

Models:

MGFPST-43(P)



With Safety
Pilot System
remote control
valve

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 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.

INSTALLER: Leave these instructions with consumer.
CONSUMER: Retain for future reference.



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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DO NOT REMOVE THIS LABEL

See MFI's installation and operating instructions for this model. Contact local building officials about restrictions and installation specifications in your area.

MFI Masonry Fireplace Industries, LLC
315 WEST 3RD ST.
SANTA ANA, CA 92701

DATE OF MFG. SERIAL No.

PFS Tested & Listed By
US
Report No. (TBD)

MODEL No.: **MGFPST-43** GAS TYPE: **NG** **LP**

<p>⚠ WARNING: 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>⚠ 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.</p>	<p>⚠ WARNING: Use only approved, listed 12" B-Type vent chimney, a DM-12-12" system, a UL 103 chimney or a 12" class A chimney if preferred. Refer to pipe mfg. installation instructions.</p> <p>Chimney Height: Max.: 40 ft. Min.: 14 ft. (17 ft. with 1 or 2 offset sections maximum)</p>	<p>FIREPLACE CLEARANCES TO COMBUSTIBLES:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>UNIT FRONT, SIDES, REAR.....</td><td style="text-align: right;">0" (0 mm)</td></tr> <tr><td>COMBUSTIBLE FLOOR.....</td><td style="text-align: right;">0" (0 mm)</td></tr> <tr><td>COMBUSTIBLE SHEATHING ABOVE OPENING TOP.....</td><td style="text-align: right;">8" (200 mm)</td></tr> <tr><td>SHEATHING OR TRIM TO OPENING SIDES.....</td><td style="text-align: right;">12" (300 mm)</td></tr> <tr><td>OPENING TO SIDE WALL.....</td><td style="text-align: right;">20" (500 mm)</td></tr> <tr><td>HEARTH EXTENSION BEYOND SIDES.....</td><td style="text-align: right;">12" (300 mm)</td></tr> <tr><td>INSULATION FROM FIREBOX.....</td><td style="text-align: right;">0" (0 mm)</td></tr> </table> <p>FOR MANTEL CLEARANCES CONSULT OWNER'S MANUAL.</p>	UNIT FRONT, SIDES, REAR.....	0" (0 mm)	COMBUSTIBLE FLOOR.....	0" (0 mm)	COMBUSTIBLE 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)
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THIS APPLIANCE NEEDS FRESH AIR FOR SAFE OPERATION AND MUST BE INSTALLED SO THERE ARE PROVISIONS FOR ADEQUATE COMBUSTION AND VENTILATION AIR.

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.

rev 20 JUN 2009

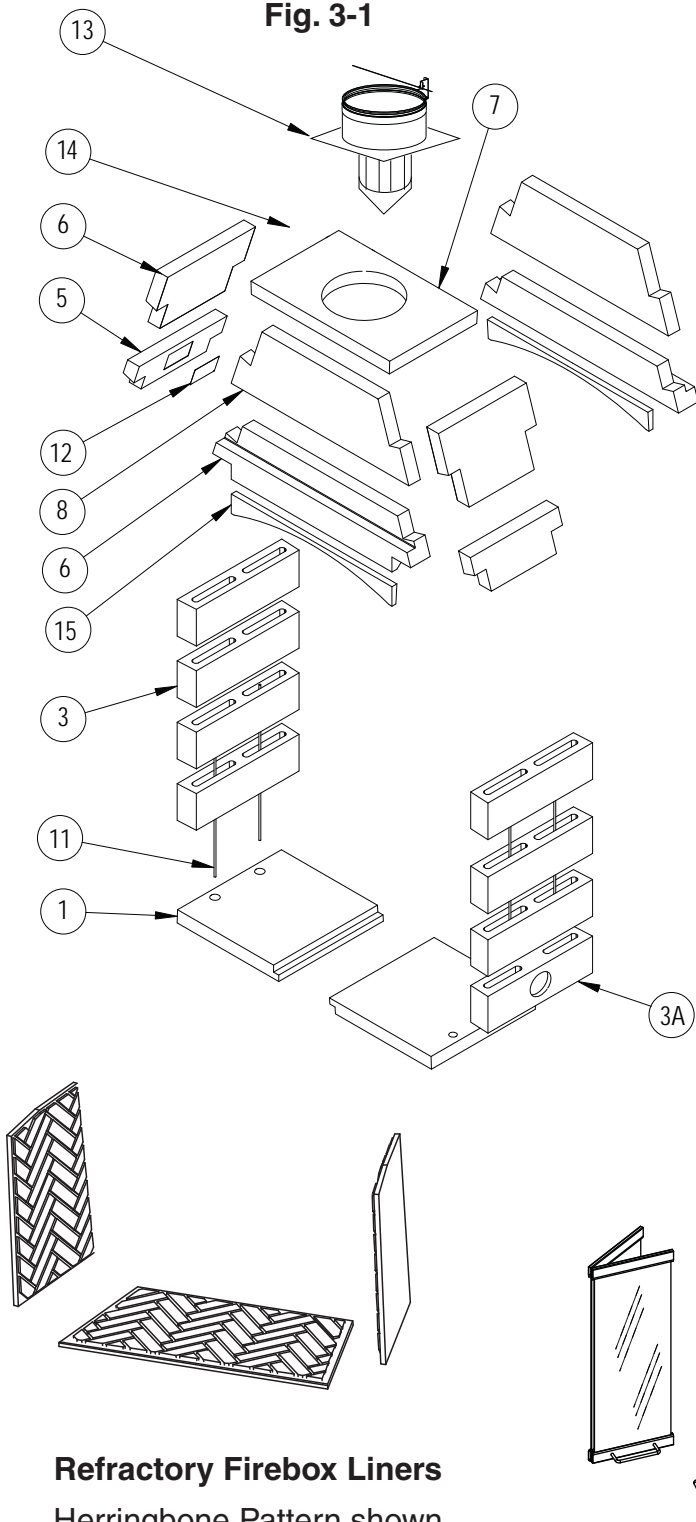
⚠ WARNING: This gas appliance must not be connected to a chimney fuel servicing a solid fuel burning appliance.

⚠ WARNING: THIS FIREPLACE IS NOT INTENDED FOR BURNING SOLID FUELS.

Fireplace Parts List

MGFPST-43
Exploded Parts Diagram

Fig. 3-1



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	QTY	Description	Part #
15	2	Lintel trim (optional)	MFP-ARC49
14	1	Insulation blanket Ø 16 anchor plate/damper	MFP423
13	1	Vent plate assembly	MFP-215
12	1	Rating plate, MFPST43	MFP16
11	4	#3 Rebar (Ø 3/8" x 36"	MFP49-11
10	2	Dome front / rear - upper	MFSTP-43-10
9	1	Dome top for 16" class A chimney	MFPST-43-9
8	2	Dome side - upper	MFPST-43-8
7	2	Dome side - lower	MFP-43-7
6	2	Lintel	MFP-43-6
3A	1	Side wall w/4" knockout	MFP-43-3A
3	7	Side wall	MFP-43-3
1	2	Hearth (left or right)	MFPST-43-1

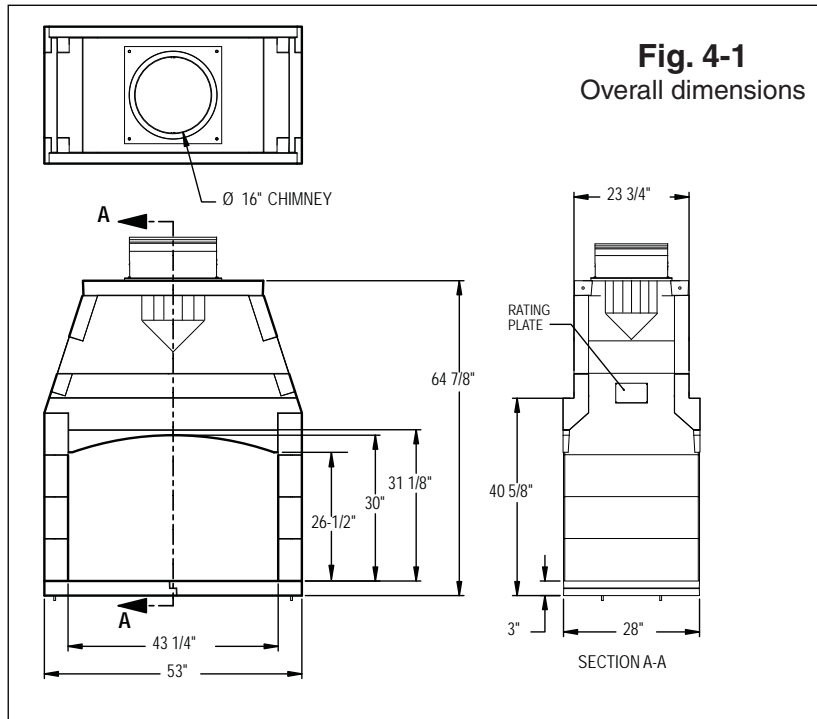
Refractory Firebox Liners

Herringbone Pattern shown
Also available in Running Bond
MFP43STSHBL - Herringbone
MFP43STFRBL - Running Bond

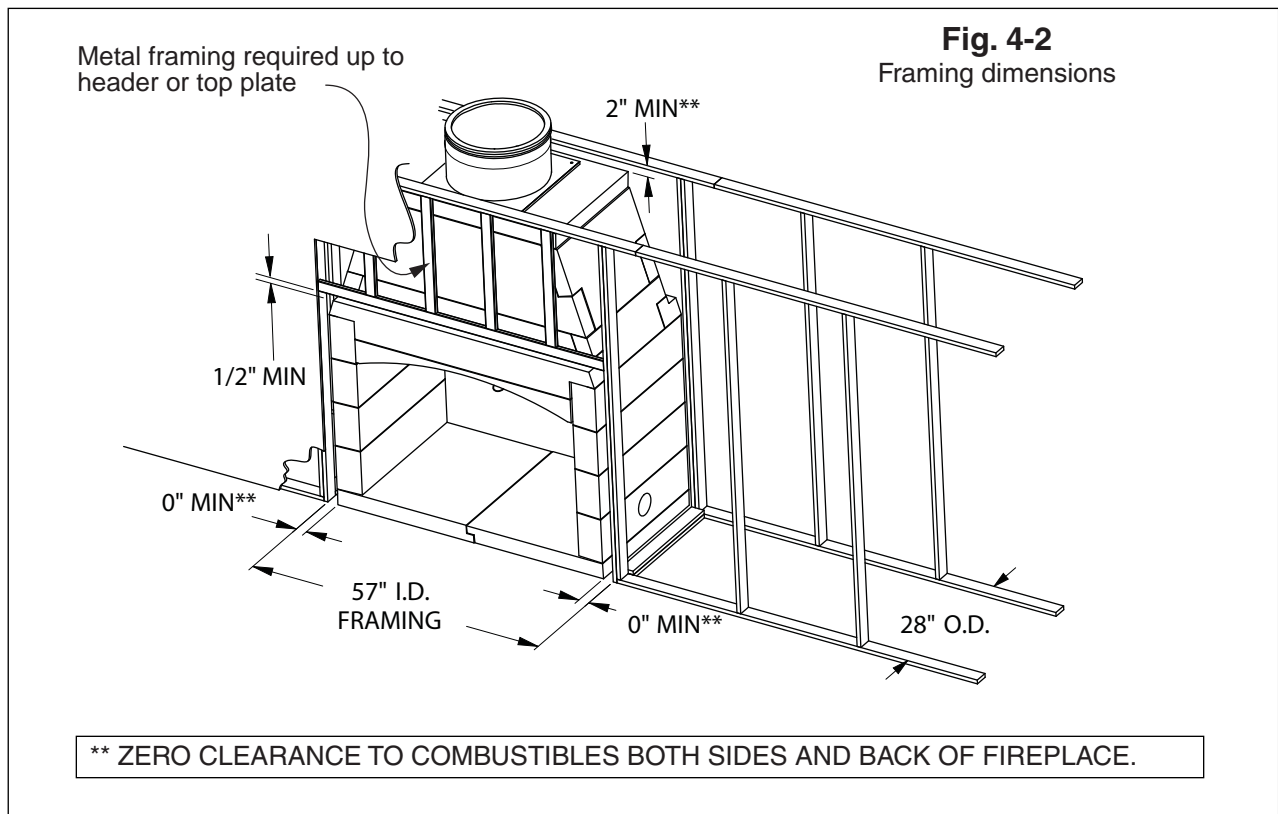
Only the following doors have been tested and approved for use with this fireplace:

Crown-Breckinridge
or
McKenzie-Pendelton

Fireplace Overall Dimensions



Fireplace Framing Dimensions

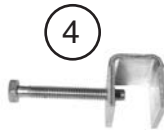
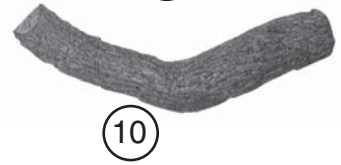
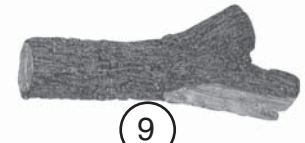
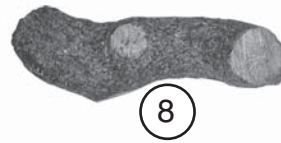
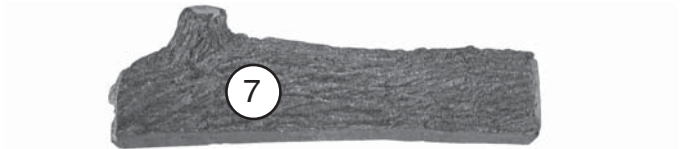
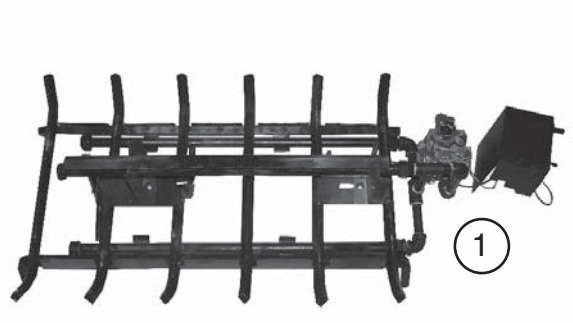


WARNING

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.

Burner and Logs Parts List

Item No.	QTY	Description
1.	1	Valve, Pilot, Burner assembly
2.	1	Remote kit
3.	1	Connector kit
4.	1	Damper clamp ???
5.	1	Lava Rock (qty of 4)
6.	1	Front bottom log 30"
7.	1	Front bottom log 30"
8.	1	Top log 18"
9.	1	Top log 18"
10.	1	Top log 20"
11.	1	Top log 17"



Photos not to scale.

Contact Mason-lite® for replacement parts and accessories as listed in these parts lists.

Important Pre-installation Information

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

This fireplace 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.

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.

Burner p/n	BTU* (x 1000)	Orifice drill size (top/front)		Included in
		Nat.	LP	
MGFPST-43(P)	90	23/45	44/55	MGFPST-43

*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.

Installing the Gas Fireplace

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 WITH OPTIONAL GLASS DOORS: CROWN-BRECKINRIDGE OR MCKENZIE-PENDELTON ONLY.

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.

GUIDELINES FOR USE

All current and future users of Mason-Lite™ Fireplaces are charged with the responsibility for full knowledge of the information contained within 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 shoulders 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™ 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. Also, if installing an ANSI Z21.60 Decorative Gas Log, read the gas log appliance manufacturer's literature regarding sizing and suitability for the installation into this Enclosure prior to installation.

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 solid fuels such as cord wood.

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 Three Components of the Mason-Lite™ Fireplace:

- Combustible or Non-Combustible Floor
 - Non-Combustible Raised Platform
 - MASON-LITE Firebox and Smoke Dome
 - 12" B-vent or UL 103-12" class A listed chimney system required.
- 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 as it relates to combustible materials.

Installing the Gas Fireplace

- 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!

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 16.

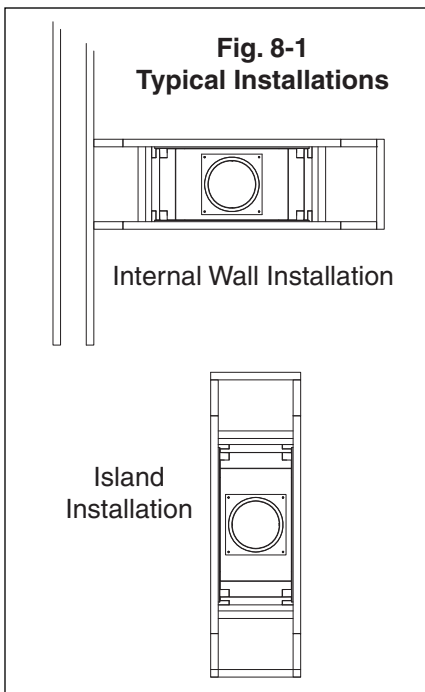


Fig. 8-1
Typical Installations

Internal Wall Installation

Island Installation

Clearance 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" (200mm)
- Sheathing or trim to opening sides: 8" (200mm)
- Mantel above opening: (refer to Fig. 8-2)
- Opening to sidewall: 24" (500mm)
- Hearth extension beyond front: 20" (500mm)
- Hearth extension beyond sides: 12" (300mm)
- Insulation from firebox: 0"

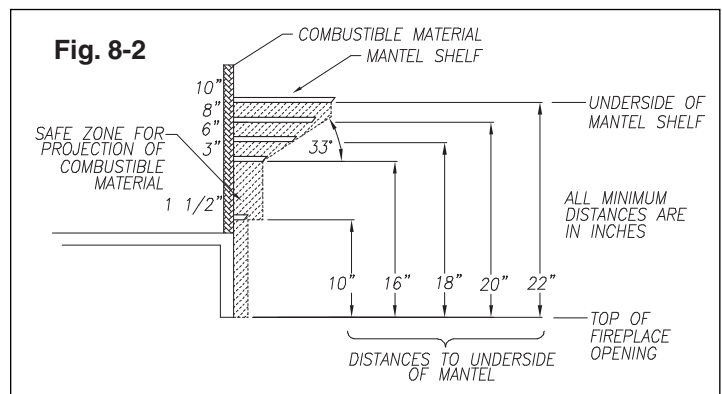


Fig. 8-2

Understanding Clearance to Combustibles

There is a slight build-up 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

MGFPST-43 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

Installing the Gas Fireplace

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.

Fireplace Heights

When installed, the maximum overall height of the Chimney System 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.

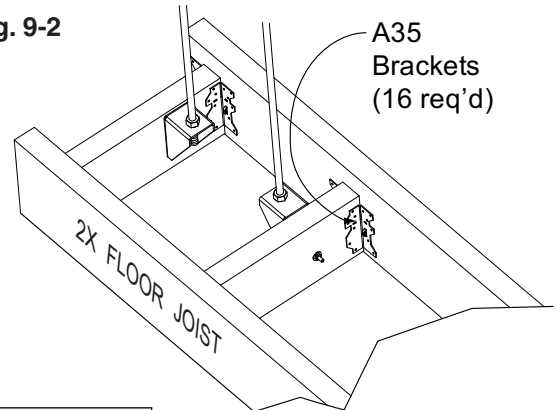
Supporting Floor Systems

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

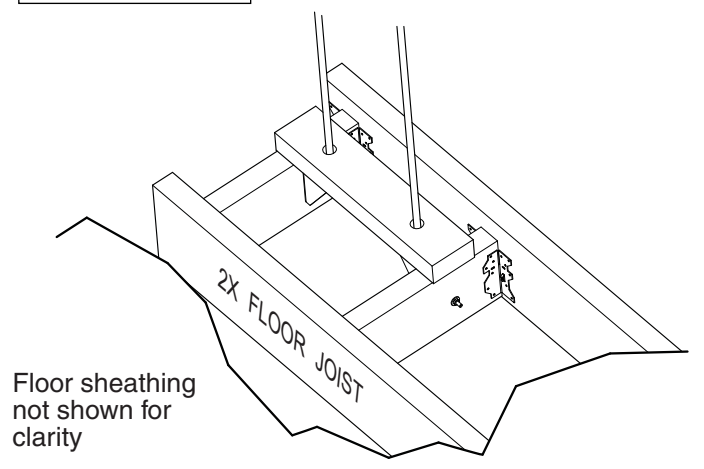
WARNING to the licensed design professional and/or building contractor: It is your responsibility to be certain that the Mason-Lite can be properly supported by the combustible floor system on which the fireplace will rest.

For fireplace support foundations installed on concrete refer to Appendix I (page 18) for specific instructions.

Fig. 9-2



Example only



Rebar locations

Lay-out the position of the fireplace and drill holes where the rebars will be located. Secure eight #3 rebars 4 inches into concrete foundation with ITW Epoxy or Simpson Epoxy.

Follow manufacturer's instructions for installation of rebar into slab.

Wood Floor

Fig. 9-1

For other than floor framing anchor rods, see Fig. 10-2 for method of connecting firebox rear wall anchors.

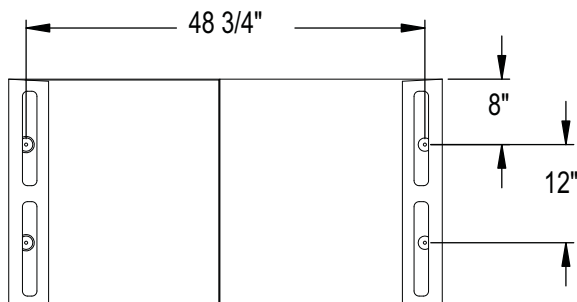
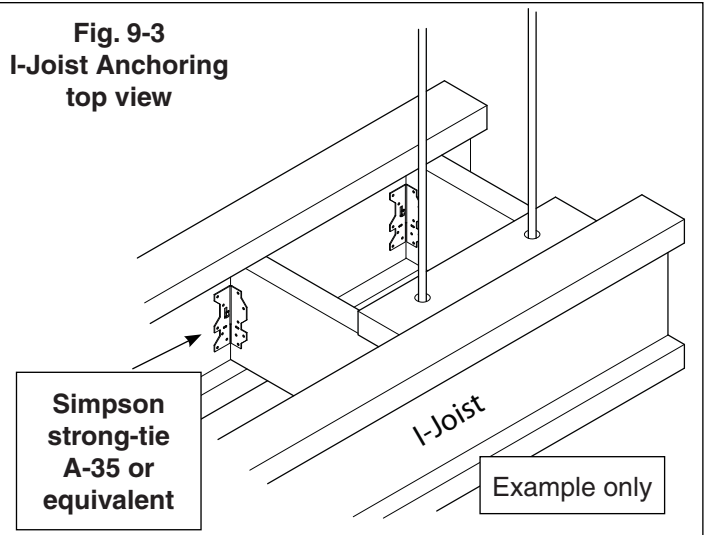


Fig. 9-3
I-Joist Anchoring
top view



Installing the Gas Fireplace

Anchorage of fireplace to wood floor construction is required. Refer to Fig. 9-2 for anchorage locations. Four anchors are required to attach to the sub-flooring framing. Crawl Space or Upper Floor:

chimney. Where the floor joists run parallel to the front of the firebox, anchorage can be accomplished in like manner as shown in Fig. 10-1 using blocking between the floor joist.

For floors supported by I-Joists, the method of anchorage is illustrated in Fig. 9-3 and 10-1. Fig. 10-2 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 are noted in Table I for each MASON-LITE unit model. 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 Fig. 10-2 for anchor rod dimensions.

Attach the firebox side wall anchors to steel support frame by inserting all-thread rods through holes on the bottom flange on the steel support frame as shown in Fig. 10-2. 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

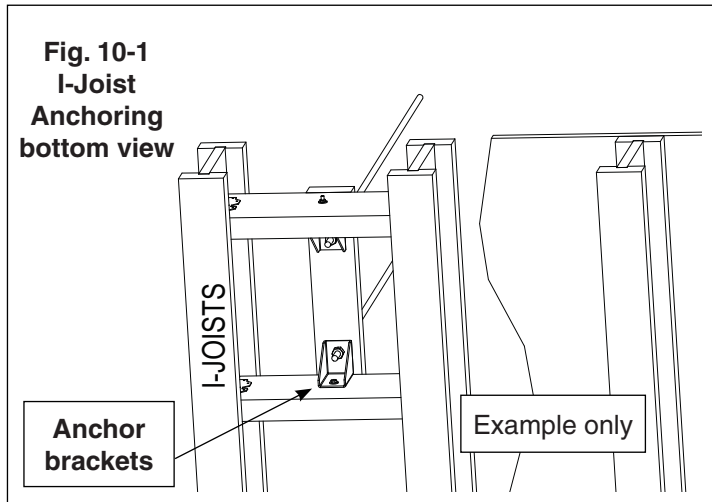
The following are dead load weight estimates for the Mason-Lite™ Fireplace.

Table I	
	MFPST43
Fireplace	845 lbs.
Damper/Anchor Plate, Firebrick & Mortar	350 lbs.
Floor Area	53" x 28" (10.3 ft ²)

Other Weight Considerations:

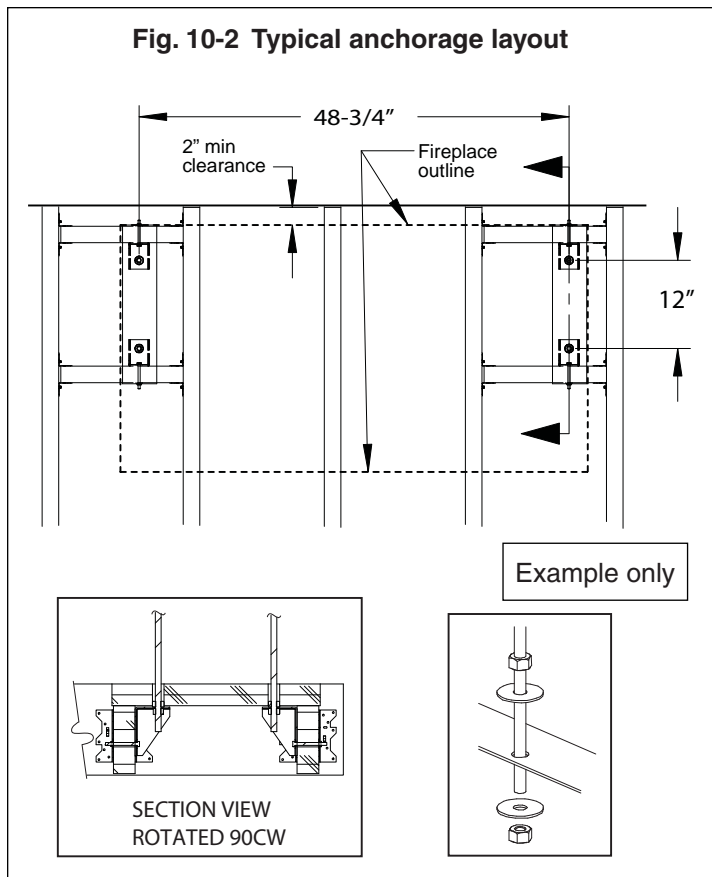
- 1) Fireplace finished facing (surround): This information needs to be obtained from the contractor.
- 2) Weight of metal flue: See chimney manufacturer's weight specifications. Some chimney systems can weigh up to 50 lbs per lineal foot.

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.



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 Fig. 9-2 thru 10-2 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



Installing the Gas Fireplace

Mason-Lite™ Component for combustible floors

Hearth Ember Shield:

Metal safety stripping is required between the front of the Fireplace Hearth and Hearth Extension (not supplied). A 26 gauge galvanized 4" wide metal strip can be used. The length needs to extend 2 inches beyond each side of the fireplace opening. If two strips are used, make sure they overlap at least two inches in the middle. The strip is placed about 2" into the underside of the MASON-Lite Fireplace at the front.

Note: When using an on-site-constructed hearth extension, you may use a sand-cement grout between the hearth and extension.

The Firebox and Smoke Dome

Overview

You will find that the MASON-LITE Fireplace is designed for complete assembly at your construction site with all necessary items delivered, 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 light weight aggregate.

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!

The design of the fireplace calls for the installation of an anchor plate/damper system which can be purchased from any chimney manufacturer or MFI. Also, an optional combustion air inlet MFP4-AK can be obtained from MFI. A Refractory Firebrick Liner also needs to be installed. This should be a minimum of 1-1/8" (one and one-eighth inches) thick. The liner will be applied within the walls of the firebox.

Materials and tools you will need to have on hand before you start the install:

Materials needed for concrete slab (non combustible) 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 (at least one 50 lb. bucket, two for MFP63)

Materials needed for combustible wood floor installation:

1. Eight 12" long, 1/2" all thread with (24) nuts and washers
2. Eight pieces 3/8" rebar x 36" long (included with unit)
3. Four or more fasteners to attach metal base to floor joists

4. Mason-Lite Mortar (at least one 50 lb. bucket, two for MFP63)

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

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

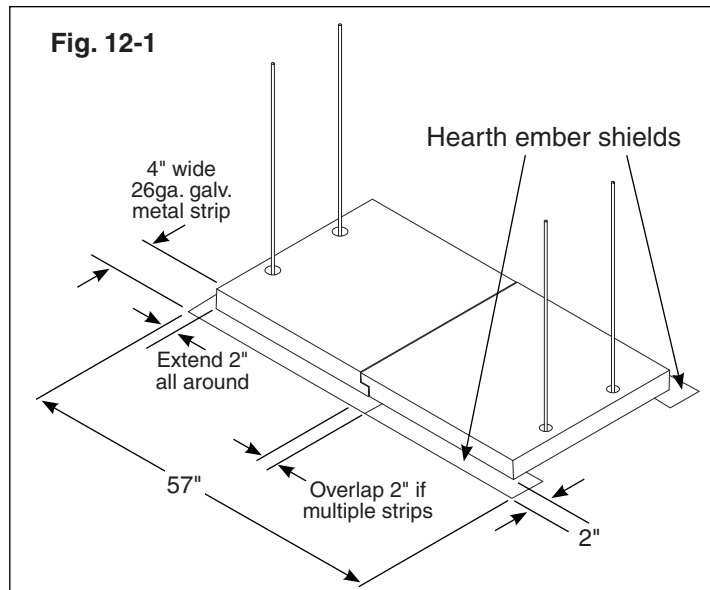
Installing the Gas Fireplace

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.

Fireplace Assembly Procedures

- 7) Place the Mason-Lite™ Fireplace hearth base on top of your hearth ember shields. For concrete slabs, supporting floor needs to be rated at ASTM 90.
- 8) a) **Combustible Floor Installations:** Place hearth slabs on top of combustible floor. All-thread rods should stick up through the holes on the hearth slabs.
b) **Non-combustible Floor Installations:** Mix a batch of mortar and place on concrete slab making sure full contact is achieved.



- 9) 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.
- 10) Prepare side wall footprint with the prepared mortar. Follow instructions from step 2 for proper mortar placement.
- 11) 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.

Fig. 12-2
Setting Firebox sides

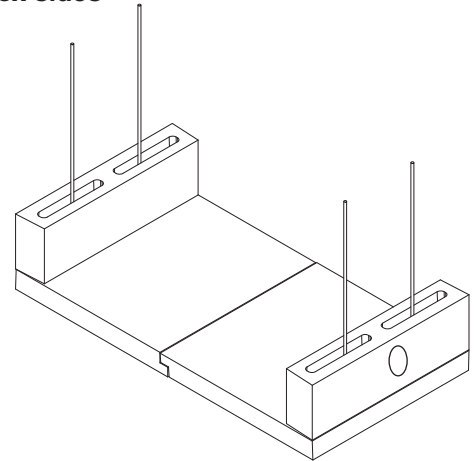
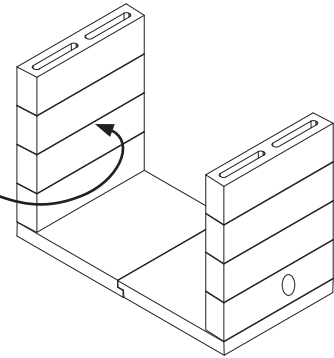


Fig. 12-3

Keep damp at all times while applying mortar.



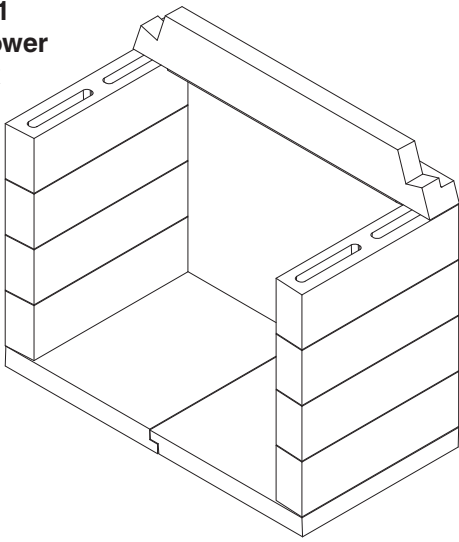
IMPORTANT! Keep in mind that, when applying the mortar, you must frequently run a damp sponge to the parts before mortar is applied.

- 12) 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 rebars 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.
- 13) Set the lintel in place as shown in Fig. 13-1. 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.

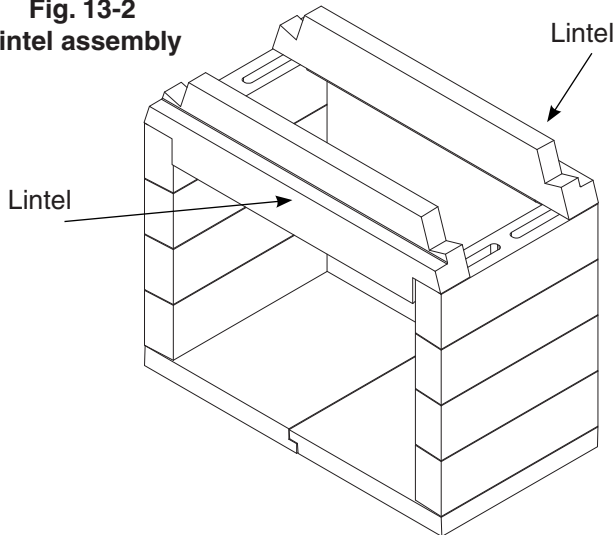
Installing the Gas Fireplace

Fig. 13-1
Building lower
firebox



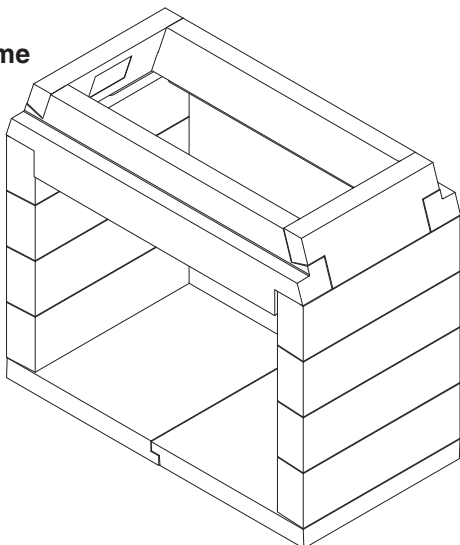
14) Set the remaining lintel as shown in Fig. 13-2.

Fig. 13-2
Lintel assembly



15) 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 Fig. 13-3). Top surfaces should be level.

Fig. 13-3
Lower side dome
assembly



16) Now position the front/rear smoke dome parts on top of dome. These parts require care in leveling, noting the parts have a slight bevel. Check for vertical with level (Fig. 13-4).

Fig. 13-4
Lower dome
assembly

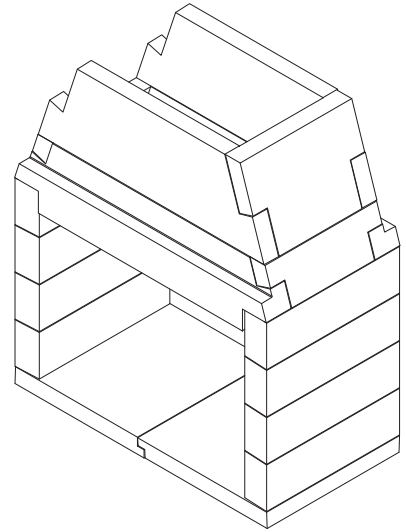
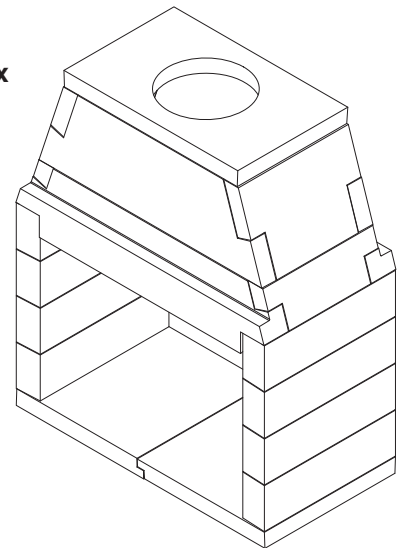


Fig. 13-5
Completed firebox



17) 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.

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

Vent Plate

The first consideration is connecting the Mason-Lite Firebox to the a B-vent or UL-103 Metal Chimney System is installa-

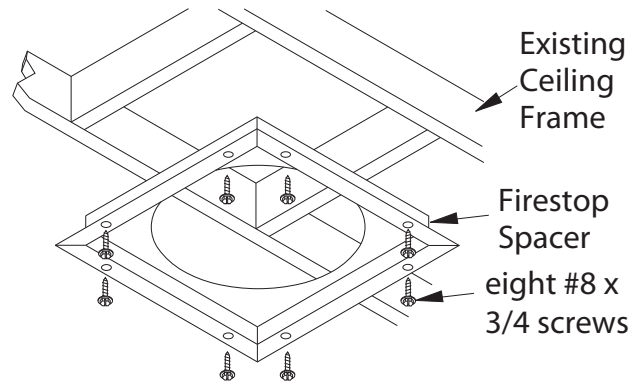
Installing the Gas Fireplace

tion of the steel vent plate. The vent plate is to be installed in the vertical (open) position on the outside of the vent pipe and is designed to close off the chimney in the event the pipe is removed or fails thus alerting the operator of a problem. The next step is attachment of the masonry anchor plate (supplied). The anchor plate is pre-drilled with holes for four cement wedge-anchors.

- 19) Place the plate and mark the top of the firebox. Then remove the plate to carefully pre-drill holes for the wedge anchors.
- 20) Using the supplied vent plate, apply a 1/4" (one-quarter inch) bead of gasket cement around the base damper lead pipe. Apply ceramic rope gasket on to the gasket cement.
- 21) Apply balance of gasket cement in a 1/4" (one-quarter inch) bead on top of smoke dome top approx. 3" (3 inches) outside of outlet hole. Install damper on top of unit pressing damper into cement. Attach using four (4) #8 cement wedge-anchors.

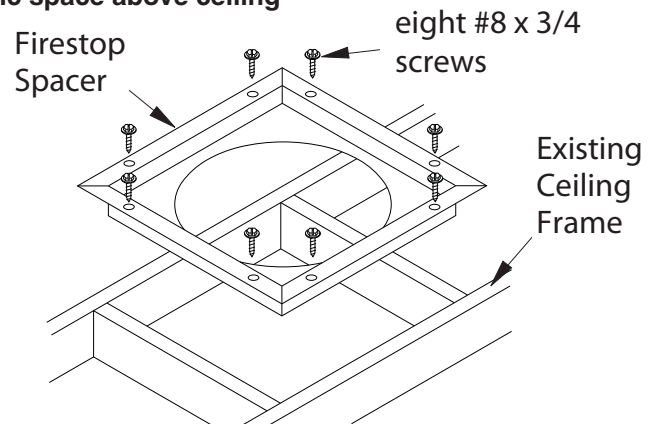
framed opening into an attic space, the restop must be placed into an attic floor as shown in Fig. 17-1.

Fig. 14-2 Firestop Spacer with living space above ceiling



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

Fig. 14-3 Firestop spacer with attic space above ceiling



Mason-Lite™ Firebrick Liners

IMPORTANT: Regardless of whether you install a custom or modular liner, the provided grate-leg lock brackets must be installed after the floor of the liner is installed, and prior to the side walls being installed. The brackets are to be installed on the side of the fireplace that is opposite the gas supply.

Insert each bracket underneath the side bricks as shown (next page) and cement in place.

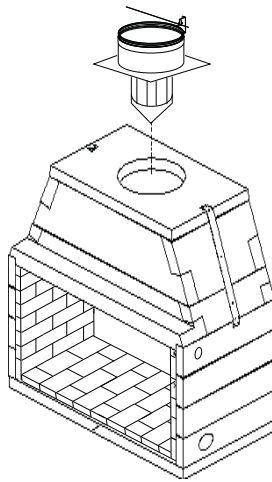
Custom Firebrick Lining

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 exploded parts page for details.

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.

Please use a certified mason to lay-in the brick. He will follow

Fig. 14-1 Vent plate installation



Attention: Clearance to combustible construction can not 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.

- 22) 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.

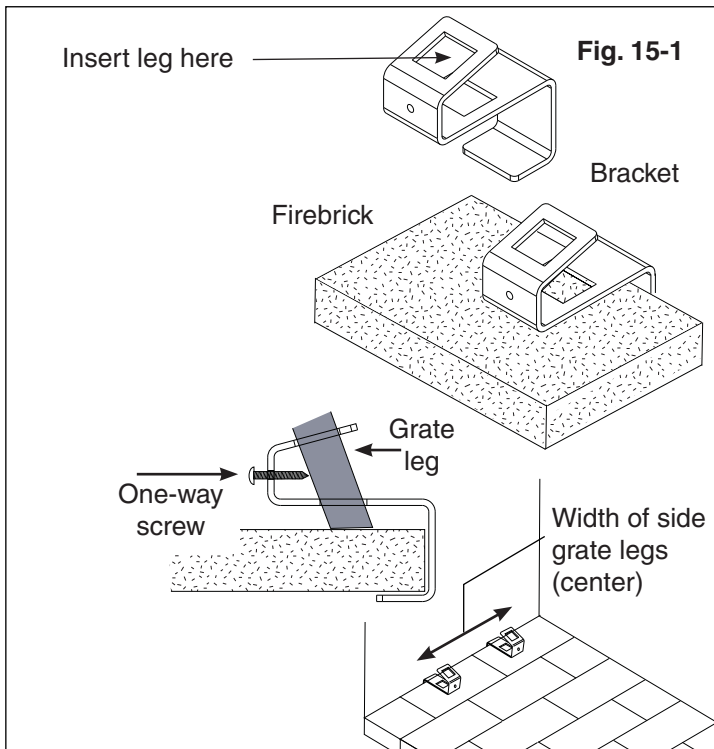
WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.

Firestop Radiation Shield

A Firestop Radiation Shield is required in multistory 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

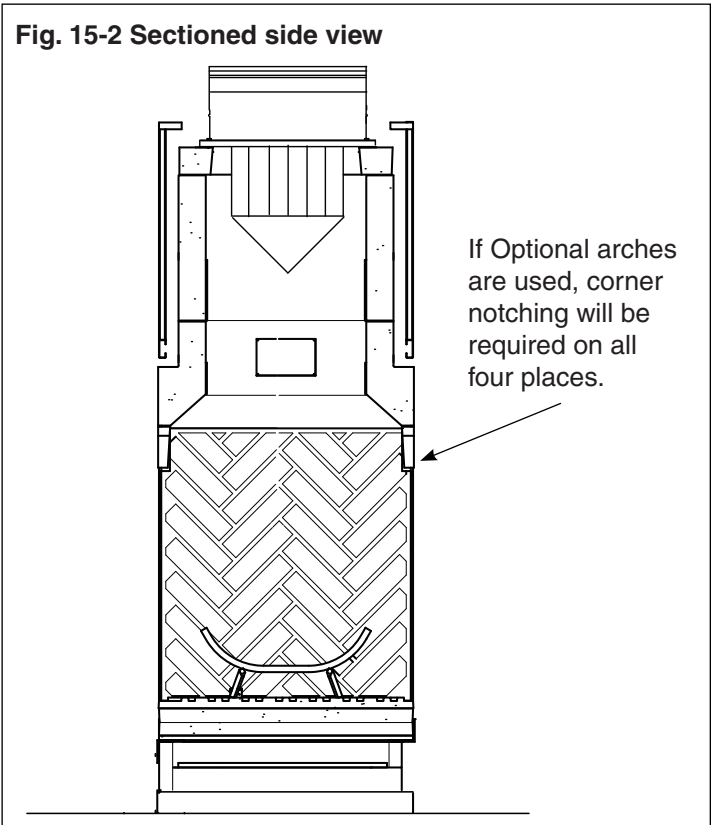
Installing the Gas Fireplace



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

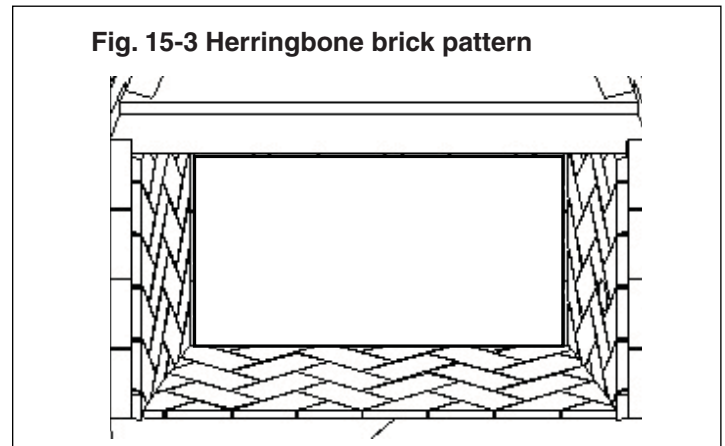


firebrick or the firebrick mortar performs. It is not unusual in the course of the life of the firebrick, or the firebrick mortar, for heat stress cracks to appear. MFI cannot be responsible for this and other wear and tear to the firebrick and mortar.

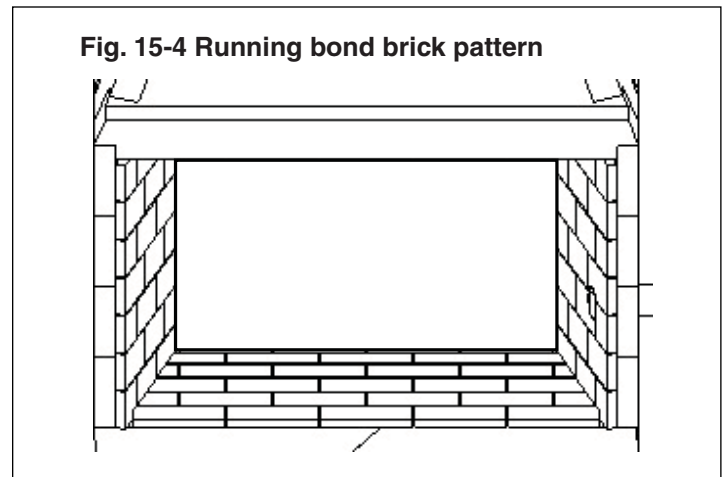
Modular Firebrick Lining

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 gas lines, 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 (see Fig. 18-1).

The following Firebrick Liners are available from MFI:



MFPST43SHBL- Herringbone



MFPST43FRBL- Running Bond

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

Installing the Gas Fireplace

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. Note that it is required that metal safety strips must be laid on the floor of the non-combustible raised platform. These should be 26 gauge and measure 4" (four inches) wide. They need to extend half way under the platform and half way under the hearth extension material (see Fig. 14-1).

Attention: You will note that there will be a gap between the fireplace front and the extension of the non-combustible hearth material. Be certain that you seal this with non-combustible material.

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 Fig. 10-2.

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 MFP4-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 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.

Adding a Gas Pipe

You may elect to add a vented decorative gas appliance (gas log) to your Mason-Lite Fireplace. If so, follow the installation instructions from the Decorative Gas Appliance manufacturer. Familiarize yourself with requirements for installation as outlined by the National Fuel Gas Code, ANSI Z223.1. This gas pipe provision should only be used on a decorative gas appliance.

1) You can route the gas piping practically anywhere in the firebox – the floor, back wall or side walls. You will just need a masonry drill; the instructions from the gas appliance manufacturer will be very straightforward.

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

3) Follow the Gas Log manufacturer's instructions.

Adding Electrical Connection

Like the gas line, electrical feed lines can be run through the floor, back wall, or side walls. Follow local building and electrical code requirements.

MASON-LITE Chimney Systems:

The Mason-Lite Fireplace requires the following chimney system(s):

All chimney systems must be installed with an anchor plate installed on top of unit. 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 the most important aspect of the installation is maintaining the minimum required clearances to combustible materials 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.

Attention: When choosing a Chimney System it must meet the following requirements:

- Designed for installation in accordance with the National Fire Protection Standard and UL 103.
- Meets the requirements of NFPA 211.
- Designed in accordance with ICC Codes.

Installing the Gas Fireplace

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.

Installing Chimney System

The Anchor Plate assembly is required for the installation of these chimney systems. Consult the Chimney System manufacturer's instructions.

1. Using the Anchor Plate Assembly, apply a 1/4" (one-quarter inch) bead of gasket cement around the base of the Anchor Plate. Apply ceramic blanket gasket to the gasket cement.
2. Apply balance of gasket cement in a 1/4" (one-quarter inch) bead on top of smoke dome top approx. 3" (3 inches) outside of outlet hole. Install damper on top of unit pressing damper into cement.
3. Place chimney adapter onto top of damper plate and center in opening using gasket supplied with adapter.
4. Attach adapter with (12) #8 cement fasteners supplied, carefully drilling holes into damper plate.
5. Attach damper chain stop on center rear of lintel 3" (three inch) vertical from opening using (3) #8 cement fasteners.

when building the framework for the chimney system.

Fireplace Door Accessory

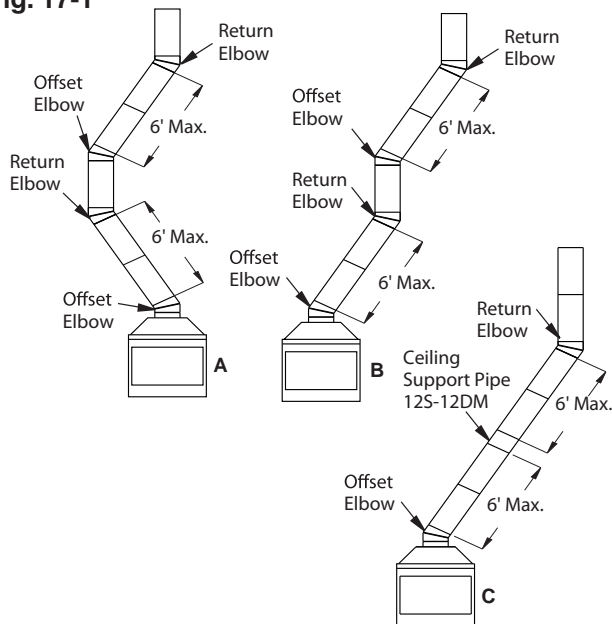
IMPORTANT: Only Crown-Breckinridge or McKenzie-Pendelton Doors are approved for use with this fireplace. For installation Instructions, see separate instructions included with doors.

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 1:00 p.m. to 5:00 p.m. (Pacific Standard Time) at: (800)-345-7078.

Fig. 17-1



Mason-Lite™ Fireplace	Chimney System
MGFPST-43	B-vent or UL103-12" I.D. Class A

Attention: Clearance to combustible construction cannot be reduced during course of construction. For the safe operation of the finished fireplace, these clearances must be followed

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

TABLE R402.2 MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE

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

1903, 1904 and 1905 of the International Building Code (IBC).

- 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.

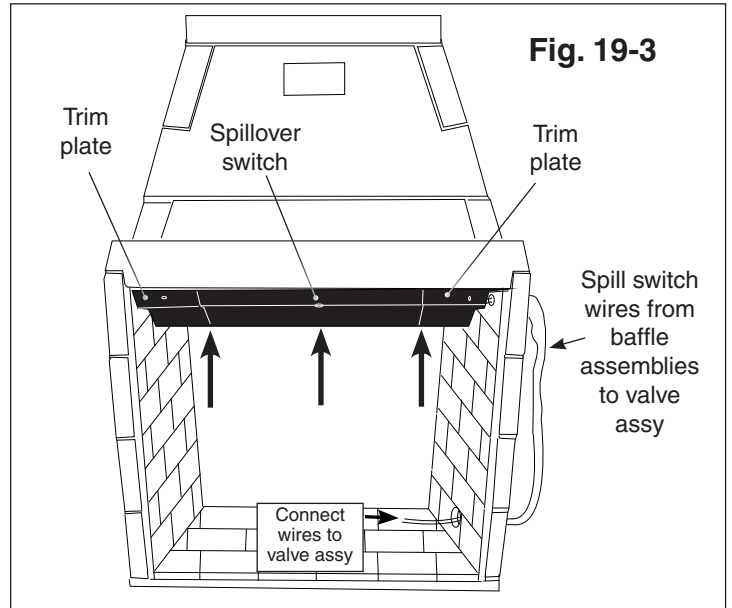
Installing the Spill Switch and Baffle Assembly

Installing Spill Switch and Baffle assembly

1. Locate the baffle assy with two wires. Center it with the spill switch sensor pointed toward the room (out of the fireplace). Run the spill switch wires out of the top hole in the front right side of the fireplace (Fig. 19-3).
2. Use six (6) drywalls screws to fasten it in place on the front-most part of the firebox ceiling as shown through the six (6) predrilled holes.
3. 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.
4. Repeat this procedure for the baffle assembly (with one wire), on the opposite side of the fireplace.

Important: These baffle assemblies and only the supplied assemblies (with spill switches) must be properly installed for the safe operation of this gas fireplace.

4. The **long** spill switch wires coming out of the two top fireplace holes must be routed down and back into the fireplace through the lower hole as shown in Fig. 19-3. Connect the spill switch wires to the valve assembly. The valve assembly has two open brown wires (male and female) for the spill switch wires connection. The **short** spill switch wire is to be routed across and into the top hole on the opposite side of the fireplace. Connect the wire to the opposite baffle assembly.



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 it the installation is complete.

Warning: Use only the included burner system.

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 burn the system 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 Lightings – 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.

Fig. 19-1

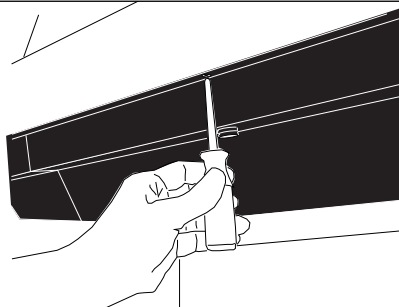
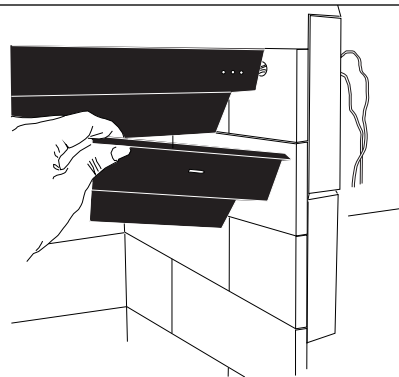


Fig. 19-2



Installing the Gas Burner

Attaching the Burner and the Grate

1. Unpack the burner assembly and place the side legs of the burner into the brackets on the side of the firebox (see Fig. 15-1).
2. Connect the supplied flex connector to the input of the burner valve, from 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 (Fig. 20-1).

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.**

3. Insert a one-way screw into the hole in the front of each grate 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 (see Fig. 15-1).
4. Place the heatshield over the valve.

Important: Once installed the burner can not be removed.

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

Checking and Adjusting the Pilot (if necessary)

1. Follow the lighting instructions to light the pilot. The pilot flame should encircle the generator tip which is preset at the factory (Fig. 20-2). Ordinarily, the pilot will not require field adjustment.
2. If adjustment is necessary, remove the cap screw (Fig. 20-1) and turn the smaller gas adjustment screw inside counterclockwise to increase the pilot flame and clockwise to decrease the pilot flame. Replace cap screw.

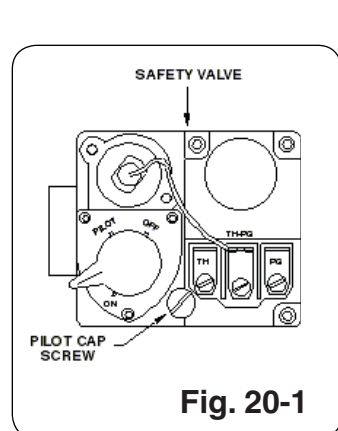


Fig. 20-1

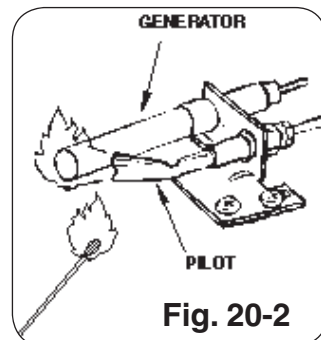


Fig. 20-2

Note: Pilot flame should encircle tips of the electrodes.

Heat shield placement

Cover the valve with the heat shield. The heat shield must remain in place over the valve at all times during operation. Keep the area above the heat shield clear of logs or any other object.

CAUTION: DO NOT place the wire bundles on, under, or near the heat shield, burner, or valve.

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 Fig. 20-3, 4.

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.

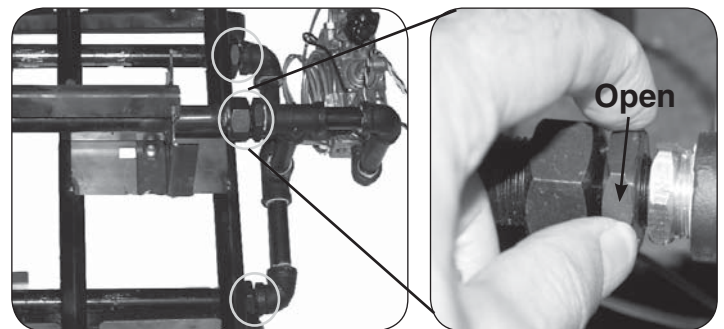


Fig. 20-3

Fig. 20-4

Log Placement

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.

Fig. 21-1

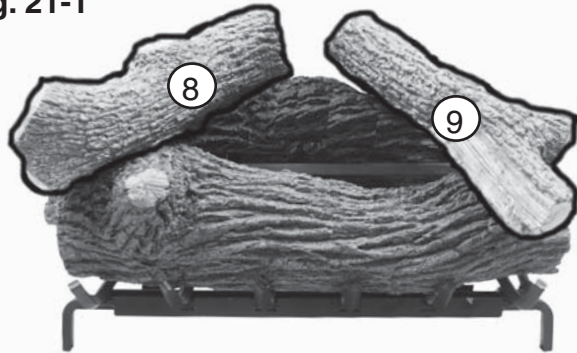
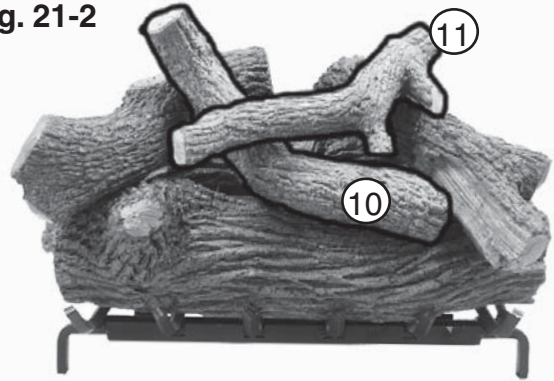


Fig. 21-2



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.

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 appliance if any part has been underwater. Immediately call for a qualified professional service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

The Real-Fyre 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).

Lighting the Pilot

To light the pilot, make sure the toggle switch is in the **OFF** (DOWN) position. Rotate the safety valve knob pointer counterclockwise to the **PILOT** position. Push the safety valve knob fully in and at the same time place a long match or a butane lighter at the pilot burner. The pilot will light. Hold the safety valve knob in for approximately 60 seconds. If the pilot does not stay lit, turn the safety valve knob to the **OFF** position. Wait five minutes and repeat the lighting instructions. If the pilot still fails to stay lit see the **Troubleshooting** section.

Lighting and Extinguishing the Burner System

To turn on your gas log set with the pilot lit, turn the safety valve knob to the **ON** position. Switch the toggle switch control to the on (UP) position and the gas log set will light.

To turn off your gas log set, switch the toggle switch control to the off (DOWN) position. The pilot will remain lit. See the instructions that came with the remote kit (if purchased) for remote lighting instructions.

To turn off the pilot, be sure the toggle switch control is off (DOWN) and depress and turn the safety valve knob to the **OFF** position.

Maintaining the Pilot

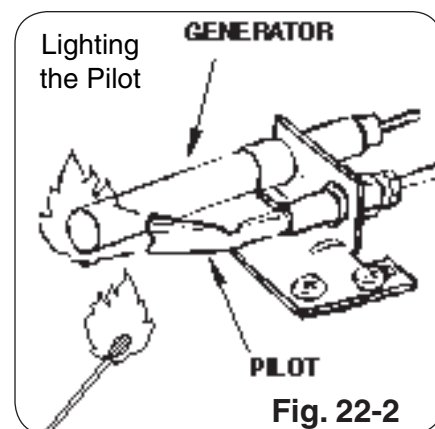
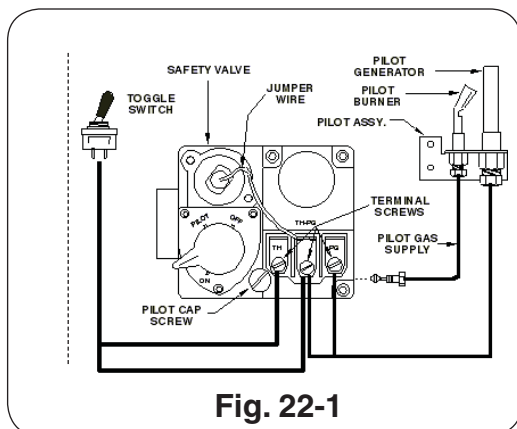
Your log set is equipped with a safety pilot that will shut off the gas supply in case the pilot is not burning or functioning properly. Verify that the generator spade clips are tightly connected to the terminal screws on the valve and the pilot is adjusted properly with the pilot flame hitting the generator as shown in Fig. 22-2 If the pilot will not stay lit, call your local gas utility or gas supplier.

Cleaning and Checking

A periodic check of the following should be performed at least annually by a qualified professional service representative.

1. Proper operation of valves and switches.
2. Flue system for proper venting.
3. Damper operation
4. Orifices for dirt or other foreign matter.
5. Visual check on the burner.
6. Air mixers for dust/lint blockage.
7. Excessive soot on logs.

Safety Pilot System



Note: Pilot flame should encircle top of the generator.

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, etcetera. 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 <u>not</u> stay lit	a. Pilot generator may not be producing sufficient millivoltage.	a. Check with a millivolt meter. Should be 250 millivolts or more.
	b. Pilot flame making a blowing sound	b. Pilot needs adjusting (See Pilot Adjustment).
	c. Generator wire leads attached to the wrong terminals on the valve.	c. Connect leads per wiring diagram, previous page
	d. Defective thermomagnetic 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, SAFETY PILOT SYSTEM section).
	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 <u>not</u> shut OFF	a. Control Switch lead wires to the valve may be shorted together or on wrong terminals.	a. See wiring diagram, SAFETY PILOT SYSTEM section. 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 a combustion air kit.
	b. Spill switch improperly mounted.	b. See (Mounting see smoke diverter installation).
	c. Smoke diverter not in place.	c. Place smoke diverter w/ spill sw. per instruction
7. Excessive soot on logs	a. Yellow flame impingement	b. Open air shutter on front burner or main burner as needed.

Quality Check

Date: _____

Orifice # (Main): _____

Orifice # (Other): _____

Leak Test: _____

Burn Test: _____

Gas Type: NAT. / PROPANE

Model #: _____

Serial #: _____

Air Shutter: _____

Inspector: _____