

# Isokern® MAXIMUS Linear Series

## Open Front Gas Fireplace and Chimney System

### Installation, Operation, Maintenance and Owner's Manual

Isokern Models 82L48, 82L72, 82L96 & 82L120

#### A PRODUCT OF EARTHCORE® INDUSTRIES, LLC

**IMPORTANT:** This manual contains assembly rules, installation steps and guidelines, and use and maintenance instructions for Isokern MAXIMUS Linear Series gas appliances. This manual must become the property of and be reviewed by all current and future users of this product. It is the responsibility of the distributor, general contractor and the installer of this product that the instructions in this manual are followed exactly and, further that the allowed gas log appliance used in this product be installed in strict accordance with the gas log manufacturer's listing and explicit installation and operation instructions.

**INSTALLER: Leave this manual with the appliance**  
**CONSUMER: Retain this manual for future reference**

#### Be Sure to Read Entire Manual Before Beginning Construction.

Contents of this manual may change without prior notification.



#### **WARNING:**

##### **FIRE OR EXPLOSION HAZARD**

Failure to follow safety warning exactly could result in serious injury, death, or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Leave the building immediately.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Do not install the Isokern MAXIMUS Linear Series Gas Fireplace in a manufactured home or mobile home or recreational vehicle.

- This appliance complies with National Safety and is tested and listed to ANSI/CSA Z21.50 – 2019 as vented gas fireplaces.
- Installation must conform to local codes. Check local codes prior to installation. In the absence of local codes, installation must conform with current National Fuel Gas Code, ANSI Z223.1.

PFS Report No. 09-79  
SAP No. 506022-03  
USA: ANSI Z21.50 - 2019  
Canadian: CSA 2.22- 2019



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Revision: 000  
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**THESE FIREPLACES ARE DESIGNED for USE with:  
PROPANE (LP) or NATURAL GAS (NG), ONLY**

**THIS MANUAL CAN ONLY BE REPRODUCED IN ITS ENTIRETY**

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## Rating Plate




**PFS**  
C US  
PFS REPORT NO. F19 - 161

**ISOKERN LINEAR GAS FIREPLACE**  
LISTED VENTED GAS FIREPLACE PER ANSI Z21.50 - 2019  
CSA 2.22-2019

**NOT FOR USE WITH SOLID FUEL**

SERIAL NO: L000001



**ISOKERN**  
MADE IN THE USA  
CHESAPEAKE, VA 23323

MODEL #

☐ 82L48 ☐ 82L72

☐ 82L96 ☐ 82L120

**FOR USE WITH PROPANE (LP) OR NATURAL GAS, SEE GAS IDENTIFYING TAG ON BURNER**

☐ 82L48 NATURAL GAS MAX BTU 54,000; PROPANE MAX BTU 48,000

☐ 82L72 NATURAL GAS MAX BTU 92,000; PROPANE MAX BTU 80,000

☐ 82L96 NATURAL GAS MAX BTU 108,000; PROPANE MAX BTU 96,000

☐ 82L120 NATURAL GAS MAX BTU 110,000; PROPANE MAX BTU 105,000

\*See Burner Rating Plate For Additional Information

MANIFOLD PRESSURE: PROPANE (LP): 10" WATER COLUMN; NATURAL GAS: 3.5" WATER COLUMN

MINIMUM PERMISSIBLE GAS SUPPLY PRESSURE FOR PURPOSE OF INPUT ADJUSTMENT:

PROPANE (LP): 11" WATER COLUMN; NATURAL GAS: 5" WATER COLUMN

ELECTRICAL RATING:	CLEARANCE TO COMBUSTIBLES:	Open Front Only	Glass Front Only
<b>UNIT: ELECTRONIC</b> <b>1 PH</b> <b>60 HZ</b> <b>120 VOLTS</b> <b>LESS THAN 5 AMPS</b>	<b>UNIT FRONT</b>	= 0in	= 0in
	<b>UNIT SIDES AND REAR</b>	= 1.5in.	= 1.5in.
	<b>COMBUSTIBLE SHEATHING ABOVE OPENING TOP</b>	= 8in	= 0in
	<b>SHEATHING OR TRIM TO OPENING SIDES</b>	= 8in	= 0in
	<b>MANTLE ABOVE OPENING</b>	= 12in.	= 12in
	<b>INSULATION FROM FIREBOX</b>	= 3in.	= 3in

CAUTION: THIS APPLIANCE IS ONLY FOR USE WITH THE TYPE OF GAS INDICATED ON THE RATING PLATE AND MAY BE INSTALLED IN THE AFTER-MARKET, PERMANENTLY LOCATED, MANUFACTURED HOME (USA ONLY) OR MOBILE HOME, WHERE NOT PROHIBITED BY LOCAL CODES. SEE OWNER'S MANUAL FOR DETAILS. THIS APPLIANCE IS NOT CONVERTIBLE FOR USE WITH OTHER GASES, UNLESS A CERTIFIED KIT IS USED."

This appliance must be installed in accordance with local codes, if any, if none, follow the current ANSI Z223.1/NFPA 54 or CSA B149.1

EARTHCORE INDUSTRIES HEADQUARTERS  
JACKSONVILLE, FL 32256

## General Information

Isokern Maximus Linear Series Models 82L48, 82L72, 82L96 and 82L120 are tested and listed by PFS Corp., USA Report No. 09-79 to ANSI Z21.50 - 2019 and Canadian Standard CSA 2.22 - 2019. The Isokern Maximus Linear Series are top-vented, gas only fireplaces that are listed for use only with the ISOKERN Gas Log appliance listed in this installation manual. These gas appliances come with a gas control valve that includes an automatic shut-off switch. The gas valve is available in a millivolt remote control pilot assembly.

The exhaust flue gases are to be vented through the top of the unit with listed B-Vent piping. A twelve inch (12") diameter, double wall B-Venting system will terminate with 12" mechanical fireplace damper (MFD), RS012, or RS014 exhaust fan, which is required for proper operation of all Isokern Maximus Linear models 48, 72, 96 and 120. See venting instructions on pages 38-41.

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

### Intended Use Statement

The Isokern Maximus Linear Series is intended to burn propane (LP) gas or natural gas (NG), only. This appliance is not intended to be used as a primary source of heat.

The Isokern Maximus Linear Series and its approved components are safe when installed according to this installation manual and when operated as recommended by the manufacturer. Unless you use Earthcore Industries, LLC approved components tested for this appliance, you may cause a fire hazard or serious injury.

Before you begin the installation of this appliance, read these instructions completely.

### Earthcore Industries, LLC disclaims any responsibility for the following actions:

1. Modification of the appliance or any of its components.
2. Use of any component part not approved by Earthcore Industries in combination with this appliance.
3. Installation or operation in a manner other than instructed in this manual.
4. Burning of anything (solid fuel) other than the listed gas log unit and the type of gas approved for use in this gas appliance.

The most important areas of concern with the installation of the top venting Isokern Maximus Linear Series are clearance to combustible materials, proper assembly of component parts, load carrying capacity of underlying floor system, height of chimney system, hearth extensions and the techniques employed in applying finishing materials to the wall surrounding the Isokern Maximus Linear Series. Combustion air inlet kits though not required for the Isokern Maximus Linear Series may help improve fireplace operation. Check local codes for combustion air requirements.

Each of these topics will be covered in detail throughout this manual. Special attention must be given to each topic as the installation progresses.

The installation of the Isokern Maximus Linear Series must conform with local codes or, in the absence of local codes, with the current National Fuel Gas Code, ANSI-Z223.1/NFPA 54 or the current Natural Gas and Propane Installation Code, CSA B149.1.

### Seismic Code Specifications

If installation of the Isokern Firebox is to be installed in an area with Seismic Codes please follow these instructions. Four No. 4 ASTM A615 Grade 40 minimum, vertical reinforcing bars, 2 on each side of the firebox running from mid-height (where the tapered section of the box begins) of the structure to approximately 4 inches into the concrete slab (for anchorage).

**Important:** The Isokern firebox shall not be used for structural support. Please consult structural engineer for structural support of any veneer bearing weight on the Isokern top plate.

**Note:** Do not scale drawings. Illustrations in this manual are not to scale and are intended to show "typical" installations. Nominal dimensions are given for design and framing reference only, since actual installations may vary due to job specific design preferences. Always maintain the stated minimum clearances to combustible materials. Do not violate any specific installation requirements.

## Safety Instructions

**WARNING: This product contains or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.**

**IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this fireplace. Improper use of this fireplace can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.**

### **DANGER: CARBON MONOXIDE POISONING MAY LEAD TO DEATH!**

This fireplace is a vented product and will not produce any gas leakage into your home if properly installed by a qualified service person. If this unit is not properly installed by a qualified service person, gas leakage may occur.

Propane (LP) gas and natural gas (NG) are both colorless and odorless gases. An odor-making agent is added to each of these gases to help you detect a gas leak. However, the odor added to these gases can fade and gas may be present even though no odor exists.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble flu symptoms, including headaches, dizziness or nausea. If you have these signs the fireplace may not have been installed properly, get fresh air at once! Have the fireplace inspected and serviced by a qualified service person or your gas supplier. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung diseases or anemia, people at high altitude or under the influence of alcohol. Earthcore Industries strongly recommends the use of a carbon monoxide detector/alarm device wherever gas fired appliances are in use.

All parties either involved in or associated with the installation, service and use of this fireplace must read this entire manual. Keep this manual for reference and as a guide book to safe operation of this fireplace.

### **WARNING: This unit is not for use with solid fuel.**

1. Always check local building codes governing fireplaces and fireplace installations. The Isokern Maximus Linear Series installation must comply with all local, regional, state and national codes and regulations.
2. The Isokern Maximus Linear Series fireplaces are listed for use with the decorative gas log appliance listed in this manual only.
3. This appliance is only for use with the type of gas indicated on the rating plate. This appliance can be field converted for use with other gases with Propane (LP) or Natural Gas (NG).
4. For propane (LP) use do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors. To prevent performance problems, do not use propane fuel tank of less than 100 lbs. capacity.
5. Do not install the Isokern Maximus Linear Series Gas Fireplace in a manufactured home or mobile home or recreational vehicle.
6. This fireplace reaches high temperature. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
7. Turn the Isokern Maximus Linear Series Fireplace off and allow to cool before servicing. Always shut off any electricity and gas to the Isokern Maximus Linear Series Fireplace while working on it. Only a qualified service person should install, service or repair this fireplace. Have your fireplace inspected annually by a qualified service person.
8. It is imperative that the unit's control areas, burners and circulation air passages be kept clean.
9. Venting system should be inspected annually by a qualified service person. If needed have venting system cleaned or repaired.
10. Keep all combustible material, gasoline and other flammable liquids at a safe distance from the fireplace. Do not use the fireplace where these items are used or stored. Decorations, clothing and other such combustible items should not be placed on the fireplace.
11. Do not use the Isokern Maximus Linear Series Fireplace to cook food or burn paper or other objects.

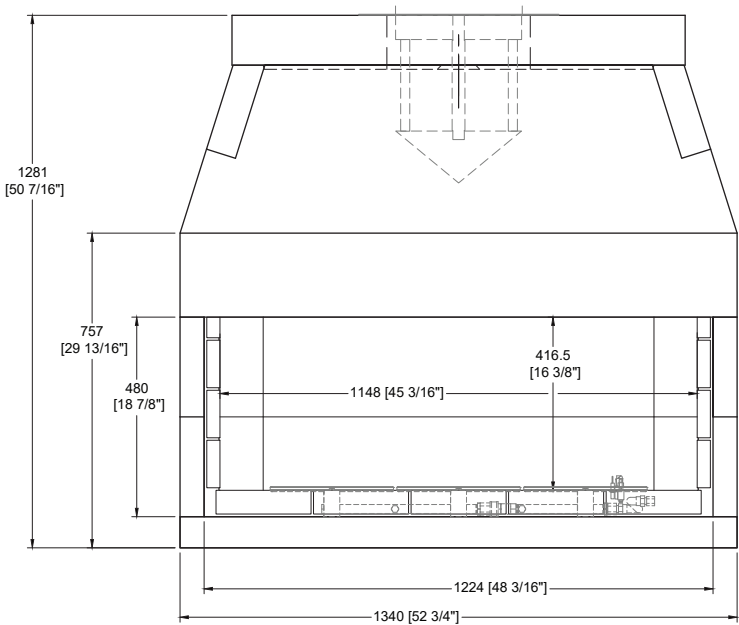


## Safety Instructions

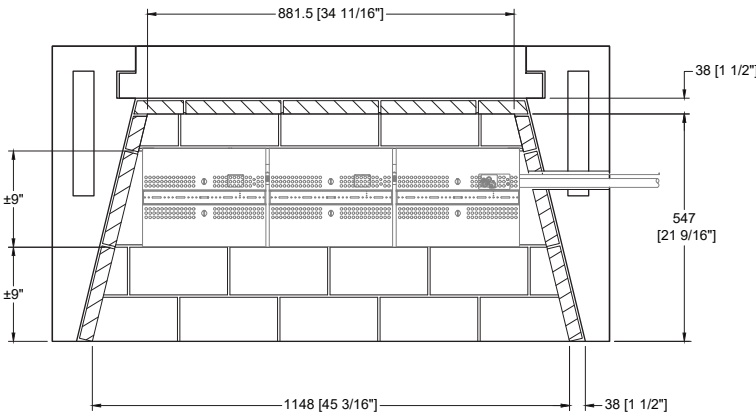
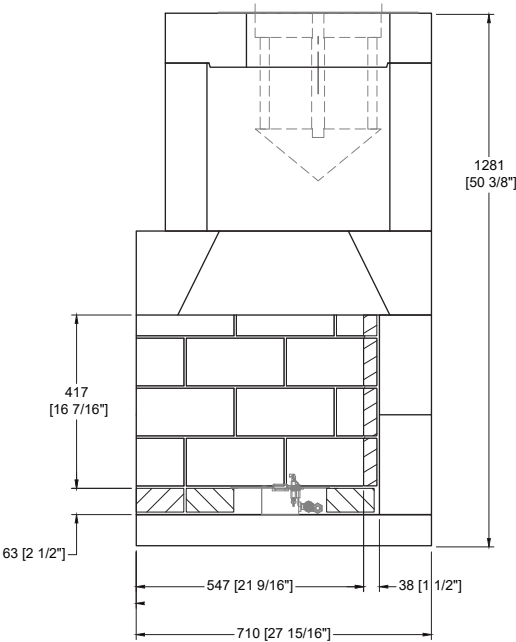
12. Do not use any solid fuels - wood, coal, paper, cardboard, etc. - in this fireplace. Use only the gas type listed on the fireplace's gas log label.
14. Keep all unshielded insulation and vapor barriers a minimum of three inches (3") away from all Isokern Maximus Linear Series and chimney components.
15. This American Gas Association fact sheet provides an overview of the requirements for the electrical bonding of fuel gas piping systems to the electrical grounding system based on ANSI Z223.1/NFPA 54, National Fuel Gas Code - 2015 (NFGC). The bonding requirements in previous code editions, in local jurisdictions or in specific situations, may differ.
16. Do not pack or fill required air spaces with insulation or other material. No material is allowed in these spaces.
17. Never install a ISOKERN MAXIMUS Linear Series component, chimney component or accessory that has visible or suspected physical damage as a result of handling or transportation. These items should be inspected by a qualified representative to ensure safe condition. When in doubt, consult your local supplier.
18. Do not alter or modify the Isokern Maximus Linear Series, venting components under any circumstances. Modification or alteration of the venting components may void manufacturer's warranty, listings and approvals.
19. Do not use a fireplace blower insert, heat exchanger or any other product not specified by the manufacturer herein for use with this fireplace.
20. Do not use any Isokern Maximus Linear Series appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
21. The Isokern Maximus Linear Series is not intended to heat an entire home or to be used as a heat source.
22. Children and adults should be alerted to the hazards of high surface temperature and should stay away from this appliance to avoid burns or clothing ignition.
23. Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to the fireplace, install a adjustable safety gate to keep toddlers, young children and other at-risk individuals out of the room and away from hot surfaces.
24. Clothing or flammable material should not be placed on or near the appliance.
25. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
28. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etcetera. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.
29. **Do not nail or screw into the isokern fireplace, which includes firebox or smoke dome components unless attaching the anchor plate for the metal flue system. This may alter the integrity of the fireplace and cause a house fire. THIS WILL VOID THE WARRANTY OF THE FIREPLACE.**
30. Never spray or apply any type of sealer, insulation or other materials to the fireplace.

Isokern Maximus Linear Series 48” (82L48)

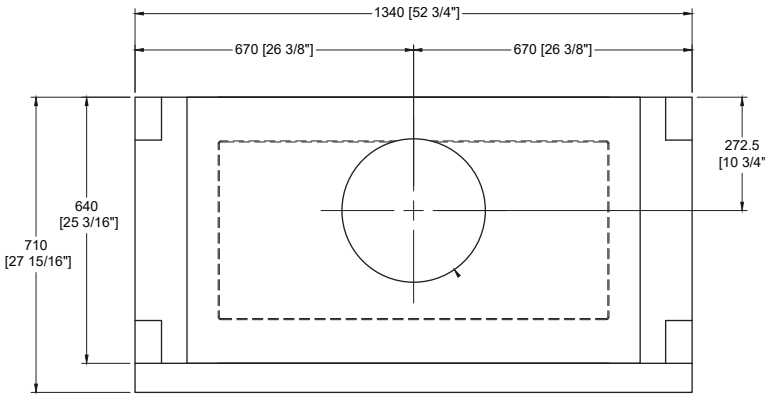
Front View



Side View

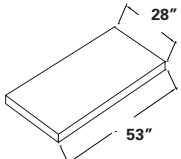
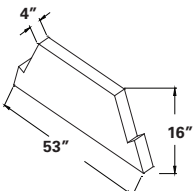
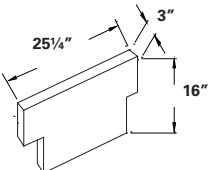
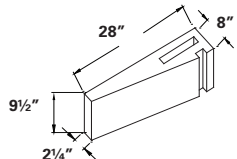
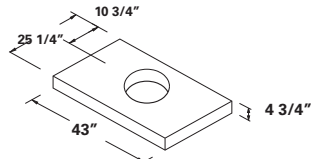
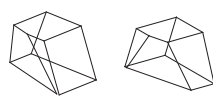
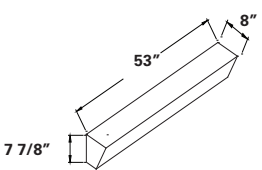
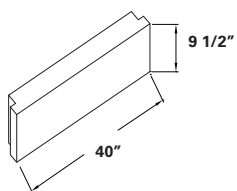


Plan View



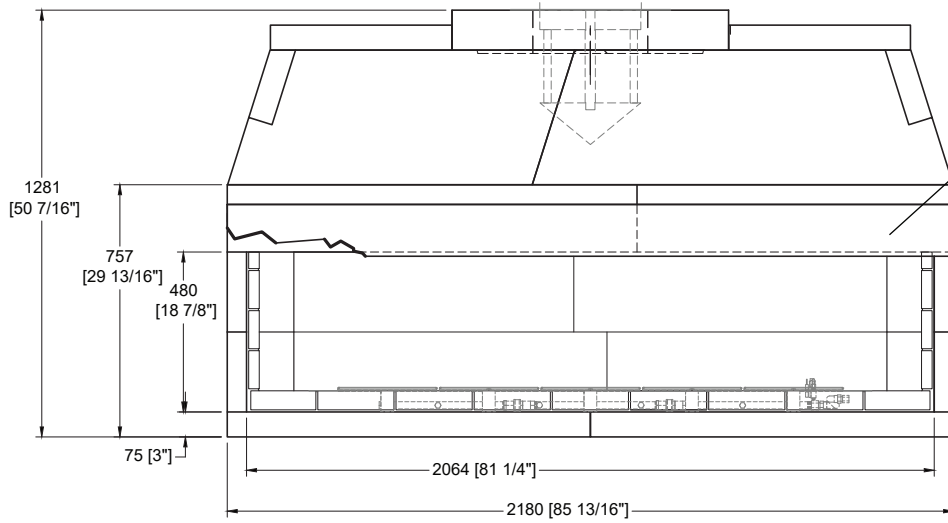
Top View

## Isokern Maximus Linear Series 48" (82L48)

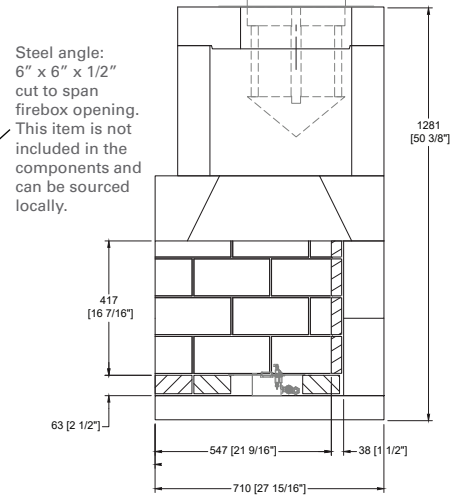
Component	Part#	Description
	M93	Isokern LINEAR Base Plate
	13	Isokern LINEAR Smoke Dome (QTY. 2)
	34	Isokern LINEAR Side Sloping (Qty. 2)
	M90	Isokern LINEAR Sidewall (Qty. 4)
	81	Isokern LINEAR Top Plate
	M94L & M94R	Isokern LINEAR Damper End Left & Right
	M70	Isokern LINEAR Damper Support, Front/Back (Qty. 2)
	M67	Isokern LINEAR Backwall (Qty. 2)

# Isokern Maximus Linear Series 72" (82L72)

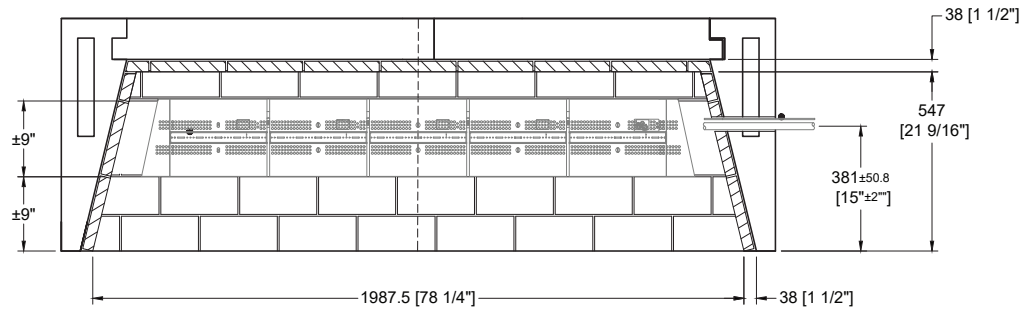
## Front View



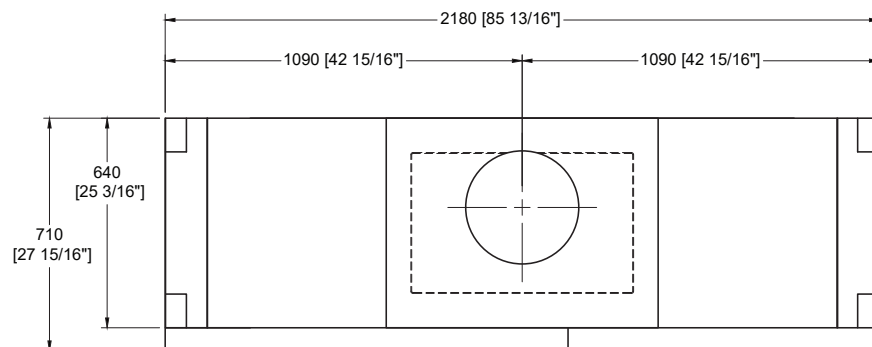
## Side View



Steel angle:  
6" x 6" x 1/2"  
cut to span  
firebox opening.  
This item is not  
included in the  
components and  
can be sourced  
locally.



## Plan View



## Top View

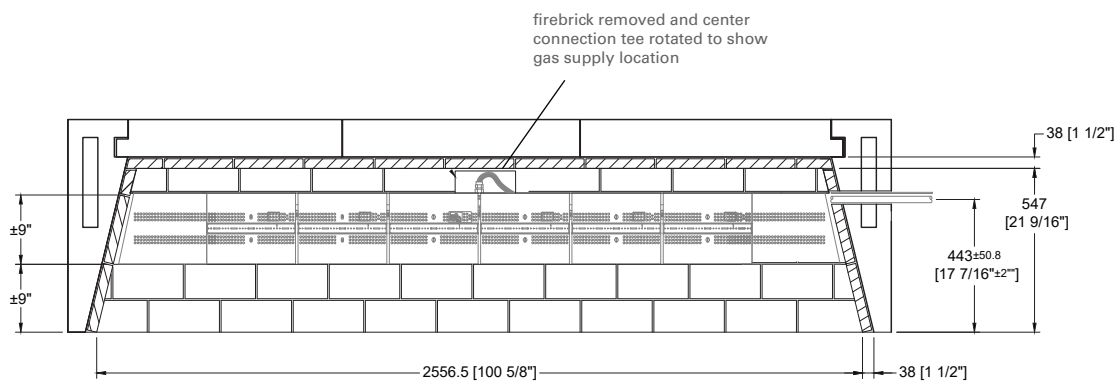
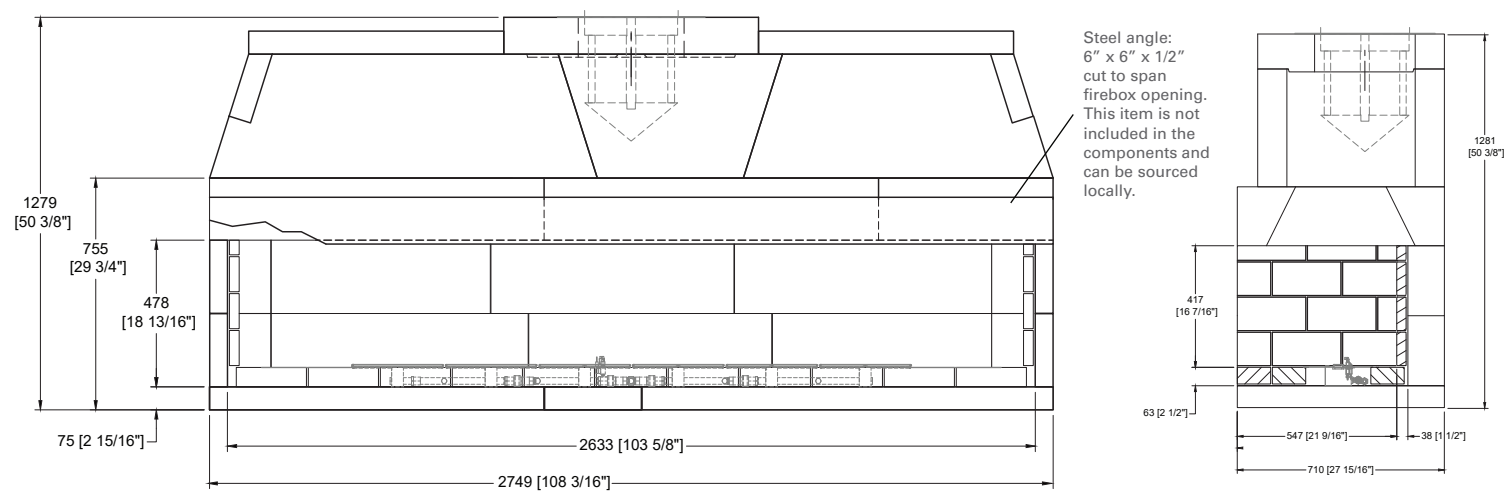
## Isokern Maximus Linear Series 72" (82L72)

Component	Part#	Description	Component	Part#	Description
	M91	Isokern LINEAR Base Plate (Qty. 2)		72	Isokern LINEAR Backwall (Qty. 2)
	16	Isokern LINEAR Smoke Dome (Qty. 2)		73	Isokern LINEAR Backwall (Qty. 2)
	18	Isokern LINEAR Smoke Dome (Qty. 2)		M77	Isokern LINEAR Top Plate - Middle
	34	Isokern LINEAR Side Sloping (Qty. 2)		121	Isokern LINEAR Top Plate Left & Right (Qty:2)
	M90	Isokern LINEAR Sidewall (Qty. 4)		83	Isokern LINEAR Damper Beam (Qty. 2)
	M94L & M94R	Isokern LINEAR Damper End Left & Right		69	Isokern LINEAR Damper Beam (Qty. 2)

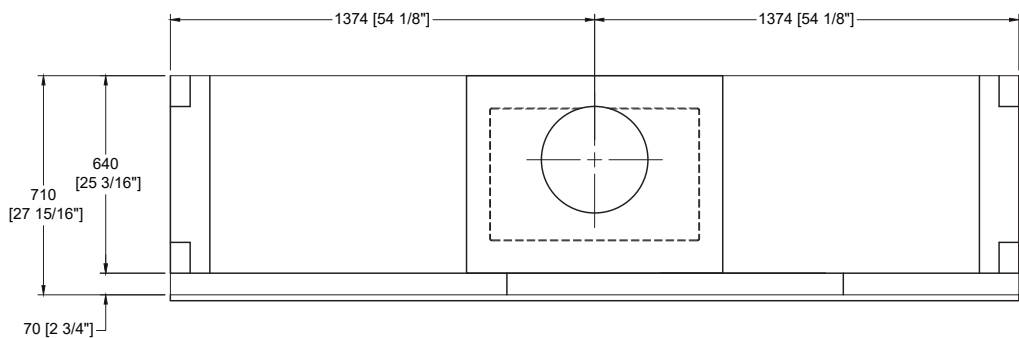
Isokern Maximus Linear Series 96” (82L96)

Front View

Side View



Plan View



Top View



## Isokern Maximus Linear Series 96" (82L96)

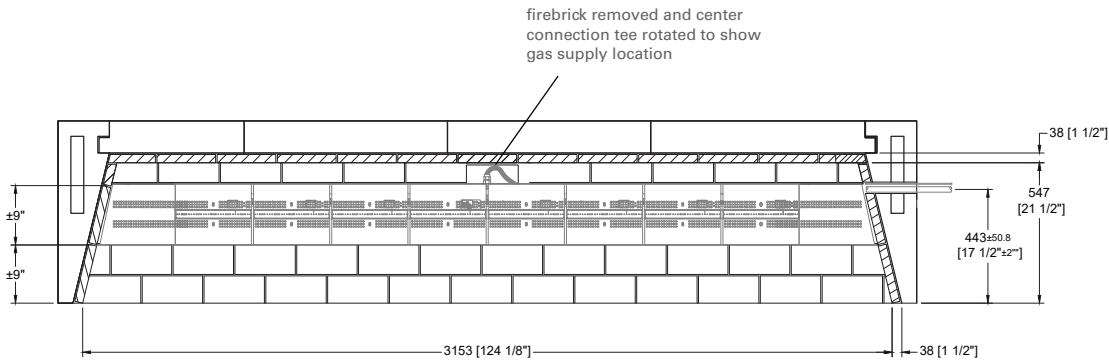
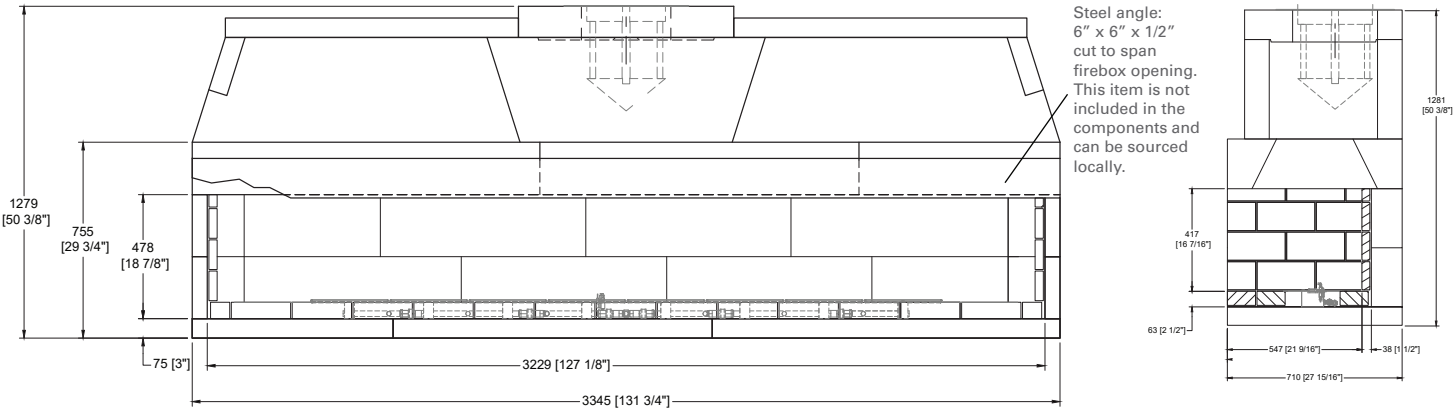
Component	Part#	Description
	M91	Isokern LINEAR Base Plate
	M93	Isokern LINEAR Base Plate
	191	Isokern LINEAR Base Plate
	16	Isokern LINEAR Smoke Dome (Qty. 2)
	17	Isokern LINEAR Smoke Dome (Qty. 2)
	113	Isokern LINEAR Smoke Dome (Qty. 2)
	34	Isokern LINEAR Side Sloping (Qty. 2)
	M90	Isokern LINEAR Side wall (Qty. 4)

Component	Part#	Description
	160	Isokern LINEAR Back wall (Qty. 25)
	162	Isokern LINEAR Back wall (Qty. 2)
	73	Isokern LINEAR Back wall (Qty. 2)
	M77	Isokern LINEAR Top Plate
	122	Isokern LINEAR Top Plate Left & Right (Qty:2)
	M94L & M94R	Isokern LINEAR Damper End Left & Right
	M68	Isokern LINEAR Damper Beam (Qty. 4)
	167	Isokern LINEAR Damper Beam (Qty. 2)

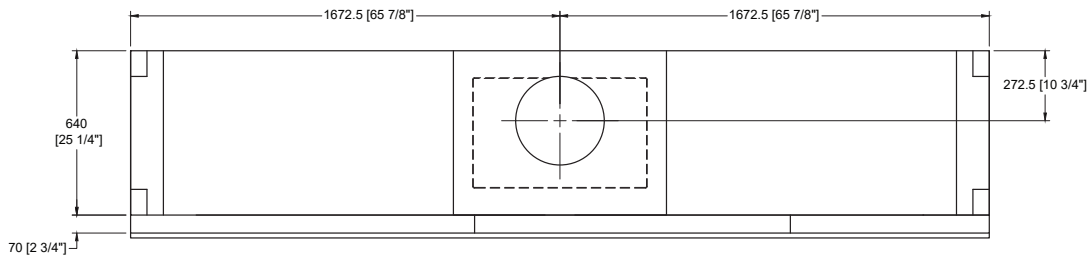
Isokern Maximus Linear Series 120” (82L120)

Front View

Side View



Plan View



Top View

## Isokern Maximus Linear Series 120" (82L120)

Component	Part#	Description
	M92	Isokern LINEAR Base Plate
	M96	Isokern LINEAR Base Plate
	M93	Isokern LINEAR Base Plate
	16	Isokern LINEAR Smoke Dome (Qty. 4)
	116	Isokern LINEAR Smoke Dome (Qty. 2)
	34	Isokern LINEAR Side Sloping (Qty. 2)
	M90	Isokern LINEAR Side wall (Qty. 10)
	M94L & M94R	Isokern LINEAR Damper End Left & Right

Component	Part#	Description
	162	Isokern LINEAR Back wall (Qty. 4)
	71	Isokern LINEAR Back wall (Qty. 2)
	73	Isokern LINEAR Back wall (Qty. 2)
	M77	Isokern LINEAR Top Plate - Middle
	123	Isokern LINEAR Top Plate - Right & Left (Qty. 2)
	70	Isokern LINEAR Damper Beam (Qty. 2)
	69	Isokern LINEAR Damper Beam (Qty. 2)
	74	Isokern LINEAR Damper Beam (Qty. 2)

## Required Clearance to Combustibles

The Maximus Linear Series fireplaces and chimney systems are tested and listed for installation with “clearance to combustibles” as follows:

- Zero inch (0”) clearance to the combustible floor; (Isokern Base Plate must be used)
- Zero inch (0”) clearance at the Isokern firebox front and smoke dome sides and front.
- One and one half inches (1-1/2”) clearance at the Isokern firebox back wall and smoke dome back wall and sidewalls.
- One inch (1”) minimum air space to combustibles at all B-Vent double wall chimney components’ outer layer.

When installing on a combustible floor system the front of the fireplace does not require a hearth extension. Please refer to your local code.

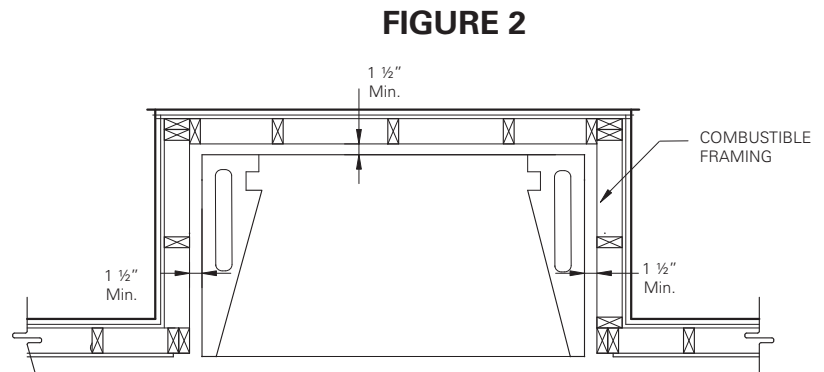
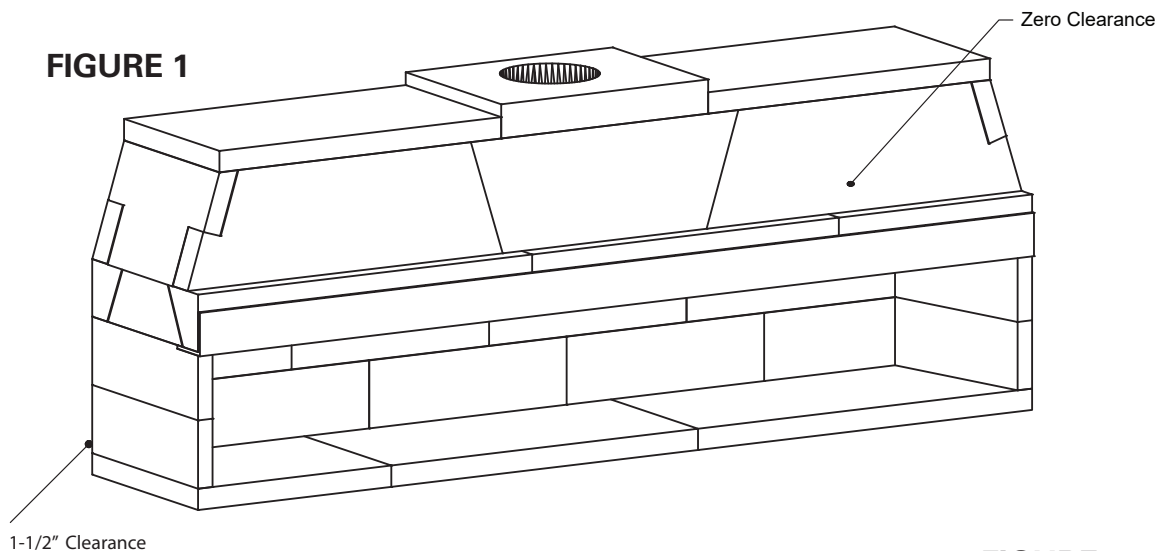
**Important:** “Combustibles” are defined as “normal construction materials” and considered to be: wood framing materials, particle board, mill board, plywood paneling, plywood sub-flooring and wood flooring.

**CAUTION:** Maintain three inches (3”) clearance to insulation and vapor barriers from all firebox, smoke dome and B-Vent flue components’ outer layer.

**Exception:** If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsum board, plywood, particle board or other rigid, fire rated material on the side facing the Isokern. The facing material cannot be within 1 1/2” to the fireplace sidewalls.

### Notes:

1. The fireplaces must sit upon a support designed to bear the total installed weight of the fireplace.
2. All LINEAR installations will result in the minimum finished fire brick floor of the firebox being at least five and one half inches (5-1/2”) above the combustible floor system. **Never place a Maximus Linear on a combustible floor without the base plate.**



## Calculating Flooring Loads

Floor framing for Maximus Linear installation will need to be designed and built to accept substantial dead loads spread over a relative small floor area. (Figure 3)

The following weights and sizes can be used to calculate loading. It is the contractor's responsibility to provide adequate floor system load capacity.

### LINEAR Weights and Load Calculations

Total dead load amounts include (but are not necessarily limited to) the following items and their corresponding weight estimates as listed below:

1. Isokern unit model weights :
  - a. LINEAR - 48: 1,275 lb (no burner, flue, accessories)
  - b. LINEAR - 72: 1,990 lb (includes steel angle but no burner, flue, accessories)
  - c. LINEAR - 96: 2,450 lb (includes steel angle but no burner, flue, accessories)
  - d. LINEAR - 120: 2,997 lb (includes steel angle but no burner, flue, accessories)
2. Approximate weight of log set: 100 lb.
3. Fire brick and Adhesive: 350 lbs. - 1800 lbs. depending on brick size and pattern
4. Facing material: per general contractor
5. B-Vent metal flue: per manufacturer

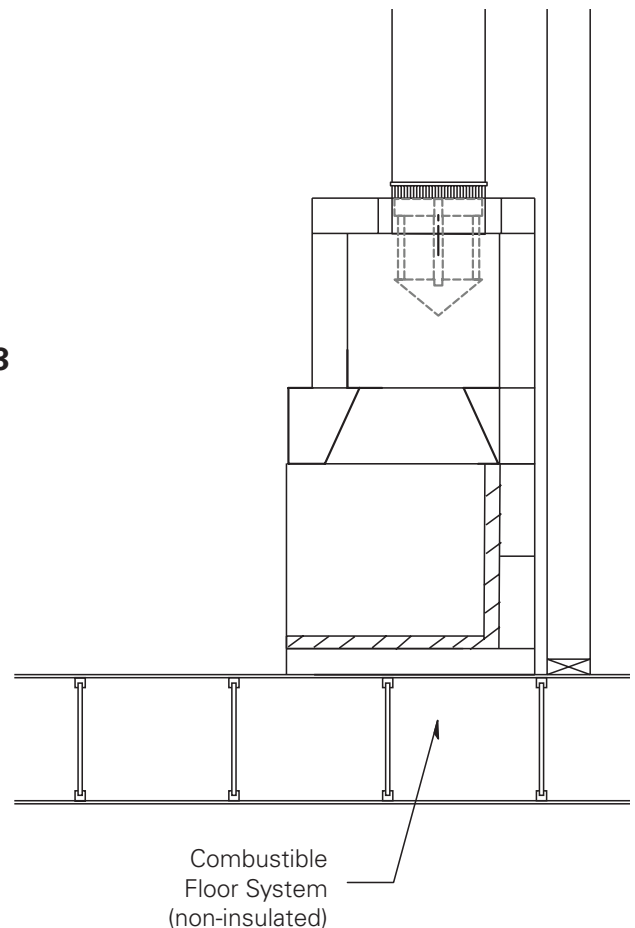
The floor area for each model is as follows:

LINEAR 48 @ 53" x 28" = 10.3 sq. ft.  
 LINEAR 72 @ 85-3/4" x 28" = 16.67 sq. ft.  
 LINEAR 96 @ 108-1/4" x 28" = 21.04 sq. ft.  
 LINEAR 120 @ 131-3/4" x 28" = 25.62 sq. ft.

Earthcore is not responsible for structural floor support details for this fireplace system. Unless otherwise noted all floor framing drawings in this manual are merely illustrations to indicate the presence of an underlying floor system.

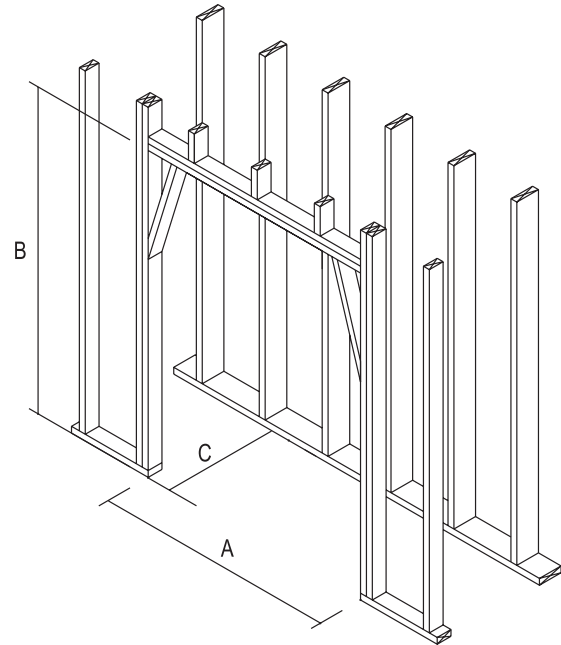
Consult your local structural engineer for proper floor system design, sizing and specifications.

**FIGURE 3**



Rough Framing Dimensions

FIGURE 4

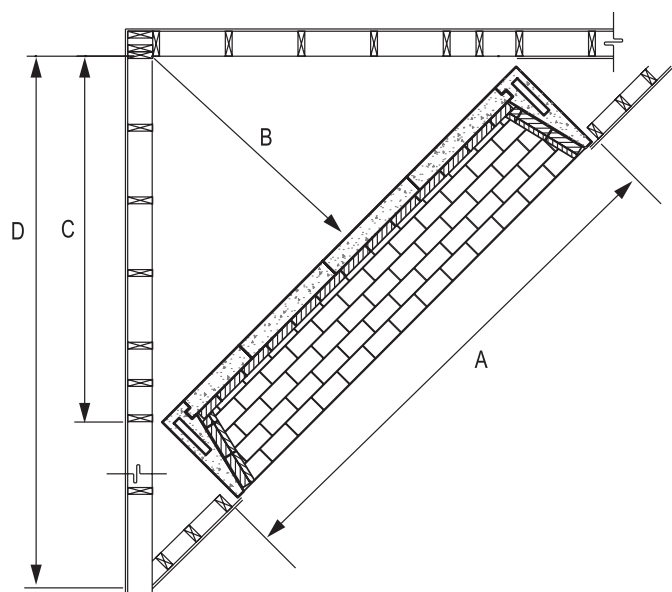


TYPICAL INSTALLATION FRAMING DIMENSIONS

Linear	Width - A	Height - B	Depth - C
Model 48	56"	51"	29 1/2"
Model 72	89"	51"	29 1/2"
Model 96	112"	51"	29 1/2"
Model 120	135"	51"	29 1/2"

- Notes:**
- 1. B includes the 3"-thick base plate.
  - 2. "Raised hearth" requires additional rough opening height at B equal to the height of the raised hearth detail.
  - 3. Rough framing dimension for depth C allows for the required 1 1/2" clearance at the back of the fireplace. 29 1/2" is only for an interior wall as most exterior wall framings have insulation. Even if the wall is 2x6', the foam sprayed expands, so typically 31" is allowed on an exterior wall (Figure 4).

FIGURE 5



CORNER INSTALLATION FRAMING DIMENSION

The following chart of dimensions detail the positioning of a LINEAR Series fireplace in a corner (Figure 9).

LINEAR	A	B	C	D
Model 48	56"	56-1/2"	38-3/4"	79-7/8"
Model 72	89"	73"	62-1/4"	103-1/4"
Model 96	112"	84-1/8"	78"	119"
Model 120	135"	95-7/8"	94-5/8"	135-5/8"



## General Assembly Instructions

When beginning the assembly process, mix the Earthcore Adhesive with clean water to a smooth, workable texture (without lumps or dry pockets) of a “toothpaste” consistency. This mixture is suitable for application onto Isokern components by using a masonry grout bag supplied with the unit.

Attention should be paid that the Earthcore Adhesive mixture is not too thin or runny, as this will not allow the Earthcore Adhesive to reach its maximum bonding strength.

Mark out the position of the base plate on the supporting floor system. Apply a thin layer of Earthcore Adhesive to the area and set base plate in the mortar (**Figure 6**).

Earthcore Adhesive is then squeezed from a grout bag onto the contact surfaces of the Isokern components as they are fitted together.

**NOTE:** It is important that a 1/2" bead of Earthcore Adhesive is piped onto all the components' contact surfaces, about 1/2" in from all edges (**Figure 7**).

When setting the next component onto the Earthcore Adhesive contact surface of the base plate, some Earthcore Adhesive should squeeze out along the face of the entire joint as a sign of complete and proper sealing of the joint.

On broader contact surfaces, it is advisable to apply several additional 1/2" beads of the Earthcore Adhesive to the area to assure proper sealing of the joint.

Proper firebox and smoke dome assembly requires approximately 100 pounds (dry measure) of Earthcore Adhesive.

### LEVELING AND ALIGNING COMPONENTS:

Be sure to assemble all Isokern components level and flush with adjoining components.

Earthcore Adhesive is not intended to create a Earthcore Adhesive joint of any thickness for leveling purposes.

**Therefore, leveling and alignment adjustments are made by the use of small plastic shims supplied with the unit (Figure 8).**

The shims can be inserted under a component to level and align it with adjacent Isokern components. Be sure to re-grout any and all gaps resulting from shim insertion to maintain components to full bearing.

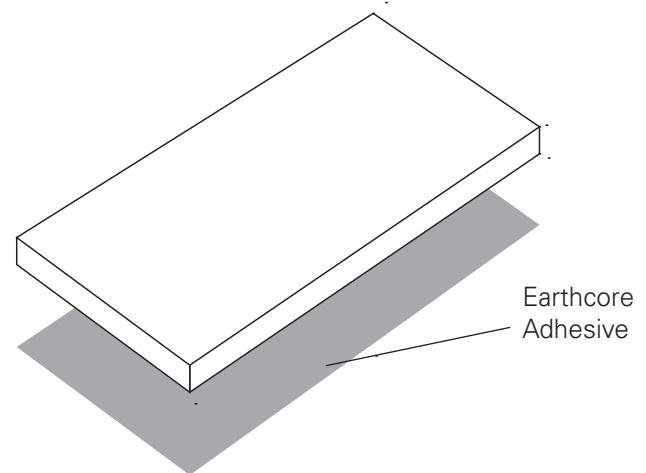
### BROKEN COMPONENTS:

Components can be repaired by using Earthcore Adhesive along the break line as the component is set into place. Components broken into multiple small pieces should be discarded and replaced.

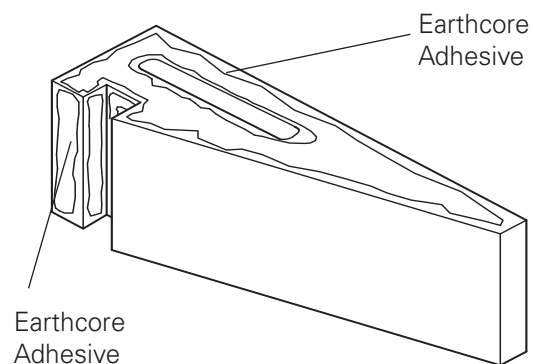
### IMPORTANT:

1. Do not mix Earthcore Adhesive with anti-freeze agents.
2. The maximum recommended Earthcore Adhesive joint thickness at Isokern components is 1/4".

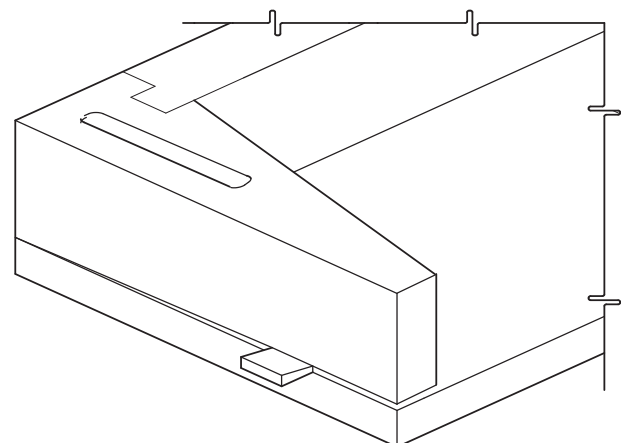
**FIGURE 6**



**FIGURE 7**



**FIGURE 8**

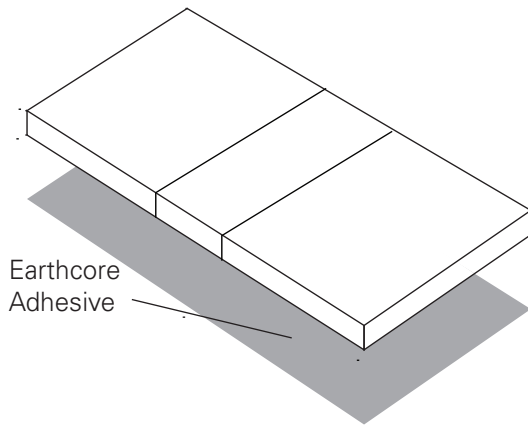


## Isokern Maximus Linear Assembly Instructions

### Base Plates:

48": Part# M93  
72": Part# M91, M91  
96": Part# M91, M93, 191  
120": Part# M96, M92, M93

**FIGURE 9**



The following assembly instructions identify the parts by name, part number and the placement of each part in the assembly process.

**NOTE:** At all component placements, be sure to mortar all contact surfaces with Earthcore Adhesive. Check for complete sealing of each contact joint while assembly progresses.

**1.** Apply Earthcore Adhesive to the joint between each baseplate part and set the base plates in a full bed of Earthcore Adhesive on a level support surface (**Figure 9**). See page 15 for supporting floor system. Do not set the base plate so that it is in span. Refer to pages 6-13 for part dimensions.

### RAISED HEARTH:

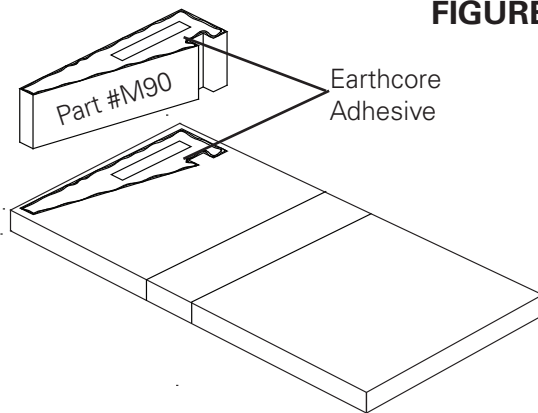
If the design preference is for a raised hearth (floor of the fireplace elevated above the room's floor), then the base plate can be set on a noncombustible platform that is built up to the desired raised hearth height on the concrete support slab. See page 18.

When calculating raised hearth height, be sure to allow for the 3"-thick base plate plus the 2 1/2"-thick fire brick floor in addition to the height of the platform.

For all "raised hearth" construction where concrete blocks are used to create the raised platform, it is necessary to use the base plate. Be sure to Earthcore Adhesive the concrete block platform together. CMU used for base plate support should be rated ASTM 90.

Whether a hearth or a raised hearth is installed, the combustible floor in front of the fireplace must be covered with a noncombustible hearth extension set tight against the fireplace front and extending at least 20" out from the finished fireplace and at least 12" beyond the sides of the fireplace opening. See pages 14 and 15

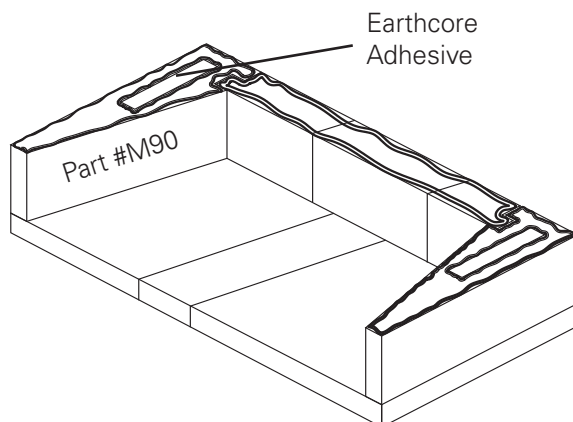
**FIGURE 10**



### Back wall Course:

48": Part# M67  
72": Part# 73, 72  
96": Part# 160, 162, 73  
120": Part# 71, 162, 162, 73

**FIGURE 11**



**2.** Set the first course of the firebox side walls and back walls into place (**Figures 10 and 11**).

**NOTE:** It may be convenient to dry set the first course of side walls and back walls into place on the Isokern base plate and then trace their position on the base plate with a pencil.

After outlining the dry set pieces, remove them and apply Earthcore Adhesive to the areas traced on the base plate where the side walls and back wall are to sit. By doing this, the first layer of wall components can be set directly into Earthcore Adhesive already applied to the proper areas on the base plate.

## Isokern Maximus Linear Assembly Instructions

**3.** Continue assembly of the consecutive courses of the firebox side wall and back wall, **making sure to stagger the back wall components so that the vertical joints do not align.** Apply Earthcore Adhesive to the top of each layer of wall components, set the next course above into place. Be sure to apply Earthcore Adhesive to all vertical joints of the side wall to back wall connection when setting each component to its mate (**Figure 11**).

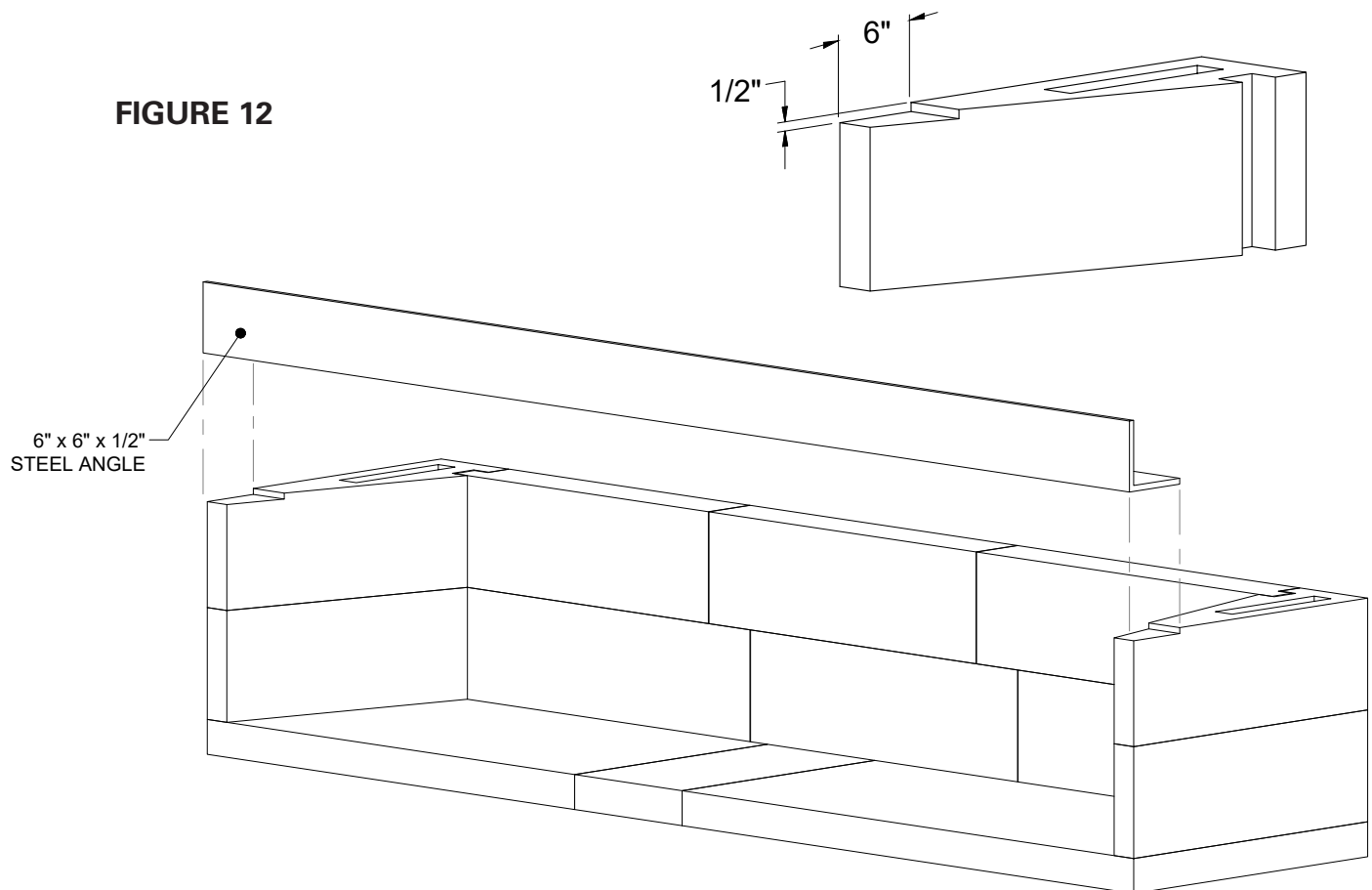
Look for some Earthcore Adhesive to squeeze out along the joints of all contact surfaces as a sign that the joint is thoroughly sealed with the approved Earthcore Adhesive.

**4.** When all of the firebox side wall and back wall components are set, check the top surface of the firebox for level. If necessary, adjust the top surface of the box assembly for level by inserting a shim supplied with the unit between the lowest wall component and the top surface of the base plate.

Any gap created under the wall components during the shim leveling process must be filled with Earthcore Adhesive to fill bearing against the base plate.

**5.** Steel angle iron with measurements of 6" x 6" x 1/2" cut to span firebox opening will be needed to assemble the firebox. **This item is not included in the components and can be sourced locally.**

This steel angle sits on top of the uppermost side wall component with the 6" leg in the horizontal position. To avoid a thickness problem with the placement of the steel angle, it is necessary to cut a notch approximately 1/2" deep in the top side wall component where the angle is to sit. The notch should start at the front face of the side wall component (at both the left and right hand walls) and run to a point 6" back toward the firebox (**Figure 12**).



## Isokern Maximus Linear Assembly Instructions

The steel angle sits in this notch. The ends of the steel angle should not protrude beyond the outer firebox side wall. Earthcore Adhesive is not needed between the steel and the notch in the top of the side wall.

**6.** The fireplaces come with an 8"-thick damper beam assembly, a component group that is to be assembled on top of the firebox side walls and back wall.

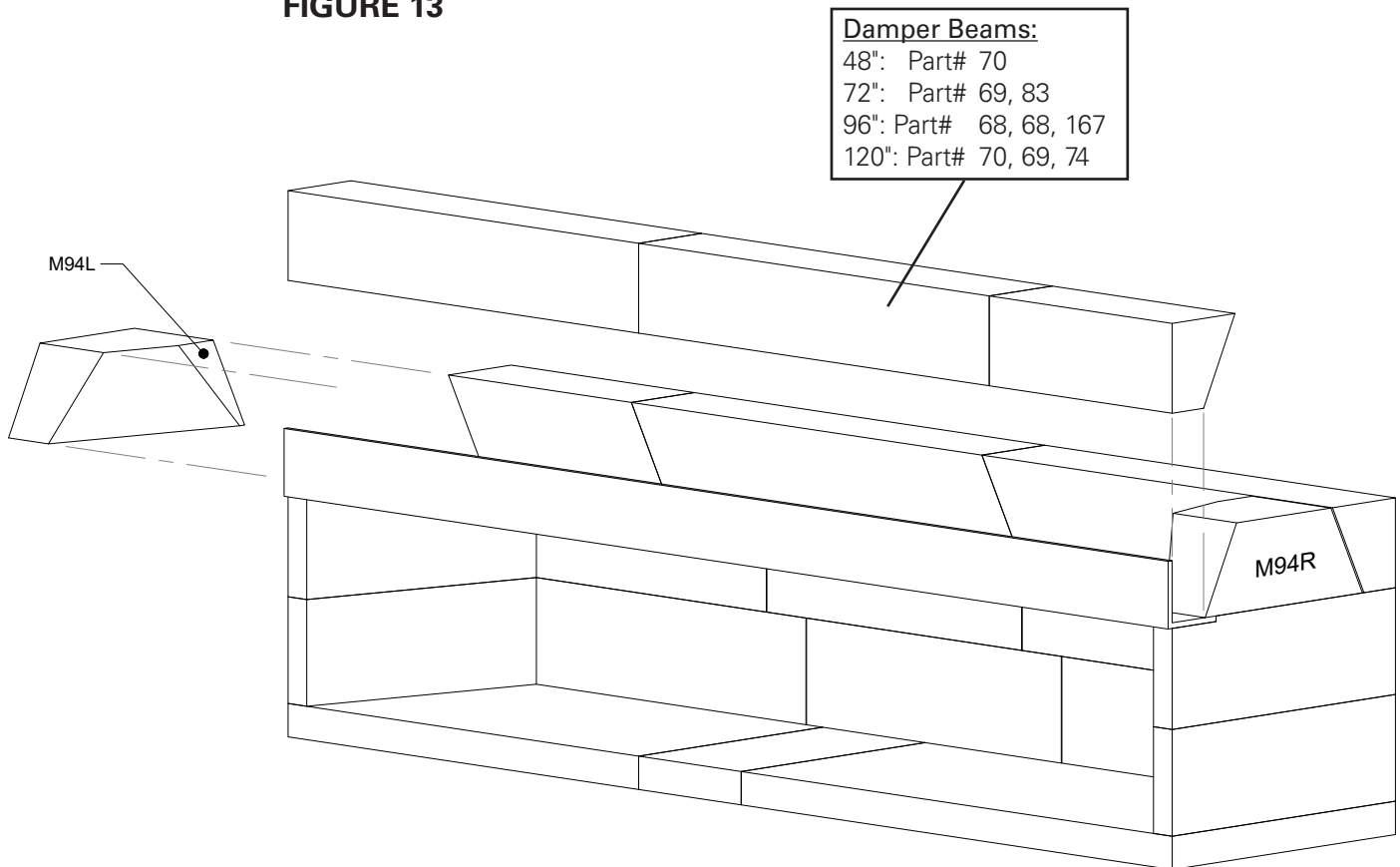
The damper beam assembly consists of long lintel pieces and two (2) short damper beam side pieces.

The damper side pieces are designed to sit on the firebox side wall between the front lintel and the back lintel. Each of the damper side pieces is designed specifically for its own side of the unit. When properly set, each damper side piece fits flush with the outside face of the firebox side wall so that its interior bottom edge aligns with the interior angle of the firebox side wall that it sits on (**Figure 12**).

The lintels will be equal to the width of the fireplace model that they serve. Properly placed, the lintel is to sit on top of the firebox back wall and flush with it; the other lintel sits flush with the front of the firebox, spanning the firebox opening. These components both sit on their narrow base so that their beveled face points down and into the firebox interior (**Figure 12**).

Be sure to Earthcore Adhesive all damper beam components to the top surfaces of the firebox. Apply Earthcore Adhesive to the contact surfaces of each damper side component where it meets the front and back damper beam lintel components.

**FIGURE 13**



## Isokern Maximus Linear Assembly Instructions

**7.** Set the rear smoke dome components across the damper beam in a bed of Earthcore Adhesive and flush with the back face of the back damper beam lintel.

Set the front smoke dome components in Earthcore Adhesive across the front damper beam and 2 3/4" back from the front of the front damper beam lintel. This placement should create a space of 17" between the front and rear smoke dome components (**Figure 14**).

**8.** Position the smoke dome's sloping side walls at each end of the smoke dome components.

The sloping side walls fit in between the front and rear smoke dome components and also fit into the haunches at the ends of the front and rear smoke dome components. Apply Earthcore Adhesive to all contact surfaces thoroughly. The smoke dome sloping side walls have a beveled bottom edge so that they will sit tight onto the flat top of the damper beam assembly (**Figure 15**).

### Smoke Dome:

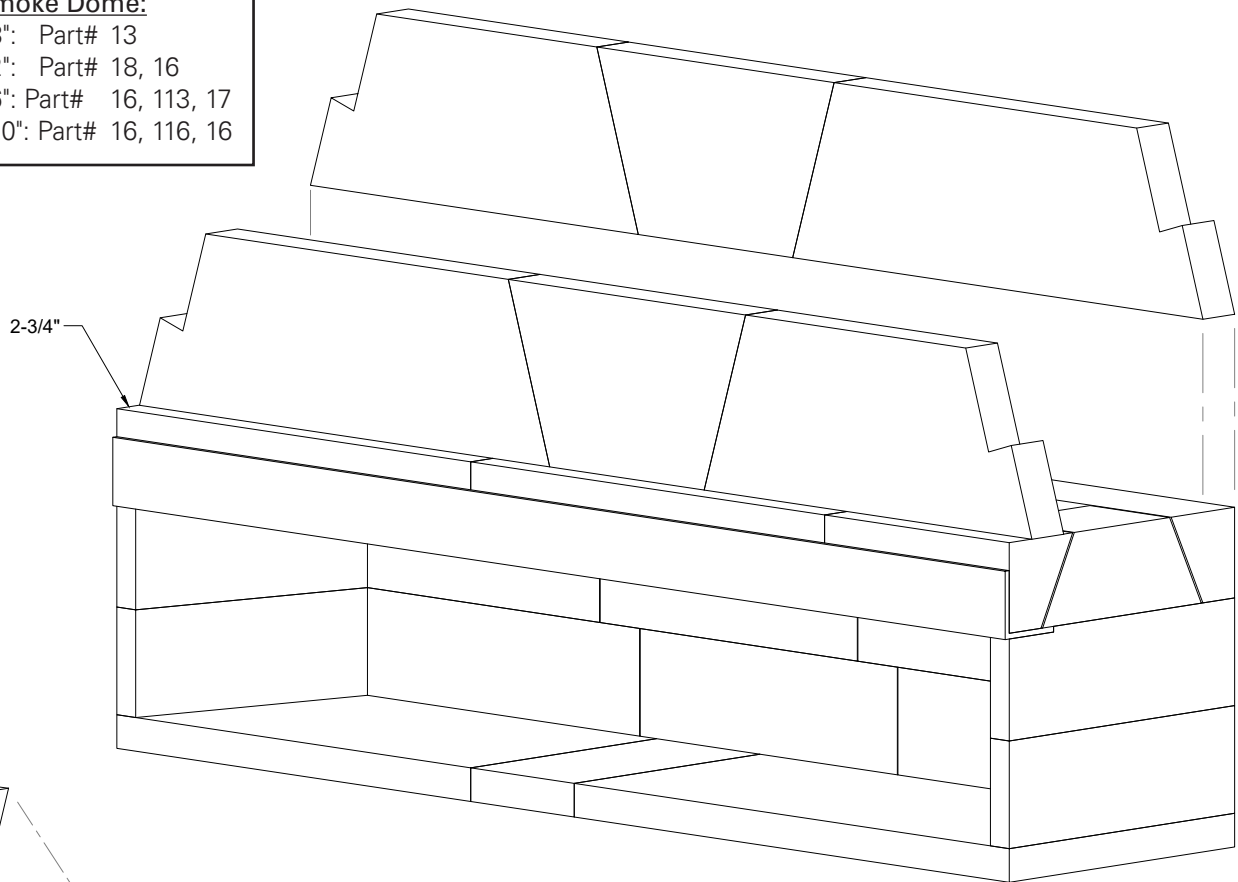
48": Part# 13

72": Part# 18, 16

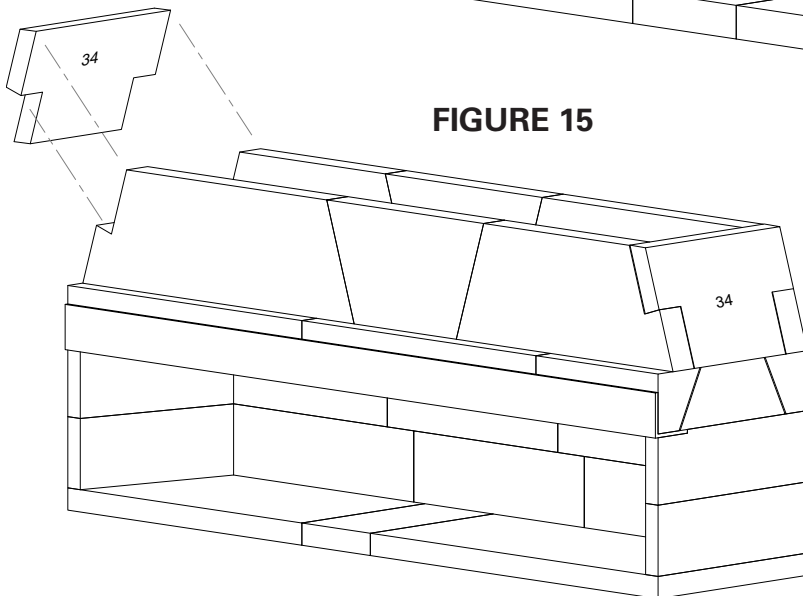
96": Part# 16, 113, 17

120": Part# 16, 116, 16

**FIGURE 14**



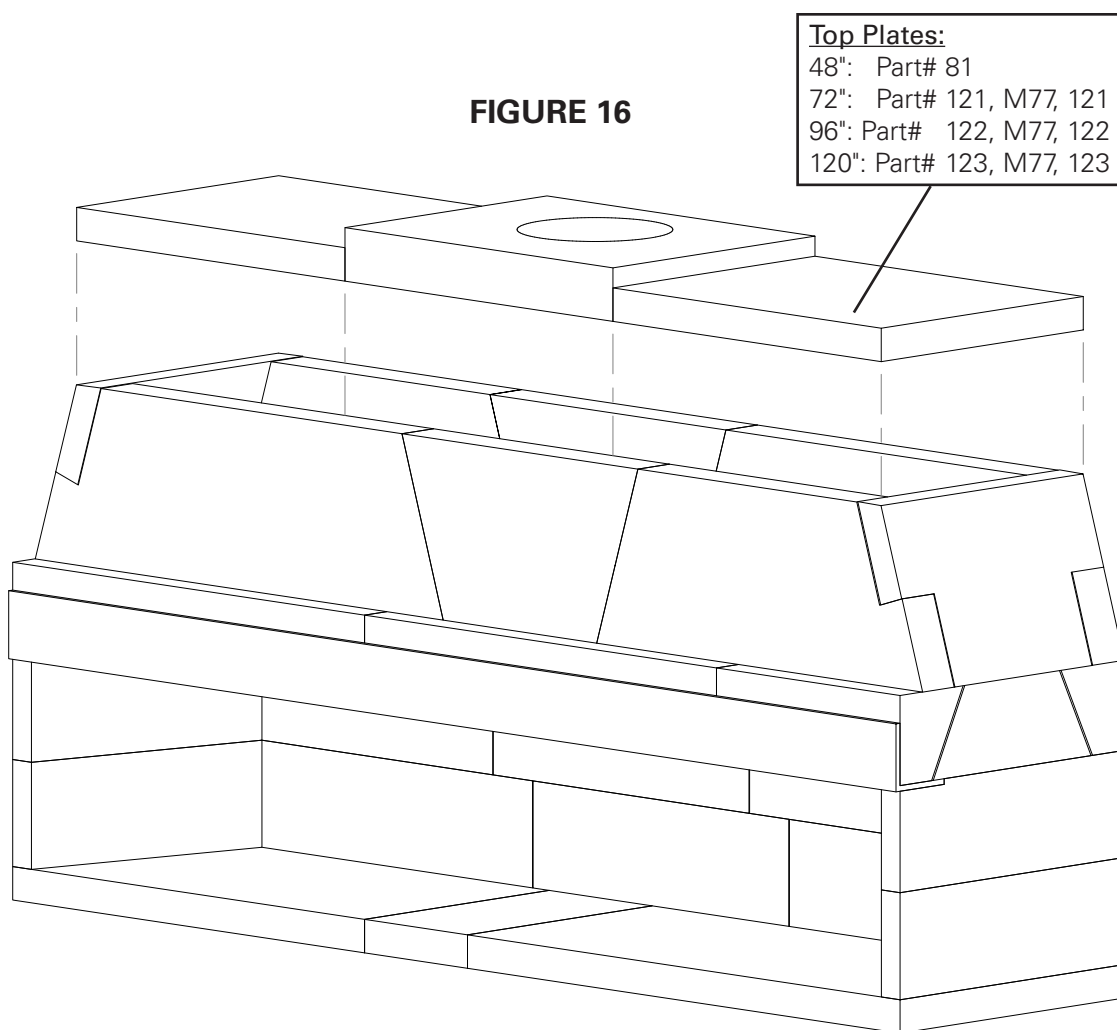
**FIGURE 15**



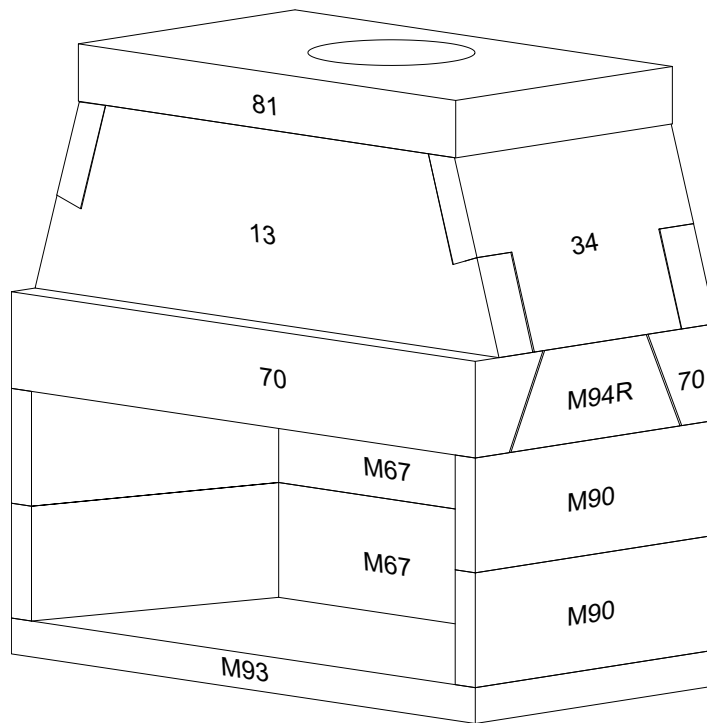
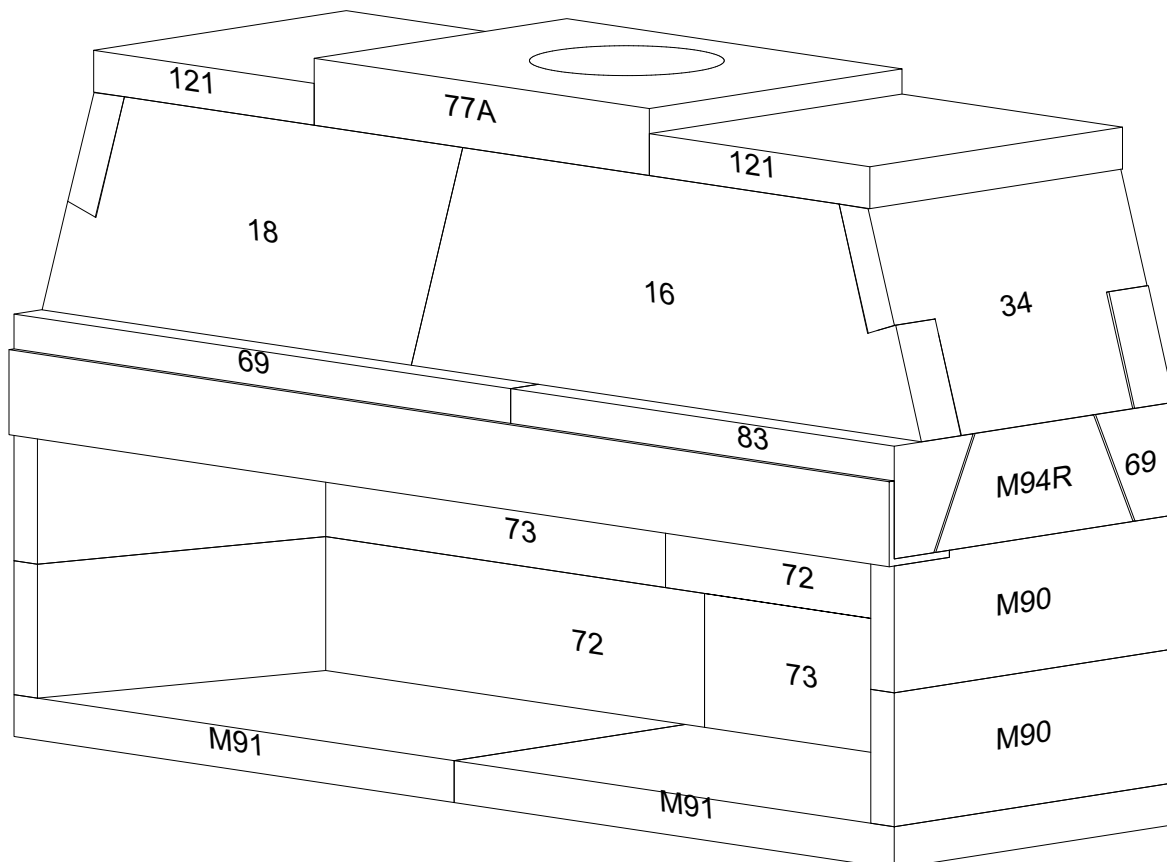
## Isokern Maximus Linear Assembly Instructions

9. Set the top plates into position and apply Earthcore Adhesive on top of the smoke dome wall assembly.

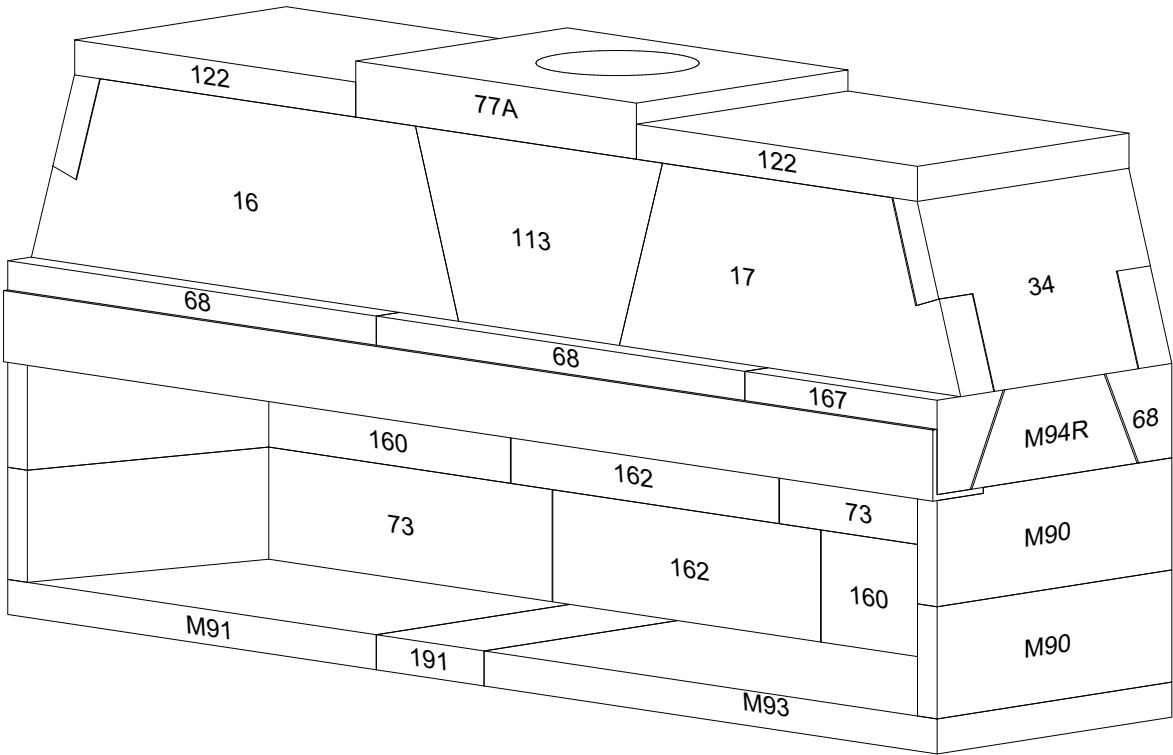
One side of the top plate shows a thickened center. This side is the bottom face. The flue hole in the top plate is centered in the smoke dome from side to side but is offset from front to back, the center being ten and three-fourths inches (10  $\frac{3}{4}$ " ) from the back of the firebox (**Figure 25**).



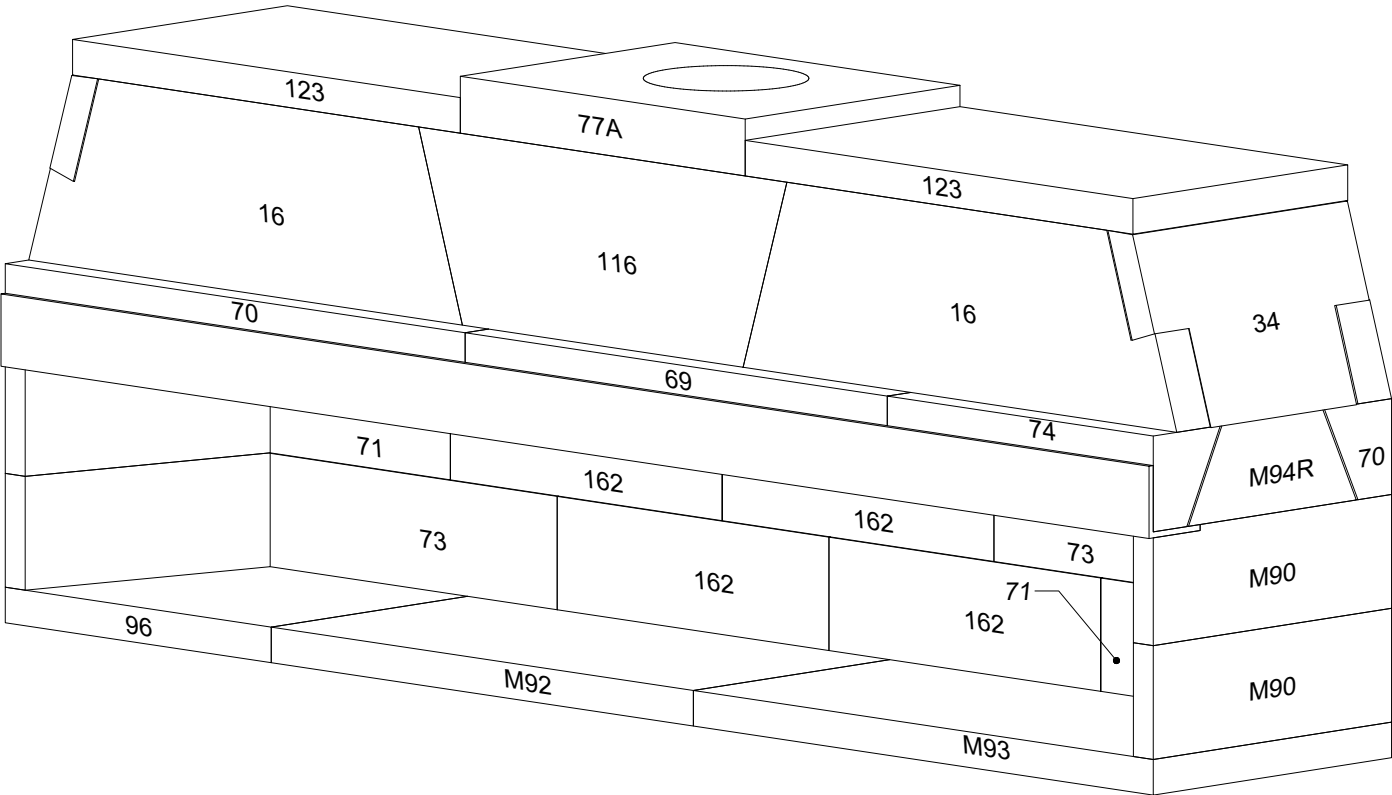


**Assembled - LINEAR 48"****Assembled - LINEAR 72"**

Assembled - LINEAR 96”



Assembled - LINEAR 120”



## Access Modification - Combustion Air Kits, Gas & Electrical Line Feed

4" Combustion air inlet kits are recommended by Earthcore and may help improve fireplace operation in homes tightly sealed and with other ventilating appliances installed (**Figures 17 and 18**). The following is a general representation of a combustion air kit that is required by Earthcore Industries.

The combustion air kit consist of a sliding stainless steel access door affixed to a four inch (4") in diameter stainless steel sleeve approximately twelve inches (12") long. An exterior vent with dress plate, weather hood and rodent prevention screen of a maximum one-quarter inch (1/4") wire mesh completes the kit.

The access door is fitted into the front 1/3 of the side wall. The twelve inch (12") long sleeve can be introduced into the firebox side wall by core drilling an appropriately sized hole at the selected firebox location. Keep the top of the access hole no more than six inches (6") above the finished firebrick floor. The hole size should allow for a one-quarter inch (1/4") mortar joint around the air access sleeve for heat expansion. Do not install in the rear of the firebox because sparks will be blown into room.

The sleeve passes through the firebox side wall and must be connected to a UL Listed Air Duct pipe that leads to the source for outside combustion air, as directly as possible from the fireplace. The duct cannot rise vertical higher than the finished opening of the firebox.

We recommend not to exceed twenty feet (20') of four inch (4") pipe. If you require a longer length we recommend that you use a six inch (6") diameter pipe for the complete run of up to forty feet (40').

**WARNING:** Do not use combustible duct material. Avoid installing a combustion air inlet where the opening could be blocked by snow, bushes or other obstacles. Air inlet ducts shall not terminate in attic, basement or garage spaces.

### GAS LINE FEED

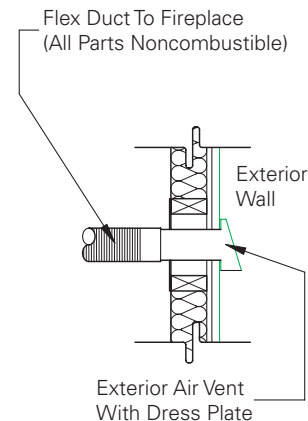
For a fireplace having the provision for installation of a gas pipe, the provision is intended only for connection to a decorative gas appliance.

### ELECTRICAL LINE FEED

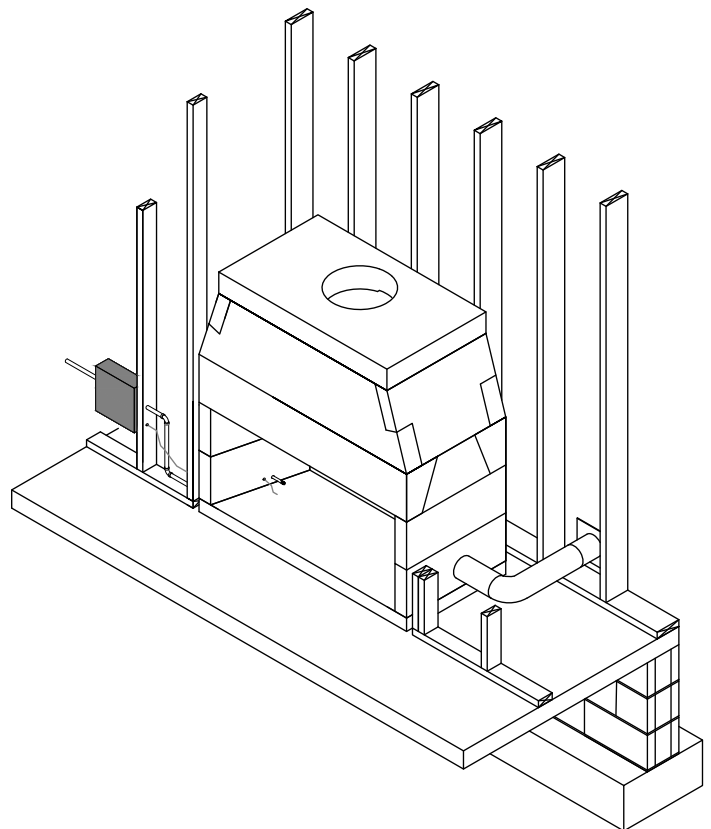
Can be routed through the LINEAR firebox side walls by drilling an appropriately sized hole using a masonry drill bit. Be sure to follow the gas log Appliance Manufacturer's explicit electrical line connection instructions for vented masonry fireplace installations. Gas line and electric line must be fed through separate access holes.

**NOTE:** Gas and electrical connections may be brought through the rear wall of the unit and into the area of the firebrick cavity. A gap will need to be left in the firebrick extending from the cavity to the rear wall of the unit for passage of the 3/8" gas line, pilot tube, and electrical connections. Ensure all holes are filled with mortar after installation.

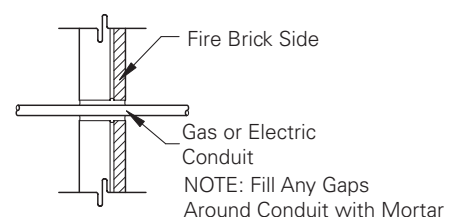
**FIGURE 17**



**FIGURE18**



**FIGURE 19**



## B-Vent Metal Chimney - General Information

The Maximus Linear Series Fireplaces are tested and listed for use with the specified factory-built metal B-Vent Chimney Systems. The design and installation require that the system use the Metal-Fab Type B Gas Vent Chimney System.

### APPROVED MANUFACTURERS

Metal-Fab®(UL 441 & ULC S605) Type B Gas Vent

**NOTE:** The selected, approved chimney manufacturer must provide the masonry anchor plate with down draft diverter designed to fit their flue system.

All chimneys and chimney liners must be installed in accordance with the manufacturer's installation instructions and under the terms of their listing for use with open faced fireplaces.

Refer to metal flue manufacturer for number of offsets, approved chimney shrouds, clearance to combustibles and any information specific to that flue system. B-Vent Chimney is not designed for use on products that operate at continuous temperatures in excess of 1000°F.

**IMPORTANT:** Never fill any required clearance space with insulation or any other building materials surrounding the chimney.

Exterior metal parts, with exception of the top portion of the chimney cap, can be painted with a high temperature rust proof paint. Wash the metal surface with a vinegar and water solution to remove any residue before painting. Painting the chimney will help to increase chimney life.

Interior chimneys shall be enclosed where they extend through closets, storage areas, occupied spaces, or anywhere the surface of the chimney could be contacted by persons or combustible materials. The air space between the outer wall of the chimney and the enclosure shall not be less than 1 inches.

Except for installation in one or two family dwellings, a factory built chimney that extends through any zone above that on which the connected appliance is located is to be provided with an enclosure having a fire resistance rating equal to or greater than that of the floor or roof assemblies through which it passes.

In cold climates, chimneys mounted on an outside wall should be enclosed in a chase. Exterior chases reduce condensation and enhance draft.

Proper planning for your B-Vent Chimney installation will result in greater safety, efficiency and convenience. You must use only B-Vent Chimney parts and components to maintain a listed chimney system. Do not mix parts or try to match with other products or use improvised solutions.

Install your Isokern fireplace as described in this installation manual and maintain all required clearances.


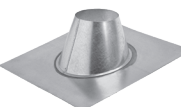



Connect only one fireplace per chimney. Follow the fireplace safety manual for maximum efficiency and safety. Do not over fire. Any damage to the fireplace or chimney can possibly void the warranty.

Do not burn wood, driftwood, plastic, or chemically treated wood such as railroad ties. They are corrosive to your chimney system. **THIS IS A GAS ONLY FIREPLACE.**

**A major cause of chimney related fires is failure to maintain required clearance (air spaces) to combustible material\*. Minimum clearance for 12" diameter b-vent chimney is one (1) inches. It is of utmost importance that this chimney is installed only in accordance with these instructions.**

## B-Vent Metal Chimney & Components

Component	Part#	Description
	12M12	B-Vent 12" Length
	12M18	B-Vent 18" Length
	12M24	B-Vent 24" Length
	12M3	B-Vent 3' Length
	12M4	B-Vent 4' Length
	12M5	B-Vent 5' Length
	12M12A	B-Vent 12" Adjustable Length
	12M18A	B-Vent 18" Adjustable Length
	12M45	45 Deg Adjustable Elbow
	12MDD	12" B-Vent Draft Diverter

Component	Part#	Description
	12MGR	B-Vent Guy Ring
	12MF	B-Vent Standard Flashing
	12MFS	B-Vent Firestop
	12MSC	B-Vent Storm Collar
	12MFT	B-Vent Flat Tall Cone Flashing

## B-Vent Metal Chimney Installation

**1.** Mount Anchor Plate with down draft diverter: Chimneys for Isokern LINEAR fireplaces begin with an Anchor Plate with down draft diverter.

It is important that the surface of the Isokern chimney has a level surface on which to attach the Anchor Plate. If the top of the Isokern does not have a level surface, then it will need to be modified accordingly.

Center the Inswool blanket over Isokern Top Plate hole and trace outline of hole with a pen or marker. Cut a hole in the blanket to match the hole in the Isokern top plate. Center the Inswool blanket over the Isokern Top Plate flue opening, then center anchor plate over the Inswool blanket.

Secure the Anchor Plate with four (4) masonry anchors. **(Figure 20)**

**WARNING:** Do not locate Anchor Plate with Down Draft Diverter in a location inaccessible for inspection, cleaning and servicing after installation.

**2.** Starting at the anchor plate, attach the first section of B-Vent Pipe. It is acceptable to use screws to attach the B-Vent to the anchor plate.

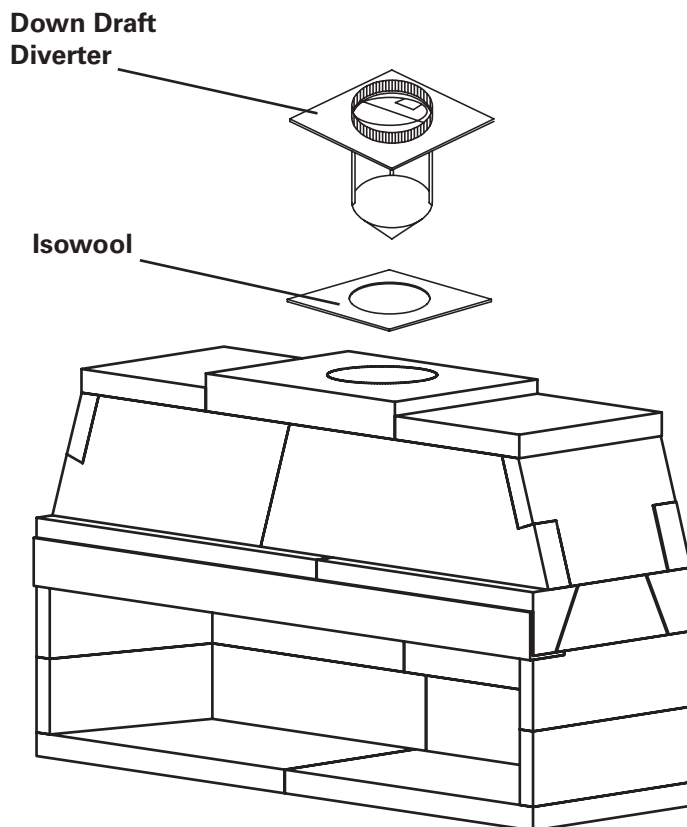
The B-Vent sections and components use the Metal-Fab positive twist lock for interconnections. Align the ends of the vent, push together then twist section to lock in place. **(Figure 21)**

No additional fasteners are required to assure a safe installation. It is acceptable to apply screws at the joints if local code requires, or at the installing contractor's option, provided that the screws **do not** penetrate the flue.

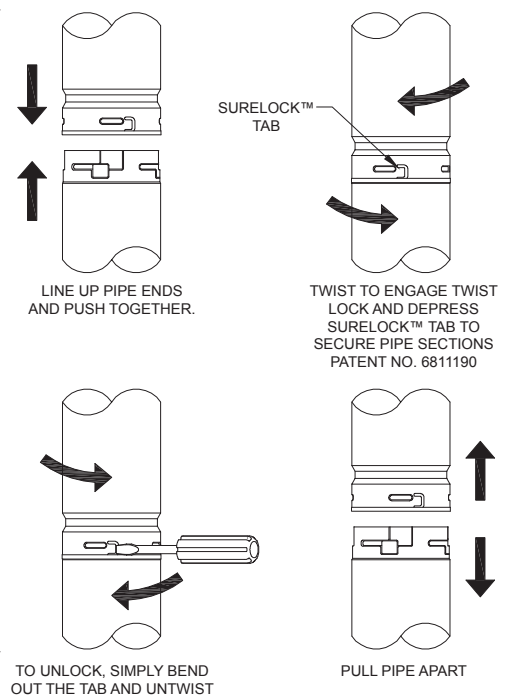
The B-vent must be supported every 5' with wall band or support straps.

**NOTE:** When installing B-Vent always align "Up" arrow away from appliance. Chimneys must be installed so that access is provided for inspection and cleaning.

**FIGURE 20**



**FIGURE 21**





## B-Vent Metal Chimney Installation

3. If the B-Vent must penetrate the ceiling between floors, cut a hole in the ceiling 2 inches larger than the outside diameter (OD) of the outer casing. The B-Vent is to be centered in this opening. When installed, check to make sure the one inch (25.4 mm) clearance to combustible has been maintained.

**NOTE:** The B-Vent type chimney system must be enclosed within a chase when installed in or passing through a living area where combustibles or people may come in contact with it. This is important to prevent possible personal injury or fire hazard.

4. Continue with B-Vent penetrating the roof.

**NOTE:** For Canadian installations, use labeled ULC section, designated with Suffix G, on vent sections exposed to atmosphere.

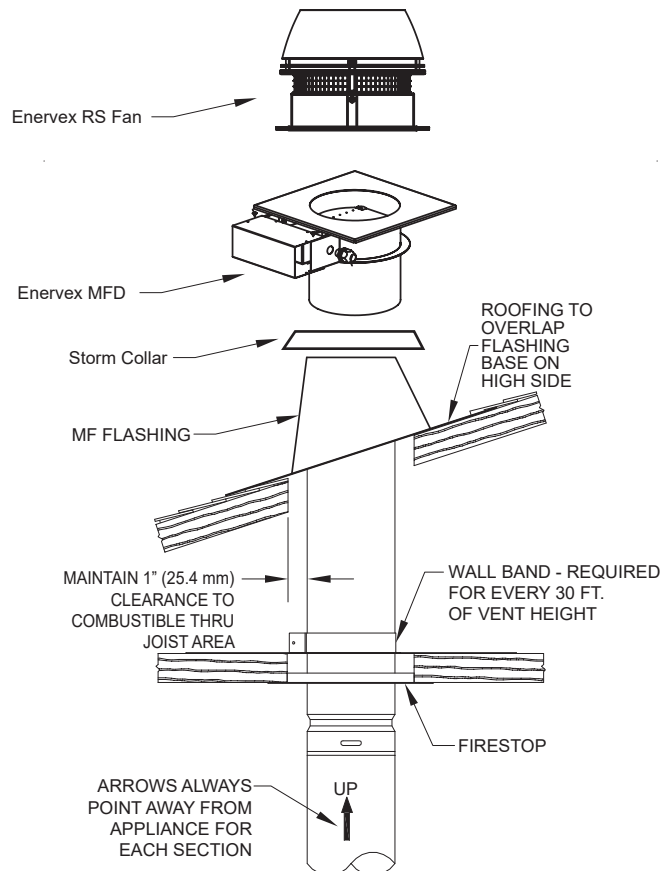
At the roof, the opening should be 2 inches (51 mm) greater than the B-Vent OD. Above the roof, a flashing is required to maintain the one inch (25.4 mm) clearance to the combustibles of the roof. Installation of a storm collar allows water to drain over the flashing.

**NOTE: A B-Vent support plate (MSP) is required if vertical height exceeds 30 feet. Maximum of 30 feet between supports.**

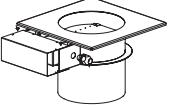
5. Install the B-Vent MFD adapter for RS Chimney Exhaust Fan. See Page 45 for installation instructions.

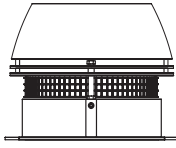
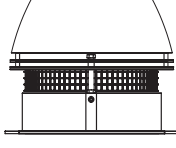
6. Once Adapter has been installed Install the RS Chimney Fan. See Page 45 for installation instructions

**FIGURE 22**



## Enervex RS Chimney Fan & MFD Components

Component	Part#	Description
	221.0300.3012	MFD 12 in. Steel Chimney Adapter for RS 12 and 14

Component	Part#	Description
	101.0499.1200	Enervex RS 12 Chimney Fan w/ controls
	101.0699.1200	Enervex RS 14 Chimney Fan w/ controls

## Enervex RS Chimney Fan & MFD - General Information

**IMPORTANT: READ THESE INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION.**

**EXAMINE ALL COMPONENTS FOR POSSIBLE SHIPPING DAMAGE PRIOR TO INSTALLATION.**

This installation manual does not contain any system design documentation. System design documentation is available from any authorized ENERVEX representative. Accessories, fans, and variable frequency drives are not covered by this manual. Please refer to these component's individual manuals.

**TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**

1. Use this unit in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed on the front of the manual.
2. Before servicing or cleaning the unit, switch off at service panel and lock service panel to prevent power from being switched on accidentally.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with applicable codes and standards.
4. Follow the appliance manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
5. This unit must be grounded.

## Energex MFD - General Information

The ENERVEX MFD is a low profile, automated fireplace damper. It is for use in conjunction with an ENERVEX ADC100 control and RS model chimney fan as part of the EcoDamper System. or with an ADC150 control and RS model chimney fan as part of the IntelliDraft System. It prevents excess heat from escaping through the chimney when the fireplace is not in use.

The MFD is designed for chimney top installations and is for use with gas fireplaces only.

The MFD is powered by a 120 or 24 VAC actuator. The actuator is interlocked to the control so it only operates when the fireplace is in use and the fan is running. When there is a call for heat from the fireplace, the ADC100 or ADC150 control begins its operational sequence to open the damper and start the chimney fan. Once the damper opens and there is sufficient draft in the chimney, the control releases the gas valve for fireplace operation.

The actuator has two end switches to prove damper position (open or closed) and is equipped with the Enerdrive fail safe system to open the damper in the event of an electrical or mechanical failure.

The damper is rated for temperatures up to 575°F (300°C). The damper is sized to provide sufficient clearance between the damper blade and the fan inlet when open. The MFD is constructed of 18 gauge, type 304 stainless steel.

System installation must conform to the requirements of the authority having jurisdiction. When required by the authority having jurisdiction, the installation must also conform to the NFPA31, NFPA54 or NFPA211.

All electrical wiring must be in accordance with the requirements of the authority having jurisdiction or, in absence of such requirements, with the National Electric Code, NFPA 70.

### WARRANTY

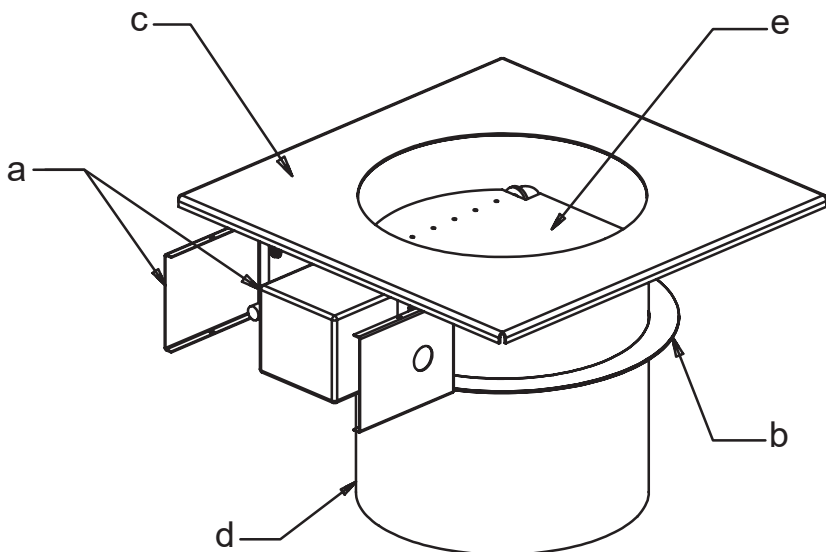
2-Year Factory Warranty. Complete warranty conditions are available from ENERVEX, Inc.

### COMPONENTS

Components of the MFD (**Figure 23**) are listed below:

- a. Actuator / Acuator Cover
- b. Stop Flange
- c. Fan Adapter
- d. Collar
- e. Damper Blade

**FIGURE 23**



## Enervex RS Chimney Fan - General Information

The RS Chimney Fan is a chimney top mounted ventilator that is designed to provide large flue gas volume capacities. It is designed and intended for use with residential gas or oil fired central space heating systems, for volume water heating or for combination space heating/volume water heating. It is also suitable for use with gas-fired fireplaces.

This product is developed to prevent draft problems from occurring by creating a mechanical draft in venting systems and thereby also increasing the capacity and efficiency of a venting system.

The use of the RS Chimney Fan is not restricted to any type of chimney, because the fan creates a negative pressure (below atmospheric) in the chimney or vent.

### Code Compliance

Installations must conform to requirements of the authority having jurisdiction. Where required by the authority having jurisdiction, the installation must also conform to the Standard for Draft Equipment and The National Fuel Gas Code, ANSI Z223.1/NFPA 54.

All electrical wiring must be in accordance with the requirements of authority having jurisdiction or, in the absence of such requirements, with the National Electrical Code, NFPA70.

### Listings

The Model RS is tested and listed to UL Standard 378, Standard for Draft Equipment. The fan is manufactured at an ISO9001 certified plant and bears the European CE compliance label.

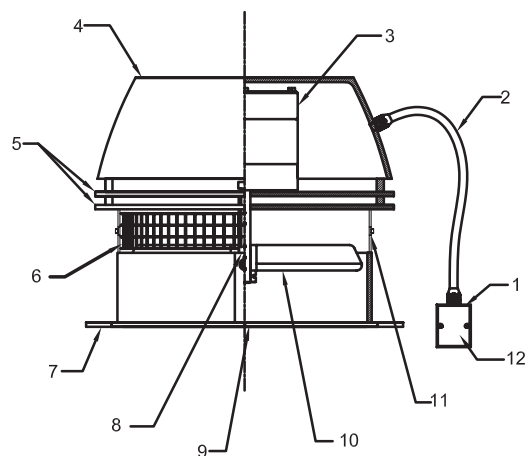
The chimney fan must be interlocked with the connected appliance(s) to insure proper combustions and to avoid flue gas spillage.

### WARRANTY

ENERVEX products are warranted for a period of two (2) years following the date of invoice. Replacement or repair will be at ENERVEX's discretion, provided factory inspection shows a defect in material or workmanship.

Complete warranty conditions are available from ENERVEX.

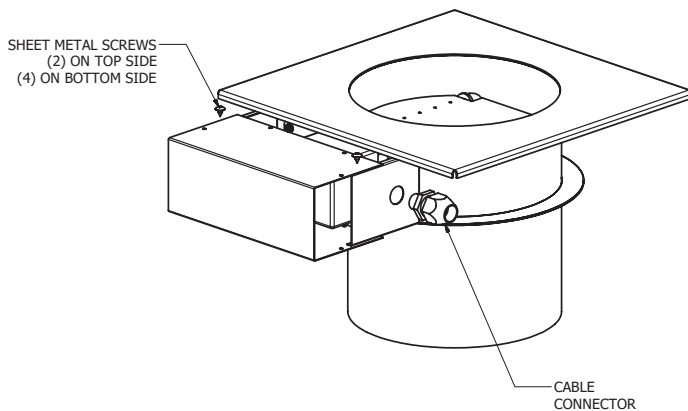
**FIGURE 24**



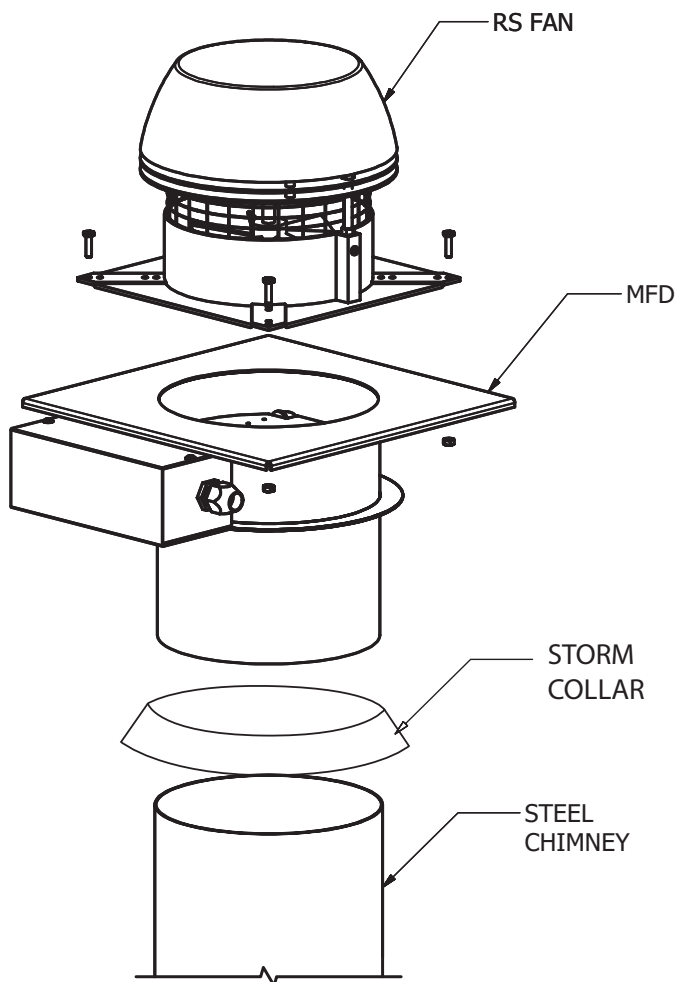
- |   |               |    |                       |
|---|---------------|----|-----------------------|
| 1 | Junction box  | 8  | Locking nut           |
| 2 | Conduit/cord  | 9  | Inlet                 |
| 3 | Motor         | 10 | Axial vane            |
| 4 | Motor housing | 11 | Hinges                |
| 5 | Motor plate   | 12 | Capacitor             |
| 6 | Bird screen   |    | (inside junction box) |
| 7 | Base plate    |    |                       |

## Enervex MFD & RS Chimney Fan - Installation Instructions

**FIGURE 25**



**FIGURE 26**



**1.** Before installing the MFD on the chimney, a power cable should be wired to the actuator and the actuator cover should be secured.

**2.** Use 4-conductor cable (min. 18 AWG) with a weatherproof jacket such as rubber or silicone. Install a weatherproof cable connector on the side of the actuator cover to prevent water ingress to the actuator.

**3.** Use (6) of the included sheet metal screws to secure the actuator cover to the MFD. Once secure, apply a bead of silicone around the seams of the cover.

**4.** Mount the MFD outdoors at the top of a steel chimney. Slide the collar of the MFD into the steel chimney until the damper rests on the stop flange. Sheet metal screws may be installed around the collar into the chimney for additional support.

**5.** Once the MFD is secured, place the RS fan on the adapter. Use the mounting holes on the fan base as a drill template to make one mounting hole in each corner of the adapter. Use bolts and locking nuts to secure the fan to the MFD.

### WIRING OF A GAS FIREPLACE WITH A DAMPER

**6.** The MFD must be interlocked to an ENERVEX control. When used with a gas fireplace as part of the EcoDamper System, both a RS Chimney Fan and MFD will interlock with the ADC100 control as shown in **Figure 27**.

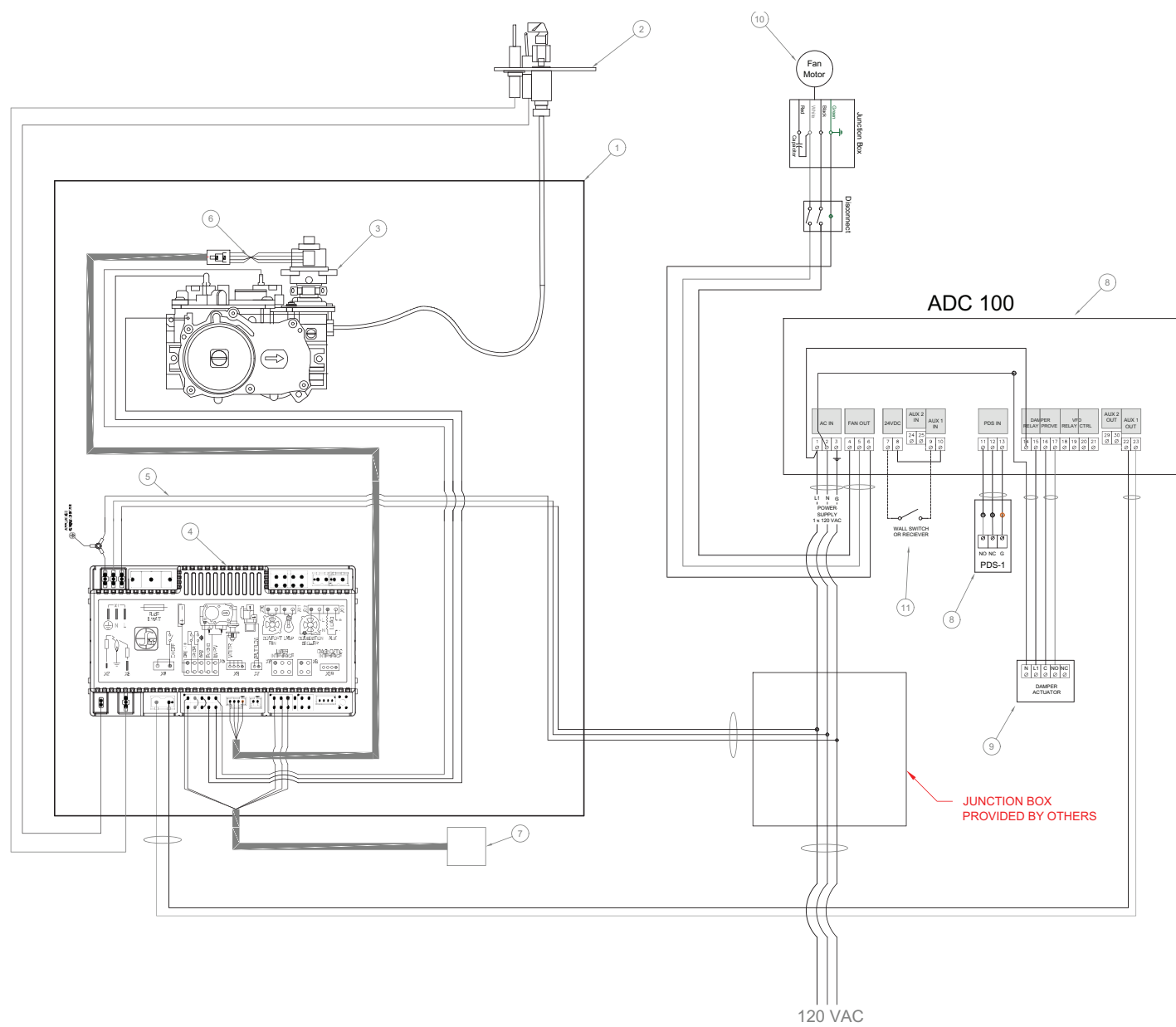
**7.** Power to the actuator must be supplied externally. Interlock the damper with the control board via terminals 14 and 15 as shown below and on the next page. The Normally Open and Common terminals of the actuator end switches should connect to the damper prove terminals (16 and 17).

**8.** Once the MFD has been installed, verify operation and rotation of the damper. The end of the damper rod is notched to indicate position of the damper blade. As the actuator opens the damper, the notch will indicate movement from 0 to 90 in the clockwise (CW) direction.

**9.** If the damper does not operate correctly when power is supplied or if it rotates the wrong direction, verify wiring as shown in **Figure 35** of this manual.

Enervex MFD & RS Chimney Fan - Wiring Diagram

FIGURE 27



COMPONENT LIST			
PART ID	PART #	DESCRIPTION	QTY
1	SC121204M	MODIFIED 12X12X4 GAS VALVE ENCLOSURE	1
2	PSE-C7-531	84" PILOT ASSEMBLY	1
3	SIT0.855.006	SIT PROFLAME2 855 MODULATING VALVE-NATURAL GAS	1
4	SIT0.584-308	SIT PROFLAME2 MODULATING VALVE CONTROL MODULE	1
5	N/A	SIT PROFLAME2 POWER WIRING HARNESS	1
6	SIT0.584.924	SIT PROFLAME2 VALVE WIRING HARNESS	1
7	SIT0.584.922	SIT PROFLAME2 WIRE HARNESS BATTERY BOX	1
8	ADC100	ADC 100 CONTROL BOARD W/ PDS	1
9	12 MFD	ENERVEX 12" MFD FOR RS009-012 FAN	1
10	Rs12	ENERVEX RS012 FAN	1
11	N/A	WALL SWITCH (24V)	1

- NOTES:  
1 THE DISCONNECT MEANS AND CIRCUIT PROTECTION ARE TO BE PROVIDED BY THE INSTALLER OF THIS DEVICE
- LEGEND:  
----- 24 VAC  
———— 120 VAC

## Firebrick Installation - General Information

The manufacturer requires for the Maximus Linear Series fireboxes be lined with a minimum one and one-eighth (1-1/8") thick firebrick for the Backwall and Sidewalls and 2-1/4" thick firebrick on the Floor. Thicker firebrick may be used as an option. The pattern for the firebrick lining is an owner option. The ISOSET mortar by Earthcore is to be used when lining the Isokern Fireplace.

### ISOSET FIREBRICK MORTAR APPLICATION:

- Add .75 quarts of water per 10 lbs of dry product until completely blended.
- Only mix what can be utilized within 15 minutes.
- Do not re-temper (the addition of water after the chemical reaction has begun).
- The use of warm water will accelerate setup.
- Joint thickness should be thin (1/4" - 3/8")
- Complete set time is between 48 and 72 hours.
- For best results, please allow 28 days before heat is applied.
- Approximately 35 to 40 lbs of prepared mortar will lay up one hundred 9 x 4½ x 2½" straights.
- **DO NOT add additives, such as fire-clay, sand, cement, or other accelerators.**

These instructions may vary because of different climates and conditions. The use of good masonry practices for your area should also be considered.

### INSTALLATION INSTRUCTIONS:

**1.** Wet mop the inside of the fireplace with a damp sponge to remove dust and loose particles from the interior before installing firebrick. Keep the fireplace damp while installing firebrick.

#### For Best Results:

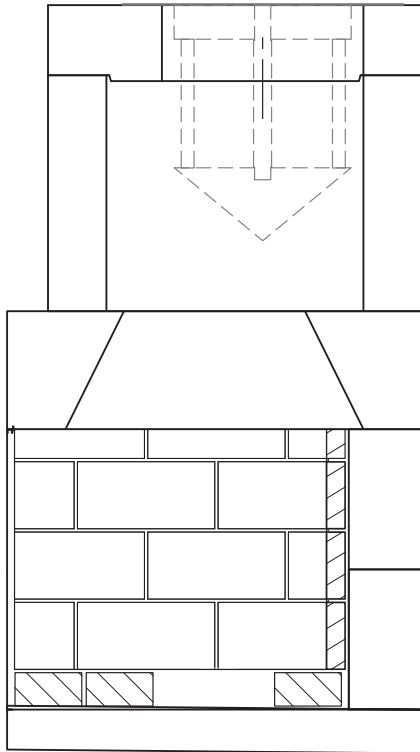
- **After wetting sponged interior of firebox, apply a 1/4 notch bed joint on rear sides and floor**
- **Dip each firebrick in a pale of water before applying mortar to one side for adherence to firebox.**

**2.** Facing joint dimensions of 1/4" to 3/8" in the brick work is recommended and has the best appearance. Other face joint dimensions are acceptable, however smaller joints may not leave room for heat expansion of firebrick.

**Earthcore makes no claims as to the performance of firebrick or firebrick mortar(s). It is typical for heat stress cracks to appear in the firebrick in fireplaces.**

## Firebrick Installation - Maximus Linear Open Front Unit

**FIGURE 28**

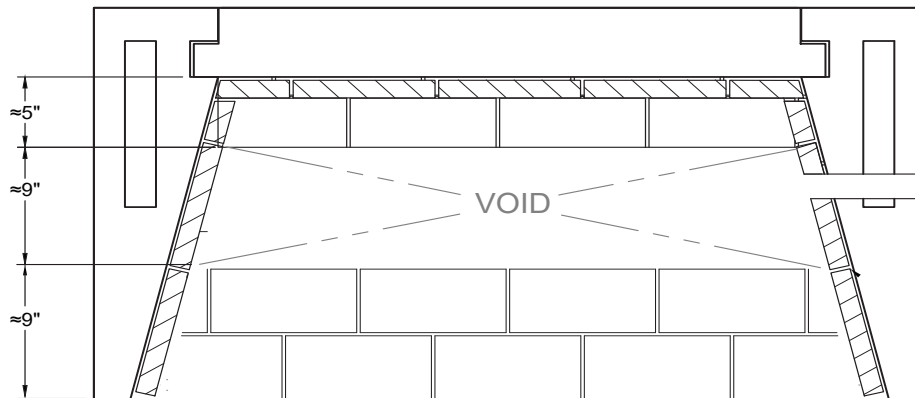


1. Starting approximately 1/2" from the rear of the firebox, lay one course of "full" sized firebrick. Ensure a gap of approximately 1/2" is kept between firebrick and sidewall to allow for expansion.
2. Two courses of "full" sized firebrick shall start at the leading edge of the baseplate. Ensure a gap of approximately 1/2" is kept between firebrick and sidewall to allow for expansion.
3. Apply "split" firebrick to the rear wall of the unit. Ensure approximately 1/2" gap is kept between firebrick and sidewall, as well as an 1/4" gap is kept between firebrick and damper beam assembly to allow for expansion.
4. Starting from the front edge of the unit's sidewall, apply "split" firebrick to the side wall of the unit. Ensure approximately 1/4" gap is kept between firebrick and damper beam assembly to allow for expansion.

### IMPORTANT

Ensure holes for 1 - 2" gas supply to burner and pilot assembly gas and electrical connections are drilled prior to firebrick installation. **Do not cover these areas with firebrick.**

**FIGURE 29**



**NOTE:** Gas and electrical connections may be brought through the rear wall of the unit and into the area of the firebrick cavity. A gap will need to be left in the firebrick extending from the cavity to the rear wall of the unit for passage of the 3/8" gas line, pilot tube, and electrical connections. Ensure all holes are filled with mortar after installation.



## Flush Wall Finish Detail

Maximus Linear units are designed to be installed so that the rough front face of the Isokern firebox and smoke dome sit flush to the room face of the rough framing members that create the room wall finish. **(Figure 30)**

**IMPORTANT:** Do not build a combustible frame wall in front of the Maximus Linear firebox! **(Figure 31)**

### Clearance to Drywall:

Drywall can be placed directly in contact with the front of the Maximus Linear smoke dome. With the Isokern firebox/smoke dome set flush with the interior face of wall framing, drywall can be hung on the framing members and pass across the face of the Maximus Linear smoke dome and in contact with it.

Combustible wood sheathing such as plywood and particle board may be used to cover the front of the Isokern smoke dome and be in direct contact with it. Application of such combustible sheathings must assure that the sheathing is held a minimum of eight inches (8") away from each side of the finished fireplace opening and a minimum of eight inches (8") inches above the top of the finished fireplace opening. **(Figure 30 & 31)**

If combustible wood sheathing is installed across the face of the Isokern smoke dome front be sure that when the required noncombustible finished facing materials are applied directly to the front of the Maximus Linear, that no gaps or voids are left behind the finished facing materials. Completely seal the required noncombustible finished facing materials directly to the Isokern unit with Earthcore Adhesive or other non-combustible grout.

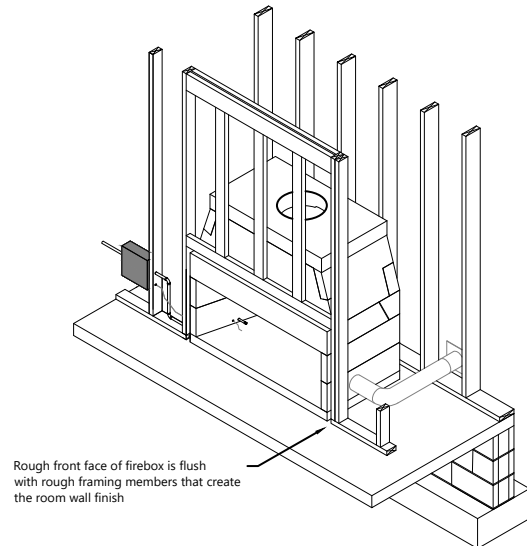
**IMPORTANT:** Since there is no fire brick set along the top of the Maximus Linear firebox opening, when setting the noncombustible facing material onto the drywall across the top of the firebox opening there will be a gap between the back of the noncombustible finish material and the rough front face of the Isokern Smoke Dome.

Be sure to fill this gap with Earthcore Adhesive in conjunction with placement of the code required noncombustible finish facing material that is set across the top of the firebox opening.

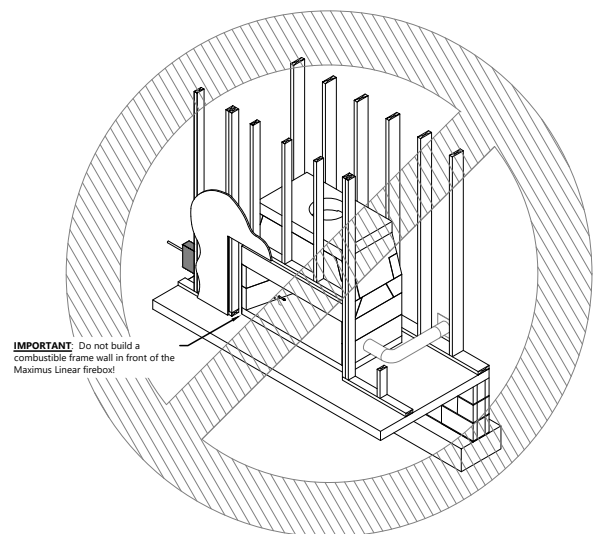
**WARNING: Avoid false chimneys.**

**IMPORTANT:** Failure to seal any gaps between the front face of the Maximus Linear and the back of the noncombustible finished facing material will create what is known as a "false chimney" or "secondary chimney". A "false chimney", in this case is the narrow gap (mentioned above) between the back of the noncombustible facing material at the top of the firebox opening and the rough front of the Maximus Linear smoke dome. If left unfilled this gap creates a "false chimney" which can cause a fire hazard by drawing considerable heat out of the firebox and into the space behind the noncombustible finish facing and from there up into the wall cavity behind the drywall or other sheathing material that houses the Isokern fireplace.

**FIGURE 30**

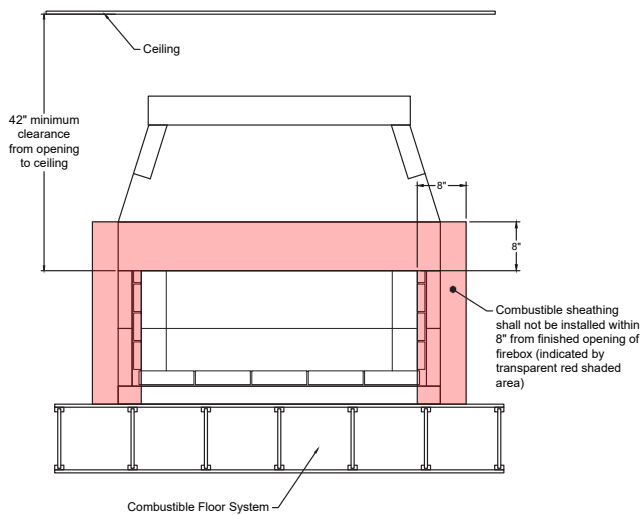


**FIGURE 31**



## Clearance to Combustible Trim

**FIGURE 32**



### Mantle and Mantle Shelf Clearances:

All combustible trim projecting less than one and one-half inch (1 1/2") must be kept eight inches (8") from the sides of the fireplace opening. All combustible trim projecting more than one and one-half inch (1 1/2") must be kept twelve inches (12") from the fireplace opening.

### (Figure 34)

Parts of the combustible mantle assembly located along the sides of the fireplace opening, which project more than one and one half inches (1-1/2") from the face of the fireplace, shall have additional clearance equal to that of the projection.

Parts of the combustible mantle assembly located above and projecting more than one and one half inches (1-1/2") from the fireplace opening shall not be placed less than twelve inches (12") from the top of the fireplace opening. (Figure 33)

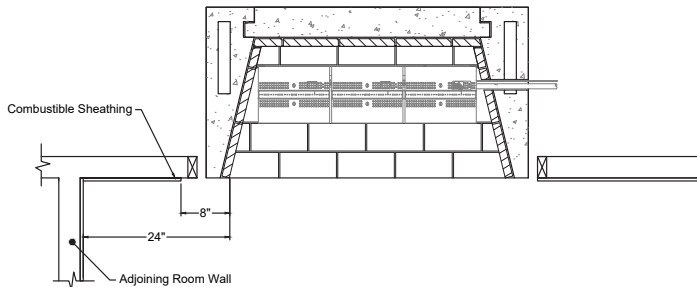
### Adjoining Walls:

Side walls and walls to rooms adjoining the Isokern fireplace installation cannot be closer than twenty four inches (24") to the finished fireplace opening. (Figure 33)

### Ceilings:

The minimum clearance from the top of the fireplace opening to a ceiling is forty-two inches (42"). (Figure 32)

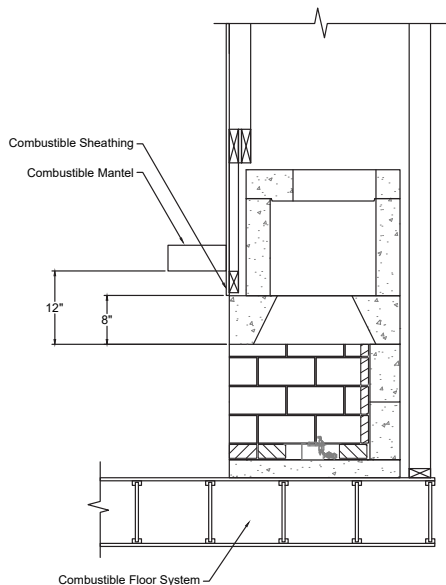
**FIGURE 33**



**NOTE:** "Clearance to Combustible Trim" are those distances required to ensure that a fireplace mantle or facing will not catch fire. In most cases the distances should also be adequate to prevent any discoloration or warping due to heat. However each installation presents a unique and completely different set of circumstances involving many variables.

These include paint or finish composition, previous exposure to heat, methods and quality of construction, air flow patterns, etc. Because of these variables, the manufacturer does not guarantee that heat warping or discoloration will never occur.

**FIGURE 34**



## Isoflames Linear Burner - Safety Instructions

**WARNING: This appliance assembly contains burner orifices specifically for the input gas specified on the burner and box, as well as the BTU rating specified in this manual. Modifying or failure to use the factory orifice may cause property damage, personal injury or loss of life.**

### Read these instructions completely before installing and using ISOFLAMES Linear Burner

1. This appliance must be installed only in a gas burning fireplace with a working flue and constructed of non-combustible materials.
2. A permanent free opening must be provided by either the fireplace chimney or chimney damper to vent carbon monoxide and other flue gases. Any chimney damper must be fixed in a manner, which will maintain the permanent free opening at all times.
3. Solid fuels shall not be burned in a fireplace where a decorative appliance has been installed.
4. The minimum inlet supply pressure for the purpose of input adjustment is 5.0 inches (natural gas) 11.0 inches (propane) in water column. The maximum inlet supply pressure is 10.5 inches (natural gas) 13.0 inches (propane) in water column.
5. Gas type will be indicated on the burner and the box. Do not use a natural gas burner with propane or a propane burner with natural gas. Appliance is not convertible to use other gases.
6. The installation, provisions for combustion, and ventilation air must conform to the National Fuel Gas Code, ANSI Z223.1/ NFPA 54, or the Natural Gas and Propane Installation code, CSA B149.1.
7. The appliance and its main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.5 kPa). The appliance must be isolated from the gas piping system by closing its equipment shutoff valve during any pressure testing of the supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).
8. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
9. Periodic examination and cleaning of the venting system of the solid-fuel burning fireplace, including frequency of such examination and cleaning, by a qualified agency.
10. A fireplace screen must be in place when the appliance is operating and, unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air.
11. The appliance area is to be clear and free from combustible materials, gasoline and or flammable vapors and liquids. For warranty to be valid gas log sets must be installed by a NFI certified or other qualified professional installer.
12. Always check local building codes governing fireplaces and fireplace installations. ISOFLAMES Linear Burner installation must comply with all local, regional, state and national codes and regulations.
13. This appliance is only for use with the type of gas indicated on the rating plate. This appliance SHALL NOT be field converted for use with other gases with Propane (LP) or Natural Gas (NG).
14. This appliance shall only be installed, serviced, or inspected by qualified professional service technician.
15. For propane (LP) use do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors.
16. To prevent performance problems, do not use propane fuel tank of less than 100 lbs. capacity.

## **Isoflames Linear Burner - Safety Instructions**

- 17.** This decorative gas appliance reaches high temperature. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
- 18.** Turn the appliance off and allow to cool before servicing. Always shut off any electricity and gas to the appliance while working on it. Only a qualified service person should install, service or repair this appliance. Have your appliance inspected annually by a qualified service person.
- 19.** It is imperative that the unit's control areas, burners and circulation air passages be kept clean.
- 20.** Keep all combustible material, gasoline and other flammable liquids at a safe distance from the fireplace. Do not use the appliance where these items are used or stored. Decorations, clothing and other such combustible items should not be placed on the appliance.
- 21.** Do not cook food or burn paper or other object(s).
- 22.** Do not use any solid fuels - wood, coal, paper, cardboard, etc. - Use only the gas type listed on the fireplace's gas log label.
- 23.** Do not in any way obstruct the flow of combustion and ventilation air. Provide adequate clearances around air openings into the combustion chamber as well as adequate accessibility clearances for servicing and proper operation.
- 24.** This American Gas Association fact sheet provides an overview of the requirements for the electrical bonding of fuel gas piping systems to the electrical grounding system based on ANSI Z223.1/NFPA 54, National Fuel Gas Code - 2015 (NFGC). The bonding requirements in previous code editions, in local jurisdictions or in specific situations, may differ.
- 25.** Never install an ISOFLAMES Linear Burner component or accessory that has visible or suspected physical damage as a result of handling or transportation. These items should be inspected by a qualified representative to ensure safe condition. When in doubt, consult your local supplier.
- 26.** Do not alter or modify the ISOFLAMES Linear Burner or burner components under any circumstances. Modification or alteration of any sort may void manufacturer's warranty, listings and approvals.
- 27.** The ISOFLAMES Linear Burner system is not intended to heat an entire home or to be used as a heat source.
- 28.** Children and adults should be alerted to the hazards of high surface temperature and should stay away from this appliance to avoid burns or clothing ignition.
- 29.** Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to the fireplace, install an adjustable safety gate to keep toddlers, young children and other at-risk individuals out of the room and away from hot surfaces.
- 30.** Clothing or flammable material should not be placed on or near the appliance.
- 31.** Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- 32.** Any safety screen, guard, or barrier removed for servicing an appliance must be replaced prior to operating the appliance.
- 33.** Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etcetera. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.

## Isoflames Linear Burner - Safety Instructions

**WARNING:** This product contains or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

**IMPORTANT:** Read this owner's manual carefully and completely before trying to assemble, operate or service this fireplace. Improper use of this fireplace can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

**DANGER: CARBON MONOXIDE POISONING MAY LEAD TO DEATH!**


Propane (LP) gas and natural gas (NG) are both colorless and odorless gases. An odor making agent is added to each of these gases to help you detect a gas leak. However, the odor added to these gases can fade and gas may be present even though no odor exists.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble flu symptoms, including headaches, dizziness or nausea. If you have these signs the fireplace may not have been installed properly, get fresh air at once! Have the fireplace inspected and serviced by a qualified service person or your gas supplier. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung diseases or anemia, people at high altitude or under the influence of alcohol. Earthcore Industries strongly recommends the use of a carbon monoxide detector/alarm device wherever gas fired appliances are in use.

All parties either involved in or associated with the installation, service and use of this fireplace must read this entire manual. Keep this manual for reference and as a guide book to safe operation of this fireplace.

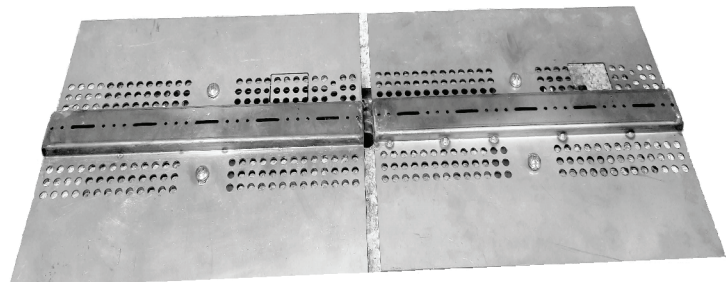
**WARNING:** This unit is not for use with solid fuel.

## Isoflames Linear Burner - Rating Plate

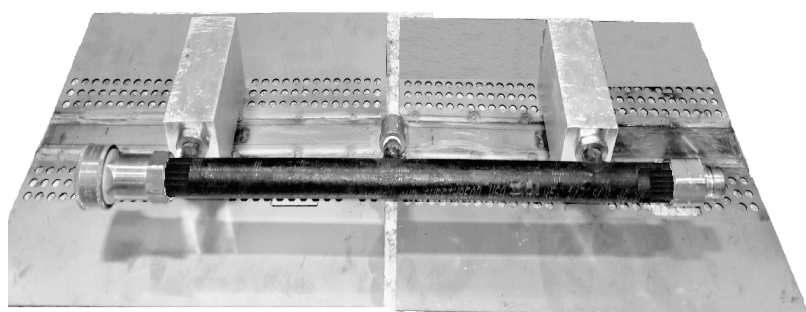
<b>ISOFLAMES®</b> MADE IN USA CHESAPEAKE, VA 23323	<b>ISOFLAMES LINEAR BURNER</b> <b>NOT FOR USE WITH SOLID FUEL</b> SERIAL NO: 000001	 PFS REPORT NO. FXX-XX
<b>GAS TYPE: NATURAL GAS</b> <b>MANIFOLD PRESSURE: 3.5" - 1.6" WC</b> <b>MINIMUM INLET GAS SUPPLY PRESSURE: 5" WC</b> <b>MAXIMUM INLET GAS SUPPLY PRESSURE: 10.5 WC</b>	<b>ANSI Z21.50-2019 • CSA 2.22-2019, Decorative Gas Appliances for Installation in Vented Fireplace</b>	
<b>MODEL #</b> <input type="checkbox"/> ISO24LBN MAX BTU 36,000; MIN BTU 25,000 <input type="checkbox"/> ISO36LBN MAX BTU 54,000; MIN BTU 38,000 <input type="checkbox"/> ISO60LBN MAX BTU 90,000; MIN BTU 63,000 <input type="checkbox"/> ISO72LBN MAX BTU 108,000; MIN BTU 75,000 <input type="checkbox"/> ISO96LBN MAX BTU 110,000; MIN BTU 84,000	<b>WARNING:</b> Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier	
<b>ELECTRICAL RATING:</b> <b>UNIT: ELECTRONIC</b> <b>1 PH</b> <b>60 HZ</b> <b>120 VOLTS</b> <b>LESS THAN 5 AMPS</b>		
<b>EARTHCORE INDUSTRIES, INC HEADQUARTERS</b> <b>6899 PHILLIPS INDUSTRIAL BLVD</b> <b>JACKSONVILLE, FL 32256</b>		

## Isoflames Linear Burner - Components List

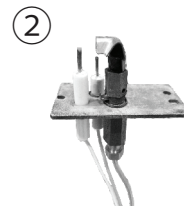
NOTE: model ISF 24LB shown



Top view



Bottom view



3



4



6



7



8



Note: Flex connector shown with flared fittings

TABLE 1

Item No.	Description	Part No.	Qty
1	Main Burner Assembly (natural gas)	ISF-E-24/36/48/60/72/96N	1
	Main Burner Assembly (propane)	ISF-E-24/36/48/60/72/96P	1
2	Pilot Assembly (natural gas)	ISF-E-PAN	1
	Pilot Assembly (propane)	ISF-E-PAP	1
3	Gas Valve (natural gas)	ISF-E-GVN	1
	Gas Valve (propane)	ISF-E-GVP	1
4	Control module/remote receiver	ISF-E-CM	1
5	Battery Holder/Switch	ISF-E-BH	1
6	Remote Transmitter	ISF-E-RM	1
7	1/2" Flared fitting female adapter	ISF-E-FFA1	1
8	3/8" Flared fitting female adapter	ISF-E-FFA2	1
9	12" Flex connector	ISF-E-FC12	1



## Isoflames Linear Burner - Specifications

TABLE 2

Burner Specifications								
Burner Model	Minimum Fireplace Dimension (in)				BTU			
	Depth	Height	Width		Nat. Gas		L.P. Gas	
			Front	Rear	High	Low	High	Low
ISF24LB	17.5	16	36	25	36K	25K	32K	24K
ISF36LB	17.5	16	48	37	54K	38K	48K	36K
ISF60LB	17.5	16	72	61	90K	63K	80K	60K
ISF72LB	17.5	16	84	73	108K	75K	96K	72K
ISF96LB	17.5	16	108	97	108K	84K	105K	87K

*Note: Height is measured from hearth floor to bottom of lintel*

TABLE 3

Minimum Venting Requirements					
Chimney height (ft)	Minimum Permanent Free Opening of Chimney Damper (sq. in)				
	Factory-Built Fireplace				
	ISF24LB	ISF36LB	ISF60LB	ISF72LB	ISF96LB
10	20	32	-	-	-
15	16	24	46	-	-
20	13	21	38	-	-
25	12	17	32	43	43
30	10	16	29	38	38
	Masonry-Built Fireplace				
	10	26	39	60	72
	15	23	35	54	65
	20	22	32	49	59
	30	20	29	45	53

*Note: Height is measured from hearth to top of chimney and the minimum height is 10 ft*

## Gas Line & Valve Box Installation

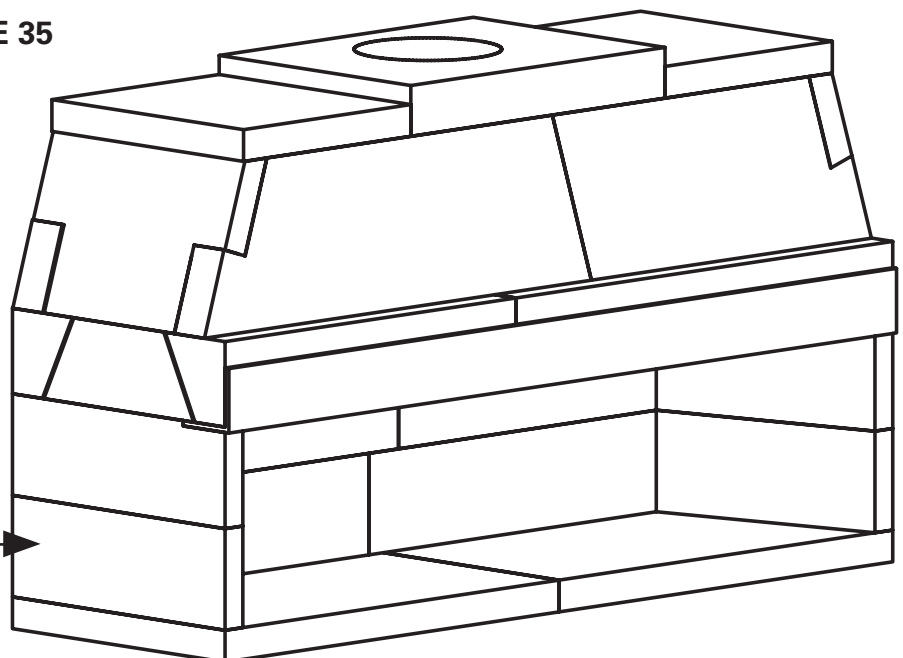
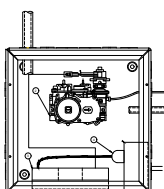
This appliance must be connected to the gas line in accordance with local codes and/or the National Fuel Gas Code, ANSI Z223.1. After connecting the gas line, all joints in the line and connections at the valve should be checked for leaks before final positioning of the unit. Conduct a gas leakage test of the appliance piping and control system downstream of the shutoff valve in the supply line to the appliance.

1. The valve control box comes with an 84" pilot assembly lead; therefore, the box must be mounted within 5' of the fireplace for models ISF24/36/48LB and within 2' for models ISF72/96LB. **(Figure 35)**
2. Attach the metal enclosure to the studs using standard building materials. The metal enclosure must be mounted in a location that can be accessed in the future for additional connections & future servicing.
3. Installation and servicing of gas appliances and ignition systems must only be performed by qualified personnel.
4. Turn off gas and electricity before starting installation or service.
5. Make sure gas piping is pressure tested before control is connected. High pressure can damage the control causing a hazardous condition.
6. Make sure piping is clean and free from burrs. Apply a small amount of good quality pipe thread compound or plumbers' tape suitable for the gas being used. Thread compound should be used sparingly on male threads only, leaving the first two threads clean.
7. It is recommended that a safety shut off valve is installed on either the gas in or gas outside of the valve.
8. It is recommended to hard pipe in the connections with unions installed inside the box.
9. Uncoil the pilot assembly. Be careful to not create unwanted kinks in the pilot tubing.
10. Feed the spade connector ends of the pilot hood assembly from inside the fireplace to the outside being careful not to clog the flared fitting of the pilot tube or damage the spade connectors.
11. Plug the spade connectors into the module according to the below wiring diagram **(Figure 42)**, insert the pilot tubing into the right side of the valve, using a wrench, tighten the nut so that the pilot tubing cannot be pulled out

**NOTE: Gas and electrical connections may be brought through the rear wall of the unit and into the area of the firebrick cavity. A gap will need to be left in the firebrick extending from the cavity to the rear wall of the unit for passage of the 3/8" gas line, pilot tube, and electrical connections. Ensure all holes are filled with mortar after installation.**

**FIGURE 35**

5' for models ISF24/36/48LB  
or  
2' for models ISF72/96LB





Valve Box & Burner Wiring Diagram

**WARNING: Do not connect 120 V AC to the control valve.**

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during and pressure testing of that system at test pressures in excess of 1/2 psi (3.5 kPa).

The appliance, when installed, must be electrically grounded in accordance with local codes or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70. If not installed and maintained in accordance with the manufacturer’s instructions, this product could expose you to substances in fuel or fuel combustion which are known to the state if California to cause cancer, birth defects or other reproductive harm.

For a copy of the home owner’s care and operation manual, go to [www.earthcore.co](http://www.earthcore.co) or call 1-800-642-2920.

FIGURE 36

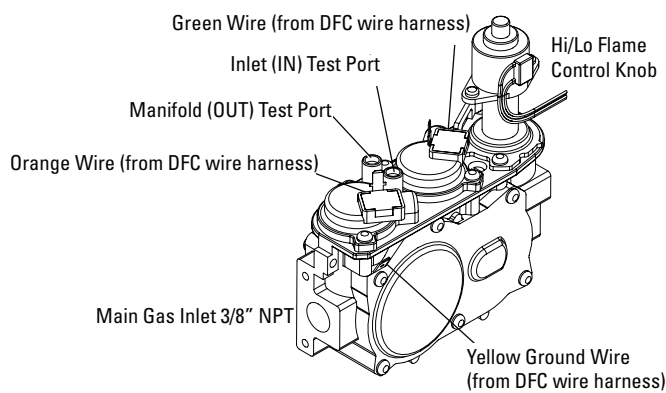
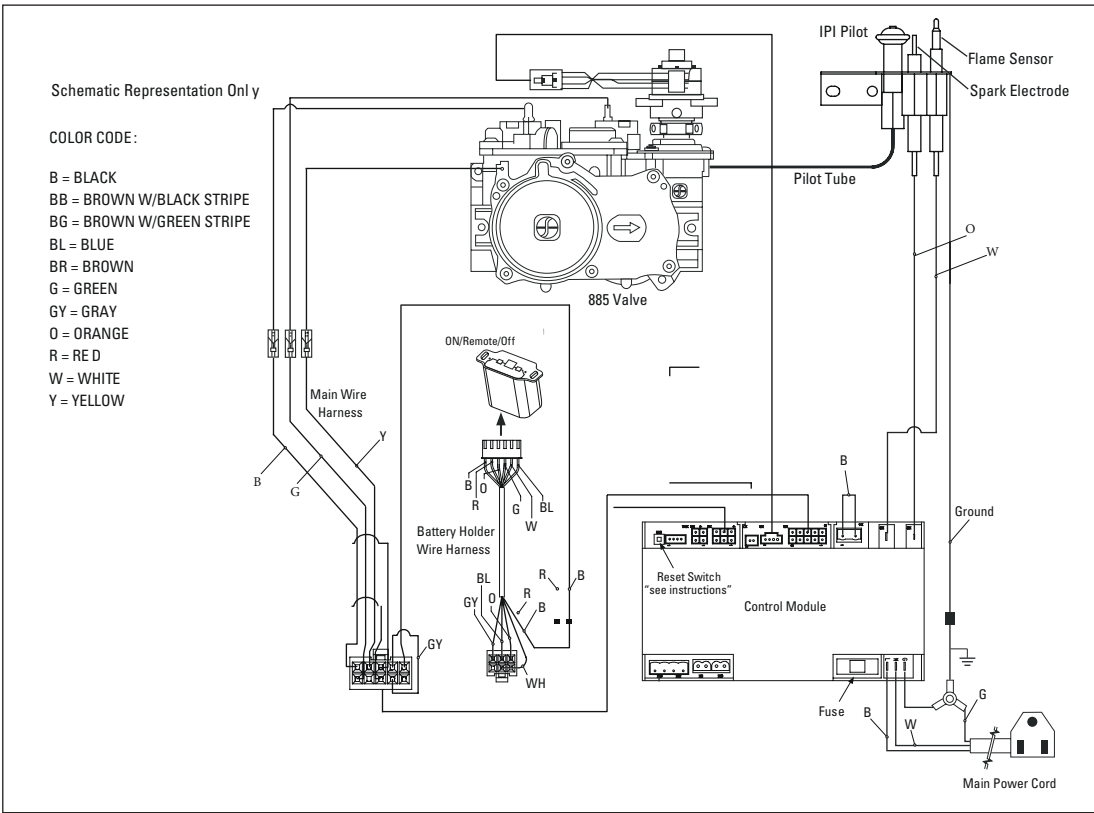


TABLE 4

Fuel Type	Inlet Pressure			Manifold Pressure	
	Desired	Minimum	Maximum	On Hi Fire	On Lo Fire
Natural Gas	7" WC	5" WC	10.5" WC	3.5" WC	1.6" WC
LP Gas	11" WC	10.5" WC	13" WC	10" WC	6.4" WC

FIGURE 37



## Burner Installation

### Prior to installation: Shut off main gas supply to fireplace.

The ISOFLAMES Linear Burner system shall be installed by qualified professional service technician. To ensure proper performance of the appliance the owner's installation manual must be followed carefully.

The ISOFLAMES Linear Burner when used in the Maximus Linear Fireplace, the ISOFLAMES Linear Burner is designed to be recessed into the 2 1/2" deep firebrick cavity constructed as detailed in the Firebrick Installation portion of this manual (pg. 36/ Fig. 28 and 29)

The burner cavity must have a height of 2 1/2", a minimum depth of 8 3/4" and the length shall correspond to Table 5.

If the gas supply pipe, from the externally mounted valve, is brought into the cavity through the sidewall of the firebox, the cavity must extend completely to the firebox sidewall.

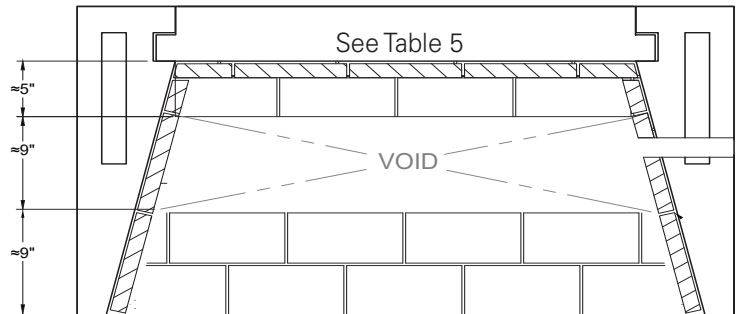
For models ISF24/36/48LB: Gas supply piping shall terminate not less than 3" from sidewall.

For models ISF72/96LB Gas supply stub piping shall terminate within 3" from center of the cavity. (Figure 38 & 39)

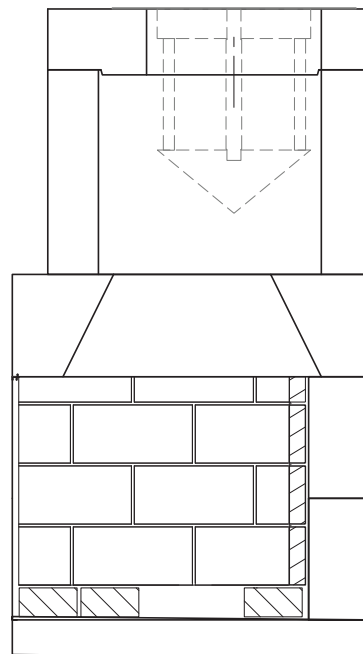
**TABLE 5**

<b>BURNER CAVITY DIMENSIONS (in)</b>			
<b>Burner Model</b>	<b>Height</b>	<b>Width</b>	<b>Length</b>
ISF24LB	2 1/2	8 3/4	23
ISF36LB	2 1/2	8 3/4	35
ISF60LB	2 1/2	8 3/4	59
ISF72LB	2 1/2	8 3/4	71
ISF96LB	2 1/2	8 3/4	95

**FIGURE 38**

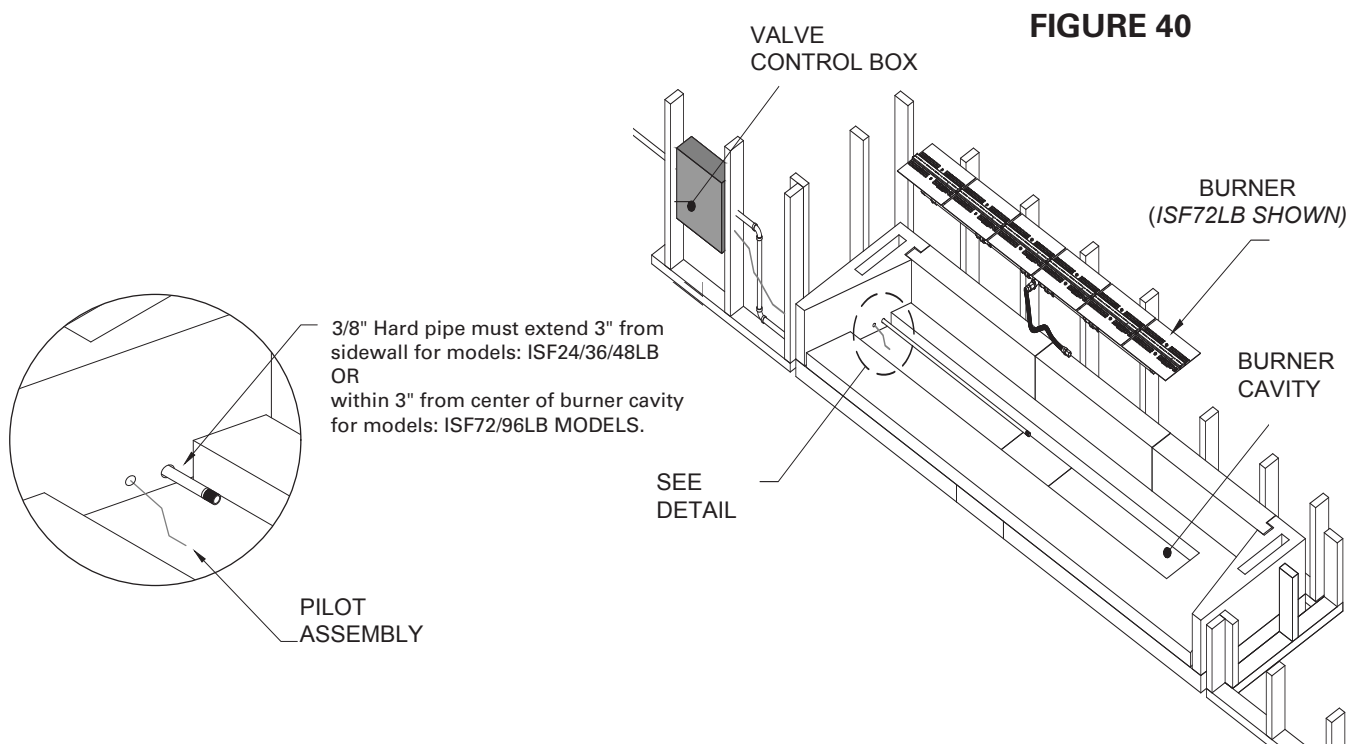


**FIGURE 39**



## Burner Installation

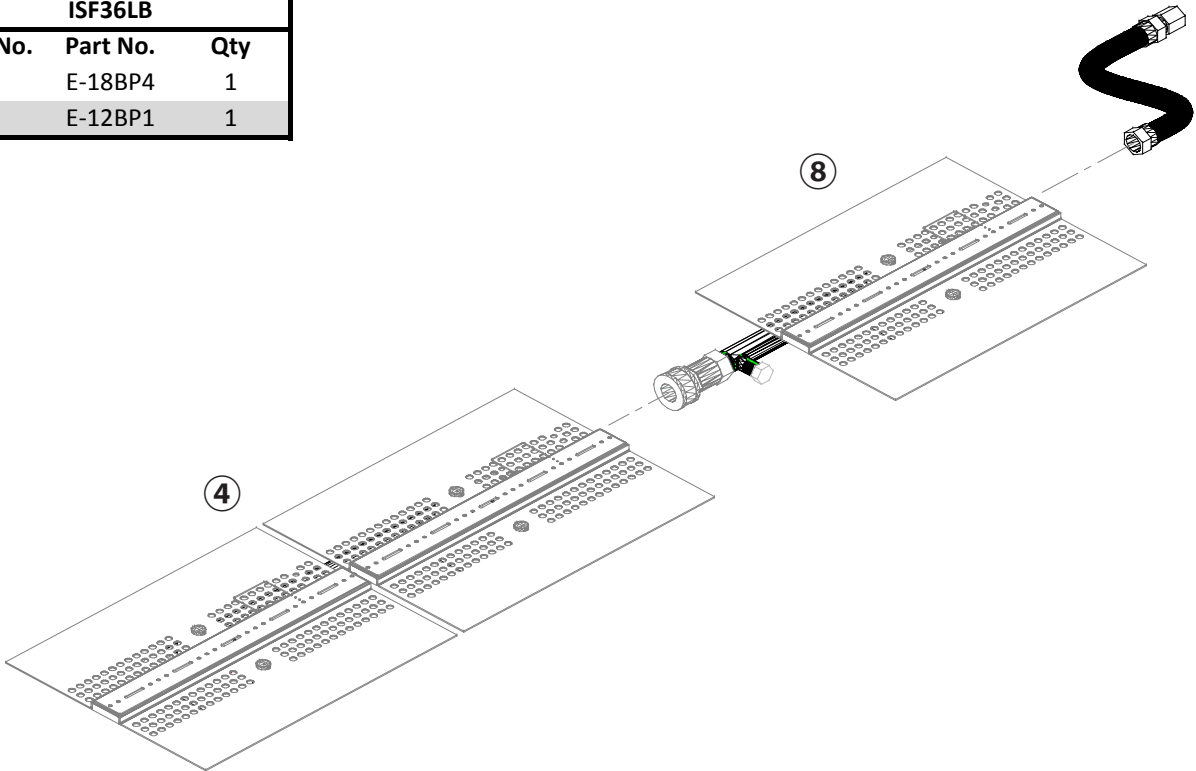
1. Connect all burner segments according to burner model diagram Page 55. Make sure all connections are tightly secured.
2. Place burner assembly in center of fireplace floor or cavity.
3. Rotate the burner to position the gas inlet fitting on burner closest to the gas-supply stub coming from the gas valve. (Not necessary for models ISF72/96LB)
4. Remove the burner top closest to the gas-supply stub. Remove the top pan by unscrewing the two screws. This will allow easier access and connection of flex connector to the flared fitting.
5. Connect the 12" flex connector to the gas inlet flared fitting on the burner assembly.
6. Remove the cap on gas-supply stub and install the appropriate size flared fitting female adapter.
7. Connect the other end of 12" flex connector to the gas-supply female adapter. Avoid creating kinks in the flex connector.
8. Make sure all connections are tightly secured.
9. Place the removed burner top back on to the orifice block and secure tightly with the pan head screws.
10. Check appliance operation. Turn on burner then observe the individual tongues of flame on the burner. Make sure all ports are open and producing flame evenly across the burner. If any ports are blocked, or partially blocked, clean out the ports. With gas line installed, run initial system checkout before steps 13 - 15.
11. Pour glass media on to burner top pan tray.
12. Spread media evenly across hearth floor and pan tray, avoid covering burner ports with excess media. Do not fill burner cavity with glass media or any other material.
13. Optional gas logs available, shown on page 56.



36” Burner Connection - ISF36LB

For Isokern Maximus Linear 82L48

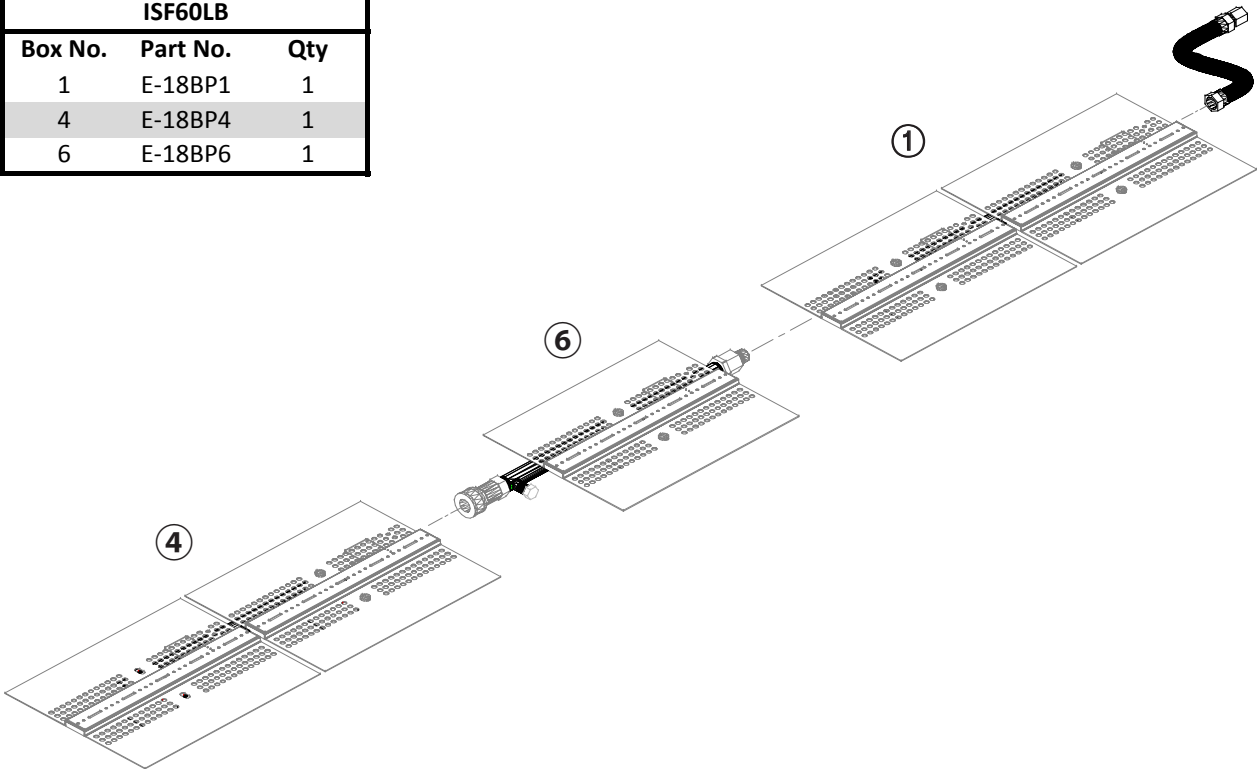
ISF36LB		
Box No.	Part No.	Qty
4	E-18BP4	1
8	E-12BP1	1



60” Burner Connection - ISF60LB

For Isokern Maximus Linear 82L72

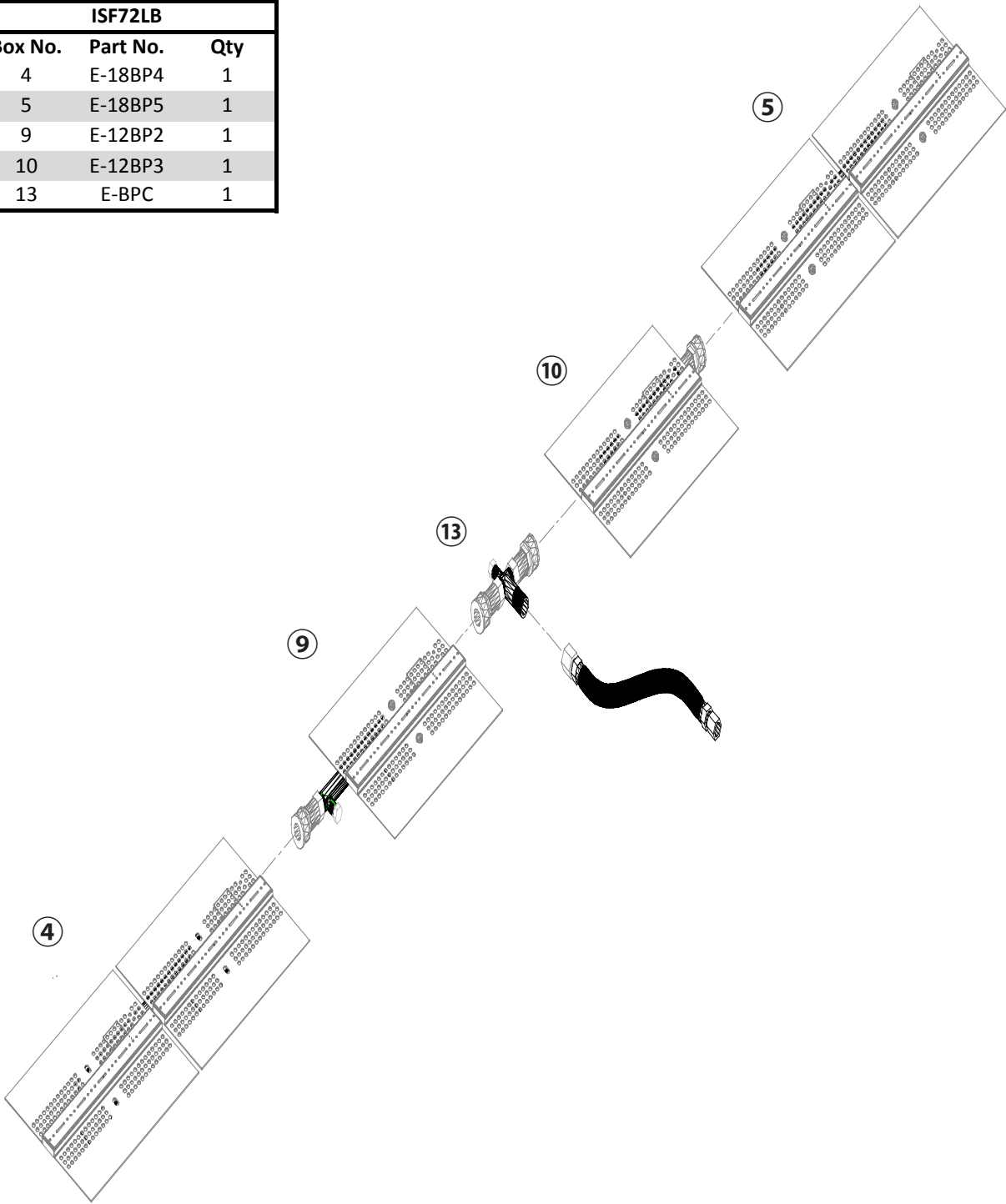
ISF60LB		
Box No.	Part No.	Qty
1	E-18BP1	1
4	E-18BP4	1
6	E-18BP6	1



72” Burner Connection - ISF72LB

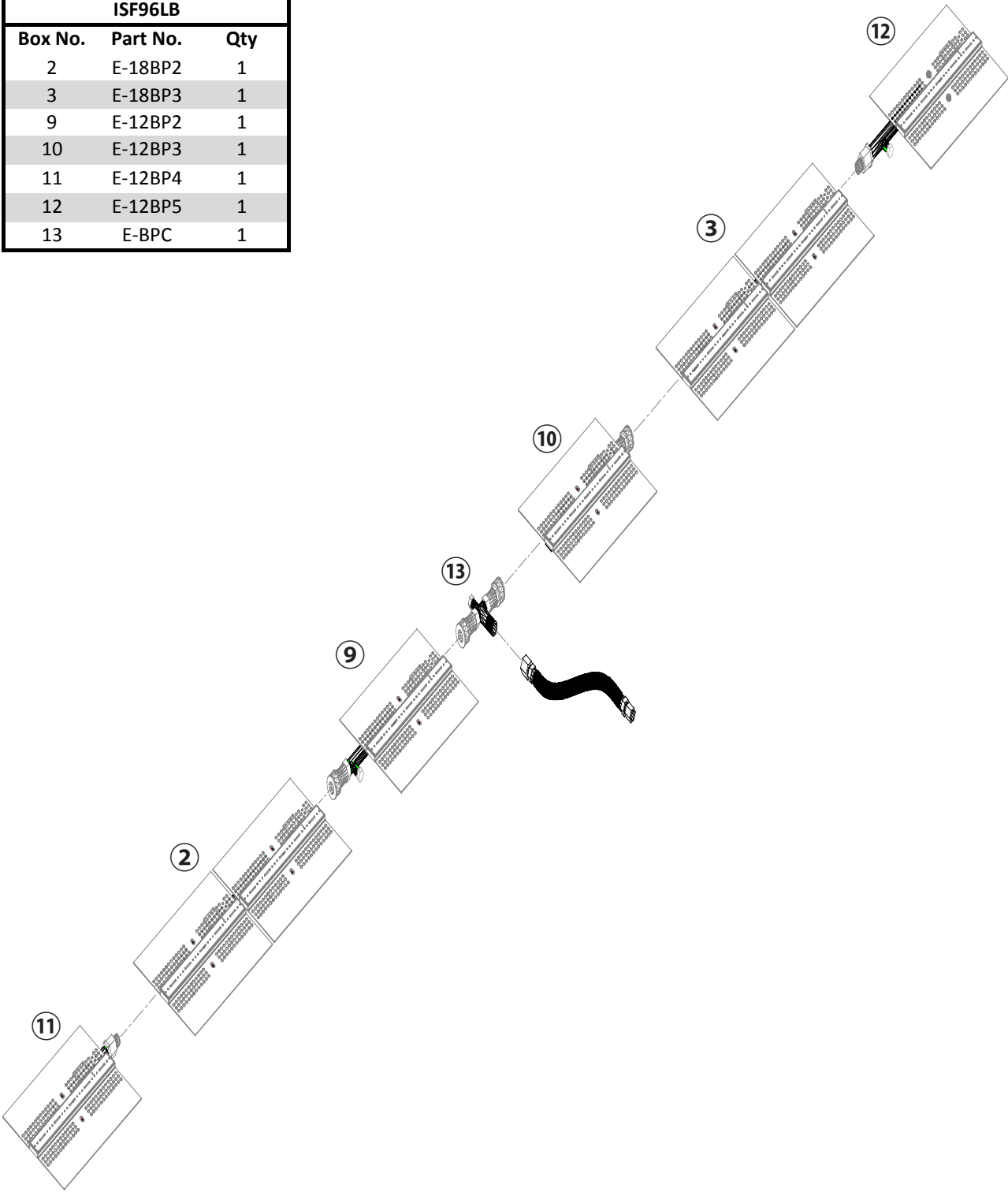
For Isokern Maximus Linear 82L96

ISF72LB		
Box No.	Part No.	Qty
4	E-18BP4	1
5	E-18BP5	1
9	E-12BP2	1
10	E-12BP3	1
13	E-BPC	1



**96” Burner Connection - ISF96LB**  
For Isokern Maximus Linear 82L120

ISF96LB		
Box No.	Part No.	Qty
2	E-18BP2	1
3	E-18BP3	1
9	E-12BP2	1
10	E-12BP3	1
11	E-12BP4	1
12	E-12BP5	1
13	E-BPC	1



## Burner Lighting Instructions

### Installer Instructions

It is required that the set of safety instruction labels that have been supplied with the appliance be affixed to the operation and control points of the appliance. It is the installers responsibility to ensure these warnings are properly affixed during installation. These warning labels are a critical step in informing consumers of safe operation of this appliance.

### Pre-Lighting Checklist

Be sure to check these items before the initial lighting of the appliance:

- ☐ Gas pressure has been checked carefully
- ☐ All gas fittings have been checked for leaks.
- ☐ All clearances to combustibles have been met
- ☐ All combustibles materials have been removed from the area in front of the appliance.
- ☐ All vented areas of the appliance face are unobstructed.
- ☐ House is ventilated to clear initial paint curing odors
- ☐ All packaging materials have been removed from the appliance.
- ☐ While appliance is cool, fingerprints or other marks have been cleaned from any plated surfaces with denatured alcohol and a soft cloth. Marks left on these surfaces may become permanent into the finish if not removed prior burning the unit.
- ☐ Glass media and optional log set have been installed.

**WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

### Safety Instructions

**A.** This appliance is equipped with an ignition device which automatically lights the pilot. Do NOT try to light the pilot by hand.

**B.** BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

### WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

**C.** If any portion of this appliance does not operate as the instructions indicate, do not try to repair it, call a qualified service technician. Do not use tools. Force or attempted repair may result in a fire or explosion.

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

### Operating Instructions

**1.** The Main Power switch located in the control compartment functions as a burner and pilot override switch. When in the OFF position, it will not let the burner or pilot to be turned on by the remote. When in the ON position, it gives the remote full control over burner and pilot functions.

**2.** See Remote Control System on Page 41 for remote specific operating instructions..

### To Turn Off Gas to Appliance

**1.** Turn the burner ON/OFF switch in the control compartment to "OFF"

**2.** Turn off all electric power to the appliance if service is to be performed.

**3.** Close the main line gas shut-off valve.

**WARNING: OPERATION OF THIS APPLIANCE WHEN NOT CONNECTED TO A PROPERLY INSTALLED AND MAINTAINED VENTING SYSTEM CAN RESULT IN CARBON MONOXIDE (CO) POISONING AND POSSIBLE DEATH.**

## Remote Control System

### Remote Control System

The Remote allows you to command the functions of your appliance from the comfort of your chair and is configured to control the On/Off primary burner operation, its flame height through six (6) levels, and provides On/Off control of the appliance. **(Figure 56)**

The system controls blower speed through six (6) levels and has a constantly powered 120V/60Hz power outlet. The remote sends commands via radio frequency from the Remote(transmitter) and does not require line-of-sight operation.

### Install the remote control system

Required Items (not provided):

1. Standard Junction Box
2. Paper Clip or similar object (for remote control system initialization)

The receiver for the remote control system connects directly to the gas valve, stepper motor, and fan control module with an umbilical cord wiring harness.

1. Install a junction box (not provided) on the wall adjacent to the appliance, within reach of the remote system umbilical cord wiring harness.
2. Position the terminal within the junction box in preparation for attachment to the remote wall switch.
3. When wall finish is complete, install the wall switch in the previously installed junction box, and connect the terminal to the connector on the back of the wall switch.
4. Install the wall switch cover plate, taking care to ensure the wall switch is properly indexed with the switch cover when aligning the components for attachments.

### Initializing The System For The First Time

1. Insert the three (3) provided AAA batteries into the battery bay in the transmitter. Correctly align polarity (+/-).
2. Insert the four (4) provided AA batteries into the wall switch battery bay (behind the wall switch plate). Correctly align polarity (+/-).
3. On the wall switch, place the three-position slider switch in the REMOTE position (Figure 28).
4. On the wall switch front cover, insert the end of a paper clip (or other similar object) into the hole marked PRG.

**NOTE:** The Receiver will beep three (3) times to indicate it is ready to synchronize with the transmitter.

5. On the transmitter, press the ON button. The receiver will beep four (4) times to indicate acceptance of the transmitter's command (and set the receiver to the transmitter's specific code). The system is now initialized.

### Low Battery Power Detection

The life span of the Receiver batteries depends on various factors: quality of the batteries used, the number of ignitions of the appliance, the number of changes to the room thermostat set point, etc.

When the Receiver batteries are low, two "beeps" will be emitted from the Receiver when it receives an ON/OFF command from the Remote.

This is an alert for a low battery condition for the Receiver. When the batteries are replaced the "beep" will be emitted from the Receiver when the ON/OFF key is pressed (See Initializing The System).

**WARNING:** Fire hazard. Can cause severe injury or death. The receiver causes ignition of the appliance. The appliance can turn on suddenly. Keep away from the appliance burner when operating the remote system or activating manual bypass of the remote system.

**WARNING:** Property damage hazard. Excessive heat can cause property damage. The appliance can stay lit for many hours. Turn off the appliance if it is not going to be attended for any length of time. Always place the Transmitter where children cannot reach it.



## Remote Control System

### Temperature Indicator Display

With the system in the "OFF" position, press the Thermostat Key and the Mode Key at the same time. **(Figure 56)** Look at the LCD screen on the Remote to verify that a C or F is visible to the right of the Room Temperature display. **(Figure 57)**

### Turn On The Appliance

Press the ON/OFF Key on the Remote. The Remote display will show all active icons on the screen and the appliance main burner will turn on. **(Figure 33)** A single "beep" from the Receiver will confirm reception of the command.

### Turn Off The Appliance

Press the ON/OFF Key on the Remote. The Remote LCD display will only show the room temperature and Icon and the appliance burner will turn off. A single "beep" from the Receiver confirms reception of the command.

### Remote Flame Control

The system has six (6) flame levels. See **Figure 33** for an example. With the system on, and the flame level at the maximum in the appliance, pressing the Down Arrow Key once will reduce the flame height by one step until the flame is turned off.

The Up Arrow Key will increase the flame height each time it is pressed. If the Up Arrow Key is pressed while the system is on but the flame is off, the flame will come on in the high position. **(Figure 34)** A single "beep" will confirm reception of the command.

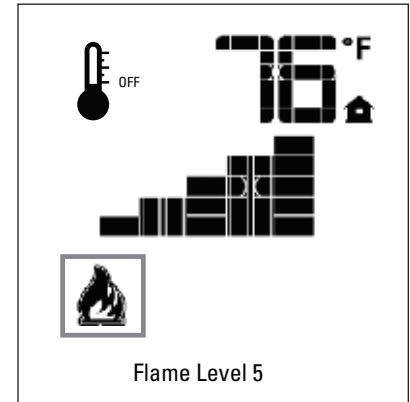
### Flame Color and Behavior

This appliance is designed for maximum heating efficiency. Therefore, upon lighting of the main burner, the flames will be semi-transparent or "bluish." After 10-20 minutes of operation the logs will heat up and the flames will become a yellow/orange color.

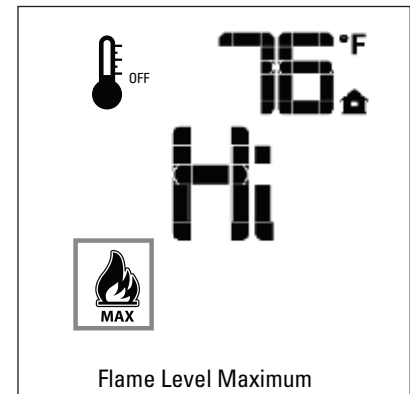
Adjusting the appliance to cause the flames to turn orange sooner may result in poor combustion, sooting and a hazardous situation. See **Figure 35** showing proper flame appearance.

When testing for proper operation - If an optional thermostat is installed adjust it to its highest temperature setting. Visually determine that main burner gas is burning properly: i.e., no floating, lifting or flashback. Adjust the primary air shutter(s) as required. Check for proper main burner operation at both high and low flame.

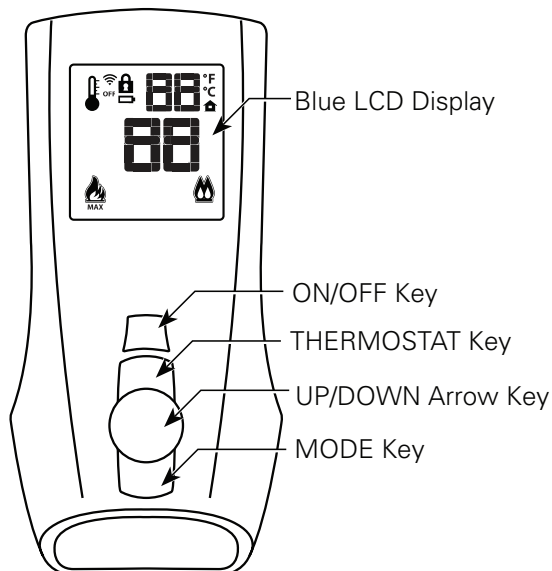
**FIGURE 33**



**FIGURE 34**

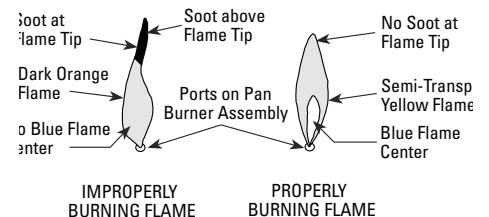


**FIGURE 32**



**FIGURE 35**





### Burner Flame Appearance



## Troubleshooting

Issue	Probable Cause	Possible Solution
No spark on pilot	No power	- Verify power is ON - Check wiring on ignition module and gas valve are correct
	Loose pilot connections	- Check pilot wiring assembly is tightly secured to ignition module
Pilot won't ignite	No spark	- See "No spark on pilot"
	Air in pilot gas line	- It may take a few minutes to purge out all the air from the pilot gas tube to ignite
	No gas	- Verify pilot gas tube is threaded sufficiently to gas valve - Verify all gas connections going to and from gas valve are tight - Verify main gas-shutoff valve is in ON position
Pilot won't stay ignited	Flame sensor obstruction	- Remove any obstruction near pilot igniter and flame sensor
	Loose pilot connections	- Check pilot wiring assembly is tightly secured to ignition module
	Low gas pressure	- Verify adequate gas supply pressure
Remote won't work/unresponsive	Range	- Remote is too far from receiver
	Batteries need replacement	- Replace batteries on remote transmitter
	Battery holder is "OFF"	- Slide the battery holder position to "REMOTE" position
	Program remote to receiver	- Sync remote transmitter to ignition module; Page 42
Main burner won't ignite	Pilot won't ignite	- See "Pilot won't ignite"
	Pilot flame won't stay ignited	- See "Pilot won't stay ignited"
	Loose burner segments	- Verify burner segments are tight and secure
	Orifice blockage	- Remove burner top pan tray and visually inspect orifice gas block
	Defective valve/ignition module	- Replace gas valve or ignition module

## Glass Media Options

Component	Part#	Description
	RFG-10-PB	1/2" REFLECTIVE POSEIDON BLUE FIRE GLASS (10 LB JAR)
	RFG-10-TC	1/2" REFLECTIVE TERRA COPPER FIRE GLASS (10 LB JAR)
	RFG-10-VB	1/2" REFLECTIVE VESPER BLACK FIRE GLASS (10 LB JAR)
	RFG-10-KD	1/2" REFLECTIVE KRYSTALLO DIAMOND FIRE GLASS (10 LB JAR)
	RFG-10-AG	1/2" REFLECTIVE AMBER DIAMOND FIRE GLASS (10 LB JAR)

Glass Media will be included with the Isoflames Linear Burner for each Maximus Linear Unit. A color selection must be chosen when ordering your fireplace unit. The following designated amount will be included for each size.

82L48 - 3 (10lb) Jars  
 82L72 - 5 (10lb) Jars  
 82L96 - 7 (10lb) Jars  
 82L120 - 9 (10lb) Jars

## Optional Log Sets

Optional Log Sets can be purchased as an upgrade for the Isokern Maximus Linear Fireplace. Three different designs available for you to choose from.



**Western Driftwood - Cast Concrete**



**Driftwood - Ceramic Fiber**



**Birch - Ceramic Fiber**

<b>Western Driftwood - 36" Set</b> For the 82L48 Fireplace	<b>ISF-L-36LGC</b>
<b>Western Driftwood - 60" Set</b> For the 82L72 Fireplace	<b>ISF-L-60LGC</b>
<b>Western Driftwood - 72" Set</b> For the 82L96 Fireplace	<b>ISF-L-72LGC</b>
<b>Western Driftwood - 96" Set</b> For the 82L120 Fireplace	<b>ISF-L-96LGC</b>
<b>Driftwood - 36" Set</b> For the 82L48 Fireplace	<b>ISF-L-36LED</b>
<b>Driftwood - 60" Set</b> For the 82L72 Fireplace	<b>ISF-L-60LED</b>
<b>Driftwood - 72" Set</b> For the 82L96 Fireplace	<b>ISF-L-72LED</b>
<b>Driftwood - 96" Set</b> For the 82L120 Fireplace	<b>ISF-L-96LED</b>
<b>Birch - 36" Set</b> For the 82L48 Fireplace	<b>ISF-L-36LEB</b>
<b>Birch - 60" Set</b> For the 82L72 Fireplace	<b>ISF-L-60LEB</b>
<b>Birch - 72" Set</b> For the 82L96 Fireplace	<b>ISF-L-72LEB</b>
<b>Birch - 96" Set</b> For the 82L120 Fireplace	<b>ISF-L-96LEB</b>

## Warranty Card

Please tear out along dashed lines and send to:

Earthcore Industries  
Attn: Technical Department  
6899 Phillips Industrial Blvd  
Jacksonville, FL 32256

Dealer \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Date Of Installation: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Fireplace Size (Circle One):    LINEAR 48"                      LINEAR 72"                      LINEAR 96"                      LINEAR120"

Burner Size (Circle One):        36"                      48"                      72"                      96"

Gas Type (Circle One):                      Natural Gas                                      Propane

Fireplace Serial Number: \_\_\_\_\_

(Located on Rating Plate Inside Fireplace)

Buyer: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Installed By: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_

# Warranty & Disclaimer

## Isokern Maximus Linear Series Gas Fireplace

Earthcore offers a Lifetime Warranty for all Isokern components, to be free from defects in materials that negatively affect system performance from the date of purchase, subject to the terms and conditions of this limited warranty.

This warranty covers only the above stated components. THIS WARRANTY DOES NOT COVER DRAFTING, SMOKING OR PUFFING OF THE FIREPLACE SYSTEM. Factors beyond the manufacturer's control affect fireplace drafting, smoking, and puffing, and ISOKERN cannot guarantee these aspects of performance.

### EXCLUSIONS AND LIMITATIONS

This Lifetime Warranty applies only if the Product is installed in the United States and Canada and only if operated and maintained in accordance with the printed instructions accompanying the Product and in compliance with all applicable installation and building codes and good trade practices. This warranty is non-transferable and extends to the original owner only. The following do not carry the Lifetime Warranty but are warranted as follows:

Burner – Repair or replacement for five years from the date of installation

Gas components & electrical components – Repair or replacement for one year from the date of installation

Batteries – Replacement for 90 days from the date of installation

Logs – Replacement for five years from the date of installation against thermal breakage only

Remote controls – Repair or replacement for one year from the date of installation

Parts not otherwise listed carry a 90 day warranty from the date of installation.

If a component is found to be defective under the terms of this warranty the party to whom this warranty is extended shall, notify Earthcore, 6899 Phillips Industrial Blvd, Jacksonville, Florida 32256, in writing, by registered mail, within thirty (30) days following the discovery of the defect within the lifetime warranty period. The notice shall contain (1) the date of purchase; (2) place of purchase; (3) address of installation; (4) name, address and phone number of the owner; and (5) a brief description of the defect.

Earthcore or any division thereof, is not responsible for any labor costs or indirect costs incurred for the replacement of defective components.

Earthcore is not responsible for misuse or mishandling of components. Nothing in this warranty makes Earthcore, or any division thereof, liable in any respect for any injury or damage to the building or structure in which the fireplace or chimney system has been installed or to persons or property therein arising out of the use, misuse, or installation of properly manufactured ISOKERN product.

Earthcore, OR ANY DIVISION THEREOF, SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THE FIREPLACES OR CHIMNEY SYSTEMS. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

This warranty is null and void when the fireplace or chimney systems are not installed pursuant to the installation instructions provided by ISOKERN or local building codes have not been followed completely.

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

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