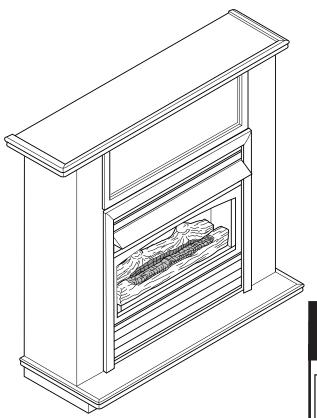
# VENT-FREE HEARTH HEATER OWNER'S OPERATION AND INSTALLATION MANUAL



Shown with Optional Mantel Which Features a Built-In Base

Warning: This is an unvented gasfired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. See page 8.

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.

#### **DHHP/NT**

Natural Gas or Propane/LPG 15,000 to 30,000 Btu/Hr with Thermostat





## **WARNINGS**

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.

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.

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#### IMPORTANT SAFETY INFORMATION

#### **INSTALLER**

Please leave these instructions with the owner.

#### **OWNER**

Please retain these instructions for future reference.

#### **IMPORTANT**

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

- Any change to this heater or its controls can be dangerous.
- Improper installation or use of the heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.
- Do not allow fans to blow directly into the heater. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.
- · Do not use a blower insert, heat exchanger insert or other accessory, not approved for use with this heater where applicable.

**CARBON MONOXIDE POISONING:** Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating 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.

Propane/LP Gas and Natural Gas: Propane/LP gas and natural gas is odorless. An odor-making agent is added to gas. The odor helps you detect a gas leak. However, the odor added to 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.

- Due to high temperatures, the appliance should be 6. Installation and repair should be done by a qualified located out of traffic and away from furniture and draperies.
- Surface of heater becomes very hot when running heater. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Heater will remain hot for a time after shutdown. Allow surfaces to cool before touching.
- 3. Carefully supervise young children when they are in the same room with the apliance.
- Do not place clothing or other flammable material on or near the appliance. Never place any objects on the heater.
- 5. Make sure screen is in place before running heater.

- service person.
- To prevent malfunction and/or sooting, an unvented gas heater should be cleaned before use 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 be kept clean.
- Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

Continued on page 4

#### **IMPORTANT SAFETY INFORMATION**

Continued from page 3

- 10. 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.
- 11. Do not place propane/LP supply tank(s) inside any structure. Locate propane/ LP supply tank(s) outdoors.
- 12. 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 reachyour gas supplier, call the fire department
- 13. This heater shall not be installed in a bedroom or bathroom.
- 14. This heater needs fresh, outside air ventilation to run properly. This heater has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the heater if not enough fresh air is available. See "Air For Combustion and Ventilation," pages 8 through 10.
- 15. Before using furniture polish, wax, carpet cleaner, or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
- 16. If heater shuts off, do not relight until you provide fresh, outside air. If heater keeps shutting off, have it serviced.
- 17. Do not run heater
  - where flammable liquids or vapors are used or stored.
  - under dusty conditions.
- 18. Do not use heater if any part has been 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.
- 19. To prevent the creation of soot, follow the instructions in "Cleaning and Maintenance," page 26.
- 20. Turn off and unplug heater and let cool before servicing. Only a qualified service person should service and repair heater.
- 21. Operating heater above elevations of 4,500 feet could cause pilot outage.
- 22. To prevent performance problems, do not use a propane/ LP fuel tank of less than 100 lbs. capacity.

- 23. This unit complies with ANSI Z21.11.2-2001 <u>Unvented</u> Heaters.
- 24. **Caution:** Candles, incense, oil lamps, etc. produce combustion byproducts including soot. Vent-free appliances will not filter or clean soot produced by these types of products. In addition, the smoke and/or aromatics (scents) may be reburnt in the vent-free appliance which can produce odors. It is recommended to minimize the use of candles, incense, etc. while the vent-free appliance is in operation.
- 25. Unvented gas heaters emit moisture into the living area. In most homes of average construction, this does not pose a problem. In houses of extremely tight construction, additional mechanical ventilation is recommended.
- 26. During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance; possibly causing headaches or eye or lung irritation. This is a normal and temporary occurrence.
  - The initial break-in operation should last two to three hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in period will be slight and will disappear with continued use.
- 27. The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).
- 28. The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).
- 29. This appliance is not a zero clearance fireplace. Do not frame this fireplace into a wall.

#### SPECIFICATIONS AND LOCAL CODES

#### **NATURAL GAS**

NOTE: An external regulator is required to reduce supply pressure to a maximum of  $10^{1/2}$ " W.C. on natural gas systems operating at higher pressure.

#### **Thermostat Pressure**

Regulator Pressure Setting: 4" w.c. Gas Inlet Pressure:  $10^{1}/_{2}$ " w.c.

Min. 5" w.c.

		Gas Rate	
Model Number	Control	Max BTU/Hr	Min BTU/Hr
DHHNT	THERMOSTAT	30,000	15,000

#### PROPANE/LPG

Note: An external regulator is required to reduce supply pressure to a maximum of 13" W.C.

**Thermostat Pressure** 

Regulator Pressure Setting: 10" w.c. Gas Inlet Pressure: Max. 13" w.c.

Min. 11" w.c.

,		Gas Rate	
Model Number	Control	Max BTU/Hr	Min BTU/Hr
DHHPT	THERMOSTAT	30,000	15,000

#### **LOCAL CODES**

Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code, ANS Z223.1, also known as NFPA 54. Available from:

**American National Standards Institute, Inc.** 

1430 Broadway New York, NY 10018 National Fire Protection Association, Inc.

Batterymarch Park Quincy, MA 0226

#### PRODUCT IDENTIFICATION AND ASSEMBLY

#### **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.

#### PIEZO IGNITION SYSTEM

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

#### THERMOSTAT HEAT CONTROL

This heater has a thermostat sensing bulb and a control valve. This results in the greatest heater comfort. This can also result in lower gas bills.

# NOTE: Do not remove Lighting and Warning Plates from heater.

#### **UNPACKING**

- 1. Remove heater from carton.
- 2. Remove all protective packaging applied to heater for shipment.
- 3. Make sure your heater includes the following: trim

hood

mounting bracket

hardware package which includes:

two (2) 90° angled brackets and shims

four (4) trim screws

three (3) hood screws

two (2) wall mounting screws

two (2) wall spacers

4. Check heater for any shipping damage. If heater is damaged, promptly inform dealer where you bought heater.

#### **ASSEMBLY**

#### **INSTALLING HOOD**

- 1. Remove hood from protective package.
- 2. Locate three (3) black sheet metal screws inside homeowner's manual pack.
- 3. Place hood on deflector and line up holes (see Figure 2).
- 4. Secure hood to deflector with three (3) black sheet metal screws.

NOTE: Side of hood should be on the outside flange of deflector.

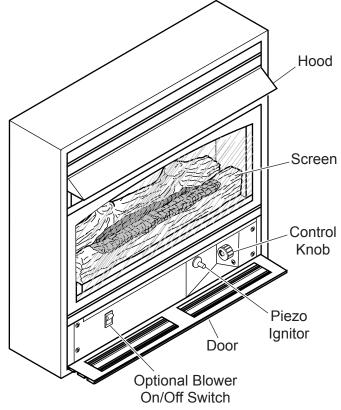
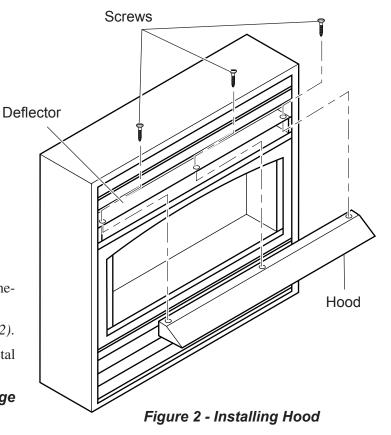


Figure 1 - Vent-Free Gas Log Space Heater



#### **INSTALLING LOGS**

#### NOTE: For easier installation, lay heater on its back.

- 1. Slide screen up to remove.
- Remove log from inside of base. Discard protective packaging.
- 3. Gently slide log on log retaining pin on base assembly (*see Figure 3*). The log should fit firmly against bottom of log retaining pin.
- 4. Place front log in front of burner and behind burner shield.
- 5. Reattach screen.

MARNING

WARNING: Always have burner shield and screen in place before operating heater. This prevents excessive temperatures on heater.

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.

# ATTACHING BRASS FRONT TRIM TO FRONT PANEL

If any part or parts are missing, contact dealer where you bought the heater.

- Remove brass trim from protective packaging. Remove two
   90°-angled mounting brackets and two (2) 90°-angled shims.
- 2. Lay trim on the floor face down. Line up the corners with the top trim at the top and the side trims on the sides.
- 3. Slide one (1) 90°-angled bracket (with attached screws) and one (1) 90°-angled shim in the outside corner slot where the top and side trims meet. Next, slide another bracket and shim to the inside corner slot. See Figure 4.
- 4. Hold the corners together securely. Tighten screws on both brackets with flat head screwdriver. Make sure the corners are flush and there are no spaces.
- 5. Repeat steps 2 through 4 for other side trim.
- 7. Place the assembled trim on front of heater cabinet. Attach on top and sides with four brass screws included in hardware package. *See Figure 5*.

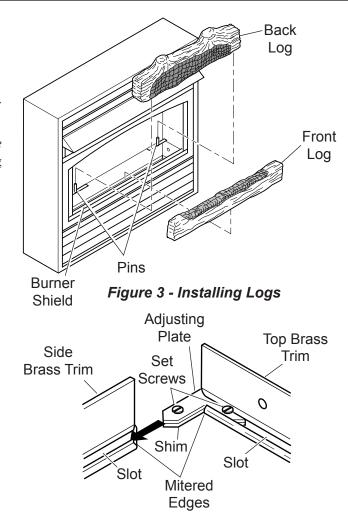


Figure 4 - Assembling Bras Trim

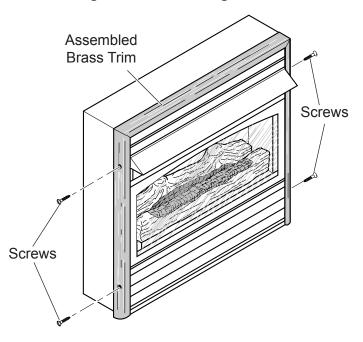


Figure 5 - Attaching Brass Trim to Heater

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#### FRESH AIR FOR COMBUSTION AND VENTILATION

WARNING

WARNING: This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

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

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

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

#### PROVIDING ADEQUATE VENTILATION

The following are excerpts from *National Fuel Gas Code*, *NFPA 54/ANSI Z223.1*, *Section 5.3*, *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 9 and 10 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 (6x10-11 kg per pa-sec-m2) or less with openings gasketed or sealed and
- b. weather stripping has been added on openable windows and doors and
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See "Ventilation Air From Outdoors," page 10.

If your home does not meet all of the three criteria above, proceed to "Determining Fresh-Air Flow For Heater Location," page 9.

#### CONFINED AND UNCONFINED SPACE

The National Fuel Gas Code, ANSI Z223.1 defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8 m³ 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 per hour (4.8 m 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. This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

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

#### FRESH AIR FOR COMBUSTION AND VENTILATION

# DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION DETERMINING IF YOU HAVE A CONFINED OR UNCONFINED SPACE

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

Determine the volume of the space (length x width x height)

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

	Length x Width x Height = _ Example: Space size 20 ft. (		lume of space) ing height) = 2560 cu. ft. (volume of space) or openings, add the volume of these rooms to the total
2.	Divide the space volume by 50 cubic feet to determine the maximum Btu/Hr the space can support. (volume of space)  50 cu. ft. = (Maximum Btu/Hr the space can support)  Example: 2560 cu. ft. (volume of space)  50 cu. ft. = 51.2 x 1000 = 51,200 (maximum Btu/Hr the space can support)		
3.	Vent-free heater Gas water heater* Gas furnace Vented gas heater Gas fireplace logs Other gas appliances* + Total =	Btu/Hr	Example: Gas water heater 30,000 Btu/Hr Vent-free heater + 30,000 Btu/Hr Total = 60,000 Btu/Hr  aws combustion air from the outdoors and vents to
4.	the out-doors.		

Btu/Hr (actual amount of Btu/Hr used)

Example: 51,200 Btu/Hr (maximum the space can support) 60,000 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 Outdoors," page 10.
- B. Vent room directly to the outdoors. See "Ventilation Air From Outdoors," page 10.
- 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.

VARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3 or applicable local codes.

#### **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 6). You can also remove door into adjoining room (see option 3, Figure 6). Follow the National Fuel Gas Code, NFPA 54/ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

Option 2:
Ventilation Grills into Adjoining Room

Option 3:
Remove Door into Adjoining Room

Roo

Figure 6 - Ventilation Air from Inside Building

AKNING

Rework worksheet, adding the space of the adjoining unconfined space. The combined spaces must have enough fresh air to supply all appliances in both spaces.

#### 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, NFPA 54/ANSI Z223.1, Section 5.3, 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.

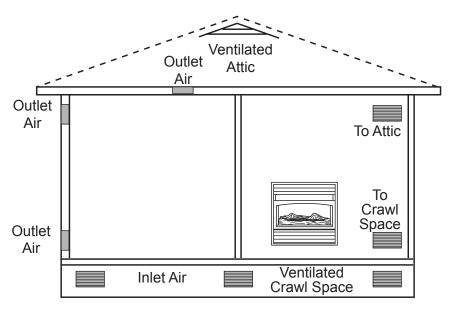


Figure 7 - Ventilation Air from Outdoors

# AOTICI

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.

# **ARNIN**(

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

# CAUTION

CHECK GAS TYPE: The gas supply must be the same as stated on the heater's rating plate. If the gas supply is different, DO NOT INSTALL THE HEATER. Contact your dealer for the correct model.

#### **INSTALLATION ITEMS**

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

- external regulator (supplied by installer for propane/LPG and 1/2 lb. natural gas systems)
- piping (check local codes)

• pipe wrench

• tee joint

- sealant (resistant to propane/LP gas)
- equipment shutoff valve\*
- ground joint union
- \* 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.

#### **INSTALLATION**

#### LOCATING HEATER

VARNING

Maintain the minimum clearances shown in *Figure 8*. If you can, provide greater clearances from floor, ceiling, and joining wall.

You can locate heater on floor with optional heart base. The heater can also be installed into an optional decorative mantel (some mantels require the hearth base).

IMPORTANT: Only use optional mantels and hearth base specified in this manual. Purchase the optional mantel and hearth base from your dealer. See "Accessories," pages 28 and 29.

The heater may also be mounted on a wall. Optional mantel cannot be used if mounting heater on a wall.

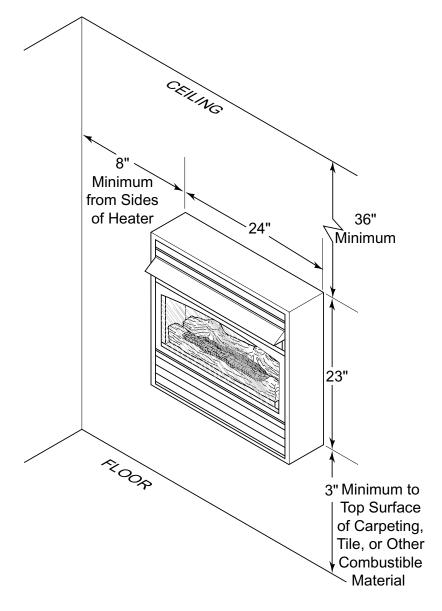


Figure 8 - Mounting Clearances As Viewed From Front of Heater

# ARNING

#### Never install the heater

- in a bedroom or a bathroom in a recreational vehicle • where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the heater
- · as a fireplace insert
- 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 tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls.

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 Fresh Air for Combustion and Ventilation, pages 8 through 10.

# AUTION

# If you install the heater in a home garage

- heater pilot and burner must be at least 18 inches above floor.
- locate heater where moving vehicle will not hit it.

For convenience and efficiency, install heater

- where there is easy access for operation, inspection, and service.
- in coldest part of room.

An optional fan kit is available from your dealer. See "Accessories," pages 28 and 29. If planning to use fan, locate heater near an electrical outlet.

#### INSTALLATION OPTIONS

There are three options for mounting this heater.

- A. Mounting heater to wall
- B. Mounting heater to optional hearth base
- C. Mounting heater to optional mantel (some mantels require the hearth base)

Continued

Continued

#### A. MOUNTING HEATER TO WALL

#### **Mounting Bracket**

The mounting bracket is located in the package tray (see Figure 9). Remove mounting bracket from tray.

Only use last hole on each end of mounting bracket to attach bracket to wall. These two holes are 16 inches apart from their centers (*see Figure 9*). Attach mounting bracket to wall studs. This method provides the strongest hold. Insert mounting screws through mounting bracket and into wall studs.

#### **Marking Screw Locations**

1. Tape mounting bracket to wall where heater will be located. Make sure mounting bracket is level.

ARNING

Maintain minimum clearances shown in Figure 9. If you can, provide greater clearances from floor and joining wall.

2. Mark screw locations on wall (see Figure 9).

Note: Only mark last hole on each end of mounting bracket. Insert mounting screws through these holes only.

3. Remove tape and mounting bracket from wall.

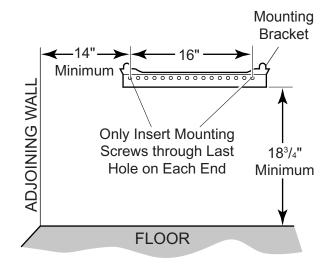


Figure 9 - Mounting Bracket Clearances
Attaching Mounting Bracket To Wall

#### **Attaching Mounting Bracket to Wall**

Note: Mounting screws and spacers are in hardware package. The hardware package is provided with heater.

#### **Attaching To Wall Studs**

For attaching mounting bracket to wall studs

- 1. Drill holes at marked locations using 9/64" drill bit.
- 2. Place mounting bracket onto wall. Line up last hole on each end of bracket with holes drilled in wall.
- 3. Insert mounting screws through bracket and into wall studs.
- 4. Tighten screws until mounting bracket is firmly fastened to wall studs.

NOTE: You may mount the unit anywhere on a concrete wall.

#### **INSTALLATION**

#### **Placing Heater on Mounting Bracket**

- 1. Install wall spacers.
- 2. Attach two (2) rubber bumpers to back of heater as shown in *Figure 10*.
- 3. Locate two (2) horizontal slots on back panel of heater.
- 4. Place heater onto mounting bracket. Slide horizontal slots onto stand-out tabs on mounting bracket.

# Stand-Out Tabs Mounting Bracket (already attached to wall) BASE Rubber Bumpers

Figure 10 - Mounting Heater Onto Mounting Bracket

#### **B. MOUNTING HEATER ON OPTIONAL HEARTH BASE**

Tools needed:

- #2 Phillips screwdriver slotted screwdriver
- electric drill (if securing base to floor)

The optional hearth base kit includes the following:

- Hearth Base 4 Wood Screws 4 Sheet Metal Screws
- Hearth Insert
   4 Anchors
   2 Brass Screws
   Brass Base Trim

Note: To secure hearth base to floor, follow instructions under "Securing Hearth Base to Floor," page 16. If not securing hearth base to floor, proceed to "Mounting Heater to Optional Hearth Base," page 16.

Continued

#### **INSTALLATION**

Continued

#### **Mounting Heater to Optional Hearth Base**

- 1. Lay heater on its back on a table with the bottom of heater overhanging the edge of the table.
- 2. Remove 2 shipping screws in bottom of heater. Discard shipping screws.
- 3. Line up mounting holes on top of hearth base with holes in bottom of heater (see Figure 11).
- 4. Using a Phillips screwdriver, secure hearth base to heater with four sheet metal screws (see Figure 11).
- 5. Stand heater up on base.
- 6. Place hearth insert in hearth base as shown in *Figure 12*.
- 7. Assemble brass trim (see steps 1 through 7 under "Assembling and Attaching Brass Trim," page 7).
- 8. Slide base trim on heater base. Attach brass trim to base with two brass screws included as shown in *Figure 12*.

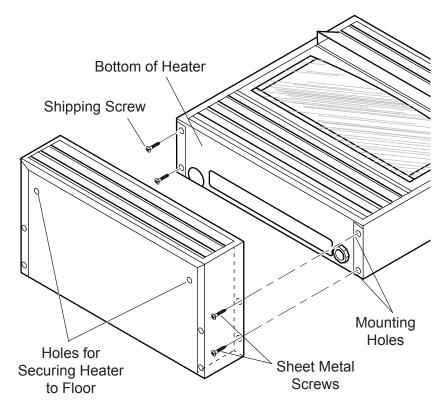


Figure 11 - Attaching Heater to Hearth Base

#### Securing Hearth Base to Floor

- 1. Position hearth base in desired location. Mark holes for drilling (*See Figure 11*). Remove hearth base.
- 2. For carpeted floor, make a small cut with a sharp knife at marked locations before drilling. If securing to a wood floor, drill a <sup>3</sup>/<sub>4</sub>" deep hole using a <sup>1</sup>/<sub>8</sub>" diameter drill bit. Do not use anchors in wood floors. If securing to a concrete floor, drill a 1 <sup>3</sup>/<sub>8</sub>" deep hole using a <sup>5</sup>/<sub>32</sub>" diameter concrete drill bit. Completely insert anchors into each hole.
- 3. Mount heater to hearth base following steps under Mounting Heater to Optional Hearth Base. After mounting heater, position heater and hearth base over drilled holes. With slotted screwdriver, secure hearth base to floor with four wood screws.

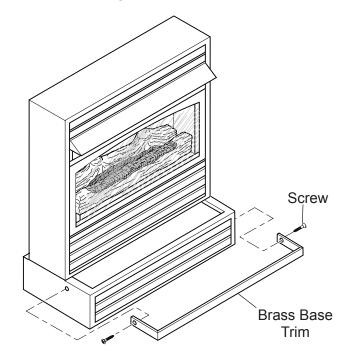


Figure 12 - Placing Hearth Insert on Heater Base and Attaching Brass Base Trim

#### C. MOUNTING HEATER TO OPTIONAL MANTEL.

See Instructions Included With Mantel Kit.

IMPORTANT: Only use the optional mantels specified in this manual. See "Accessories," pages 28 and 29 for proper mantel kits. This heater is only approved for use with mantels designed for this heater. Do not use these mantels with any other product.

#### CONNECTING TO GAS SUPPLY

ARNING

This appliance requires a 3/8" NPT (National Pipe Thread) inlet connection to the pressure regulator.

VARNING

Never connect heater to private (nonutility) gas wells. This gas is commonly known as wellhead gas.

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 inches of water column. 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 13*. Pointing the vent down protects it from freezing rain or sleet.

WARNING

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

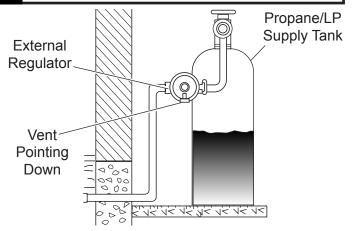


Figure 13 - External Regulator with Vent Pointing Down

AUTION

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 <sup>1</sup>/<sub>2</sub>" or greater diameter to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.

**AUTION** 

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

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 14).

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

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged heater valves.

IMPORTANT: Hold pressure regulator with wrench when connecting it to gas piping and/or fittings.

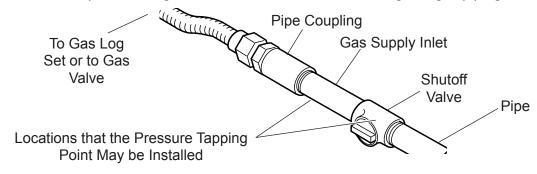


Figure 14 - Gas Connection

#### **INSTALLATION**

#### **CHECKING GAS CONNECTIONS**

#### **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 <sup>1</sup>/<sub>2</sub> 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 using compressed air or opening propane/LP supply tank valve.
- 4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
- 5. Correct all leaks at once.
- 6. Reconnect fireplace 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 15).
- 2. Pressurize supply piping system by either using compressed air or opening propane/LP supply tank valve.
- 3. Check all joints from propane/LP supply tank to equipment shutoff valve (*see Figure 15*). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
- 4. Correct all leaks at once.

#### Pressure testing heater gas connections

- 1. Open equipment shutoff valve (see Figure 15).
- 2. Open propane/LP supply tank valve.
- 3. Make sure control knob of heater is in the OFF position.
- 4. Check all joints from equipment shutoff valve to thermostat gas valve (*see Figure 16*). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
- 5. Correct all leaks at once.
- 6. Light heater (see Operating Heater, pages 19 through 21). Check all other internal joints for leaks.
- 7. Turn off heater (see "To Turn Off Gas to Heater," page 19.
- Replace front panel.

**ARNIN** 

Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

WARNING

Never use an open flame to check for a leak. Apply a mixture of liquid soap and water 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 und "Connecting to Gas Supply," page 15.

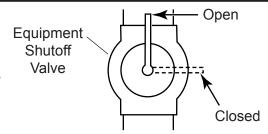


Figure 15 - Equipment Shutoff Valve

Thermostat Gas Valve Location

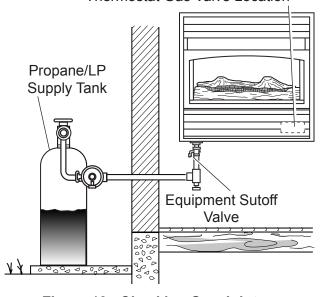


Figure 16 - Checking Gas Joints

#### FOR YOUR SAFETY READ BEFORE LIGHTING

# VARNING

If you do not follow these instruction exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- **A.** This appliance is equipped with an ignition device which automatically lights the pilot. If the piezo is not working properly, see "*Match Lighting Instructions*," page 21.
- **B.** BEFORE OPERATING 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 attempt 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. Force or attempted repair may result in a fire or explosion.
- **D.** Do not use this appliance if any part of it 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 that has been under water.

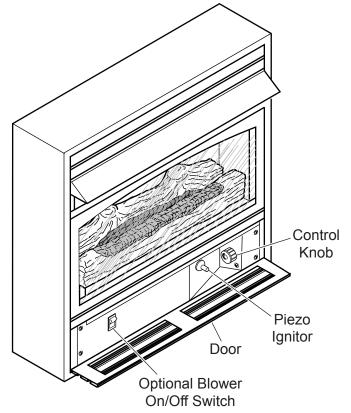


Figure 17 - Location of Piezo Ignitor and Control Knob

#### OPERATING INSTRUCTIONS

#### LIGHTING INSTRUCTIONS

- 1. STOP! Read the safety information label.
- 2. Make sure the manual shutoff valve is fully open.
- 3. This gas log set is equipped with an ignition device (piezo) which automatically lights the pilot. If piezo ignitor does not light the pilot, refer to instructions for "Match Lighting Instructions", page 21.
- 4. Turn gas control knob clockwise to the OFF position.
- 5. Wait (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow the instructions under "What To Do if You Smell Gas," page 17. If you don't smell gas, go to next step.
- 6. From OFF position, turn the gas control knob counterclockwise / to PILOT position. Push in control knob for 5 seconds. See Figure 20. NOTE: If you are running the heater for the first time, it will be necessary to press in the control knob for 30 seconds or longer to allow air to bleed out of the gas piping.
- 7. With control knob pressed in, push down and release ignitor button. This will light pilot. The pilot is attached to the front of burner. If needed, keep pressing ignitor button until pilot lights. **Note: If pilot does not** stay lit, refer to "Troubleshooting," pages 32 through 25. Also contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see "Match Lighting Instructions," page 21.
- 8. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
  - If control knob does not pop up when released, contact a qualified service person or gas supplier for repairs.

Note: If pilot goes out, repeat steps 4 through 8. This heater has a safety interlock system. Wait one (1) minute before lighting pilot again.

9. Turn control knob counterclockwise counterclockwise 

to desired heating level. The main burner should light. Set control knob to any heat level between HI and LO. For thermostat operation, see page 21.

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

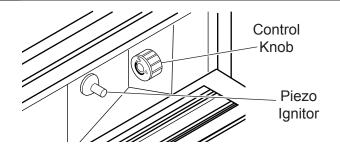


Figure 18 - Control Knob In The OFF Position

Thermocouple (LP only)

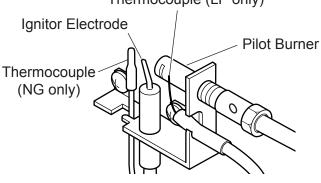


Figure 19 - Pilot

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### TO TURN OFF GAS TO HEATER

#### SHUTTING OFF HEATER

- 1. Turn control knob clockwise to OFF position to completely shut off the heater.
- 2. If applicable: Turn off all electric power to the heater.

#### SHUTTING OFF BURNER ONLY (PILOT STAYS LIT)

Turn control knob clockwise 
to the PILOT position.

#### THERMOSTAT CONTROL OPERATION

The thermostatic control used on this heater differs from standard thermostats. Standard thermostats simply turn on and off the burner. The thermostat used on this heater senses the room temperature. The thermostat adjusts the amount of gas flow to the burner. This increases or decreases the burner flame height. At times the room may exceed the set temperature. If so, the burner will shut off. The burner will cycle back on when room temperature drops below the set temperature.

The control knob can be set to any heat level between HI and LO.

Note: The thermostat sensing bulb measures the temperature of air near the heater cabinet. This may not always agree with room temperature (depending on housing construction, installation location, room size, open air temperatures, etc.). Frequent use of your heater will let you determine your own comfort levels.

#### MATCH LIGHTING INSTRUCTIONS

- 1. Open lower access door (see Figure 1, page 6).
- 2. Follow steps 1 through 6 under Lighting Instructions, page 20.
- 3. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
- 4. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow step 9 under Lighting Instructions, page 20.
- 5. Close lower access door. Contact your dealer to relace or repair the piezo ignitor.

#### **INSPECTING HEATER**

Check pilot flame pattern and burner flame pattern often.

#### PILOT FLAME PATTERN

Figure 20 shows a correct pilot flame pattern.

Figure 21 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 21

- turn heater off (see "To Turn Off Gas to Appliance," page 21)
- see "Troubleshooting," pages 24 through 26

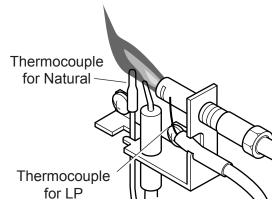


Figure 21 - Correct Pilot Flame Pattern

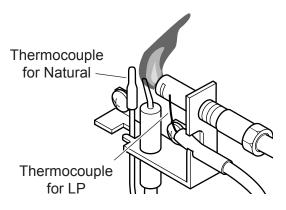


Figure 22 - Incorrect Pilot Flame Pattern Pilot Burner

#### **BURNER FLAME PATTERN**

Figure 22 shows a correct burner flame pattern. Figure 23 shows an incorrect burner flame pattern. The incorrect burner flame pattern shows yellow tipping of the flame. It also shows the flame higher than one inch above the log.

Note: When using the heater the first time, the flame will be opaque orange/yellow for approximately one hour until the log cures.

ARNING

If yellow tipping occurs, your heater could produce increased levels of carbon monoxide. If burner flame pattern shows yellow tipping, follow instructions, bottom of this page.

VOTICE

Do not mistake orange flames with yellow tipping. Dirt or other fine particles enter the heater and burn causing brief patches of orange flame.

If pilot flame pattern is incorrect, as shown in *Figure 23*,

- turn heater off (see "To Turn Off Gas to Appliance," page 21)
- see "Troubleshooting," pages 24 through 26.

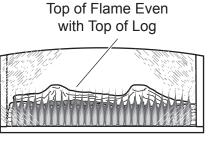


Figure 22 - Correct Burner Flame Pattern

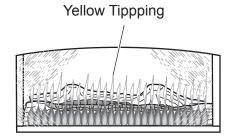


Figure 24 - Incorrect Burner Flame Pattern

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turn off and unplug heater and let cool before servicing. Only a qualified service person should service and repair heater.



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	1. Ignitor electrode positioned wrong	1. Replace pilot
is pressed, there is no	2. Ignitor electrode broken	2. Replace pilot
spark at ODS/pilot	3. Ignitor electrode not connected to ignit- or cable	3. Reconnect ignitor cable
	4. Ignitor cable pinched or wet	4. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	5. Broken ignitor cable	5. Replace ignitor cable
	6. Bad piezo ignitor	6. Replace piezo ignitor
When ignitor button is pressed, there is spark at ODS/pilot but	<ol> <li>Gas supply turned off or equipment shutoff valve closed</li> <li>Control knob not in PILOT position</li> </ol>	<ol> <li>Turn on gas supply or open equipment shutoff valve</li> <li>Turn control knob to PILOT position</li> </ol>
not ignition	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	5. Contact local gas company
	6. ODS/pilot is clogged	6. Clean ODS/pilot (see "Cleaning and Maintenance," page 26) or replace ODS/pilot assembly
	7. Gas regulator setting is not correct	7. Replace gas regulator
ODS/pilot lights but	1. Control knob not fully pressed in	1. Press in control knob fully
flame goes out when control knob is released	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 shutoff valve
	5. Thermocouple connection loose at control valve	5. Hand tighten until snug, then tighten 1/4 turn more
	<ul><li>6. 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:</li><li>A) Low gas pressure</li><li>B) Dirty or partially clogged ODS/pilot</li></ul>	6. A) Contact local gas company B) Clean ODS/pilot (see "Cleaning and Maintenance," page 26) or replace ODS/pilot assembly
	7. Thermocouple damaged	7. Replace thermocouple
	8. Control valve damaged	8. Replace control valve

Continued

## TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner does not light after ODS/pilot is lit	1. Burner orifice is clogged	1. Clean burner (see "Cleaning and Maintenance," page 26) or replace burner orifice
	2. Burner orifice diameter is too small	2. Replace burner orifice
	3. Inlet gas pressure is too low	3. Contact local gas company
Delayed ignition of	1. Manifold pressure is too low	Contact local gas company
burner	2. Burner orifice is clogged	2. Clean burner (see "Cleaning and Maintenance," page 26) or replace burner orifice
Burner backfiring during combustion	1. Burner orifice is clogged or damaged	1. Clean burner (see "Cleaning and Maintenance," page 26) or replace burner orifice
-	2. Burner damaged	2. Replace burner
	3. Gas regulator defective	3. Replace gas regulator
Yellow flame during burner combustion	1. Not enough air	1. Check burner for dirt and debris. If found, clean burner (see "Cleaning and Maintenance," page 26)
	2. Gas regulator defective	2. Replace gas regulator
Slight smoke or odor during initial operation	1. Residues from manufacturing processes	Problem will stop after a few hours of operation
Heater produces a whistling noise when	Turning control knob to HI position when burner is cold	Turn control knob to LO position andlet warm up for a minute
burner is lit	2. Air in gas line	Operate burner until air is removed from line. Have gas line checked by local gas
	3. Air passageways on heater blocked	company 3. Observe minimum installation clearances
	4. Dirty or partially clogged burner orifice	(see Figure 8, page 12)
	,	4. Clean burner (see "Cleaning and Maintenance," page 26) or replace burner orifice
White powder residue forming within burner box or on adjacent walls or furniture	When heated, vapors from furniture polish, wax, carpet cleaners, etc. turn into white powder residue	Turn heater off when using furniture polish, wax, carpet cleaners, or similar products

Continued

#### 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.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Heater produces a clicking/ticking noise just after burner is lit or shut off	Metal expanding while heating or contracting while cooling	This is common with most heaters. If noise is excessive, contact qualified service person
Heater produces unwanted odors	1. Heater burning vapors from paint, hair spray, glues, etc. (see <i>IMPORTANT</i> statement above)	Ventilate room. Stop using odor causing products while heater is running
	2. Gas leak. See Warning statement at top of page	2. Locate and correct all leaks (see "Checking Gas Connections," page 18)
Heater shuts off in use (ODS operates)	<ol> <li>Not enough fresh air is available</li> <li>Low line pressure</li> <li>ODS/pilot is partially clogged</li> </ol>	<ol> <li>Open window and/or door for ventilation</li> <li>Contact local propane/LP company</li> <li>Clean ODS/pilot (see "Cleaning and Maintenance," page 26)</li> </ol>
Gas odor even when control knob is in OFF position	<ol> <li>Gas leak. See Warning statement at top of page</li> <li>Control valve defective</li> </ol>	<ol> <li>Locate and correct all leaks (see "Checking Gas Connections," page 18)</li> <li>Replace control valve</li> </ol>
Gas odor during combustion	<ol> <li>Foreign matter between control valve and burner</li> <li>Gas leak. See Warning statement at top of page</li> </ol>	<ol> <li>Take apart gas tubing and remove foreign matter</li> <li>Locate and correct all leaks (see "Checking Gas Connections," page 18)</li> </ol>

#### **CLEANING AND MAINTENANCE**

CAUTION

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

#### CLEANING BURNER INJECTOR HOLDER AND-PILOT AIR INLET HOLE

The primary air inlet holes allow the proper amount of air to mix with the gas. This provides a clean burning flame. Keep these holes clear of dust, dirt, lint, and pet hair. Clean these air inlet holes prior to each heating season. Blocked air holes will create soot. We recommend that you clean the unit every

Turn off heater and let cool before cleaning.

three months during operation and have heater inspected yearly by a qualified service person.

We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may

carry compressed air in a can. You can use a vacuum cleaner in the blow position. 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 burner, pilot, and primary air inlet holes on injector holder for dust and dirt (see Figure 24).
- 3. Blow air through the ports/slots and holes in the burner.
- 4. Check the injector holder located at the end of the burner tube again. Remove any large particles of dust, dirt, lint, or pet hairs with a soft cloth or vacuum cleaner nozzle.
- 5. Blow air into the primary air holes on the injector holder.
- 6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Primary Air Inlet Hole

Burner Tube

Ports/Slots

Figure 24 - Injector Holder On Outlet Burner Tube

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 two inches from where the pilot flame comes out of the pilot assembly (*see Figure 25*). With the unit off, lightly blow air through the air inlet hole. You may blow through a

#### **CABINET**

#### **AIR PASSAGEWAYS**

• Use a vacuum cleaner or pressurized air to clean.

drinking straw if compressed air is not available.

#### **EXTERIOR**

Use a soft cloth dampened with a mild soap and water mixture.
 Wipe the cabinet to remove dust.

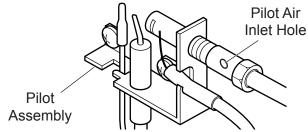
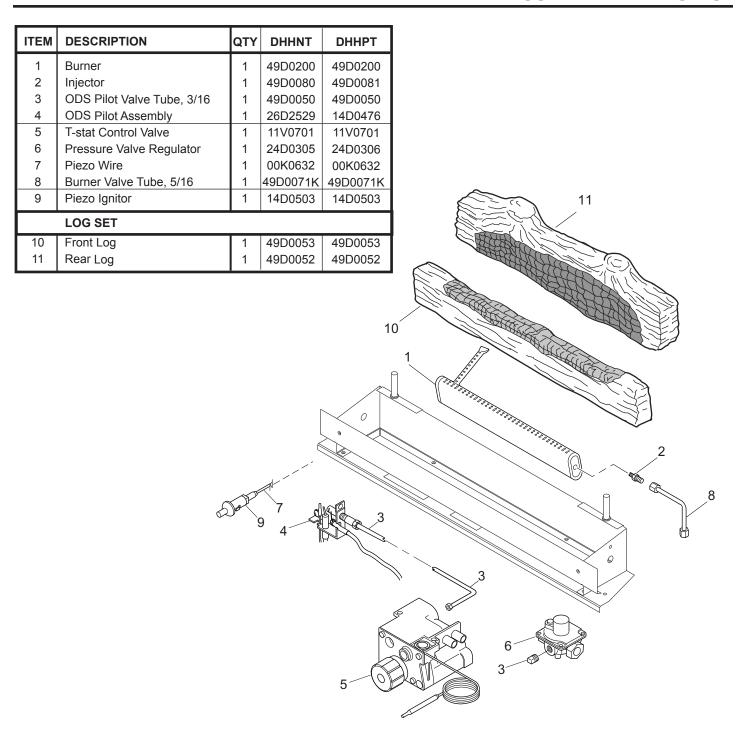


Figure 25 - Pilot Inlet Air Hole

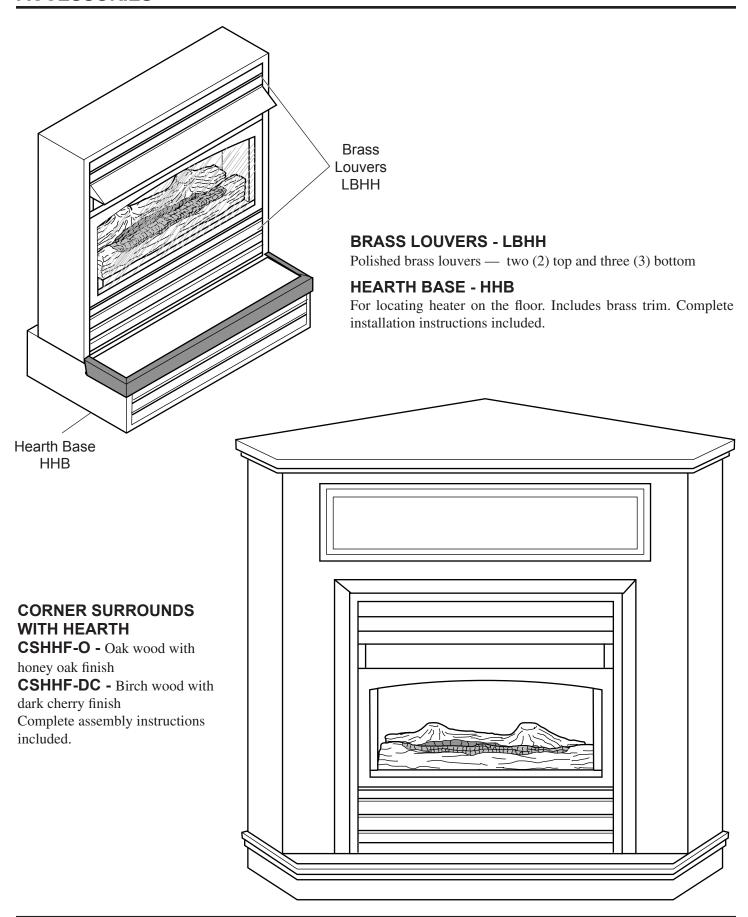
#### **ILLUSTRATED PARTS LIST**



**ARNING** 

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

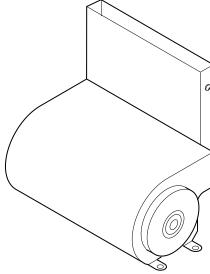
#### **ACCESSORIES**

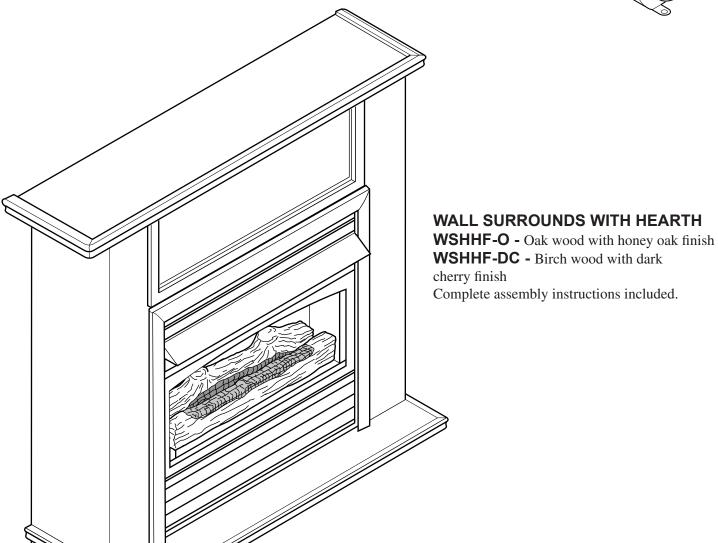


#### **ACCESSORIES**

#### THERMOSTAT FORCED AIR BLOWER - BLOHH

Provides better heat distribution. Makes heater more efficient. Compete installation and operating instructions included.





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## NOTES

## NOTES

## MONESSEN HEARTH SYSTEMS

#### LIMITED LIFETIME WARRANTY POLICY

#### LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

#### **FIVE YEAR WARRANTY**

The following components are warranted for 5 years to the original owner, subject of proof of purchase: Ceramic Fiber Logs, Catalytic Filter and Aluminized Burners.

#### **BASIC WARRANTY**

Monessen Hearth Systems (MHS) warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of one year from date of installation. After installation, if any of the components manufactured by MHS in the appliance are found to be defective in materials or workmanship, MHS will, at its option, replace or repair the defective components at no charge to the original owner. MHS will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of one year from the date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Warranty will be void if the appliance is not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alteration, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of mechantability of fitness for purpose and of all other obligations or liabilities. Monessen Hearth Systems, Inc. does not assume for it any other obligations or liability in connection with the sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damages, those limitations of exclusions may not apply to you. You may also have additional rights not covered in this Limited Warranty.

MHS reserves the right to investigate any and all claims against the Limited Warranty and decide upon method of settlement.

For information about this warranty, contact:

Technical Services Monessen Hearth Systems 149 Cleveland Drive Paris, Kentucky 40361

May 2002 P/N 49D0090 • Rev. 1