Proper Log Placement For Vent-Free Gas Logs

MELBOURNE OAK VENT FREE

BENTON OAK VENT FREE

IMPORTANT:

It is very important that the top logs are placed as shown so **NO FLAMES TOUCH THE LOGS**. Black soot on a log indicates that flames are touching that log. If flames are touching the logs, simply move the logs out of the flames.

WARNING:

Carbon Monoxide will be producd if the flames hit the logs. Proper log placement is shown above. Refer to pictures. If you have any questions, please call (800) 229-5647 for customer service.

INSTALLATION & OPERATION INSTRUCTION FOR

EMBERGLOW™

VENT FREE LOG SET

Model: BVFM18NL, MVFT24NL

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

Heater is preset at the factory for propane/LP gas. For natural gas, follow the simple conversion instructions on page 11.

SAFETY

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installa-tion and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

WARNING: This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to *Air for Combustion and Ventilation* section on page 6 of this manual.

This appliance may be installed in an aftermarket, * permanently located, manufactured (mobile) home, where not prohibited by local codes.

* 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.

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.

SAFETY

Continued

⚠ 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 these gases. 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: 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.

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 front and screen become 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.

Carefully supervise young children when they are in the same room with heater.

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

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

1. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors.
2. 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
3. This heater shall not be installed in a bedroom or bathroom.

SAFETY

Continued

4. Do not use this heater as a wood-burning heater. Use only the logs provided with the heater.
5. Do not add extra logs or ornaments such as pine cones, vermiculite or rock wool. Using these added items can cause sooting.Do not add lava rock around base. Rock and debris could fall into the control area of heater.
6. This heater is designed to be smokeless. If logs ever appear to smoke, turn off fireplace and call a qualified service person. Note: During initial operation, slight smoking could occur due to log curing and fireplace burning manufacturing residues.
7. To prevent the creation of soot, follow the instructions in Cleaning and Maintenance, page 16.
8. 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.
9. This heater needs fresh air ventilation to run properly. This heater has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the fireplace if not enough fresh air is available. See Air for Combustion and Ventilation, page 6. If heater keeps shutting off, see Troubleshooting, page 24.
10. Do not run heater
    - where flammable liquids or vapors are used or stored.
    - under dusty conditions.
11. Do not use this heater to cook food or burn paper or other objects.
12. Never place any objects in the heater or on logs.
13. Do not use heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.
14. Turn off heater and let cool before servicing. Only a qualified service person should service and repair heater.
15. Operating heater above elevations of 4,500 feet could cause pilot outage.
16. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lb. capacity.
17. 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.
14 0 Broadway
New York, NY 10018

National Fire Protection Association, Inc.
Batterymarch Park
Quincy, MA 02269

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 gasfired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 0 upon sale of the unit.

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

UNPACKING

1. Remove the carton and log wrap.
2. Remove all protective packaging applied to heater for shipment.
3. Make sure your logset includes one hardware packet.
4. Check heater for any shipping damage. If heater is damaged, call Sure Heat Heating Products at (800) 229-5647 for replacement parts before returning to dealer.

SAFETY
Continued

PRODUCT FEATURES

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

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

THERMOSTATIC HEAT CONTROL
Thermostat-Controlled models have a thermostat sensing bulb and a control valve. The thermostat will automatically modulate the heat output to maintain a consistent room temperature. This results in greater heater comfort. This can also result in lower gas bills.

DUAL GAS TYPE
Simple conversion from propane/LP to natural gas by a qualified installing agency.

QUALIFIED INSTALLATION AGENCY

Installation and replacement of gas piping, gas utilization equipment or accessories and repair and servicing of equipment shall be performed only by a qualified agency. The term "qualified agency" means any individual, firm, corporation, or company that either in person or through a representative is engaged in and is responsible for:

a) Installation, testing or replacements of gas piping or
b) Connection, installation, testing, repair or servicing of equipment that is experienced in such work; that is familiar with all precautions required; and that has complied with all requirement of the authority having jurisdiction.

AIR FOR COMBUSTION AND VENTILATION

⚠ WARNING: This heater shall not be installed in a room or space unless the requires volume of indoor combustion air is provided by the method described in the National Fuel Gas Code, ANSI 223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes. Read the following instructions to ensure 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, heaters, clothes dryers and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will ensure proper venting of vented fuel-burning appliances.

PROVIDING ADEQUATE VENTILATION

The following are excerpts from National Fuel
Gas Code, ANSI Z223.1/NFPA 54, 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 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.

AIR FOR COMBUSTION AND VENTILATION

Continued

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) 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 8.

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

Confined and Unconfined Space

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/hr (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/hr (4.8 m3 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 16 ft. (length) x 14 ft. (width) x 8 ft. (ceiling height) = 1792 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: 1792 cu. ft. (volume of space) x 20 = 35,840 (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 heater logs _____Btu/Hr
   Other gas appliances* + _____Btu/Hr
   Total = _____Btu/Hr
   * Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.
   Example:
   Gas water heater _____Btu/Hr
   Vent-free heater _____Btu/Hr
   Total _____Btu/Hr
4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.
   _____ Btu/Hr (maximum space cansupport)
   _____ Btu/Hr (actual amount used)
   Example: 35,840 Btu/Hr (maximum the space can support)
   56,000 Btu/Hr (actual amount of Btu/Hr used)

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

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

AIR FOR COMBUSTION AND VENTILATION

Continued

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.
Confined and Unconfined Space

⚠ 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” (0.5 cm) of the ceiling and one within 12” (30.5 cm) of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 1). You can also remove door into adjoining room (see option 3, Figure 1). Follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

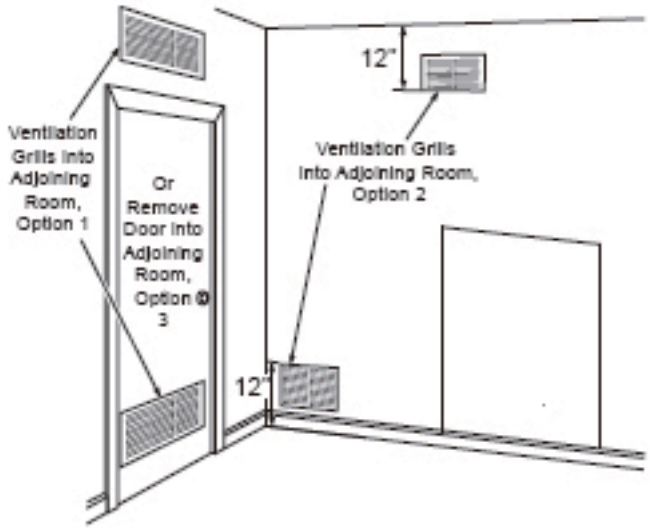


Figure 1 - Ventilation Air from Inside Building

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12” (0.5 cm) of the ceiling and one within 12” (0.5 cm) 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, 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.

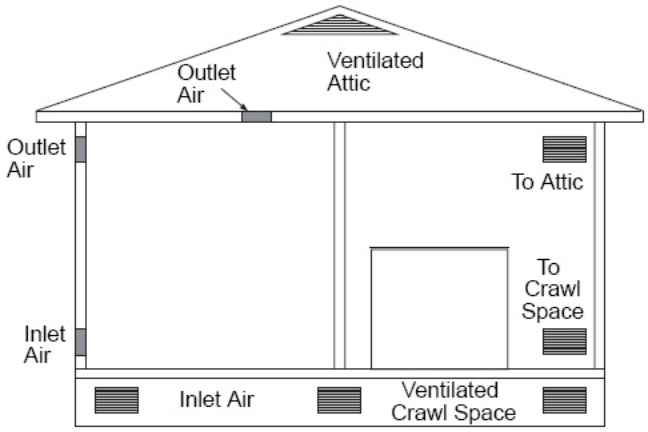


Figure 2 - Ventilation Air from Outdoors

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: This appliance is equipped for natural and propane/LP. Gas type is indicated on the rating plate. Field conversion is not permitted other than between natural or propane gases.

INSTALLATION

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

⚠ 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" (91.5 cm) from the front, top or sides of the heater
• as a heater insert
• in high traffic areas
• in windy or drafty areas

⚠ WARNING: Never install in a bedroom or bathroom. Any heating product with a Btu/Hr rating over 10,000 cannot be used in a bedroom.

⚠ CAUTION: This log set 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 log sets add moisture to the air. Although this is beneficial, installing heater in rooms without enough ventilation air may cause mildew to form from too much moisture. See Air for Combustion and Ventilation, page 6.

CHECK GAS TYPE

Use only the correct gas type (natural or propane/LP) for your unit. If you do not know your gas type, do not install heater. The heater leaves the factory set for propane/LP gas. If natural gas is desired, a qualified installer can perform the simple conversion to natural gas by following the instructions on page 12.

INSTALLATION ITEMS

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

- external regulator (supplied by installer, for propane/LP units only)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve *
- test gauge connection*
- ground joint union
- 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.

CLEARANCES

Mantel Clearances for Installation

If placing mantel above heater, you must meet minimum clearance between mantel shelf and top of heater opening.

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.

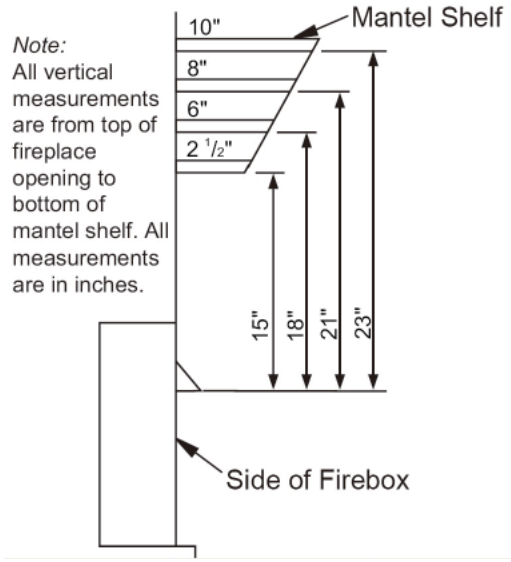


Figure 3 - Minimun Mantel Clearances for Installation

INSTALLATION

Continued

Log set is equipped with a system to turn off log set if not converted correctly. If the temperature switch requires resetting, press button (see Figure 4). Do not reset until unit has been checked by a qualified service installer.
Note: Only MVFT24NL with thermostat.

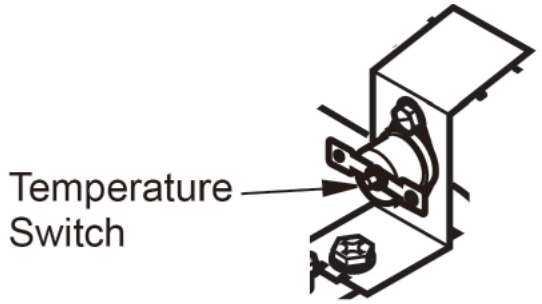


Figure 4 - Temperature Switch Reset Button

BURNER ASSEMBLY INSTALLTION

1. Place the log set in the center of your fireplace.
2. Remove the black iron pipe cap from your gas supply pipe.
   Note: Hold the gas supply pipe securely with a wrench to prevent it from rotating loose and unthreading from the inner wall connection.
3. Tighten the 1/2” NPT by 3/8” flare fitting on the 1/2” gas supply line using sealant.
4. Fasten the gas connection tube from the gas inlet at the rear of the heater assembly.
   Note: The use of a flexible hose to attach the gas supply to the burner assembly may cause the burner to make excess noise.

CONNECTING TO GAS SUPPLY

⚠ WARNING: This appliance requires a 5/8” UNF and 1/2” NPT fitting (Unified National Fine Thread) inlet connection and the gas connection tube provided.

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

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

IMPORTANT: For natural gas, check gas line pressure before connecting heater to gas line. Gas line pressure must be no greater than 14” of water. If gas line pressure is higher, heater regulator damage could occur.

⚠ CAUTION: Never connect propane /LP 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.

For propane/LP units, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11” and 7” 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. Pointing the vent down protects it from freezing rain or sleet.

⚠ CAUTION: Use only new, black iron or steel pipe. Internallytinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2” or greater diameter to allow proper gas volume to heater. If pipe is too small, undue loss of volume will occur.

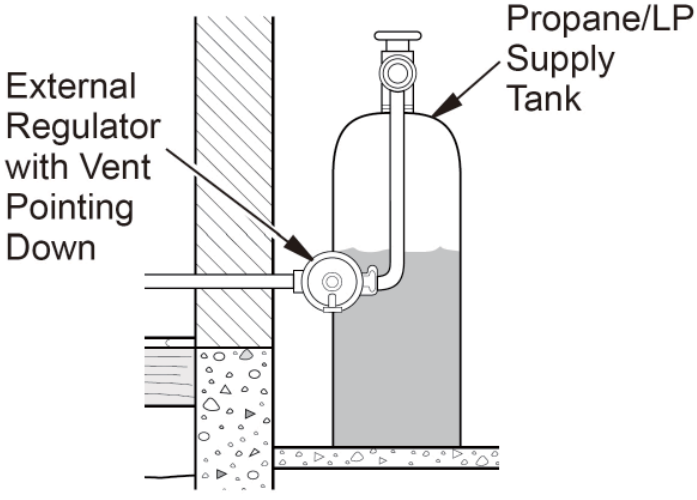


Figure 5 - External Regulator With Vent Pointing Down

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
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 your building codes for any special requirements for locating equipment shutoff valve to heaters.
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 6. 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.

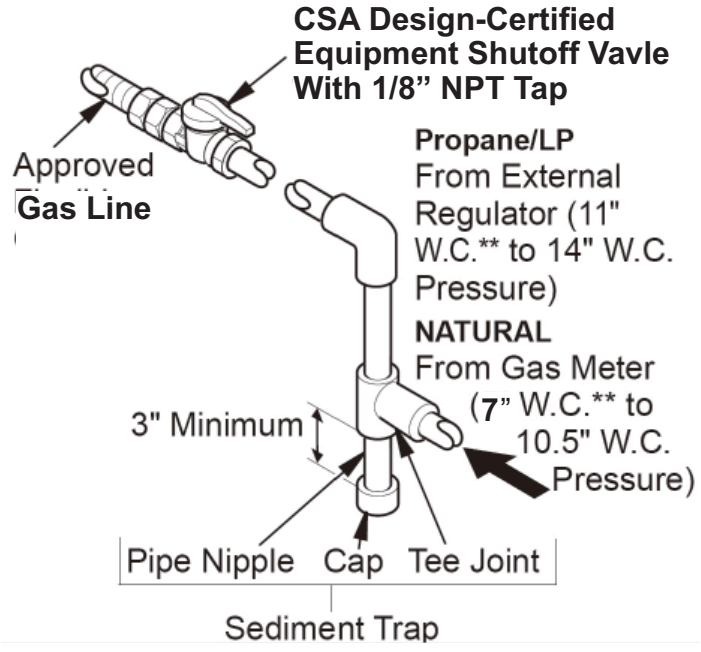


Figure 6 - Gas Connection

CHECKING GAS CONNECTIONS

⚠ 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.

⚠ WARNING: Test all gas piping and connections, internal and external to unit, for leaks after installing or servicing. 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 9.

⚠ CAUTION: For propane/LP gas, make sure external regulator has been installed between propane/LP supply and heater. See guidelines under *Connecting to Gas Supply*, page 9.

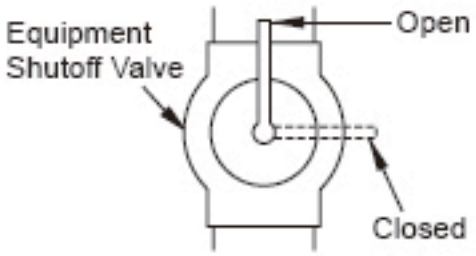


Figure 7 - Equipment Shutoff Valve

PRESSURE TESTING HEATER GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 7).
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 knob of heater is in the OFF position.
4. Check all joints from equipment shutoff valve to gas regulator Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light heater (see Operation, page 14). Check all other internal joints for leaks.
7. Turn off heater.

INSTALLATION

Continued

LOG PLACEMENT

Log placement (See log placement sheet).

⚠ WARNING: Incorrect log placement can lead to production of harmful carbon monoxide while the unit is in operation. There should be no direct impingement of flames on any of the log.

⚠ WARNING:Failure to position the parts specially approved with this heater may result in property damage or personal injury.

Decorative stone

The decorative stone from the bag provided should be spread in front of the grate. The stone should not be placed on or near the burner. Contact with the burner can cause the production of carbon monoxide.

GAS SELECTION

⚠ CAUTION: Two gas line installations at the same time are forbidden. Do not open or access the selector valve while heater is operating.

Heater is preset at the factory for propane/ LP gas. No changes are required for connecting heater to a propane/LP gas supply. Only a qualified installer or service technician can perform gas selection and connecting to gas supply.

For Propane/LP Gas

1. Mark on rating label propane/LP gas.
2. No other actions needed.

Changing from Propane/LP Gas to Operation on Natural Gas

1. Carefully remove logs from fireplce.
2. Remove the cap by hand from the regulator and now the white plastic screw is in the LP position. (see Figure 8-1).
3. Remove the white plastic screw by hand from the cap. (See Figure 8-2)
4. Turn it over (See Figure 8-3) and reinstall it on the cap (See Figure 8-4). Make sure the white plastic screw is installed on the cap tightly.
5. Remove set screw from selector valve linkage (see Figure 9, page 12).
6. Slightly press selector plate and rotate linkage clockwise until it stops.
7. Reinstall set screw.
8. Mark on rating label natural gas.

Note: Slot in linkage will indicate the type of gas selected.

Blue color code on linkage decal will indicate correct setting for natural gas.

9. Place burner assembly inside firebox. Connect to gas supply and check for leaks (see page 11).
10. Replace logs onto burner asembly as shown on the log placement sheet.

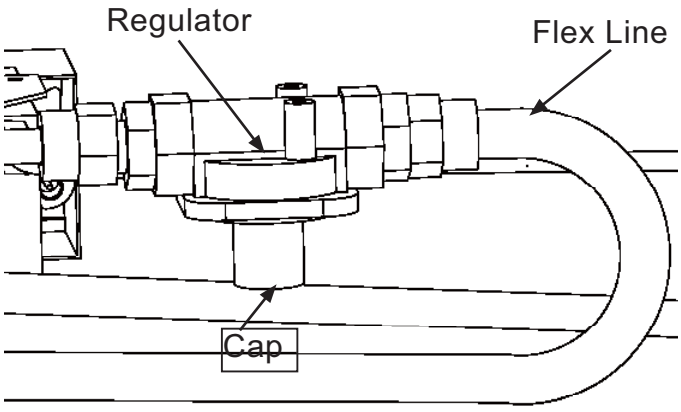


Figure 8 - Changing Gas Type

LP to NG Setting

White Plastic Screw

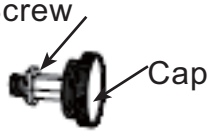


Figure 8 - 1

Figure 8 - 2

Figure 8 - 3

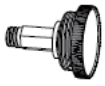


Figure 8 - 4

NG to LP Setting

White Plastic Screw

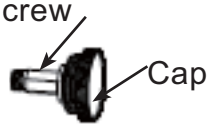


Figure 8 - 5

Figure 8 - 6

Figure 8 - 7

Figure 8 - 8

INSTALLATION

Continued

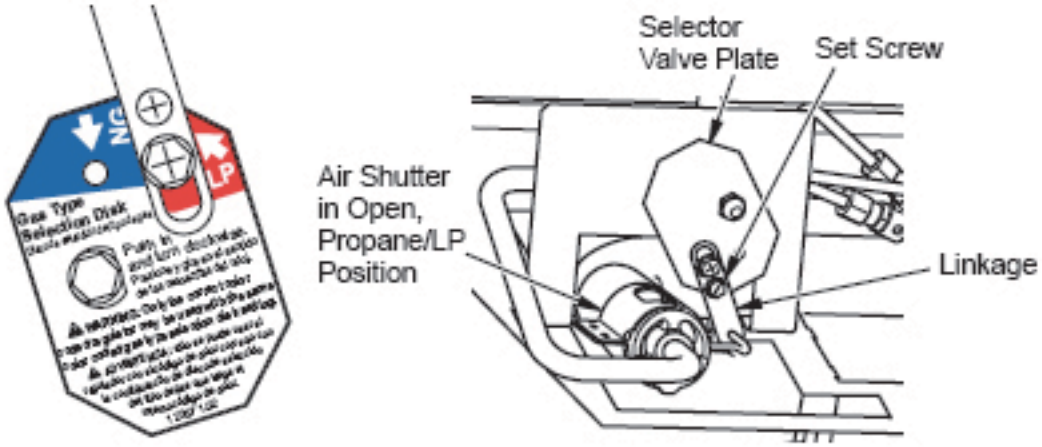
Changing from Natural Gas to Operation on Propane/LP Gas (for Previously Installed Log Sets)

1. Carefully remove logs from heater.
2. Remove the cap by hand from the regulator and now the whiteplastic screw is in the NG position. (see Figure 8-5).
3. Remove the white plastic screw by hand from the cap. (See Figure 8-6)
4. Turn it over (See Figure 8-7) and reinstall it on the cap (See Figure 8-8). Make sure the white plastic screw is installed on the cap tightly.
5. Remove set screw from selector valve linkage (see Figure 9).
6. Slightly press selector plate and rotate linkage counterclockwise until it stops.
7. Reinstall set screw.
8. Mark on rating label propane/LP gas.

Note: Slot in linkage will indicate the type of gas selected. Red color code on linkage decal will indicate correct setting for propane/LP gas.

9. Place burner assembly inside firebox. Connect to gas supply and check for leaks (see Connecting to Gas Supply, page 9).
10. Replace logs onto burner asembly as shown on the log placement sheet.

Propane/LP Gas Setting



Natural Gas Setting

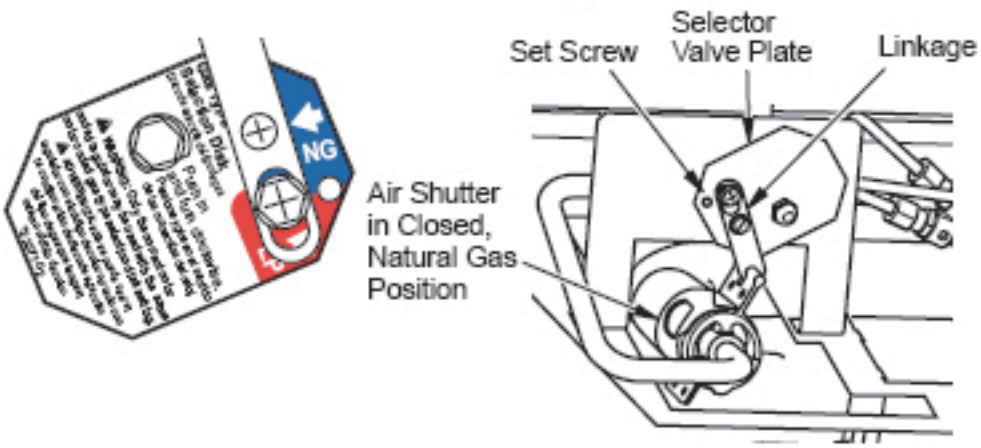


Figure 9 - Gas Selector Valve Plate

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 lit 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: You must operate this fireplce with the screen in place. Make sure fireplace screen is installed before running heater.

NOTICE: During initial operation of new fireplace burning logs will give off a paper-burning smell. Open window to vent smell. Operate fireplace on HI position to burn off odor. This will only last a few hours.

1. STOP! Read the safety information.
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, page 19. If you don't smell gas, go to the next step.
5. Turn control knob counterclockwise to the PILOT position. Press in control knob for five (5) seconds (see Figure 10).

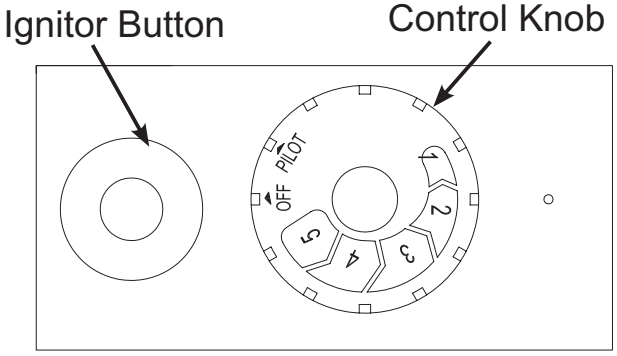


Figure 10 Control Knob

Note: You may be running this heater for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds or more. This will allow air to bleed from the gas system.
- If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.

6. With control knob pressed in, press and release ignitor button. This will light pilot. The pilot is attached to the front burner. If needed, keep pressing ignitor button until pilot lights.
Note: If pilot does not stay lit, refer to Troubleshooting, page 17. 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 Manual Lighting Procedure, page 14.
7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
Note: If pilot goes out, repeat steps 3 through 7.

OPERATION

Continued

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

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

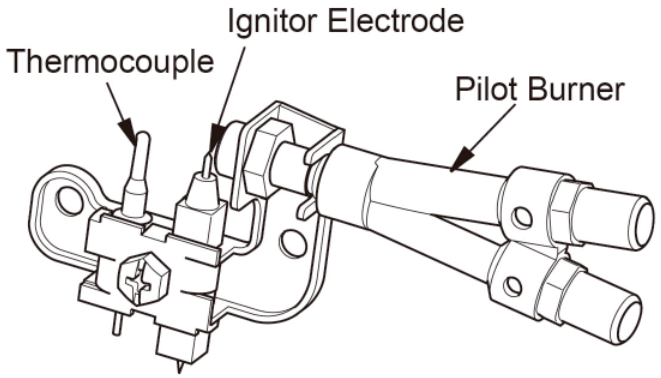


Figure 11 - Pilot

TO TURN OFF GAS TO APPLIANCE

Shutting Off Heater

1. Turn control knob clockwise to the OFF position.
2. Turn off all electric power to the appliance (if applicable) if service is to be performed.
3. Close equipment shutoff valve (see Figure 7, page 10).

THERMOSTAT CONTROL MODELS

The thermostat used on this heater senses the room temperature. 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 air near the heater. 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.

MANUAL CONTROL MODELS

Manually adjust the flame height and heat output between pilot, low and high to adjust room temperature.

MANUAL LIGHTING PROCEDURE

1. Follow steps 1 through 5 under *Lighting Instructions*, page 20.
2. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
3. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds,release control knob. Now follow step 8under *Lighting Instructions*, page 20.

SPECIFICATIONS

Model	**BVFM18NL**		**MVFT24NL**	
Gas Type	Natural	Propane/LP	Natural	Propane/LP
Input Max.	34,000Btu/Hr	34,000Btu/Hr	39,000Btu/Hr	39,000Btu/Hr
Manifold Pressure	4.5" W.C.	10" W.C.	4.5" W.C.	10" W.C.
Max. Inlet Pressure	10.5" W.C.	14" W.C.	10.5" W.C.	14" W.C.
Min. Inlet Pressure*	7" W.C.	11" W.C.	7" W.C.	11" W.C.
Minimum heater size	18"H x 22"W x 12"D		18"H x 28"W x 15"D	

* For purposes of input adjustment

INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

PILOT FLAME PATTERN

Figure 12 shows a correct pilot flame pattern. Figure 13 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 14

- turn heater off (see To Turn Off Gas to Appliance, page 14)
- see Troubleshooting, page 17.

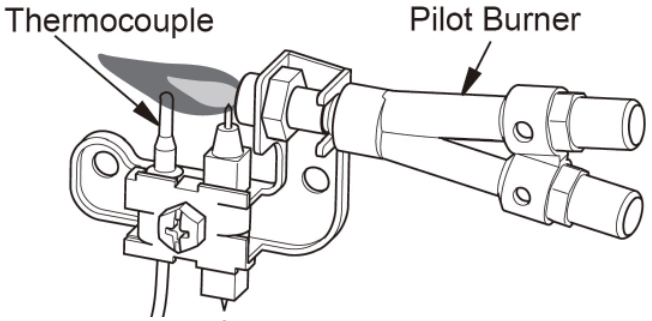


Figure 12 - Correct Pilot Flame Pattern

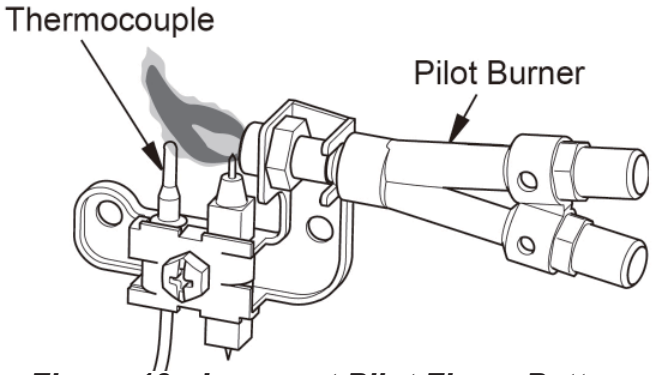


Figure 13 - Incorrect Pilot Flame Pattern

Figure 30 shows an incorrect pilot flame pattern when using the wrong gas type. Turn off heater and call a qualified service person to make corrections.

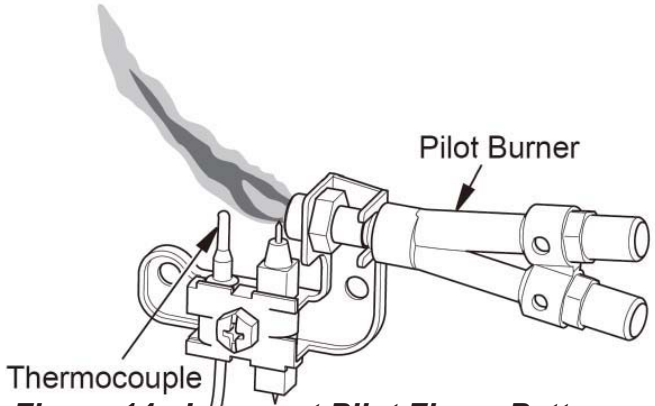


Figure 14 - Incorrect Pilot Flame Pattern When Using Wrong Gas Type

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

BURNER FLAME PATTERN

Figure 15 shows a correct burner flame pattern. Figure 16 shows an incorrect burner flame pattern. The incorrect burner flame pattern shows sporadic, irregular flame tipping. The flame should not be dark or have an orange/reddish tinge.

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

If burner flame pattern is incorrect, as shown in Figure 16

- turn heater off (see To Turn Off Gas to Appliance, page 14)
- see Troubleshooting, page 17.

Figure 17 shows an incorrect pilot flame pattern when using the wrong gas type. Turn off heater and call a qualified service person to make corrections.

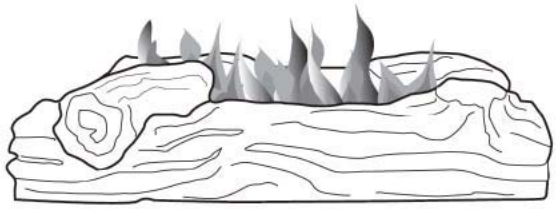


Figure 15 - Correct Burner Flame Pattern

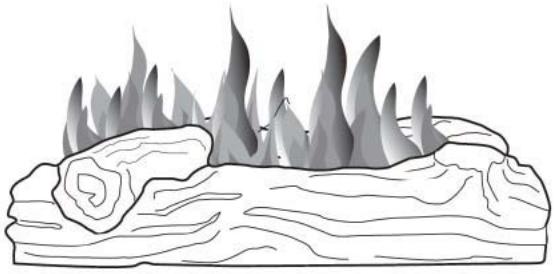


Figure 16 - Incorrect Burner Flame Pattern

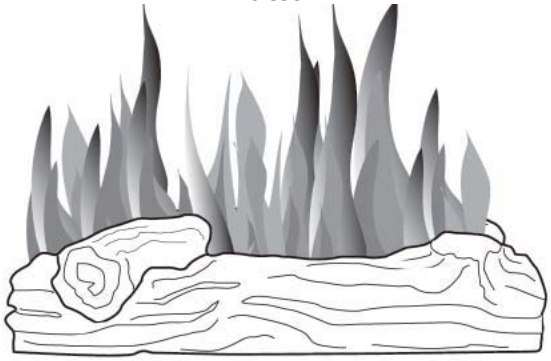


Figure 17 - Incorrect Burner Flame Pattern When Using Wrong Gas Type

CLEANING AND MAINTENANCE

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

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

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

BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

The primary air inlet holes allow the proper amount of air to mix with the gas. This provides a clean burning flame. Keep these holes clear of dust, dirt, lint and pet hair. Clean these air inlet holes prior to each heating season. Blocked air holes will create soot. We recommend that you clean the unit every three months during operation and have heater inspected yearly by a qualified service person. We also recommend that you keep the burner tube and pilot assembly clean and free of dust
and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store or home center may carry compressed air in a can. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

1. Shut off unit including pilot. Allow unit to cool for at least 30 minutes.
2. Inspect burner, pilot and primary air inlet holes on injector holder for dust and dirt (see Figure 18).
3. Blow air through the ports/slots and holes in the burner.
4. Check injector holder located at the end of burner tube again. Remove any large particles of dust, dirt, lint or pet hair with a soft cloth or vacuum cleaner nozzle.
5. Blow air into the primary air holes on the injector holder.
6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Clean 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 19). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.

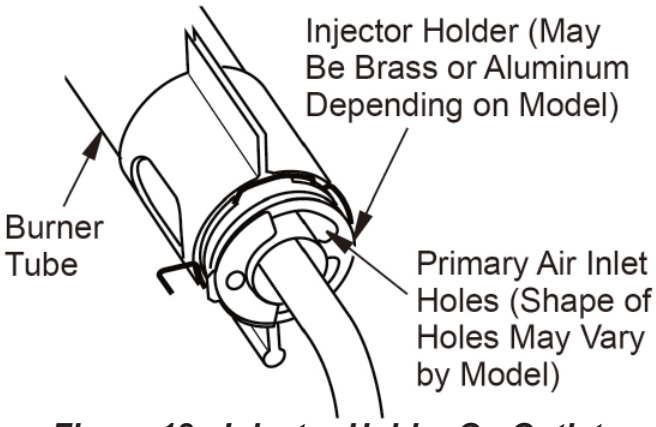


Figure 18 - Injector Holder On Outlet Burner Tube

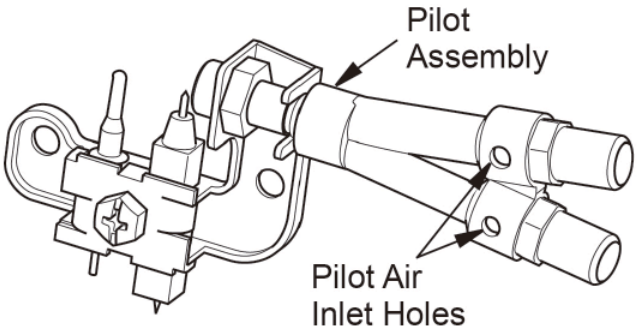


Figure 19 - Injector Holder On Outlet Burner Tube

LOG SET

- If you remove log set for cleaning, refer to log placement sheet, for placement instructions.
- Replace logs if broken.

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 in, there is no spark at ODS/pilot	1. Ignitor electrode not connected to ignitor cable 2. Ignitor cable pinched or wet 3. Broken ignitor cable 4. Bad ignitor 5. Ignitor electrode positioned wrong 6. Ignitor electrode broken	1. Reconnect ignitor cable 2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry 3. Replace ignitor cable 4. Replace ignitor 5. Replace pilot assembly 6. Replace pilot assembly
When ignitor button is pressed in, there is a spark at ODS/Pilot but no ignition	1. Gas supply turned off or equipment shutoff valve closed 2. Control knob is not in pilot position 3. Control knob not fully pressed in while pressing ignitor button 4. Air in gas lines when installed 5. Depleted gas supply (propane/LP gas) 6. ODS/pilot is clogged 7. Gas regulator setting is not correct	1. Turn on gas supply or open equipment shutoff valve 2. Turn control knob to pilot position 3. Turn to PILOT/IGN position. Fully press in control knob while pressing ignitor button 4. Continue holding down control knob. Repeat igniting operation until air is removed 5. Contact local propane/LP gas company 6. Clean ODS/pilot (*See Cleaning and Maintenance,* page 16) or replace ODS/pilot assembly 7. Replace gas regulator

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
ODS/pilot lights but flame goes out when control knob is released	1. Control knob not fully pressed in 2. Control knob not pressed in long enough 3. Equipment shutoff valve not fully open 4. Thermocouple connection loose at control 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 6. Thermocouple damaged 7. Control valve damaged 8. Temperature switch requires resetting	1. Press in control knob fully 2. After ODS/pilot lights, keep control knob pressed in 30 seconds 3. Fully open equipment shut-off valve 4. Hand tighten until snug, then tighten 1/4 turn more 5. A) Contact local natural or propane/LP gas company B) Clean ODS/pilot (see *Cleaning and Maintenance*, page 16) or replace ODS/pilot assembly 6. Replace pilot assembly 7. Replace control valve 8. Press reset button on temperature switch
Burner does not light after ODS/pilot is lit	1. Inlet gas pressure is too low 2. Burner Orifice(s) is clogged	1. Contact local natural or propane/LP gas company 2. Clean burner (see *Cleaning and Maintenance*, page 16) or replace burner orifice
Delayed ignition of burner(s)	1. Manifold pressure is too low 2. Burner Orifice(s) is clogged	1. Contact local natural or propane/LP gas company 2. Clean burner (see *Cleaning and Maintenance*, page 16) or replace burner orifice
Burner backfiring during combustion	1. Burner orifice(s) is clogged or damaged 2. Burner damaged 3. Gas regulator defective 4. Inlet gas pressure is too low	1. Clean burner orifice(s) (see *Cleaning and Maintenance*, page 16) or replace burner orifice(s) 2. Replace burner 3. Replace gas regulator 4. Contact local natural or propane/LP gas company

TROUBLESHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Slight smoke or odor during initial operation	1. Residues from manufacturing processes and log curing 2. Not enough air 3. Gas regulator defective	1. Problem will stop after a few hours of operation 2. Check burner for dirt and debris. If found, clean burner (see *Cleaning and Maintenance*, page 16) 3. Replace gas regulator
Heater produces a whistling noise when burner is lit	1. Turning control knob to HI position when burner is cold 2. Air in gas line 3. Air passageways on heater blocked 4. Dirty or partially clogged burner orifice	1. Turn control knob to LO position and let warm up for a minute 2. Operate burner until air is removed from line. Have gas line checked by local natural or propane/LP gas company 3. Observe minimum installation clearances 4. Clean burner (see *Cleaning and Maintenance*, page 16) or replace burner orifice
White powder residue forming within burner box or on adjacent walls or furniture	1. When heated, vapors from furniture polish, wax,carpet cleaner, etc., may turn into white powder residue	1. Turn heater off when using furniture polish, wax, carpet cleaners or similar products
No yellow flame (mostly blue)	1. Not enough combustion/ ventilation air	1. Refer to Air for Combustion and Ventilation requirements (page 6)
Tall, yellow flames (soot may be visible)	1. Wrong gas conversion (natural gas on propane/ LP setting)	1. Make sure natural gas regulator and selector disk are set in the natural gas positions (see page 11)
Moisture/condensation noticed on windows	1. Not enough combustion/ Ventilation air	1. Refer to Air for Combustion and Ventilation requirements (page 5)
Fireplace produces a clicking/ ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is normal with most Fireplaces. If noise is excessive, contact qualified service person

TROUBLESHOOTING

Continued

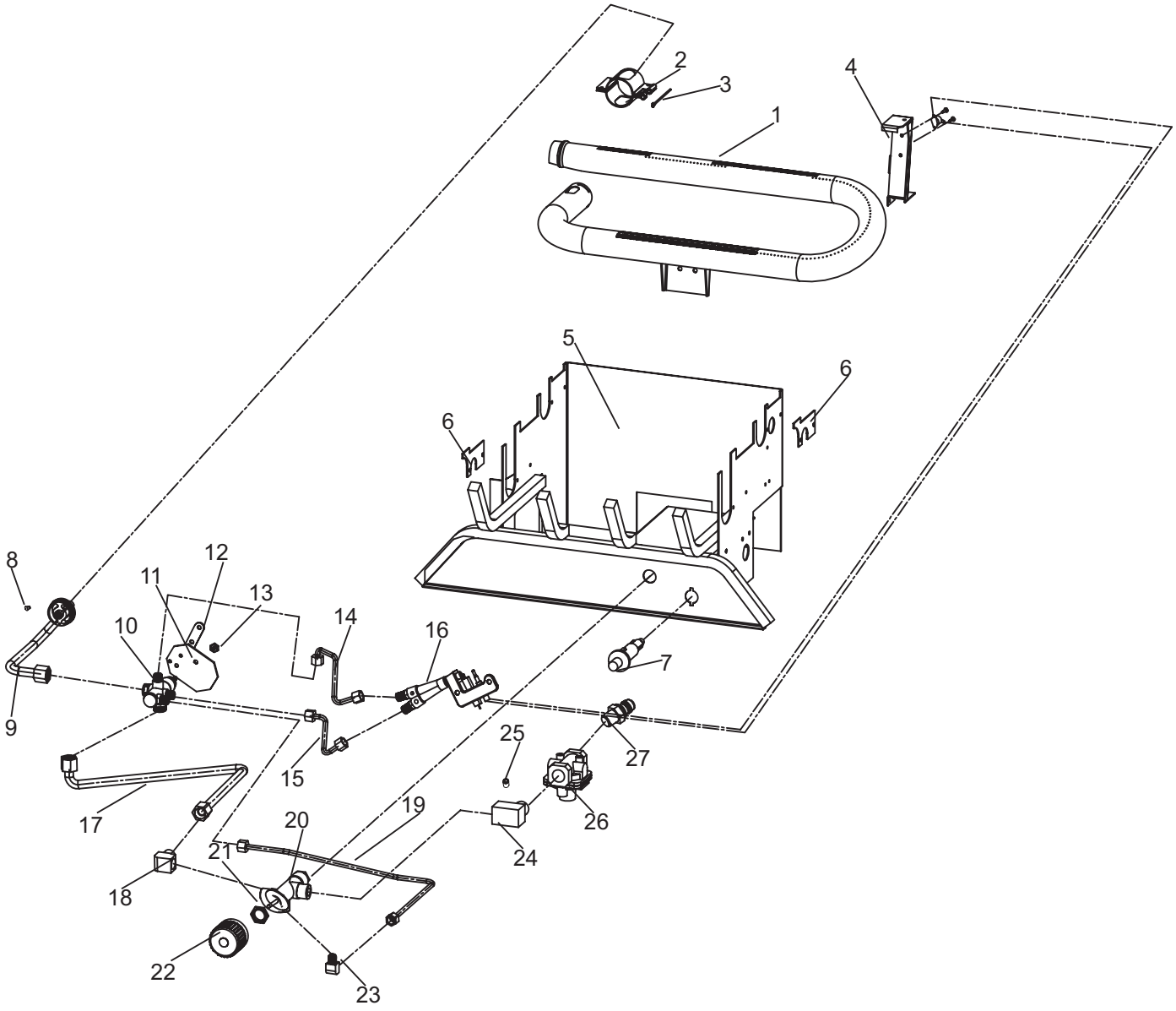
⚠ WARNING: If you smell gas
- **Shut off gas supply.**
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot 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.

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 10)
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 16)
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 10) 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. Contact a qualified service technician to remove foreign matter 2. Locate and correct all leaks (see *Checking Gas Connections*, page 10)

Replacement Parts

BURNER ASSEMBLY Model BVFM18NL



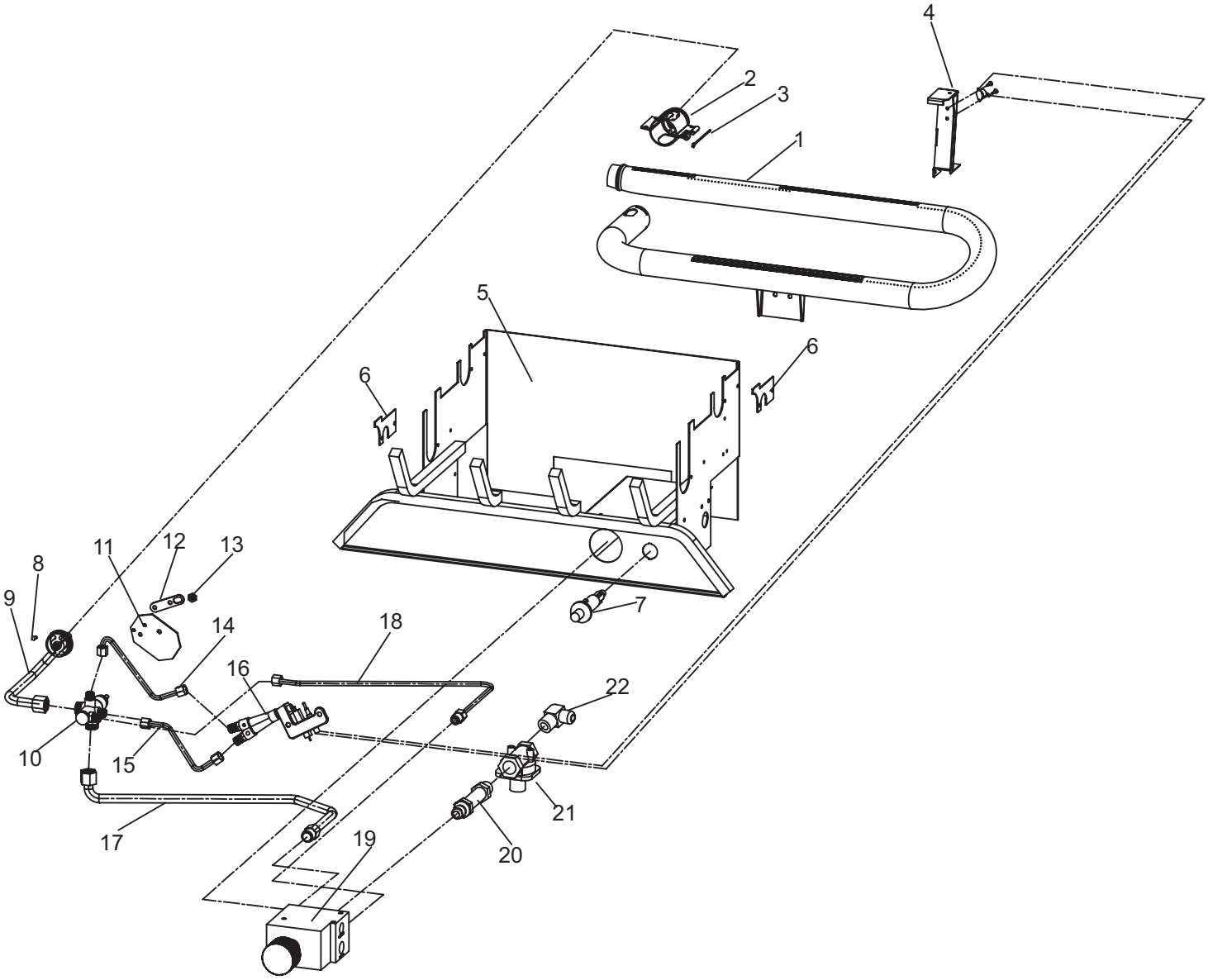
Replacement Parts

BURNER ASSEMBLY Model BVFM18NL

NO.	Part Description	Part NO.	Qty.
1	Dual Burner	FCHD1809005	1
2	Shutter	FCHD1809006	1
3	Cotter Pin	FCHD2609016	1
4	Temperature Switch Assembly	FCSHBF09024	1
5	Main Support Assembly	FCHD1809007	1
6	Burner Support Clip	FCHD1809008	2
7	Piezo Igniter	FCSHBF09013	1
8	NG Orifice	FCHD1809009	1
9	Outlet Tube	FCHD1809010	1
10	Selection Valve	FCHD1809011	1
11	Selection Valve Plate	FCHD2609024	1
12	Dual Fuel Linkage	FCHD2609023	1
13	Selection Nut	RHWBF00003A	1
14	ODS Tube NG	FCHD1809012	1
15	ODS Tube LP	FCHD1809013	1
16	Dual Fuel ODS	FCHD2609018	1
17	Valve Tube	FCHD1809014	1
18	Elbow 125 MNPT x 375MUNF	FCHD1809015	1
19	ODS Tube LP & NG	FCHD1809016	1
20	Manual Control Valve	FCHD1809017	1
21	Control Valve Nut (M15x1)	RHWDZ00005A	1
22	Control Valve Knob (CP-7.2)	FCHD1809018	1
23	Elbow 250 FNPT x 5625 FLR	FCHD1809019	1
24	Fitting Elbow 375 FNPT x 375 MNPTX125FNPT	FCHD1809020	1
25	1/8" NPT Fitting	FCHD2309031	1
26	Dual Fuel Regulator	FCSHBF09005	1
27	Fitting 375MNPT & 625MUNF	FCHD2309030	1

Replacement Parts

BURNER ASSEMBLY Model MVFT24NL



Replacement Parts

BURNER ASSEMBLY Model MVFT24NL

NO.	Part Description	Part NO.	Qty.
1	Dual Burner	FCHD2409005	1
2	Shutter	FCHD1809006	1
3	Cotter Pin	FCHD2609016	1
4	Temperature Switch Assembly	FCSHBF09024	1
5	Main Support Assembly	FCHD2409006	1
6	Burner Support Clip	FCHD1809008	2
7	Piezo Igniter	FCSHBF09013	1
8	NG Orifice	FCHD2409007	1
9	Outlet Tube	FCHD1809010	1
10	Selection Valve	FCHD2409008	1
11	Selection Valve Plate	FCHD2609024	1
12	Dual Fuel Linkage	FCHD2609023	1
13	Selection Nut	RHWBF00003A	1
14	ODS Tube LP	FCHD2409009	1
15	ODS Tube NG	FCHD2409010	1
16	Dual Fuel ODS	FCHD2609018	1
17	Valve Tube	FCHD2409011	1
18	ODS Tube LP & NG	FCHD2409012	1
19	Control Valve	FCSHBF09031	1
20	Adapter 375 MNPT x 5625 MUNF-4"L	FCHD2409013	1
21	Dual Fuel Regulator	FCSHBF09005	1
22	Elbow 375 MNPT x 625 MUNF	FCHD2409014	1

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 Sure Heat Products' Technical Service Department at (800) 229-5647.
When calling Sure Heat 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 gas)
- 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 Sure Heat Heating Products at (800) 229-5647 for parts.
When calling Sure Heat, have ready
- model number of your heater
- the replacement part number

SERVICE HINTS

When Gas Pressure Is Too Low
- pilot will not stay lit
- burner 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.
Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

TECHNICAL SERVICE

You may have further questions about installation, operation or troubleshooting. If so, contact Sure Heat Heating Products' Technical Service Department at (800) 229-5647. When calling please have your model and serial numbers of your heater ready. You can also visit Sure Heat Heating Products' technical service web site at www.sureheat.com.

LIMITED WARRANTY

Sure Heat Mfg warrants that the components of this appliance are warranted free from defects in material and workmanship for one (1) year from the date of purchase. Sure Heat Mfg. at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with a new manufactured product or component. if the product is no longer available, replacement may be made with a similar product of equal value. This warranty does not include transportation or shipping costs of any kind. This is your exclusive warranty.

This warranty is valid for the original retail purchaser from the date of initial retail purchase and is not transferable. Keep the original sales receipt. Proof of purchase is required to obtain warranty parts.

This warranty does not cover normal wear of parts such as scratches and dents of the components or damage resulting from any of the following:

- negligent use or misuse of the product, including exposing the product to chemicals or cleaning products not approved by Sure Heat Mfg.
- corrosion, rust or discoloring of any kind.
- use or installation contrary to specified instructions and applicable building codes, including heating the product to temperatures above its rated specifications which can cause considerable warping
- disassembly, including removal of the product from a built-in installation
- damage resulting from accident, alteration, misuse, abuse, hostile environments, or improper installation
- repair or alteration
- acts of God, such as fire, flood hurricanes, and tornadoes
- gas cylinders, propane tanks or other fuel delivery systems, including connections to a household fuel supply
- usage other than single-family household use such as commercial or industrial use
- minor warping or discoloration of parts, which is normal and not a defect under this warranty

DO NOT RETURN THIS PRODUCT TO THE PLACE OF PURCHASE

If the appliance does not operate properly, first thoroughly carry out the instructions provided with the unit to ensure that the appliance is installed correctly and check the troubleshooting section in the use and care manual.

We recommend you return the warranty registration card so that you can be contacted with any questions of safety arise that could affect you. The return of the warranty registration card is not a condition for warranty coverage.

Because of continuing product improvement these specifications are subject to change without notice.

If you have other questions or need replacement parts contact our

Customer Service Hotline at (800) 229-5647 or

visit our website at www.Sure Heat.com

Sure Heat Manufacturing 1861 West Oak Parkway Marietta, GA 30062