

ISOFLAMES® VENT FREE LINEAR BURNER

Installation, Operation, Maintenance and Owner's Manual

ISOFLAMES VENT FREE LINEAR BURNER Models:

VF24LB—VF36LB—VF42LB

A PRODUCT OF EARTHCORE® INDUSTRIES, LLC

Important: This manual contains assembly rules, installation steps, guidelines, use and maintenance instructions for the Isoflames Vent Free Linear Burner Series. 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 installer of this product to ensure that the instructions in this manual are followed exactly and be installed in strict accordance with the following sizing, installation, and operation instructions. It is the responsibility of the installer to provide adequate clearances as specified in this manual.

INSTALLER: Leave this manual with the appliance

CONSUMER: Retain this manual for future reference

Read these instructions carefully and completely before starting installation of the burner system

Contents of this manual may change without prior notification.



WARNING: FIRE, EXPLOSION, AND ASPHYXIATION HAZARD

Improper adjustment, alteration, service, maintenance, or installation of this heater or its controls can cause death or serious injury.

Read and follow instructions and precautions in User's Information Manual provided with this heater.

ANSI Z21.11.2—2019; Gas-Fired Room Heaters, Unvented Room Heaters.

This is an **unvented gas-fired heater**. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to page 5.

WARNING

This appliance is equipped for natural gas or propane. Field Conversions is not permitted.

Installation, service, and the provisions for combustion and ventilation air **MUST** conform with local codes and with the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, or the CSA B149.1, *Natural Gas And Propane Installation Code*.

WARNING: This appliance is for installation only in a solid-fuel burning masonry or UL 127 factory- built fireplace or in a ANSI Z21.91 listed Vent Free firebox enclosure. It has been design for these installations. Exception: **DO NOT** install this appliance in a factory-built fireplace that includes instructions stating it has not been tested or should not be used with unvented gas logs



WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 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.
 - Open a window
 - 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 TAMPER WITH PILOT LIGHT SAFETY SYSTEM!



PFS Report No. F23-230
ANSI/CSA Z21.11.1 - 2019

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Isoflames Vent Free Linear Burner— Component List

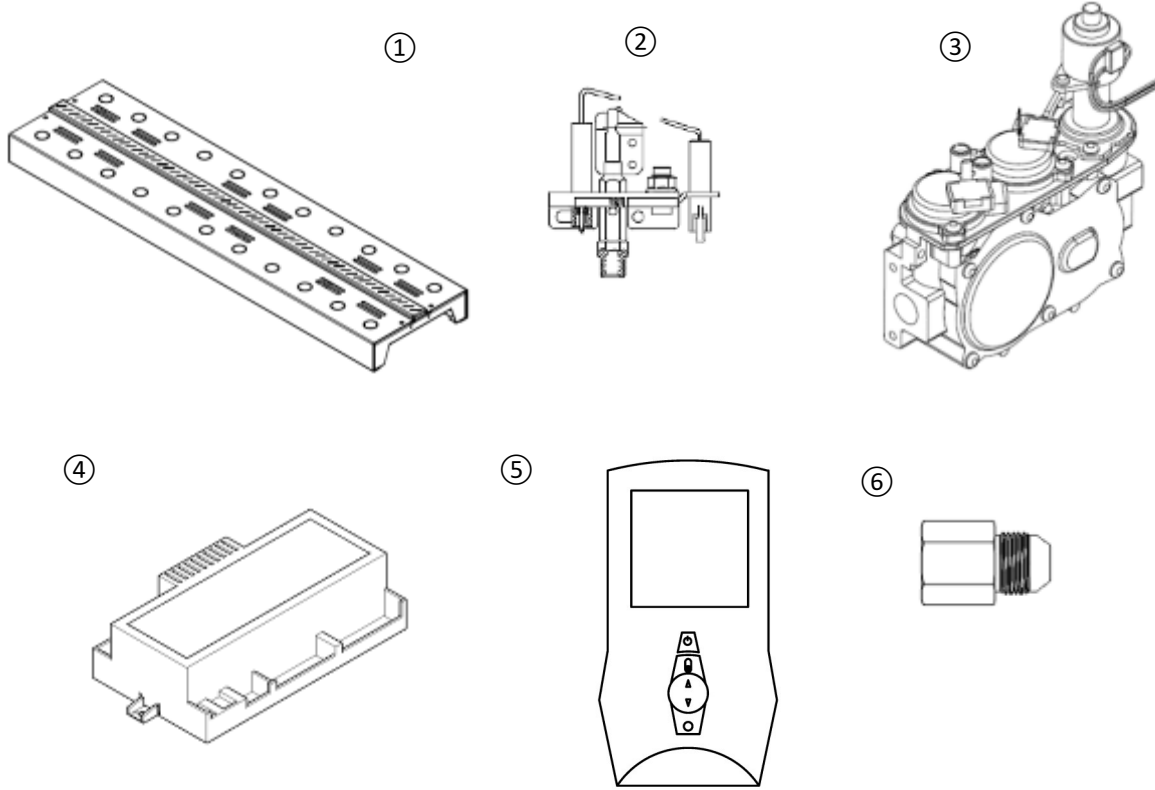


TABLE 2

Item No.	Description	Part No.	Qty
1	Burner (natural gas)	VF24LBN, VF36LBN, VF42LBN	1
	Burner (propane)	VF24LBP, VF36LBP, VF42LBP	1
2	Pilot assembly (natural gas)	E-VFPAN	1
	Pilot assembly (propane)	E-VFPAP	1
3	Gas valve (natural gas)	ISF-E-GVN	1
	Gas valve (propane)	ISF-E-GVP	1
4	Control Module/Remote Receiver	ISF-E-ICM	1
5	Remote Transmitter	ISF-E-RM	1
6	1/2" Male Flare to 3/8" NPT Female adapter	E-12FF-38FIP	1

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.

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.

WARNING!!! THIS UNIT IS NOT FOR USE WITH SOLID FUEL.

Read these instructions completely before installing and using ISOFLAMES VENT FREE LINEAR BURNER.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this appliance.

Improper use of this appliance can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

1. Solid fuels shall not be burned with the **ISOFLAMES VENT FREE LINEAR BURNER**, or any fireplace which an unvented room heater is installed.
2. 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.
3. Gas type will be indicated on the appliance rating plate. Do not use a natural gas burner with propane or a propane burner with natural gas. The gas appliance is not field convertible to use with other gas types.
4. 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.
5. 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).
6. Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
7. Periodic visual check of pilot and burner flame.
8. The appliance area is to be clear and free from combustible materials, gasoline and or flammable vapors and liquids.
9. For warranty to be valid, appliance must be installed by a NFI certified or other qualified professional installer.
10. Always check local building codes governing fireplaces and fireplace installations. ISOFLAMES Vent Free Linear Burner installation must comply with all local, regional, state, and national codes and regulations.
11. 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).
12. This appliance shall only be installed, serviced, or inspected by qualified professional service technician.
13. For propane (LP) use do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors.
14. To prevent performance problems, do not use propane fuel tank of less than 100 lbs. capacity.

SAFETY INSTRUCTIONS

15. This unvented room heater reaches high temperature. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Appliance will remain hot for a time after shutdown. Allow surfaces to cool before touching.
16. 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.
17. WARNING: Before installing in a solid-fuel burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes and loose paint by a qualified chimney cleaner
18. WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.
19. WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.
20. WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.
21. WARNING: All previously applied loose material must be removed prior to reapplication.
22. WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.
23. When the appliance is installed directly on carpeting, tile, or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.
24. This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, the *International Fuel Gas Code*, or applicable local codes.
25. Any outside air ducts and/or ash dumps shall be permanently closed at time of appliance installation.
26. This appliance is intended for supplemental heating.
27. This appliance shall not be installed in a bedroom or bathroom
28. Any glass doors shall be fully opened when the appliance is in operation.
29. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.
30. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies
31. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.
32. Young children should be carefully supervised when they are in the same room with the appliance.
33. Do not place clothing or other flammable material on or near the appliance.

Isoflames Vent Free Linear Burner— Specifications

TABLE 3

Burner Specifications									
Burner Model	Minimum Fireplace Dimension (in)					BTU			
	Depth	Height	Tapered Sidewalls		Straight Sidewalls	Nat. Gas		L.P. Gas	
			Rear Width	Front Width		Width	High	Low	High
VF24LB	16	16	26	33-3/4	27-1/2	37.5K	25K	37.5K	25K
VF36LB	16	16	36	43-3/4	39-1/2	37.5K	25K	37.5K	25K
VF42LB	16	16	42	49-3/4	45-1/2	37.5K	25K	37.5K	29K

INDOOR OR OUTDOOR COMBUSTION & VENTILATION AIR SAFETY INFORMATION

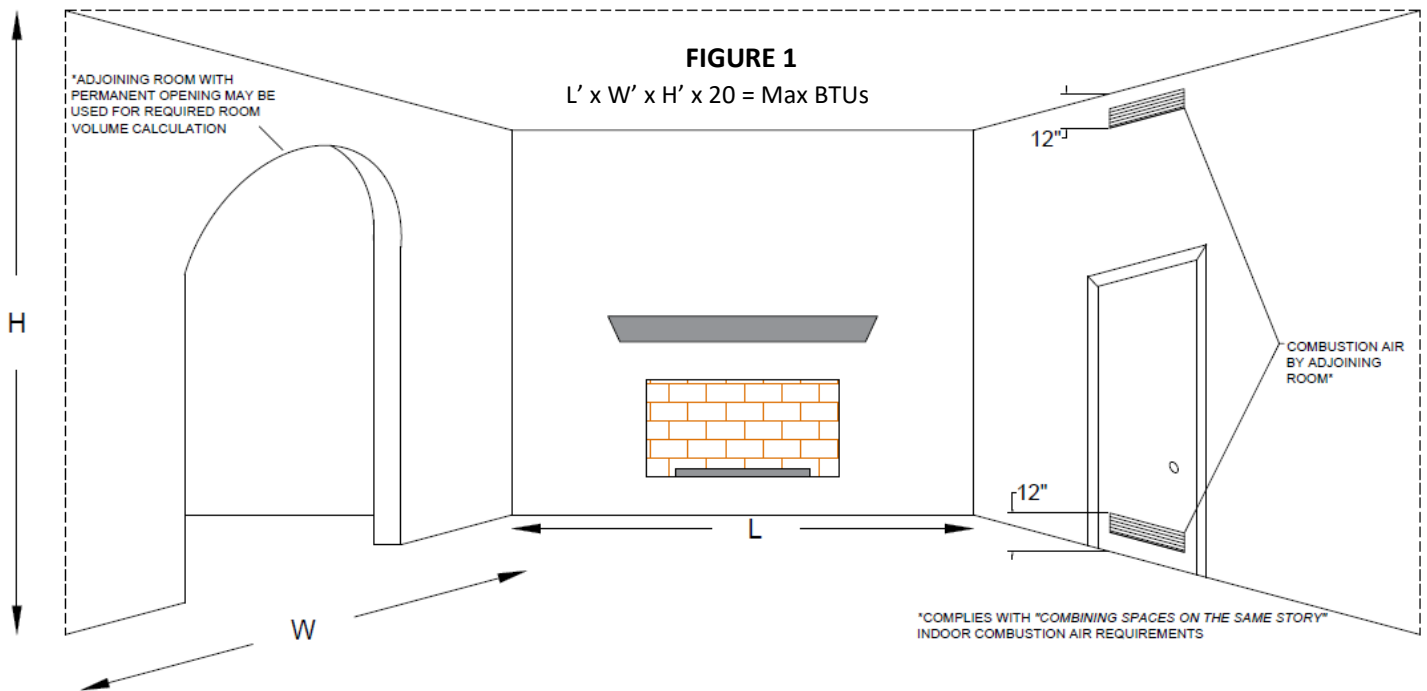
ISOFLAMES VENT FREE LINEAR BURNER system SHALL NOT BE INSTALLED unless adequate combustion and ventilation air is provided.

WARNING: When used without adequate combustion and ventilation air, heater may give off excessive CARBON MONOXIDE, an odorless, poisonous gas.

- This heater is equipped with a PILOT LIGHT SAFETY SYSTEM designed to turn off the heater if not enough fresh air available.
 - If heater shuts off, do not relight until you provide fresh air.
 - If heater keeps shutting off, have it serviced. Keep burner and control compartment clean
 - Early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness, and/or nausea. If you have these signs, heater may not be working properly. Get fresh air at once! Have heater serviced.
 - Some people—pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitudes—are more affected by carbon monoxide than others.

INDOOR COMBUSTION AIR AND VENTILATION SAFETY INFORMATION

- This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, the *International Fuel Gas Code*, or applicable local codes.
 - NFPA 54 - *National Fuel Gas Code* section 9.3 states the minimum required room volume shall be $50 \text{ ft}^3 / 1000 \text{ BTU/hr}$ ($4.8 \text{ m}^3 / \text{kW}$) of the sum of all BTUs of gas appliances in that room.
- Rooms communicating directly with the space in which the appliance is installed through openings not furnished with doors and through combustion air openings sized and located with accordance with NFPA 54, as seen below, are considered part of the required volume. **(FIGURE 1)**
- To determine the maximum BTU's allowed in a room calculate the volume of the room by multiplying Length, Width, and Height of the room and then multiply by 20. **(FIGURE 1)**
 - For example, a room with a 16 ft length and 16 ft width and 8 ft ceiling calculates to a room volume of 2,048 ft^3 . That results in a maximum of 40,960 BTUs
- ISOFLAMES Vent Free Linear Burner is 38,000 BTU's. Therefore, the room shall be a minimum of 1,900 ft^3 . Additional gas appliances in the room will increase the minimum room volume requirement.



Openings used to connect indoor spaces shall be sized and located in accordance with the following:

- Combining spaces on the same story.* Each opening shall have a minimum free area of $1 \text{ in}^2 / 1,000 \text{ BTU/hr}$ of the total input rating of all appliances in the space but not less than 100 in^2 . One permanent opening shall commence within 12" of the top of the enclosure and one permanent opening shall commence within 12" of the bottom enclosure. The minimum dimension of air openings shall not be less than 3".
- Combining Spaces in different stories.* The volumes of the spaces in different stories shall be considered as communicating spaces where such spaces connected by one or more permanent openings in doors or floors having a total minimum free area of $2 \text{ in}^2 / 1,000 \text{ BTU/hr}$ of total input rating of all appliances.

OUTDOOR COMBUSTION AIR AND VENTILATION SAFETY INFORMATION

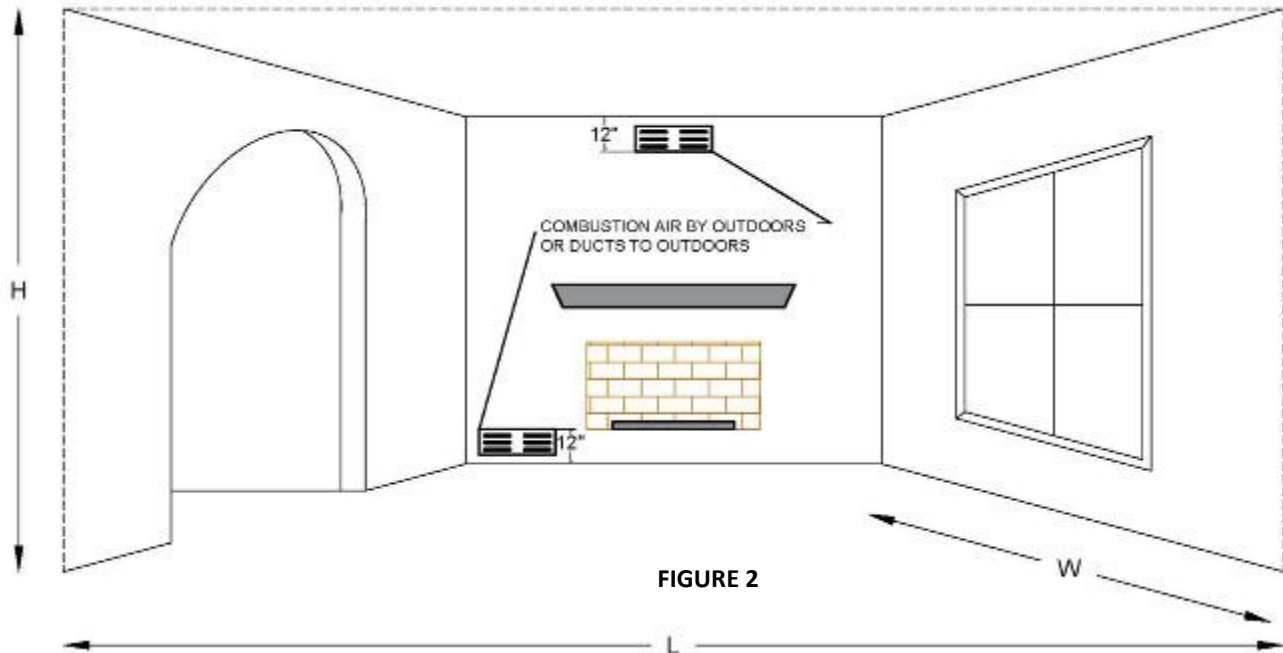


FIGURE 2

Outdoor combustion air shall be provided through openings to the outdoors in accordance with methods below. The minimum dimensions of air openings shall not be less than 3".

- (A) Two permanent openings, one commencing within 12" of the top of the enclosure and one commencing within 12" the bottom, shall be provided. The openings shall communicate with directly, or by ducts with the outdoors or the spaces that freely communicate with the outdoors as follows:
 - Where directly communicating with the outdoors or where communicating to the outdoors through vertical ducts, each opening shall have minimum free area of $1 \text{ in}^2 / 4,000 \text{ BTU/hr}$ of total input rating of all appliances in the enclosure.
 - Where communicating with the outdoors through horizontal ducts each opening shall have minimum free area of $1 \text{ in}^2 / 2,000 \text{ BTU/hr}$ of total input rating of all appliances in the enclosure
- (B) One permanent opening, commencing within 12" of the top of the enclosure, shall be provided. The appliance shall have clearances of at least 1" from the sides and back and 6" from the front of the appliance. The opening shall directly communicate with the outdoors or shall communicate through a vertical or horizontal duct to the outdoors or spaces that freely communicate with the outdoors and shall have a minimum free area of the following:
 - $1 \text{ in}^2 / 3,000 \text{ BTU/hr}$ of the total input rating of all appliances located in the enclosure.
 - Not less than the sum of the areas of all vent connectors in the space.

COMBINATION INDOOR & OUTDOOR COMBUSTION AIR

The use of combination of indoor and outdoor combustion air should be in accordance with the following:

- 1) *Indoor openings.* Where used, openings connecting the interior spaces shall comply with methods detailed in page 6.
- 2) *Outdoor opening(s) location.* Outdoor openings shall be located in accordance methods detailed above in (A) or (B) in page 7.
- 3) *Outdoor opening(s) size.* The outdoor opening(s) size shall be calculated in accordance with the following:
 - x) The ratio of the interior spaces shall be the available volume of all communicating spaces divided by the volume
 - y) The outdoor size reduction factor shall be 1 minus the ratio of interior spaces
 - z) The minimum size of outdoor opening(s) shall be the full size of outdoor opening(s) calculated in accordance with (A) or (B) in page 7, multiplied by the reduction factor. The minimum dimension of air openings shall not be less than 3".

CLEARANCE TO COMBUSTIBLES

Mantel and Mantel Shelf Clearances

Combustible projecting mantels – up to 3/4” of projection – shall not be placed less than twelve inches (12”) from the top of the fireplace opening. Combustible mantels, that project more than 3/4” shall reference **Figure 3 or Table 4** for mantel projection & height relationship (“Y” & “Z”).

NOTE: The local authority having jurisdiction may require greater clearances for projecting combustible mantel shelves. Be sure to check local building codes regarding required clearances to projecting combustible mantels.

IMPORTANT: Combustible Mantel height clearances may vary among listed firebox enclosure manufacturers. In conjunction with the Isoflames Vent Free Linear Burner mantel clearance, the firebox enclosure mantel clearance must also be satisfied.

Ceiling Clearance

Ceiling clearance from the top of the fireplace enclosure opening shall not be less than forty two inches (42”) .

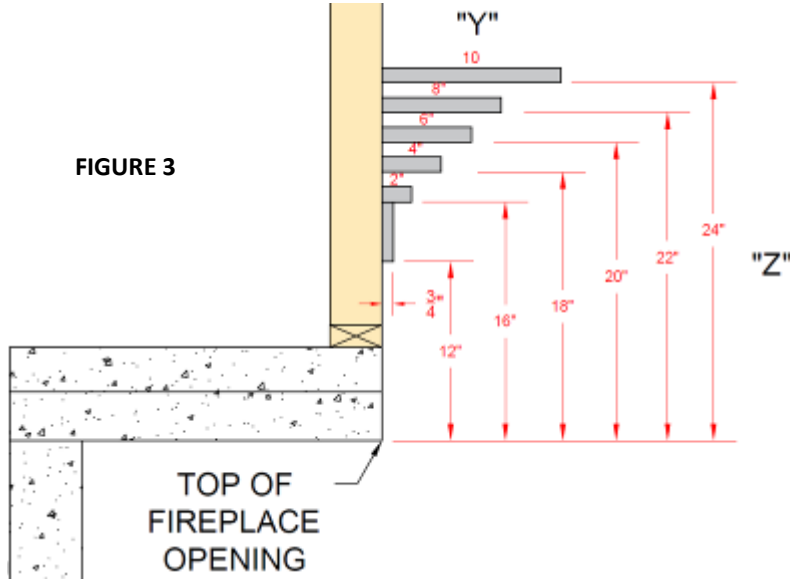
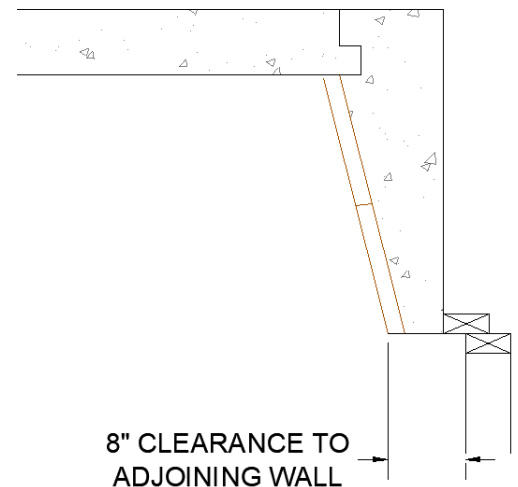
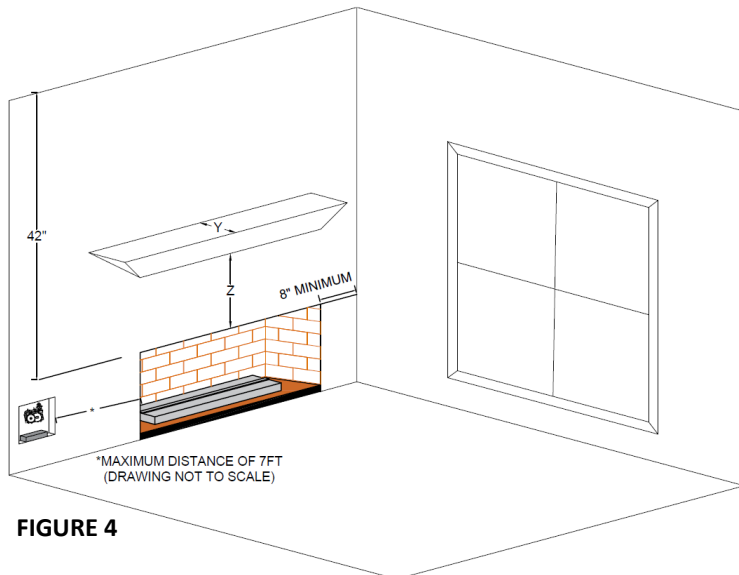


TABLE 4

COMBUSTIBLE MANTEL CLEARANCES (in)	
PROJECTION (Y)	HEIGHT (Z)
3/4	12
2	16
4	18
6	20
8	22
10	24
12	26

Adjoining Walls: Side walls and walls to rooms adjoining fireplace installations cannot be closer than eight inches (8”) to the finished fireplace opening. (**FIGURE 4**)

NOTE: “Clearance to Combustible Trim” are those distances required to ensure that a fireplace mantel 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.



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 a 110" pilot assembly lead; therefore, the box must be mounted within 7' of the fireplace. **(Figure 6)**
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 and 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 valve is rated for gas being used.
6. Make sure gas piping is pressure tested before control is connected. High pressure can damage the valve causing a hazardous condition.
7. Make sure piping is clean and free from burrs. Apply a small amount of good quality gas-rated 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.
8. Inlet and Outlet of valve are 3/8" NPT.
9. It is recommended that a safety shut off valve is installed inside the valve enclosure on inlet side of the gas valve.
10. It is recommended to hard pipe in the connections with unions installed inside the box.
11. Gas outlet from the valve should terminate into the firebox no less than 3" from sidewall/backwall.
12. Uncoil the pilot assembly. Be careful to not create unwanted kinks in the pilot tubing.
13. Feed the spade connector ends of the pilot 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.
14. Plug the spade connectors into the module according to the below wiring diagram **(Figures 7 & 8)**, insert the pilot tubing into the right side of the valve and, using a wrench, tighten the nut so that the pilot tubing cannot be pulled out.
15. Install the jumper wire on Terminal X4 on the control module. Once X4 is jumpered, the REMOTE transmitter functions as a burner and pilot override switch. **(Figure 8)**

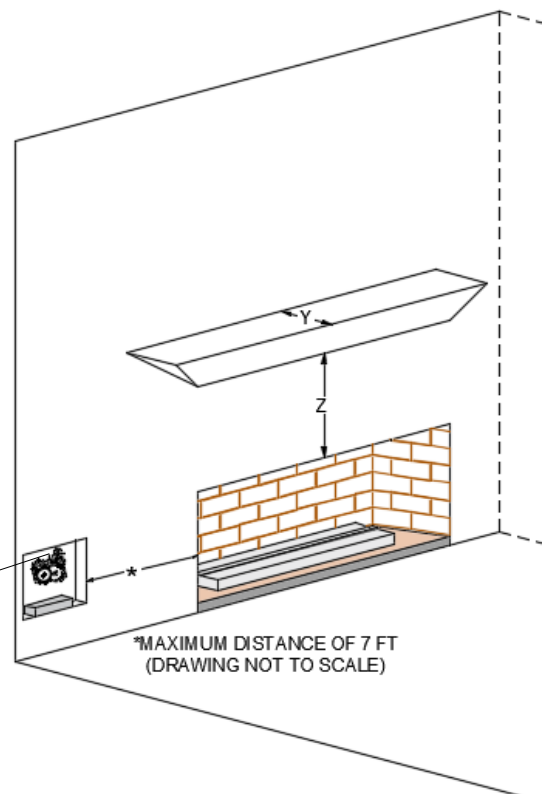
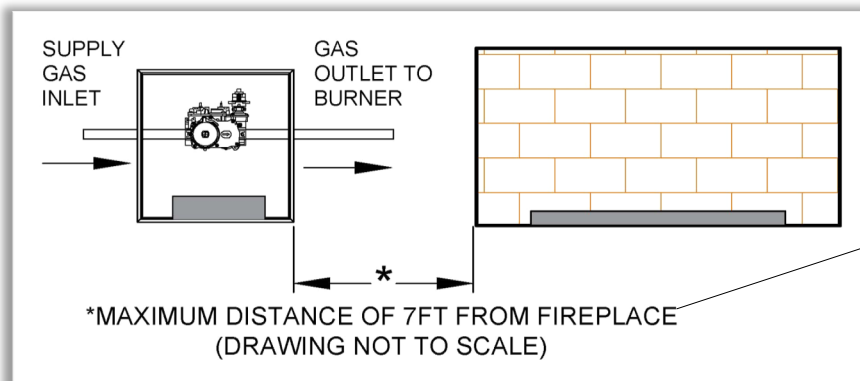
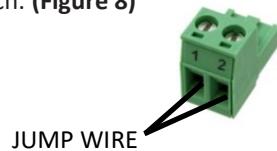


FIGURE 6

Burner Installation

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

- The ISOFLAMES VENT FREE 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.
 - Gas supply shall terminate not less than 3" from sidewall.
1. Place burner assembly in center of fireplace floor (**Figure 7A-7C**). For recessed application, see page 11 for additional information.
 2. Rotate the burner to position so the mounted pilot assembly is on same side as the gas supply stub coming from the gas valve.
 3. Ensure the flared fitting is connected to the gas supply stub.
 4. Connect the flex connector to the flared fitting that is connected to the gas supply stub.
 5. Make sure all connections are tightly secured.
 6. Avoid creating kinks in the flex connector.
 7. Feed the spade connector ends of the pilot assembly from inside the fireplace to the outside, being careful not to clog the flared fitting of the pilot tube or damage the tube or spade connectors.
 8. Plug the spade connectors into the module according to the wiring diagram (**Figures 9 & 10**), insert the pilot tubing into the right side of the valve and, using a wrench, tighten the nut so that the pilot tubing cannot be pulled out.
 9. Check appliance operation. See Burner lighting instructions Page 14.
 10. Spread glass media evenly across burner. Do not fill cavity with glass media.
 11. Make sure glass media does not obstruct pilot assembly. **KEEP PILOT ASSEMBLY FREE OF MEDIA.**
 12. Do not leave excessive amounts of glass media directly over burner ports.

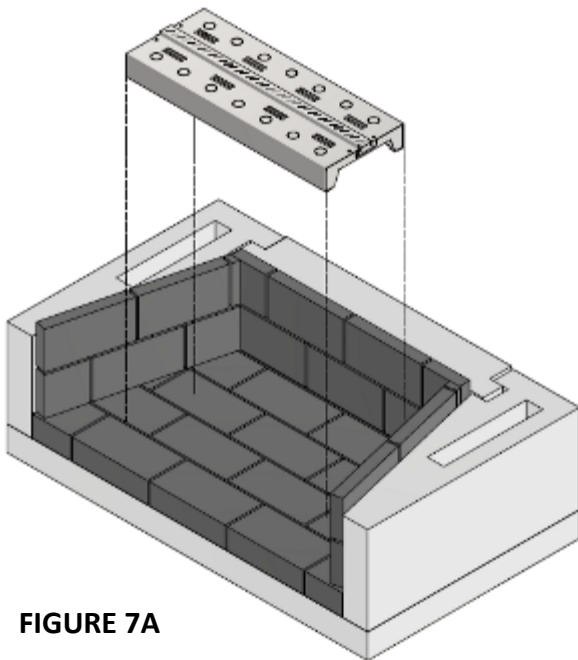


FIGURE 7A

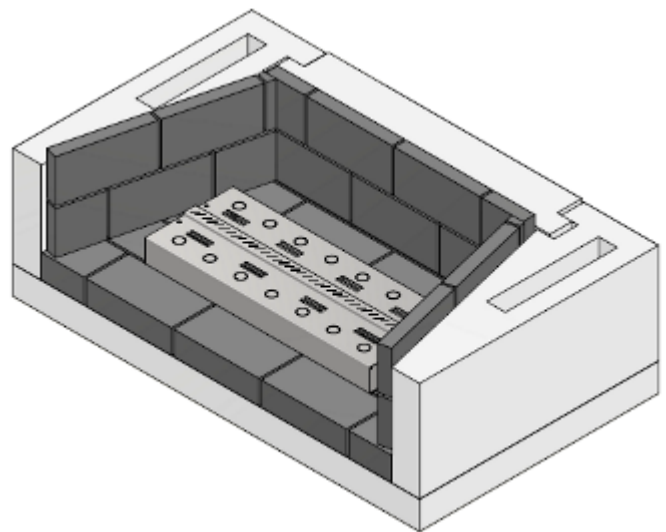


FIGURE 7B

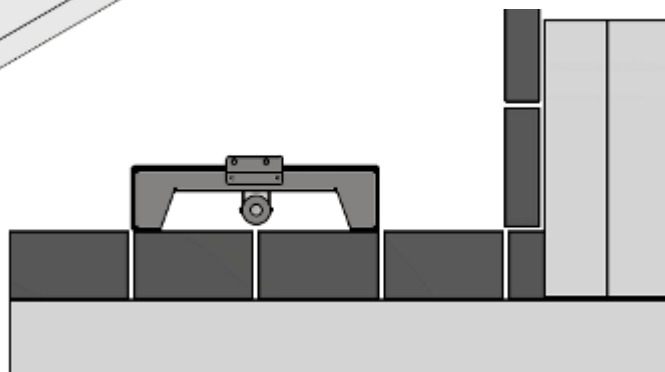


FIGURE 7C

RECESSED APPLICATION

- The ISOFLAMES VENT FREE LINEAR BURNER can be installed on top of existing hearth floor or be recessed into a 2-1/2" deep firebrick cavity constructed as detailed in **Table 6**.
 - The burner cavity must have a height of 2-1/2", a depth of 9-3/4", and the length shall extend the entire width of hearth floor firebox.
 - **NOTE:** fireplace manufacturer's minimum firebrick installation must be satisfied prior to construction of cavity.
1. Place burner assembly in center of cavity. (**Figure 8A-8C**)
 2. Rotate the burner to position so the mounted pilot assembly is on the same side as the gas supply stub coming from the gas valve.
 3. Ensure the flared fitting is connected to the gas supply stub.
 4. Connect the flex connector to the flared fitting that is connected to the gas supply stub.
 5. Make sure all connections are tightly secured.
 6. Avoid creating kinks in the flex connector.
 7. Feed the spade connector ends of the pilot assembly from inside the fireplace to the outside being careful not to clog the flared fitting of the pilot tube or damage the tube or spade connectors.
 8. Plug the spade connectors into the module according to the wiring diagram (**Figures 7 & 8**), insert the pilot tubing into the right side of the valve and, using a wrench, tighten the nut so that the pilot tubing cannot be pulled out.
 9. Check appliance operation. See Burner lighting instructions on Page 14.
 10. Spread glass media evenly across burner. Do not fill cavity with glass media.
 11. Make sure glass media does not obstruct pilot assembly. KEEP PILOT ASSEMBLY FREE OF MEDIA.
 12. Do not leave excessive amounts of glass media directly over burner ports.

TABLE 6

BURNER CAVITY DIMENSIONS (in)			
Burner Model	Height	Width	Length (Min)
VF24LB	2-1/2	9-3/4	FULL LENGTH
VF36LB	2-1/2	9-3/4	FULL LENGTH
VF42LB	2-1/2	9-3/4	FULL LENGTH

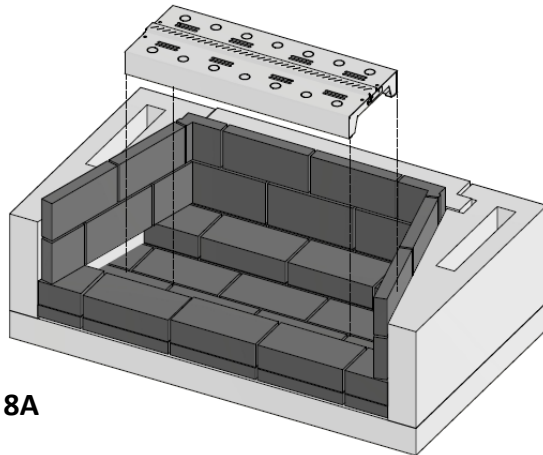


FIGURE 8A

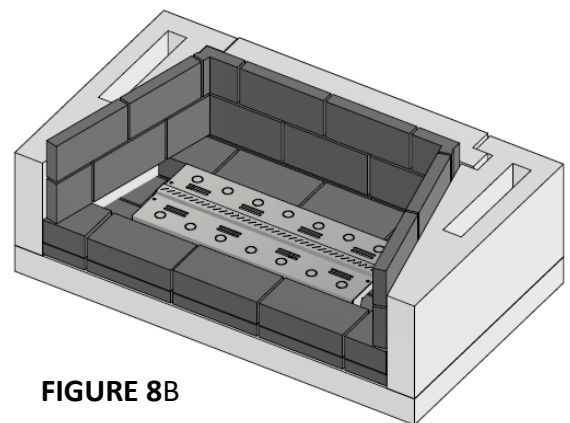


FIGURE 8B

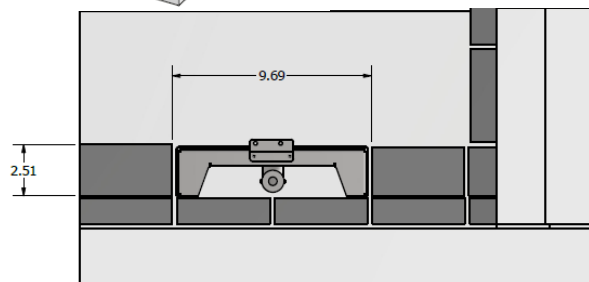


FIGURE 8C

VALVE BOX & BURNER WIRING DIAGRAM

WARNING!!!: Do not connect 120 VAC to the control valve.

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 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 of California to cause cancer, birth defects or other reproductive harm.

For a copy of the homeowner’s care and operation manual, go to www.earthcore.com or call 1-800-642-2920.

FIGURE 9

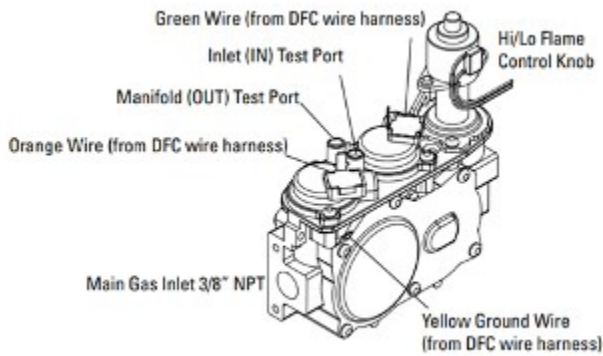


TABLE 5

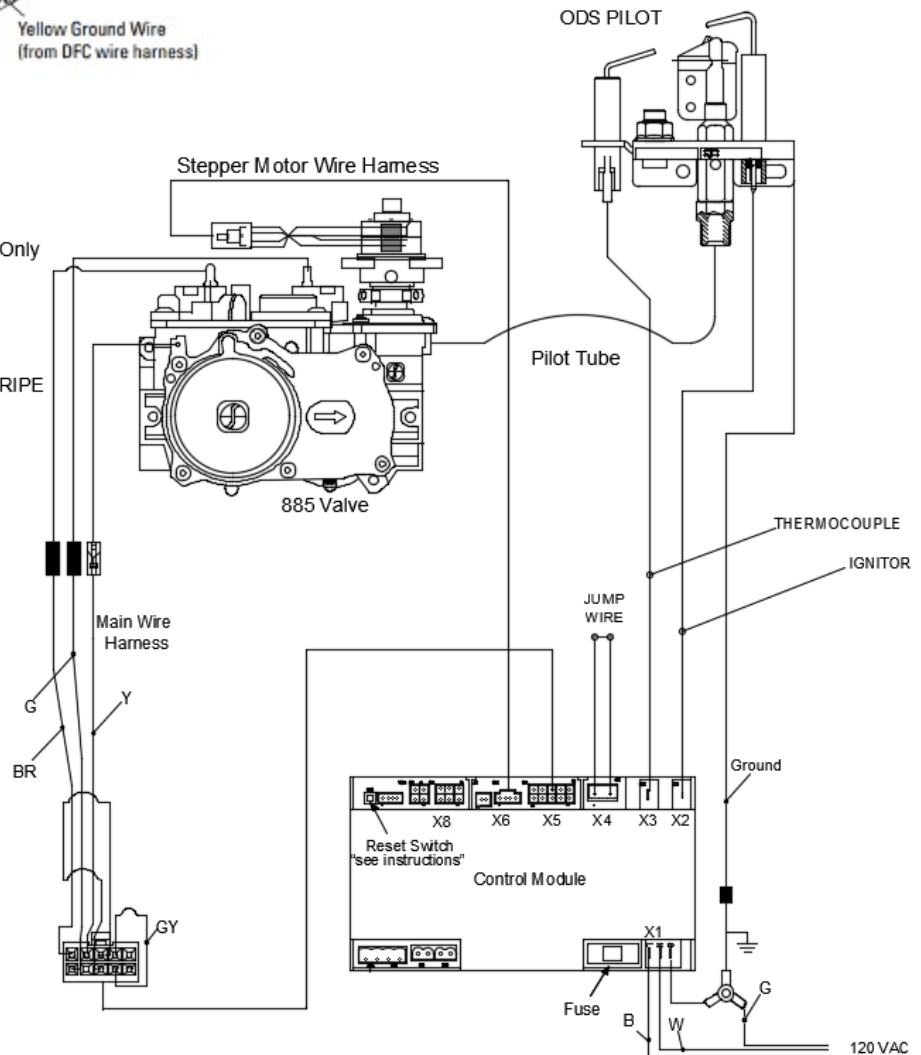
FUEL TYPE	INLET PRESSURE			MANIFOLD PRESSURE	
	DESIRED	MINIMUM	MAXIMUM	HIGH FLAME	LOW FLAME
NATURAL GAS	7" WC	5" WC	10.5" WC	3.5" WC	1.6" WC
LP GAS	11" WC	10.5 WC	13" WC	10" WC	6.4" WC

FIGURE 10

Schematic Representation Only

COLOR CODE :

- B = BLACK
- BB = BROWN W/BLACK STRIPE
- BR = BROWN
- G = GREEN
- GY = GRAY
- Y = YELLOW
- W = WHITE



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.

SYNCHRONIZE REMOTE TO CONTROL MODULE FOR THE FIRST TIME

1. Insert the three (3) provided AAA batteries into the battery bay in the remote. Correctly align polarity (+/-).
2. Press the red SW1 button on the control module. The control module will beep 3 times and an amber LED is illuminated to indicate that the control module is ready to synchronize with a remote within 10 seconds.
3. Push the "ON" button on the remote (**Figure 11**). The control module will beep four (4) times to indicate acceptance of the remote's command. The system is now synchronized.

TURN ON THE APPLIANCE

Press the ON/OFF Key on the Remote. The Remote LCD display will only show all active Icons on the screen and the appliance burner will turn on. A single "beep" from the module confirms reception of the command.

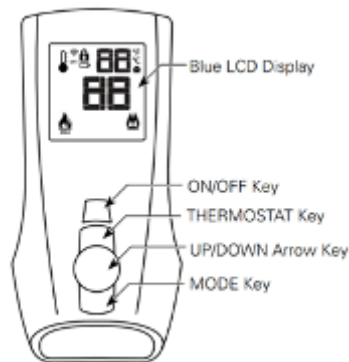


FIGURE 11

REMOTE FLAME CONTROL

The system has six (6) flame levels. See (**Figure 12**) 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 12**). A single "beep" will confirm reception of the command.

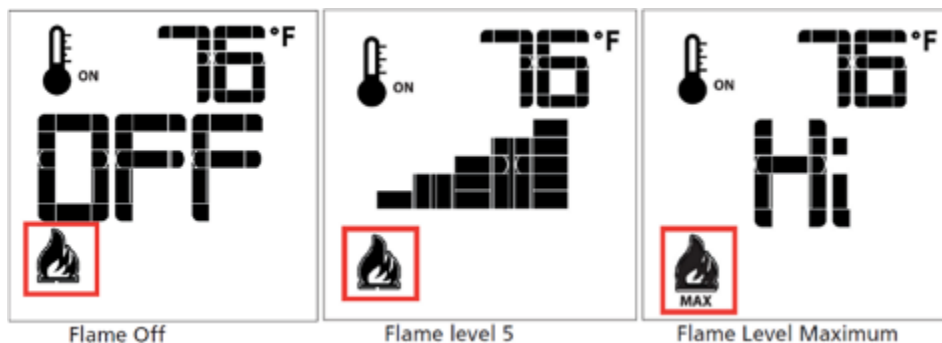


FIGURE 12

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 11). 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 13).



FIGURE 13

TURN OFF THE APPLIANCE

Press the ON/OFF Key on the Remote. The Remote LCD display will only show the room temperature and the appliance will turn off. A single “beep” from the module confirms 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 14) showing proper flame appearance.

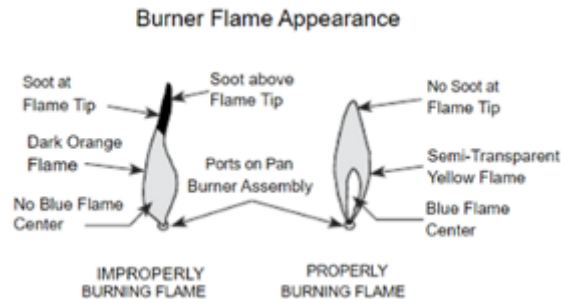


FIGURE 14

Continuous Pilot (CPI) & Intermittent Pilot (IPI) selection

The default setting is set to IPI. With the system in the OFF position, press the Mode Key (Figure 11) to index to the CPI mode icon. Pressing the UP Arrow Key will return to IPI. A single “beep” will confirm the reception of the command (Figure 15).

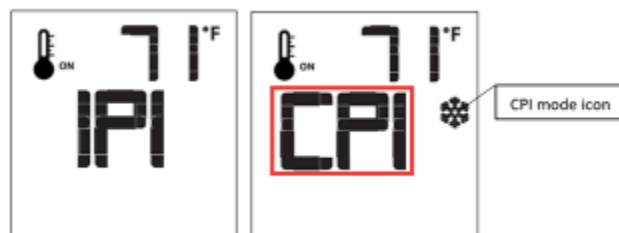


FIGURE 15

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.

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 installer's 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 combustible 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.

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.

Main Power and Remote Overview

The jumper wire needs to be installed on Terminal X4 on the control module. Once X4 is jumpered, the REMOTE functions as a burner and pilot override switch.



JUMP WIRE

Remote Lighting Instructions

Press ON/OFF on Remote transmitter. Module will beep one time to confirm. Pilot will begin to spark. It may take several minutes for air to purge from pilot tube. Once pilot is ignited, the main burner will turn on.

TO TURN OFF GAS TO APPLIANCE

1. Press the "ON/OFF" key on remote to turn off appliance operation.
2. Turn off all electric power to the appliance if service is to be performed.
3. Close the main line gas shut-off valve.

VENT FREE END CAP FOR RECESSED APPLICATIONS

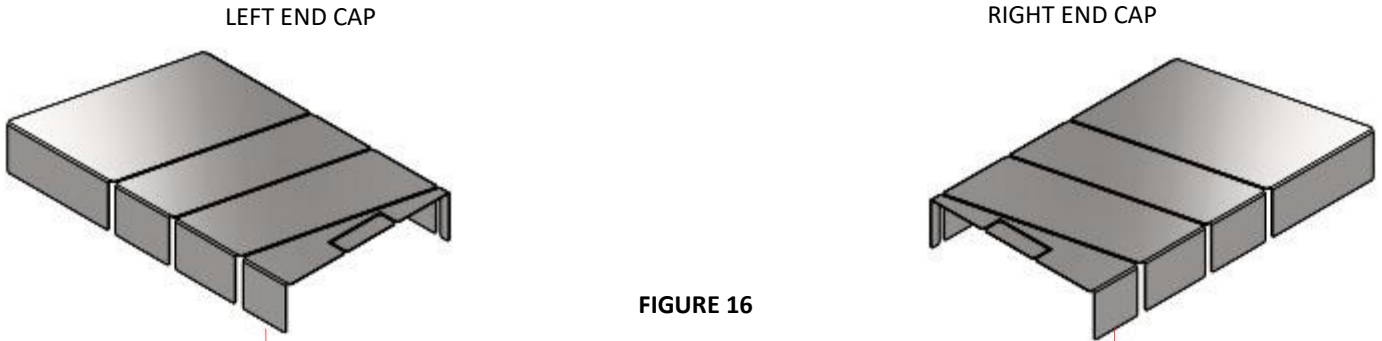


FIGURE 16

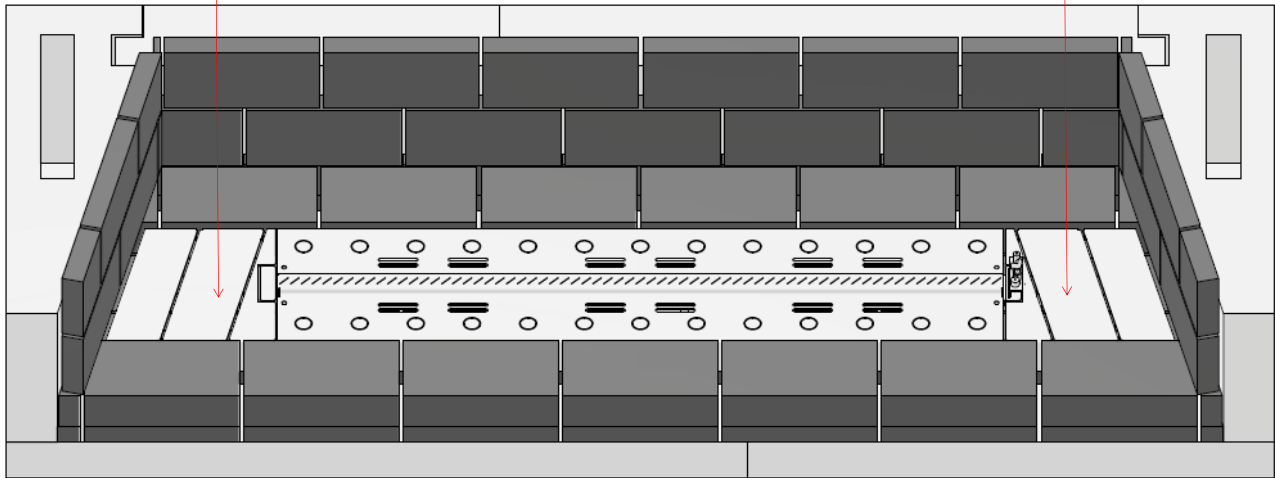


FIGURE 17

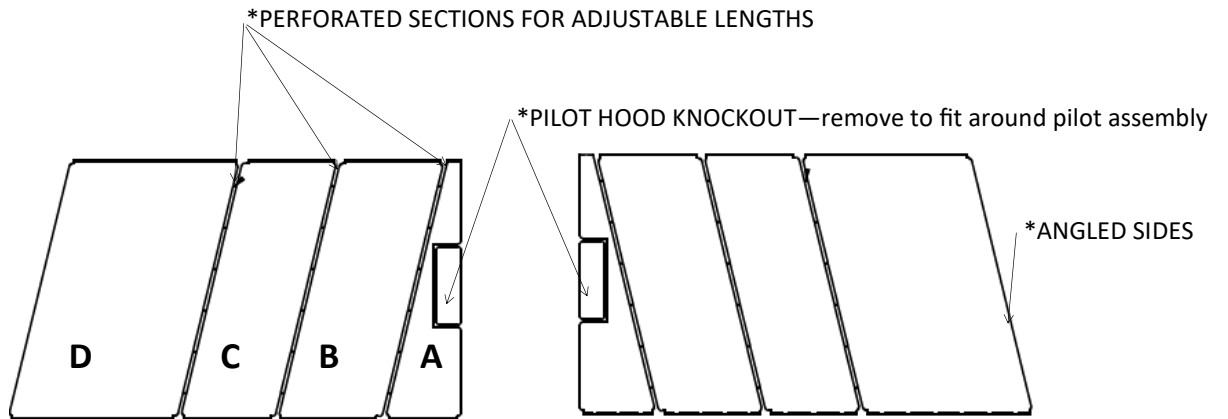









FIGURE 18

The vent free end cap is designed to provide an elevated platform in the cavity for the glass media. They are perforated to accommodate various length combinations with Isokern Vent Free Fireboxes. Remove a section by bending back and forth at the perforated segment labeled A,B,C, or D in **Figure 18**. See table below to determine the section needed for burner model and firebox combination.

TABLE 8

BURNER MODEL	VF24LB		VF36LB	VF42LB	
ISOKERN	81036	81042	81048	81060	81072
SECTION	A	B	A	C	D

MEDIA OPTIONS

Glass Media	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-AD	1/2" REFLECTIVE AMBER DIAMOND FIRE GLASS (10 LB JAR)
Fireballs	Part#	Description
	FB-BLACK	BLACK 3" FIREBALLS (PACK OF SIX)
	FB-GREY	GREY 3" FIREBALLS (PACK OF SIX)
	FB-SANDSTONE	SANDSTONE 3" FIREBALLS (PACK OF SIX)

- Vesper Black Glass Media will be included with the Isoflames Vent Free Linear Burner.
 - 24" model: 2 jars
 - 36" model: 3 jars
 - 42" model: 4 jars

- FIREBALL Quantities
 - 24" Model
 - Single: 7 FIREBALL
 - 2-Tier: 13 FIREBALL
 - 3-Tier: 18 FIREBALL
 - 36" Model
 - Single: 11 FIREBALL
 - 2-Tier: 21 FIREBALL
 - 3-Tier: 30 FIREBALL
 - 42" Model
 - Single: 13 FIREBALL
 - 2-Tier: 25 FIREBALL
 - 3-Tier: 36 FIREBALL

FIREBALLS

FIREBALLs are an optional accessory for the ISOFLAMES VENT FREE LINEAR BURNER. There are 3 optional variations of installation: Single Row, 2-Tier, and 3-Tier

WARNING!!! DO NOT PLACE FIREBALLS DIRECTLY OVER BURNER PORTS.

Improper use of this appliance can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

- Single Row, 2-TIER, AND 3-TIER: Requires removing the circle knockouts located on the burner itself. Recommend removing the knockouts with pliers. Rock the knockouts back and forth until they separate from the burner **FIGURE 19**.

SINGLE ROW APPLICATION

FIGURE 19

①

*REMOVE KNOCKOUTS TOWARDS THE REAR OF THE BURNER. KNOCKOUTS TOWARDS FRONT OF THE BURNER REMAIN INTACT.

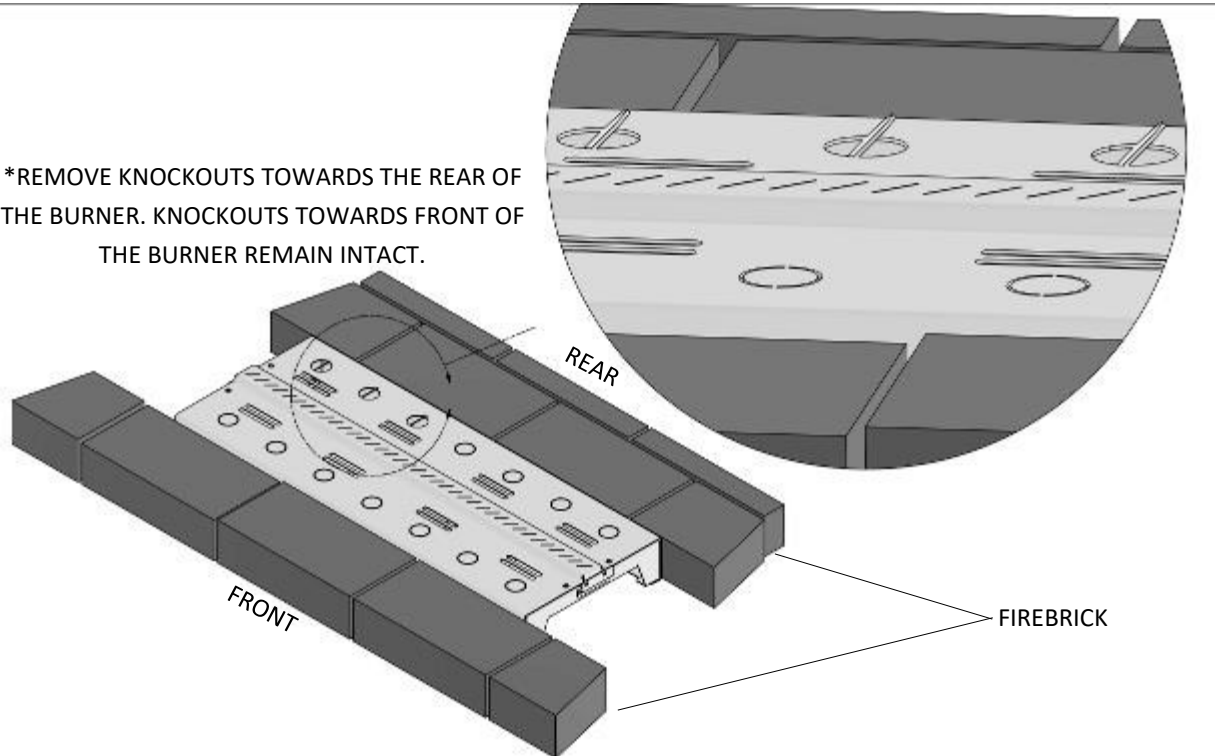


FIGURE 20

②

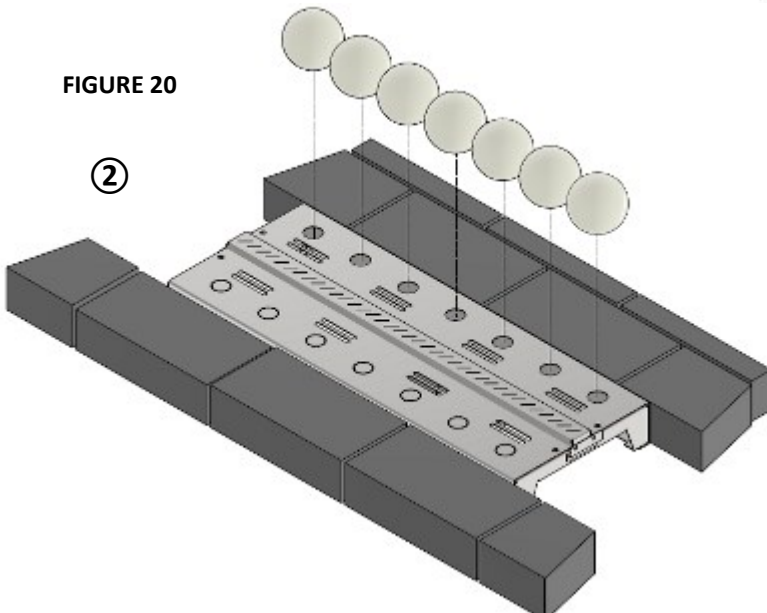
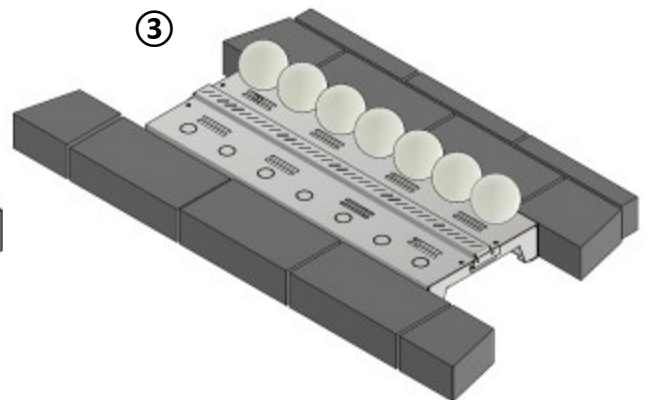


FIGURE 21

③



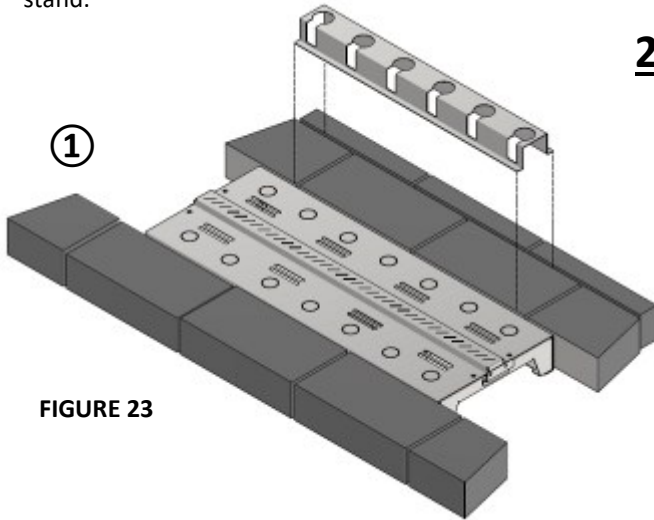
FIREBALLS

WARNING!!! DO NOT PLACE FIREBALLS DIRECTLY OVER BURNER PORTS.

Improper use of this appliance can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

- 2-Tier and 3-Tier installations start with removing the knockouts on the burner itself and using the FIREBALL stand. Recommend removing the knockouts with pliers. Rock the knockouts back and forth until they separate from the burner. Place FIREBALL stand on top of fire brick. Stand does not rest on burner. **FIGURE 23—FIGURE 30**
- Images below depict recessed application installation. For non-recessed, FIREBALL stand can be elevated 2.5" using non combustible material. Simple recommendation is to use full-firebrick (4.5"W x 9"L x 2.5"H) to fully support the FIREBALL stand.

2-Tier



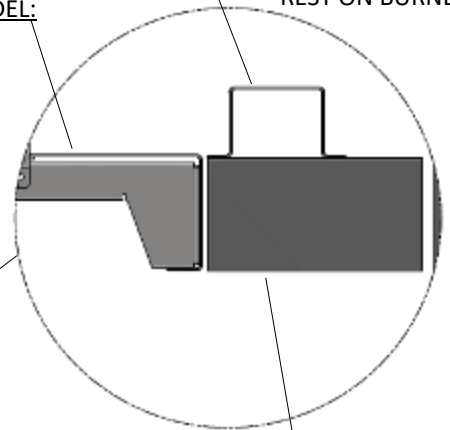
①

FIGURE 23

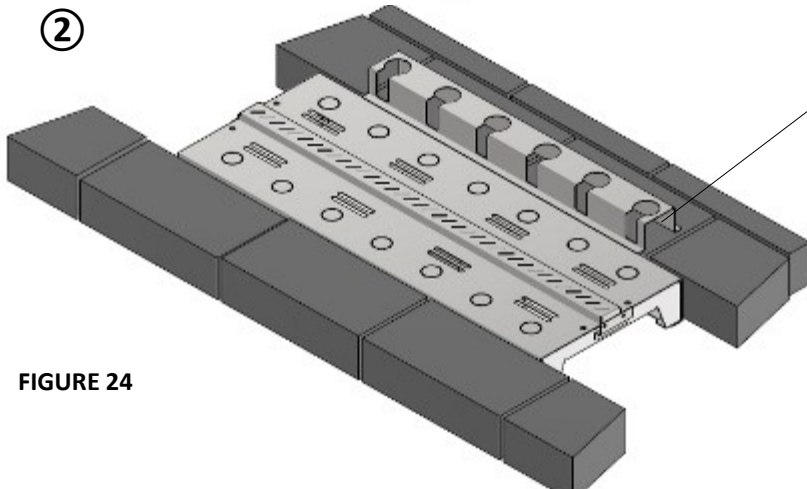
PART#:
 E-FBT24
 E-FBT36
 E-FBT42

BURNER MODEL:
 VF24LB
 VF36LB
 VF42LB

*STAND DOES NOT REST ON BURNER

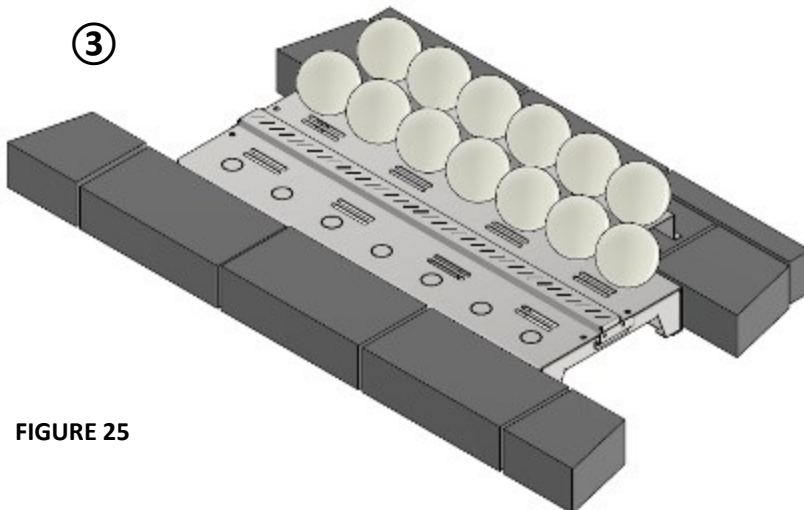


FIREBRICK



②

FIGURE 24



③

FIGURE 25

*PLACE FIREBALLS ON DESIGNATED HOLES ON BURNER AND FIREBALL STAND.

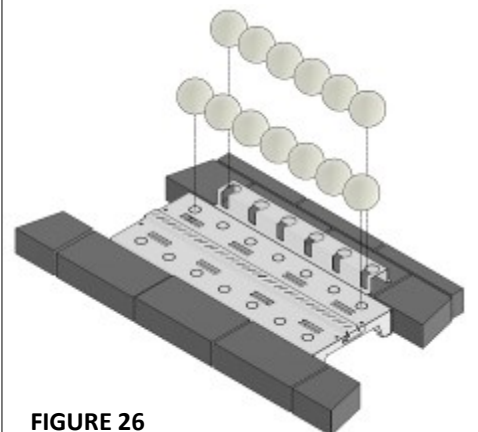


FIGURE 26

3-Tier:

- Images below depict recessed application installation. For non-recessed, FIREBALL stand can be elevated 2.5" using non combustible material. Simple recommendation is to use full-firebrick (4.5"W x 9"L x 2.5"H) to fully support the FIREBALL stand.

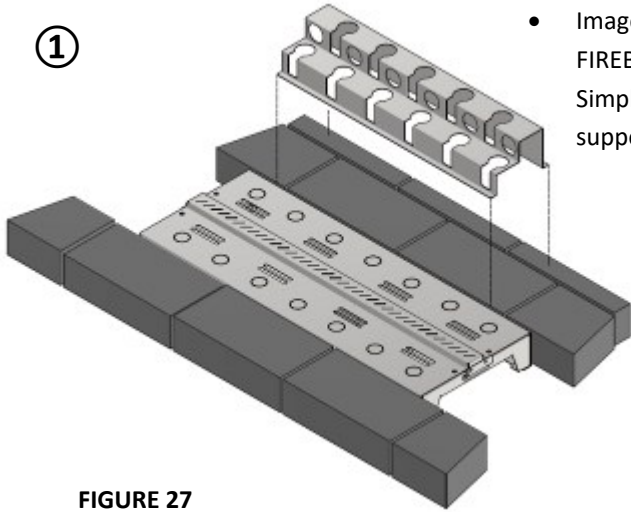


FIGURE 27

BURNER MODEL:

- VF24LB
- VF36LB
- VF42LB

PART#:

- E-DSFBT24
- E-DSFBT36
- E-DSFBT42

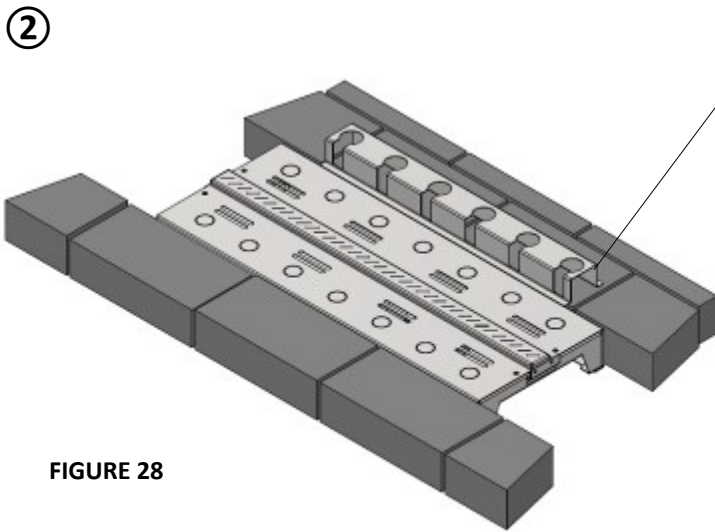
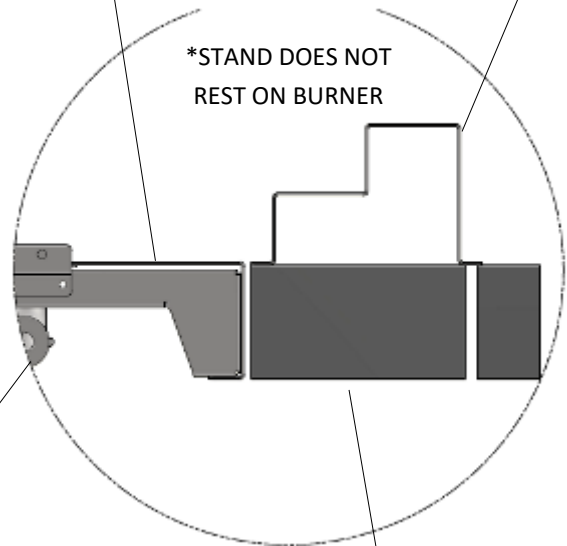


FIGURE 28

*PLACE FIREBALLS ON DESIGNATED HOLES ON BURNER AND FIREBALL STAND.

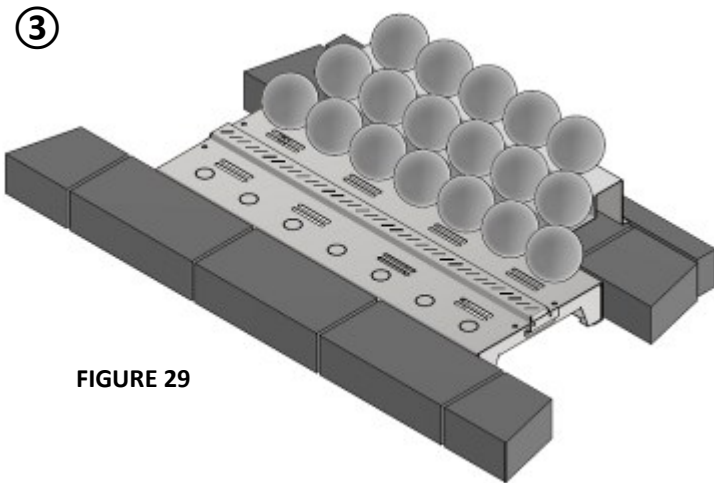


FIGURE 29

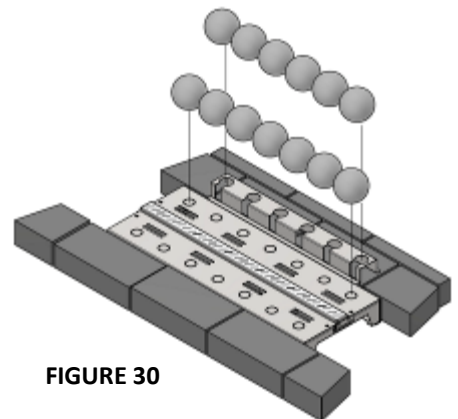


FIGURE 30

REGISTRATION CARD

Please tear out along line 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.: _____

Burner Model (Circle One):

VF24LB

VF36LB

VF42LB

Fuel Type (Circle One):

Natural Gas

Propane

Serial Number: _____

Buyer: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

Installed By: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

WARRANTY

Customer Service

ISOFLAMES by Earthcore is committed to delivering high-quality service that exceeds customer expectations. You can reach us toll free at 800-642-2920 Monday through Friday from 8:30 AM to 4:30 PM EST for technical support.

Warranty

THE WARRANTY MENTIONED HERE IS ONLY FOR ISOFLAMES VENT FREE LINEAR BURNER

ISOFLAMES products have a ONE YEAR WARRANTY.

It is important to register the ISOFLAMES VENT FREE LINEAR BURNER system with Earthcore.

Please complete the warranty card included in this manual on the previous page or visit us online at: <https://earthcore.com/register-your-isokern/>

1. When installed by a professional installer, the ISOFLAMES VENT FREE LINEAR BURNER is covered by a one-year warranty against any performance defects. The stainless-steel burner may brown over time, but it is not considered defective.
2. ISOFLAMES VENT FREE LINEAR BURNER comes with a one-year warranty against breakage, except in cases of mishandling or negligence.
3. ISOFLAMES VENT FREE LINEAR BURNER gas control valves are also backed by a 1-year warranty.
4. This warranty does not cover any parts or surfaces of the ISOFLAMES VENT FREE LINEAR BURNER that are damaged by rain, flooding, pets, wild animals, or birds, negligence, or a disaster.
5. This warranty does not cover any costs related to the installation of the ISOFLAMES VENT FREE LINEAR BURNER or for any parts that may have been damaged during installation.
6. This warranty is valid only for the original purchaser of the product.

earthcore®

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