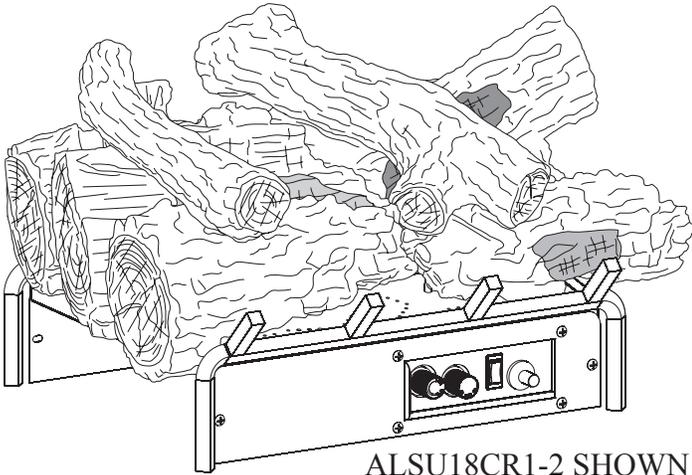




# INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

## *RALEIGH*



ALSU18CR1-2 SHOWN

### LOG SET FOR VENTED AND UNVENTED MULTI-SIDED GAS LOG HEATER

#### MODELS

ALSU18CR1-2  
ALSU24CR1-2  
ALSU30CR1-2



We suggest that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

**WARNING:** If the information in these instructions are 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.

Log sets comply with ANSI Z21.11.2 Unvented Heaters and also comply with ANSI Z21.60 Decorative Vented Appliances for Solid Fuel Burning Fireplaces. State or local codes may only allow operation of log sets in a vented configuration. Check your state or local codes.

**WARNING:** If not installed, operated and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or from fuel combustion which can cause death or serious illness.

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# IMPORTANT INSTALLATION GUIDELINES

## Proper Log Placement

Log placement is critical to proper burner performance. Logs must be correctly positioned onto the burner. The photos in this manual show the proper pinned position for logs on this set. Owners need to be shown proper log placement and instructed not to move the logs.

Logs must fit firmly onto the burner when positioned as shown in the photos. Malformed logs or logs with sloppy pin holes must be replaced.

## Proper Placement of Rock Wool and Decorative Lava Rock

Rock wool can be added to burners for a glowing ember effect. It must be positioned only on the front portion of the burner. The photos in this manual show the proper placement of rock wool.

Decorative lava rock or small wood pieces should never be placed on the burner. These items are only for placement on the floor of the fireplace or firebox.

## Proper Primary Airflow into Burner

For proper burner operation and flame appearance, the flow of primary air into the venturi tube, located on the rear of the burner, must not be reduced. This flow of air is reduced if dirt, lint or other obstructions build-up around or inside the venturi. Any obstruction in the venturi tube area must be removed. The flow of air into the venturi is also reduced if the gas orifice isn't centered in the venturi inlet and/or is not aligned with the venturi. Any misalignment of the burner orifice may be corrected by bending the shutter cap holding the orifice to the inlet of the venturi tube.

## Ceiling Fans, Portable Fans or Logs Installed Near Cold Air Returns

Ceiling fans or oscillating floor type fans need to be monitored during the operation of vent-free logs. If the air blows directly into the flame causing it to impinge on the log set, or firebox, it should be turned off or redirected. Ceiling fans could be reversed to possibly eliminate flame impingement, and the floor fan could be redirected. Upon installation, be aware of any cold air returns or vents in the proximity of the log set. Any draft created around a vent-free log set can cause the flame to impinge on the log and create a sooting situation.

**WARNING:** Do not allow fans to blow directly into the fireplace.

Avoid any drafts that alter burner flame patterns.

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

## Candles

Avoid the use of scented or decorative candles while the log set is in operation. Candles produce a residue in the air that creates a soot like substance. Burning candles while the log set is operating magnifies the problem. It should be noted that candles, in general, produce soot. The amount of time burned and the quantity of candles burned will determine the amount of soot produced and deposited.

## Make Owners Aware of Proper Log Set Operation

Properly installed and properly maintained log sets do not deposit soot on the logs. If users see soot appear on a log, call for service. Do not continue to operate the log set.

## Sunken Fireplace

If installing this unit into a sunken fireplace, you must raise the floor to insure adequate airflow and guard against sooting. Raise fireplace floor using a non-combustible material, which is secure.

## Glass Doors

Make sure that glass doors are open during all operations of the logset. The opening of the glass door frame should be the dimension used for the minimum front opening of the firebox.

## Woodburning Fireplaces

The interior of the firebox and the chimney should be cleaned and free of all creosote before installing a gas burning log set. Creosote will soften when heated and can drop on the logset causing odors and possibly sooting.

**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.

## Conversion

The following WARNING applies when log set is installed onto an unvented gas burner assembly.

**WARNING: This appliance is equipped for natural or propane gas. Field conversion is not permitted.**

# GENERAL INFORMATION

## Qualified Installing Agency

Installation and replacement of gas piping, gas utilization equipment or accessories and repair and servicing of equipment shall be performed only by a qualified agency. The term "qualified agency" means any individual, firm, corporation, or company that either in person or through a representative is engaged in and is responsible for (a) the installation, testing, or replacement of gas piping or (b) the connection, installation, testing, repair, or servicing of equipment; that is experienced in such work; that is familiar with all precautions required, and that has complied with all the requirements of the authority having jurisdiction.

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA54\* or International Fuel Gas Code.

\*Available from the American National Standards Institute, Inc. 11 West 42nd St., New York, N.Y. 10018.

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.

In the State of Massachusetts, unvented propane and natural gas-fired space heaters shall be prohibited in bedrooms and bathrooms.

# LOG PLACEMENT

Before you begin: Do not, handle these logs with your bare hands! Always wear gloves to prevent skin irritation. After handling logs, wash your hands gently with soap and water.

## All Logs

The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly positioned in the appliance.

Refer to Figures 1 through 3 for the following warning.

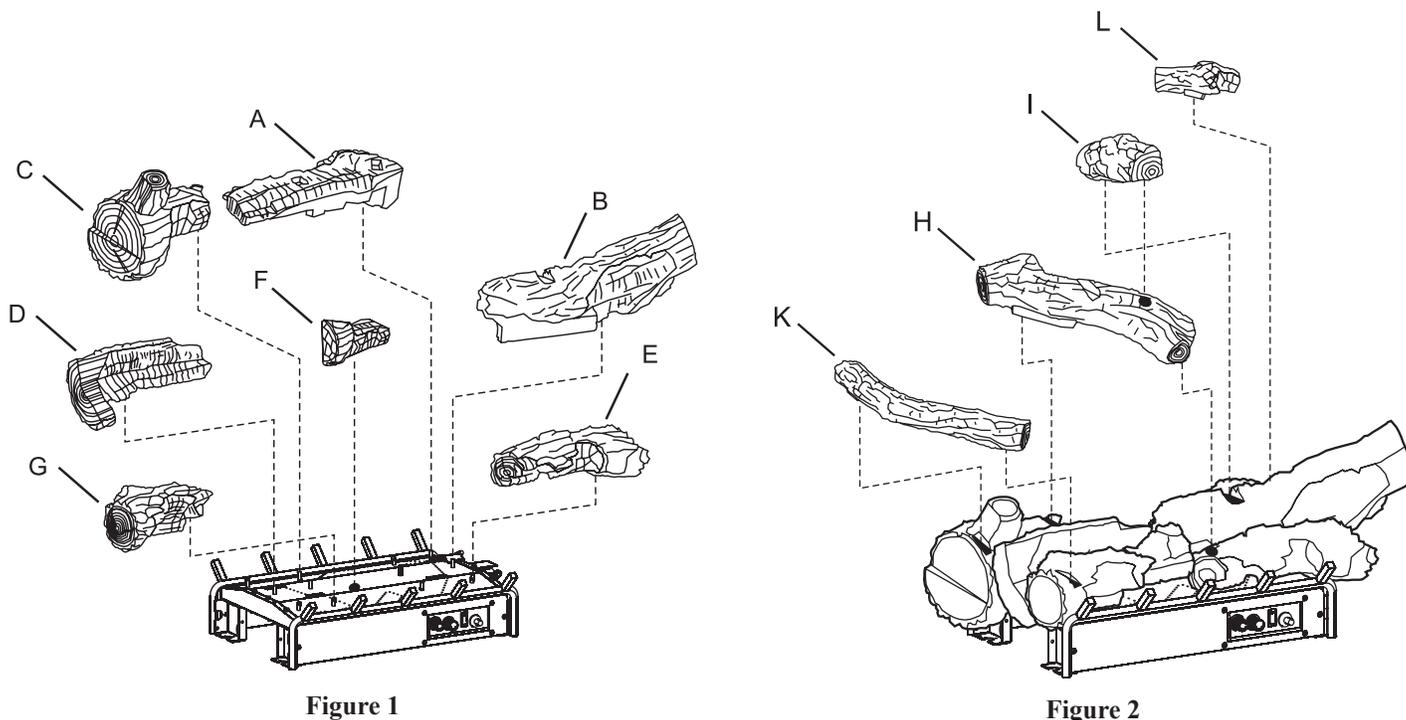
**Warning:** Failure to position the parts in accordance with this diagram or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

## PROPER INSTALLATION SEQUENCE:

ATTENTION: For the instructions below, "Front" indicates the side of the burner with the valve.

1. With the valve "front" side facing you, place Back Right Log (log A) onto right back pins of burner.
2. Place Right Middle Log (log B) onto right middle pins of burner.
3. Place Left Back Log (log C) onto left back pins of burner.
4. Place Left Middle Log (log D) onto left middle pins of burner.
5. Place Right Front Log (log E) onto right front pin of burner.
6. Place Center Middle Log (log F) onto burner top against logs B and D. Note: Omit this step for 18" log sets.
7. Place Left Front Log (log G) onto left front pins of burner.
8. Insert boss of Middle Bottom Branch (log H) into recess on logs E, B, and C.
9. Insert boss of Middle Top Branch (log I) into recess on log H (Middle Bottom Branch) and logs A and B. Note: Omit this step for 18" log sets.
10. Insert boss of Top Left Branch (log K) into recess on logs C, D, and G.
11. Insert recess of Top Right Branch (log L) into the recess on log A.
12. Compare the completed log installation with Figure 4. Review previous steps to make any necessary adjustments.
13. Log placement is complete.

**NOTE:** When placed correctly, the logs will not cover any ports.



# LOG PLACEMENT

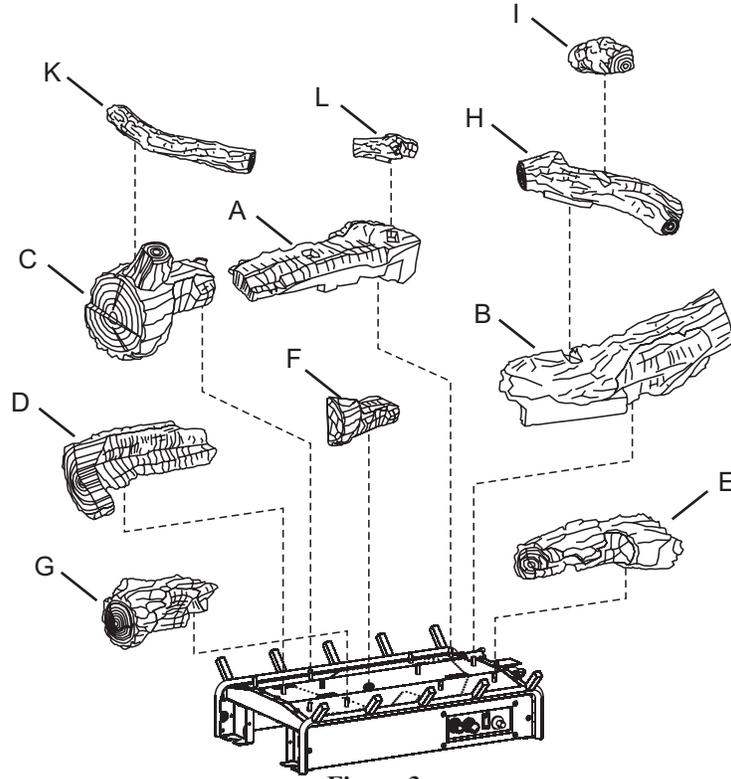
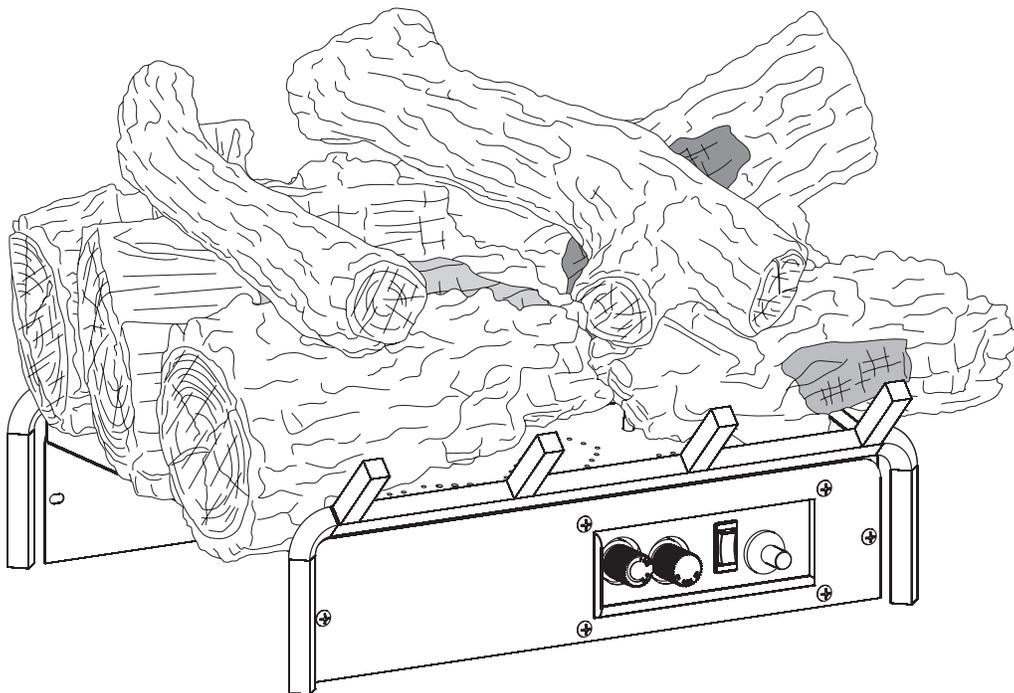


Figure 3

**Attention:** Do not use Figures 1 to 3 to order replacement logs. Refer to Page 10, Parts List and Parts View to order logs for your appropriate model number.



Log Placement  
ALSU18CR1-2 Logs and Burner Shown

Figure 4

# EMBER PLACEMENT

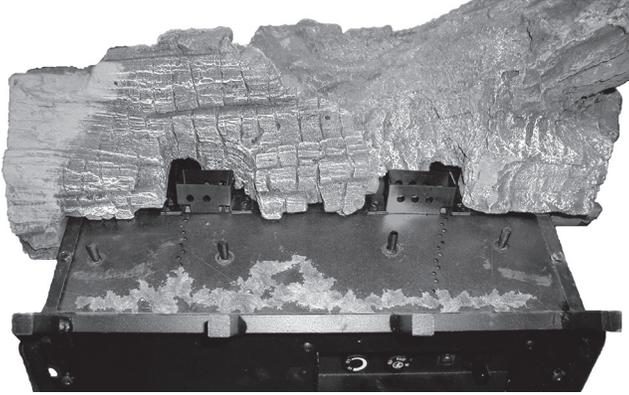
Apply loose material (glowing embers) with the appropriate ember placement photos on pages 7 through 9. Replacement of loose material (glowing embers) must be purchased from Empire Comfort Systems, Inc. Application of excess loose material (glowing embers) may adversely affect performance of the heater. **WARNING:** All previously applied loose material must be removed prior to reapplication.

## Replacement Loose Material (glowing embers) Part Number

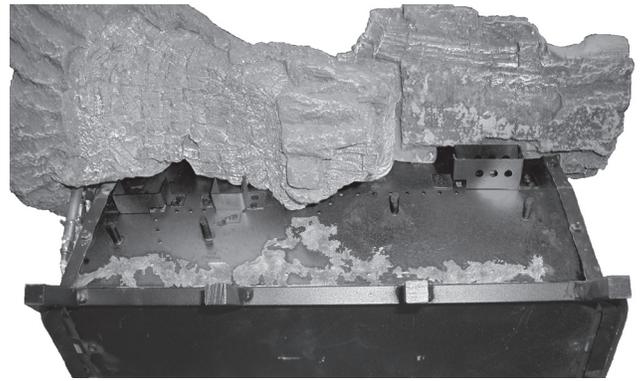
Rock Wool	15999
Platinum Bright Embers	PE-20-1

**Note:** A single layer of embers is to be used when applying Platinum Bright Embers (alone or in combination with production embers) to the burner.

# EMBER PLACEMENT ALSU18CR1-2 PHOTOS



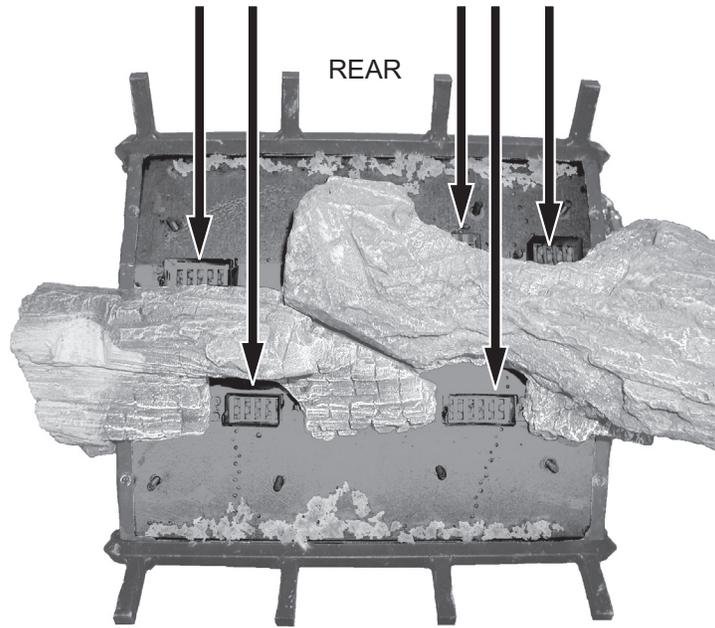
FRONT (VALVE SIDE)



REAR

**Some logs have been removed for clarity**

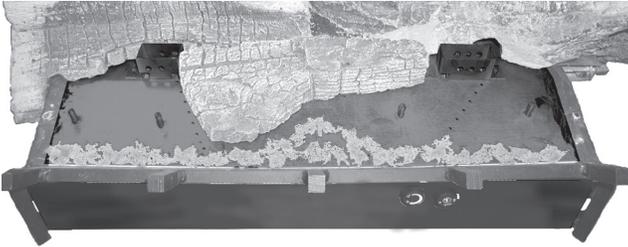
**Do not cover any large ports with loose material (glowing embers)**



REAR

FRONT (VALVE SIDE)

# EMBER PLACEMENT ALSU24CR1-2 PHOTOS



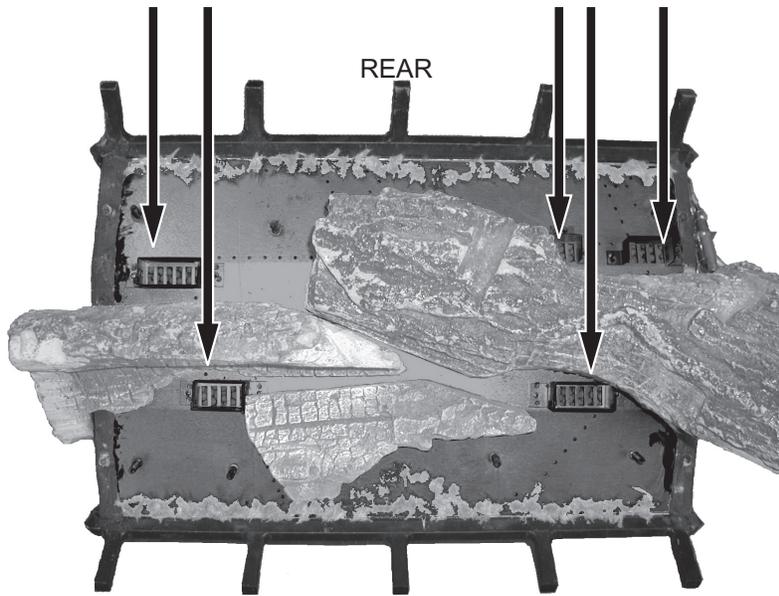
FRONT (VALVE SIDE)



REAR

**Some logs have been removed for clarity**

**Do not cover any large ports with loose material (glowing embers)**



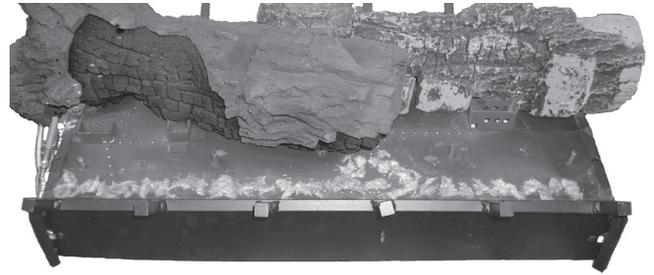
REAR

FRONT (VALVE SIDE)

# EMBER PLACEMENT ALSU30CR1-2 PHOTOS



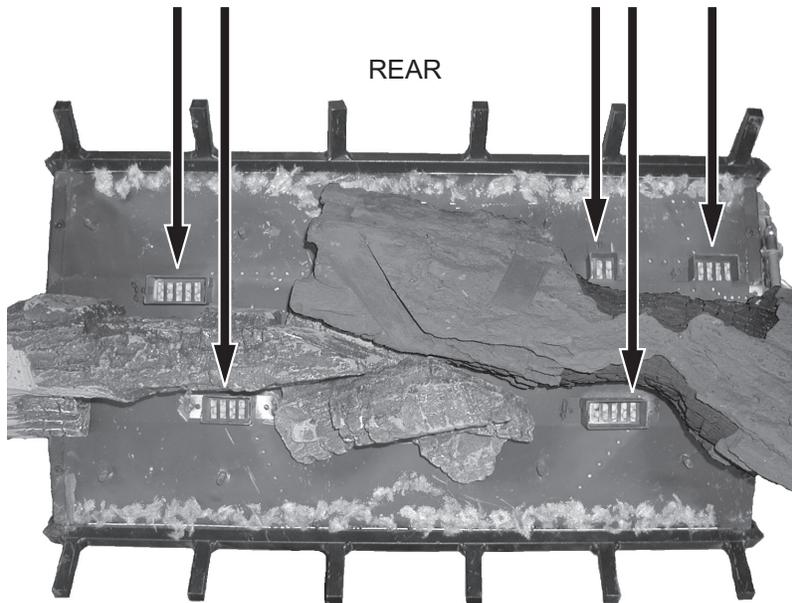
FRONT (VALVE SIDE)



REAR

**Some logs have been removed for clarity**

**Do not cover any large ports with loose material (glowing embers)**

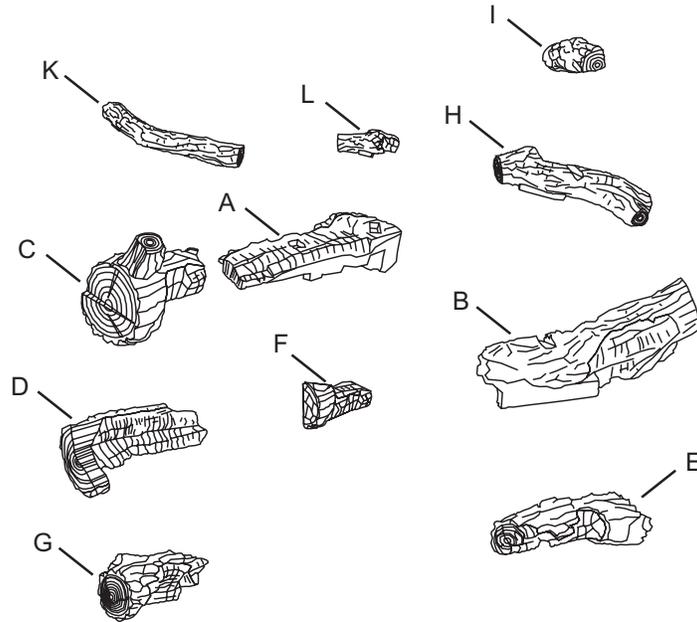


REAR

FRONT (VALVE SIDE)

# PARTS LIST & PARTS VIEW

**Attention:** When ordering parts, it is very important that **part number** and **description** of part coincide.



Index No.	Part Number ALSU18CR1-2	Part Number ALSU24CR1-2	Part Number ALSU30CR1-2	Description
A	R9312	R9323	R9329	BACK RIGHT LOG
B	R9313	R9717	R9876	RIGHT MIDDLE LOG
C	R9714	R9720	R9877	LEFT BACK LOG
D	R9315	R9326	R9332	LEFT MIDDLE LOG
E	R9316	R9873	R9878	RIGHT FRONT LOG
F	N/A	R9328	R9334	CENTER MIDDLE LOG
G	R9317	R9366	R9367	LEFT FRONT LOG
H	R9320	R10282	R9462	MIDDLE BOTTOM BRANCH
I	N/A	R9319	R9319	MIDDLE TOP BRANCH
K	R9321	R9321	R9321	TOP LEFT BRANCH
L	R9322	R9322	R9322	TOP RIGHT BRANCH

**USE ONLY MANUFACTURER'S REPLACEMENT PARTS. USE OF ANY OTHER PARTS COULD CAUSE INJURY OR DEATH.**

# MASTER PARTS DISTRIBUTOR LIST

To Order Parts Under Warranty, please contact your local Empire dealer. See the dealer locator at [www.empirecomfort.com](http://www.empirecomfort.com). To provide warranty service, your dealer will need your name and address, purchase date and serial number, and the nature of the problem with the unit.

To Order Parts After the Warranty Period, please contact your dealer or one of the Master Parts Distributors listed below. This list grows from time to time. For the current list, please click on the Master Parts button at [www.empirecomfort.com](http://www.empirecomfort.com).

Please note: Master Parts Distributors are independent businesses that stock the most commonly ordered Original Equipment repair parts for Heaters, Grills, and Fireplaces manufactured by Empire Comfort Systems Inc.

**Star-Fire Distributors**

1355 Evans Avenue  
Akron, OH 44305

**Phone:** 330-630-2794

**Toll Free:** 800-875-6220

**Fax:** 330-633-8701

**Parts: Heater & Hearth and Grills**

**Dey Distributing**

1401 Willow Lake Boulevard  
Vadnais Heights, MN 55101

**Phone:** 651-490-9191

**Toll Free:** 800-397-1339

**Website:** [www.deydistributing.com](http://www.deydistributing.com)

**Parts: Heater & Hearth**

**East Coast Energy Products**

10 East Route 36  
West Long Branch, NJ 07764

**Phone:** 732-870-8809

**Toll Free:** 800-755-8809

**Fax:** 732-870-8811

**Website:** [www.eastcoastenergy.com](http://www.eastcoastenergy.com)

**Parts: Heater & Hearth and Grills**

**Victor Division of F. W. Webb Company**

200 Locust Street  
Hartford, CT 06114

**Phone:** 860-722-2433

**Toll Free:** 800-243-9360

**Fax:** 860-293-0479

**Toll Free Fax:** 800-274-2004

**Websites:** [www.fwwebb.com](http://www.fwwebb.com) & [www.victormfg.com](http://www.victormfg.com)

**Parts: Heater & Hearth and Grills**

## HOW TO ORDER REPAIR PARTS

**Parts Not Under Warranty**

Parts can be ordered through your Service Person, Dealer, or a Master Parts Distributor. See this page for the Master Parts Distributors list. For best results, the **service person or dealer** should order parts through the distributor. Parts can be shipped directly to the **service person/dealer**.

**Warranty Parts**

Warranty parts will need a proof of purchase and can be ordered by your Service Person or Dealer. Proof of purchase is **required** for warranty parts.

All parts listed in the Parts List have a Part Number. When ordering parts, first obtain the Model Number from the name plate on your equipment. Then determine the Part Number (**not** the Index Number) and the Description of each part from the following appropriate illustration and list. Be sure to give all this information . . .

Appliance Number \_\_\_\_\_ Part Description \_\_\_\_\_

Appliance Serial Number \_\_\_\_\_ Part Number \_\_\_\_\_

Type of Gas (Propane or Natural) \_\_\_\_\_

Do not order bolts, screws, washers or nuts. They are standard hardware items and can be purchased at any local hardware store.

Shipments contingent upon strikes, fires and all causes beyond our control.



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918 Freeburg Ave. Belleville, IL 62220

If you have a general question about our products, please e-mail us at  
[info@empirecomfort.com](mailto:info@empirecomfort.com).

If you have a service or repair question, please contact your dealer.

**[www.americanhearth.com](http://www.americanhearth.com)**