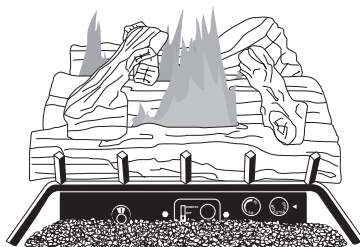


Comfort Glow®

UNVENTED (VENT-FREE) GAS LOG HEATER OWNER'S OPERATION AND INSTALLATION MANUAL



Patent Pending



We recommend that our products be installed and serviced by professionals who are certified in the U.S. by NFI (National Fireplace Institute).
www.nficertified.org

18", 24" AND 30" VARIABLE MANUALLY-CONTROLLED MODELS

CRL2718PA/NA
CRL3124PA/NA

18", 24" AND 30" THERMOSTATICALLY-CONTROLLED MODELS

CCL3018PTA/NTA
CCL3924PTA/NTA

Biltmore Split Oak, Seasonal Oak and Smoky Mountain Oak Logs
Variable Manually-Controlled Models Also
Design-Certified As Vented Decorative Appliances

⚠ 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**
 - 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.

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

For more information, visit www.desatech.com

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SAFETY

⚠ 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 appliance is for installation only in a solid-fuel burning masonry or UL127 factory-built fireplace or in a listed ventless firebox enclosure. It is design-certified for these installations in accordance with ANSI Z21.11.2. 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.

⚠ WARNING: 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 *Air for Combustion and Ventilation* section on page 6 of this manual.


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 gases.

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

SAFETY

Continued

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


IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this heater. Improper use of this heater 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 heater may not be working properly. **Get fresh air at once!** Have heater 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 and Propane/LP Gas: Natural and propane/LP gases are 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 heater.

 **WARNING:** Any change to this heater or its controls can be dangerous.

 **WARNING:** Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.

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

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 heater.

Heater base assembly becomes very hot when running heater. Keep children and adults away from hot surface to avoid burns or clothing ignition. Heater 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 heater.

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

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

SAFETY

Continued

1. 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 gases.
2. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors (propane/LP units only).
3. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lb. capacity (propane/LP units only).
4. 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
5. This heater shall not be installed in a bedroom or bathroom unless installed as a vented appliance (Variable Manually-Controlled Models Only) (see Installing Damper Clamp Accessory for Vented Operation, page 12). This gas log set may not be installed as a vented appliance in a bedroom or bathroom in the Commonwealth of Massachusetts.
6. 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 and firebox before operating heater.
7. Do not burn solid-fuel in a masonry or UL127 factory-built fireplace in which a vent-free room heater is installed.
8. If fireplace has glass doors, never operate this heater with glass doors closed. If you operate heater with doors closed, heat buildup inside fireplace will cause glass to burst. Make sure there are no obstructions across openings of fireplace.
9. This log heater is designed to be smokeless. If logs ever appear to smoke, turn off heater and call a qualified service person. *Note: During initial operation, slight smoking could occur due to log curing and heater burning manufacturing residues.*
10. To prevent the creation of soot, follow the instructions in Cleaning and Maintenance, page 23.
11. Before using furniture polish, wax, carpet cleaner or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
12. This heater needs fresh, outside air ventilation to run properly. This heater has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the heater if not enough fresh air is available. See Air for Combustion and Ventilation, page 6. If heater keeps shutting off, see Troubleshooting, page 25.
13. Do not run heater
 - where flammable liquids or vapors are used or stored
 - under dusty conditions
14. Do not use this heater to cook food or burn paper or other objects.
15. Do not use heater if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
16. Do not operate heater if any log is broken. Do not operate heater if a log is chipped (dime-sized or larger).
17. Turn heater off and let cool before servicing. Only a qualified service person should service and repair heater.
18. Operating heater above elevations of 4,500 feet could cause pilot outage.
19. Provide adequate clearances around air openings.

PRODUCT IDENTIFICATION

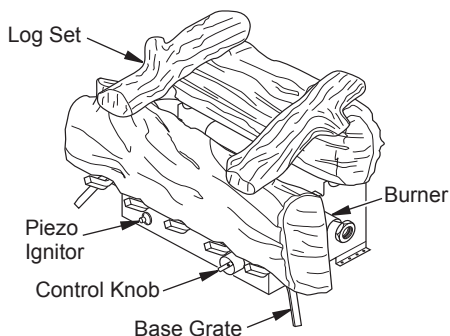


Figure 1 - Vent-Free Gas Log Heater
(Logs May Vary by Model, Seasonal Oak Single Burner Model Shown)

LOCAL CODES

Install and use heater 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

Note: Where listed vented decorative logs are required, thermostat operation is not permitted.

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

Sellers of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

Vent-free gas products are prohibited for bedroom and bathroom installation in the Commonwealth of Massachusetts.

UNPACKING

CAUTION: Do not remove the data plates from the grate assembly. The data plates contain important product information.

1. Remove logs and heater base assembly from carton. *Note: Do not pick up heater base assembly by burners. This could*

damage heater. Always handle base assembly by grate.

2. Remove all protective packaging applied to logs and heater for shipment.

PRODUCT FEATURES

OPERATION

This heater is clean burning. It requires no outside venting. There is no heat loss out a vent or up a chimney. Heat is generated by realistic dancing, yellow flames. This heater is designed for vent-free operation with flue damper closed. It has been tested and approved to ANSI Z21.11.2 standard for unvented heaters. State and local codes in some areas prohibit the use of vent-free heaters. This heater may also be operated as a vented decorative (ANSI Z21.60) product by opening the flue damper (non-thermostat operation only).

SAFETY PILOT

This heater has a pilot with an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS/pilot is a required feature for vent-free room heaters. The ODS/pilot shuts off the heater if there is not enough fresh air.

PIEZO IGNITION SYSTEM

This heater has a piezo ignitor. This system requires no matches, batteries or other sources to light heater.

AIR FOR COMBUSTION AND VENTILATION

⚠ WARNING: This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the *International Fuel Gas Code*, or applicable local codes. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireplaces, clothes dryers and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

PROVIDING ADEQUATE VENTILATION

The following are excerpts from *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation*.

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space
3. Confined Space

The information on pages 6 through 8 will help you classify your space and provide adequate ventilation.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6×10^{-11} kg per pa-sec- m^2) or less with openings gasketed or sealed and
- 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.

If your home meets all of the three criteria above, you must provide additional fresh air. See Ventilation Air From Outdoors, page 8.

If your home does not meet all of the three criteria above, proceed to Determining Fresh-Air Flow for Heater Location.

Confined and Unconfined Space

National Fuel Gas Code, ANSI Z223.1/NFPA 54 defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu/hr (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu/hr (4.8 m^3 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.

* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

Determining if You Have a Confined or Unconfined Space

Use this work sheet to determine if you have a confined or unconfined space.

Space: Includes the room in which you will install fireplace plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).
Length x Width x Height = _____ cu. ft.
(volume of space)

AIR FOR COMBUSTION AND VENTILATION

Continued

Example: Space size 20 ft. (length) x 16 ft. (width) x 8 ft. (ceiling height) = 2,560 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Multiply the space volume by 20 to determine the maximum Btu/Hr the space can support.

_____ (volume of space) x 20 = (Maximum Btu/Hr the space can support)

Example: 2,560 cu. ft. (volume of space) x 20 = 51,200 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free fireplace	_____ Btu/Hr
Gas water heater*	_____ Btu/Hr
Gas furnace	_____ Btu/Hr
Vented gas heater	_____ Btu/Hr
Gas fireplace logs	_____ Btu/Hr
Other gas appliances* +	_____ Btu/Hr
Total	= _____ Btu/Hr

* Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

Example:

Gas water heater	40,000 Btu/Hr
Vent-free fireplace	+ 39,000 Btu/Hr
Total	= 79,000 Btu/Hr

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

_____ Btu/Hr (maximum the space can support)

_____ Btu/Hr (actual amount used)

Example: 51,200 Btu/Hr (maximum the space can support)

79,000 Btu/Hr (actual amount of Btu/Hr used)

The space in the example is a confined space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air. Your options are as follows:

- A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See Ventilation Air From Inside Building.
- B. Vent room directly to the outdoors. See Ventilation Air From Outdoors, page 8.
- C. Install a lower Btu/Hr fireplace, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

⚠ WARNING: If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the *International Fuel Gas Code*, or applicable local codes.

VENTILATION AIR

Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 2). You can also remove door into adjoining room (see option 3, Figure 2). Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

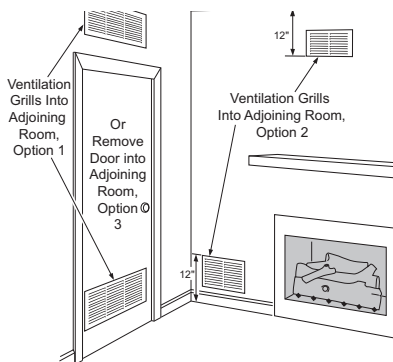


Figure 2 - Ventilation Air from Inside Building

AIR FOR COMBUSTION AND VENTILATION

Continued

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, SAir for Combustion and Ventilation* for required size of ventilation grills or ducts.

IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermo-

stat-controlled power vent. Heated air entering the attic will activate the power vent.

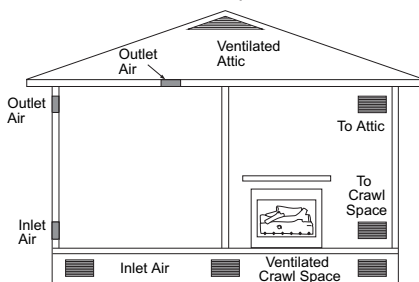


Figure 3 - Ventilation Air from Outdoors

INSTALLATION

NOTICE: This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using log heater. This will help circulate the heat from your log heater throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

WARNING: A qualified service person must install heater. Follow all local codes.

NOTICE: State or local codes may only allow operation of this appliance in a vented configuration. Check your state or local codes.

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 house. Inspect chimney flue and firebox for damage. If damaged, repair flue and firebox before operating heater.

WARNING: Seal any fresh air vents or ash clean-out doors located on floor or wall of fireplace. If not, drafting may cause pilot outage or sooting. Use a heat-resistant sealant. Do not seal chimney flue damper.

INSTALLATION

Continued

⚠ WARNING: Never install the heater

- in a bedroom or bathroom unless installed as a vented appliance (Variable Manually-Controlled Models Only) (see page 12)
- in a recreational vehicle
- where curtains, furniture, clothing or other flammable objects are less than 42" from front, top or sides of heater
- in high traffic areas
- in windy or drafty areas

⚠ CAUTION: This heater creates warm air currents. These currents move heat to wall surfaces next to heater. Installing heater next to vinyl or cloth wall coverings or operating heater where impurities (such as, but not limited to, tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls or cause odors.

IMPORTANT: Vent-free heaters add moisture to the air. Although this is beneficial, installing heater in rooms without enough ventilation air may cause mildew to form from too much moisture. See [Air for Combustion and Ventilation](#), page 6.

CHECK GAS TYPE

Use the correct gas type (natural or propane/LP) for your unit. If your gas supply is not correct, do not install heater. Call dealer where you bought heater for proper type heater.

⚠ WARNING: This appliance is equipped for either natural gas or propane/LP gas but not both. Gas type is indicated on the rating plate. Field conversion is not permitted.

INSTALLATION AND CLEARANCES (Vent-Free Operation Only)

⚠ WARNING: Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling and adjoining wall.

MINIMUM FIREPLACE CLEARANCE TO COMBUSTIBLE MATERIALS

Side Wall 16", Ceiling 42"

LOG SIZING REQUIREMENTS Minimum Firebox

Log Size	Height	Depth	Front Width	Rear Width*
18"	17"	14"	24"	20"
24"	17"	14"	28"	21"

* Measured at 14" depth.

Carefully follow the instructions below. This will ensure safe installation into a masonry, UL127-listed manufactured fireplace or certified vent-free firebox.

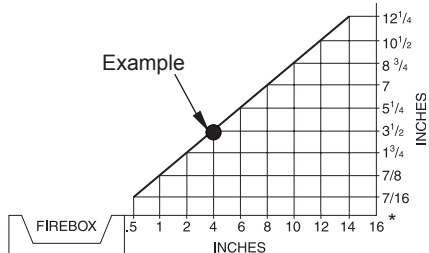
Minimum Clearances For Side Combustible Material, Side Wall and Ceiling

A. Clearances from side of fireplace cabinet to any combustible material and wall should follow diagram in Figure 4.

Example: The face of a mantel, bookshelf, etc. is made of combustible material and protrudes 3 1/2" from the wall. This combustible material must be 4" from side of fireplace opening (see Figure 4).

Note: When installing your gas logs into a manufactured firebox, follow firebox manufacturer's instructions for minimum clearances to combustible materials.

B. Clearances from top of fireplace opening to ceiling should not be less than 42".



*Minimum 16" from Side Wall

Figure 4 - Minimum Clearance for Combustible to Wall

INSTALLATION

Continued

NOTICE: Manual control heaters may be used as a vented product. If so, you must always run heater with chimney flue damper open. If running heater with damper open, noncombustible material above fireplace opening is not needed. Go to [Installing Damper Clamp Accessory for Vented Operation](#), page 12.

Minimum Noncombustible Material Clearances

If Not Using Mantel

Note: If using a mantel, proceed to [If Using Mantel](#). If not using a mantel, follow the information below.

You must have noncombustible material(s) above the fireplace opening. Noncombustible materials (such as slate, marble, tile, etc.) must be at least 1/2" thick. With sheet metal, you must have noncombustible material behind it. Noncombustible material must extend at least 8" up. If noncombustible material is less than 12", you must install the fireplace hood accessory (24" models only). See Figure 5 for minimum clearances.

IMPORTANT: If you cannot meet these minimum clearances, you must operate heater with chimney flue damper open. Go to [Installing Damper Clamp Accessory for Vented Operation](#), page 11.

If Using Mantel

You must have noncombustible material(s) above the fireplace opening. Noncombustible materials (such as slate, marble, tile, etc.) must be at least 1/2" thick. With sheet metal, you must have noncombustible material behind it. Noncombustible material must extend at least 8" up. If noncombustible material is less than 12", you must install the fireplace hood accessory (24" models only). Even if noncombustible material is more than 12", you may need the hood accessory to deflect heat away from your mantel shelf. See Figure 5 and Figure 6 and 7 on page 11 for minimum clearances.

IMPORTANT: If you cannot meet these minimum clearances, you must operate heater with chimney flue damper open. Go to [Installing Damper Clamp Accessory for Vented Operation](#), page 12.

Noncombustible Material Distance (A)	Requirements for Safe Installation
12" or more	Noncombustible material okay.
Between 8" and 12"	24" Models: Install fireplace hood accessory (GA6050, GA6052 or GA6053 see Accessories, page 38). 18" Model: Noncombustible material okay.
Less than 8"	Noncombustible material must be extended to at least 8". See <u>Between 8" and 12"</u> , above. If you cannot extend material, you must operate heater with flue damper open.

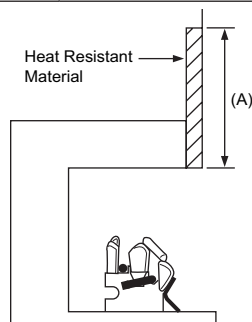


Figure 5 - Heat Resistant Material (Slate, Marble, Tile, etc.) Above Fireplace

MANTEL CLEARANCES

In addition to meeting noncombustible material clearances, you must also meet required clearances between fireplace opening and mantel shelf. If you do not meet the clearances in Figure 6, page 11 you will need a hood.

Determining Minimum Mantel Clearance

If you meet minimum clearance between mantel shelf and top of fireplace opening, a hood is not required (see Figure 6, page 11).

Determining Minimum Mantel Clearance When Using a Hood

If minimum clearances in Figure 6 are not met, you must have a hood. When using a hood there are still certain minimum mantel clearances required. Follow minimum clearances shown in Figure 7, page 11 when using hood.

Continued

NOTICE: If your installation does not meet the minimum clearances shown, you must do one of the following:

- ## FLOOR CLEARANCES

-
- The diagram illustrates the required clearances for a fireplace mantel and log set. On the left, a hatched area represents the 'Minimum Noncombustible Material'. A vertical dimension line labeled '(A)' indicates the 'Minimum Noncombustible Material Height' from the top of the fireplace opening to the bottom of the mantel shelf. The mantel shelf itself is shown with a sloped top and a flat bottom. The 'Underside of Mantel Shelf' is indicated by a horizontal line. The 'Log Set' is shown below the mantel shelf, with a '24" Models' dimension line from the top of the fireplace opening to the top of the log set. The '18" Model' is shown below the 24" model, with a '20" Models' dimension line from the top of the fireplace opening to the top of the 18" model. The 'Top of Fireplace Opening' is indicated by a horizontal line. The 'Distances to Underside of Mantel' are shown as vertical dimension lines from the top of the fireplace opening to the underside of the mantel shelf. The distances are: 12" for the 24" model, 18" for the 18" model, 20" for the 18" model, and 22" for the 18" model. The 'Distances to Underside of Mantel' are also shown as vertical dimension lines from the top of the fireplace opening to the underside of the mantel shelf. The distances are: 8" for the 24" model, 8" for the 18" model, 14" for the 18" model, and 17" for the 18" model. The diagram also shows the mantel shelf with a 10" width, an 8" width, a 6" width, and a 2 1/2" width. The text 'All minimum distances are in inches' is present. A small illustration of a log set is shown at the bottom left.
- | Model | Distance to Underside of Mantel (inches) | Distance to Top of Log Set (inches) |
|------------|--|-------------------------------------|
| 24" Models | 12" | 24" |
| 18" Model | 18" | 20" |
| 18" Model | 20" | 22" |
| 18" Model | 22" | - |

14" Min.

Combustible Material

Noncombustible Material

The diagram illustrates the required clearances for a fireplace mantel. On the left, a vertical section of the mantel is shown with a hatched pattern, labeled "Minimum Noncombustible Material". To the right of this section, a series of horizontal lines represent the mantel's profile, with heights of 12", 10", 8", 6", and 2 1/2" indicated. A bracket labeled "Distances to Underside of Mantel" spans the horizontal distance from the mantel's base to the fireplace opening. Vertical arrows indicate the following distances: 8" Min., 12", 15", 18", and 20". The 20" distance is labeled "Log Set All Models". The top of the mantel is labeled "Mantel Shelf", and the top of the fireplace opening is labeled "Top of Fireplace Opening". The bottom of the mantel is labeled "Underside of Mantel Shelf". A hood is shown at the base of the mantel, labeled "Hood (GA6050, GA6052 and GA6053)".

113097-01L

INSTALLATION

Continued

INSTALLING DAMPER CLAMP ACCESSORY FOR VENTED OPERATION

Note: When used as a vented heater, appliance must be installed only in a solid-fuel burning fireplace with a working flue and constructed of noncombustible material.

For Massachusetts Residents Only: Installation of this gas log set as a vented appliance in the Commonwealth of Massachusetts requires the damper be permanently removed or welded in the fully open position.

If your heater is a manually-controlled model, you may use this heater as a vented product. There are three reasons for operating your heater in the vented mode.

1. The fireplace does not meet the clearance to combustibles requirements for vent-free operation.
2. State or local codes do not permit vent-free operation.
3. You prefer vented operation.

If reasons number 1 or 2 above apply to you, you must permanently open chimney flue damper. You must install the damper clamp accessory (to order, see *Accessories*, page 31). This will insure vented operation (see Figure 10). The damper clamp will keep damper open. Installation instructions are included with clamp accessory.

See chart for minimum permanent flue opening you must provide. Attach damper clamp so the minimum permanent flue opening will be maintained at all times.

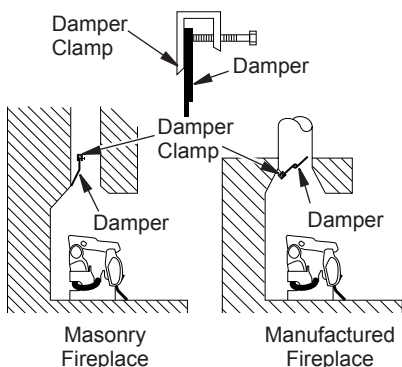


Figure 10 - Attaching Damper Clamp

Chimney Height	Minimum Permanent Flue Opening
6' to 15'	39 sq. inches
15' to 30'	29 sq. inches

Area of Various Standard Round Flues

Diameter	Area
5"	20 sq. inches
6"	29 sq. inches
7"	39 sq. inches
8"	51 sq. inches

INSTALLING HEATER BASE ASSEMBLY

CAUTION: Do not remove the data plates attached to the heater base assembly. The data plates contain important warranty and safety information.

WARNING: You must secure this heater to fireplace floor. If not, heater will move when you adjust controls. Moving heater may cause a gas leak.

WARNING: If installing in a sunken fireplace, special care is needed. You must raise the fireplace floor to allow access to heater control panel. This will insure adequate air flow and guard against sooting and controls being damaged. Raise fireplace floor with noncombustible material. Make sure material is secure.

CAUTION: Do not pick up heater base assembly by the burner. This could damage heater. Only handle base assembly by grates.

INSTALLATION

Continued

IMPORTANT: Make sure the heater burners are level. If heater is not level, heater will not work properly. For thermostat models, avoid damage to thermostat bulb. Avoid nicks or sharp bends in thermostat bulb wire. Keep thermostat bulb in mounting bracket until ready to mount base to floor. See Optional Positioning Of Thermostat Sensing Bulb, page 29.

Installation Items Needed

- hardware package (provided with heater)
- approved flexible gas hose (not provided) (if allowed by local codes)
- sealant resistant to propane (propane/LP) gas, not provided
- electric drill with 3/16" drill bit
- flathead screwdriver

1. Apply pipe joint sealant lightly to male threads of the fitting to be threaded into gas regulator. Connect approved flexible gas hose to gas regulator of heater (see Figure 11).

IMPORTANT: Hold gas regulator with wrench when connecting flexible gas hose.

2. Locate masonry screws in hardware package.
3. Position heater base assembly in fireplace.
4. Place logs in their proper position on heater base, see Installing Logs on page 16.
5. Center heater base and logs front-to-back and side-to-side in fireplace.
6. Carefully remove logs without moving heater base.
7. Mark screw locations through holes in mounting brackets (see Figure 12 and 13). If installing in a brick-bottom fireplace, mark screw locations in mortar joint of bricks.
8. Remove heater base from fireplace.

Flexible Gas Hose
(if allowed by local codes)

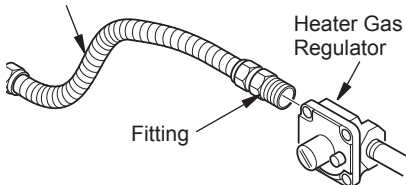


Figure 11 - Attaching Flexible Gas Hose to Heater Gas Regulator

9. Drill holes at marked locations using 3/16" drill bit.
10. Attach base assembly to fireplace floor using two masonry screws (in hardware package) (see Figure 12 or 13).

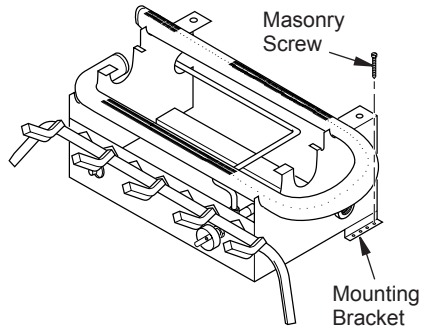


Figure 12 - Attaching Base Assembly to Fireplace Floor - Dual Burner Model

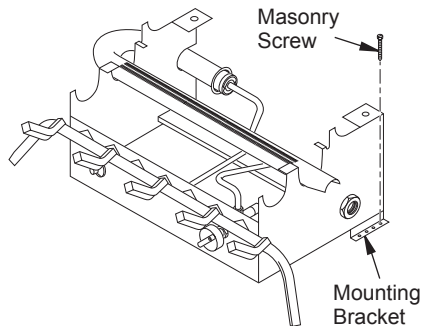


Figure 13 - Attaching Base Assembly to Fireplace Floor - Single Burner Model

CONNECTING TO GAS SUPPLY

⚠ WARNING: This appliance requires a 1/2" NPT (National Pipe Thread) inlet connection to the pressure regulator.

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

INSTALLATION

Continued

⚠ CAUTION: Never connect heater directly to the propane/LP supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and propane/LP supply.

⚠ WARNING: Never connect natural gas fireplace to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

Installation Items Needed

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

- external regulator (supplied by installer)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve *
- test gauge connection *
- sediment trap
- tee joint
- pipe wrench

* A CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional CSA design-certified equipment shutoff valve from your dealer. See [Accessories](#), page 31.

For propane/LP units, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11" and 14" of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 14. Pointing the vent down protects it from freezing rain or sleet.

⚠ 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 heater. If pipe is too small, undue loss of volume will occur.

Installation must include an 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 heater (see Figure 15, page 15).

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

Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.

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 clogged heater valves.

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

We recommend that you install a sediment trap in supply line as shown in Figure 15, page 15. 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 heater controls. If sediment trap is not installed or is installed wrong, heater may not run properly.

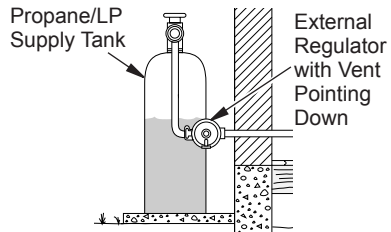


Figure 14 - External Regulator With Vent Pointing Down

INSTALLATION

Continued

CAUTION: Avoid damage to regulator. Hold gas regulator with wrench when connecting it to gas piping and/or fittings.

PROPANE/LP

From External Regulator
(11" W.C.** to 14" W.C.
Pressure)

NATURAL

From Gas Meter
(5" W.C.** to
10.5" W.C.
Pressure)

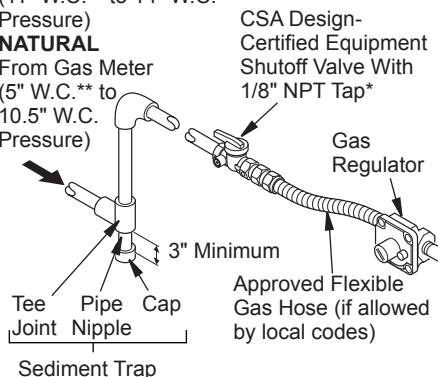


Figure 15 - Gas Connection

* Purchase the optional CSA design-certified equipment shutoff valve from your dealer.

** 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.

CAUTION: Make sure external regulator has been installed between propane/LP supply and heater. See guidelines under Connecting to Gas Supply, page 13.

PRESSURE TESTING GAS SUPPLY PIPING SYSTEM

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

1. Disconnect appliance with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage heater regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas or using compressed air.
4. Check all joints of gas supply piping system. Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect heater 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 16).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas or using compressed air.
3. Check all joints from gas meter to equipment shutoff valve for natural gas or propane/LP supply to equipment shutoff valve for propane/LP (see Figures 17 and 18, page 16). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

PRESSURE TESTING HEATER GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 16).

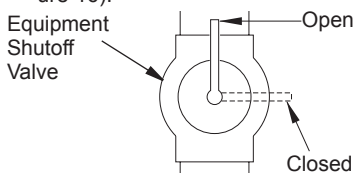
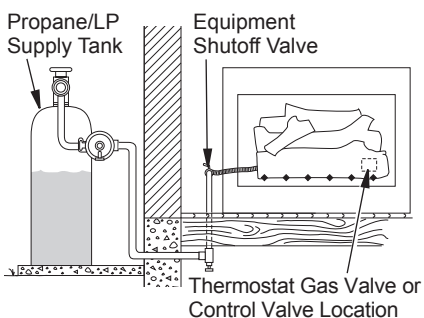


Figure 16 - Equipment Shutoff Valve

INSTALLATION

Continued

- Open main gas valve located on or near gas meter for natural gas or open propane/LP supply tank valve.
- Make sure control knob of heater is in the OFF position.
- Check all joints from equipment shutoff valve to thermostat gas valve (Thermostat-Controlled Models) or to control valve (Manually-Controlled Models) (see Figures 17 and 18). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
- Correct all leaks at once.
- Light heater (see *Operation*, page 19 [manually-controlled models] or page 21 [thermostatically-controlled models]). Check all other internal joints for leaks.
- Turn off heater (see *To Turn Off Gas to Appliance*, page 20 [manually-controlled models] or page 22 [thermostatically-controlled models]).



**Figure 17 - Checking Gas Joints
(Propane/LP Gas Models)**

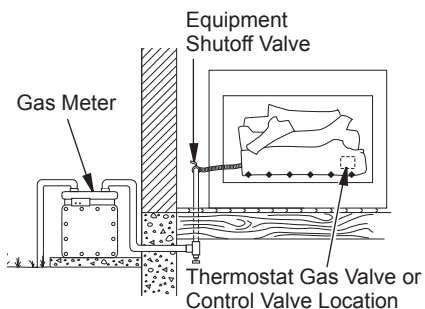


Figure 18 - Checking Gas Joints (Natural Gas Models)

INSTALLING LOGS

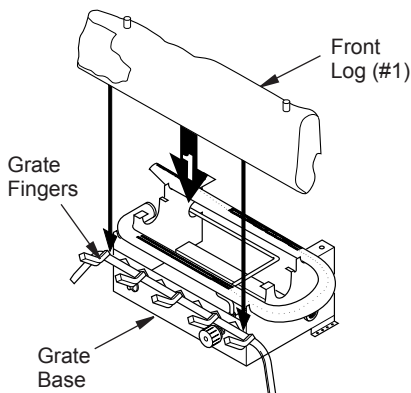
⚠ CAUTION: After installation and periodically thereafter, check to ensure that no flame comes in contact with any log. With the heater set to HI, check to see if flames contact any log. If so, reposition logs according to the log installation instructions in this manual. Flames contacting logs will create soot.

⚠ 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.

Dual Burner Biltmore Split Oak Models CCL3018PTA/NTA, CCL3924PTA/NTA

Each log is marked with a number. These numbers will help you identify the log when installing. It is very important to install these logs exactly as instructed. Do not modify logs. Only use logs supplied with heater.

- Place front log (#1) on grate fingers. Make sure front log rests firmly between grate fingers and grate base (see Figure 19).
- Place base of middle log (#2) in U-shaped slots of grate base. Cutout on right of middle log should fit over burner (see Figure 20, page 17). Make sure front of middle log is resting on tabs of grate base.



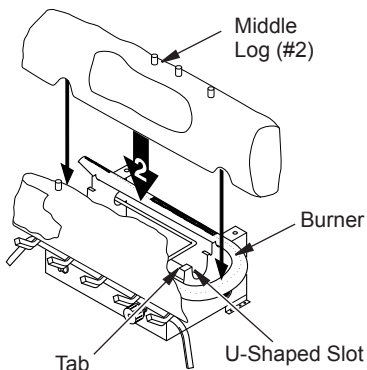
**Figure 19 - Installing Front Log #1
(CCL3924PTA/NTA Shown)**

INSTALLATION

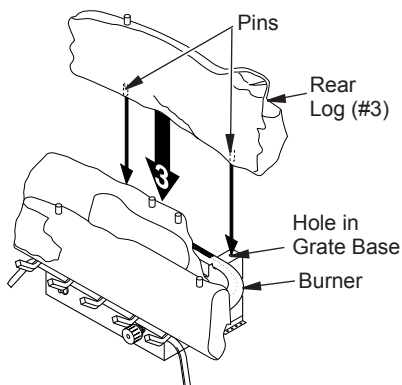
Continued

3. Locate pins on bottom of back log (#3). Slide these pins into holes in grate base behind burner (see Figure 21).
4. Locate holes on bottom of crossover log (#4). Slide front hole onto left pin (CCL3924PTA/NTA) or middle pin (CCL3018PTA/NTA) on middle log (#2) and pin on back log (#3). See Figure 22, for placement.
5. **For CCL3924PTA/NTA Only:** Locate pin and hole on bottom of crossover log (#5). Slide pin into hole located in crossover log (#4). See Figure 23.

For CCL3018PTA/NTA Only: Locate holes on bottom of crossover log (#5). Slide holes over left pins on middle log (#2) and front log (#1). See Figure 24.

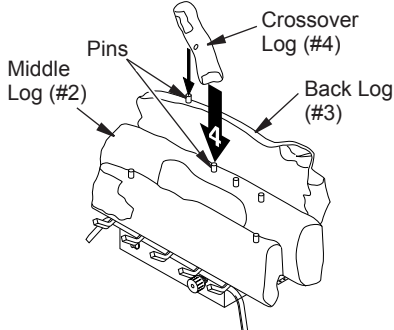


**Figure 20 - Installing Middle Log #2
(CCL3924PTA/NTA Shown)**

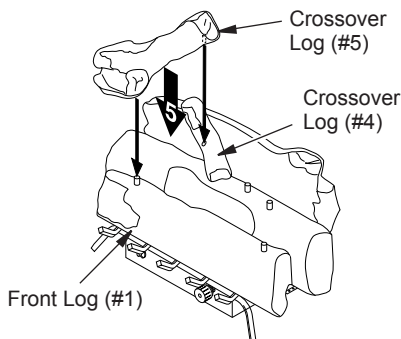


**Figure 21 - Installing Rear Log #3
(CCL3924PTA/NTA Shown)**

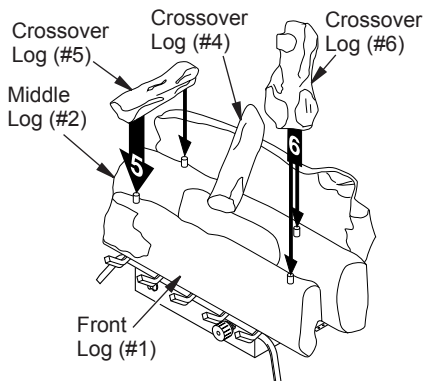
6. Locate holes on bottom of crossover log (#6). Slide these holes onto right pins located in middle log (#2) and front log (#1). See Figure 25, page 18 for CCL3924PTA/NTA. See Figure 24 for CCL3018PTA/NTA.
7. Add lava rock around base of heater if desired. Do not place any lava rock on logs or burner.



**Figure 22 - Installing Crossover Log #4
(CCL3924PTA/NTA Shown)**



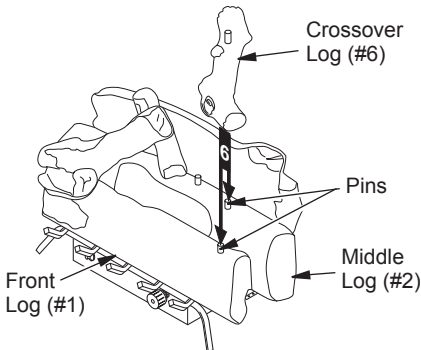
**Figure 23 - Installing Crossover Log #5
(CCL3924PTA/NTA Shown)**



**Figure 24 - Installing Crossover Log #5
and Log #6 (CCL3018PTA/NTA Only)**

INSTALLATION

Continued



**Figure 25 - Installing Crossover Log #6
(CCL3924PTA/NTA Shown)**

Single Burner Seasonal Oak Models
CRL2718PA/NA, CRL3124PA/NA

⚠ 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.

The Seasonal Oak Log Set is a reversible log set. This means that the 2 bottom logs may be turned to face either direction. The top logs, however, must remain in the same position. Do not modify logs. Only use logs supplied with heater.

1. Place back log onto back of base assembly. Make sure log sits forward against 2 posts in front of log (see Figure 26). This log may be turned to face either direction.
2. Place front log onto grate on front of base assembly. The log will fit down between grate fingers and posts on front of base assembly (see Figure 27). This log may be turned to face either direction.
3. Place left and right crossover logs on top of back log and front log. Make sure pins on front and back are inserted into holes on crossover logs (see Figure 28). Crossover logs must be placed as shown in Figure 28 or holes will not seat onto pins.
4. Add lava rock around base of heater if desired. Do not put lava rock on logs or burner.

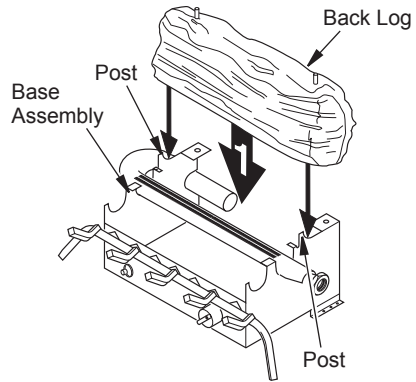


Figure 26 - Installing Back Log

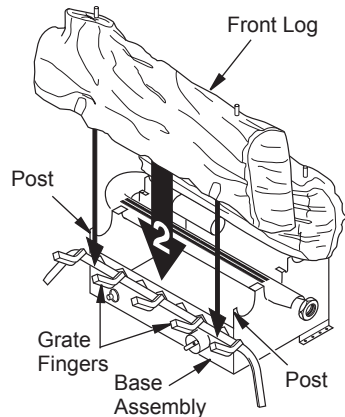


Figure 27 - Installing Front Log

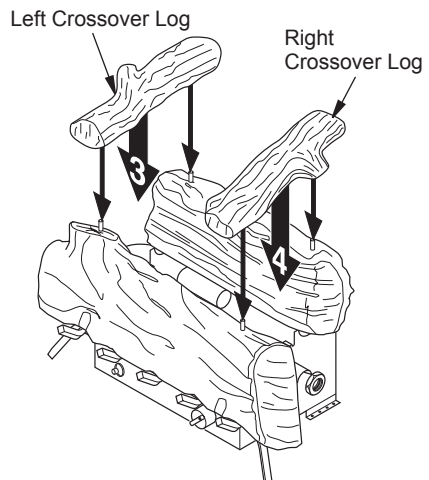


Figure 28 - Installing Left and Right Crossover Logs

OPERATION

MANUALLY-CONTROLLED MODELS

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.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **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.
- 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 service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS


⚠ WARNING

- If fireplace has glass doors, never operate this heater with glass doors closed. If you operate heater with doors closed, heat buildup inside fireplace will cause glass to burst. Make sure there are no obstructions across openings of fireplace.
- You must operate this heater with a fireplace screen in place. Make sure fireplace screen is closed before running heater.

NOTICE: During initial operation of new heater, burning logs will give off a paper-burning smell. Orange flame will also be present. Open damper or window to vent smell. This will only last a few hours.

Note: Home owners generally prefer to operate their heater with the chimney damper closed. This will put all the heat into the room. However, there may be times you will desire the full flames of the HI heat setting but will find the heat output excessive. You can open the chimney damper (if you have one) fully or partially to release some of the heat.


⚠ WARNING: Damper handle will be hot if heater has been running.

1. STOP! Read the safety information in column 1.
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, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, column 1. If you don't smell gas, go to the next step.

OPERATION

Continued

MANUALLY-CONTROLLED MODELS

5. Slightly press and turn control knob counterclockwise  to the PILOT position. Press in control knob for five (5) seconds (see Figure 29).




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

6. With control knob pressed in, press and release ignitor button. This will light pilot. The pilot is attached to the 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. To light pilot with match, see [Manual Lighting Procedure](#).

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

8. Slightly depress and turn control knob counterclockwise  to desired heating level. The burner(s) should light. Set control knob to any heat level between HI and LO.
9. To leave pilot lit and shut off burners only, turn control knob clockwise  to the HI position then press in and turn clockwise  to PILOT position.

⚠ WARNING: Do not operate heater between PILOT and HI positions.

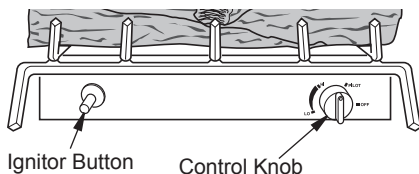


Figure 29 - Control Knob and Ignitor Button Location

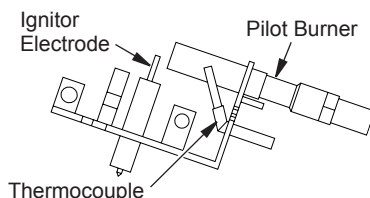





Figure 30 - Pilot

VARIABLE CONTROL OPERATION

The variable control valve can be set to any heat setting and flame height desired, by simply turning the control knob until that setting is attained. Even the lowest setting provides realistic, dancing yellow flames. Selecting higher settings produces greater heat output. This results in increased heating comfort.

⚠ CAUTION: Do not try to adjust heating levels by using the equipment shutoff valve.

TO TURN OFF GAS TO APPLIANCE

1. Press in and turn control knob clockwise  to the HI position.
2. Turn control knob clockwise  to the pilot position.
3. Press in control knob and turn clockwise  to the OFF position.
4. Close equipment shutoff valve (see Figure 16, page 15).

MANUAL LIGHTING PROCEDURE

1. Follow steps 1 through 5 under [Lighting Instructions](#), pages 19 and 20.
2. Depress control knob and light pilot with match.
3. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow step 8, under [Lighting Instructions](#), column 1.

OPERATION

Continued

THERMOSTAT-CONTROLLED MODELS

**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.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **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.
- 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 service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
 - D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.


**LIGHTING
INSTRUCTIONS**

- ⚠ WARNING**
- If fireplace has glass doors, never operate this heater with glass doors closed. If you operate heater with doors closed, heat buildup inside fireplace will cause glass to burst. Make sure there are no obstructions across openings of fireplace.
 - You must operate this heater with a fireplace screen in place. Make sure fireplace screen is closed before running heater.

NOTICE: During initial operation of new heater, burning logs will give off a paper-burning smell. Orange flame will also be present. Open damper or window to vent smell. This will only last a few hours.

Note: Home owners generally prefer to operate their heater with the chimney damper closed. This will put all the heat into the room. However, there may be times you will desire the full flames of the HI heat setting but will find the heat output excessive. You can open the chimney damper (if you have one) fully or partially to release some of the heat.

⚠ WARNING: Damper handle will be hot if heater has been running.

1. STOP! Read the safety information, column 1.
2. Make sure equipment shutoff valve is fully open.
3. Turn control knob clockwise  to the OFF position.
4. 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, column 1. If you don't smell gas, go to the next step.

OPERATION

Continued

THERMOSTAT-CONTROLLED MODELS

- Turn control knob counterclockwise ↺ to the PILOT position. Press in control knob for five (5) seconds (see Figure 31).

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

- If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.
- With control knob pressed in, press and release ignitor button. This will light pilot. The pilot is attached to 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. To light pilot with match, see [Manual Lighting Procedure](#).

- 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. This heater has a safety interlock system. Wait one (1) minute for system to reset before lighting pilot again.

- Turn control knob counterclockwise ↺ to desired heating level. The burners should light. Set control knob to any heat level between HI and LO.
- Turn control knob clockwise ↻ to the PILOT position to shut off burner leaving pilot lit.

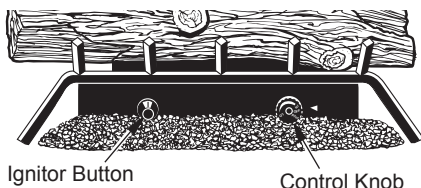


Figure 31 - Control Knob and Ignitor Button Location

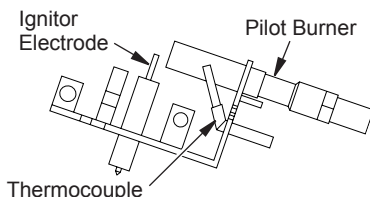


Figure 32 - Pilot

TO TURN OFF GAS TO APPLIANCE

- Turn control knob clockwise ↻ to the OFF position.
- Close equipment shutoff valve (see Figure 16, page 15).

THERMOSTAT CONTROL OPERATION

The thermostat control knob can be set to any comfort level between HI and LO. The thermostat will gradually modulate the heat output and flame height from higher to lower settings or pilot, in order to maintain the comfort level you select. The ideal comfort setting will vary by household depending upon the amount of space to be heated, the output of the central heating system, etc.

Note: Selecting the HI setting with the control knob will cause the burners to remain fully on, without modulating down in most cases.

MANUAL LIGHTING PROCEDURE

- Follow steps 1 through 5 under [Lighting Instructions](#), page 21.
- Press control knob and light pilot with match.
- Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow step 8, under [Lighting Instructions](#), column 1.

INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

PILOT FLAME PATTERN

Figure 33 shows a correct pilot flame pattern. Figure 34 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the heater will shut down.

If pilot flame pattern is incorrect, as shown in Figure 34

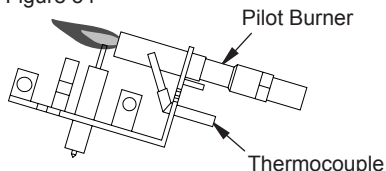


Figure 33 - Correct Pilot Flame Pattern

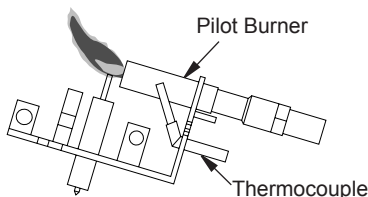


Figure 34 - Incorrect Pilot Flame Pattern

- turn heater off (see To Turn Off Gas to Appliance, page 20 [manually-controlled models] or page 22 [thermostat-controlled models])
- see Troubleshooting, page 25

Note: The pilot flame on natural gas units will have a slight curve, but flame should be blue and have no yellow or orange color.

BURNER PRIMARY AIR HOLES

Air is drawn into the burner through the holes in the fitting at the entrance to the burner. These holes may become blocked with dust, lint or pet hair. Periodically inspect these holes for any blockage and clean as necessary. Blocked air holes will create soot.

MAIN BURNER

Periodically inspect all burner flame holes with the heater running. All slotted burner flame holes should be open with yellow flame present. All round burner flame holes should be open with a small blue flame present. Some burner flame holes may become blocked by debris or rust, with no flame present. If so, turn off heater and let cool. Remove blockage. Blocked burner flame holes will create soot.

CLEANING AND MAINTENANCE



WARNING: Turn off heater and let cool before cleaning.



CAUTION: You must keep control areas, burner and circulating air passageways of heater clean. Inspect these areas of heater before each use. Have heater inspected yearly by a qualified service person. Heater may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.



WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.

BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

The primary air inlet holes allow the proper amount of air to mix with the gas. This provides a clean burning flame. Keep these holes clear of dust, dirt, lint and pet hair. Clean these air inlet holes prior to each heating season. Blocked air holes will create soot. We recommend that you clean the unit every three months during operation and have heater inspected yearly by a qualified service person.

We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store or home center may carry compressed air in a can. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

CLEANING AND MAINTENANCE

Continued

1. Shut off unit, including pilot. Allow unit to cool for at least thirty minutes.
2. Inspect burner, pilot and primary air inlet holes on injector holder for dust and dirt (see Figure 35).
3. Blow air through the ports/slots and holes in the burner.
4. Check the injector holder located at the end of the burner tube again. Remove any large particles of dust, dirt, lint or pet hair with a soft cloth or vacuum cleaner nozzle.
5. Blow air into the primary air holes on the injector holder.
6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Clean pilot assembly also. A yellow tip on the pilot flame indicates dust and dirt in the pilot assembly. There is a small pilot air inlet hole about 2" from where the pilot flame comes out of the pilot assembly (see Figure 36). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.

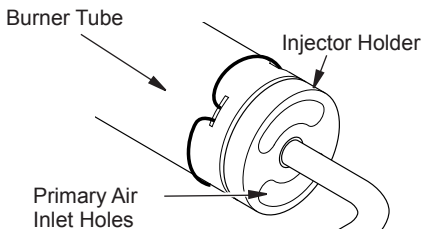


Figure 35 - Injector Holder On Outlet Burner Tube

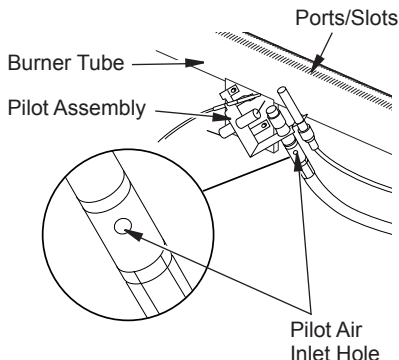


Figure 36 - Pilot Inlet Air Hole

LOGS

- If you remove logs for cleaning, refer to [Installing Logs](#), page 16, to properly replace logs.
- Replace log(s) if broken or chipped (dime-sized or larger).

MAIN BURNER

Periodically inspect all burner flame holes with the heater running. All slotted burner flame holes should be open with yellow flame present. All round burner flame holes should be open with a small blue flame present. Some burner flame holes may become blocked by debris or rust, with no flame present. If so, turn off heater and let cool. Remove blockage. Blocked burner flame holes will create soot.

SERVICE HINTS

When Gas Pressure Is Too Low

- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat
- for propane/LP units, 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.

TROUBLESHOOTING



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



CAUTION: Never use a wire, needle or similar object to clean ODS/pilot. This can damage ODS/pilot unit.

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

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at ODS/pilot	<ol style="list-style-type: none"> 1. Ignitor electrode not connected to ignitor cable 2. Ignitor cable pinched or wet 3. Piezo ignitor nut is loose 4. Broken ignitor cable 5. Bad piezo ignitor 6. Ignitor electrode broken 7. Ignitor electrode positioned wrong 	<ol style="list-style-type: none"> 1. Reconnect ignitor cable 2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry 3. Tighten nut holding piezo ignitor to base panel of log set. Nut is located behind base panel 4. Replace ignitor cable 5. Replace piezo ignitor 6. Replace pilot assembly 7. Replace pilot assembly
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	<ol style="list-style-type: none"> 1. Gas supply turned off or equipment shutoff valve closed 2. Control knob not in PILOT position 3. Control knob not pressed in while in PILOT position 4. Air in gas lines when installed 5. Depleted gas supply (propane/LP only) 6. ODS/pilot is clogged 7. Gas regulator setting is not correct 	<ol style="list-style-type: none"> 1. Turn on gas supply or open equipment shutoff valve 2. Turn control knob to PILOT position 3. Press in control knob while in PILOT position 4. Continue holding down control knob. Repeat igniting operation until air is removed 5. Contact local propane/LP gas company 6. Clean ODS/pilot (see <u>Cleaning and Maintenance</u>, page 23) or replace ODS/pilot assembly 7. Replace gas regulator

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
ODS/pilot lights but flame goes out when control knob is released	<ol style="list-style-type: none"> 1. Control knob not fully pressed in 2. Control knob not pressed in long enough 3. Equipment shutoff valve not fully open 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 ODS/pilot 5. Thermocouple connection loose at control valve 6. Thermocouple damaged 7. Control valve damaged 	<ol style="list-style-type: none"> 1. Press in control knob fully 2. After ODS/pilot lights, keep control knob pressed in 30 seconds 3. Fully open equipment shut-off valve 4. A) Contact local propane/LP or natural gas company B) Clean ODS/pilot (see Cleaning and Maintenance, page 23) or replace ODS/pilot assembly 5. Hand tighten until snug, then tighten 1/4 turn more 6. Replace pilot assembly 7. Replace control valve
Burner does light after ODS/pilot is lit	<ol style="list-style-type: none"> 1. Burner orifice clogged 2. Inlet gas pressure is too low 	<ol style="list-style-type: none"> 1. Clean burner (see Cleaning and Maintenance, page 23) or replace burner orifice 2. Contact local propane/LP or natural gas company
Delayed ignition of burner	<ol style="list-style-type: none"> 1. Manifold pressure is too low 2. Burner orifice clogged 	<ol style="list-style-type: none"> 1. Contact local propane/LP or natural gas company 2. Clean burner (see Cleaning and Maintenance, page 23) or replace burner orifice
Burner backfiring during combustion	<ol style="list-style-type: none"> 1. Burner orifice is clogged or damaged 2. Damaged burner 3. Gas regulator defective 	<ol style="list-style-type: none"> 1. Clean burner (see Cleaning and Maintenance, page 23) or replace burner orifice 2. Replace damaged burner 3. Replace gas regulator
Slight smoke or odor during initial operation	<ol style="list-style-type: none"> 1. Not enough air 2. Gas regulator defective 3. Residues from manufacturing processes and logs curing 	<ol style="list-style-type: none"> 1. Check burner for dirt and debris. If found, clean burner (see Cleaning and Maintenance, page 23) 2. Replace gas regulator 3. Problem will stop after a few hours of operation

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Moisture/condensation noticed on windows	1. Not enough combustion/ventilation air	1. Refer to <u><i>Air for Combustion and Ventilation</i></u> requirements (page 6)
Heater produces a whistling noise when burner is lit	1. Turning control knob to HI or position 5 when burner is cold 2. Air in gas line 3. Air passageways on heater blocked 4. Dirty or partially clogged burner orifice	1. Turn control knob to LO or position 1 and let warm up for a minute 2. Operate burner until air is removed from line. Have gas line checked by local propane/LP or natural gas company 3. Observe minimum installation clearances (see page 9) 4. Clean burner (see <u><i>Cleaning and Maintenance</i></u> , page 23) or replace burner orifice
White powder residue forming within burner box or on adjacent walls or furniture	1. When heated, vapors from furniture polish, wax, carpet cleaners, etc. may turn into white powder residue	1. Turn heater off when using furniture polish, wax, carpet cleaners or similar products
Heater 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 normal with most heaters. If noise is excessive, contact qualified service person

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 heater 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
Heater produces unwanted odors	<ol style="list-style-type: none"> 1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See IMPORTANT statement above) 2. Gas leak. See Warning statement above 	<ol style="list-style-type: none"> 1. Open window and ventilate room. Stop using odor causing products while heater is running 2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 15)
Heater shuts off in use (ODS operates) temperature drops to a lower than ideal level before log set comes back on	<ol style="list-style-type: none"> 1. Not enough fresh air is available 2. Low line pressure 3. ODS/pilot is partially clogged 	<ol style="list-style-type: none"> 1. Open window and/or door for ventilation 2. Contact local propane/LP or natural gas company 3. Clean ODS/pilot (see <u>Cleaning and Maintenance</u>, page 23)
Gas odor even when control knob is in OFF position	<ol style="list-style-type: none"> 1. Gas leak. See Warning statement above 2. Control valve defective 	<ol style="list-style-type: none"> 1. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 15) 2. Replace control valve
Gas odor during combustion	<ol style="list-style-type: none"> 1. Foreign matter between control valve and burner 2. Gas leak. See Warning statement above 	<ol style="list-style-type: none"> 1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 15)
Logs set cycles to pilot, but room	<ol style="list-style-type: none"> 1. Thermostat sensing bulb needs to be repositioned 	<ol style="list-style-type: none"> 1. Reposition thermostat sensing bulb (see <u>Optional Positioning of Thermostat Sensing Bulb</u>, beginning on page 29)

OPTIONAL POSITIONING OF THERMOSTAT SENSING BULB FOR MASONRY AND FACTORY-BUILT METAL FIREPLACE

If your log set cycles to pilot, but the room temperature drops to a lower than ideal comfort level before the log set comes back on, you may want to reposition the thermostat sensing bulb.

The thermostat sensing bulb is located near the gas valve assembly on the mounting bracket. This location allows the thermostat to keep the room temperature at an ideal comfort level for most fireplace applications. For positioning the thermostat sensing bulb elsewhere, an adhesive-backed mounting clip is available.

Tools needed: 1/4" hex driver or socket

1. Remove logs. Locate the gas valve assembly and thermostat sensing bulb (see Figure 37).
2. With 1/4" hex driver or socket, loosen the thermostat screw. Carefully slide the thermostat sensing bulb out of the retaining clamp (see Figure 39).

Note: Do not remove the screw. Make sure you tighten the screw after removing the thermostat sensing bulb.

IMPORTANT: Do not force or bend the thermostat sensing bulb or capillary.

3. The thermostat sensing bulb may be located to the lower right front side of fireplace. Determine location of sensing bulb, but do not mount sensing bulb until step 4. If you have a masonry fireplace, see Figure 40 for location. If you have a factory-built metal fireplace, see Figure 41 for location. If your fireplace has glass doors, position sensing bulb directly behind door gap on right bottom side (see Figure 42).
4. The mounting clip must be a minimum of 3" from bottom of fireplace to prevent crimping of capillary. Once you have decided on a location, clean the area

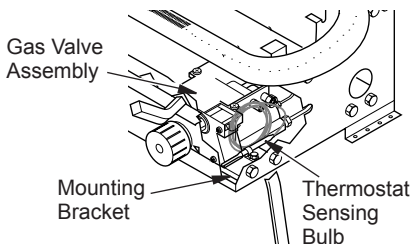


Figure 37 - Location of Gas Valve Assembly and Thermostat Sensing Bulb

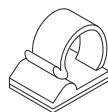


Figure 38 - Adhesive-backed Mounting Clip

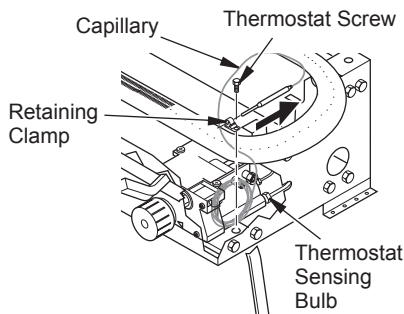


Figure 39 - Removing Thermostat Sensing Bulb

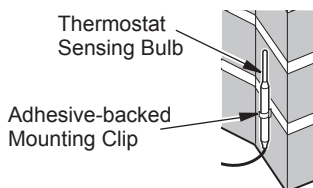


Figure 40 - Locating Thermostat Sensing Bulb on Masonry Fireplace

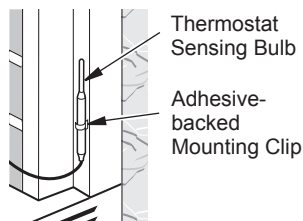


Figure 41 - Locating Thermostat Sensing Bulb on Factory-built Metal Fireplace

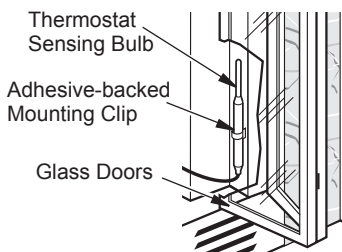


Figure 42 - Installing Thermostat Sensing Bulb Behind Glass Doors

OPTIONAL POSITIONING OF THERMOSTAT SENSING

BULB *Continued*

thoroughly. Remove the paper backing from the adhesive on back of mounting clip. Press the clip into the new location so that the thermostat sensing bulb will be positioned vertically with the capillary at the bottom (see Figure 43). Slide the thermostat sensing bulb into the clip.

IMPORTANT: Do not crimp capillary.

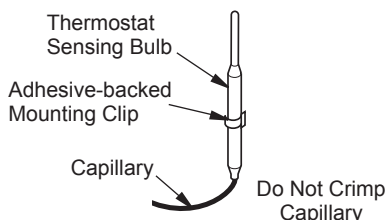


Figure 43 - Positioning the Thermostat Sensing Bulb in the Vertical Position with the Capillary at the Bottom

SPECIFICATIONS

DUAL BURNER BILTMORE SPLIT OAK MODELS

CCL3018PTA

- 16,000/30,000 Btu/hr (Variable)
- Gas Type: Propane/LP
- Ignition: Piezo
- Manifold Pressure: 8" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 14" W.C. Minimum* 11" W.C.

CCL3924PTA

- 20,000/39,000 Btu/hr (Variable)
- Gas Type: Propane/LP
- Ignition: Piezo
- Manifold Pressure: 8" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 14" W.C. Minimum* 11" W.C.

CCL3018NTA

- 16,000/30,000 Btu/hr (Variable)
- Gas Type: Natural
- Ignition: Piezo
- Manifold Pressure: 3.5" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 10.5" W.C. Minimum* 5" W.C.

CCL3924NTA

- 20,000/39,000 Btu/hr (Variable)
- Gas Type: Natural
- Ignition: Piezo
- Manifold Pressure: 3.5" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 10.5" W.C. Minimum* 5" W.C.

* For the purpose of input adjustment

SINGLE BURNER SEASONAL OAK MODELS

CRL2718PA

- 16,000/27,000 Btu/hr (Variable)
- Gas Type: Propane/LP
- Ignition: Piezo
- Manifold Pressure: 8" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 14" W.C. Minimum* 11" W.C.

CRL3124PA

- 16,000/31,500 Btu/hr (Variable)
- Gas Type: Propane/LP
- Ignition: Piezo
- Manifold Pressure: 8" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 14" W.C. Minimum* 11" W.C.

CRL2718NA

- 16,000/27,000 Btu/hr (Variable)
- Gas Type: Natural
- Ignition: Piezo
- Manifold Pressure: 3.5" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 10.5" W.C. Minimum* 5" W.C.

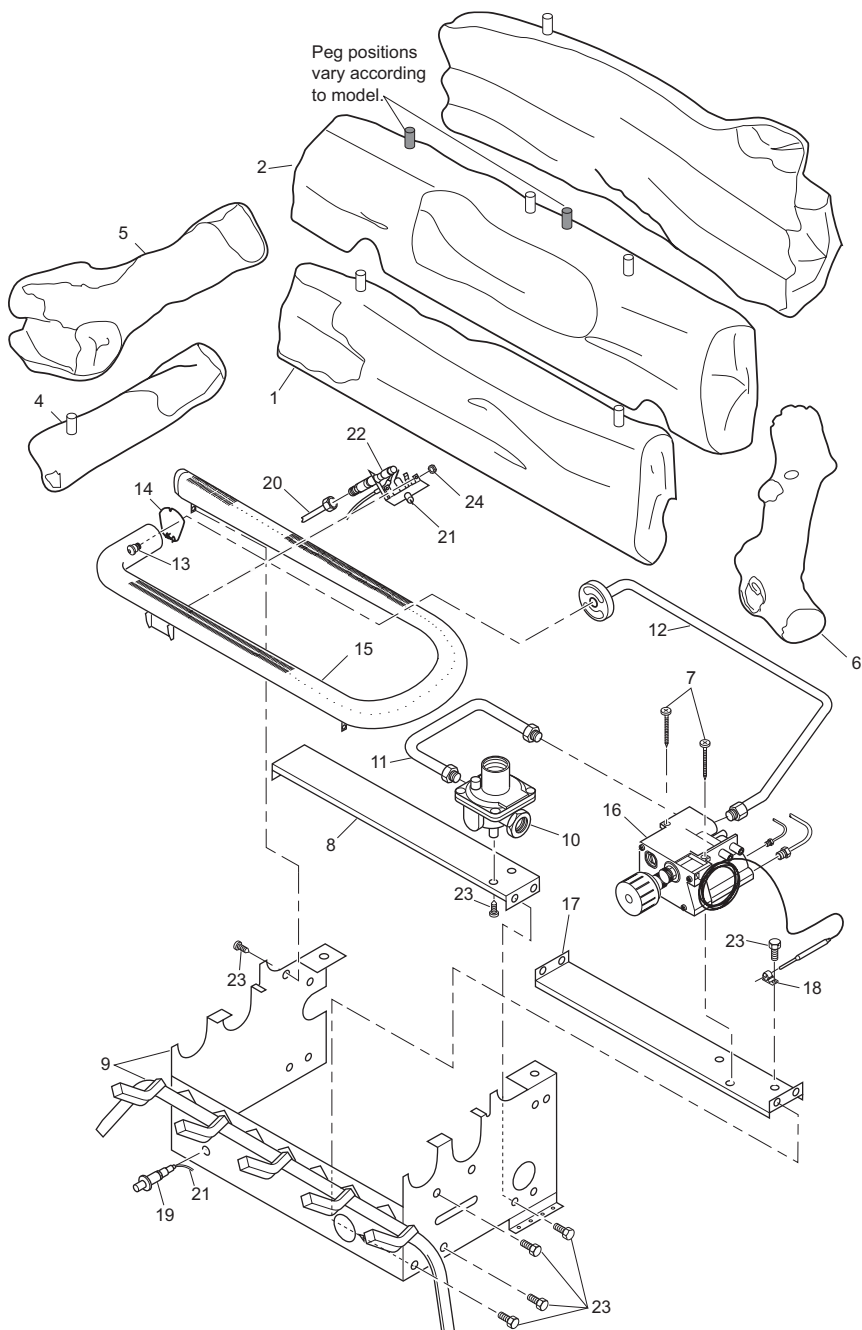
CRL3124NA

- 16,000/31,500 Btu/hr (Variable)
- Gas Type: Natural
- Ignition: Piezo
- Manifold Pressure: 3.5" W.C.
- Inlet Gas Pressure (in. of water):
Maximum 10.5" W.C. Minimum* 5" W.C.*

For the purpose of input adjustment

PARTS

**THERMOSTATICALLY-CONTROLLED BILTMORE SPLIT OAK MODELS
CCL3018PTA, CCL3018NTA, CCL3924PTA AND CCL3924NTA**



PARTS

THERMOSTATICALLY-CONTROLLED BILTMORE SPLIT OAK MODELS

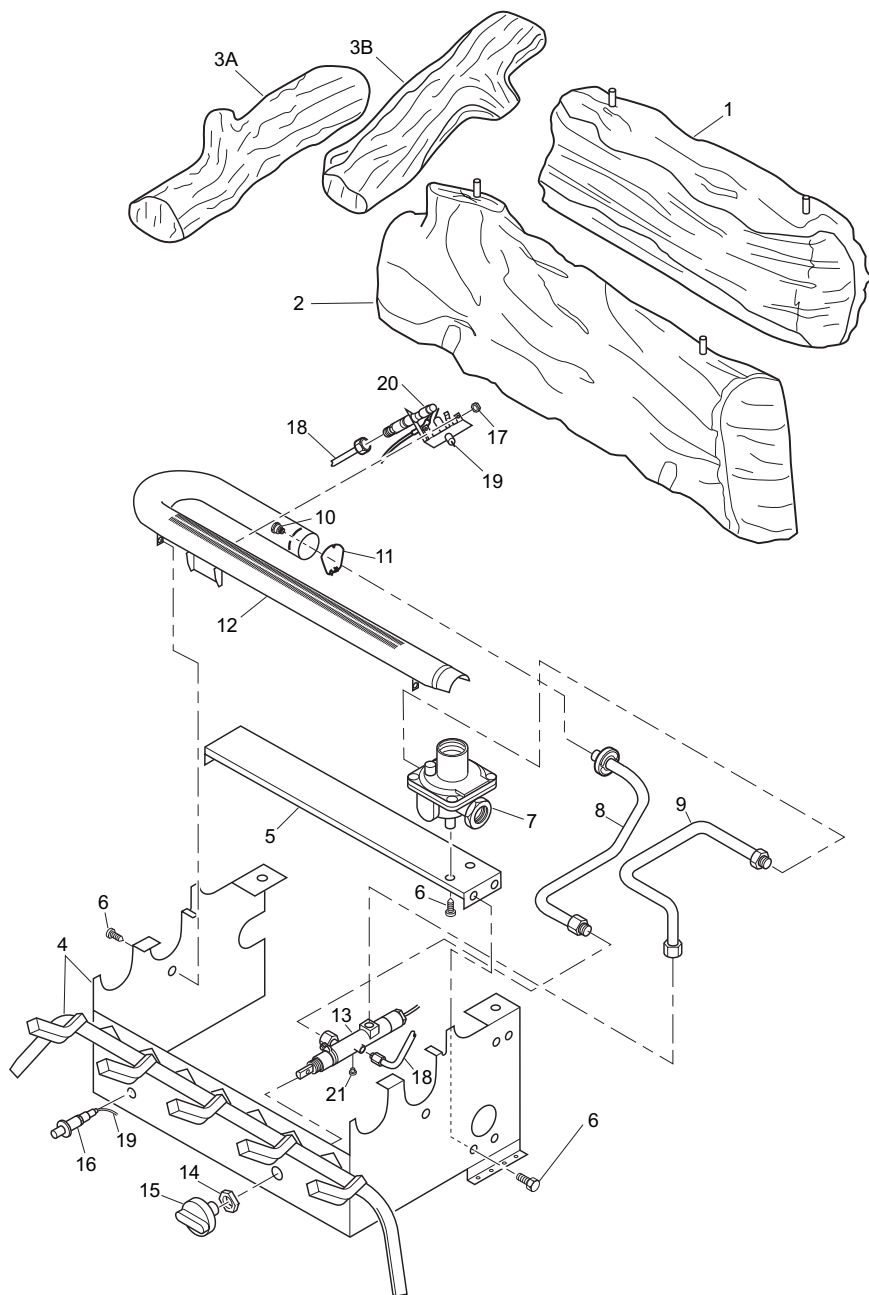
This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Replacement Parts on page 35 of this manual

KEY NO.	PART NO.	DESCRIPTION	CCL3018PTA	CCL3018NTA	CCL3924PTA	CCL3924NTA	QTY.
1	111340-02	Front Log (#1)			•	•	1
	111340-03	Front Log (#1)					1
2	111341-02	Middle Log (#2)			•	•	1
	111341-03	Middle Log (#2)					1
3	111342-02	Back Log (#3)			•	•	1
	111342-03	Back Log (#3)					1
4	111343-02	Left Back Crossover Log (#4)			•	•	1
	111343-03	Left Back Crossover Log (#4)					1
5	111344-01	Left Top Crossover Log (#5)			•	•	1
	111344-02	Left Top Crossover Log (#5)					1
6	111345-02	Right Bottom Crossover Log (#6)	•	•	•	•	1
7	099211-01	Hex Screw, 10-16 x 2.50	•	•	•	•	2
8	102844-01	Lower Bracket			•	•	1
	102844-02	Lower Bracket	•	•			1
9	**	Painted Base Assembly	•	•	•	•	1
10	098867-10	Gas Regulator	•	•	•	•	1
	098867-14	Gas Regulator		•	•	•	1
11	102810-03	Inlet Tube	•	•	•	•	1
12	102983-05	Outlet Burner Tube			•	•	1
	102983-06	Outlet Burner Tube	•	•			1
13	099056-16	Burner Orifice Injector			•	•	1
	099056-17	Burner Orifice Injector		•			1
	099056-19	Burner Orifice Injector	•				1
	099056-26	Burner Orifice Injector		•			1
14	111124-01	Burner Retainer Spring			•	•	1
15	102772-01	Burner			•	•	1
	102980-01	Burner	•	•			1
16	101329-19	Thermostat Gas Valve Assembly			•	•	1
	101329-20	Thermostat Gas Valve Assembly			•		1
	101329-21	Thermostat Gas Valve Assembly		•			1
	101329-22	Thermostat Gas Valve Assembly	•				1
17	102979-01	Thermostat Bracket			•	•	1
	102979-02	Thermostat Bracket	•	•			1
18	098544-01	Thermostat Clip	•	•	•	•	1
19	102445-01	Piezo Ignitor	•	•	•	•	1
20	099387-09	Pilot Tube	•	•	•	•	1
21	098271-10	Ignitor Cable	•	•	•	•	1
22	PP224	ODS Pilot - Propane (LPG)	•	•	•	•	1
22	PP229	ODS Pilot - Natural Gas (NG)		•	•	•	1
24	098249-01	Nut, M5	•	•	•	•	2
PARTS AVAILABLE — NOT SHOWN							
	100563-01	Warning Plate	•	•	•	•	1
	101054-01	Lighting Instructions Plate	•	•	•	•	1
	100565-01	Warning Plate Fastener	•	•	•	•	1
	100639-01	Caution Decal	•	•	•	•	1
	101137-02	Hardware Kit	•	•	•	•	1
	GA6060	Lava Rock	•	•	•	•	1

** Not a field replaceable part.

PARTS

VARIABLE MANUALLY-CONTROLLED SEASONAL OAK MODELS
CRL2718PA, CRL2718NA, CRL3124PA AND CRL3124NA



PARTS

VARIABLE MANUALLY-CONTROLLED SEASONAL OAK MODELS

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Replacement Parts, below.

KEY NO.	PART NUMBER				DESCRIPTION	QTY.
1	113551-01	113551-01	113551-02	113551-02	Back Log (#1)	1
2	113552-01	113552-01	113552-02	113552-02	Front Log (#2)	1
3A	113553-01	113553-01	113553-01	113553-01	Left Crossover Log (#3A)	1
3B	113554-01	113554-01	113554-01	113554-01	Right Crossover Log (#3B)	1
4	**	**	**	**	Painted Base Assy	1
5	102844-01	102844-01	102844-01	102844-01	Lower Bracket	1
6	M11084-38	M11084-38	M11084-38	M11084-38	Screw, Hex Head (#8-18 x 0.38)	8
7	098867-10	098867-14	098867-10	098867-14	Gas Regulator	1
8	111331-04	111331-04	111331-04	111331-04	Outlet Burner Tube	1
9	102798-01	102798-01	102798-01	102798-01	Inlet Tube	1
10	099056-21	099056-20	099056-19	099056-18	Burner Orifice Injector	1
11	111124-01	111124-01	111124-01	111124-01	Burner Retainer Spring	1
12	102963-02	102963-02	102773-03	102773-03	Burner	1
13	119583-01	102568-07	119583-01	102568-07	Control Valve	1
14	098508-01	098508-01	098508-01	098508-01	Valve Retainer Nut	1
15	098354-01	098354-01	098354-01	098354-01	Control Knob	1
16	102445-01	102445-01	102445-01	102445-01	Piezo Ignitor	1
17	098249-01	098249-01	098249-01	098249-01	Nut, M5	2
18	099387-08	099387-08	099387-08	099387-08	Pilot Tube	1
19	098271-10	098271-10	098271-10	098271-10	Ignitor Cable	1
20	PP224	PP229	PP224	PP229	ODS Pilot	1
21					Hex Head Plug, 1/8" NPT	1
PARTS AVAILABLE — NOT SHOWN						
	100563-01	100563-01	100563-01	100563-01	Warning Plate	1
	101055-02	101055-02	101055-02	101055-02	Lighting Instructions Plate	1
	100565-01	100565-01	100565-01	100565-01	Warning Plate Fastener	1
	100639-01	100639-01	100639-01	100639-01	Caution Decal	1
	101449-04	101449-04	101449-04	101449-04	Control Position Decal	1
	101137-02	101137-02	101137-02	101137-02	Hardware Kit	1
	GA6060	GA6060	GA6060	GA6060	Lava Rock	1

** Not a field replaceable part.

REPLACEMENT PARTS

Note: Use only original replacement parts.

PARTS

An authorized dealer can be found by visiting www.desatech.com

When contacting dealer, have ready:

- model number of your heater
- the replacement part number



113097 01

NOT A UPC



DESA Heating, LLC
2701 Industrial Drive
Bowling Green, KY 42101
www.desatech.com

113097-01
Rev. L
09/08