

**Burner Systems:**

G45-2-16/19(P)  
 G45-2-18/20(P)  
 G45-2-24(P)  
 G45-2-30(P)  
 G45-2-36(P)  
 G45-2-42(P)  
 G45-2-48(P)  
 G45-2-60(P)



**Design Certified  
to:**

**Z21.84b-2004**

**(16/19" - 30" models)**

**FOR INSTALLATION IN  
SEE-THRU SOLID-FUEL  
BURNING FIREPLACES\***

## G45-2 SERIES VENTED GAS LOG SET (UNREGULATED)

### 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:

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

**Installation and service must be performed by a qualified professional installer, service agency, or the gas supplier.**

**This appliance is only for use with the type of gas indicated on the rating plate.**

### IMPORTANT: READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION OF THE LOG SET

The Real-Fyre gas log set is to be installed only in a solid-fuel burning fireplace with a working flue and constructed of noncombustible material. The installation, including provisions for combustion and ventilation air must conform with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, or the *CSA B149.1, Natural Gas and Propane Installation Code*, and applicable local building codes.

A damper clamp is included to maintain the minimum permanent vent opening and to prevent full closure of the damper blade. **The chimney damper MUST be fully opened when burning the log set. The log set is designed to burn with yellow flames; thus adequate ventilation is absolutely necessary.**

To comply with certification, listings, and building code acceptances, and for safe operation and proper performance of this log set, use ONLY Peterson parts and accessories. Use of other controls, parts, and accessories that are not designed for use with Real-Fyre gas log sets is prohibited and will void all warranties, certifications, listings, and building code approvals, and may cause property damage, personal injury, or loss of life.

**\*Note:** Solid-fuels shall not be burned in a fireplace where a decorative appliance is installed.



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



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## GENERAL INFORMATION

Keep the area of the gas log set clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

Periodically remove the logs and examine the burner assembly. If dirty, clean with a stiff brush. Also, examine the area around the burner air shutter and pilot, removing any dirt or lint. Occasional cleaning will ensure long life and trouble-free operation. An annual inspection and cleaning of the vent system by a qualified agency is recommended.

Burner size	Min. Fireplace Dimensions			BTU	
	Width*	Depth	Height	NAT.	L.P.
16/19"	25"	15"	18"	45k	35k
18/20"	26"	17"	18"	80k	65k
24"	30"	17"	18"	90k	75k
30"	36"	17"	18"	90k	75k
[36"]	42"	22"	18"	130kk	100k
[42"]	48"	22"	18"	150k	120k
[48"]	54"	22"	18"	170k	130k
[60"]	66"	22"	18"	190k	140k

\* This required width allows for centering of the log set. Add 4" to front width if the burner is to be installed with a pilot kit.

**Note: Bracketed sizes indicate non-certified burner systems.**

Minimum Free Opening Area of Chimney Damper for Venting (sq. in.)								
For Factory-Built Fireplaces *								
Chimney Height	16/19"	18/20"	24"	30"	36"	42"	48"	60"
15' (min.)	29	50	57	57	82	94	107	119
20'	26	45	51	51	73	85	96	107
30'	23	41	46	46	66	76	86	96

\* For Masonry-Built Fireplaces; add 4 sq. in. to amount shown.

## GENERAL INFORMATION (Cont.)

The Real-Fyre® gas log set is to be installed only in a fully vented, noncombustible fireplace with an open damper. The chimney must be free of any obstructions. The fireplace must be designed and approved to burn wood.

The fireplace must have a gas-supply line that has been installed by a qualified technician in accordance with all local codes. The gas-supply line must be 1/2" minimum interior diameter. If the gas line to the fireplace is longer than 20', a larger-diameter line may be necessary.

Be sure to clean the fireplace floor of any ashes or other foreign materials. It is recommended that the fireplace and chimney be inspected by a chimney sweep or other qualified person before you install the Real-Fyre® gas log set.

**Required Gas Pressure:** The minimum inlet gas-supply pressure for the purpose of input adjustment is 7" water column (w.c.) for natural gas and 11" w.c. for propane gas. The maximum inlet gas-supply

pressure is 10.5" w.c. for natural gas and 13" w.c. for propane gas.

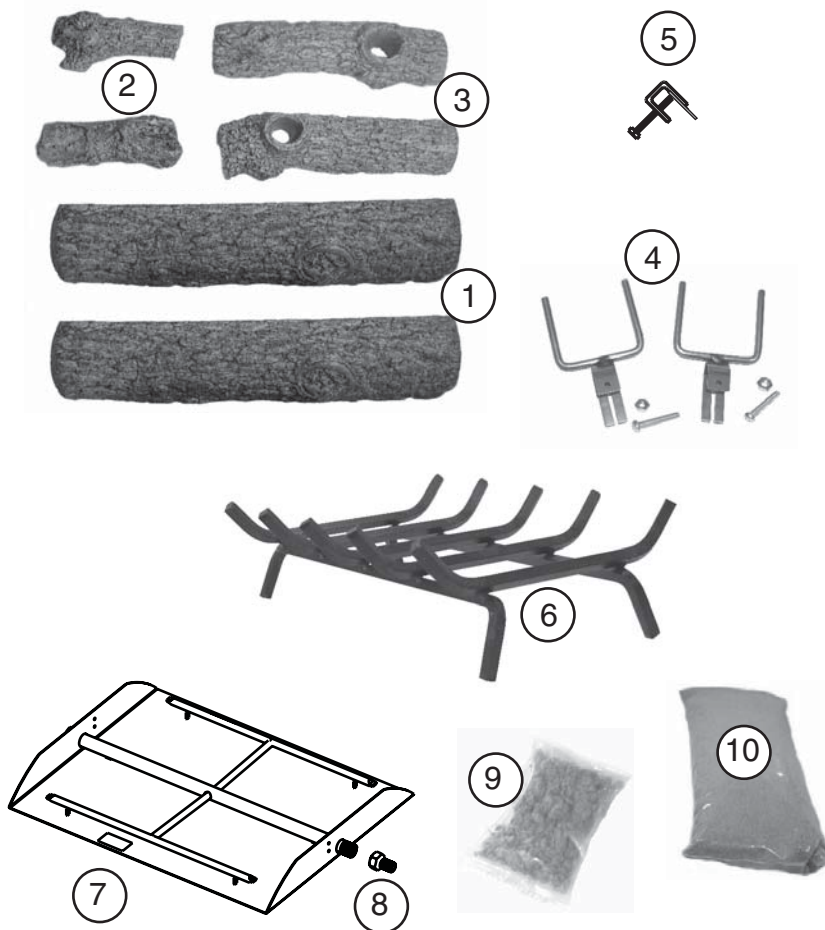
**Testing the Gas-Supply System:** The gas log set and its individual shutoff valve must be disconnected from the gas-supply piping system while performing any tests of the piping system at pressures in excess of 1/2 psig. The gas log set must be isolated from the gas-supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas-supply piping system at test pressures equal to or less than 1/2 psig.

**A fireplace screen must be in place when the system is burning.** Provisions for adequate combustion air must be maintained. Unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air. Combustion air is adequate when all flames curl into the fireplace and away from the screen. **When a glass fireplace enclosure (door) is used, leave the doors fully open when the system is in operation.**

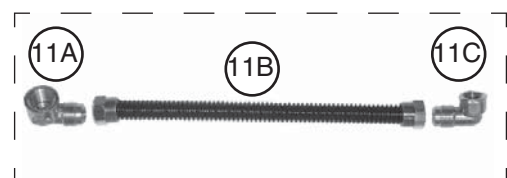
## PARTS LIST

The log set is purchased and packaged separately. Golden Oak log set shown here. Styles and sizes will vary depending upon the log set ordered. **If the log set ordered includes placement instructions; follow those instructions.** When ordering replacement parts; be sure to indicate your log set model.

Fig. 3-1



Item No.	Description
1.	Bottom log (2)
2.	Top log (2)
3.	Top log (2)
4.	Log separator (2)
5.	Damper clamp
6.	Fireplace grate
7.	Burner pan
8.	Fuel injector (natural gas) or Air mixer (natural gas)
9.	Glowing embers (2 bags)
10.	Select sand granules (natural gas only) (2) or Vermiculite granules (propane only) (2)
11.	Connector kit (with adapters)



Replacement parts are available through your local Real-Fyre® dealership.

(Drawings not to scale)

## IMPORTANT PRE-INSTALLATION AND FIREPLACE SAFETY INFORMATION

**CAUTION:** Installation and repair must be done by an NFI Certified or other qualified professional installer.

**Installer:** Carefully read these instructions before installing this gas burner system. Be sure you understand all safety precautions and warnings contained in this manual.

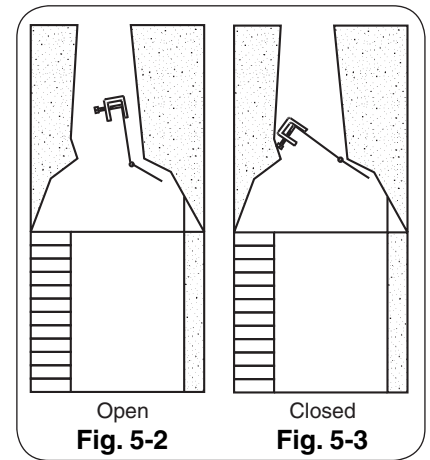
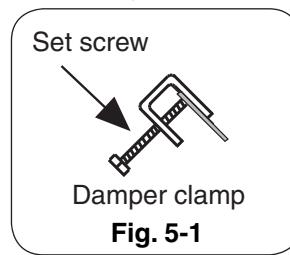
- A. It is recommended that adults be present when this gas appliance is operating. It is recommended that this unit is not left burning when unattended or while anyone is sleeping.
- B. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is **NOT FIELD CONVERTIBLE** for use with other gasses.  
CHECK GAS TYPE (natural or L.P.): The gas supply must be the same as stated on your burner system rating plate. If gas supply is different, **DO NOT INSTALL**. Contact your dealer for immediate assistance.
- C. **BE CAREFUL: If not installed, serviced, and used correctly per these instructions, this product can cause serious personal injury, property damage, or loss of life.**
- D. **WARNING:** Before installing in a solid-fuel-burning fireplace, **the chimney flue, damper, and firebox must be thoroughly CLEANED** of soot, creosote, ashes, and loose paint, and must be inspected by a qualified chimney cleaner. Some older fireplaces may need repair prior to installing this appliance.
- E. Keep the area of the gas burner system clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
- F. **INSUFFICIENT GAS PRESSURE WILL KEEP THE PILOT (IF EQUIPPED) FROM OPERATING PROPERLY. DO NOT USE IF GAS PRESSURE IS LOWER THAN THE MINIMUM REQUIREMENT.**
- G. The *minimum* inlet gas-supply pressure for purposes of input adjustment is **7"** water column (w.c.) on **natural gas** and **11"** w.c. on **L.P. gas**. Insufficient gas pressure will affect proper operation of the pilot (if equipped). Do not install this gas appliance if minimum pressure is not available. The *maximum* inlet gas-supply pressure is **10.5"** w.c. on natural gas and **13"** w.c. on L.P. gas. The L.P. source must be regulated. **(Do not connect this appliance directly to an unregulated L.P. gas tank - this can cause an explosion.) Do not connect this appliance to a portable L.P. gas cylinder.**
- H. **The gas piping system must be sized to provide minimum inlet pressure at the maximum flow rate (BTU/hr).** Undue pressure loss will occur if the pipe is too small, or the run is too long. Gas supply pipe must be 1/2" minimum interior diameter. If the gas line is longer than 20', a larger diameter line may be necessary. Refer to the NFPA 54 guidelines for further details.
- I. Input ratings shown in BTU per hour are for elevations up to 2,000 ft. For elevations above 2,000 ft., refer to the National Fuel Gas Code or contact manufacturer before installing this product.
- J. This gas 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 psig.
- K. This gas appliance must be isolated from the gas-supply piping system by closing the equipment shutoff valve connected to the gas-supply line during any pressure testing of the gas-supply piping system at test pressures equal to or less than 1/2 psig.
- L. Do not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been underwater.
- M. **A fireplace screen must be in place when the system is burning.** Provisions for adequate combustion air must be maintained. Unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air. Combustion air is adequate when all flames curl into the fireplace and away from the screen. **When a glass fireplace enclosure (door) is used, leave the doors fully open when the system is in operation.**
- N. **To install the gas appliance in your fireplace, the fireplace MUST meet the minimum size requirements (see minimum fireplace dimension table in SPECIFICATIONS section).**
- O. This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home, where not prohibited by local codes. Installation of appliances designed for manufactured home (U.S. only) or mobile home installation must conform with the Standard *CAN/CSA Z240 MH, Mobile Housing*, in Canada, or with the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280*, in the United States, or when such a standard is not applicable, *ANSI/NCSBCS A225.1/NFPA 501A, Manufactured Home Installations Standard*.



# INSTALLATION

The damper clamp with hex bolt (Fig. 5-1) is provided as a means to prevent full closure of the damper blade. The clamp is easily attached to most damper blades with pliers or a wrench, and must be permanently installed. The clamp is designed to prevent accidental closure of the damper when installed as illustrated (Fig. 5-2 and Fig. 5-3). Should the clamp not fit, or fail to provide the permanent vent opening listed in the table found above, have a permanent stop installed, remove the damper blade, or have the damper cut to provide the minimum permanent opening required.

**Note:** These are minimum damper opening specifications. The damper must be completely opened when operating this gas appliance to achieve the best ventilation possible.



## INSTALLING THE BURNER

The Real-Fyre gas log set must be installed by a qualified professional service technician. Instructions must be followed carefully to ensure proper performance and full benefit from the gas log set. **Check to be sure the log set is designed and labeled for the type of gas (natural or propane gas) supplied to the fireplace.** Fireplace floor must be level, clean, and smooth.

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

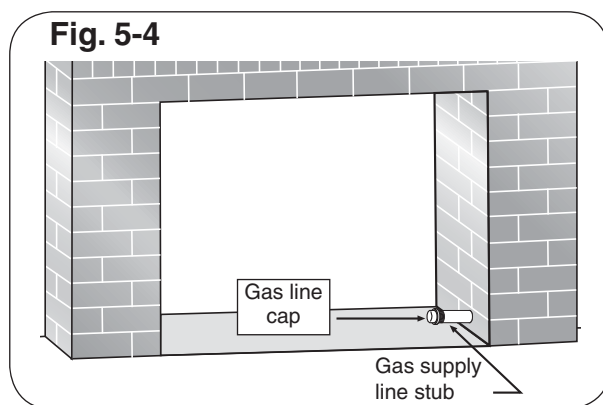
REFER TO THE PARTS LIST WHEN FOLLOWING THESE INSTRUCTIONS. **If your burner is to be installed with a pilot kit; carefully follow the instructions supplied with your pilot kit for specific gas connection.**

The burner pan is supplied with an air mixer for propane gas or a fuel injector for natural gas. **The air mixer / fuel injector must be used in ALL installations.** The air mixer / fuel injector has a precisely sized orifice to ensure only the proper quantity of gas enters the burner. This allows maximum performance and gas conservation.

1. MAKE SURE THE FIREPLACE GAS SUPPLY IS TURNED OFF.
2. Locate the gas-supply stub inside the fireplace and remove the cap, if attached (see Fig. 5-4).

**CAUTION:** When removing the cap, make sure the stub does not turn, loosening the connection inside the wall.

3. Locate the grate (Item 6) and attach the log locators (Item 4) to the 2 outer bars of the grate with screws and nuts. The log locators should be positioned on the middle of the bars with screw slots facing towards fireplace side walls (Fig. 5-5).
4. Attach the small adapter (Item 11C) to the fuel injector / air mixer on the burner pan, using a pipe compound resistant to all gases. Tighten securely. **DO NOT REMOVE THE FUEL INJECTOR / AIR MIXER.** Then attach one end of the flex connector (Item 11B) to the small adapter. Tighten securely.
5. Place the burner pan into the fireplace so that it is centered.

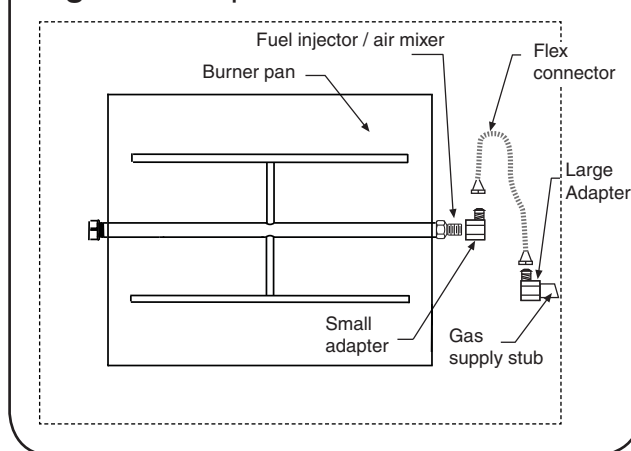


## INSTALLATION (cont.)

6. **Be sure gas to the fireplace is off.** Attach the large adapter (Item 11A) to the gas-supply stub using a pipe compound resistant to all gases. Tighten securely. Then attach the open end of the flex connector to the large adapter. Tighten securely. Ensure the pan rests level on the fireplace floor after connection. Adjust the pan if necessary.
7. **LEAK TEST:** Use a long-necked butane lighter, or lay a lighted match next to the burner pipe, and carefully turn on the gas supply until the burner ignites. Test at all connections for leaks using the appropriate soapy water solution. If bubbles appear, a leak is present. Turn off the gas and tighten at all connections. Repeat until no leaks are present. If a leak persists, turn off the gas supply and contact the local gas company or dealer. **NEVER USE A FLAME TO CHECK FOR LEAKS.**

Turn off the gas supply prior to proceeding.

**Fig. 6-1 - Fireplace valve**



## GRANULE, EMBER, AND GRATE PLACEMENT

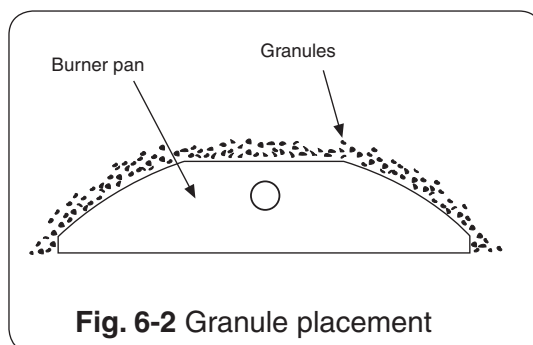
### GRANULE PLACEMENT

The granules supplied with the unit are specially selected for use with either propane gas or natural gas. They maximize flame distribution and reduce carbon buildup.

1. Fill the burner pan completely with the granules\* (Item 10). See Fig. 6-2. **Avoid spilling the granules on the pilot kit (if equipped).**

**\*Note:** Use only select sand for natural gas burners and vermiculite for propane gas burners.

2. Slope the granules at the same angle as the burner pan. This is important to ensure quiet lighting and even flame distribution.



### EMBER PLACEMENT

Sprinkle the glowing embers (Item 9) lightly and evenly over the entire surface of the granules. **Break up any clumps that may have developed during shipment.**

**Important: Do not add any additional embers to this log set. Any additional embers may cause unsafe operation.**

### GRATE PLACEMENT

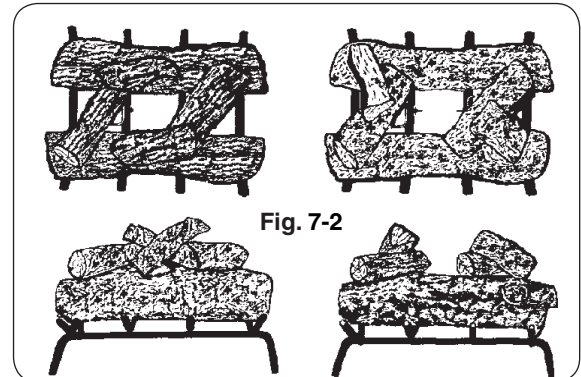
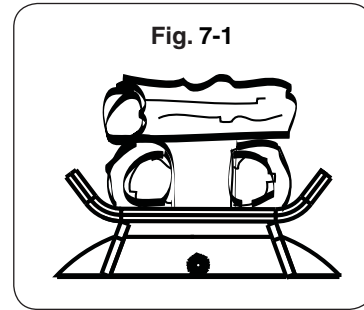
Center the grate over the burner pan.

# LOG PLACEMENT

The log set is purchased and packaged separately. Styles and sizes will vary depending upon the log set ordered. If the log set ordered includes placement instructions; follow those instructions. When ordering replacement parts; be sure to indicate your log set and burner model.

**Log placement is very important for the proper operation and performance of the Real-Fyre® gas log set.** Although you have some flexibility in the log arrangement, it is necessary to follow the log placement instructions carefully to fully enjoy the log set.

1. Place the bottom logs on the grate. The log locators ensure that adequate space between the logs is maintained for a clean burn (Fig. 7-1).
2. Place the middle/top logs diagonally with space between the logs so that the flames are not choked off. Adjust the middle/top logs until desired look, and flame pattern are achieved. Flexibility is possible provided excessive sooting does not result from flames striking the logs too directly. Reference Fig. 7-2 for some examples.



**CAUTION: Burn hazard. Logs will remain hot for some time after use. You must maintain the log layout as shown to ensure proper operation of your log set. If you need to reposition any log to maintain the proper layout, use heat-resistant gloves or allow logs adequate time to cool before handling.**

## NOTES PAGE

Please use this page to record any information that you may want to have at hand.



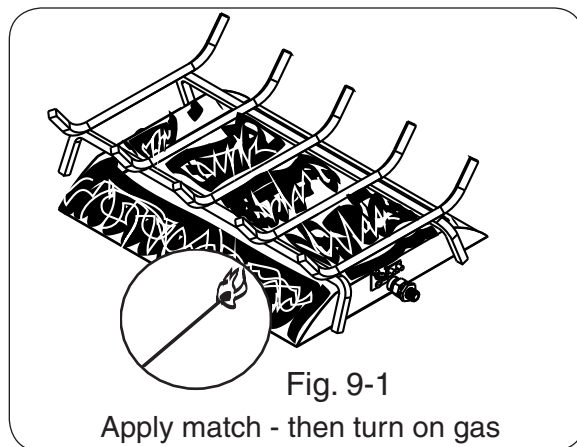
## LIGHTING INSTRUCTIONS - MANUAL VALVE

### Before operating your gas log set:

1. Be sure your fireplace is free from flammable liquids or combustible materials.
2. Be sure your damper is open.
3. Smell all around the gas log set for the odor of escaping gas. IF YOU SMELL GAS, FOLLOW THE INSTRUCTIONS ON P. 1.

### If your gas log set is operated by the fireplace valve:

1. Lay a lighted long-stem match on the surface of the embers near the gas inlet (**do not hold the match in your hand**) or use a lighted long-necked butane lighter (Fig. 9-1).
2. Slowly turn the fireplace remote valve to the **ON** position. Your log set should light.
3. If the log set does not light before the match goes out, immediately turn the valve to the **OFF** position.
4. Wait approximately five (5) minutes to clear out any gas, and repeat steps 1-3 above.
5. If your log set fails to light again, turn the valve to the **OFF** position and contact your dealer or gas supplier.
6. **To extinguish your gas log set**, turn the valve to the **OFF** position. Be sure the valve is turned fully off to avoid any gas leakage.

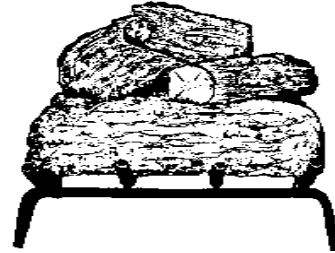
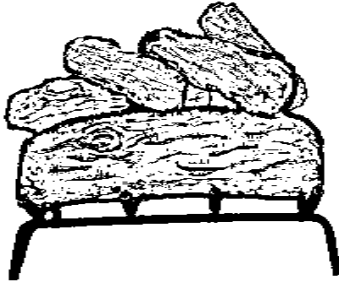
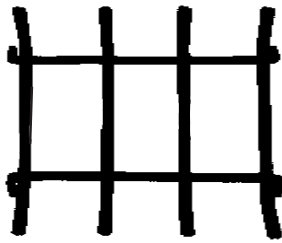
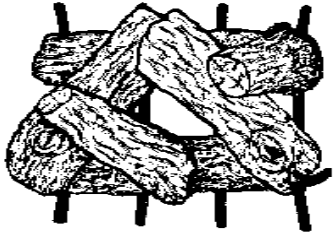


### If your burner is operated by a pilot kit:

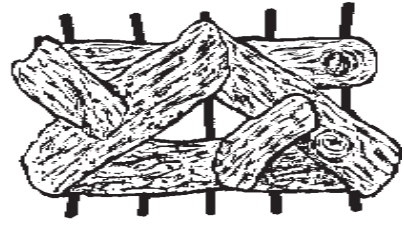
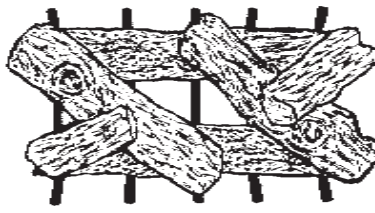
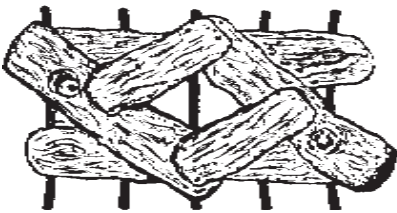
1. Carefully follow the lighting instructions supplied with your pilot kit for the steps to ignite the burner.

# EXAMPLE LOG PLACEMENTS

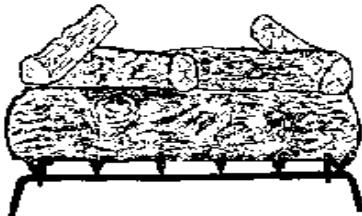
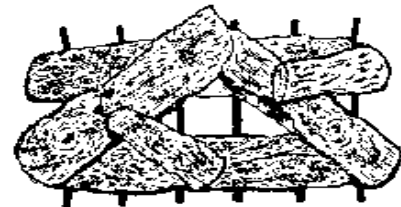
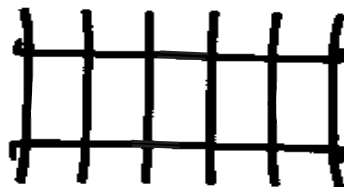
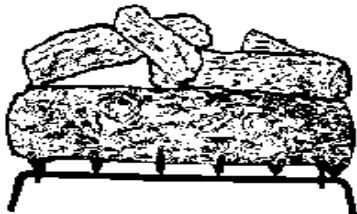
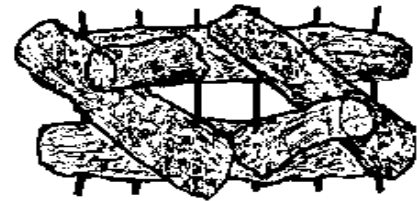
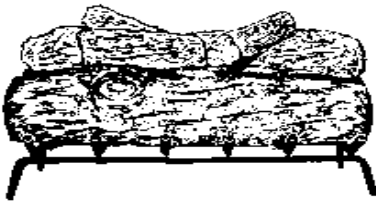
## GOLDEN OAK



## GOLDEN OAK

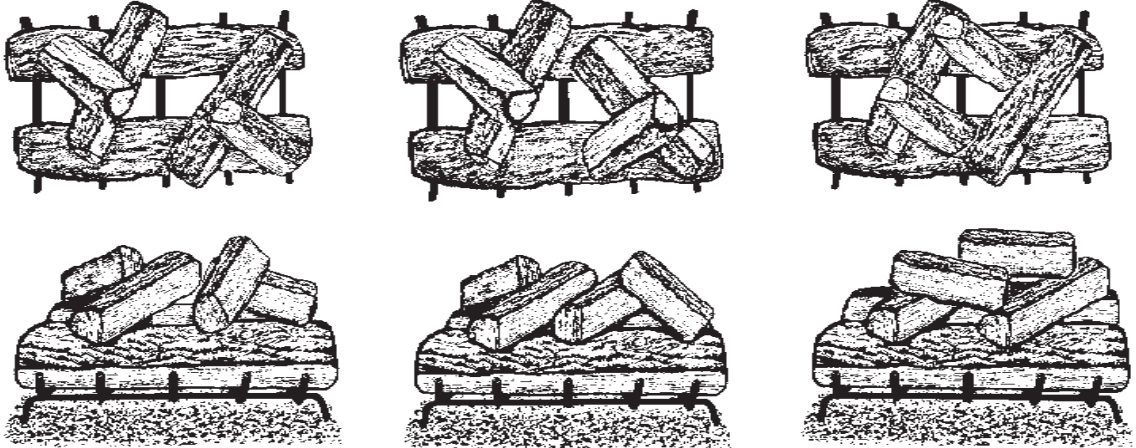


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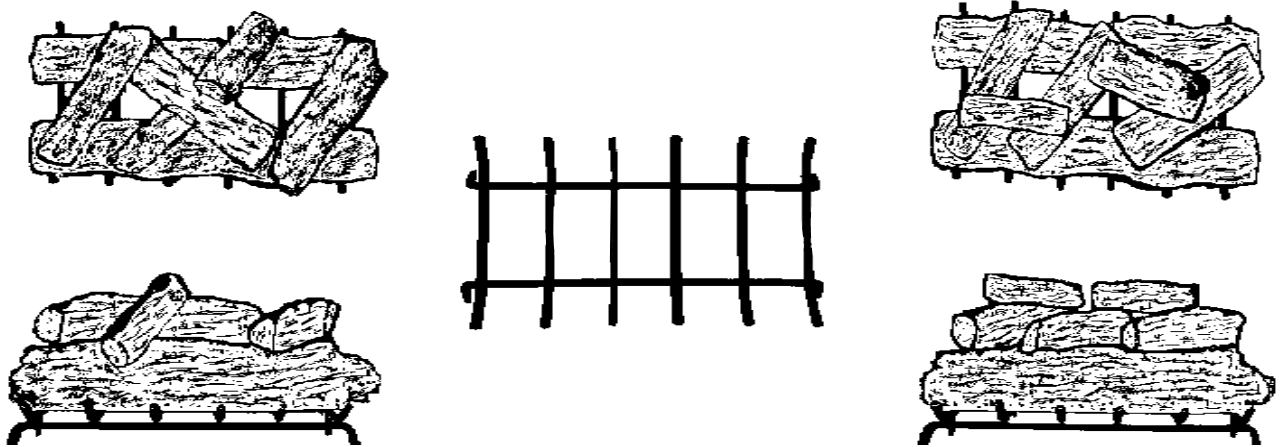


# EXAMPLE LOG PLACEMENTS

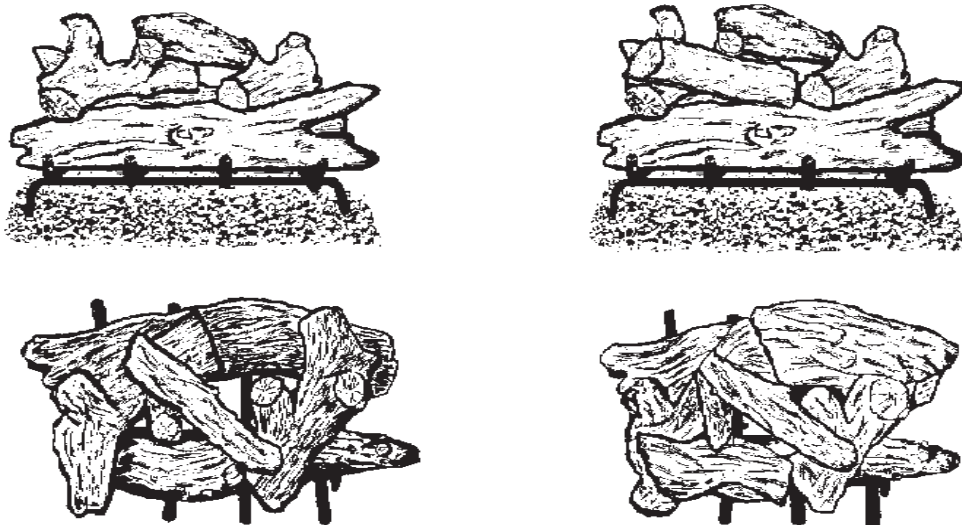
## SPLIT LOG



## SPLIT LOG



## DRIFTWOOD



## TROUBLESHOOTING YOUR GAS LOG SET

SYMPTOM	CAUSE	SOLUTION
1. Excessive smoking and sooting	A. Poor draft or downdraft	A. Check for chimney blockage. Be sure chimney is at least 3' taller than anything within 10' of it in all directions. If not, consult a chimney sweep. Chimney cap or fan may help. Under severe conditions, you may need to open a window near the fireplace about 1" to 2" when burning the log set.
	B. Improper burner for gas used	B. Use only a natural-gas set with natural gas. Use only a propane-gas set with propane gas.
	C. Damper closed	C. Open the damper fully when operating the gas log set.
	D. Improper log placement	D. Be sure the bottom logs are spaced at least 3" apart. Top logs should be placed to minimize flame impingement.
	E. Air mixer on propane set is closed	E. Open the air mixer completely.
2. Low flame	A. Incorrect log set for type of gas used	A. Consult your dealer for proper set.
	B. Insufficient gas supply	B. Other gas appliances may be competing for gas supply. Consult installer or plumber. Orifice size is based upon 7" w.c. pressure for natural gas and 11" w.c. pressure for propane gas. Plumbing must supply adequate pressure.
	C. Blockage or kink in connector kit, plumbing, or burner orifice	C. Clean out blockage. If connector kit is kinked, replace it.
	D. Valve not fully open	D. Open valve fully.

## TROUBLESHOOTING YOUR GAS LOG SET (Cont.)

SYMPTOM	CAUSE	SOLUTION
3. Uneven flame distribution (Lower at one end of the burner)	A. Clogged or blocked portholes	A. Portholes can be cleared of foreign object by running a wire through them.
	B. Insufficient gas pressure and/or supply	B. Consult installer or plumber. (See solution 2b.)
	C. Granules may be packed down too tightly	C. Loosen granules around burner pipe by running a kitchen knife along both sides of pipe. Even out granules in burner pan.
	D. Auxiliary shutoff valve partially closed	D. Open valve fully. Usually, you will find this along the wall 3' from the fireplace.
4. Flame at air mixer (For propane units)	A. Clogged or blocked portholes	A. Portholes can be cleared of foreign object by running a wire through them.
	B. Insufficient gas pressure and/or supply	B. Consult installer or plumber. (See solution 2b.)
	C. Granules may be packed down too tightly	C. Loosen granules around the burner by running a kitchen knife along both sides of the pipe. Be sure vermiculite (not sand) is used with an air mixer.
	D. Excessive gas pressure	D. Contact your gas supplier.

# WARRANTY

## PETERSON VENTED DECORATIVE GAS APPLIANCE LIMITED WARRANTY

Robert H. Peterson Co. ("RHP") warrants your Real Fyre® vented decorative gas appliance to be free from defects in material and workmanship.

Peterson vented ceramic refractory gas logs are warranted for **as long as you own them (lifetime)**.

Peterson vented burner assemblies are **WARRANTED for TEN (10) YEARS**. Peterson vented outdoor stainless-steel burner assemblies are warranted for **FIVE (5) YEARS**.

Peterson glass, gems, nuggets, and fiber-ceramic blend gas logs are warranted for **FIVE (5) YEARS**.

SPK-26 controls are warranted for **THREE (3) YEARS**.

APK-17 controls (including -17 valve) are warranted for **TWO (2) YEARS**.

All other Peterson valves, pilots, and controls are warranted for **ONE (1) YEAR (excluding batteries)**.

### A COPY OF YOUR SALES SLIP FOR PROOF OF PURCHASE IS REQUIRED

This warranty applies to the original purchaser for products which are installed in the United States or Canada and which are operated and maintained as intended for single family residential usage. This warranty is valid only with proof of purchase, shall commence on the date of purchase, and shall terminate (both as to original and any replacement products) on the anniversary date of the original purchase of the product stated on the above schedules.

This warranty covers defects in material and workmanship. This warranty **does not** cover parts which become defective as a result of negligence, misuse, use not in compliance with the Owner's Manual/Installation Instructions, accidental damage, improper handling, improper storage, improper installation, lack of required routine maintenance (as specified in the Owner's Manual/Installation Instructions), electrical damage, local gas impurities or failure to protect against combustibles. Product must be installed (and gas must be connected) as specified in the Owner's Manual/Installation Instructions by a **qualified professional installer**. Modifications to products which are not specifically authorized will void this warranty. Accessories, parts, valves, remotes, etc. when used must be Peterson products or this warranty is void. Warrantied items will be repaired or replaced at Peterson's sole discretion. This warranty **does not** apply to rust, corrosion, oxidation, or discoloration unless the affected part becomes inoperable.

This warranty **does not** cover labor or labor related charges, except as provided by separate specific written programs from the Peterson Co. All repair work must be performed by a qualified professional service person and requires prior approval of Peterson.

Peterson may require the defective product or part to be returned to the factory to determine the cause of failure. Peterson will pay freight charges if the product or part is determined to be defective. This warranty does not cover breakage in shipment from our (Independent) distributor to its customer if the damage is determined to have occurred during that shipment.

This warranty specifically excludes liability for **indirect, incidental**, or consequential damages. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specified legal rights, and you may have other rights that vary from state to state or province.

For additional information regarding this warranty, or to place a warranty claim, contact the R. H. Peterson dealer where the product was purchased.

**TO REGISTER YOUR PRODUCT ONLINE GO TO: [WWW.RHPETERSON.COM](http://WWW.RHPETERSON.COM),  
AND CLICK ON PRODUCT REGISTRATION. THANK YOU FOR YOUR PURCHASE.**