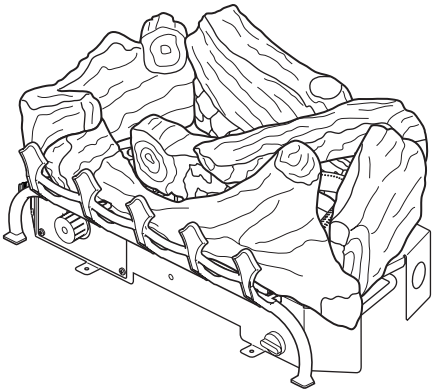
DESA™
HEARTH PRODUCTS

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



O-T-L US

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

24" THERMOSTAT MODELS CDR3924NT AND CDR3924PT

⚠ 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.

TABLE OF CONTENTS

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 an 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. For unmarked factory-built fireplaces, contact fireplace manufacturer if unsure of this application.

⚠ 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 5 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**

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

SAFETY
Continued

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 property damage and 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 use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.

⚠ WARNING: This appliance is for installation only in a solid-fuel burning fireplace or approved ventless firebox enclosure.

⚠ 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.

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.

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.

SAFETY
Continued

2. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors.
3. 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
4. This heater shall not be installed in a bedroom or bathroom, unless installed as a vented appliance.
5. 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 and firebox for damage. If damaged, repair flue before operating heater.
6. Do not burn solid-fuel in a masonry or UL127 factory-built fireplace in which a vent-free room heater is installed.
7. 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.
8. To prevent the creation of soot, follow the instructions in *Cleaning and Maintenance*, page 18.
9. 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 and furniture.
10. 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 enough fresh air is not available. See *Air for Combustion and Ventilation*, page 5. If heater keeps shutting off, see *Troubleshooting*, page 20.
11. Do not run heater
    - where flammable liquids or vapors are used or stored
    - under dusty conditions
12. Do not use this heater to cook food or burn paper or any other type of solid fuels.
13. 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.
14. Do not operate heater if any log is broken. Do not operate heater if a log is chipped (dime-sized or larger).
15. Turn heater off and let cool before servicing, installing or repairing. Only a qualified service person should install, service or repair heater.
16. Operating heater above elevations of 4,500 feet may cause pilot outage.
17. To prevent performance problems with propane/LP models, do not use propane/LP fuel tank of less than 100 lb. capacity.
18. Provide adequate clearances around air openings.

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.

PRODUCT IDENTIFICATION

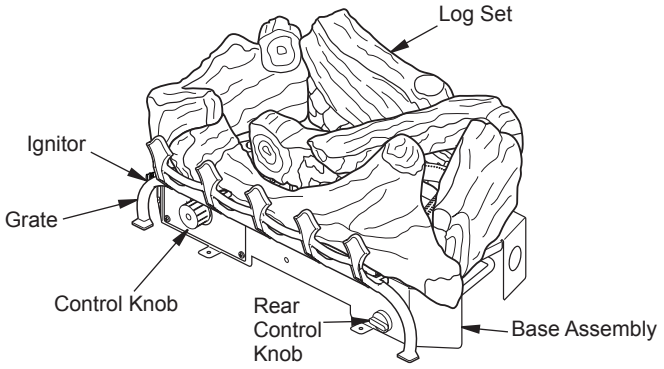


Figure 1 - Product Identification

UNPACKING

⚠ CAUTION: Do not remove the data plates from the base assembly. The data plates contain important warranty and safety 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 the sides of assembly.*
2. Remove all protective packaging applied to logs and heater for shipment.
3. Check heater for any shipping damage. If heater is damaged call DESA Heating, LLC at 1-866-672-6040 for replacement parts before returning to dealer.

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 both realistic flames and glowing coals. 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.

SAFETY DEVICE

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.

IGNITION SYSTEM

This heater has an electronic ignitor to light heater fuel supply.

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

AIR FOR COMBUSTION AND VENTILATION

Continued

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 5 through 7 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 x 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 these three criteria, you must provide additional fresh air. See *Ventilation Air From Outdoors*, page 7.

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

The 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 per hour (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 heater 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)

   Example: Space size 20 ft. (length) x 16 ft. (width) x 8 ft. (ceiling height) = 2560 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: 2560 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 heater		_____Btu/Hr
Gas water heater*		_____Btu/Hr
Gas furnace		_____Btu/Hr
Vented gas heater		_____Btu/Hr
Gas fireplace logs		_____Btu/Hr
Gas water heater		_____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 heater	+ 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 of Btu/Hr 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 above 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*.
C. Install a lower Btu/Hr heater, 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.

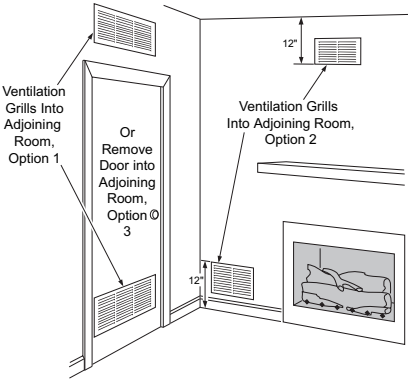


Figure 2 - Ventilation Air from Inside Building

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, Air 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 thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

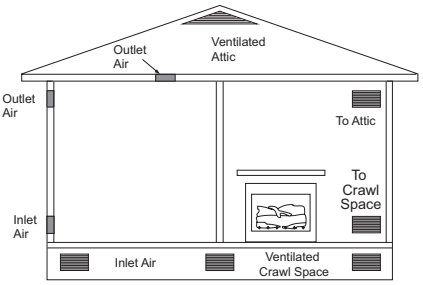


Figure 3 - Ventilation Air from Outdoors

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 heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

⚠ WARNING: Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

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

⚠ WARNING: Never install the heater

- **in a bedroom or bathroom**
- **in a recreational vehicle**
- **where curtains, furniture, clothing or other flammable objects are less than 36" from front or 42" from of heater. For side clearances see Figure 4, page 9**
- **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 5.

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 fireplace. Call dealer where you bought fireplace for proper type fireplace.

⚠ 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 FOR VENT-FREE OPERATION

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

LOG SIZING REQUIREMENTS			
Minimum Firebox			
Height	Depth	Front Width	Rear Width *
17"	14"	28"	20 1/4"
Minimum Firebox with Blower			
17"	14"	34"	22 3/8"

* Measured at 14" depth.

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

Minimum Clearances For Side Combustible Material, Side Wall and Ceiling

A. Clearances from the side of the 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 the side of the fireplace cabinet (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 the top of the fireplace opening to the ceiling should not be less than 42".

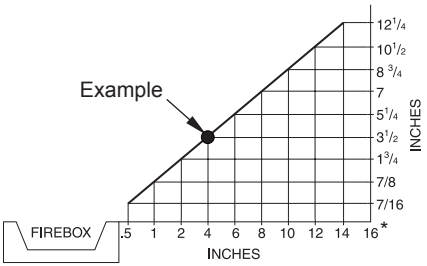
Minimum Noncombustible Material Clearances

If Not Using Mantel

Note: If using a mantel proceed to If Using Mantel, page 10. If not using a mantel, follow the information on this page.

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

Noncombustible Material Distance (A)	Requirements for Safe Installation
12" or more	Noncombustible material okay.
Between 8"	Install fireplace hood and 12" accessory (GA6050, GA6052 or GA6053 see Accessories, page 25).
Less than 8"	Noncombustible material must be extended to at least 8". See Between 8" and 12", above. If you cannot extend material, you must operate heater with flue damper open.



*Minimum 16" from Side Wall

Figure 4 - Minimum Clearance for Combustible to Wall

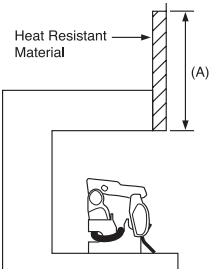


Figure 5 - Heat Resistant Material (Slate, Marble, Tile, etc.) Above Fireplace

at least 8" up. If noncombustible material is less than 12", you must install the fireplace hood accessory. See Figure 5 for minimum clearances.

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. 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, page 9, and Figures 6 and 7 for minimum clearances.

IMPORTANT: If you cannot meet these minimum clearances, you must operate heater with chimney flue damper open.

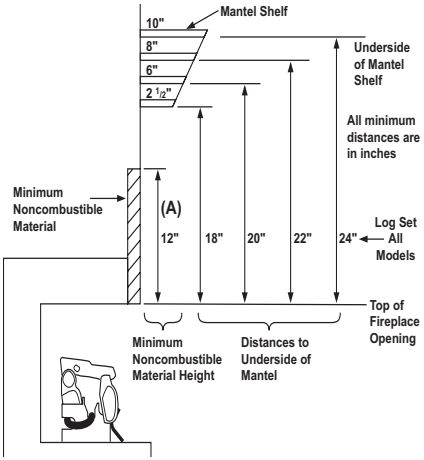


Figure 6 - Minimum Mantel Clearances Without Using Hood

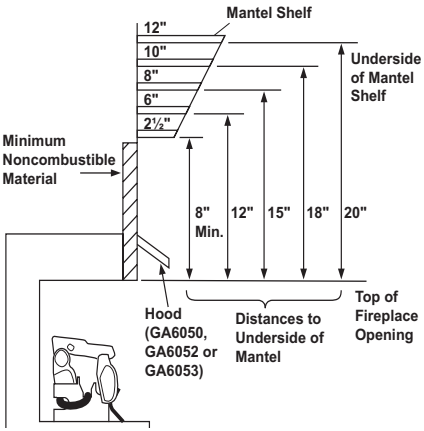


Figure 7 - Minimum Mantel Clearances When Using Hood

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 listed below, 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).

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 when using hood.

NOTICE: Surface temperatures of adjacent walls and mantels become hot during operation. Walls and mantels above the firebox may become hot to the touch. If installed properly, these temperatures meet the requirement of the national product standard. Follow all minimum clearances shown in this manual.

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

- **operate the logs only with the flue damper open**
- **raise the mantel to an acceptable height**
- **remove the mantel**

FLOOR CLEARANCES

A. If installing appliance on the floor level, you must maintain the minimum distance of 14" to combustibles (see Figure 8).

B. If combustible materials are less than 14" to the fireplace, you must install appliance at least 5" above the combustible flooring (see Figure 9).

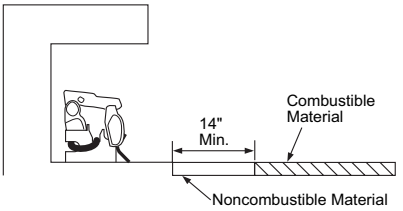


Figure 8 - Minimum Fireplace Clearances If Installed at Floor Level

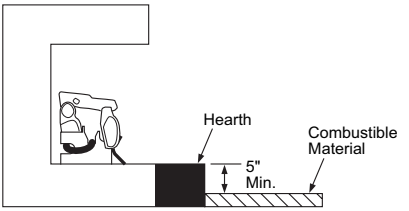


Figure 9 - Minimum Fireplace Clearances Above Combustible Flooring

INSTALLING HEATER BASE ASSEMBLY

⚠ 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 burners. This could damage heater. Only handle base assembly by sides of base.

IMPORTANT: Make sure the heater burners are level. If heater is not level, heater will not work properly. 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 24.

Installation Items Needed

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

1. Connect fitting to base as shown in Figure 10. Connect approved flexible gas hose to fitting in base (see Figure 10). *IMPORTANT:* Hold gas fitting with wrench when connecting flexible gas hose.
2. Locate two masonry screws in hardware package.
3. Place heater base in fireplace.
4. Place logs in their proper position on heater base (see *Installing Logs*, page 14).
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 one hole on each side of the mounting bracket (see Figure 11, page 12). If installing in a brick-bottom fireplace, mark screw locations in mortar joint of bricks.

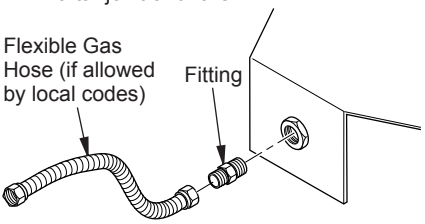


Figure 10 - Attaching Flexible Gas Hose to Heater

8. Remove heater base from fireplace. If installing optional control accessories, do so at this time. Follow all directions provided with accessory.
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).

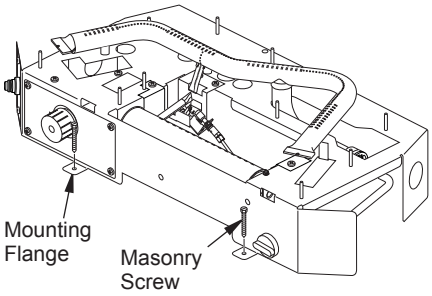


Figure 11 - Attaching Base Assembly to Fireplace Floor

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.

⚠ CAUTION: For propane/LP gas, 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.

Installation Items Needed

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

- external regulator for propane/LP only (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.

For propane/LP only, 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 12. Pointing the vent down protects it from freezing rain or sleet.

⚠ WARNING: For natural gas, never connect heater to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

⚠ 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" inside diameter or greater to allow proper gas volume to heater. If pipe is too small, undue loss of volume will occur.

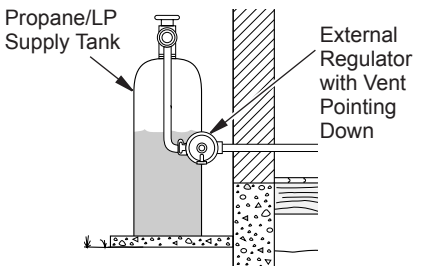


Figure 12 - External Regulator With Vent Pointing Down

INSTALLATION
Continued

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 13).

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

Check 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 13. 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.

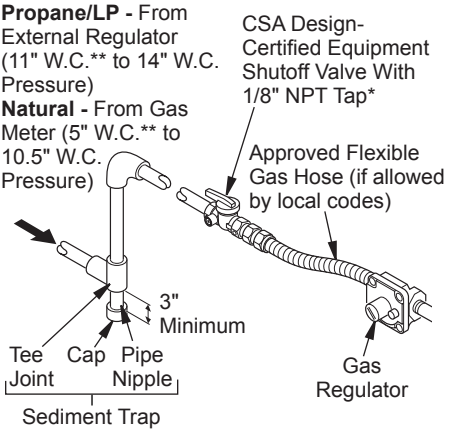


Figure 13 - Gas Connection

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

**Minimum inlet pressure for purpose of input adjustment.

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

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 12.

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 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.
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 14).
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 for natural or propane/LP supply to equipment shutoff valve (see Figure 15 or 16). Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

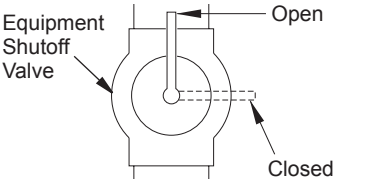


Figure 14 - Equipment Shutoff Valve

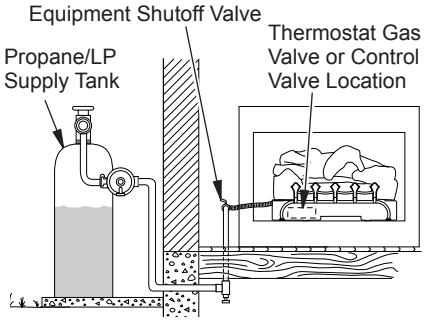


Figure 15 - Checking Gas Joints (Propane/LP Gas Only)

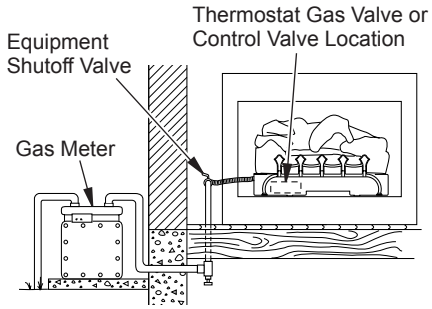


Figure 16 - Checking Gas Joints (Natural Gas Only)

PRESSURE TESTING HEATER GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 14).
2. Open main gas valve located on or near gas meter for natural gas or open propane/LP supply tank valve.
3. Make sure control knobs of heater are in the OFF position.
4. Check all joints from equipment shutoff valve to thermostat gas valve (see Figure 15 or 16). Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light heater (see *Operation*, page 16). Check all other internal joints for leaks.
7. Turn off heater (see *To Turn Off Gas to Appliance*, page 17).

INSTALLING LOGS

⚠ 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.

⚠ CAUTION: After installation and periodically thereafter, check to ensure that no yellow 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. Yellow flames contacting logs will create soot.

It is very important to install the logs exactly as instructed. Do not modify logs. Only use logs supplied with heater. Before installing logs, make sure log alignment screws are in place and straight.

INSTALLATION

Continued

1. Place middle log (#1) onto log alignment screw located near the center of base and in place over log support bracket as shown in Figures 17 and 18.
2. Place front log (#2) onto base. Position log onto two alignment screws to the front of base (see Figure 18).
3. Place left side log (#3) onto two log alignment screws on left side of base (see Figure 18).
4. Place right side log (#4) onto two log alignment screws on right side of base (see Figure 18).
5. Place rear log (#5) onto two alignment screws to the rear of base (see Figures 17 and 19).

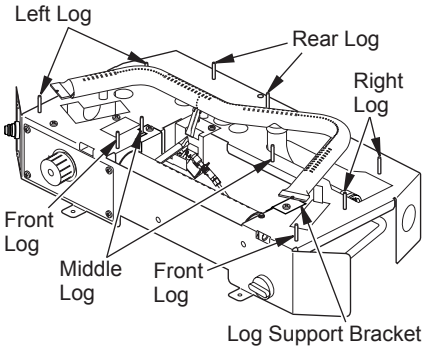


Figure 17 - Log Alignment Screws

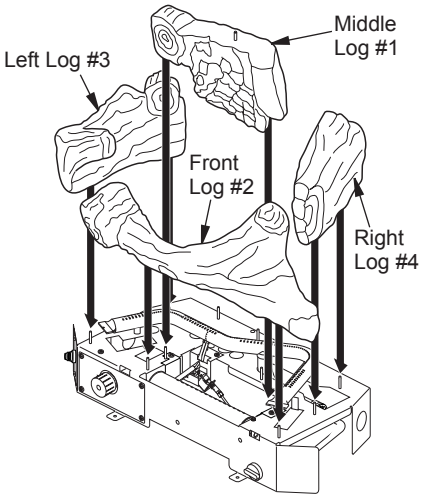


Figure 18 - Installing Middle Log #1, Front Log #2, Left Log #3 and Right Log #4

6. Place crossover log (#6) onto log alignment pin on middle log (#1) and rear log (#5) (see Figure 19).

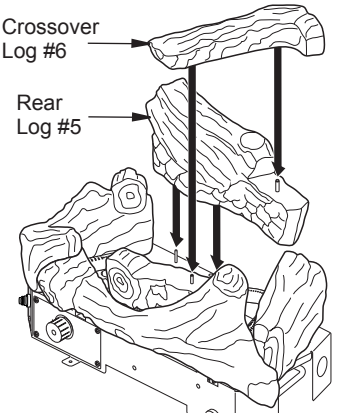


Figure 19 - Installing Rear Log #5 and Crossover Log #6

ATTACHING GRATE TO BASE ASSEMBLY

Locate the two slots in the front of the base assembly. Carefully slide the decorative grate into these slots (see Figure 20).

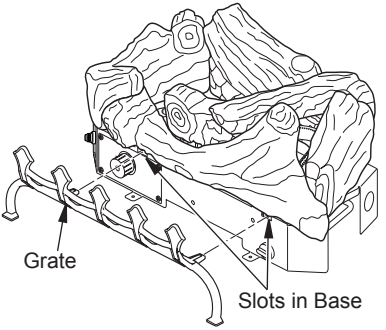


Figure 20 - Attaching Grate to Base Assembly

ADDING LAVA ROCK

Place lava rock around base of heater if desired. Be sure not to cover the control knobs or air inlet openings on the front of heater.

OPERATION

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. Also if fireplace opening has vents at the bottom, you must open the vents before operating heater.**
- **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

5. Turn control knob counterclockwise to the PILOT position. Press in control knob for five (5) seconds (see Figure 21).
   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 thermostat 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.
7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
   - If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.

   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.
8. Turn control knob counterclockwise to desired heating level. The front burner should light. Set control knob to any heat level between HI and LO.
9. To light the rear yellow flame burner, push in and turn rear burner control knob counterclockwise to the ON position.
10. To leave pilot lit and shut off burners only, turn control knob clockwise to the PILOT position. Turn rear burner control knob clockwise to the OFF position.

⚠ CAUTION: Do not try to adjust heating level of rear burner. Rear burner control knob should be in ON or OFF positions only. Do not operate with rear burner control knob between ON or OFF positions.

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

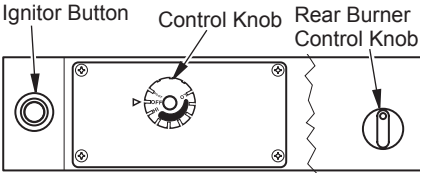


Figure 21 - Control Knob(s) and Ignitor Button Locations

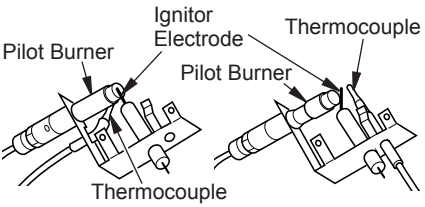


Figure 22 - Pilot (Propane/LP) ***Figure 23 - Pilot (Natural)***

TO TURN OFF GAS TO APPLIANCE

1. Turn control knob clockwise to the OFF position.
2. Turn rear burner control knob clockwise to the OFF position.
3. Cose equipment shutoff valve (see Figure 14, page 14).

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 burner to remain fully on, without modulating down in most cases.

MANUAL LIGHTING PROCEDURE

1. Follow steps 1 through 5 under *Lighting Instructions*, page 16.
2. Press 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 steps 8 and 9 under *Lighting Instructions*, column 1.

INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

PILOT FLAME PATTERN

Figure 24 shows a correct pilot flame pattern. Figure 25 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 25

- turn heater off (see *To Turn Off Gas to Appliance*, page 17)
- see *Troubleshooting*, pages 20

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

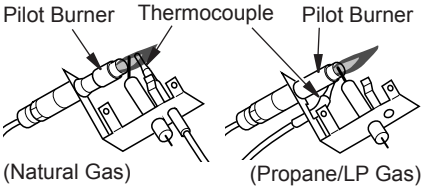


Figure 24 - Correct Pilot Flame Pattern (Your pilot may vary from pilots shown)

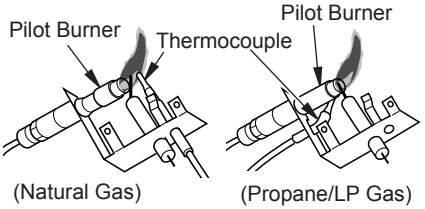


Figure 25 - Incorrect Pilot Flame Pattern (Your pilot may vary from pilots shown)

BURNER FLAME PATTERNS

Figure 26 shows correct burner flame patterns. Figure 27 shows incorrect burner flame patterns. The incorrect burner flame patterns show yellow tipping at top of blue flame.

⚠ WARNING: If yellow tipping occurs, your heater could produce increased levels of carbon monoxide. If burner flame patterns show yellow tipping, follow instructions below. Yellow flame on rear burner is normal.

NOTICE: Do not mistake orange flames with yellow tipping. Dirt or other fine particles are burned by heater, causing brief patches of orange flame.

If burner flame patterns are incorrect, as shown in Figure 27

- turn heater off (see *To Turn Off Gas to Appliance*, page 17)
- see *Troubleshooting*, page 20

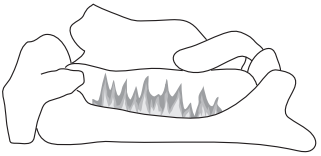


Figure 26 - Correct Burner Flame Patterns

Yellow Tipping At Top of Blue Flame

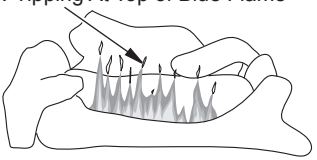


Figure 27 - Incorrect Burner Flame Patterns

CLEANING AND MAINTENANCE

⚠ WARNING: Turn off heater and let cool before cleaning.

⚠ CAUTION: You must keep control areas, burners 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, pet hair, bedding material, etc.

CLEANING AND MAINTENANCE

Continued

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

BURNER INJECTOR HOLDERS AND PILOT AIR INLET HOLES

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 tubes 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.

1. Shut off the unit, including the pilot. Allow the unit to cool for at least thirty minutes.
2. Inspect burners, pilot and primary air inlet holes on injector holder for dust and dirt (see Figures 28 or 29).
3. Blow air through the ports/slots and holes in the burners.
4. Check the injector holders located at the end of the burner tubes 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 holders.
6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Clean the 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 30). With the unit off, lightly blow air through the air inlet hole. The access hole for propane/LP pilot is on the front of the burner carriage as shown in Figure 30. The access hole for natural pilot is behind the pilot bracket on the top of burner carriage (see Figure 30). You may blow through a drinking straw if compressed air is not available.

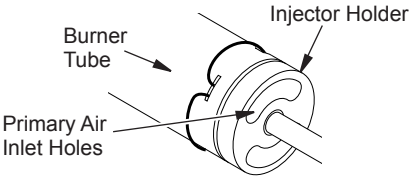


Figure 28 - Injector Holder On Outlet Burner Tube - Rear Burner

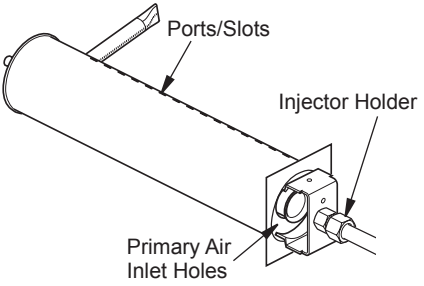


Figure 29 - Injector Holder On Front Outlet Burner Tube

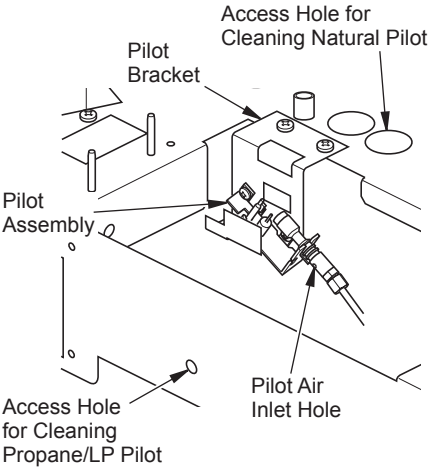


Figure 30 - Cleaning Pilot Air Inlet Hole (Your pilot may vary from pilots shown)

LOGS

- If you remove logs for cleaning, refer to *Installing Logs*, page 14, to properly replace logs.
- Replace log(s) if broken or chipped (dime-sized or larger).

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	1. Ignitor electrode not connected to ignitor cable	1. Reconnect ignitor cable
	2. Ignitor cable pinched or wet	2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	3. Broken ignitor cable	3. Replace ignitor cable
	4. Bad ignitor	4. Replace ignitor
	5. Ignitor electrode positioned wrong	5. Replace pilot assembly
	6. Ignitor electrode broken	6. Replace pilot assembly
	7. Battery not installed, battery power low or battery not installed correctly	7. Install new alkaline battery in electronic ignitor. Verify battery is installed correctly
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	1. Gas supply turned off or equipment shutoff valve closed	1. Turn on gas supply or open equipment shutoff valve
	2. Control knob not in PILOT position	2. Turn control knob to PILOT position
	3. Control knob not pressed in while in PILOT position	3. Press in control knob while in PILOT position
	4. Air in gas lines when installed	4. Continue holding down control knob. Repeat igniting operation until air is removed
	5. Depleted gas supply (propane/LP only)	5. Contact local propane/LP gas company
	6. ODS/pilot is clogged	6. Clean ODS/pilot (see *Cleaning and Maintenance*, page 18) or replace ODS/pilot assembly
	7. Gas regulator setting is not correct	7. Replace gas regulator

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
ODS/pilot lights but flame goes out when control knob is released	1. Control knob not fully pressed in	1. Press in control knob fully
	2. Control knob not pressed in long enough	2. After ODS/pilot lights, keep control knob pressed in 30 seconds
	3. Safety interlock system has been triggered	3. Wait one minute for safety interlock system to reset. Repeat ignition operation
	4. Equipment shutoff valve not fully open	4. Fully open equipment shut-off valve
	5. 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. A) Contact local natural or propane/LP gas company B) Clean ODS/pilot (see *Cleaning and Maintenance*, page 18) or replace ODS/pilot assembly
	6. Thermocouple connection loose at control valve	6. Hand tighten until snug, then tighten 1/4 turn more
	7. Thermocouple damaged	7. Replace pilot assembly
	8. Control valve damaged	8. Replace control valve
One or more burners do not light after ODS/pilot is lit	1. Inlet gas pressure is too low	1. Contact local natural or propane/LP gas company
	2. Burner orifice(s) clogged	2. Clean burner(s) (see *Cleaning and Maintenance*, page 18) or replace burner orifice(s)
	3. Mislocated crossover tube	3. Contact qualified service person
Delayed ignition of one or more burners	1. Manifold pressure is too low	1. Contact local natural or propane/LP gas company
	2. Burner orifice(s) clogged	2. Clean burner(s) (see *Cleaning and Maintenance*, page 18) or replace burner orifice(s)
	3. Mislocated crossover tube	3. Contact qualified service person
Burner backfiring during combustion	1. Burner orifice is clogged or damaged	1. Clean burner (see *Cleaning and Maintenance*, page 18) or replace burner orifice
	2. Damaged burner	2. Replace damaged burner
	3. Gas regulator defective	3. Replace gas regulator

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Yellow flame in burner during burner combustion	1. Not enough air	1. Check burner(s) for dirt and debris. If found, clean burner(s) (see *Cleaning and Maintenance*, page 18)
	2. Gas regulator defective	2. Replace gas regulator
Slight smoke or odor during initial operation	1. Residues from manufacturing processes and logs curing	1. Problem will stop after a few hours of operation
Heater produces a whistling noise when burners are lit	1. Turning control knob to HI position when burners are cold	1. Turn control knob to LO position and let warm up for a minute
	2. Air in gas line	2. Operate burners until air is removed from line. Have gas line checked by local natural or propane/LP gas company
	3. Air passageways on heater blocked	3. Observe minimum installation clearances (see pages 8 through 10)
	4. Dirty or partially clogged burner orifice(s)	4. Clean burners (see *Cleaning and Maintenance*, page 18)
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
Moisture/condensation noticed on windows	1. Not enough combustion/ventilation air	1. Refer to *Air for Combustion and Ventilation* requirements (page 5)
Heater produces a clicking/ticking noise just after burners are 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	1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See IMPORTANT statement above) 2. Low fuel supply (propane/LP only) 3. Gas leak. **See Warning statement at top of page**	1. Open window to ventilate room. Stop using odor causing products while heater is running 2. Refill supply tank (propane/LP only) 3. Locate and correct all leaks (see *Checking Gas Connections*, page 13)
Heater shuts off in use (ODS operates)	1. Not enough fresh air is available 2. Low line pressure 3. ODS/pilot is partially clogged	1. Open window and/or door for ventilation 2. Contact local natural or propane/LP gas company 3. Clean ODS/pilot (see *Cleaning and Maintenance*, page 18)
Gas odor even when control knob is in OFF position	1. Gas leak. **See Warning statement at top of page** 2. Control valve defective	1. Locate and correct all leaks (see *Checking Gas Connections*, page 13) 2. Replace control valve
Gas odor during combustion	1. Foreign matter between control valve and burner 2. Gas leak. **See Warning statement at top of page**	1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see *Checking Gas Connections*, page 13)
Log set cycles to pilot, but room temperature drops to a lower than ideal level before log set comes back on	1. Thermostat sensing bulb needs to be repositioned	1. Reposition thermostat sensing bulb (see *Optional Positioning of Thermostat Sensing Bulb*, page 24)

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 on the left side of the base assembly. 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.

1. Locate the gas valve assembly and thermostat sensing bulb (see Figure 31).
2. Gently pull thermostat sensing bulb free from the retaining clamp.
   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 33 for location.
   If you have a factory-built metal fireplace, see Figure 34 for location.
   If your fireplace has glass doors, position sensing bulb directly behind door gap on right bottom side (see Figure 35).
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 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 36). Slide the thermostat sensing bulb into the clip.
   IMPORTANT: Do not crimp capillary.

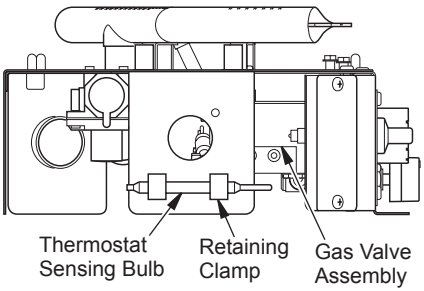


Figure 31 - Location of Gas Valve Assembly and Thermostat Sensing Bulb

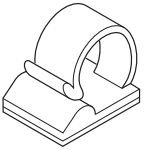


Figure 32 - Adhesive-backed Mounting Clip

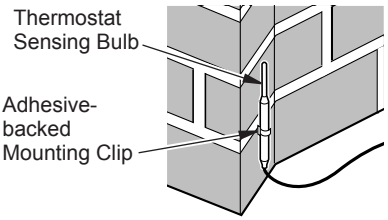


Figure 33 - Locating Thermostat Sensing Bulb on Masonry Fireplace

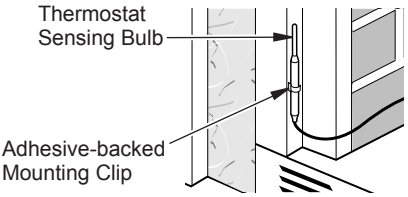


Figure 34 - Locating Thermostat Sensing Bulb on Factory-built Metal Fireplace

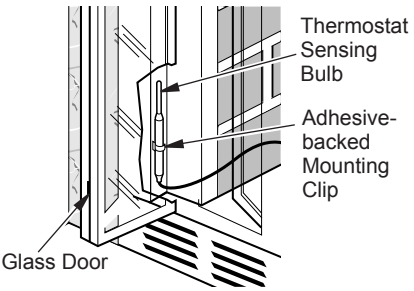


Figure 35 - Installing Thermostat Sensing Bulb Behind Glass Doors

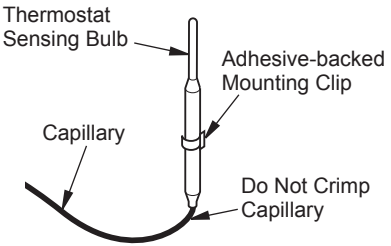


Figure 36 - Positioning the Thermostat Sensing Bulb in the Vertical Position with the Capillary at the Bottom

SPECIFICATIONS

CDR3924PT
- Rating (Variable): 11,000/39,000 Btu/Hr
- Type Gas: Propane/LP
- Ignition: Electronic
- Manifold Pressure: 8.0" W.C.
- Inlet Gas Pressure (in. of water): Maximum 14" W.C., Minimum* 11" W.C.
- Shipping Weight: 30 lbs.

CDR3924NT
- Rating (Variable): 11,000/39,000 Btu/Hr
- Type Gas: Natural
- Ignition: Electronic
- Manifold Pressure: 3.6" W.C.
- Inlet Gas Pressure (in. of water): Maximum 10.5" W.C., Minimum* 5" W.C.
- Shipping Weight: 30 lbs.

* For purpose of input adjustment

REPLACEMENT PARTS

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

PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA Heating, LLC at 1-866-672-6040.

When calling DESA Heating, LLC, have ready
- your name
- your address
- model and serial numbers of your heater
- how heater was malfunctioning
- type of gas used (propane/LP or natural)
- purchase date

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

PARTS NOT UNDER WARRANTY

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

When calling DESA Heating, LLC, have ready
- model number of your heater
- the replacement part number

SERVICE HINTS

When Gas Pressure Is Too Low
- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat
- propane/LP gas supply may be low

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

TECHNICAL SERVICE

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

You can also visit DESA Heating, LLC's web site at **www.desatech.com**.

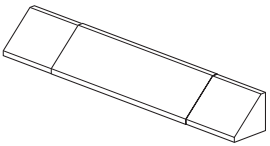
ACCESSORIES

NOTICE: All accessories may not be available for all fireplace models.

Purchase these heater accessories from your local dealer. If they can not supply these accessories, call DESA Heating, LLC at 1-866-672-6040 for referral information. You can also write to the address listed on the back page of this manual.

CLEANING KIT - CCK

For all models. Your vent-free gas appliance requires regular cleaning and maintenance to prevent performance problems. This kit gives you the tools and instructions to make it easy to clean all critical areas of your appliance.



FIREPLACE HOOD

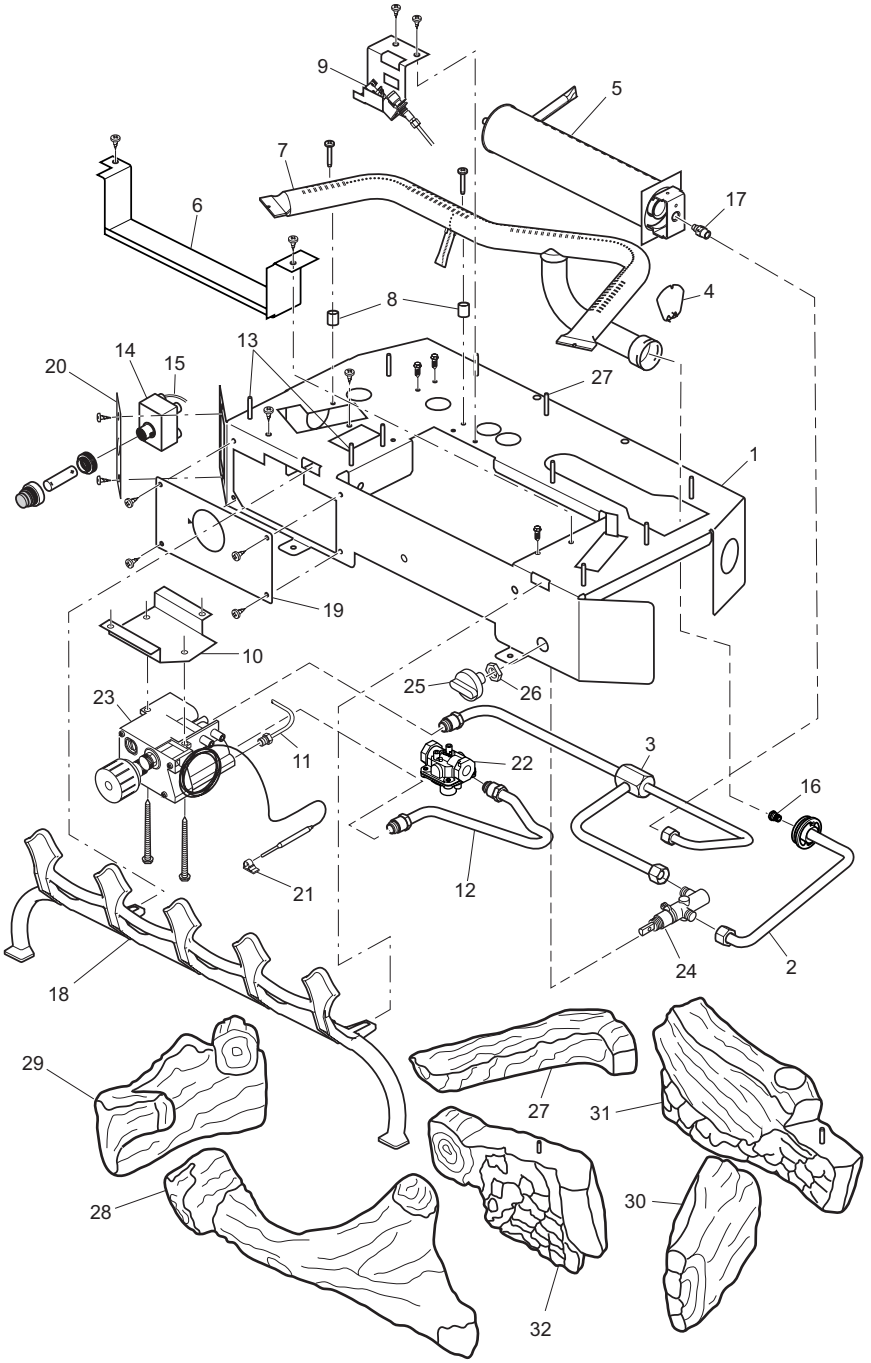
Black - GA6050
Brass - GA6052
Antique Brass - GA6053
For all models. Helps deflect heat away from mantel or wall above fireplace. Fits openings 28" to 48" wide.

LAVA ROCK - GA6060

For all models. Order when additional rock is desired.

PARTS

MODELS CDR3924PT AND CDR3924NT



PARTS

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under *Replacement Parts* on page 25 of this manual.

KEY NO.	PART NO.	DESCRIPTION	CDR3924NT	CDR3924PT	QTY.
1	**	Dual Ramp Base	•	•	1
2	111331-16	Rear Burner Tube	•		1
	113473-01	Rear Burner Tube		•	1
3	113474-01	Front Burner Tube	•	•	1
4	111124-01	Retainer Spring	•	•	1
5	118130-01	Front Burner	•	•	1
6	113167-01	Log Support Bracket	•	•	1
7	108105-02	Rear Burner	•	•	1
8	107110-01	Spacer	•	•	2
9	120630-03	ODS Pilot	•		1
	PP224	ODS Pilot		•	1
10	102394-02	Control Bracket	•	•	1
11	099387-09	Pilot Tube	•	•	1
12	108628-01	Inlet Tube	•	•	1
13	114696-03	Pilot Bracket		•	1
	114696-04	Pilot Bracket	•		1
14	111435-01	Electronic Ignitor	•	•	1
15	098271-08	Ignitor Cable	•		1
	098271-12	Ignitor Cable		•	1
16	099056-18	Burner Orifice Injector, Rear	•		1
	099056-19	Burner Orifice Injector, Rear		•	1
17	101004-12	Burner Orifice Injector, Front	•		1
	101004-13	Burner Orifice Injector, Front		•	1
18	108111-01	Cast Iron Grate	•	•	1
19	108692-06	T-Stat Cover Plate	•	•	1
20	108692-05CK	Ignitor Plate	•	•	1
21	099123-01	Thermobulb Clip	•	•	2
22	098867-18	Gas Regulator (Propane/LP)		•	1
	098867-17	Gas Regulator (Natural)	•		1
23	098522-25	Thermostatic Gas Valve Kit	•		1
	098522-10	Thermostatic Gas Valve Kit		•	1
24	108106-01	Manual Control Valve	•	•	1
25	099393-03	Control Knob	•	•	1
26	098508-01	Valve Retainer Nut	•	•	1
27	108631-01	Log Alignment Screw	•	•	12
28	114959-01	Front Log	•	•	1
29	114959-02	Left Side Log	•	•	1
30	114959-03	Right Side Log	•	•	1
31	114959-04	Rear Log	•	•	1
32	114959-05	Middle Log	•	•	1
33	114959-06	Crossover Log	•	•	1
		PARTS AVAILABLE - NOT SHOWN			
	100563-01	Warning Plate	•	•	1
	101054-05	Lighting Instructions Plate	•	•	1
	100639-03	Caution Decal	•	•	1
	GA6060	Lava Rock	•	•	1
	101449-08	Control Position Decal	•	•	1

** Not a field replaceable part.

WARRANTY

KEEP THIS WARRANTY

Model (located on product or identification tag)_____

Serial No. (located on product or identification tag)_____

Date Purchased _____

Keep receipt for warranty verification.

DESA HEATING, LLC LIMITED WARRANTIES

New Products

Standard Warranty: DESA Heating, LLC warrants this new product and any parts thereof to be free from defects in material and workmanship for a period of one (1) year from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

For products purchased for commercial, industrial or rental usage, this warranty is limited to 90 days from the date of first purchase.

Factory Reconditioned Products

Limited Warranty: DESA Heating, LLC warrants factory reconditioned products and any parts thereof to be free from defects in material and workmanship for 30 days from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

Terms Common to All Warranties

The following terms apply to all of the above warranties:

Always specify model number and serial number when contacting the manufacturer. To make a claim under this warranty the bill of sale or other proof of purchase must be presented.

This warranty is extended only to the original retail purchaser when purchased from an authorized dealer, and only when installed by a qualified installer in accordance with all local codes and instructions furnished with this product.

This warranty covers the cost of part(s) required to restore this product to proper operating condition and an allowance for labor when provided by a DESA Heating, LLC Authorized Service Center or a provider approved by DESA Heating, LLC. Warranty parts must be obtained through authorized dealers of this product and/or DESA Heating, LLC who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty.

Travel, handling, transportation, diagnostic, material, labor and incidental costs associated with warranty repairs, unless expressly covered by this warranty, are not reimbursable under this warranty and are the responsibility of the owner.

Excluded from this warranty are products or parts that fail or become damaged due to misuse, accidents, improper installation, lack of proper maintenance, tampering, or alteration(s).

This is DESA Heating, LLC's exclusive warranty, and to the full extent allowed by law; this express warranty excludes any and all other warranties, express or implied, written or verbal and limits the duration of any and all implied warranties, including warranties of merchantability and fitness for a particular purpose to one (1) year on new products and 30 days on factory reconditioned products from the date of first purchase. DESA Heating, LLC makes no other warranties regarding this product.

DESA Heating, LLC's liability is limited to the purchase price of the product, and DESA Heating, LLC shall not be liable for any other damages whatsoever under any circumstances including indirect, incidental, or consequential damages.

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

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

For information about this warranty contact:

DESA Heating, LLC
2701 Industrial Drive
Bowling Green, KY 42101
www.desatech.com
1-866-672-6040

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NOT A UPC

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