



G8-16(P)	G8-16R(P)
G8-16-12(M)(P)	G8-16R-12(M)(P)
G8-20(P)	G8-20R(P)
G8-20-12(M)(P)	G8-20R-12(M)(P)
G8-24(P)	G8-24R(P)
G8-24-12(M)(P)	G8-24R-12(M)(P)
(20,000 BTU)	(9,500 BTU)



CERTIFIED
to
Unvented Room Heater Standard
ANSI Z21.11.2
and
Vented Decorative Appliance
ANSI Z21.60b

Each set comprises of 2 separate boxes;
G8 series burner and VO8 log set

G8 SERIES VENT-FREE GAS LOG SET

▲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 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.

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



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

This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gasses.

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 section entitled VENTILATION AND CONFINED SPACE INFORMATION.

This appliance is designed as an **attended appliance**. Adults must be present when the unit is operating. Do not leave this unit burning when unattended or while anyone is sleeping.

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*.

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

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GENERAL INFORMATION

The G8 Series vent-free gas log sets are available with a manual ODS pilot, an on/off remote, or a variable flame height control valve that can be used with the remote transmitter and receiver.

A spark ignition system (piezo) allows the gas ODS pilot to be lit without the use of matches, and permits the operation of the appliance during a power outage.

This vent-free gas log set is equipped with a pilot safety system with ODS (oxygen depletion sensor). The ODS pilot senses the amount of oxygen available in the room and shuts the log set off before the oxygen level drops below 18%. The ODS pilot can only be relit when fresh air is available. **This may require opening a window or a door to another room or cracking the damper open slightly.**

This gas log set has been certified to two standards:

UNVENTED ROOM HEATER-ANSI Z21.11.2-2007

VENTED DECORATIVE APPLIANCE-ANSI Z21.60b-2004

Check local or state codes to determine if vent-free heaters are permitted in the locality before you install this log set as a vent-free appliance. If not permitted, you may install and operate this log set as a vented appliance.

Important: For safe operation and proper performance of this product and to comply with certification, listings, and building code acceptances, use ONLY Peterson Real-Fyre® controls, parts, and accessories that have been specifically listed or certified for use with this burner system. Use of other controls, parts, or accessories is prohibited and will void all warranties, certifications, listings, and building code approvals, and may cause property damage, personal injury, and loss of life.

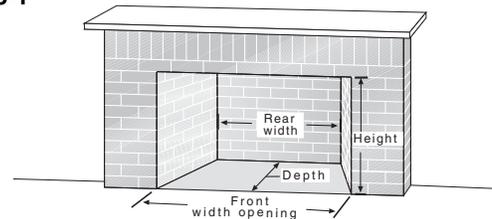
APPROVED INSTALLATIONS

Subject to minimum fireplace size requirements specified below:

1. Solid fuel burning fireplaces;
 - A) Prefabricated fireplaces listed to UL-127
 - B) All other masonry fireplaces
2. Universal listed vent-free fireplaces.

Note: Installation in any other fireplace is prohibited and will void any approvals and warranties.

Fig. 3-1



Fireplace dimensions

FIREPLACE SIZE REQUIREMENTS & BTU RATING INFORMATION

The **minimum size** of a fireplace for installation of Real-Fyre® G8 vent-free gas log set: (refer to Fig. 4-1)

Model	Log Set Size	Fireplace Size			BTU Rating (for either natural or propane gas)
		Width	Depth	Height	
G8-16 G8-16-12(M)(P)	16"	17" front 13" rear*	9 1/2"	17"	20,000
G8-16RP					9,500
G8-20 G8-20-12(M)(P)	20"	21" front 13" rear*	9 1/2"	17"	20,000
G8-20RP					9,500
G8-24 G8-24-12(M)(P)	24"	26" front 13" rear*	9 1/2"	17"	20,000
G8-24RP					9,500

Fig. 4-2

* These dimensions are minimums if both are measured in the same fireplace. (i.e.: 13" rear width is required at 9 1/2" depth. Rear width can be smaller if the fireplace is deeper.)

Minimum Permanent Free Chimney Vent Opening Standard Models

Table 4-2 Chimney Height	Factory built fireplaces	Masonry built fireplaces
15'	12.51 sq. in.	16.51 sq. in.
20'	11.24 sq. in.	15.24 sq. in.
25'	10.65 sq. in.	-
30'	10.05 sq. in.	14.05 sq. in.
35'	9.46 sq. in.	-
40'	8.86 sq. in.	-

Minimum Permanent Free Chimney Vent Opening RP Models

Table 4-3 Chimney Height	Factory built fireplaces	Masonry built fireplaces
15'	5.94 sq. in.	9.94 sq. in.
20'	5.34 sq. in.	9.34 sq. in.
25'	5.06 sq. in.	-
30'	4.77 sq. in.	8.77 sq. in.
35'	4.49 sq. in.	-
40'	4.20 sq. in.	-

This unit may not be installed in a vented fireplace with a chimney of less than 15 feet in height.

Observing minimum fireplace dimensions and centering the appliance in the fireplace will assure adequate clearance for operation and servicing. It may be necessary to uninstall the unit for some types of service.

MINIMUM CLEARANCE TO COMBUSTIBLES

If the vent-free gas log set is installed in a factory built fireplace, follow the manufacturer's guidelines for minimum clearances to combustibles. In the absence of such guidelines, follow the instructions below.

Clearances to Combustible Construction:

Sidewalls: 6" from side of fireplace opening (Fig. 5-1).

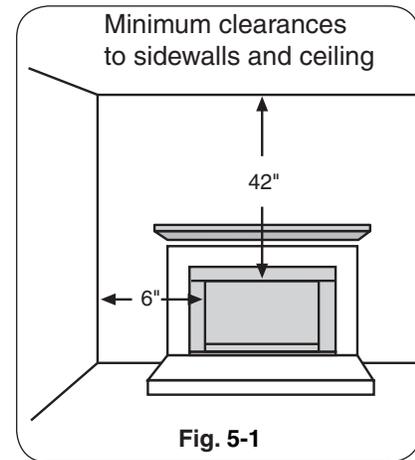
Ceiling: 42" from top of fireplace opening (Fig. 5-1).

Mantel: See section A & Fig. 6-1, p. 6 .

Flooring: See section B.

Note: Clearances to combustible construction are those distances required to ensure that fireplace mantels, facings, walls, ceilings, and floorings will not catch fire.

In most cases, these clearances should also be adequate to prevent any discoloration or warping due to heat. However, every gas log installation presents a different and unique set of circumstances involving many variables beyond the control of the gas log manufacturer. These include paint or finish composition, previous exposure to heat, methods and quality of construction, air flow patterns, glass doors, fans or blowers, etc. Because of these variables, we



cannot guarantee that heat warping or discoloration will never occur. The potential for heat warping or discoloration may exist no matter what item(s) you are burning in the fireplace, including wood. The dimensions shown in Fig. 5-1 are **MINIMUM CLEARANCES** to maintain when you install this gas log set. **BOTH SIDES** of the fireplace opening **MUST BE AT LEAST 6"** from any combustible sidewalls. The ceiling **MUST BE** at least **42"** from the top of the fireplace opening.

HOW TO CORRECTLY SIZE AND INSTALL MANTELS AND FIREPLACE HOODS

A. ABOVE THE FIREPLACE:

To install the vent-free gas log set, there must **ALWAYS** be noncombustible or heat resistant material immediately above the fireplace opening. Heat resistant materials (i.e., marble or slate) must be at least $\frac{5}{8}$ " thick. Sheet metal should not be installed onto combustible materials. If you **DO NOT** install a fireplace hood, there **MUST** be at least **12"** of noncombustible or heat resistant material immediately above the fireplace opening (see X in Fig. 6-1, p. 6). If you **DO** install a fireplace hood, there **MUST** be at least **10"** of noncombustible or heat resistant material immediately above the fireplace opening (see Y in Fig. 6-2, p. 6). If there is a wooden mantel, shelf, or other combustible projection above the fireplace, follow the information in Fig. 6-1 or Fig. 6-2, p. 6:

EXAMPLE: If the fireplace has a combustible projection (mantel or shelf) 20" above the top of the firebox, the maximum horizontal projection out from the face of the fireplace will be:

1. If a fireplace hood **is not installed** - 2.5" (see Fig. 6-1, p. 6).
2. If a fireplace hood **is installed** - 10" (see Fig. 6-2, p. 6).

A fireplace hood deflects heat away from the fireplace face and mantel, reducing the potential for heat related warping or discoloration. The use of a fireplace hood is highly recommended. Fireplace hoods are sold by the Robert H. Peterson Co. through authorized distributors and dealers.

IF YOU CANNOT MEET THESE MINIMUM CLEARANCES, YOU MUST OPERATE THE VENT-FREE GAS LOG SET WITH THE CHIMNEY FLUE DAMPER OPEN.

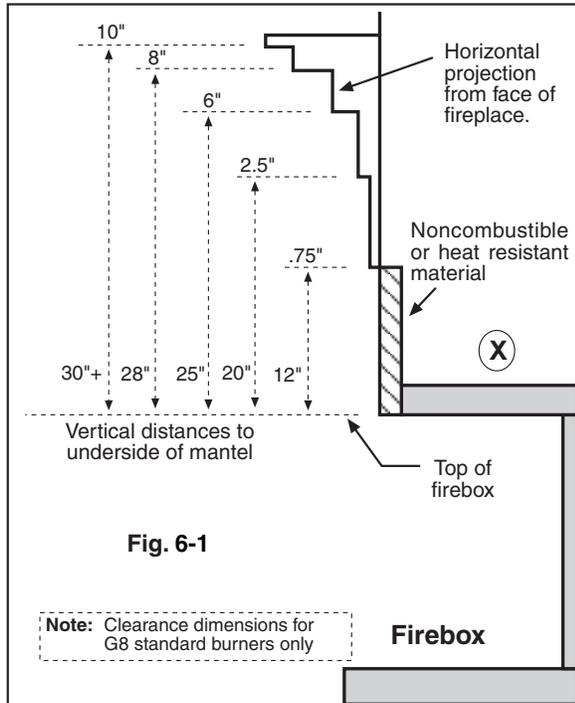
B. IN FRONT OF THE FIREPLACE:

Be certain that combustible flooring material (i.e.: carpet, tile, etc.) is not too close to the vent-free gas log set. If the vent-free gas log set is at floor level or less than 6" above the floor, there **MUST** be at least **12"** (1 foot) of noncombustible material between the front of the fireplace and any combustible flooring.

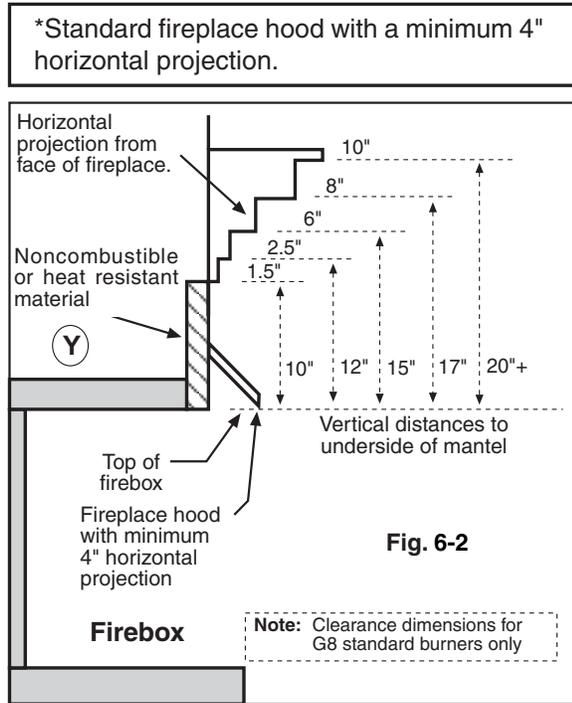
MINIMUM CLEARANCE TO COMBUSTIBLES - ABOVE & IN FRONT OF FIREPLACE

MANTLE CLEARANCES FOR G8 STANDARD BURNERS ONLY

Mantel clearance without hood



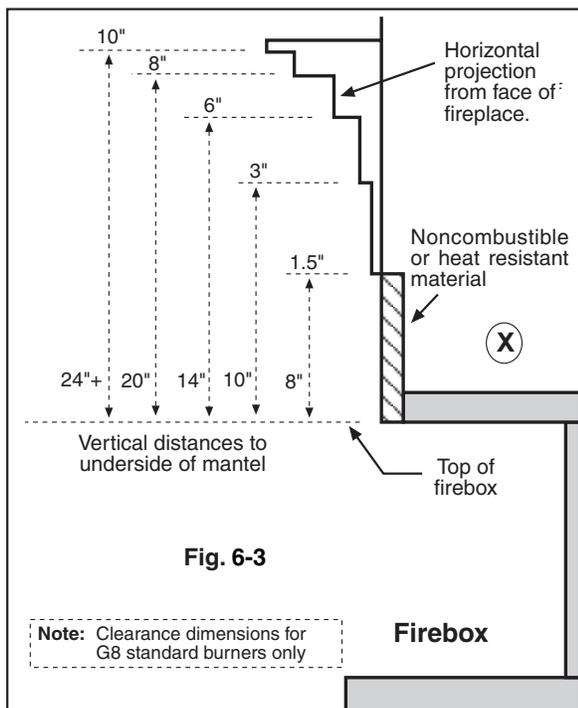
Mantel clearance with hood*



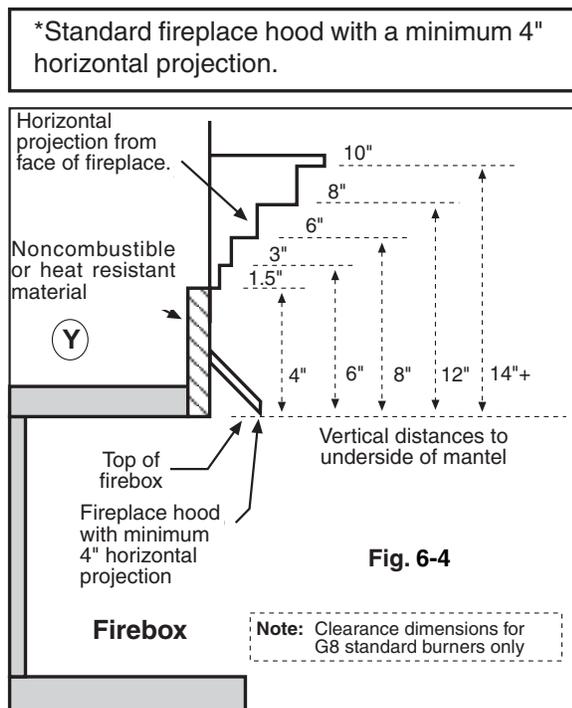
Mantel clearances without hood				Mantel clearances with hood			
Standard G8 burners		G8 9,500 BTU burners only		Standard G8 burners		G8 9,500 BTU burners only	
Height above opening	Height above opening	Height above opening	Height above opening	Height above opening	Height above opening	Height above opening	Height above opening
0"-12"	0"	0"-8"	0"	0"-10"	0"	0"-4"	0"
12"-20"	3/4"	8"-10"	1 1/2"	10"-12"	1 1/2"	4"-6"	1 1/2"
20"-25"	2 1/2"	10"-14"	3"	12"-15"	2 1/2"	6"-8"	3"
25"-28"	6"	14"-20"	6"	15"-17"	6"	8"-12"	6"
28"-30"	8"	20"-24"	8"	17"-20"	8"	12"-14"	8"
30" PLUS	10"	24" PLUS	10"	20" PLUS	10"	14" PLUS	10"

MANTLE CLEARANCES FOR G8 STANDARD BURNERS ONLY

Mantel clearance without hood



Mantel clearance with hood*



PRE-INSTALLATION AND FIREPLACE PREPARATION SAFETY

CAUTION: Installation and repair must be done by a 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. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is **NOT CONVERTIBLE** for use with other gasses.
- B. **CAUTION: If not installed, serviced, and used correctly per these instructions, this product can cause serious personal injury, property damage, or loss of life.**

PRE-INSTALLATION AND FIREPLACE PREPARATION SAFETY GUIDELINES

- C. **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 by a qualified chimney cleaner. Some fireplaces (especially older ones) may need repair prior to installing this appliance.
- D. CHECK GAS TYPE (natural or propane): 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.
- E. Any outside air ducts and/or ash dumps located on the floor or walls of the fireplace **must** be permanently sealed shut before the installation. Use a heat-resistant sealant. Do not seal the chimney flue damper.
- F. INSUFFICIENT GAS PRESSURE WILL KEEP THE ODS (OXYGEN DEPLETION SENSOR) PILOT 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 **5"** water column (w.c.) on **natural gas** and **11"** w.c. on **propane gas**. Insufficient gas pressure will affect proper operation of the ODS pilot. 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 propane gas. The propane source must be regulated. (Do not connect this appliance directly to an unregulated propane gas tank - this can cause an explosion.)
- 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.
- I. The minimum clearance from the fireplace opening to combustible materials on side walls and ceiling must be maintained as outlined in MINIMUM CLEARANCE TO COMBUSTIBLES - WALLS AND CEILING.
- J. At least 10"-12" of noncombustible or heat-resistant material is required above the fireplace. A fireplace hood will be required to act as a heat deflector in protecting combustible fireplace surrounds (facing and/or mantel) if certain minimum clearances cannot be met.
- K. Be certain that combustible flooring material (i.e., carpet, tile, etc.) is not too close to this gas appliance. If this appliance is at floor level or less than 6" above the floor, there must be at least 12" of noncombustible material between the base of the fireplace and any combustible flooring.
- L. 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 the Robert H. Peterson Company before installing this product.
- M. 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.
- N. 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.
- O. 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.

WARNING

THIS APPLIANCE IS EQUIPPED FOR (NATURAL OR PROPANE) GAS.
FIELD CONVERSION IS NOT PERMITTED.

IMPORTANT SAFETY INFORMATION

ANSI Z21.11.2-2007 UNVENTED ROOM HEATER GENERAL SAFETY INFORMATION

A. **WARNING: CARBON MONOXIDE POISONING MAY LEAD TO DEATH.**

When used without fresh air, gas appliances may give off carbon monoxide, an odorless, colorless, poisonous gas. Early signs of carbon monoxide poisoning are similar to the flu, with headaches, dizziness, and/or nausea. If you have these signs, the gas appliance may not be installed correctly, or may not be working properly. **GET FRESH AIR AT ONCE! STOP USING THE APPLIANCE IMMEDIATELY!** Have the appliance serviced before use continues. Some people, including pregnant women; persons with heart or lung disease, asthma, or anemia; those under the influence of alcohol; and persons at high altitudes, are more affected by carbon monoxide than others.

If there are **ANY** signs of carbon monoxide, **GET FRESH AIR AT ONCE! STOP USING THIS APPLIANCE IMMEDIATELY!**

- B. If any soot appears on the appliance or other areas of the fireplace in which this appliance is installed, shut system off and call a qualified professional service technician, **vent-free gas log technician**, or your local gas company.
- C. WHEN INSTALLING AS A DECORATIVE VENTED APPLIANCE, THE UNIT MUST CONFORM TO ALL LOCAL CODES AND TO THE LATEST EDITION OF THE NATIONAL FUEL GAS CODE ANSI Z223.1/NFPA54.
- D. 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 homes or mobile homes must conform with the *Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280* in the U.S.; or with *CAN/CSA Z240 MH, Mobile Housing* in Canada; or with *ANSI/NCSBCS A225.1/NFPA 501A, Manufactured Home Installations Standard* when none of the previously referenced standard are applicable.
- E. Eliminate drafts **before** using the gas appliance by closing heating and air conditioning vents, returns, and outside air vents. Fans blowing directly into the fireplace must be turned off when this appliance is operating.
- F. **WARNING:** This appliance is for installation only in a solid-fuel-burning masonry or UL 127 factory-built fireplace or in a listed ventless firebox enclosure. It has been design certified 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.
- G. State and local codes may only allow operation of this appliance in a vented configuration. Check your state or local codes.
- H. **DO NOT MODIFY THIS VENT-FREE HEATER OR ITS CONTROLS. Any change may be dangerous.** Improper installation or use of your vent-free gas appliance can cause serious injury or death from fire, burns, explosions, or carbon monoxide poisoning.

INSTALLATION SAFETY INFORMATION

INSTALLATION SAFETY GUIDELINES

- A. Carefully inspect the burner and log cartons for shipping damage. If any parts are missing/damaged, call your dealer. **Do not attempt** to install the appliance unless all parts are in good condition.
- B. Correct installation of the glass or the ceramic refractory log set and proper placement and installation of burner assembly, including ember placement and Lava Granule placement, are crucial to safe operation of your set. Problems **WILL** occur if all items are not properly installed. Reference INSTALLATION section, LOG PLACEMENT.
- C. When installing in a wood-burning fireplace, **place the appliance forward in the fireplace** while making certain that no part of the assembly protrudes (forward) beyond the face of the fireplace. **DO NOT PUSH THE UNIT ALL THE WAY TO THE BACK.**
- D. If you use Lava Granules for decorative use, do not allow Lava Granules into or on any part of the burner or on the logs. Lava Granules should only be placed on the floor of the fireplace, in front of and to the sides of the burner, but away from the controls.
- E. **DO NOT PLACE** logs or other accessories, such as wood chips, pine cones, or vermiculite, on this appliance. These items will cause improper burning, sooting, and/or high levels of carbon monoxide. Additional logs and/or accessories may be placed around the burner system, as long as they do not interfere with the burning of your gas appliance.
- F. **Due to high temperatures, this appliance should be located out of traffic and away from furniture/draperies.**
- G. A fireplace screen must be in place when this gas appliance is in operation. Unless other provisions for combustion air are provided, the screen shall have an opening(s) for introduction of combustion air.
- H. Connecting directly to an unregulated propane tank can cause an explosion.
- I. Special care is required if you are installing the unit into a sunken fireplace. You must raise the fireplace floor to allow access to gas log controls. This will ensure adequate airflow and guard against sooting. Raise the fireplace floor using noncombustible materials.
- J. A vent-free room heater having an input rating of more than 10,000 BTU per hour shall not be installed in a bedroom (ANSI Z21.11.2). If local codes allow, you may install a G8-xxR burner, having a rating of 9,500 BTU, in a bedroom. An unvented room heater having an input rating of more than 6,000 BTU per hour shall not be installed in a bathroom (ANSI Z21.11.2).

OPERATIONAL SAFETY INFORMATION

OPERATING YOUR UNVENTED GAS APPLIANCE SAFELY AND CORRECTLY

- A. SOLID FUEL MUST NOT BE BURNED** in a fireplace where this vent-free gas appliance is installed.
- B. GLASS DOORS MUST BE FULLY OPEN** when this vent-free gas appliance is operating. This appliance **MUST NOT BE ON** if glass doors are closed, as it can lead to sooting, burner outages, and possibly explosion, causing damage or injury.
- C. WARNING: DO NOT ALLOW DRAFTS INTO OR AROUND THE FIREPLACE. CLOSE (SHUT) HEATING AND AIR CONDITIONING VENTS, RETURNS, AND OUTSIDE AIR VENTS. DO NOT OPERATE FANS (WINDOW FANS, CEILING FANS, FLOOR FANS), WHICH MAY ALTER FLAME PATTERNS.** Sooting, excess carbon monoxide, or ODS pilot outages may occur due to drafts.
- D. WARNING: DO NOT USE A BLOWER INSERT, HEAT EXCHANGER INSERT,** or any other accessory that is not specifically certified for use with this vent-free gas appliance.
- E.** Make sure there is adequate combustion and ventilation air when this gas appliance is operating. You may need to crack the damper or open a window slightly.
- F.** To light this appliance, it may be necessary to purge the unit for longer than one minute after long periods of non-use.
- G.** If you operate this vent-free gas appliance fueled by propane, operating characteristics may vary as the fuel in the tank approaches empty (less than 1/4 full). Sooting and other increases in combustion by-products will occur. Turn off the appliance, refill the propane tank, and have the burners cleaned.
- H.** During manufacturing, various parts of this unit are treated with oils or paints. Though not harmful, they may produce annoying smoke and smells as they are burned off during initial operation. This is a normal occurrence. Initial break-in period should last four to six hours; maximum ventilation should be provided by opening windows, doors, or chimney flue.
- I.** Keep the area around your gas appliance clear of combustible materials, gasoline, and any other flammable vapors/liquids. Provide adequate clearance for servicing and operation. Be especially cautious if this gas appliance is installed in a basement or converted garage.
- J. Do not place clothing or any flammable material on or near your vent-free gas appliance. Matches, paper, garbage, or any other material must not be thrown on top of the logs, burner, or into the flame.**
- K. Young children should be carefully supervised when in the same room with this appliance.**
- L. Children and adults should be alerted to the hazard of high surface temperatures and should stay away to avoid burns or clothing ignition.**

OPERATING YOUR UNVENTED GAS APPLIANCE SAFELY AND CORRECTLY

M. This appliance is intended for supplemental heating, and is not to be used as a primary heating source. Water vapor produced by vent-free gas logs can create moisture problems in a home when operated for extended periods of time. If condensation begins to occur, open your damper or a window.

As a supplemental zone heater, this set should not be used more than six continuous hours per day or more than 40 hours per week. More frequent use indicates that this unit is being used as a primary heat source. The higher presence of carbon monoxide generated by this amount of use can be considered unsafe.

- N.** If the gas quality is poor or pressure low, your ODS pilot may not stay lit, the burners may produce soot, or the unit may backfire. Contact your local gas supplier immediately.
- O.** This appliance is designed for adults to be present while in operation. Do not leave this unit burning when unattended or while sleeping. **This is an attended appliance.**
- P. WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.**
- Q. WARNING: All previously applied loose material, such as embers, must be removed prior to reapplication. All replacement loose material must be purchased from the original appliance manufacturer.**
- R.** Unusually tight construction is defined as:
- a)** Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 perm (6×10^{-11} kg per pa-sec- m^2) or less with openings that are sealed or use gaskets;
 - b)** Weather stripping has been added on openable windows and doors; **AND**
 - c)** Caulking or sealants are applied to areas such as joints around window and door frames; between sole plates and floors; between wall-ceiling joints; between wall panels; at penetrations for plumbing, electrical, and gas lines; and at other openings.

VENTILATION AND CONFINED SPACE SAFETY INFORMATION

IT MAY BE NECESSARY TO OPEN A WINDOW SLIGHTLY (1" - 2") OR OTHERWISE INCREASE VENTILATION. Conditions requiring this include, but are not limited to:

1. Installation in a confined space.
2. Installation in a tightly constructed home.
3. Installation at high altitudes.
4. Certain medical or physical conditions of the homeowner that may be adversely impacted by combustion products created by burning natural or propane gas.

Your vent-free gas log set SHALL NOT BE INSTALLED IN A CONFINED SPACE or unusually tight construction unless provisions are made for adequate combustion and ventilation air.

The National Fuel Gas Code, ANSI Z223.1/NFPA 54 defines a confined space as a space whose volume is less than 50 cu. ft. per 1,000 BTU per hour (4.8 meters³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

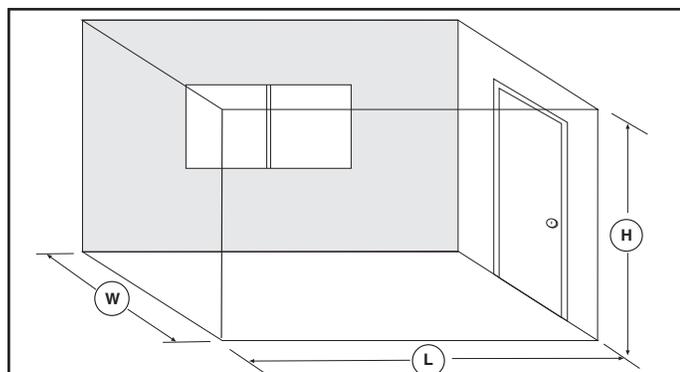
An unconfined space is a space where volume is at least 50 cu. ft. per 1,000 BTU per hour (4.8 meters³ per kw) of the aggregate input rating of all appliances in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the space.

WARNING: Do not install the unvented burner system where the room is considered a confined space (see Fig. 12-1).

To determine if the area where this gas log set is to be installed fits the definition of an unconfined space, multiply the length of the room by the width of the room by the height of the room, then multiply by 20. The result is the maximum BTU allowed.

(Length x Width x Height x 20 = Maximum BTUs allowed)

Example: To install a Peterson Real-Fyre® 24" vent-free gas log set with 39,000 BTU (nat. gas) in a space with no other gas-burning appliances, the space **MUST** be 1,950 cu. ft. or larger (assuming an 8' ceiling, space dimensions must be a minimum of 243.75 sq. ft., i.e.; 16.3' x 15', etc.) (see Fig. 12-1).



$L \times W \times H \times 20 = \text{Maximum BTU allowed}$

Fig. 12-1

WARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation, or applicable local codes.

Installation in a tightly constructed home and/or installation at high altitudes may cause your vent-free gas log set to produce excessive heat or excessive moisture. The oxygen depletion sensor may shut down the log set. These conditions may be corrected by opening a window or otherwise increasing the number of air changes in the home.

The Peterson Real-Fyre® vent-free gas log set has been certified to function safely and reliably with emission by-products well within accepted safety and health standards. **Your specific medical or physical condition** may render you more sensitive to products created by burning natural or propane gas. If this is the case, you should open a window or otherwise increase ventilation.

REMEMBER

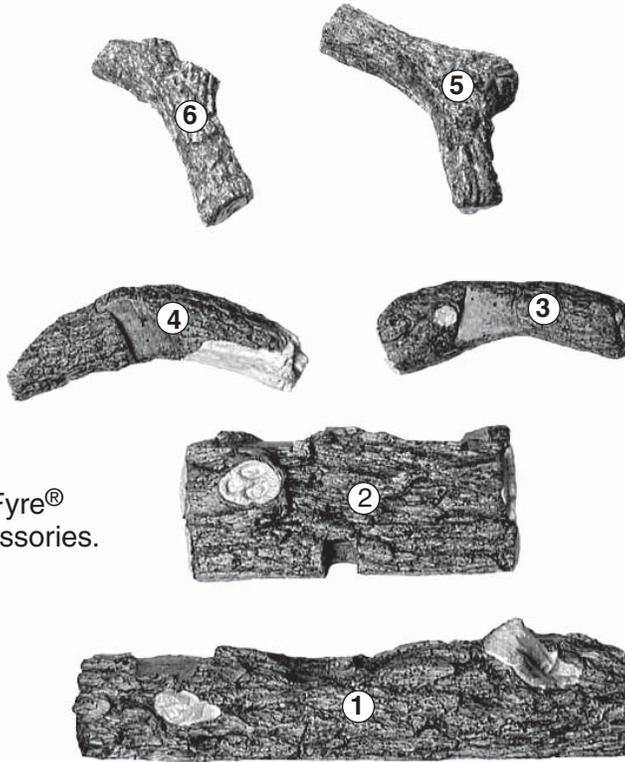
$L \times W \times H \times 20 = \text{MAXIMUM BTUs ALLOWED}$

If the space is smaller than the above formula allows, and/or smaller than the examples and diagrams on this page specify, **DO NOT** install the vent-free gas log set unless provisions for additional combustion and ventilation air are made.

LOGS - PARTS LIST

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.

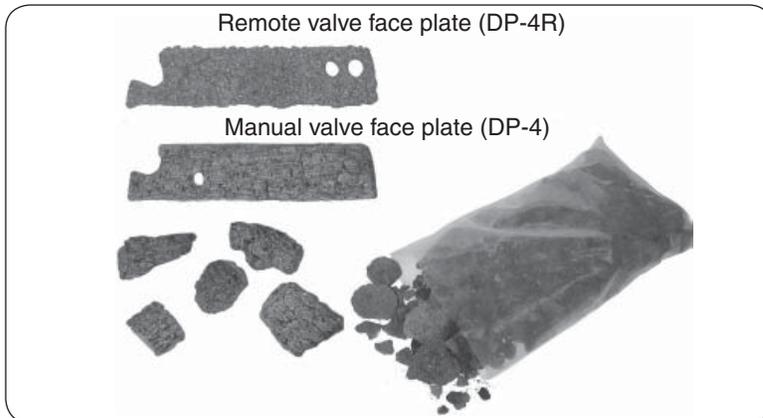


Contact your local Real-Fyre® dealer for parts and accessories.

VO = Valley Oak

ITEM NO.	PART NO.	DESCRIPTION
1.	VOL8-24BF	Valley Oak bottom front log (for 24" log set)
2.	VOL8-12BR	Valley Oak bottom rear log
3.	VOL8-10TL	Valley Oak left log 10"
4.	VOL8-11TR	Valley Oak right log 11"
5.	VOL8-8TY	Valley Oak top right log 8"
6.	VOL8-8TL	Valley Oak top left log 8"

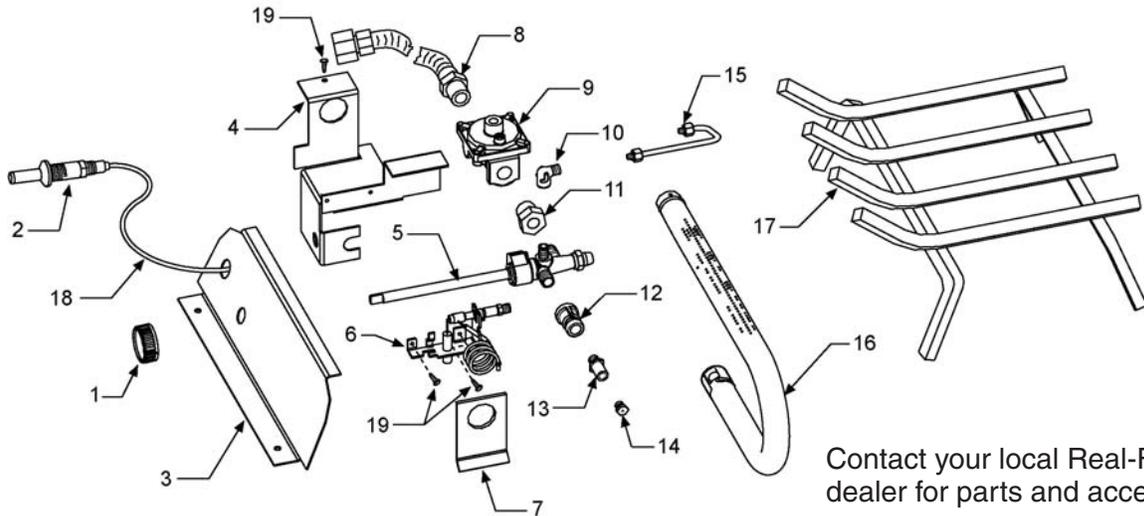
Also available* optional decorative kit (DP-4) for manual valve series **or** (DP-4R) for remote valve series



For installation of DP-4, follow instructions supplied with kit.

*from the local Real-Fyre® dealer

BURNER PARTS LIST FOR MANUAL VALVE

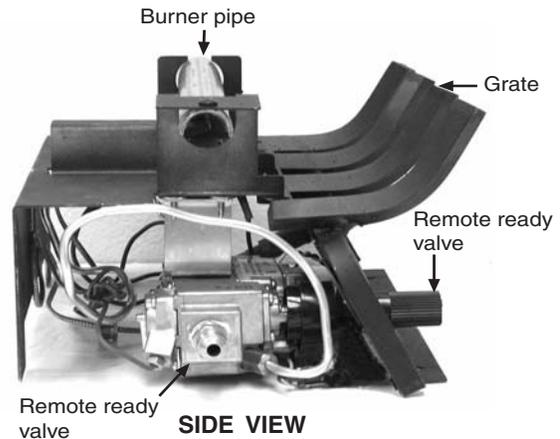
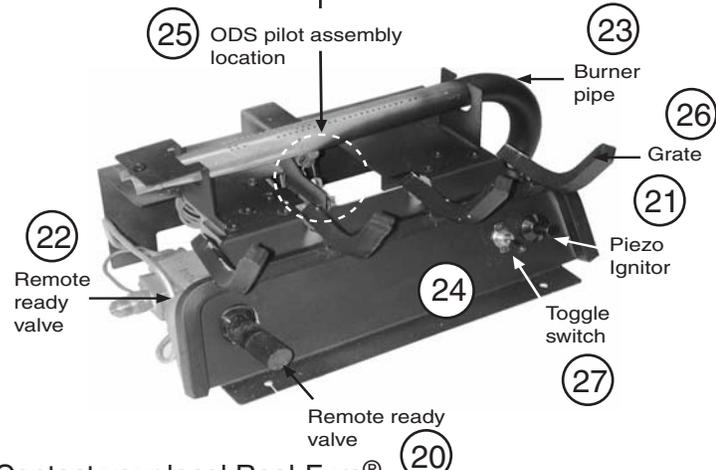


Contact your local Real-Fyre® dealer for parts and accessories.

ITEM NO.	DESCRIPTION
1.	Valve control knob
2.	Ignitor
3.	Face plate with security holes
4.	ODS mounting bracket
5.	Manual valve
6.	ODS pilot (natural or propane)
7.	Burner mounting bracket
8.	Connector kit, poly coated $\frac{3}{8}$ " x 24"
9.	Regulator (natural or propane)
10.	Reducing elbow

ITEM NO.	DESCRIPTION
11.	$\frac{3}{8}$ " x $\frac{1}{4}$ " Bushing
12.	$\frac{1}{4}$ " x $\frac{1}{8}$ " Coupling, reducing
13.	Orifice holder
14.	Orifice (natural or propane)
15.	ODS pilot tube
16.	Burner (natural or propane)
17.	Grate
18.	Ignitor wire
19.	#6 x $\frac{3}{8}$ " Tapping screw (3)

BURNER PARTS LIST FOR 12 SERIES



ITEM NO.	DESCRIPTION
20.	Valve control knob extension
21.	Piezo ignitor
22.	Remote ready valve
23.	Burner tube
24.	G8 front plate
25.	ODS pilot (natural or propane)
26.	Grate
27.	Toggle switch
28.	Connector kit, $\frac{3}{8}$ " x 24" (not shown)

Contact your local Real-Fyre® dealer for parts and accessories.

Note: Remote systems will come with remote transmitter/receiver kit.

WHEN USED AS A VENTED DECORATIVE APPLIANCE (PER ANSI.60b-2004)

This appliance is for installation in a solid fuel burning fireplace (masonry fireplace or manufactured fireplace) with a working flue and constructed of noncombustible material.

These gas logs may be installed as vented decorative log sets in compliance with ANSI Z21.60b-2004 and National Fuel Gas Code, Section 6.6. The minimum permanent free opening of the fireplace chimney or chimney damper must be at least **14.1 sq. in.** based upon a minimum chimney height of at least 15'. The chimney damper must be fixed in a manner to maintain a permanent opening free of obstruction at all times. To accomplish this, you may install a screw or bolt in the edge of the damper to prevent closing, drill holes in the damper, or remove the damper.

CONNECTING THE GAS TO THE BURNER SYSTEM

Important: Be sure you have read and understand all safety precautions and warnings contained in this manual.

Note: To install the Real-Fyre® vent-free gas log set, the fireplace must have a gas supply line that has been installed by a qualified professional technician in accordance with all local codes.

Refer to the PARTS LIST when installing the vent-free gas log set.

Tools Required:

1. Adjustable open-ended wrench
2. Pliers
3. Propane gas resistant pipe compound or Teflon tape
4. Soapy water solution & brush for leak detection
5. Flat-head screwdriver
6. Manometer (recommended for checking gas pressure)

I M P O R T A N T

CHECK GAS TYPE (natural or propane). The gas supply must be the same as stated on the gas log set rating plate. If the gas supply is different,

DO NOT INSTALL. Contact the dealer for immediate assistance.

BE SURE THE GAS SUPPLY TO THE FIREPLACE IS TURNED OFF.

BEFORE PROCEEDING, CAREFULLY READ ALL OF THE IMPORTANT SAFETY INFORMATION CONTAINED IN THIS OWNER'S MANUAL, INCLUDING:

- A. PRE-INSTALLATION AND FIREPLACE PREPARATION SAFETY GUIDELINES.
- B. VENTILATION AND CONFINED SPACE SAFETY INFORMATION.
- C. INSTALLATION SAFETY GUIDELINES.

CONNECTING THE GAS TO THE BURNER SYSTEM (Cont.)

- Center the burner assembly in the fireplace. Make certain that no part of the assembly protrudes beyond the face of the fireplace.
- Attach the large adaptor fitting of the flex connector kit (Item 8, Item 28) to the gas supply line using a pipe compound resistant to propane gas or Teflon tape. Tighten the connection. Connect one end of flex connector to the large adaptor, and the other end to the flare connector fitting on the burner assembly (see Fig. 16-1). For remote ready valves connect the flex connector to the brass connector on the safety valve (see Fig. 16-2).
- Make sure that the control valve on the assembly is in the **OFF** position (see Fig. 16-3 & Fig. 16-4). Carefully turn on the gas to the fireplace and leak test at all connections by applying a soapy water solution to their surface. If bubbles appear, a leak is present. Turn off gas and tighten all connections, then turn on the gas and repeat the leak test. **Never use an open flame to check for leaks.**

Fig. 16-1

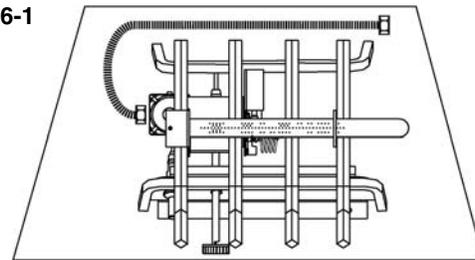
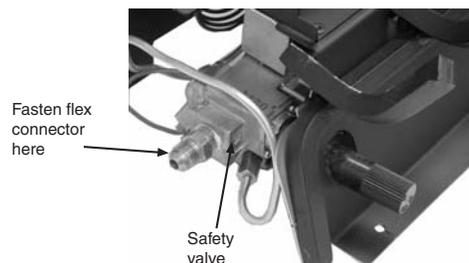


Fig. 16-2



Important: For all valves, the air **MUST** be purged from the gas line before the ODS 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 ODS pilot will light properly. This is done using the method for lighting the ODS pilot, but holding in the control valve for a longer period. Follow the LIGHTING INSTRUCTIONS in this manual for the specific valve type.

Note: 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 (see the figures below for typical control positions).



Fig. 16-3

**MANUAL
VALVE SETTINGS**

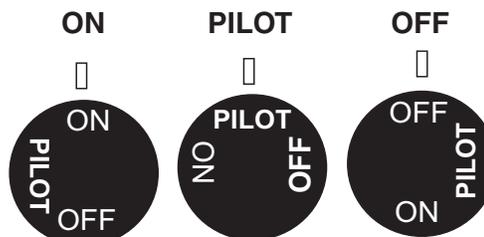


Fig. 16-4

**REMOTE READY 12 SERIES
VALVE SETTINGS**

ATTACHING THE BURNER PLATE TO THE FIREPLACE FLOOR

Two security holes are provided in the base plate assembly for securing it to the fireplace floor in a mobile home, or if the installation or inspector require it in other circumstances. To attach the burner, center it properly in the fire place and secure with appropriate screws (not provided). See Fig. 16-5. You may have to drill holes in the floor of the fireplace (**Note:** If you have a manufactured fireplace, check with the manufacturer before drilling holes in the floor). Indicate hole placement with the security holes in the base plate assembly, then drill and attach with screws.

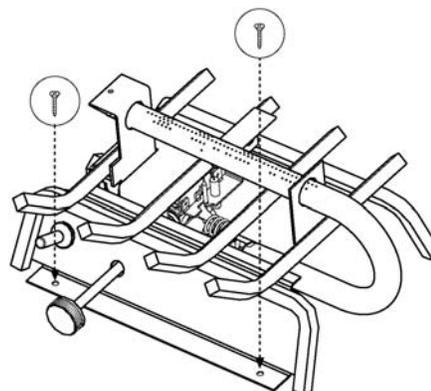


Fig. 16-5

CHECKING GAS PRESSURE

WARNING

Do not connect this appliance directly to a high pressure natural gas line or an unregulated propane tank. Test all gas joints for leaks using a half-and-half soapy water solution after completing connection. **DO NOT USE AN OPEN FLAME WHEN CHECKING FOR GAS LEAKS.**

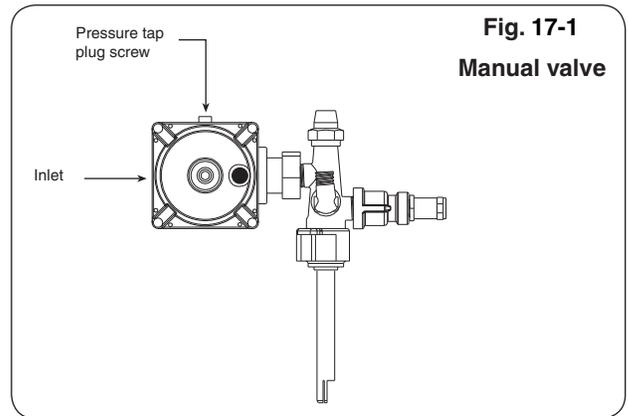
Important: Check the gas pressure with the vent-free gas log set burning and the control set to **HIGH**.

The gas log set 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 $\frac{1}{2}$ psig. The gas log set must be isolated from the gas supply piping system by closing its equipment shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than $\frac{1}{2}$ psig. This is accomplished by closing the gas supply line valve.

Manual safety ODS pilot valve (Fig. 17-1)

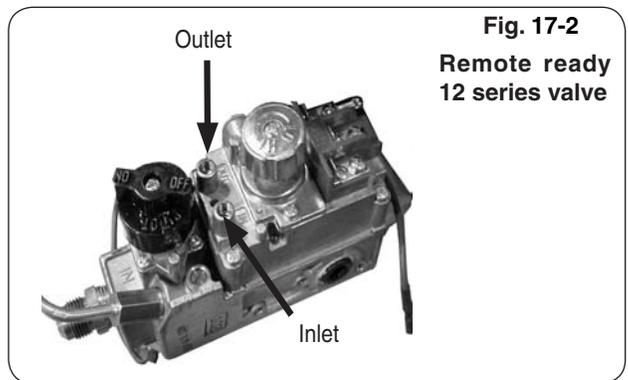
The pressure regulator is preset at the factory and locked to discourage tampering. If the pressure is not as specified, replace the regulator with the correct part from the PARTS LIST in this manual.

Remove the $\frac{1}{8}$ " pressure tap screw plug, located on the side of the regulator body. Install fitting and tubing of pressure gauge. After taking the pressure reading, re-install the pressure tap screw and check for leaks.



Remote ready 12 series valve (Fig. 17-2)

The pressure regulator is preset at the factory. If the pressure is not as specified, replace the regulator with the correct part from the PARTS LIST in this manual. Remove the $\frac{1}{8}$ " pressure tap screw plug, located on the side of the regulator body. Install fitting and tubing of pressure gauge. After taking the pressure reading, re-install the pressure tap screw and check for leaks.



GAS PRESSURE SPECIFICATIONS

NATURAL GAS		PROPANE (L.P.) GAS	
MANUAL PRESSURE		MANUAL PRESSURE	
Regulator pressure reading:	Min. 3.5" w.c.	Regulator pressure reading:	Min. 10" w.c.
Gas inlet pressure:	Max. 10.5" w.c. Min. 5" w.c.	Gas inlet pressure:	Max. 13" w.c. Min. 11" w.c.
MILLIVOLT PRESSURE		MILLIVOLT PRESSURE	
Outlet pressure reading: (Flame adjustment on high)	Min. 3.5" w.c.	Outlet pressure reading: (Flame adjustment on high)	Min. 10" w.c.
Inlet pressure reading:	Max. 10.5" w.c. Min. 5" w.c.	Inlet pressure reading:	Max. 13" w.c. Min. 11" w.c.

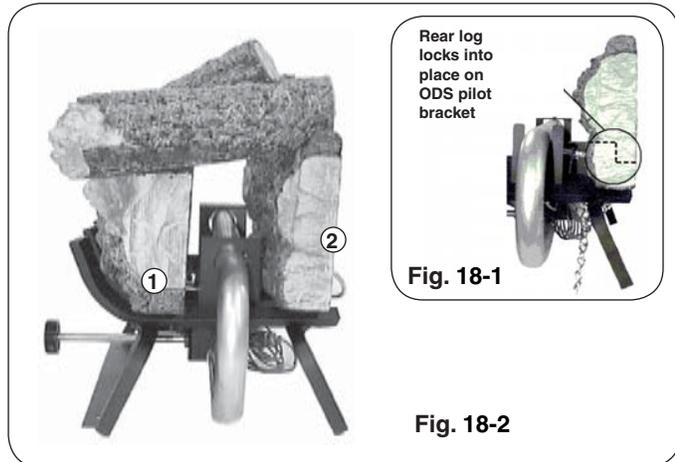
LOG PLACEMENT

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

Carefully follow the detailed instructions for correct log placement

Note: Each log in the Real-Fyre® vent-free gas log set has a number engraved in the back to aid in the log placement procedures.

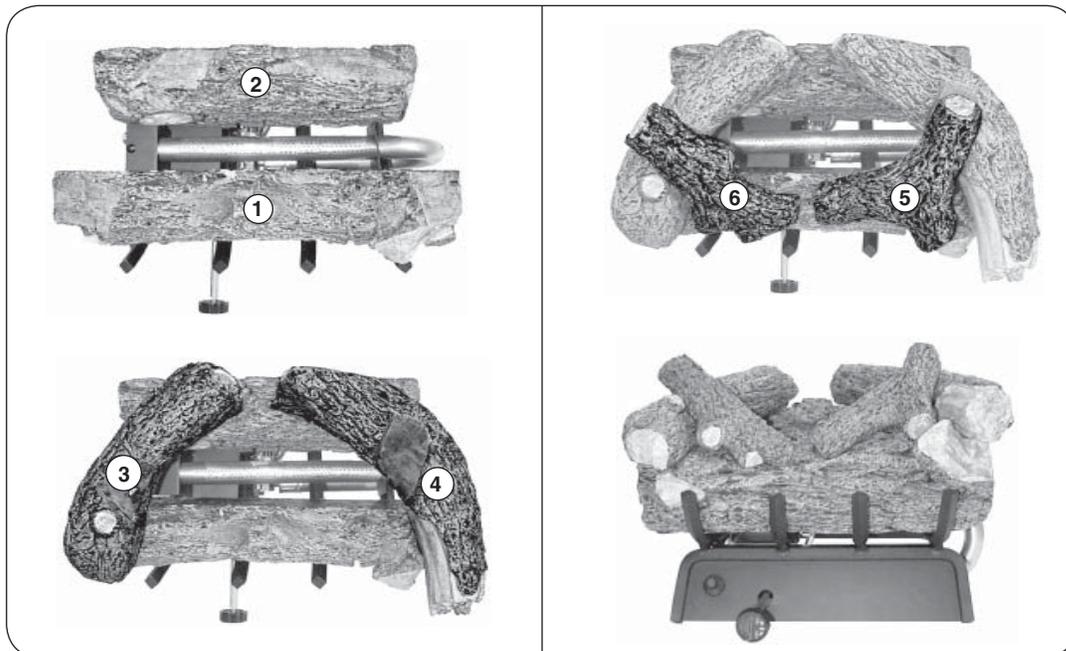
1. Set the front log #1 in its approximate position on the grate (as shown in Fig. 18-1).
2. Center the front log #1 (left to right) on the grate (Fig. 18-2).
3. Place the rear log #2 on the back of the ODS mounting bracket so that the ODS cover fits into the cut-out of the bottom of this log (Fig. 18-1). Slide the rear log #2 forward until the log sets into position (Fig. 18-2). The rear log is designed with a notch and position brace to maintain the minimum distance between the front and rear bottom logs, allowing for a cleaner burn and safer operation.



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.

4. Position the curved logs #3 and #4 on top of the bottom logs. Locate the logs so that they fit into the notches of the rear bottom log and the front end of each log rests on the corresponding notches on the bottom front log (see Fig. 18-3).
5. Position the two top logs #5 & #6 on the top of the curved logs. Locate the top logs by fitting these logs into the notches of the curved logs. Place the other end of the top logs into the notches of the bottom front log (see Fig. 18-3). After setting the logs into position as described above, ensure each is properly and firmly seated. The vent-free gas log set will not function as intended if the logs are not correctly positioned. When placed properly, the flames will not strike any portion of the logs. Periodically check the positioning of all logs to insure proper log placement and stability. If any flame is striking the logs, recheck log placement. Adjust to conform with instructions. There should be no flame impingement on the logs.
6. Optional lava granules are available from the local Real-Fyre® dealer as an aesthetic enhancement to the vent-free gas log set and do not effect its operation. Spread the lava granules on the floor of the firebox around the front and the sides of the vent-free gas log set. BE SURE THAT NO GRANULES ENTER THE BURNER SYSTEM OR INTERFERE WITH THE BURNING OF THE LOG SET.

Fig. 18-3



CLEANING AND SERVICING

Note: Regular cleaning and servicing will be necessary to ensure proper ODS pilot operation and proper burn characteristics.

- A. Always shut off the gas to the vent-free gas log set while performing service work.
- B. Allow the vent-free gas log set to cool before servicing.
- C. **Installation and repair must be done by an NFI Certified or other qualified professional installer. The gas log set should be inspected regularly to prevent burner shutdown, sooting, odors, etc. This unit must be cleaned at least annually by a professional service person to check for clean burning operation and proper ODS appearance, with the correct tools to service this unit. More frequent cleaning may be required.** Excessive lint can build up on this unit from carpeting, bedding material, pet hairs, or other particles in the air. It is critical that all control components, burners, and circulating air passageways be kept clean and free of all obstructions. The ODS pilot is especially sensitive to a dirty environment, and will not function properly if dirty.

Make certain all air openings are clean and free of obstructions, including:

- 1. The two (2) air intake openings on the ODS pilot assembly.
- 2. The ODS pilot opening.
- 3. The air shutter - on the burner.

WARNING: Failure to keep the primary air openings of the burner clean may result in sooting and property damage.

- 4. All of the ports on the burner.

D. Any safety screen or guard removed for servicing must be replaced prior to operating this gas log set.

Fig. 19-1

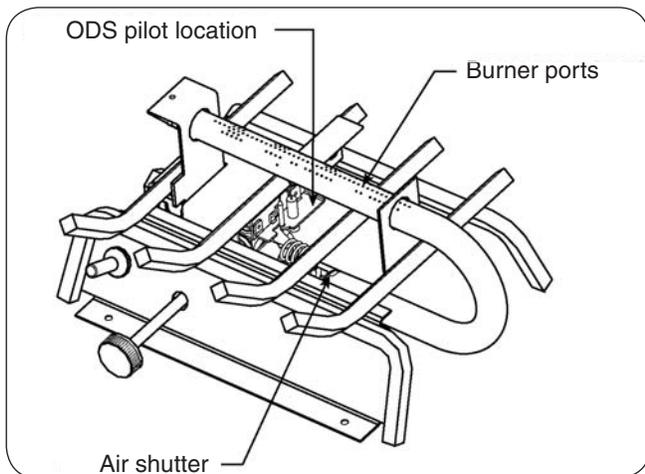
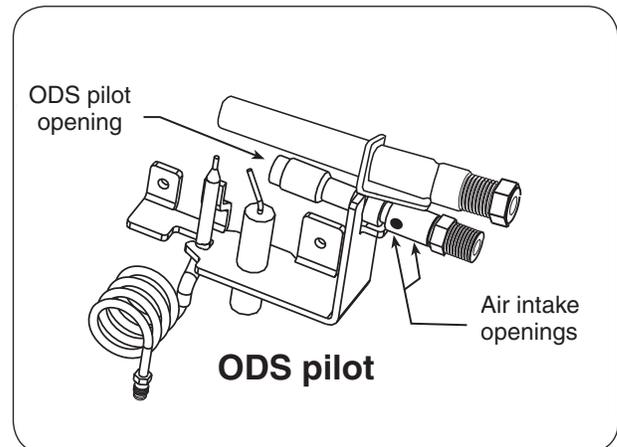


Fig. 19-2



CLEANING AND SERVICING (Cont.)

Only limited cleaning will be required under normal use of the vent-free gas log set.

TO CLEAN THE LOG SET

1. Remove the logs. Use a vacuum cleaner to remove loose particles from all surfaces of the logs. Do not use cleaning fluids to clean the log or any other part of the log set.
2. Dust the grate, the base of the assembly and the burner.
3. Replace the logs as instructed in the LOG PLACEMENT section of this manual.

CLEANING THE ODS PILOT

Periodic cleaning and maintenance of the vent-free gas log set is recommended to ensure that the log set operates properly. Cleaning of the ODS pilot system is an important part of the maintenance program. **This ODS pilot cleaning procedure must be performed by a qualified professional service technician familiar with the specific characteristics of the log set.**

1. Turn the vent-free gas log set to the **OFF** position and allow it to cool. Inspect the ODS pilot area (see Fig. 20-1) for any visual contamination or debris (usually lint, hair, spider webs, or small insects). Lightly brush off all external surfaces while vacuuming loosened debris from the ODS pilot opening. **Be careful not to brush any foreign material into the ODS pilot opening.**
2. Clean out both air intake openings (see Fig. 20-2) by lightly brushing around the openings while vacuuming.

Note: It is very important that the air intake openings be kept clear of debris. Should the openings become blocked, the ODS pilot system will not operate properly.

3. Light the ODS pilot according to the relevant LIGHTING INSTRUCTIONS page. Periodically verify the ODS pilot flame appears as shown in the CHECKING THE ODS PILOT FLAME APPEARANCE section.

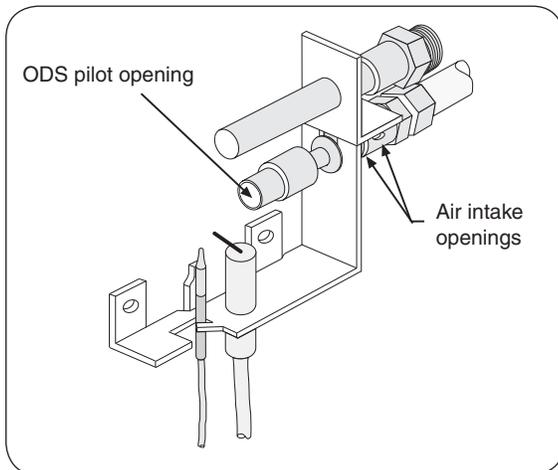


Fig. 20-1

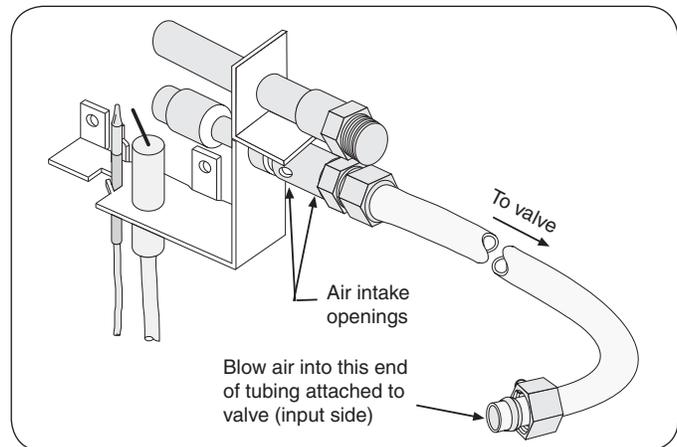


Fig. 20-2

If, after a period of use, the flames start to exhibit unusual shapes and behavior, or the burners fail to ignite smoothly, the burner holes may require some cleaning. If this happens, it is preferable to contact the nearest dealer to get the vent-free gas log set serviced.

Do not remove rating plate and/or warning tags. These labels are an integral safety and identification component of this appliance.

During periods of heavy use, inspect the vent-free gas log set frequently for evidence of sooting. If sooting is present, discontinue use until the source of sooting is corrected.

CLEANING AND SERVICING (Cont.)

4. If the ODS pilot flame does not burn as indicated in the instructions, extinguish the ODS pilot by turning the valve to the full **OFF** position. Using a compressed air duster (commonly available at computer, electronic or office supply stores), insert the flexible nozzle through either air intake openings, insuring that the nozzle is pointed toward the ODS pilot opening (see Fig. 21-1). Blow air through both air intake openings to clear out any debris that may be in the system.
5. Re-light the ODS pilot and inspect it to be sure it is burning as shown in the instructions. If not, extinguish the ODS pilot and **turn off the gas supply to the gas log set**. Using an adjustable or a $\frac{1}{4}$ " wrench, disconnect the ODS pilot gas line from the valve.
6. Insert the flexible nozzle of the compressed air duster and blow air into the input end of the ODS pilot gas line to remove any blockages (see Fig. 21-1). **Do not blow air directly into the ODS pilot opening. Blow air in the direction of the gas flow.**
7. Re-install the ODS pilot gas line and check for leaks.
8. Light the ODS pilot to make sure it is operating properly (see the relevant LIGHTING INSTRUCTIONS section).
9. If the ODS pilot still does not operate properly, **it may need to be replaced with the same model** as the one on the vent-free burner.

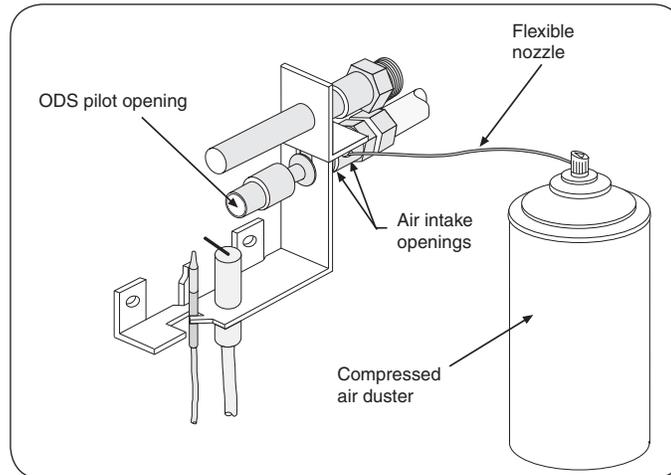


Fig. 21-1

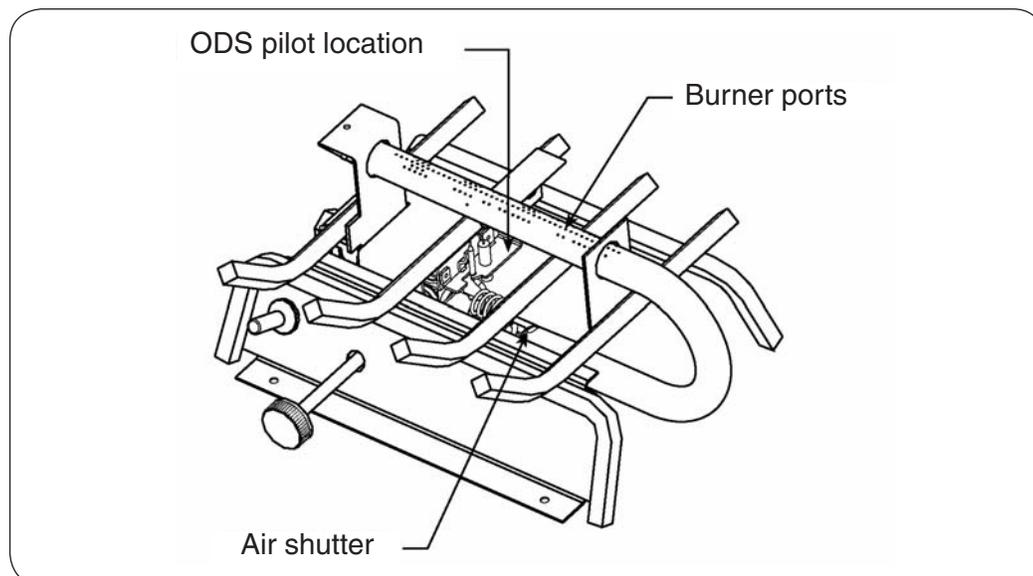


Fig. 21-2

OPERATING THE LOG SET - LIGHTING AND EXTINGUISHING

FOR YOUR SAFETY, READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

The Peterson Real-Fyre® gas log set has an ODS pilot which must be lit by hand. When lighting the ODS pilot, follow these instructions exactly.

A. BEFORE LIGHTING, smell all around the gas log set area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

B. WHAT TO DO IF YOU SMELL GAS

- Open a window do not try to light the 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 the gas supplier's instructions.

- If you cannot reach the gas supplier, call the fire department.

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified professional service technician. Force or attempted repair may result in fire or explosion.

D. Do not use the gas log set if any part has been underwater. Immediately call a qualified professional service technician to inspect the gas log set and to replace any part of the control system and any gas control which has been underwater.

LIGHTING INSTRUCTIONS FOR MANUAL GAS VALVE

1. **STOP!** Read the safety information above.
2. Push in the gas control knob slightly and turn clockwise ↻ to **OFF**.

Note: The knob cannot be turned from **PILOT** to **OFF** unless the knob is pushed in slightly. Do not force.

3. Wait five (5) minutes to clear out any gas. Then smell for gas including near the floor. If you smell gas, **STOP!** Follow 'B' in the safety information above. If you don't smell gas, go to the next step.
4. The ODS pilot is located under the burner.
5. Turn the knob on the gas control counterclockwise ↶ to **PILOT**.
6. Push in on the control knob all the way and hold in. Immediately light the ODS pilot or press in ignitor button to light the ODS pilot. Continue to hold the control knob in for approximately one (1) minute after the ODS pilot is lit. Release knob and it will pop back out. The ODS pilot should remain lit. If it goes out, repeat steps 3 through 6.

- If knob does not pop up when released, stop and immediately call the service technician or gas supplier.
- If the ODS pilot will not stay lit after several tries, follow the instructions TO TURN OFF GAS TO APPLIANCE and call the service technician or gas supplier.

7. Turn the gas control knob counterclockwise ↶ to **ON** to light the set.

8. Periodically check the ODS pilot flame for proper flame pattern. Reference the section CHECKING THE ODS PILOT FLAME APPEARANCE.

TO TURN OFF GAS TO THE APPLIANCE

1. From the **ON** position, turn control knob clockwise ↻ to the **PILOT** position. The log set will extinguish and the ODS pilot will remain lit.
2. If complete shutdown is desired, from the **PILOT** position, push in the control knob slightly and turn clockwise ↻ to the **OFF** position. Do not force the knob.



MANUAL VALVE SETTINGS

Fig. 22-1

Ignitor
Press and release ignitor until pilot lights, while depressing the control knob.

Control knob
Push in while in **PILOT** position and hold for approximately 1 minute.

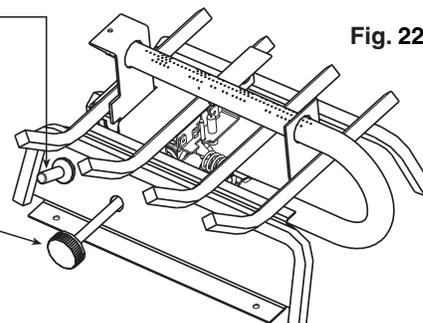


Fig. 22-2

LIGHTING INSTRUCTIONS FOR REMOTE READY 12 SERIES VALVE

FOR YOUR SAFETY, READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- STOP!** Read the safety information (refer to the TABLE OF CONTENTS).
- Turn **OFF** any electrical appliance (such as the Peterson Warm Air Circulator) if used with the log set.
- Check toggle switch (located on right side of front plate, next to Piezo button) is set in the **OFF** position (down). Check the safety valve knob is in the **OFF** position (see Fig. 23-1). Do not force.
- Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP! FOLLOW 'B' in the safety information on page 22.** If you don't smell gas, go to the next step.
- Turn the safety valve knob (one quarter turn) counterclockwise ↺ to the **PILOT** position (see Fig. 23-2). Push the safety valve knob fully and hold. At the same time press the piezo ignitor button (located on right side of front plate) several times. The ODS pilot will light. The ODS pilot is located left of center below main burner pipe (see PARTS LIST). **Hold the safety valve knob in** for approximately 60 seconds (Fig. 23-3).

CAUTION: IF THE GAS SET DOES NOT IGNITE WITHIN 20 SECONDS, STOP, TURN THE SWITCH TO OFF, WAIT 5 MINUTES THEN REPEAT STEPS 3-6.

- Normally, the ODS pilot should remain lit. If it goes out, repeat step 3 through 6.
 - If the ODS pilot does not stay lit, turn the safety valve knob to the full **OFF** position. Wait five minutes and repeat the lighting instructions.
- With the ODS pilot lit, allow the safety valve knob to pop up, then turn it (one quarter turn) counterclockwise ↺ to the **ON** position. Flip the toggle switch (located at the right side of front plate) UP to the **ON** position and the gas log set will light.
 - Periodically check the ODS pilot flame for proper flame pattern. Reference the section CHECKING THE ODS PILOT FLAME APPEARANCE.

TO TURN OFF GAS TO THE APPLIANCE

To turn off the gas log set, flip the toggle switch **DOWN** to **OFF** (Down) position. The ODS pilot will remain lit.

To turn off the ODS pilot, be sure the toggle switch is **OFF** slightly depress and turn the safety valve knob (one half turn) clockwise ↻ to the **OFF** position.

FOR REMOTE LIGHTING

For units equipped with a remote transmitter and receiver, follow the separate instructions that come with the remote to light the burner remotely.

Fig. 23-1 Control knob in OFF position

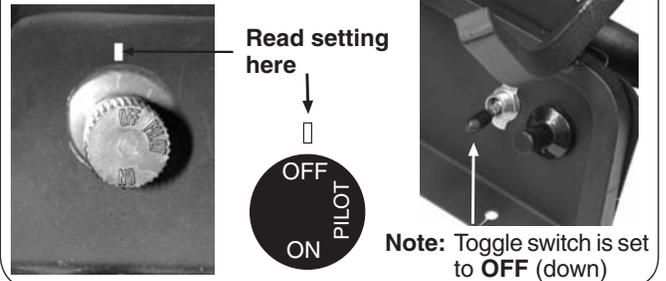


Fig. 23-2 Control knob in PILOT position

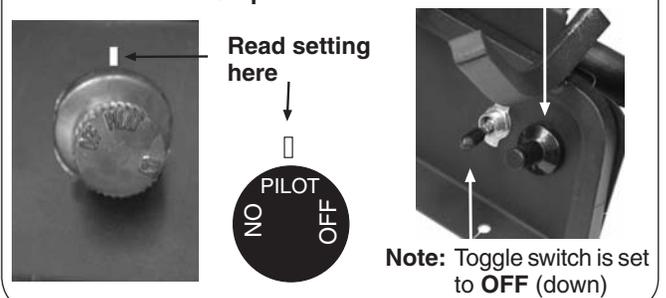


Fig. 23-3 Control knob in ON position

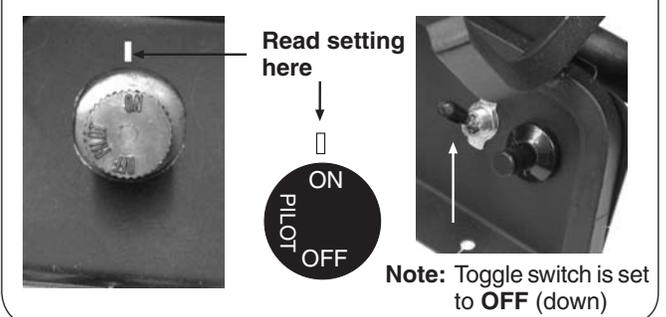
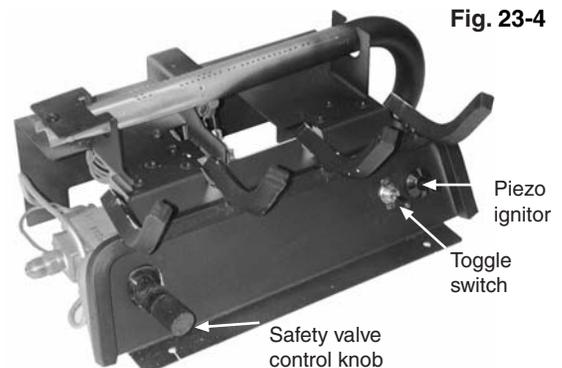


Fig. 23-4



OPERATING THE REAL-FYRE® GAS LOG SET

Observe the flames. The flames should be blue at the base and a combination of blue/yellow at the body and tips. Flames should be 2" to 4" tall (see Fig. 24-1).

Every Real-Fyre® vent-free gas log set leaves the factory tested and quality checked to ensure that it has been manufactured to the strict specifications to which it was submitted and approved for certification by the American Gas Association. This check includes an operational test to ensure both satisfactory combustion and operation.

Each installation site for any vent-free appliance presents its own unique combustion environment. Specific factors such as weather tightness of the home, size of the room in which the log set is installed, central heating, ceiling fans, altitude, drafts, pet hair, the size of the fireplace, paint or soot inside the fireplace, etc., all have an influence on the proper operation of a vent-free appliance and its ODS pilot system. A normally operating vent-free log set will demonstrate the following characteristics:



Fig. 24-1

- A lively, realistic flame will be blue/yellow on burner.
- Clean burning combustion, which will produce no soot or smoke, after normal break-in.
- Production of no odor, other than normal odors associated with combustion of propane or natural gas.
- Production of water vapor. Water vapor helps to increase indoor humidity, which may be beneficial during the dry heating season.

If you operate the vent-free gas log set fueled by propane gas, operating characteristics may vary as the fuel in the tank approaches empty (less than $\frac{1}{4}$ full). Sooting and other increases in combustion by-products will occur. Turn off the log set and re-fill the propane tank.

WARNING: NO ADJUSTMENTS ARE TO BE MADE TO THE ODS PILOT SYSTEM. TAMPERING WITH THIS SYSTEM CAN BE EXTREMELY HAZARDOUS.

CHECKING THE ODS PILOT FLAME APPEARANCE

When installing the G8 burner assembly, it is important to visually check the ODS pilot flame and burner flames.

1. The ODS pilot flame must be present when the burner is operating. The flame should touch the top of the thermocouple tip.
2. If the ODS pilot flame does not touch the top of the thermocouple tip, then the main burner will not function properly (see Fig. 24-2 - for incorrect ODS pilot flame).
3. With the burners off and the ODS pilot flame off, and the assembly cool, check the burner assembly, air intake openings on the ODS and air shutter openings on the burner for any blockages that could affect the operation of the ODS pilot flame.

Incorrect ODS pilot flame

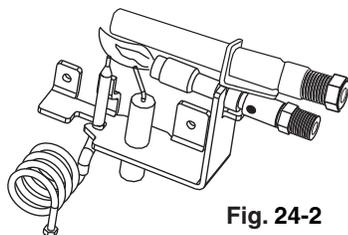


Fig. 24-2

ODS PILOT FOR G8

(NG shown)

Correct ODS pilot flame

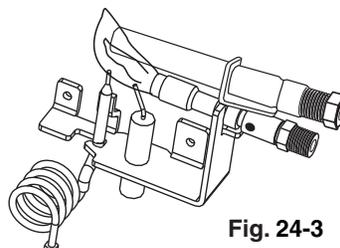


Fig. 24-3

TROUBLESHOOTING

POSSIBLE CAUSE	SOLUTIONS
1 BURNER SHUTTING DOWN DURING OPERATION	
A. Insufficient or excessive gas pressure	<p>A1. Check gas pressure (check with local gas company). For natural gas, pressure must be minimum 5" w.c. at fireplace with burner operating. Maximum inlet gas pressure is 10.5", w.c. Reading at inlet pressure tap (farthest to valve inlet) on remote-capable valves burners should be 5" w.c. (minimum). With the knob on high, maximum inlet pressure is 10.5" w.c.</p> <p>A2. Other gas appliances may be on the same gas line, dropping gas pressure to the log set. Check pressures with everything operating to ensure adequate pressure.</p>
B. Foreign debris in or around the fireplace and around the air intake of the ODS pilot	B. Dust, carpet fibers, paper, spider webs, pet hair, etc. in fireplace or on burner assembly can affect operation of burner and ODS pilot assembly. Clean out debris and vacuum around burner for accumulated dust. Vacuum or use compressed air to clean out the ODS pilot assembly area, air shutter holes, burner orifices, and ODS pilot air intake openings. Blockage in this area will affect the operation of the ODS pilot assembly.
C. Room size (unconfined space)	C. 50 cu. ft. is required for every 1,000 BTU. Multiply the room's length x width x height by 20 (L x W x H x 20). If resulting number is less than the BTU rating of the burner, ODS pilot outages may occur. Provisions for adequate combustion and ventilation air must be made (see VENTILATION AND COMBINED SPACE SAFETY INFORMATION).
D. Log placement	D. Your logs may have notches for correct placement. The burner may have brackets for correct placement. Make sure log set is placed in proper position (see LOG PLACEMENT) so there is no flame impingement on the log set.
E. Flue area, fireplace, or damper dirty from soot	E. Clean around, above, and under damper thoroughly. Clean fireplace, removing loose material, including soot and creosote.
F. Fans, furnaces, air conditioning vents, returns, or fireplace outside air vents near or blowing into fireplace may create drafts, altering flame patterns	F. Eliminate drafts by closing heating and air conditioning vents, returns, and closing outside air vents. Fans blowing directly into the fireplace should be turned off when set is operating.
G. Blockages on burner	G. Vacuum any Lava Granules or material that may have fallen onto burner pipe area
H. Fireplaces with high top cavities can accumulate by-products of combustion, which can start recirculating, causing shutdown	H. Open window or damper slightly. Move burner forward if possible, or otherwise increase ventilation.
I. Insufficient air circulation	I. Check log placement, Glowing Ember placement, Bryte Coals™ placement, and sizing of log set (check your owner's manual for proper placement and requirements). Reposition burner closer to the front of fireplace. (Note: Do not place burner too close to combustibles.) (See INSTALLATION SAFETY GUIDELINES section.)
J. Fireplace too small for unit	J. Ensure minimum requirements are met (see FIREPLACE SIZE REQUIREMENT section).
K. At high altitude, too much heat or moisture can cause ODS pilot to shut down log set	K. Open a window or the damper slightly or otherwise increase the ventilation. Your set may not be certified for use over 2,000 feet. Check your owner's manual.
L. ODS pilot flame lifting off thermocouple/generator	L. Check gas pressure (see item A1 in this table).
M. Soot inside burner	M. Take burner tube out of unit and shake it or tap it to loosen soot inside burner. Clean thoroughly and place burner tube back onto unit.
N. Pilot (remote-capable)	N. Contact your dealer for instructions on replacement.

TROUBLESHOOTING (Cont.)

POSSIBLE CAUSE

SOLUTIONS

2 ODS PILOT WILL NOT LIGHT

A. ODS pilot flame lifting off thermocouple/generator	A. Check gas pressure.
B. Piezo spark not lighting ODS pilot	B. Check to make sure piezo is sparking when turning ignitor control knob. (Note: You may need to turn ignitor several times to ignite ODS pilot.) See LIGHTING INSTRUCTIONS section.
C. Gas supply off/manual shutoff valve closed	C. Turn on gas supply or open manual shutoff valve.
D. Air in gas line	D. Hold control knob to bleed the line and repeat LIGHTING INSTRUCTIONS until air is removed.

3 HIGH CO - CARBON MONOXIDE DETECTORS IN HOME TURNING ALARM ON

A. High CO levels	A. TURN OFF UNIT IMMEDIATELY.
	B. Call a qualified service technician or your gas supplier.

4 CONDENSATION

A. High room humidity and cold walls or windows will create condensation in room	A. Open a window or damper slightly.
--	--------------------------------------

5 LOW FLAME HEIGHT

A. Low gas pressure	A. Check gas pressure.
B. Propane tank running low	B. Fill tank completely.

6 BURNER NOT BURNING EVENLY

A. Top burner lights; bottom burner has delayed ignition or does not light	<p>A1. Check gas pressure. Can be caused by too small a gas line (see ANSI 223.1/NFPA 54 Piping Guidelines).</p> <p>A2. Low propane fuel gas level. Vacuum burner tube for soot blockage and fill propane tank.</p> <p>A3. Flash tube (if present) blocked. Clear blockage.</p>
B. Burner orifice clogged	B. Clean burner orifice.

7 NO SPARK AT ODS PILOT WHEN IGNITOR CONTROL KNOB IS TURNED

A. Ignitor electrode wire loose	A. Check wiring and reconnect any loose wiring
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8 ODORS

A. New log set (break-in period)	A. Burn unit for four to six hours with damper, doors, or windows open. Allow odors to dissipate.
B. Odors created by aerosol sprays, detergents, household chemicals, and insecticides	B. When these odors are drawn into the fireplace, this may cause objectionable odors. Thoroughly ventilate the area before restarting your log set.
C. Gas leak	C. Locate gas leak and correct all leaks.
D. New home, new carpet, or new paint	D. When these odors are drawn into the fireplace, this may cause objectionable odors. Thoroughly ventilate the area before restarting your log set.

TROUBLESHOOTING (Cont.)

POSSIBLE CAUSE	SOLUTIONS
9 SOOTING	
A. Low gas pressure	A. Check gas pressure.
B. Drafts in room	B. Eliminate drafts by closing heating and air conditioning vents, returns, and outside air vents. Fans blowing directly into fireplace should be turned off when set is operating.
C. Air shutters blocked	C. Burner air shutters are blocked with debris. Vacuum debris in and around burner area.
D. Log placement	D. Some log sets have notches on the bottom front and rear logs to restrict any side-to-side movement. The log support/main burner brackets restrict any forward or backward movement. Make sure log set is placed in its proper position as instructed in the owner's manual, so there is no flame impingement on log set.
E. Too many embers on the ember burner (where fitted)	E. Remove any additional embers not included with your vent-free gas log set. Important: DO NOT ADD ANY ADDITIONAL EMBERS TO THIS LOG SET. ANY ADDITIONAL EMBERS MAY CAUSE UNSAFE OPERATION.
F. Using a product other than Real-Fyre® gas logs with burner	F. Make sure only Real-Fyre® <u>vent-free</u> gas logs are used with your vent-free burner.
G. Using natural gas burner on propane gas or propane burner on natural gas	G. Make sure burner is set up for the gas you are using. Check nameplate attached to burner. Call your dealer immediately if nameplate does not match the gas you are using.
H. Adding any accessories to log sets	H. Shut down log set and take off any logs or accessories that do not belong with the set.
I. Blocked orifices or air shutters	I. Dust, lint, fibers, paper, spider webs, pet hair, etc. in the fireplace and on the burner assembly can affect the operation of the burner and the ODS pilot assembly. Clean out the debris and vacuum around burner for dust that may have accumulated over time. Vacuum the ODS pilot assembly and over the air shutter holes. Any blockages in this area will affect the operation of the ODS sensor.

10

ODS PILOT WILL NOT STAY LIT WHEN KNOB IS RELEASED

A. Haven't held knob in long enough	A. Hold knob in for 1 minute and release. If the knob doesn't hold, contact your dealer for service (valve replace or new ODS).
-------------------------------------	--

11

POPPING NOISE COMING FROM BURNER

A. Flash tube blocked	A. Clear flash tube of all obstructions, especially around the bottom.
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FLAME DESCRIPTION

Observe the flames. The main burner flames should be blue at the base and a combination of blue/yellow at the body and at the tips. They should be 5" to 8" above the logs, with the center flame being the tallest (see cover photo). Flames in the ember burner should be 1/4" above the embers.

WARRANTY

PETERSON VENT-FREE GAS LOG SETS LIMITED WARRANTY

All Peterson vent-free ceramic refractory gas logs are **WARRANTED** for as long as you own them (lifetime).

All Peterson vent-free fiber ceramic gas logs are **WARRANTED** for **SEVEN (7) YEARS**.

All Peterson vent-free burner component parts, except valves, ODS pilots, and controls, are **WARRANTED** for **TEN (10) YEARS**.

All Peterson valves, ODS 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,
AND CLICK ON PRODUCT REGISTRATION. THANK YOU FOR YOUR PURCHASE.**

WHEN USED IN THE COMMONWEALTH OF MASSACHUSETTS

**INSTALLATION OF THIS APPLIANCE MUST BE PERFORMED BY A MASSACHUSETTS
LICENSED PLUMBER OR GAS FITTER ONLY.**

**THE INSTALLATION OF THIS APPLIANCE MUST CONFORM TO THE BOARD OF FIRE
PREVENTION REGULATIONS 527 CMR 30.00 UNVENTED PROPANE OR NATURAL GAS-
FIRED SPACE HEATERS.**

**This vent-free gas appliance is designed for use in a standard wood-burning fireplace. It is designed
to be used with an external wall switch or external remote thermostatic control system. Models with
the suffix 12(P) or 01(P) are designed to be used with an external wall switch or an external remote
wall thermostatic control system.**

ROBERT H. PETERSON CO.

Quality Check

Date: _____

Orifice # (Main): _____

Orifice # (Other): _____

Leak Test: _____

Burn Test: _____

Gas Type: NAT. / PROPANE

Model #: _____

Serial #: _____

Air Shutter: _____

Inspector: _____