



**G4/GX4-2 SEE-THRU**

**⚠ 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 neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach the gas supplier, call the fire department.

**Installation and service must be performed by an NFI Certified or other qualified professional installer, service agency, or the gas supplier.**



**Important:** Read these instructions carefully before starting installation of the gas log set.

This 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. Solid fuels shall not be burned in a fireplace where this gas log set is installed. The installation, including provisions for combustion, ventilation air, and required minimum permanent vent opening, must conform with the National Fuel Gas Code and applicable local building codes. A damper stop clamp is included to maintain the minimum permanent vent opening and to prevent full closure of the damper blade. **The chimney damper should be fully opened when burning the log set.**

**Important:** To comply with certification, listings, and building code acceptance, and for safe operation and proper performance, ONLY Peterson parts and accessories may be used with this gas log set.

**INSTALLER & CONSUMER**  
These instructions **MUST** be retained with this appliance.



# IMPORTANT INFORMATION

## CHECK THAT THE LOG SET IS LABELED FOR THE PROPER GAS TYPE

Log sets are designed for use with natural gas, unless clearly labeled for propane gas. Never use propane gas in a log set designed for natural gas, or natural gas in a log set designed for use with propane gas.

The installation, including provisions for combustion and ventilation air, must conform with local codes, or in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223. 1 and NFPA54*.

The appliance and its individual shutoff valve must be disconnected from the gas-supply piping system when testing the system at test pressures in excess of ½ psig. This is accomplished by closing the gas-supply line valve, as required by NFPA54.

The appliance must be isolated from the gas-supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas-supply system at test pressures equal to or less than ½ psig.

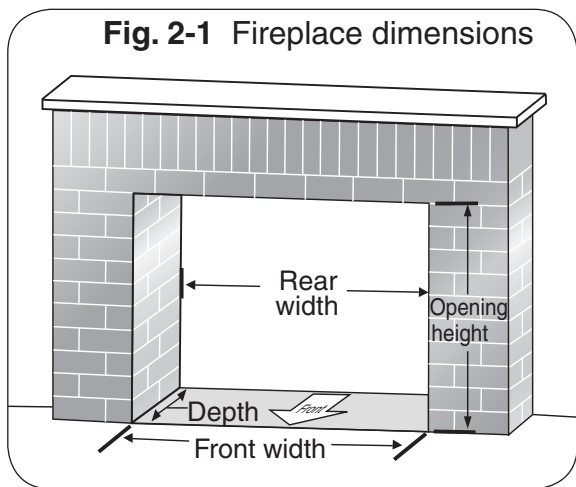
The minimum inlet gas-supply pressure for the purpose of input adjustment is 7" water column (w.c.) for natural gas and 11" w.c. for propane gas.

The maximum inlet gas-supply pressure for this burner is 10½" w.c. for natural gas and 13" w.c. for propane gas.

A fireplace screen must be in place when the log set is burning.

**CAUTION: Where fitted, operate the log set with the fireplace doors fully open.**

The recommended firebox dimensions in which the G4-2 burner is to be installed are listed in the table below:



Log Set Size	Minimum Fireplace Dimensions				BTU (natural)	BTU (propane)
	Depth	Height	Width †	Min. vent opening sq. in. *		
12"	16"	18"	15"	25	40M	34M
16/19"	16"	18"	20"	50	80M	48M
18/20"	18"	18"	22"	75	120M	48M
24"	18"	18"	26"	94	150M	77M
30"	18"	18"	32"	100	160M	98M
[36"]	20"	18"	38"	116	186M	145M
[42"]	20"	18"	44"	150	240M	170M
[48"]	20"	18"	50"	150	240M	170M
[54"]	20"	18"	56"	150	240M	170M
[60"]	20"	18"	62"	150	240M	170M

**Note:** Front and rear width are assumed the same for see-through fireplaces.

## TABLE OF CONTENTS

IMPORTANT INFORMATION	2
PARTS LIST	3
HOW TO INSTALL THE G4 SEE-THRU GAS LOG SET	4
BURNER CONNECTION INSTALLATION	4
BURNER PLACEMENT	4
CONNECTING THE GAS SUPPLY	4
INSTALLING THE REAL-FYRE® BURNER SPK & APK SYSTEMS	5
HOW TO INSTALL THE REAL-FYRE® GAS LOG SET	6
GRANULE PLACEMENT	6
GLOWING EMBER & GRATE PLACEMENT	6
LOG PLACEMENT	6
DAMPER CLAMP	6
INSTRUCTIONS FOR MANUALLY LIGHTING THE LOG SET	7
LOG PLACEMENT SUGGESTIONS	7
LOG PLACEMENT SUGGESTIONS (Cont.)	8
MAINTENANCE AND SERVICE	9
MAINTENANCE	9
SERVICE	9
FLAME DESCRIPTION	9
TROUBLESHOOTING THE GAS LOG SET	9
TROUBLESHOOTING THE GAS LOG SET (Cont.)	10
OPTIONAL CONTROLS FOR YOUR REAL-FYRE® BURNER SYSTEM	11
WARRANTY	12

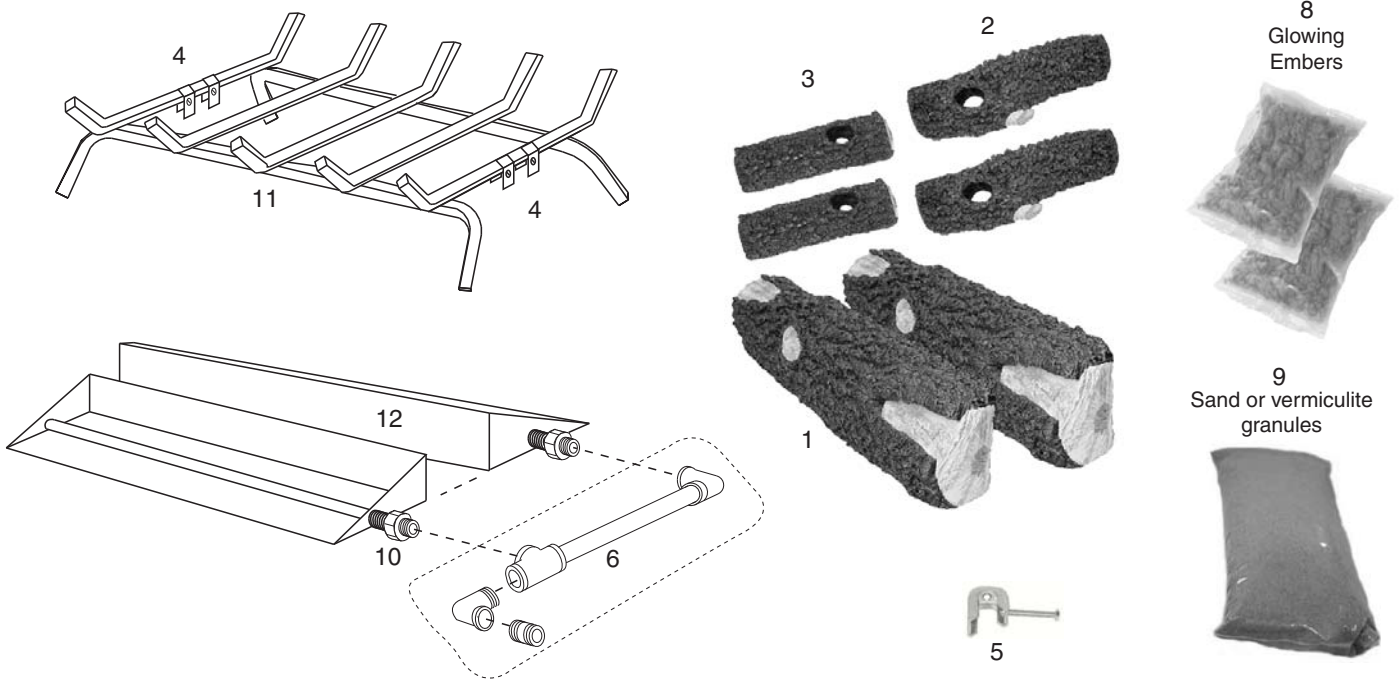
† Add 4" to front opening width if the burner is to be installed with a pilot kit. Double this measurement to center burner.

\* The chimney vent opening provided is based upon a required minimum chimney height of 15 feet.

**Note:** Bracketed log sets exceed the 90,000-BTU maximum input allowed by the LA Standard and are not included in the RADCO listing.

# PARTS LIST

**Note:** The parts for the Woodland Oak 24" set (WOG4-2-24) are illustrated and listed. Log styles and part sizes will vary depending on the log set ordered. When ordering replacement parts, be sure to indicate your log set model. (See items in bold below.)

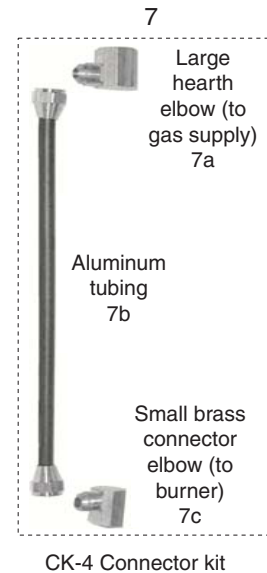


**Note:** 24" Woodland Oak log set depicted here as an example.

Item No.	Part No.	Description
1.	<b>WOL-24B</b>	Woodland Oak bottom 11" (2)
2.	<b>WOL-15T</b>	Woodland Oak top log 15" (2)
3.	<b>WOL-9T</b>	Woodland Oak top log 9" (2)
4.	SC-2-2 or SC-3-2	Pair of stabilizer clips G4 (2 pair) Pair of stabilizer clips GX4 (2 pair)
5.	DC-1	Damper clamp
6.	TEA-1	Joint assembly
7.	CK-4-12	Connector kit
8.	EM-1	Glowing Embers (2)
9.	CS-12 or LF-15	Select sand granules (2) (natural) Vermiculite granules (2) (propane)
10.	AB-2- <b>29</b> or AM-2- <b>50</b>	Fuel injector (natural) (2) Air mixer (propane) (2)
11.	SD2- <b>24</b> or SX2- <b>24</b>	Fireplace grate G4 Fireplace grate GX4
12.	GG- <b>24</b>	Burner pan assembly (2)* (w/injector or mixer)

\*For propane units, add a "P" to the end of the part number.

**Note:** Values in **bold** change with burner size, model and log set.



**Replacement parts can be ordered from your local Real-Fyre® dealer.**

## HOW TO INSTALL THE G4 SEE-THRU GAS LOG SET

**Important:** To comply with certification, listings, and building code acceptances, and for safe operation and proper performance of this log set, use ONLY Peterson Real-Fyre® parts and accessories. Use of other controls, parts, and accessories that are not approved 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:** This gas log set must be installed by an NFI Certified or other qualified professional installer. Instructions must be followed carefully when installing to ensure proper performance and full benefit from the gas log set.

### BURNER CONNECTION INSTALLATION

Check the PARTS LIST to be sure all parts are included with the connection. Pipe compound resistant to the action of propane gas must be used on all threaded male connections, except brass to brass.

**Refer to the PARTS LIST when completing the following instructions.**

1. Connect the  $\frac{3}{8}$ " x 6" pipe to the  $\frac{3}{8}$ " elbow. Continue to connect the 6" nipple to the  $\frac{3}{8}$ " tee.
2. Connect the  $\frac{3}{8}$ " street elbow to the tee and connect the  $\frac{3}{8}$ " x 1" nipple.
3. Once the fittings are assembled, continue to connect the burner and fuel injector assembly (Item #12) to the tee and elbow.

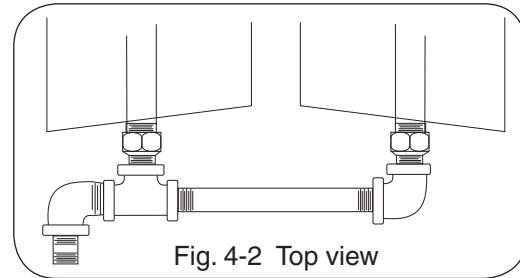
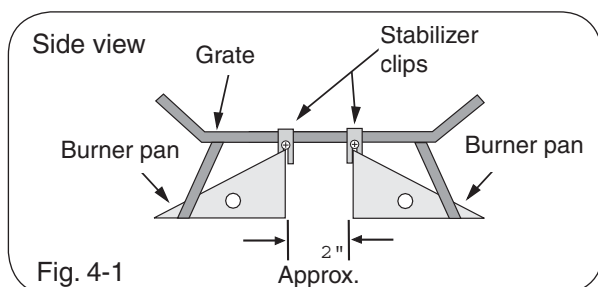
**Note:** When using the CK-4 connector kit, follow the instructions under **CONNECTING THE GAS SUPPLY**.

Rotate each burner pan to tighten the complete assembly together. Ensure that all connections are tight.

There should be an approximately 2" gap between the burner pans after the connector kit has been installed (Fig. 4-1). Once the assembly is completed, the burner pan will look like Fig. 4-2.

### BURNER PLACEMENT

Make sure the gas to the fireplace is off. Be sure that the fireplace floor is clear of any debris. Center the burner assembly in the fireplace and check to see if it lies lay flat on the floor. Place the grate squarely over the burner pans and install the stabilizer clips (Item



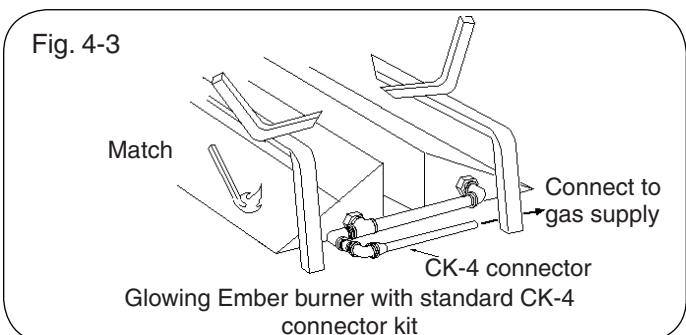
#4) to the grate bars so that the slots of the stabilizer clips fit over the back edge of the burner pans (see Fig. 4-1). Use the nuts and bolts provided to secure the clips in place. Remove the grate for gas connection and granule placement.

### CONNECTING THE GAS SUPPLY

**Note:** DO NOT run the gas line between the two burners. Running the gas line between the burners may cause overheating of the gas line and control valve.

#### Fireplace valve

1. Using the CK-4 connector (Item #7), attach the hearth elbow (Item #7a) to the gas supply and tighten.
2. Attach the flared  $\frac{3}{8}$ " elbow (Item #7c) from the CK-4 kit to the nipple.
3. Connect both elbows together with the tubing (Item #7b). If the tubing must be shortened, use a tube cutter, then a flaring tool to re-flare the tube end. Do not kink the tubing (Fig. 4-3).
4. Light a match and place it next to the burner pipe. Carefully turn on the gas supply to ignite the burner (Fig. 4-3).
5. Test for leaks at all connections with a soapy water solution. If bubbles appear, a leak is present. Turn off the gas and tighten all connections, turn on the gas and repeat the leak test. Repeat until no leaks are detected. **Never use a flame to check for leaks.**



# INSTALLING THE REAL-FYRE® BURNER SPK & APK SYSTEMS

*We recommend that before you install the log set you familiarize yourself with the control valve layout. This will help you to be confident operating the log set when fully installed.*

## **Installing the gas log set using a Peterson manual safety pilot system (SPK series)**

The Peterson SPK control systems makes enjoying the gas log set convenient and trouble-free. Just a turn of the knob allows you to easily ignite or extinguish the log set. The SPK series is available for natural or propane gas and will continue to operate during power failures as it requires no outside source of electricity to operate. The valve is C.S.A. certified and the standing pilot is adjustable. A built-in safety feature automatically shuts off the gas flow should the pilot go out. Advanced heatshield adds greater heat protection for cooler, long-lasting operation.

- a. Carefully follow the instructions supplied with the Peterson manual safety pilot kit** for steps to assemble the safety pilot system and install it on the burner pan.
- b. Carefully turn on the gas supply, ignite the burner pan, and test for leaks at all connections with a soapy water solution.** If bubbles appear, a leak is present. Turn off the gas and tighten all connections, turn on the gas and repeat the leak test. Repeat until no leaks are detected. **Never use a flame to check for leaks.**
- c. Turn off the SPK system.**
- d. Proceed to GRANULE PLACEMENT on the next page.**

## **Installing the gas log set using a Peterson remote-ready safety pilot system (APK series)**

The Peterson APK remote systems are designed to provide the ultimate in convenient and reliable lighting of the gas log set. With the flick of a switch or the push of a button, you can sit back, relax, and enjoy a comforting fire. APK systems include a control, gas valve (APK valves are C.S.A. and C.G.A. certified for natural or propane gas), pilot assembly, heatshield, and APK connector kit.

- a. Carefully follow the instructions supplied with the Peterson remote safety system** for the steps to assemble the remote system and install it on the burner pan.
- b. Carefully turn on the gas supply, ignite the burner pan, and test for leaks at all connections with a soapy water solution.** If bubbles appear, a leak is present. Turn off the gas and tighten all connections, turn on the gas and repeat the leak test. Repeat until no leaks are detected. **Never use a flame to check for leaks.**
- c. Turn off the APK system.**
- d. Proceed to GRANULE PLACEMENT on the next page.**

**TO LIGHT THE GAS LOG SET, CAREFULLY FOLLOW THE OPERATING INSTRUCTIONS SUPPLIED WITH THE PETERSON MANUAL SAFETY PILOT KIT OR PETERSON REMOTE SAFETY SYSTEM.**

# HOW TO INSTALL THE REAL-FYRE® GAS LOG SET

## IMPORTANT

For all valves, the air **MUST** be purged from the gas line before the pilot will light properly. The time taken to do this will depend on the length of gas line from the meter to the unit and the length of time since the unit or gas line was last used (in the case of non-use during warm weather, for example). It may take from 3-15 minutes before all the air is purged and the pilot will light properly. This is done using the method for lighting the pilot, but holding in the control valve for a longer period. Follow the lighting instructions in this manual for the specific valve type.

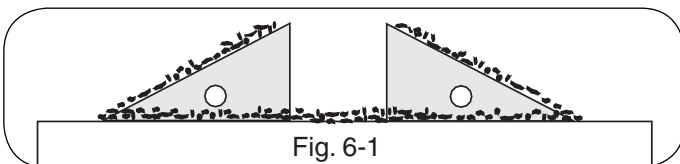
Two types of granules are available for the Real-Fyre® burner pan. A **select white sand** is used with natural gas, and **vermiculite granules** are used with propane gas. **Never use sand in a burner designated for use with propane gas.**

The select sand (Item #9) is composed of fine-quality sterile sand that has been carefully sized for even flame distribution. It is free from foreign elements that could cause unpleasant odors and flame distortion. It provides quiet operation, eliminating the “hiss” sound heard with other materials.

The vermiculite granules are specially selected for use with propane gas. They maximize flame distribution and reduce carbon buildup.

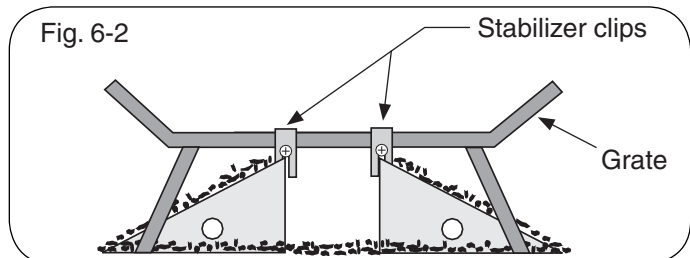
## GRANULE PLACEMENT

With the burner off and in place, fill the burner pans completely with granules (sand or vermiculite). Slope granules at the same angle as the burner pan. This is important to ensure smooth, quiet distribution. Pour a small amount of granules along the side edges and back of the burner pans where they touch the floor (Fig. 6-1). This will ensure against flame diversion.



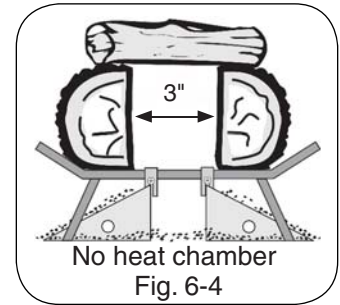
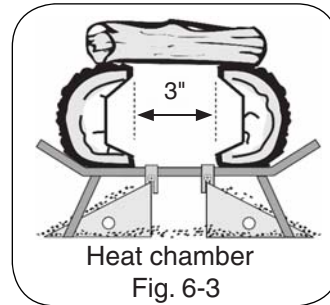
## GLOWING EMBER & GRATE PLACEMENT

Sprinkle the glowing embers (Item #8) lightly and evenly over the entire surface of the granules, making sure that the pilot is not covered. Center the grate over the burners so that the stabilizer clips slide over the back edges of the pans (see Fig. 6-2).



## LOG PLACEMENT

For best performance and operation, log placement is very important. The logs with a heat chamber are placed



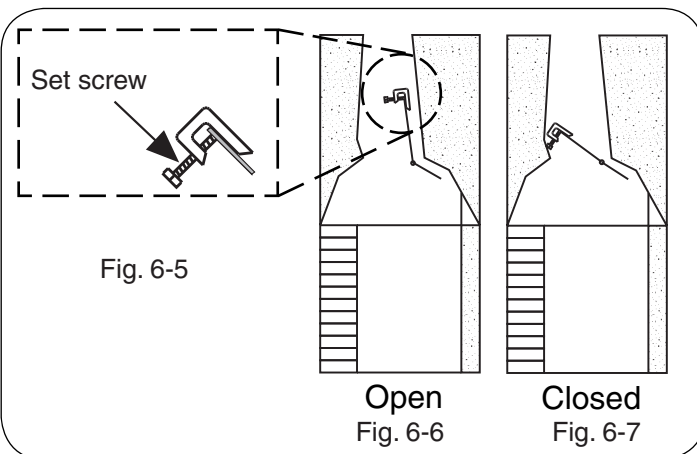
with the heat chamber facing inward (Fig. 6-3). Logs without heat chambers are placed on the grate with the flat side inward and the rounded front side against the front of the grate (Fig. 6-4). The space between the logs will be a nominal 3”.

Top logs should be placed diagonally across the bottom logs with space between the logs so the flame is not choked off. (See p. 7-8 for suggested log placements.)

The top logs can be moved to achieve the desired flame patterns. The smaller logs are leaned against the top logs.

## DAMPER CLAMP

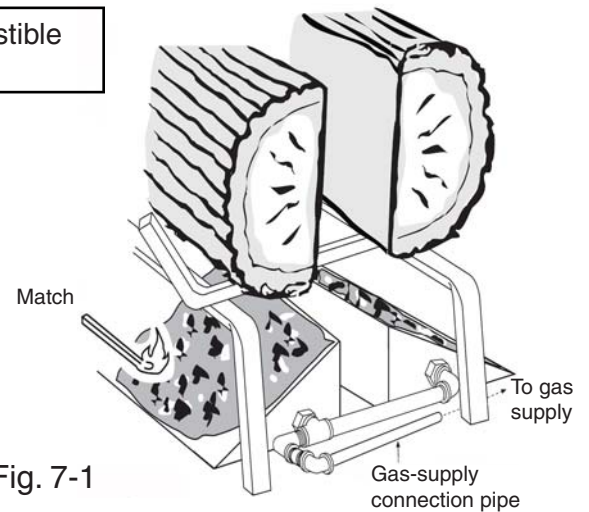
WHEN THE LOG SET IS OPERATING, THE DAMPER MUST BE FULLY OPEN. The damper clamp with set screw (Fig. 6-5) is provided as a means to prevent full closure of the fireplace damper blade. This clamp is easily attached to most damper blades with pliers or a wrench, and must be permanently installed. The clamp is designed to prevent accidental closure of the damper when installed as illustrated (see Fig. 6-6 and Fig. 6-7). Should the damper clamp not fit, have a permanent stop installed.



# INSTRUCTIONS FOR MANUALLY LIGHTING THE LOG SET

**Important:** Keep the gas log burner area free from combustible materials, gasoline, and other flammable vapors.

1. Be sure the chimney damper is fully open.
2. To light the log set with the fireplace valve, lay a lighted match on the surface of the burner embers (granules) near the gas inlet (Fig. 7-1). **DO NOT HOLD THE MATCH IN YOUR HAND.** Turn on the gas slowly. The burner should light.
3. If the safety pilot is used, see the safety pilot instruction sheet.
4. If an APK system is used, see APK instructions.



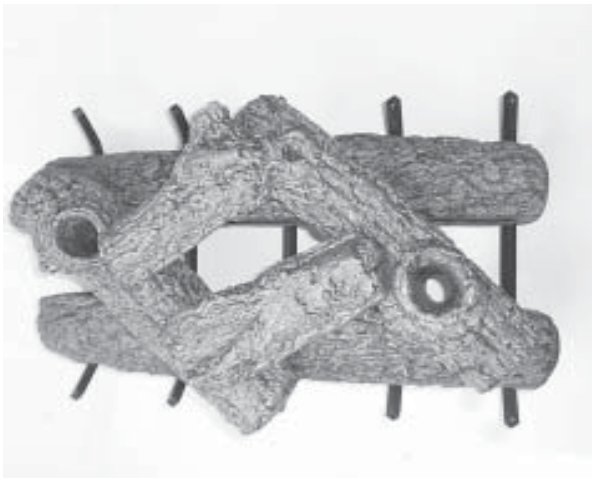
## LOG PLACEMENT SUGGESTIONS

The vented gas logs can be placed in any number of different desired arrangements. On the next two pages, some suggested placements are shown. Regardless of which arrangement you choose, allow adequate spacing of the logs for a clean burn and to limit flame impingement on the logs.

**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 the 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.

View from above



RG4-2-24  
Golden Oak

View from face

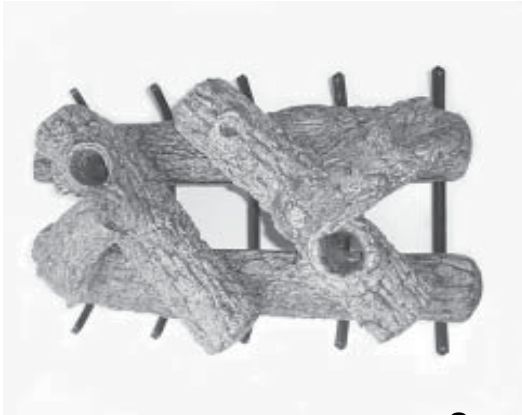


Fig. 7-2

**Suggested layout No. 1**

# LOG PLACEMENT SUGGESTIONS (Cont.)

**View from above**



**RG4-2-24  
Golden Oak**

**View from face**



Fig. 8-1

**Suggested layout No. 2**

**View from above**



**SG4-2-24  
Split Oak**

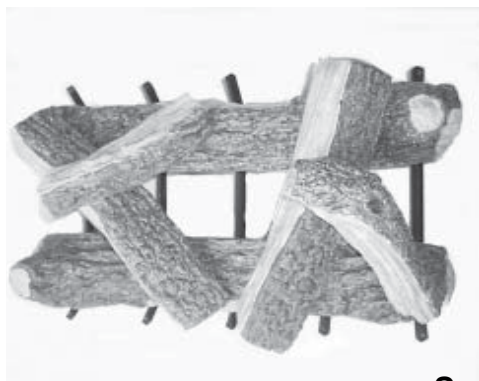
**View from face**



Fig. 8-2

**Suggested layout No. 3**

**View from above**



**SG4-2-24  
Split Oak**

**View from face**



Fig. 8-3

**Suggested layout No. 4**

# MAINTENANCE AND SERVICE

## MAINTENANCE

Once installed and operating properly, the Real-Fyre® gas log set requires very little maintenance. You should inspect the log set and control annually for the following:

1. **Excessive Sooting** - Some sooting of the log set is normal and adds to the appearance of burned wood. If sooting accumulates, you may brush the soot off with a stiff brush. Do not use water or soot cleaners to clean off the soot.
2. **Settling of glowing embers and granules** - Moisture may cause the granules and glowing embers in the burner pan to settle and affect the burn. Using a screwdriver or flat-blade knife, you can carefully stir the granules and embers, loosening the materials.
3. **Debris around the control** - Inspect the control and pilot to be sure it is free of any dirt or debris.

4. **Insects and burner blockage** - Check the burner ports and the air mixer, if present, to make sure they are free from debris. Blocked burner ports and orifices may result in poor flame distribution or flame at air mixer (if equipped). Reference SOLUTION, to symptoms 2-4, of TROUBLESHOOTING.

## SERVICE

While some minor service conditions may be handled by the owner of the log set, it is recommended that a qualified professional service technician be called to service the gas log set and control should service be required. The TROUBLESHOOTING section of these instructions serves as a guide for ensuring optimum performance of the gas log set.

## FLAME DESCRIPTION

Observe the flames. The flames should be blue at the base and a combination of blue/yellow at the body and tips. The flames should be 17" to 19" tall from the fireplace floor.

# TROUBLESHOOTING THE GAS LOG SET

SYMPTOM	CAUSE	SOLUTION
1. Excessive smoking and sooting  <b>Note:</b> Like burning natural firewood, the Real-Fyre® gas log set is designed to burn with a yellow, smoky flame. Some sooting is common and desirable.	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 set 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 damper fully when operating the gas log set.
	D. Set is positioned too close to the front of the firebox	D. Move set so that the back of the grate touches the back wall of the firebox.
	E. Improper log placement	E. Be sure the bottom logs are spaced at least 3" apart. Top logs should be placed to minimize flame impingement.
	F. Flue is less than 8" in diameter	F. Remove the log set. Inadequate fireplace ventilation.
	G. Air mixer on propane set is closed	G. Open air mixer completely

## TROUBLESHOOTING THE GAS LOG SET (Cont.)

SYMPTOM	CAUSE	SOLUTION
2. Low flame	A. Incorrect log set for type of gas used	A. Consult the 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.
3. Uneven flame distribution (Lower at one end of the burner)	A. Clogged or blocked port holes	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 or not evenly	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.
	E. Valve not fully open	E. Open valve fully.
4. Flame backing out of air mixer	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 the gas supplier.

## OPTIONAL CONTROLS FOR YOUR REAL-FYRE® BURNER SYSTEM

This unit may come without a valve installed.

It may be connected directly to and operated by your fireplace valve.

Alternatively, your Real-Fyre® glass burner may be operated using a number of optional Peterson control systems (listed below). Peterson control systems are engineered to provide convenient, safe, and reliable operation of your gas burner system.

**For safe operation, proper performance, and to comply with safety standards and certifications, use only Robert H. Peterson Company control systems, parts, and accessories with your Real-Fyre® burner system.**

If you have purchased a valve separately, follow the installation instructions that come with your control system.

### Peterson Control System and Combinations

Primary Control Method

Order #

#### Manual On/Off Systems

Manual on/off knob  
(match lit, no pilot)

AV-17

Manual on/off rod handle  
(match lit, no pilot)

AV-18

#### Manual Safety Pilot Systems\*

Safety pilot w/knob

SPK-20

Safety pilot w/rod handle

SPK-21

Low-profile valve

SPK-26

Piezo spark pilot ignition

SPK-32

Piezo intermittent ignition pilot

SPK-33

#### Remote Safety Pilot Systems\*

Toggle switch

N/A

Wall switch

WS-1

Wall timer

WS-2

Wood chip switch

WCS-1

RUS remote

RUS-1

Remote

RR-1

Deluxe remote

RR-2

Pine cone remote receiver

PC-105

RVF remote

RVF-1

Wall switch (variable w/switch)

WS-3

Variable flame-height remote

VR-1A

Deluxe variable flame-height remote

VR-2A

**And**

also requires  
one of:

APK-11(M)(P)

or

APK-10(M)(P)

or

EPK-01

APK-15(P)

or

APK-17(P)

\*When systems are to be used with propane gas, add a "P" to the control model no. (e.g., APK11MP). Propane glass sets require a safety pilot system. Not all safety pilot systems are available for all glass set sizes.

\*\*\*"M" stands for remote-capable systems. (Remote not included.)

# WARRANTY

## PETERSON VENTED GAS LOG SETS LIMITED WARRANTY

All Peterson gas logs are **WARRANTED for as long as you own them (lifetime)**.

All Peterson burner assemblies are **WARRANTED for TEN (10) YEARS**.

SPK-26 controls are covered by a **THREE (3) YEAR "All Parts" Warranty**.

All other Peterson valves, pilots, and controls are covered by a **ONE (1) YEAR Limited Warranty (excluding batteries)**.

### PLEASE KEEP A COPY OF YOUR SALES SLIP FOR PROOF OF PURCHASE

This warranty applies to the original purchaser and to single family residential use only. It commences from date of purchase, and is valid only with proof of purchase.

This warranty does not cover parts becoming defective through misuse, accidental damage, electrical damage, improper handling, storage, and/or installation. Product must be installed (and gas must be connected) as specified in the instructions or operator's manual, by a **qualified professional installer**. Accessories, parts, valves, remotes, etc., when used must be Peterson Co. product.

This warranty **does not** apply to rust, corrosion, oxidation, or discoloration, unless the affected component becomes inoperable. It **does not** cover labor or labor-related charges.

This warranty specifically excludes liability for **indirect, incidental**, or consequential damages. Some states 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 may vary from state to state.

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.**