

Robert H. Peterson Co.

Owner's Manual



Hand-Crafted Gas Logs Since 1949

GLOWING EMBER GAS LOG SET



Design Certified to ANSI Z21.84b 2004

G45 SERIES TRIPLE-T BURNER

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 your building.
- Immediately call the gas supplier from a 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 a qualified professional installer, service agency, or the gas supplier.

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

The burner system is to be installed only in a solid-fuel-burning fireplace with a working flue 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* (ANSI Z223.1/NFPA 54) 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 MUST be fully opened when burning the log set. Your log set is designed to burn with yellow flames; thus, adequate ventilation is absolutely necessary.

Important:

To comply with certification, listings, and building codes, and for safe operation and proper performance, only Peterson parts and accessories MUST be used with this gas log set.

NATIONAL FIREPLACE INSTITUTE

PARTITUTE

And Serviced by professionals who are certified in the U.S. by the National Fireplace Institute* (NFI) as NFI Gas Specialists.

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



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Tools Recommended

The following tools and supplies may be needed to assemble, install, and test the Real-Fyre® gas log set:

- 1. Adjustable open-ended wrench 8" 10"
- 2. Pipe wrench 8" 10"
- 3. Pliers
- 4. Teflon tape or pipe compound resistant to propane gas
- 5. Small Phillips-head screwdriver & flat-head screwdriver
- 6. Leak detector or soapy water solution & brush to test for gas leaks
- 7. Work gloves (for hot logs only)

Other tools used for plumbing or gas appliance installation may be necessary.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Available Log Styles

Charred Series

Charred Oak (CHD) Charred Split (CHS) Charred Royal (CHB)

Classic Series

Golden Oak (R) Post Oak (PO) Emberwood (E) Royal English Oak (B) Mountain Oak (K) Twisted Pine (C)

Designer Series

Golden Oak Designer Plus (RDP) Split Oak (S)

Split Oak Designer Plus (SDP) Woodland Oak (WO)

Emberwood Designer (EXD) Royal English Oak Designer (BD)

Heritage Designer (HD) White Birch (W)

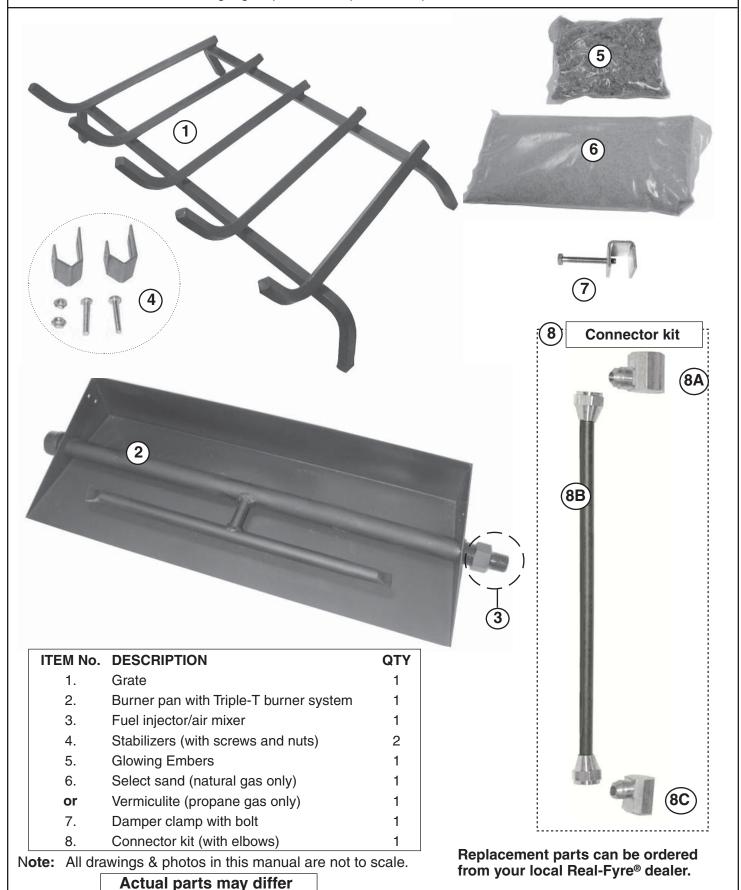
Golden Oak Designer (RD6)

WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier.

PARTS LIST

Before installation, check that your gas burner system is complete. See the parts list below. If any parts are missing or damaged, contact your Real-Fyre® dealer. Various log styles are available for the G45 Triple-T burner system (see previous page) and are sold separately. Be sure you know the model and size of your set when ordering logs, options, or replacement parts and accessories.



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IMPORTANT INFORMATION

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 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.

Important - Read this manual carefully before starting installation of the log set.

Check to be sure the fireplace meets venting and construction requirements for the installation of the Real-Fyre® gas log set (see FIREPLACE REQUIREMENTS section, below).

Be sure your gas log set is properly sized for your fireplace. Improper sizing may negatively impact the proper drafting of the fireplace. Additionally, too large a log set will adversely affect the burn and hamper the proper operation of the control system. Too small a log set will diminish the beauty of your hearth setting. Fig. 4-1 below shows the critical dimensions of your firebox. The table below shows log set dimensions.

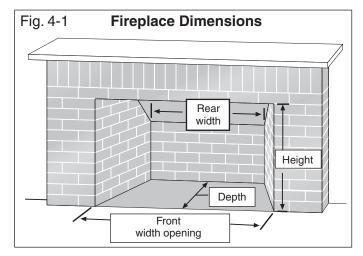
FIREPLACE REQUIREMENTS

This 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. Your Real-Fyre® log set is designed to burn with yellow, smoky flames. For this reason, it must be adequately vented. The fireplace flue must be at least 8" at its smallest dimension. If it is smaller, do not use this Real-Fyre® log set.

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 $\frac{1}{2}$ " minimum interior diameter. If the gas line to the fireplace is longer than 20', a larger-diameter line may be necessary.

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

The maximum inlet gas-supply pressure is 10.5" w.c. for natural gas and 13" for propane.



MODEL	LOG SET DIMENSIONS			BTUs	
NO.	FRONT	BACK	DEPTH	NATURAL	PROPANE
G45-18/20	20"	15"	12"	75M	50M
G45-24	24"	20"	12"	90M	65M
G45-30	30"	24"	12"	90M	65M

Note: It is recommended that complete firebox dimensions (front width, back wall, and height) be obtained to ensure proper sizing.

PRE-INSTALLATION REQUIREMENTS

Check that the gas log set is correct for the type of gas that is used in the fireplace.

If not, DO NOT INSTALL. Contact the Real-Fyre® dealer for advice.

Never use propane gas in a log set manufactured for natural gas.

- A. Ensure the gas supply to the fireplace is turned off.
- **B.** Clean the floor of the fireplace of any dirt or ashes.
- C. Chimney must be cleaned and inspected.

PRIOR TO INSTALLING THE LOG SET, the gassupply line must be tested. Follow the guide lines set by NFPA 54 or local code requirements.

INSTALLATION

This gas log set must be installed by an NFI Certified or other qualified installer. The installation, including provisions for combustion and ventilation air, must conform with local codes, or in the absence of local codes, with the latest edition of the *National Fuel Gas Code (ANSI Z223.1/NFPA 54)*.

TO INSTALL THE GAS LOG SET, THE FOLLOWING STEPS MUST BE FOLLOWED.

- 1. A damper clamp (Item #7) is supplied and must be installed on the damper assembly as shown (Fig. 5-1).
 - a. Open the fireplace damper.
 - **b.** Attach the damper clamp on the damper blade and secure with the bolt.

Note: The damper clamp must be permanently installed. Should the clamp not fit, install a permanent damper stop or other means of preventing full or accidental closure.

When your gas log set is operating, the damper must be fully open.

2. Locate the gas-supply line valve and make sure it is in the **OFF** position.

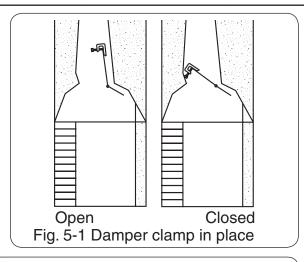


- **3.** Locate the gas-supply stub inside the fireplace.
 - **a.** Remove the cap, if attached (see Fig. 5-2).

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

- **4.** Attach the large elbow (Item #8A) to fireplace gas stub (see Fig. 5-3), using Teflon tape or pipe compound on the stub. Tighten securely.
- **5.** Attach the small elbow (Item #8C) to the fuel injector or air mixer on the burner pan (see Fig. 5-4), using Teflon tape or pipe compound. Tighten securely.

DO NOT REMOVE THE FUEL INJECTOR/AIR MIXER



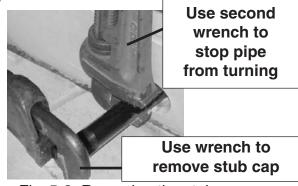


Fig. 5-2 Removing the stub cap

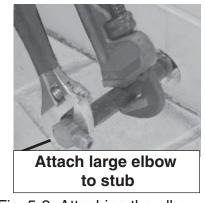
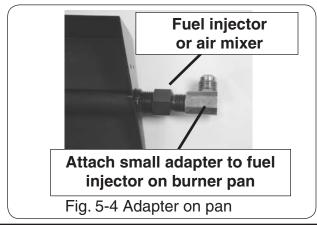
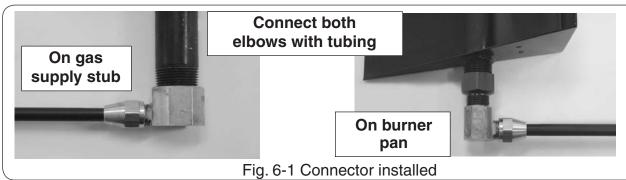


Fig. 5-3 Attaching the elbow



INSTALLATION (Continued)

6. Connect the elbows with tubing supplied (Item #8B). DO NOT kink tubing. Tighten both ends securely.



7. Position the burner pan in the center of the fireplace. Do not push up against the rear fireplace wall.

8. LEAK TESTING

Carefully turn on the gas supply, ignite the burner pan and leak test at all connections with a soapy water solution (equal parts liquid detergent and water). If bubbles appear, a leak is present. Turn off the gas and tighten all connections, then turn on the gas and repeat the leak test. Repeat until no leaks are detected. **Never use a flame to check for leaks.**

When satisfied there are no leaks, turn off the gas supply and proceed.

PLACEMENT OF GRANULES, GLOWING EMBERS, STABILIZER CLIPS, & GRATE

IMPORTANT

FOLLOW THE INSTRUCTIONS TO GET THE BEST FLAME EFFECT ON THE LOG SET. Sand is used only with natural gas for the burner pan, and vermiculite is used only for propane gas.

1. GRANULE PLACEMENT

- **a.** Fill the burner pan completely with the granules (sand or vermiculite Item #6).
- **b.** Slope the granules at the same angle as the burner pan. This is important to ensure quiet lighting and even flame distribution (see Fig. 6-2).

2. GLOWING EMBERS PLACEMENT

Place the Glowing Embers (Item #5) evenly over the whole surface of the granules on the burner pan.

3. STABILIZER CLIPS

Prior to installing the grate, the stabilizer clips (Item #4) must be installed as shown in Fig. 6-3 to maintain stability between the pan and grate.

a. Place the stabilizers on the center of two grate fingers, one in from either end. Fit the locator screw through the holes in clamp, attach nuts, and tighten.

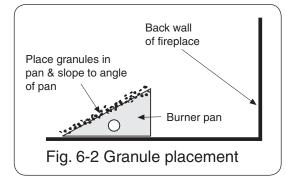
4. GRATE PLACEMENT

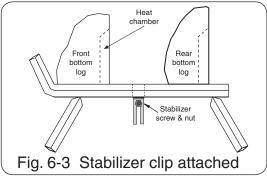
Before you install the logs, the grate assembly must be properly positioned over the burner pan.

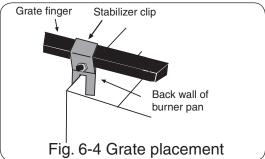
a. Place the grate over the burner pan so the stabilizer clips sit over back edge of the burner pan (see Fig. 6-4).

Slide whole unit back against the rear fireplace wall.

The burner pan's rear edge should be centered under the grate, allowing for maximum air movement around the pan and logs.







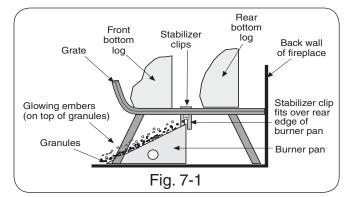
LOG PLACEMENT

NOTE: LOGS SUPPLIED SEPARATELY.

Log placement is very important for the proper operation 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

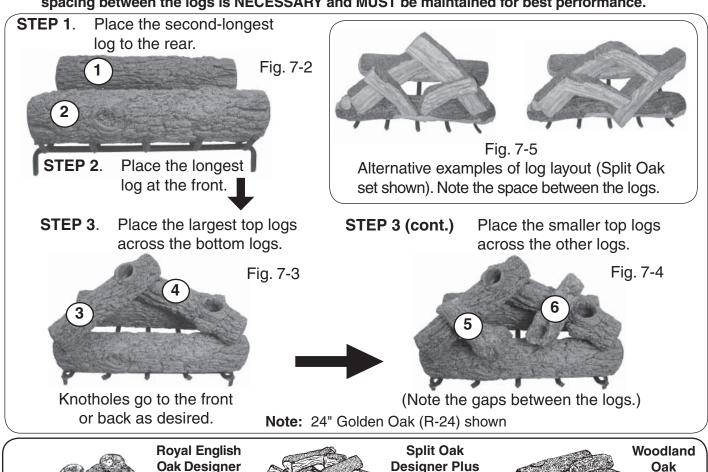
fully enjoy your log set. Follow the steps below, referring to Fig. 7-1 through Fig. 7-5.

- 1. The second-longest log, the rear log, is placed on the rear of the grate with the bark of the log facing forward (Fig. 7-1). Center the log left to right (Fig. 7-5, #1). If the log has a heat chamber (a recess in the back), it can face either forward or to the rear.
- 2. The longest log, the front log, is placed on the front of the grate with the bark facing forward. Center left to right (Fig. 7-2, #2). If the log has a heat chamber, it should face to the rear. **NOTE: Be sure to maintain a space between the front and rear logs** (Fig. 7-1). This creates energy efficiency, heat radiation, and reduces carbon buildup.



3. Top logs should be stacked diagonally, with the largest at the bottom (Fig. 7-3, #3 & 4), and with spaces between the logs so that the flames are not choked off. Place the smaller logs diagonally across the larger ones (see Fig. 7-4, #5 & #6). The top logs may be moved to achieve desired flame pattern. Some carbon buildup (sooting) may occur where the flames impinge on the logs and should not be a concern unless excessive. If sooting is excessive, rearrange the top logs to reduce flame impingement. Examples of log stacks are shown below.

Note: Although log styles may differ in pattern or shape (Fig. 7-6), layout is essentially the same. Adequate spacing between the logs is NECESSARY and MUST be maintained for best performance.

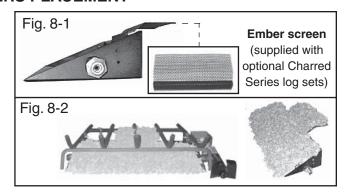


OPTIONAL CHARRED SERIES INSTALLATION

GLOWING EMBERS PLACEMENT

Note: Optional Charred Series log sets are supplied with an ember screen (Fig. 8-1).

Attach the ember screen to the burner by slipping it onto the back edge (center left to right) with the perforated section facing toward the back fireplace wall (Fig. 8-1). Cover the surface of the ember screen with the Glowing Embers (Fig. 8-2). For best glowing performance, they should be applied evenly and pulled slightly apart so the fibers are somewhat loose. (It is not necessary to pile the entire bag of the Glowing Embers. More Glowing Embers may be added after completion of the entire installation).



LOG PLACEMENT

Log styles and sizes will vary depending upon the Charred Series log set ordered.

CHARRED SPLIT (CHS) layout shown.

Place the long bottom rear log (Log #2) on the back of the grate with the flat featureless side facing the rear of the fireplace. The two sections of the front log (Logs #1A & 1B) are placed on the front of the grate with the charred sections facing each other and approximately 1 inch apart at the top (Fig. 8-3). Slide the logs to the front of the grate.

Note: Be sure to maintain a space between the front and rear logs (Fig. 8-3). This creates energy efficiency and heat radiation, and reduces carbon buidup.

Place the two curved logs (Logs #3 & 4) so that one end rests on each front log section (Logs #1A & 1B) and the other end rests on the rear log (Log #2).

The charred sections should be over the opening between the front and rear logs (Fig. 8-4).

Place the small top charred logs (Logs #5 & 6) so they rest over the charred sections of the front bottom log sections (Logs # 1A & 1B) and on the two curved logs (Logs #3 & 4) (Fig. 8-5).

Finally, place the curved top charred log (Log #7) to rest on the two top logs at rear, but not encroaching into the space between rear and front logs (Fig. 8-6).

Note: The additional top log (Log #7) is not available with 18" log sets.

Fig. 8-3

Fig. 8-4

LOG #1A

LOG #1B

MAINTAIN A SPACE IN THE CENTER OF THE LOGS AT ALL TIMES

Fig. 8-6

Log #7

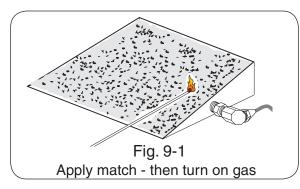
LIGHTING INSTRUCTIONS

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.
- 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 gas log set is operated by a Peterson manual safety pilot system (SPK Series) or a Peterson remote safety pilot system (APK Series):

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

IMPORTANT OPERATING INFORMATION

- 1. When your log set is burning, your fireplace damper must be fully open.
- 2. A fireplace screen must be in place when the log set is burning and, unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air.
- **3.** When a glass fireplace enclosure (door) is used, operate your gas log set with the glass doors open.
- **4.** Periodically check the log layout and adjust the top logs if sooting becomes excessive.

Important: Adequate log spacing must be maintained for best performance.

MAINTENANCE & SERVICE

Maintenance

Once installed and operating properly, your Real-Fyre® gas log set will require regular maintenance. You should inspect your log set and controls (where installed) for the following:

- 1. Excessive sooting Some sooting of your log set is normal, adding to the appearance of burned wood. If excessive sooting accumulates, clean the logs using any of the following options:
 - Option 1. Spray the logs with clean water when they are being burned and hot.

 The soot will lift off and burn off.
 - Option 2. Brush the soot off with a stiff brush when the logs are cold.

 Do not use water or soot cleaners at the same time as brushing the soot off.
- 2. Moisture may cause the granules and Glowing Embers in your burner pan to settle. To improve the burn, follow these tips.
 - **a.** Settling of sand (or vermiculite) Using a screwdriver or flat-blade knife, carefully stir the granules, loosening the material. Clear up any spills.
 - b. Embers Break up any clumps that may have formed, then redistribute the embers on the granules.
- 3. Debris around the control (where used) Inspect control and pilot to be sure it is free of dirt or debris.

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 maintain and service the gas log set and any installed control system. The TROUBLESHOOTING section of these instructions serves as a guide for ensuring optimum performance of your gas log set.

OPTIONAL CONTROLS

THIS UNIT COMES WITHOUT A VALVE INSTALLED. IT MAY BE CONNECTED DIRECTLY TO AND OPERATED BY YOUR FIREPLACE VALVE.

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

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® log set. If you have purchased a valve separately, unpack your Peterson control system and check the PARTS LIST provided with your control to be sure all parts are included.

Peterson Control Systems

Manual On/Off Systems

AV-17 (knob) or AV-18 (rod handle) Manual On/Off, match lit, no pilot

Manual Safety Pilot Systems

SPK-20 (knob) or SPK-21 (rod handle) Standard Pilot SPK-26 Low-Profile Valve

Remote Systems (APK-11, APK-10, EPK-01)

Available Accessories

Toggle Switch, WS-1 Wall switch, WS-2 Wall timer, WCS-1 Wood Chip switch, RUS-1 Remote, RR-1 Remote, RR-2 Deluxe Remote, PC-105 Pine Cone Remote.

Variable Remote System (APK-150)

Available Accessories

WS-3 Wall switch, VR-1 Variable Flame-Height Remote, VR-2 Deluxe Variable Flame-Height Remote, RVF-1 Remote.

Remote System with Battery Pack, High Capacity (APK-16)

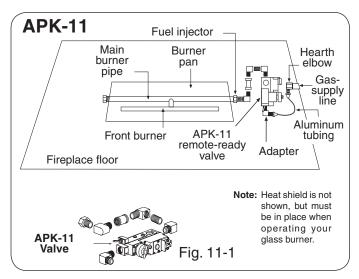
Available Accessories

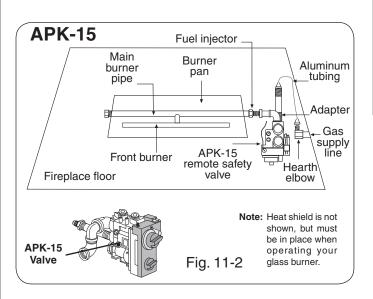
WS-4 Wall switch, PC-106 Pine Cone Remote.

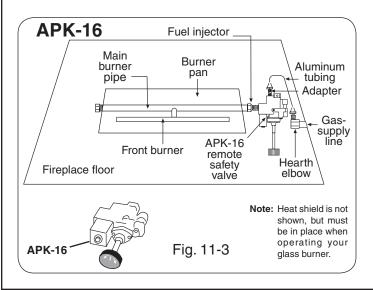
OPTIONAL PETERSON VALVES & SAFETY PILOT KITS*

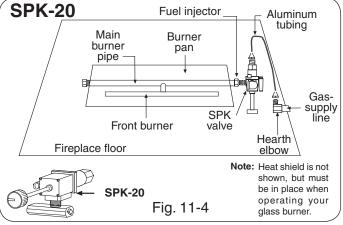
Note: For all valves and safety pilot kits shown on this page, carefully follow the instructions supplied with the safety pilot kit for steps to assemble and install it on the burner pan and test for leaks.

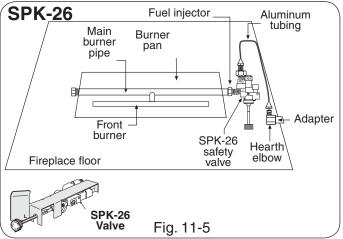
*Available from your local Real-Fyre® dealer

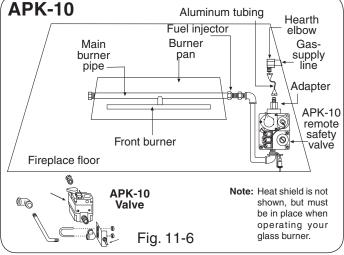


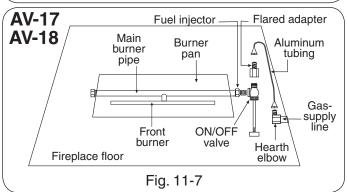












TROUBLESHOOTING YOUR GAS LOG SET

TROUBLESHOOTING YOUR GAS LOG SET							
SYMPTOM	CAUSE	SOLUTION					
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. Flue is less than 8" in diameter	E. Remove the burner and log set because of inadequate fireplace ventilation.					
	F. Air mixer on propane set is closed	F. 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 (Continued)

Thoobeloned in a room and load our (dominaca)							
SYMPTOM	CAUSE	SOLUTION					
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 or 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 objects 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 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).

This warranty applies only to the original purchaser from the date of purchase, and to Peterson products purchased for residential purposes.

This warranty does not cover parts becoming defective by misuse, accidental damage, electrical damage, improper handling, and/or installation or service (log sets must be installed as outlined in the enclosed instructions by a qualified professional installer and with only Peterson parts, control valves, remotes, and accessories). It does not cover labor or labor-related charges. It 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 or limitation 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 information on how to place a warranty claim, contact your Peterson dealer or the Robert H. Peterson Company.

Robert H. Peterson Co. • 14724 East Proctor Avenue • City of Industry, CA 91746