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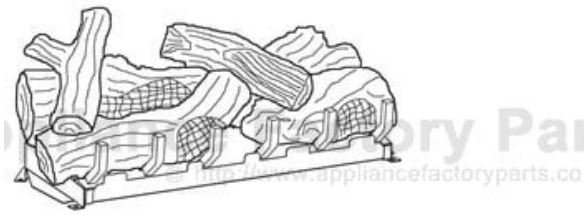
American Hearth ALS-24CR1-1 Owner's Manual

Shop genuine replacement parts for American Hearth ALS-24CR1-1



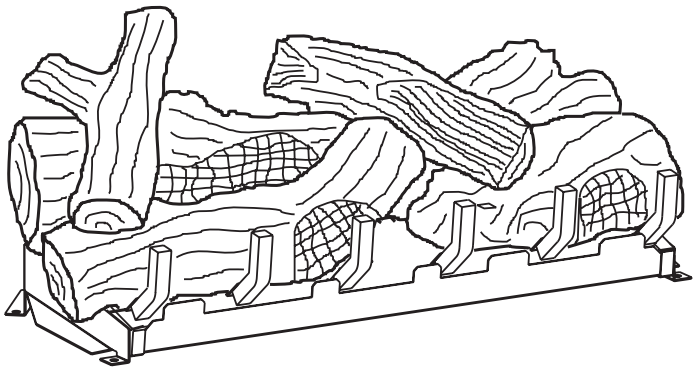
Find Your American Hearth Fireplace Parts - Select From 88 Models

-------- Manual continues below --------

AMERICAN HEARTH

INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

CHARLESTON



Installer: Leave this manual with the appliance.
Consumer: Retain this manual for future reference.

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.**

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.

LOG SET FOR UNVENTED GAS LOG HEATER OR VENTED DECORATIVE APPLIANCE

MODELS

	Supersize
ALS-16CR1-1	ALS-18CR1S-1
ALS-18CR1-1	ALS-24CR1S-1
ALS-24CR1-1	ALS-30CR1S-1
ALS-30CR1-1	

CERTIFIED

DESIGN CERTIFIED

GAS-FIRED c UL us LISTED

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

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.

The QR Codes below provide a links to our helpful "how-to" videos. To get started, scan the code with your smart phone or tablet.

Charleston Log Assembly

Charleston Supersize Log Assembly

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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.** **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.

In the Commonwealth of Massachusetts vent free products are not approved.

State of Massachusetts requirement for installation of vented decorative appliance in a vented fireplace is the following:

A vented decorative gas appliance must be installed in a vented fireplace only in the state of Massachusetts. The vent damper must be removed or welded permanently open.

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. Misformed 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.

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 and 2 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:
ALS-16CR1 (Figure 1)

1. Place back right (#1) log onto right, rear pin on rear log support.
2. Place back left (#2) log onto left, rear pin on rear log support.
3. Place front right (#3) log onto two (2) right, front pins on burner pan.
4. Place front left (#4) log onto two (2) left, front pins on burner pan.
5. Place boss on top left (#5) log into recess on back left (#2) log.
6. Insert boss on top right (#6) log into groove on back right (#1) log.
7. Compare the completed log installation with the appropriate photo from pages 3 through 6. Review previous steps to make any necessary adjustments.
8. Log placement is completed.

Attention: Do not use Figure 1 to order replacement logs. Refer to Page 12, Parts List and Parts View to order logs for your appropriate model number.

PROPER INSTALLATION SEQUENCE:
ALS-(18, 24, 30)CR1 (Figure 2)

1. Place back left (#1) log onto left, rear pin on rear log support.
2. Place back right (#2) log onto right, rear pin on rear log support.
3. Place front right (#3) log onto two (2) right, front pins on burner pan.
4. Place front left (#4) log onto two (2) left, front pins on burner pan.
5. Place boss on top left (#5) log into recess on back left (#1) log.
6. Insert boss on top right (#6) log into groove on back right (#2) log.
7. Compare the completed log installation with the appropriate photo from pages 3 through 6. Review previous steps to make any necessary adjustments.
8. Log placement is completed.

Attention: Do not use Figure 2 to order replacement logs. Refer to Page 12, Parts List and Parts View to order logs for your appropriate model number.

PROPER INSTALLATION SEQUENCE
ALS-(18,24,30)CR1S-1 (Figure 3

1. Place back right (#1) log onto right, rear pin on rear log support.
2. Place back left (#2) log onto left, rear pin on rear log support.
3. Place front right (#3) log onto two (2) right, front pins on burner pan.
4. Place front left (#4) log onto two (2) left, front pins on burner pan.
5. Place boss of left middle log (A) into recess on back left (1) log.
6. Insert boss of center middle log (B) into groove on back right (2) log.
7. Place right middle log (D) onto right back log (2) and front right log (3).
8. Place top right branch (E) to round boss on right middle log (D) and square boss on center middle log (B).
   Note: Assembly of ALS-18CR1S-1 logset is complete. ALS-(24,30)CR1S-1 logsets should continue through step 9.
9. Place top left branch (F) on top of center middle log (B) resting on back of top right branch (E) and far left finger of top left branch (F) under back of left middle log (A).

Attention: Do not use Figure 3 to order replacement logs. Refer to Page 13, Parts List and Parts View to order logs for your appropriate model number.

Apply loose material (glowing embers) per appropriate Installation Instructions and Owner's Manual. Replacement of loose material (glowing embers) must be purchased from American Hearth 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.

Scan the appropriate code below to see the log assembly video.

Charleston Log Assembly

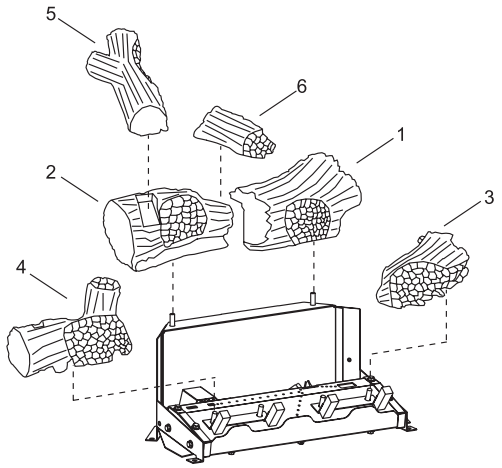
Charleston Supersize Log Assembly

LOG PLACEMENT

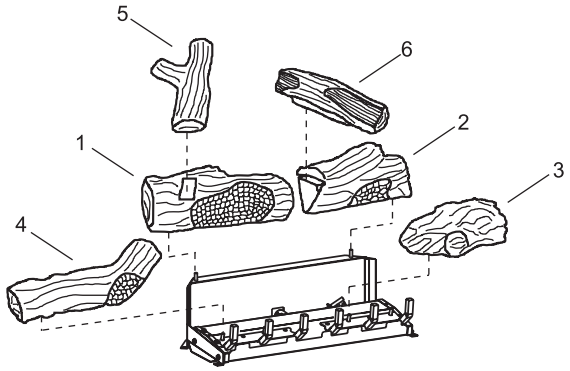
Replacement Loose Material (glowing embers) Part Number

ALS-16CR1	15998
ALS-18CR1	15999
ALS-24CR1	15970
ALS-30CR1	15970
Platinum Bright Embers	PE20-1

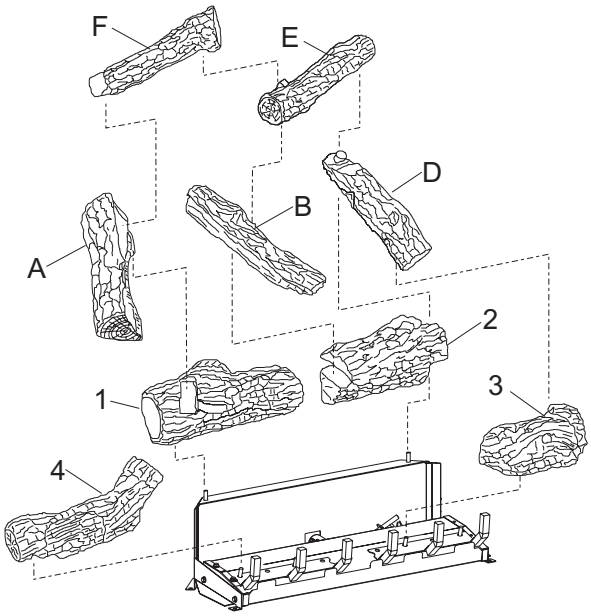
Note: A single layer of embers is to be used when applying Platinum Bright Embers (alone or in combination with production embers) to the burner.



Log Placement - ALS-16CR1 Logs Shown
Figure 1



Log Placement - ALS-(18, 24, 30)CR1 Logs Shown
Figure 2



Note: There is no log "C" in these logsets.

Log Placement - ALS-(18, 24, 30)CR1S-1 Logs Shown
Figure 3

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

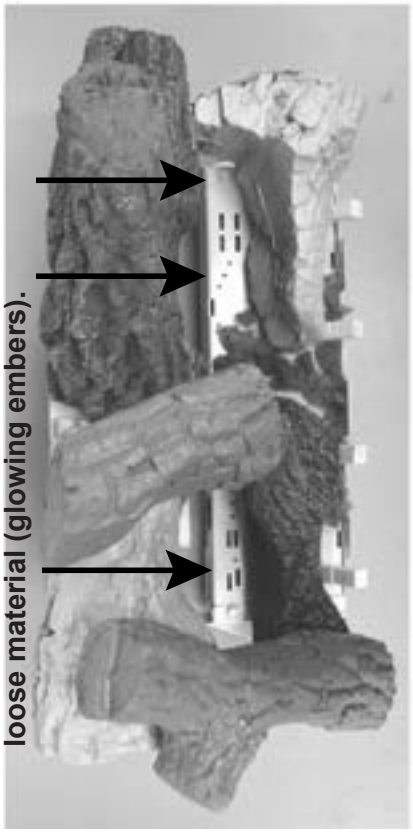
WARNING: This appliance is equipped for (natural or propane) gas. Field conversion is not permitted.

Scan the appropriate code below to see the log assembly video.

Charleston Log Assembly

Charleston Supersize Log Assembly

ALS-16CR1-1 EMBER PLACEMENT



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

Photo 1

Photo 2

Photo 3

Photo 4

ALS-18CR1-1 EMBER PLACEMENT

Photo 2

Photo 4

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

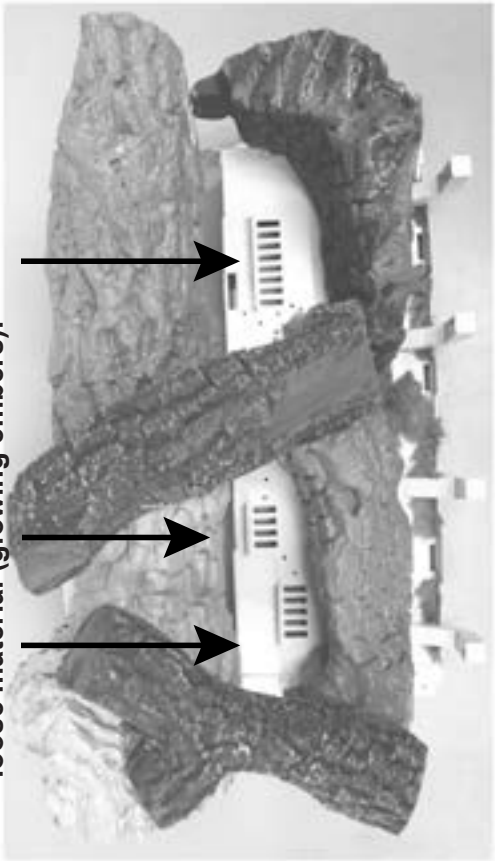
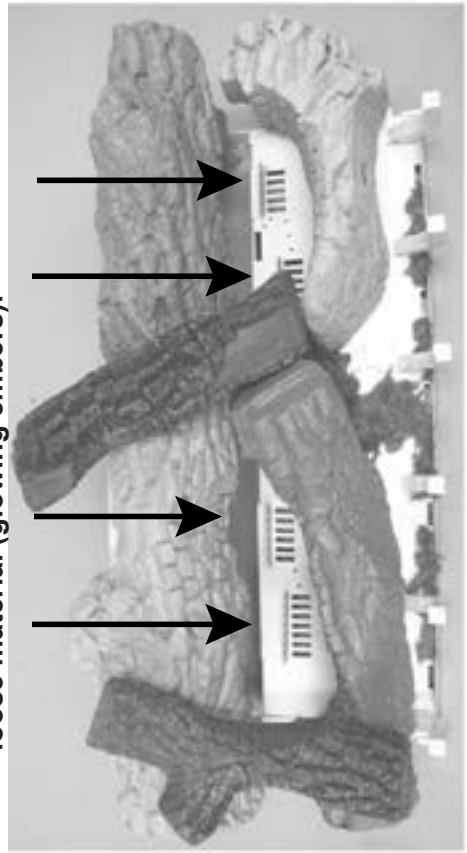


Photo 1

Photo 3

ALS-24CR1-1 EMBER PLACEMENT



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

Photo 1

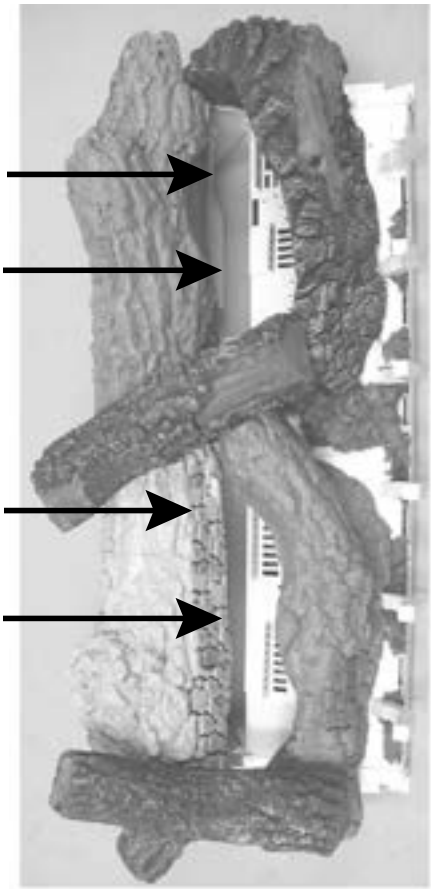
Photo 2

Photo 3

Photo 4

ALS-30CR1-1 EMBER PLACEMENT

Photo 1



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

Photo 2

Photo 3

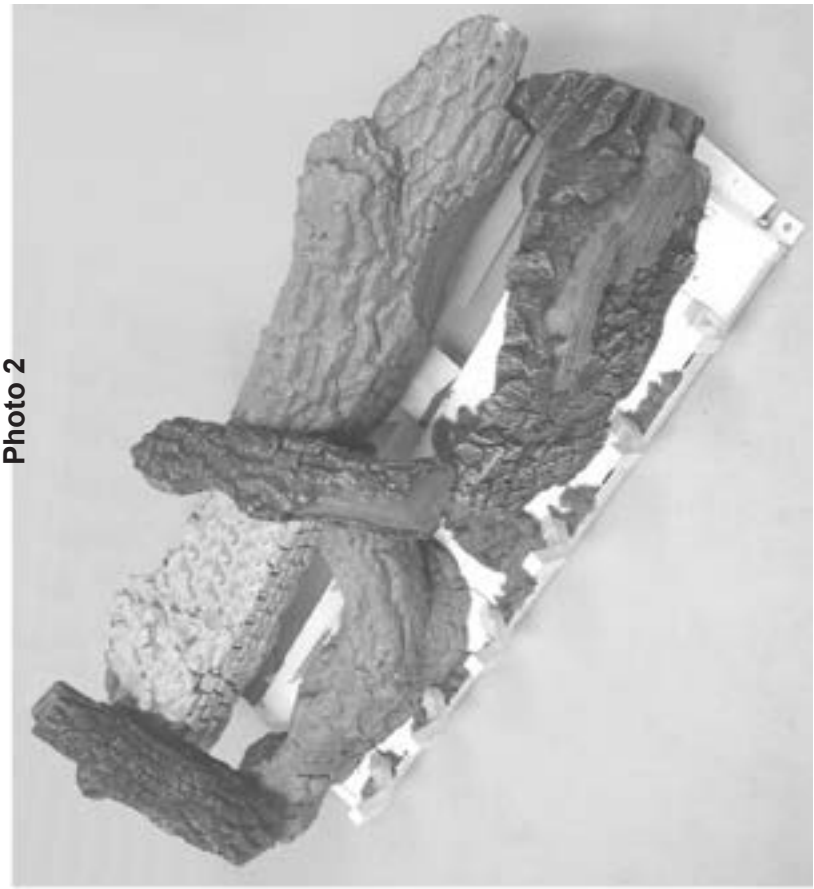


Photo 4

ALS-18CR1S-1 EMBER PLACEMENT

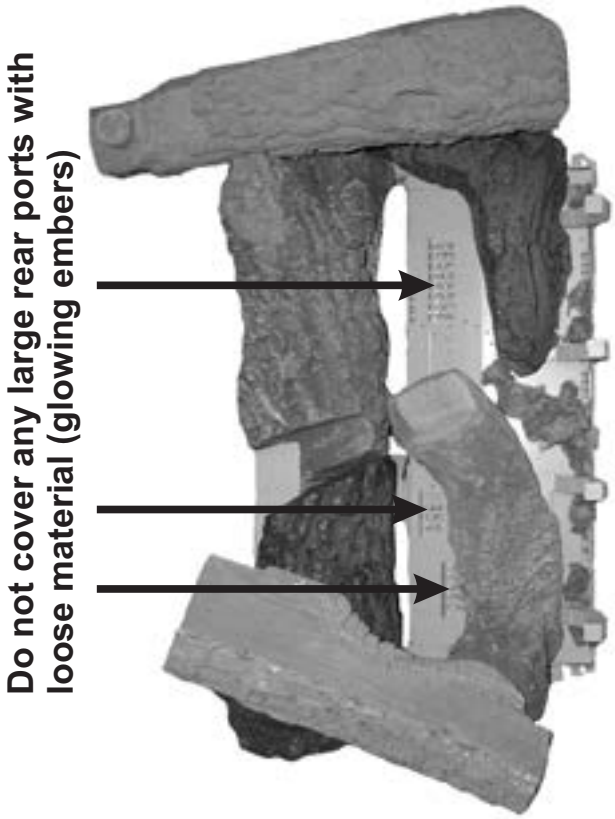


Photo 2

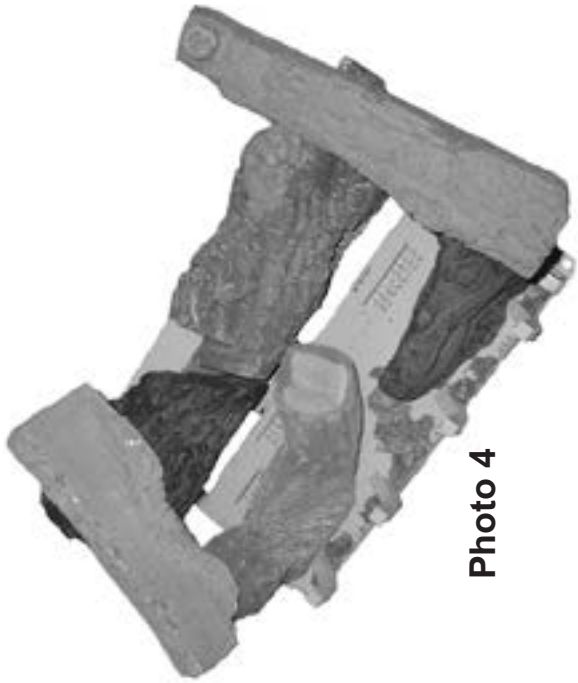


Photo 4

Photo 1

Photo 3

ALS-24CR1S-1 EMBER PLACEMENT

Photo 1

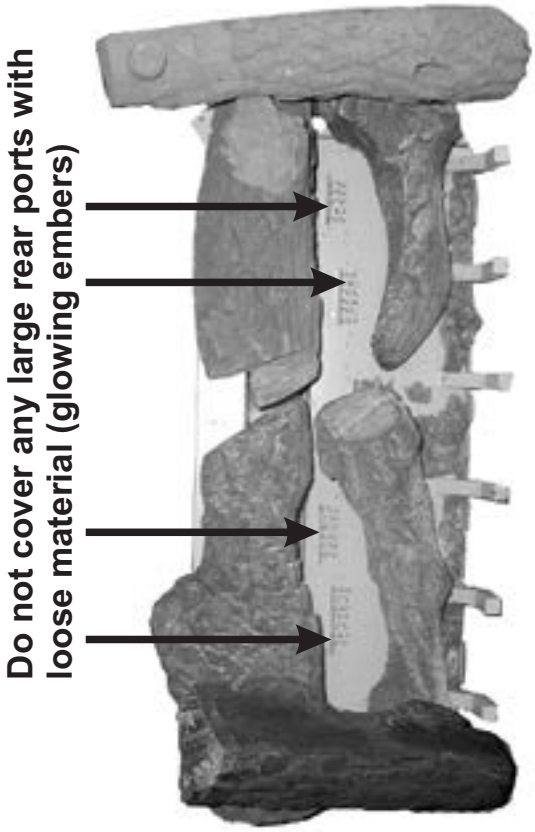


Photo 2

Photo 3

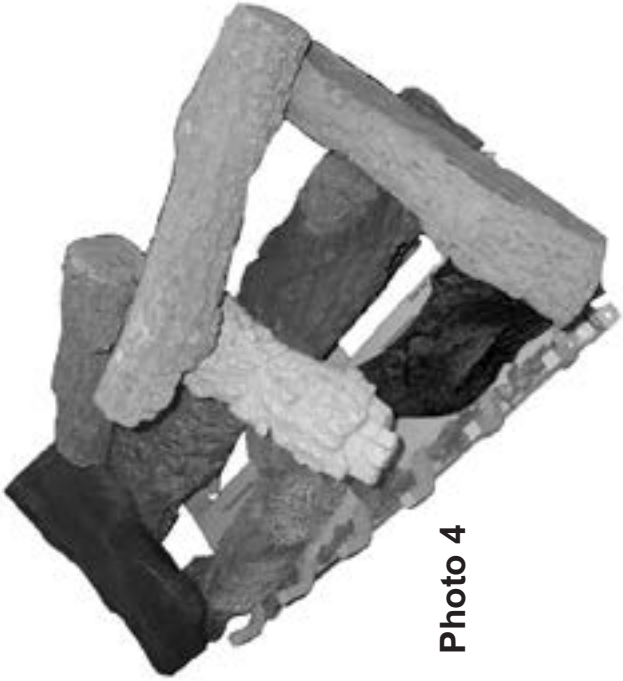


Photo 4

ALS-30CR1S-1 EMBER PLACEMENT

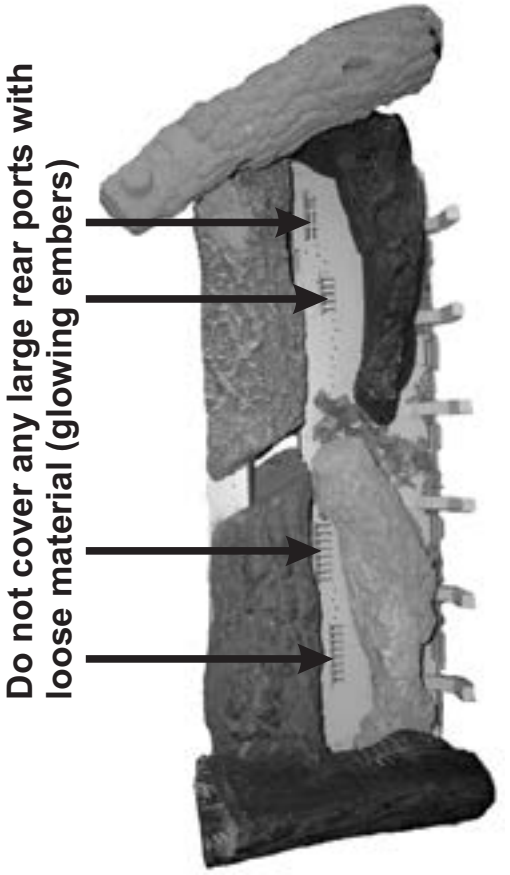


Photo 2

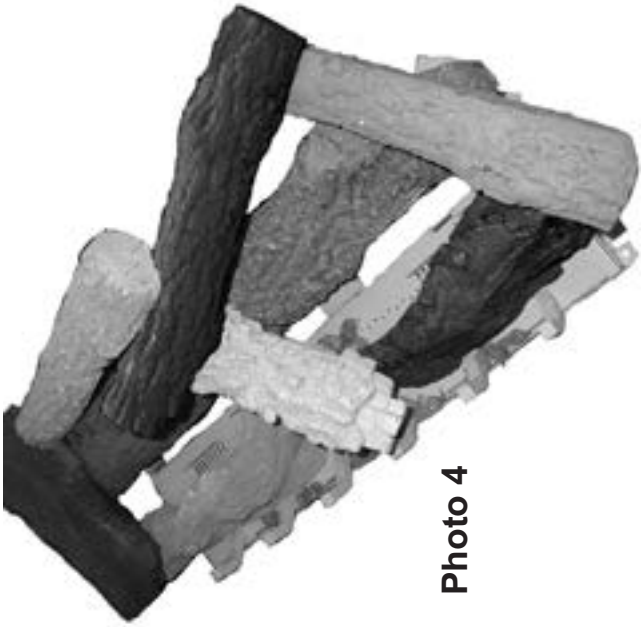


Photo 4

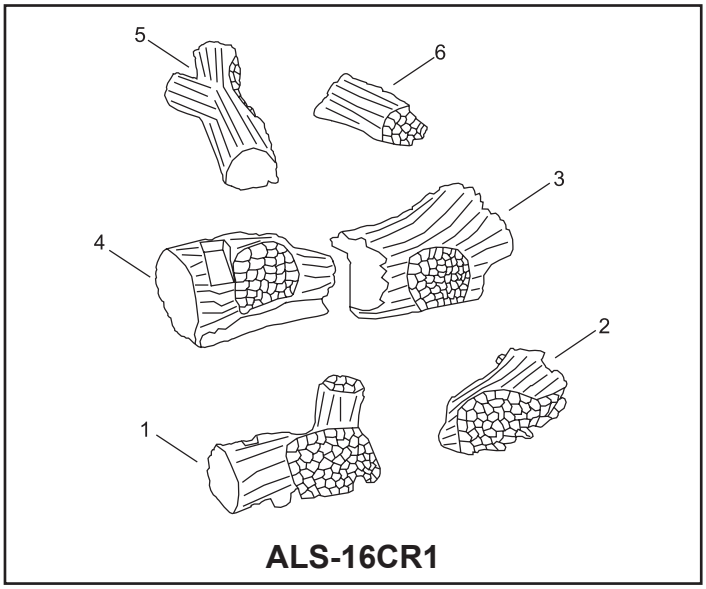
Photo 1

Photo 3

PARTS LIST & PARTS VIEW

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

ALS-16CR1 LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R-6016	LEFT FRONT LOG
2	R-6017	RIGHT FRONT LOG
3	R-6015	RIGHT REAR LOG
4	R-6014	LEFT REAR LOG
5	R-5880	TOP LEFT LOG
6	R-6018	TOP RIGHT LOG

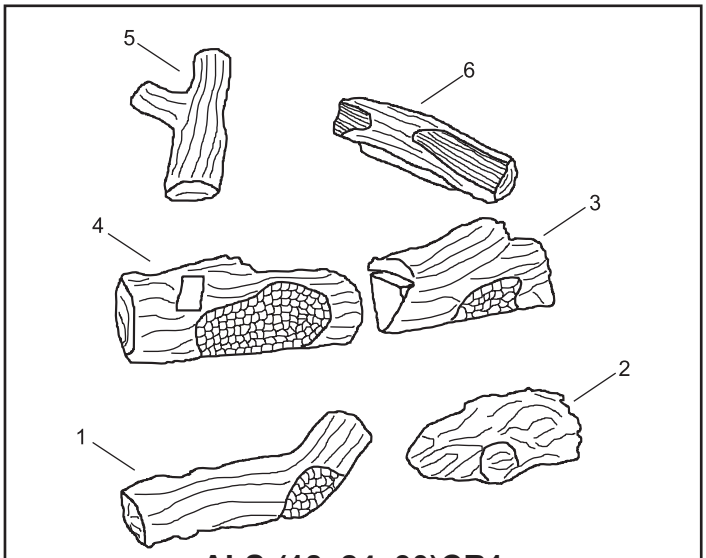


ALS-16CR1

ALS-18CR1 LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R-5888	LEFT FRONT LOG
2	R-5889	RIGHT FRONT LOG
3	R-5877	RIGHT REAR LOG
4	R-5887	LEFT REAR LOG
5	R-5880	TOP LEFT LOG
6	R-5881	TOP RIGHT LOG

ALS-24CR1 LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R-5878	LEFT FRONT LOG
2	R-6291	RIGHT FRONT LOG
3	R-5877	RIGHT REAR LOG
4	R-5876	LEFT REAR LOG
5	R-5880	TOP LEFT LOG
6	R-5881	TOP RIGHT LOG

ALS-30CR1 LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R-7296	LEFT FRONT LOG
2	R-5906	RIGHT FRONT LOG
3	R-5904	RIGHT REAR LOG
4	R-7165	LEFT REAR LOG
5	R-5880	TOP LEFT LOG
6	R-5881	TOP RIGHT LOG



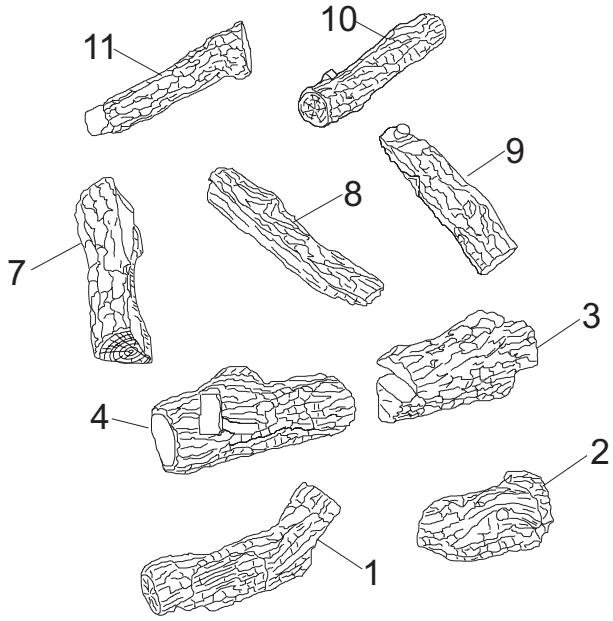
ALS-(18, 24, 30)CR1

SUPERSIZE PARTS LIST & PARTS VIEW

ALS-18CR1S LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R5888	LEFT FRONT LOG
2	R5889	RIGHT FRONT LOG
3	R5877	RIGHT REAR LOG
4	R5887	LEFT REAR LOG
7	R9043	LEFT MIDDLE LOG
8	R9042	CENTER MIDDLE LOG
9	R9044	RIGHT MIDDLE LOG
10	R9045	TOP RIGHT BRANCH
11	N/A	TOP LEFT BRANCH

ALS-24CR1S LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R5878	LEFT FRONT LOG
2	R6291	RIGHT FRONT LOG
3	R5877	RIGHT REAR LOG
4	R5876	LEFT REAR LOG
7	R9043	LEFT MIDDLE LOG
8	R9042	CENTER MIDDLE LOG
9	R9044	RIGHT MIDDLE LOG
10	R9045	TOP RIGHT BRANCH
11	R9046	TOP LEFT BRANCH

ALS-30CR1S LOG SET PARTS LIST		
Index No.	Part Number	Description
1	R7296	LEFT FRONT LOG
2	R5906	RIGHT FRONT LOG
3	R5904	RIGHT REAR LOG
4	R7165	LEFT REAR LOG
7	R9043	LEFT MIDDLE LOG
8	R9042	CENTER MIDDLE LOG
9	R9044	RIGHT MIDDLE LOG
10	R9045	TOP RIGHT BRANCH
11	R9191	TOP LEFT BRANCH



ALS-(18, 24, 30)CR1S

MASTER PARTS DISTRIBUTOR LIST

To Order Parts Under Warranty, please contact your local Empire dealer. See the dealer locator at 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 changes from time to time. For the current list, please click on the Master Parts button at 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.

Dey Distributing
1401 Willow Lake Boulevard
Vadnais Heights, MN 55101

Phone: 651-490-9191
Toll Free: 800-397-1339
Website: www.deydistributing.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 & www.victormfg.com
Parts: Heater, Hearth and Grills

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
Parts: Heater, Hearth and Grills

Able Distributors
2501 North Central Avenue
Chicago, IL 60639

Phone: 773-889-5555
Toll Free: 800-880-2253
Fax: 773-466-1118
Website: www. abledistributors.com
Parts: Heater

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 and Serial 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 illustration and part list. Be sure to give all this information . . .

Appliance Model 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.

A Registered Trademark of Empire Comfort Systems, Inc.
918 Freeburg Ave. Belleville, IL 62220
PH: 618-233-7420 or 800-851-3153
FAX: 618-233-7097 or 800-443-8648
info@empirecomfort.com

www.americanhearth.com