



**VENTED DECORATIVE NATURAL GAS LOGS  
OWNER'S OPERATION AND INSTALLATION MANUAL**

**RGA 2-72**

**APPROVED**



We recommend that our products be installed and serviced by professionals who are certified in the U.S. by NFPI (National Fireplace Institute).  
[www.nficertified.org](http://www.nficertified.org)



TESTED AND  
LISTED BY



**VANGUARD BURNER MODELS**

**VVSR18, VVSR24, VVDR18, VVDR24, AND VVDR30  
FOR USE WITH LOG SET MODELS VSLR18, VSLR24, VDLR18,  
VDLR24 (SHOWN) AND VDLR30**

**FMI BURNER MODELS**

**FVSR18, FVSR24, FVDR18, FVDR24, AND FVDR30 FOR USE  
WITH LOG SET MODELS FSLR18, FSLR24, FDLR18, FDLR24,  
FDLR30, FA18, FA24 AND FA30**

**COMFORT GLOW LOG SET AND BURNER MODELS**

**CVSR18, CVSR24, CPVSR18, CPVSR24, CVDR18, CVDR24,  
CVDR30, LBFL18, LBFL24, LVDR18, LVDR24, LVDR30, BFLT18,  
BFLT24, HVS18, HVS24, HCVDR18 AND HCVDR24**

**WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.**

**FOR YOUR SAFETY**

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS :**
  - Do not try to light any appliance.
  - Do not touch any electrical switch;
  - Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Save this manual for future reference.  
For more information, visit [www.desatech.com](http://www.desatech.com)

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

**WARNING:** This is a gas-fired appliance. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to the *National Fuel Gas Codes, ANSI Z233.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation.*

**WARNING:** This appliance is for installation only in a solid-fuel burning masonry or UL127 factory-built fireplace, constructed of noncombustible material, and connected to a working flue. (See page 5 for minimum flue opening.)

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

\*Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.

**State of Massachusetts:** The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

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## SAFETY INFORMATION

**⚠ WARNING:** This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

**⚠ WARNING:** Keep flue open when operating unit.

**IMPORTANT:** Read this owner's manual carefully and completely before trying to assemble, operate or service this log set. Improper use of this log set can cause serious injury or death from burns, fire, explosion, electrical shock and carbon monoxide poisoning.

**⚠ DANGER:** Carbon monoxide poisoning may lead to death!

**Carbon Monoxide Poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness or nausea. If you have these signs, the log set may not be working properly. **Get fresh air at once!** Have log set serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol and those at high altitudes.

**Natural Gas:** Natural gas is odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this log set.

**⚠ WARNING:** Any change to this log set or its controls can be dangerous.

**⚠ WARNING:** Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this appliance.

**⚠ WARNING:** This appliance is equipped for natural gas. An optional propane/LP conversion kit must be installed for use with propane/LP gas.

**⚠ WARNING:** Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.

**⚠ WARNING:** Installed decorative glass door enclosures must be fully opened when operating this gas appliance.

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Do not place clothing or other flammable material on or near the appliance. Never place any objects on the appliance.

Appliance assembly becomes very hot when in use. Keep children and adults away from hot surface to avoid burns or clothing ignition. Appliance will remain hot for a time after shutdown. Allow surface to cool before touching.

Carefully supervise young children when they are in the room with appliance.

You must operate this appliance with a fireplace screen in place. Make sure fireplace screen is closed before running appliance.

Keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

## SAFETY INFORMATION

### Continued

1. If you smell gas
  - shut off gas supply
  - do not try to light any appliance
  - do not touch any electrical switch; do not use any phone in your building
  - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
  - if you cannot reach your gas supplier, call the fire department
2. Never install the log set
  - in a recreational vehicle
  - where curtains, furniture, clothing, or other flammable objects are less than 42 inches from the front, top, or sides of the log set
  - in high traffic areas
  - in windy or drafty areas
3. Before installing in a solid fuel burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes and loose paint by a qualified chimney cleaner. Creosote will ignite if highly heated. Inspect chimney flue for damage. If damaged, repair flue before operating appliance.
4. This log set is designed to be smokeless. If logs ever appear to smoke, turn off appliance and call a qualified service person. **Note:** During initial operation, slight smoking could occur due to log curing and the burning of manufacturing residues. You may wish to add more ventilation by opening a window.
5. To reduce the creation of soot, follow the instructions in *Cleaning and Maintenance*, page 15.
6. The installation and provisions for combustion and ventilation air must conform with the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation*.
7. Do not run log set
  - where flammable liquids or vapors are used or stored
  - under dusty conditions
8. Do not burn solid fuel in the fireplace after installing the log set. Do not use this log set to cook food or burn paper or other objects.
9. Do not use appliance if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the room appliance and to replace any part of the control system (if using GA9050A or GA9150A) and any gas control which has been under water.

10. To help prevent breakage, new logs must be broken-in (see *Curing Logs* page 14).
11. Turn log set off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair log set.
12. Provide adequate clearances around air openings.

## LOCAL CODES

Install and use log set with care. Follow all local codes. In the absence of local codes, use the latest edition of *The National Fuel Gas Code ANSI Z223.1/NFPA 54\**.

\*Available from:

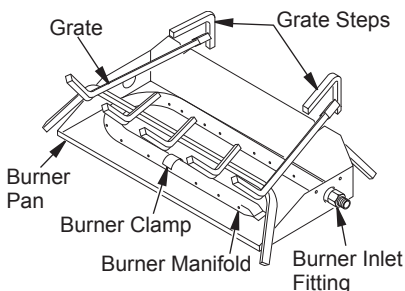
American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018  
National Fire Protection Association, Inc.  
Batterymarch Park  
Quincy, MA 02269

## UNPACKING

**CAUTION:** Do not remove the data plates from the burner pan. The data plates contain important product information.

1. Remove logs, hearth kit, pan materials, and hardware from carton.
2. Remove all protective packaging applied to logs and base for shipment.
3. Check all items for any shipping damage. If damaged, promptly inform dealer where you bought the product.

## PRODUCT IDENTIFICATION



**Figure 1 - Product Identification  
(Dual Burner Shown)**

Hearth Kit Model \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Log Set Model \_\_\_\_\_

## OPTIONAL PRODUCT FEATURES

### ON/OFF SAFETY VALVE/PILOT KIT AND PROPANE/LP CONVERSION

An optional valve/safety pilot kit with a piezo ignitor is available for this appliance. This system requires no matches, batteries, or other sources to light. You must use this optional system for LP conversion. See *Accessories*, page 19.

### REMOTE CONTROL READY (MILLIVOLT) SAFETY VALVE/PILOT KIT

An optional millivolt valve/safety pilot kit with a piezo ignitor is available for this appliance. This system requires no matches, batteries, or other sources to light. This system may be connected to a wall switch or hand-held wireless remote control. See *Accessories*, page 19.

### REMOTE CONTROL ACCESSORIES

There is an optional hand-held ON/OFF remote control that can be purchased separately for this log set. You must use the millivolt valve/safety pilot kit to use remote accessories with this appliance. See *Accessories*, page 19.

A wall switch is also available for this appliance. You must use the millivolt valve/safety pilot kit to use the wall switch with this appliance. See *Accessories*, page 19.

## INSTALLATION



**CAUTION:** Do not remove the data plates attached to the burner pan. The data plates contain important warranty and safety information.



**WARNING:** Before installing in a solid fuel burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes and loose paint by a qualified chimney cleaner. Creosote will ignite if highly heated. A dirty chimney flue may create and distribute soot within the house. Inspect chimney flue for damage. If damaged, repair flue before operating heater.

**NOTICE:** Installation, service, and repair of this appliance must be performed by a qualified installer, service agency, company or gas supplier experienced with this type of gas appliance. Only factory authorized components listed in these instructions may be used in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Any modifications to this kit, or use of unauthorized components or accessory items will void the manufacturer's warranty, and may result in a hazardous condition.

### FLUE OPENING SPECIFICATIONS

**Note:** This vented appliance must be installed only in a solid-fuel burning fireplace with a working flue and constructed of noncombustible material.

The charts in Figure 2, page 6, indicate technical information regarding the installation of your gas log set. Please make sure that all of the specifications shown are applicable before installation is attempted.

The fireplace must include a working flue and venting system with the minimum openings shown in the Figure 2, page 6.

# INSTALLATION

## Continued

Model	Burner Description	Btu Input Natural Gas	Btu Input Propane/LP Gas	Minimum Vent Opening
VVSR18 FVSR18 HVSr18 CPVSR18 CVSR18	18" Single	50,000	40,000	8" dia.
VVSR24 FVSR24 HVSr24 CPVSR24 CVSR24	24" Single	60,000	50,000	8" dia.
VVDR18 FVDR18 HCVDR18 LVDR18 CVDR18	18" Dual	55,000	45,000	8" dia.
VVDR24 FVDR24 CVDR24 HCVDR24 LVDR24 CVDR24	24" Dual	65,000	55,000	8" dia.
VVDR30 FVDR30 CVDR30 CVDR24	30" Dual	70,000	60,000	8" dia.
LBFL18 BFLT18	18" Triple	65,000	55,000	8" dia.
LBFL24 BFLT24	24" Triple	70,000	60,000	8" dia.

FUEL INLET PRESSURE SPECIFICATIONS (W.C.)		
	Min.	Max.
NG	5.5"	10.5"
LP	11"	13"

MINIMUM FIREBOX SIZES			
Models: VVSR18, FVSR18, HVSr18, CPVSR18, CVSR18, CVDR18, VVDR18, FVDR18, HCVDR18, LVDR18			
Front Width*	Back Width**	Depth	Height
28"	16"	14"	18"
Models: VVSR24, FVSR24, HVSr24, CPVSR24, CVSR24, CVDR24, VVDR24, FVDR24, HCVDR24, LVDR24			
Front Width*	Back Width**	Depth	Height
29 3/4"	17"	15 1/2"	18"
Models: VVDR30, FVDR30, LVDR30, CVDR30			
Front Width*	Back Width**	Depth	Height
36"	27"	18"	18"
Models: LBFL18, BFLT18			
Front Width*	Back Width**	Depth	Height
28"	16"	15 1/2"	18"
Models: LBFL24, BFLT24			
Front Width*	Back Width**	Depth	Height
30"	22"	15 1/2"	18"

\*Add 6" if safety valve/pilot is used

\*\*At depth indicated

BURNER ORIFICE				
LOG SIZE	NATURAL		PROPANE/LP	
	IN.	NUM.	IN.	NUM.
VV/FV/CV/CPV/HV/SR18 VV/FV/CV/HCV/LV/DR18	.120	31	.073	49
VV/FV/CV/CPV/HV/SR24 VV/FV/CV/HCV/LV/DR24, LBFL18, BFLT18	.129	30	.086	44
VV/FV/CV/LV/DR30, LBFL24, BFLT24	.1405	28	.089	43

Figure 2 - Technical Information Charts

## INSTALLATION

*Continued*

### CHECK GAS TYPE

Use only natural gas. If your gas supply is not natural gas, you must install ON/OFF Safety Valve/Pilot Kit (see *Accessories*, page 19). Call dealer where you bought log set.

If the fireplace does not have a gas supply shutoff valve, one must be installed.

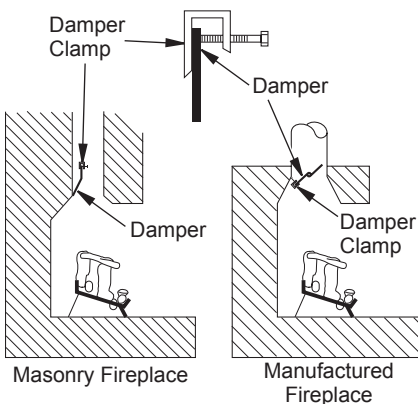
### VENTING SPECIFICATIONS FOR INSTALLATION

The fireplace chimney flue and vent must be drafting properly. To check the vent for proper drafting: Light a tightly rolled newspaper on one end and place it at the inside front edge of the fireplace. Observe the smoke and be sure the vent is properly drawing it up the chimney. If the smoke spills out into the room, extinguish the flame and remove any obstruction until proper venting is achieved.

The chimney flue must remain open a minimum of 3" at all times during the operation of this log set.

### INSTALLING DAMPER CLAMP

Secure the damper stop clamp provided to the leading edge of the damper as shown in Figure 3. If for any reason this clamp doesn't work on your fireplace, another suitable clamp or permanent stop must be installed, or the damper blade must be cut or removed.



**Figure 3 - Attaching Damper Clamp**

### CONNECTING TO GAS SUPPLY

**⚠ WARNING: A qualified service person must connect log set to gas supply. Follow all local codes.**

#### Installation Items Needed

Before installing log set, make sure you have the items listed below.

- piping (check local codes)
- sealant (resistant to Propane/LP gas)
- equipment shutoff valve
- test gauge connection
- adjustable (crescent) wrench or pliers
- sediment trap
- tee joint
- pipe wrench

**⚠ CAUTION: Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to log set. If pipe is too small, undue loss of volume will occur.**

Installation must include a equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from log set (see Figure 4, page 8).

**IMPORTANT:** Install equipment shutoff valve in an accessible location. The equipment shutoff valve is for turning on or shutting off the gas to the appliance.

Apply pipe joint sealant lightly to male NPT threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in a clogged burner injector.

**⚠ WARNING: Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.**

## INSTALLATION

### Continued

We recommend that you install a sediment trap in supply line as shown in Figure 4. Locate sediment trap where it is within reach for cleaning. Install in piping system between fuel supply and heater. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into log set controls. If sediment trap is not installed or is installed wrong, log set may not run properly.

Approved Flexible Gas Hose  
(if allowed by local codes)

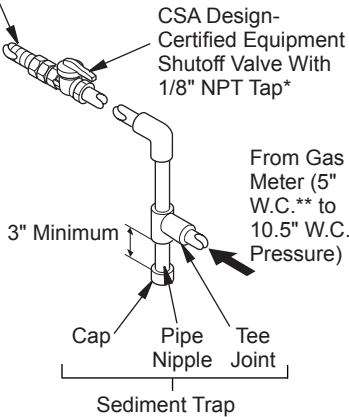


Figure 4 - Gas Connection

\* Purchase the optional CSA design-certified equipment shutoff valve from your dealer. See *Accessories*, page 19.

\*\* Minimum inlet pressure for purpose of input adjustment.

## CHECKING GAS CONNECTIONS

**⚠ WARNING: Test all gas piping and connections, internal and external to unit, for leaks after installing or servicing. Correct all leaks at once.**

**⚠ WARNING: Never use an open flame to check for a leak. Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak. Correct all leaks at once.**

## PRESSURE TESTING GAS SUPPLY PIPING SYSTEM

### Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect log set and its individual equipment shutoff valve from gas supply piping system.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
4. Check all joints of gas supply piping system. Apply noncorrosive leak detection fluid to gas joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect log set and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

### Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 5).
2. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
3. Check all joints from gas meter to equipment shutoff valve (see Figure 5). Apply noncorrosive leak detection fluid to gas joints. Bubbles forming show a leak.
4. Correct all leaks at once.

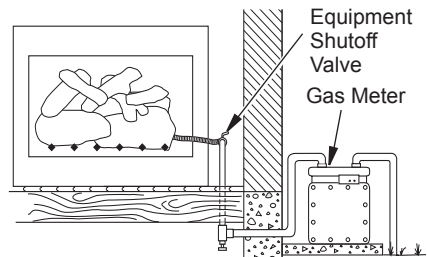


Figure 5 - Checking Gas Joints



# INSTALLATION

## Continued

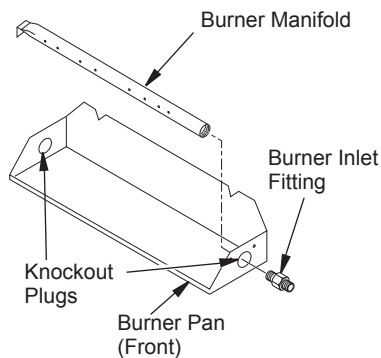
### HEARTH KIT ASSEMBLY AND INSTALLATION

#### Kit Assembly - Single and Dual-Flame Only

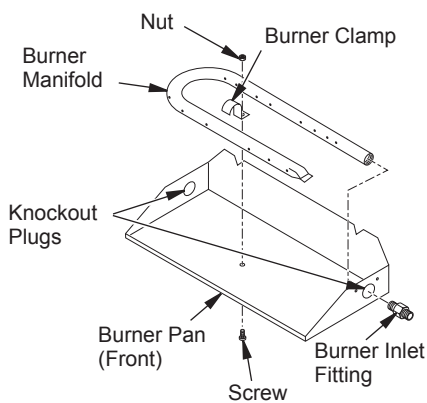
1. Determine which side the gas line will be coming into the fireplace.

**NOTICE: Triple-burner models CBL18/24 or BFLT18/24 come preassembled with gas inlet on right side of burner pan. DO NOT attempt to reposition burner on triple-burner models. If your fireplace supply is on the left side, a longer 3/8" flex line should be purchased and routed behind burner pan and away from flame area.**

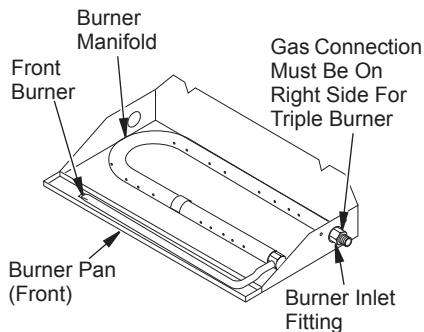
2. Using a hammer and screw driver, remove knockout plug from the side of the pan that corresponds to the gas line (see Figure 6).
3. Unscrew burner inlet fitting from burner manifold.
4. Place burner manifold in pan with threaded opening facing open knockout plug.
5. Using thread sealant (resistant to the action of propane/LP gas) on larger end of fitting, screw the burner inlet fitting through hole and into burner manifold (see Figure 6). Tighten using a wrench. If using propane/LP gas, see *Propane/LP Gas Conversion*, page 11.
6. Using burner clamp, screw, and nut provided, assemble clamp to pan ("U" style and triple burners only). This will hold the burner manifold in place.
7. If using optional GA9050A kit, go to *Optional GA9050A On/Off Safety Valve/Pilot Kit*, page 10, for installation instructions. If using optional GA9150A kit, follow instructions included with kit for installation and operation.



#### SINGLE-BURNER



#### DUAL-FLAME



#### TRIPLE-BURNER

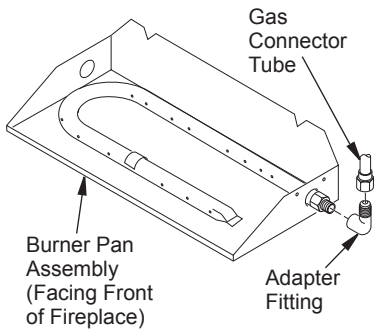
**Figure 6 - Installing Burner**

# INSTALLATION

## Continued

### Installation and Gas Connection

1. Place the burner pan assembly in the center of the fireplace floor. Make sure the front of pan faces forward.
2. Thread the gas supply fitting to the fireplace gas supply pipe. Use thread sealant.
3. Install adapter fitting onto the burner inlet fitting using thread sealant on male threads of burner inlet fitting (see Figure 7). Adjust to most convenient position.
4. Install the gas connector tube to the gas supply fitting. Carefully shape tube to attach to adapter fitting. Be careful not to cause kinks in tube.



**Figure 7 - Connecting Gas to Appliance**

### OPTIONAL GA9050A ON/OFF SAFETY VALVE/PILOT KIT ASSEMBLY

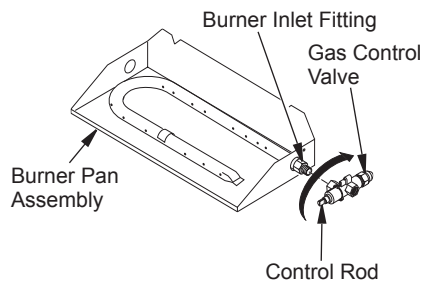
For additional convenience and safety, or for propane/LP conversion, an optional ON/OFF safety valve/pilot kit is available. See *Accessories*, page 19.

**⚠ WARNING: You must use a ON/OFF safety valve/pilot kit for propane/LP conversion.**

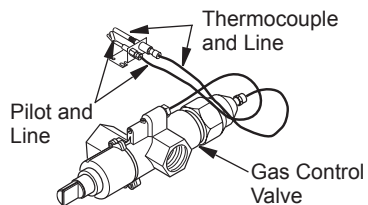
### Natural Gas Installation

1. Thread the gas control valve onto the burner inlet fitting (see Figure 8). Use thread sealant on the male threads of the burner inlet fitting. Hold the burner inlet fitting with a wrench to prevent overtightening the connection to the burner. Make sure the control rod is facing the front (see Figure 8).

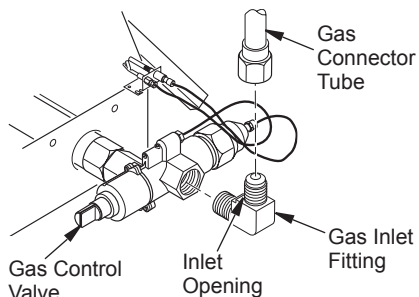
2. Attach the pilot gas line to the pilot outlet of the gas control valve and tighten. Connect the thermocouple to the rear of the gas control valve. See Figure 9. Do not overtighten. If using propane/LP gas, see *Changing Pilot Orifice*, page 12.
3. Install the inlet fitting into the inlet opening of the gas control valve (see Figure 10). Use thread sealant on the male pipe threads.
4. Place the burner pan assembly in the center of the fireplace floor. Make sure the front of pan faces forward.
5. Thread the gas supply fitting to the fireplace gas supply pipe. Adjust to most convenient position.



**Figure 8 - Installing Gas Control Valve**



**Figure 9 - Gas Control Valve with Thermocouple and Pilot**

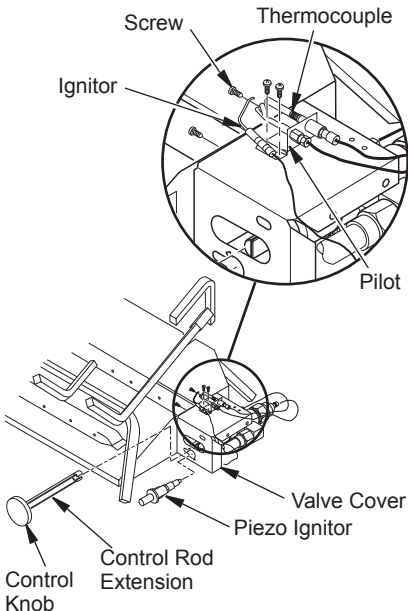


**Figure 10 - Installing Inlet Fitting and Gas Connector Tube**

## INSTALLATION

### Continued

6. Install the gas connector tube to the gas supply fitting. Carefully shape tube to attach to adapter fitting. Be careful not to cause kinks in tube.
7. Test for leaks following instructions under *Testing Burner for Leaks*, page 12.
8. Retighten and adjust the location of the gas control as necessary. The gas control should be level, with the control rod to the front.
9. Install cover to burner pan using screws provided.
10. Install thermocouple, pilot, and ignitor onto valve cover as shown in Figure 11. Use the provided screws.
11. Push the control rod extension onto the "D" shaped control rod through the center hole in the cover.
12. Install the position decal and control knob making sure to align the marks with the correct stop positions of the gas control. Pilot position will allow the knob to push in about 1/2". Align the decals in the pilot position.



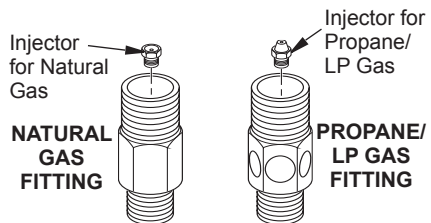
**Figure 11 - Installing Cover, Control Knob, and Piezo Ignitor**

## PROPANE/LP GAS CONVERSION

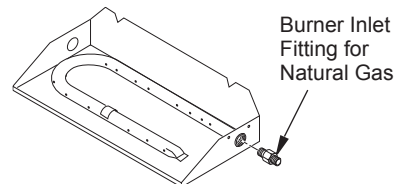
To convert to propane/LP gas, the burner inlet fitting and pilot orifice must be replaced. The propane/LP burner inlet fitting is supplied with the orifice installed for a 24" log set. If you have an 18" or 30" set, you must change this orifice also. See Figure 1, page 4 for product identification.

### Burner Inlet Fitting

1. Remove the burner inlet fitting from the burner pan assembly. **DO NOT** remove the orifice from this fitting. The propane/LP burner inlet fitting is included in the hardware kit (see Figure 12).
2. Be sure to use the correct orifice for your appliance. The hardware kit included with this appliance contains two orifices with a cone-like shape. If you have an 18" set, the orifice for the burner inlet fitting is red; for a 30" set, it is black. If you have a 24" log set, the orifice is already installed inside the fitting.
3. For an 18" or 30" set, use a 10mm socket or nut driver to remove the orifice from the propane/LP burner inlet fitting. Choose the correct orifice for your log set size and install in place of the orifice you just removed.
4. Using thread sealant (resistant to the action of propane/LP gas) on larger end of fitting, screw the burner inlet fitting through hole and into burner manifold (see Figure 13). Tighten using a wrench.
5. Follow steps 1 through 12 under *Natural Gas Installation*, page 10.



**Figure 12 - Burner Inlet Fittings with Injectors**



**Figure 13 - Remove Burner Inlet Fitting**

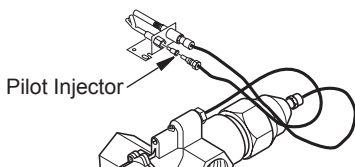
## INSTALLATION

### Continued

#### Changing Pilot Orifice

The pilot is provided with a natural gas orifice installed. For propane/LP gas you must remove it and replace it with an propane/LP orifice. The accessory hardware kit contains an propane/LP orifice with a red stripe for converting the pilot.

1. Gently loosen and remove the pilot line connection from the bracket (see Figure 14).
2. Replace the injector (see Figure 14) with the propane/LP pilot injector with the red stripe.
3. Replace and tighten the pilot line to the bracket.
4. Continue with step 3 under *Natural Gas Installation*, page 10.



**Figure 14 - Installing Propane/LP Pilot Orifice**

#### TESTING BURNER FOR LEAKS

1. Generously apply noncorrosive leak detection fluid to all connections.

**⚠ WARNING: Never check for gas leaks with open flame.**

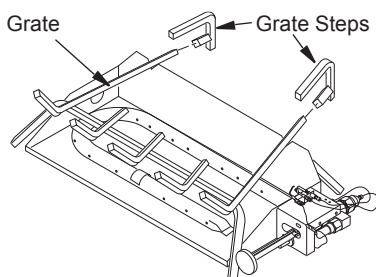
2. Light the burner with the shutoff valve no more than half open and holding a match slightly in front of the pan (see *Lighting Instructions*, page 14).
3. Inspect all connections for bubbles, raw gas odor, or flame from any area other than the burner (leaks). If leaks are detected, shut off the gas valve immediately. Tighten, or reassemble the loose connection(s) using pipe joint compound until burner system is leak free.
4. When the burner is tested and leak free, observe the individual tongues of flame on the burner. **Note:** The burner design includes more ports on the outside of the bar. Make sure that all ports are clear and producing flame evenly across the burner. If any ports appear blocked, clear them by removing the burner manifold and reaming the ports with a modified paper clip or other suitable tool.
5. When finished testing, turn the gas shutoff valve OFF to extinguish all flames.

#### ADDING PAN MATERIAL

1. Open the bag of ash bed material (vermiculite) and spread it evenly across the burner pan to the top. You may overflow the front and sides of the pan to cover the entire pan and connecting hardware. Do not cover GA9050A or GA9150A valve.
2. Open the glowing embers and evenly cover the ash bed material (vermiculite) in the burner pan.

#### INSTALLING THE GRATE AND LOGS

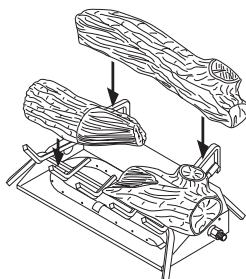
1. Place the grate over the burner pan where the two outer horizontal supports on the grate fit into the two pan positioning notches in the rear vertical edge of the pan.
2. Slide the two rear log grate steps over the two outer horizontal supports on the grate as shown in Figure 15.
3. Place the back log on the grate onto the grate steps (see Figure 16, page 13).
4. Place the front log(s) on the grate and slide forward against the front bars on the grate (see Figure 16, page 13).
5. Place the smaller top logs onto the bottom logs (see Figure 17, page 13). Leave as much open space between logs as possible to minimize flame impingement and sooting. **Note:** Logs may chip if they are handled roughly or if hit together while being placed.



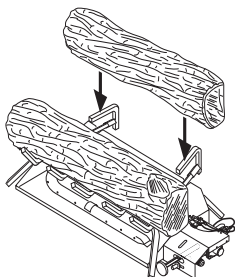
**Figure 15 - Installing Grate (Pan Material Not Shown)**

## INSTALLATION

### Continued

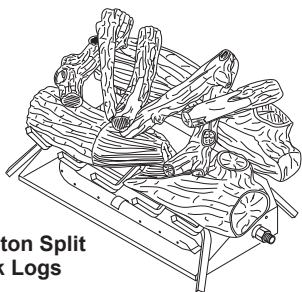


Kingston Split Oak Logs

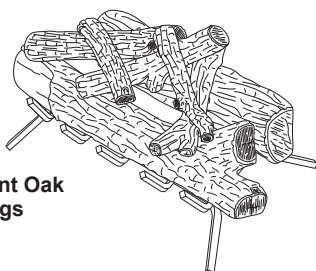


Hanover Round Oak Logs

Figure 16 - Installing Front and Back Logs (Number and style may vary)



Kingston Split Oak Logs



Belmont Oak Logs

Figure 17 - Placement of Top Logs

## INSTALLING DECORATIVE GRATE

The decorative grate enhancer accessory (see *Accessories*, page 19) comes standard with the Berkshire Oak (CVDR) models. Install enhancer by placing it over the grate fingers on the front of the grate after your logset has been installed.

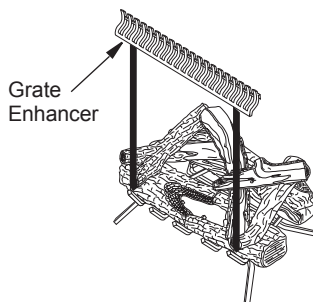


Figure 18 - Placement of Grate Enhancer

## OPERATING APPLIANCE

**FOR YOUR SAFETY  
READ BEFORE LIGHTING**

**⚠ WARNING:** Keep flue open when operating unit.

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

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

### WHAT TO DO IF YOU SMELL GAS

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

## OPERATING APPLIANCE

Continued

### LIGHTING INSTRUCTIONS

1. STOP! Read the safety information, page 14.
2. Turn the gas shutoff valve to OFF.
3. Wait five (5) minutes to clear out any gas. If you then smell gas STOP! Follow the safety information, page 14. If you don't smell gas, go on to the next step.
4. Light a match and lay it on top of the pan material about 2" from the end of the supply side of the pan
5. Slowly turn the gas shutoff valve ON until the burner ignites. If the burner doesn't ignite within 10 seconds with the match burning, turn the shutoff valve OFF and repeat steps 1 through 4 again.

### GAS SHUTOFF VALVE OPERATION

#### Flame Adjustment

Adjust the flame ON/OFF by turning the gas shutoff valve counterclockwise ↺ to open or clockwise ↻ to close, as necessary.

#### Shutting Off Appliance

Turn gas shutoff valve clockwise ↻ to the OFF position.

### CURING LOGS

During the 2-3 hour appliance break-in period, you may detect an odor from the appliance as the various paints and compounds used in the manufacturing of this log set cure. This is a normal and temporary situation that is not cause for alarm. However, you may want to provide extra ventilation to the room during this time.

To ensure proper curing of the logs:

- Ignite a 2" flame and maintain it for 1 hour.
- Burn the logs in consecutive 1 hour periods raising the flame an additional 2" to full flame height for a total of three hours.

## OPERATING INSTRUCTIONS FOR GA9050A

**Note:** Operation instructions for GA9150A Remote Ready Valve/Pilot Kit will be included with the kit.

1. STOP! Read the safety information, page 14.
2. Make sure equipment shutoff valve is fully open.
3. Press in and turn control knob clockwise ↻ to the OFF position.
4. Wait five (5) minutes to clear out any gas. Then smell for gas around log set and near floor. If you smell gas, STOP! Refer to the *National Fuel Gas Codes, ANSI Z233.1/ NFPA 54, Section 5.3, Air for Combustion and Ventilation*. If you don't smell gas, go to the next step.
5. Turn control knob counterclockwise ↺ to the PILOT position and press in. Keep control knob pressed in for five (5) seconds.

**Note:** You may be running this log set for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds. This will allow air to bleed from the gas system.

• If control knob does not pop up when released, contact a qualified service person or gas supplier for repairs.

6. With control knob pressed in, push down and release ignitor button. This will light pilot. The pilot is attached to the rear of the front burner. If needed, keep pressing ignitor button until pilot lights.

**Note:** If pilot does not stay lit, contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match.

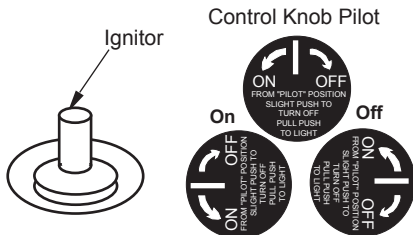


Figure 19 - Ignitor and Control Knob

## OPERATING APPLIANCE

### Continued

7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.

**Note:** If pilot goes out, repeat steps 3 through 7, page 14.

8. Turn control knob counterclockwise to the ON position. Burner should light. If burner does not light, call a qualified service person.

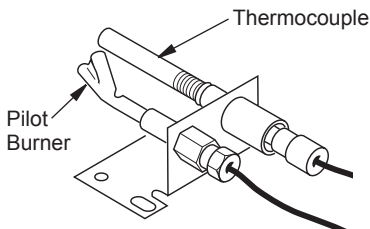


Figure 20 - Thermocouple and Pilot

### TO TURN OFF GAS TO APPLIANCE

#### Shutting Off Appliance

1. Turn control knob clockwise to the PILOT position.
2. Press in and turn control clockwise to the OFF position.

#### Shutting Off Burner Only (pilot stays lit)

Turn control knob clockwise to the PILOT position.

## CLEANING AND MAINTENANCE

- Keep the area around the log set clean and clear of debris.
- Occasionally, you may use a soft bristle brush to clean logs.
- Once every year a qualified agency or certified chimney sweep should examine and clean the venting system of the fireplace.

## SERVICE HINTS

### When Gas Pressure is Too Low

- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat
- propane/LP gas supply may be low

You may feel your gas pressure is too low. If so, contact your local propane/LP or natural gas supplier.

## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA's Technical Service Department at 1-866-672-6040. When calling please have your model and serial numbers of your heater ready.

You can also visit DESA's technical services web site at [www.desatech.com](http://www.desatech.com).

## REPLACEMENT PARTS

**Note:** Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

### PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA's Technical Service Department at 1-866-672-6040. When calling DESA, have ready

- your name and address
- model and serial numbers of your log set
- how log set was malfunctioning
- type of gas used (propane/LP or natural gas)
- purchase date

Usually, we will ask you to return the part to the factory.

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA at 1-866-672-6040 for referral information. When calling DESA, have ready

- model number of your log set
- the replacement part number

## TROUBLESHOOTING



**WARNING:** Turn off log set and let cool before servicing. Only a qualified service person should service and repair log set.

*Note:* All troubleshooting items are listed in order of operation.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Log set is smoking/sooting excessively ( <i>Note:</i> It is natural and unavoidable for vented gas log sets to produce moderate levels of carbon (soot) where flames contact the logs. This is especially true with propane/LP gas.)	<ol style="list-style-type: none"> <li>1. Poor fuel quality</li> <li>2. Fireplace venting system not drafting properly</li> <li>3. Excessive flame impingement or blockage</li> <li>4. Improper fuel/air mixture</li> <li>5. Excessive gas supply/pressure</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local natural or propane/LP gas company</li> <li>2. Adjust damper wide open and/or have fireplace and venting professionally cleaned and checked</li> <li>3. Separate the logs to allow more flame passage</li> <li>4. Remove any foreign items from the flame pattern and/or check for proper orifice sizing</li> <li>5. Preheat flue in very cold weather</li> </ol>
Burner is excessively noisy ( <i>Note:</i> The movement and combustion of gas will create low, unavoidable levels of noise.)	<ol style="list-style-type: none"> <li>1. Passage of air/gas across irregular surfaces</li> </ol>	<ol style="list-style-type: none"> <li>1. Relieve any tight bends or kinks in gas supply line</li> </ol>
Burner flame is too low or too high	<ol style="list-style-type: none"> <li>1. Incorrect gas supply or pressure</li> <li>2. Blocked burner orifice or burner manifold ports</li> <li>3. Improper burner orifice size</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for proper gas supply pressure</li> <li>2. Free burner orifice and manifold ports of any burrs, paint, or other blockage</li> <li>3. Verify proper burner orifice sizing (see Figure 2, page 6)</li> </ol>
When ignitor button is pressed, there is no spark at pilot (GA9050A Only)	<ol style="list-style-type: none"> <li>1. Ignitor electrode not connected to ignitor cable</li> <li>2. Ignitor cable pinched or wet</li> <li>3. Bad ground on piezo ignitor</li> <li>4. Broken ignitor cable</li> <li>5. Bad piezo ignitor</li> <li>6. Ignitor electrode broken</li> <li>7. Ignitor electrode positioned wrong</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect ignitor cable</li> <li>2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry</li> <li>3. Scrape away paint on bracket for better contact with ground on piezo ignitor</li> <li>4. Replace ignitor cable</li> <li>5. Replace piezo ignitor</li> <li>6. Replace electrode</li> <li>7. Reposition electrode</li> </ol>



# TROUBLESHOOTING

## *Continued*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is spark at pilot but no ignition (GA9050A Only)	<ol style="list-style-type: none"> <li>1. Gas supply turned off or equipment shutoff valve closed</li> <li>2. Control knob not in PILOT position</li> <li>3. Control knob not pressed in while in PILOT position</li> <li>4. Air in gas lines when installed</li> <li>5. Pilot adjustment screw closed</li> <li>6. Pilot is clogged</li> <li>7. Low gas pressure</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on gas supply or open equipment shutoff valve</li> <li>2. Turn control knob to PILOT position</li> <li>3. Press in control knob while in PILOT position</li> <li>4. Continue holding down control knob. Repeat igniting operation until air is removed</li> <li>5. Adjust pilot flame for approximately 2" blue flame</li> <li>6. Clean pilot (see <i>Cleaning and Maintenance</i>, page 15) or replace pilot assembly</li> <li>7. Replace gas control</li> </ol>
Pilot lights but flame goes out when control knob is released (GA9050A Only)	<ol style="list-style-type: none"> <li>1. Control knob not fully pressed in</li> <li>2. Control knob not pressed in long enough</li> <li>3. Equipment shutoff valve not fully open</li> <li>4. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: A) Low gas pressure B) Dirty or partially clogged pilot</li> <li>5. Thermocouple connection loose at control valve</li> <li>6. Thermocouple damaged</li> <li>7. Control valve damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Press in control knob fully</li> <li>2. After pilot lights, keep control knob pressed in 30 seconds</li> <li>3. Fully open equipment shutoff valve</li> <li>4. A) Contact local natural gas company  B) Clean pilot (see <i>Cleaning and Maintenance</i>, page 15) or replace pilot assembly</li> <li>5. Hand tighten until snug, then tighten 1/4 turn more</li> <li>6. Replace thermocouple</li> <li>7. Replace control valve</li> </ol>
Burner does not light after pilot is lit (GA9050A Only)	<ol style="list-style-type: none"> <li>1. Burner orifice clogged</li> <li>2. Inlet gas pressure is too low</li> <li>3. Thermocouple leads disconnected or improperly connected</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice</li> <li>2. Contact local natural or propane/LP gas company</li> <li>3. Reconnect leads</li> </ol>
Delayed ignition burner (GA9050A Only)	<ol style="list-style-type: none"> <li>1. Pilot flame needs adjusting</li> <li>2. Wrong pilot orifice</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust pilot flame for approximately 2" blue flame</li> <li>2. Replace pilot orifice set</li> </ol>

## TROUBLESHOOTING

*Continued*



**WARNING:** If you smell gas

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

**IMPORTANT:** Operating log set where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Log Set produces a clicking/ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is common with most log sets. If noise is excessive, contact qualified service person
Log Set produces unwanted odors	1. Log Set burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See <b>IMPORTANT</b> statement above) 2. Gas leak. <b>See Warning statement at top of page</b>	1. Open flue to maximum. Stop using odor causing products while log set is running 2. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 8)
Gas odor even when control knob is in OFF position	1. Gas leak. <b>See Warning statement at top of page</b> 2. Control valve defective	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 8) 2. Replace control valve
Gas odor during combustion	1. Gas leak. See Warning statement at top of page	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 8)

# WARRANTY INFORMATION

## KEEP THIS WARRANTY

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

### LIMITED WARRANTY - VENTED GAS LOGS

DESA warrants this product to be free from defects on burner system for four (4) years and logs for a lifetime from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this log set to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The log set MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective log set will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO FOUR (4) YEARS ON BURNER SYSTEM AND A LIFETIME ON LOGS FROM THE DATE OF FIRST PURCHASE; AND DESA'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:



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