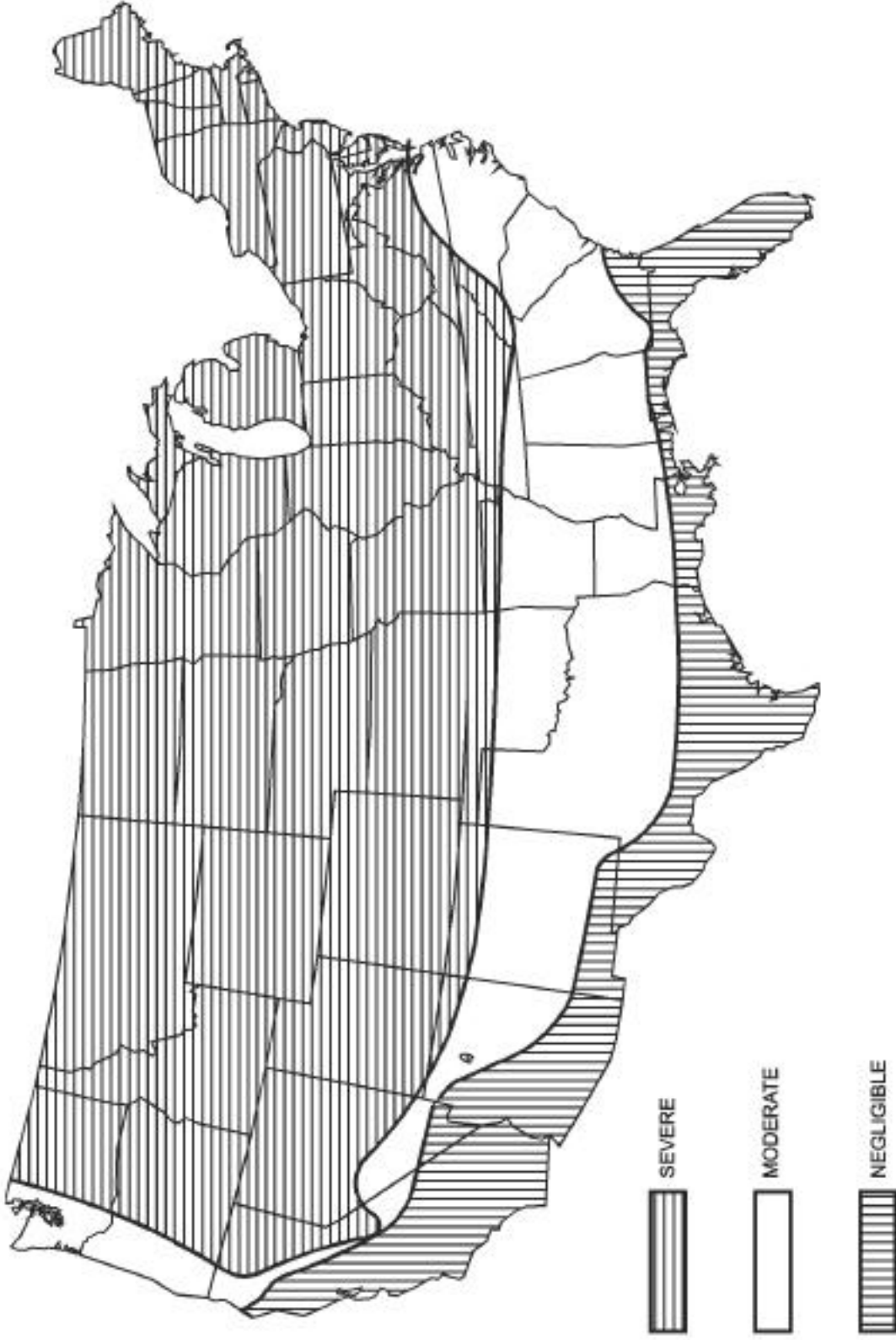
**TABLE R402.2 MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE**

<b>TYPE OR LOCATION OF CONCRETE CONSTRUCTION</b>	<b>MINIMUM SPECIFIED COMPRESSIVE STRENGTH<sup>a</sup> (<math>f'_c</math>)</b>	
	<b>Negligible</b>	<b>Moderate or Severe Weathering Potential<sup>b</sup></b>
Basement walls, foundations and other concrete not exposed to the weather	2,500	2,500 <sup>c</sup>
Basement slabs and interior slabs on grade, except garage floor slabs	2,500	2,500 <sup>c</sup>
Basement walls, foundation walls, exterior walls and other vertical concrete work exposed to the weather	2,500	3,000 <sup>d</sup>
Porches, carport slabs and steps exposed to the weather, and garage floor slabs	2,500	3,000 <sup>d,e,f</sup>

- a. Strength at 28 days psi.
- b. See Figure R301.2(3) for weathering potential.
- c. Concrete in these locations that may be subject to freezing and thawing during construction shall be air-entrained concrete in accordance with Footnote d.
- d. Concrete shall be air-entrained. Total air content (percent by volume of concrete) shall be not less than 5 percent or more than 7 percent.
- e. See Section R402.2 for maximum cementitious materials content.
- f. For garage floors with a steel troweled finish, reduction of the total air content (percent by volume of concrete) to not less than 3 percent is permitted if the specified compressive strength of the concrete is increased to not less than 4,000 psi.

## Appendix II

FIGURE R301.2(3) WEATHERING PROBABILITY MAP FOR CONCRETE



- a. Alaska and Hawaii are classified as severe and negligible, respectively.
- b. Lines defining areas are approximate only. Local conditions may be more or less severe than indicated by region classification. A severe classification is where weather conditions result in significant snowfall combined with extended periods during which there is little or no natural thawing causing deicing salts to be used extensively.

# Lifetime Limited Warranty

## MASON-LITE FIREPLACE

Masonry Fireplaces Industries, LLC (MFI) warrants all Mason-Lite Fireplaces to be free from defects in materials that adversely affect fireplace performance for the lifetime of the product from the date of purchase, subject to the terms and conditions of this limited warranty. MFI does not warrant accessory chimney, outside air ducts and devices not manufactured by MFI.

This warranty covers only products manufactured by MFI, specifically the modular concrete firebox, and **NO WARRANTY, EXPRESS OR IMPLIED, EXTENDS TO ANY OF THE HARDWARE, FOUNDATION, VENTING, DUCTS, OR ACCESSORIES. THIS WARRANTY DOES NOT COVER DRAFTING, SMOKING, OR SOOTING OF THE FIREPLACE SYSTEM.** Factors beyond the manufacturer's control affect drafting, smoking, and sooting and MFI cannot guarantee these aspects of performance.

Coverage under this warranty is subject to the following conditions and exclusions:

- This warranty is null and void when the fireplaces are not installed pursuant to the installation instructions provided by MFI or local building codes have not been followed completely.
- Glass is warranted against thermal breakage only and only on models that are manufactured by MFI with a glass front. On Direct Vent models the safety glass or safety screen must be kept in front of this glass when fireplace is in use. Safety screen must be used on all models when in use.
- This warranty does not apply to any component or part that shows evidence of misuse, abuse, improper installation, accident or lack of regular maintenance. MFI is not responsible for misuse or mishandling of component parts.
- This warranty does not apply to any damage sustained to the appliance while in transit.
- Neither MFI, nor any affiliate thereof, is responsible for any labor costs or indirect costs incurred for the replacement of defective components. Any covered component that, in our judgment, is defective shall be repaired, replaced or refunded at MFI's option.
- Nothing in this warranty makes MFI, or any affiliate thereof, liable in any respect for any injury or damage to the building or structure in which the fireplace has been installed or to the persons or property therein arising out of the use, misuse, or installation of properly manufactured MFI products.
- The fireplace must be used in accordance with operating instructions. The grate or andirons must be installed when using the fireplace.

NEITHER MFI, NOR ANY AFFILIATE THEREOF, SHALL BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THE FIREPLACE. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

If a component is found to be defective under the terms of this warranty, the party this warranty is extended to shall notify MFI, 6391 Jurupa Ave., PO Box 4338, Riverside, CA 92514 in writing, by registered mail, within thirty (30) days following the discovery of the defect within the lifetime warranty period. The letter shall include proof of purchase and state the (1) date of purchase, model number and serial number ; (2) place of purchase; (3) address of installation; (4) name, address and phone number of the homeowner; and (5) a brief description of the defect.

This warranty applies only to those fireplaces installed in the continental United States, Alaska and Canada. If any part of this warranty is found to be unenforceable, the remaining parts shall remain in force and effect.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, TERMS OR CONDITIONS, EXPRESS OR IMPLIED EITHER IN FACT OR BY OPERATION OF LAW. MFI HEREBY DISCLAIMS ALL GUARANTEES AND WARRANTIES, EXPRESS OR IMPLIED, BEYOND THE WARRANTIES SET FORTH HEREIN, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Revision date: 1/29/2015

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