



## VENT-FREE GAS LOG SET

### Owner's Operation and Installation Manual



**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.

**This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion must be provided.**

**Refer to page 4, *air for combustion and ventilation.***

**INSTALLER:** Leave this manual with the appliance.  
**CONSUMER:** Retain this manual for future reference.

**This appliance has been tested and approved by OMNI - Test Laboratories, under ANSI Z21.11.2 2011 Unvented Gas-Fired Room Heaters.**

**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 propane or natural gas.**

**This appliance is equipped with a simple means to switch between propane and natural gas. Field conversion by any other means including the use of a kit is not permitted.**

\* Aftermarket: completion of sale, not for purpose of resale, from the manufacturer.

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**IMPORTANT:** This unit is preset at the factory for propane/LP gas. For natural gas, follow the simple gas selection instructions on pages 8 and 9.

## SAFETY INFORMATION

**⚠ 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 appliance. Improper use of this appliance can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon-monoxide poisoning.

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

**⚠ DANGER:** Carbon monoxide poisoning may lead to death!

**Carbon Monoxide Poisoning:** Early signs of Carbon Monoxide Poisoning resemble the flu, with headaches, dizziness, and/or nausea. If you have these signs, heater may not be working properly. **Get fresh air at once! Have heater serviced.** Some people—pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitudes—are more affected by carbon monoxide than others.

**Propane/LP Gas:** Propane/LP gas is odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this appliance.

**⚠ WARNING:** Any changes to this heater or it's controls can be dangerous.

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

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

Fireplace front and screen become very hot when running appliance. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Logs will remain hot for a time after shutdown. Allow surfaces to cool before touching.

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

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

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

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.
2. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors (propane/LP units only).
3. If you smell gas:
  - shut off gas supply
  - do not try to light any appliance
  - do not touch any electrical switch; do not use any phone in your building
  - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
  - if you cannot reach your gas supplier, call the fire department
4. This appliance shall not be installed in a bedroom or bathroom.
5. Do not use this appliance as a wood-burning fireplace. Use only the logs provided with the appliance.
6. Do not add extra logs or ornaments such as pine cones, vermiculite or rock wool. Using these added items can cause sooting and poor combustion. Do not add lava rock around base. Rock and debris could fall into the control area of heater.
7. This appliance is designed to be smokeless. If logs ever appear to smoke, turn off appliance and call a qualified service person. Note: During initial operation, slight smoking could occur due to log curing and fireplace burning manufacturing residues.
8. To prevent the creation of soot, follow the instructions in Cleaning and Maintenance section.

Keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
9. Before using furniture polish, wax, carpet cleaner, or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
10. This appliance needs fresh air ventilation to run properly. This appliance 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, pages 4 through 6. If appliance keeps shutting off see Troubleshooting, pages 17 through 20.
11. Do not run appliance:
  - where flammable liquids or vapors are used or stored
  - under dusty conditions
12. Do not use this appliance to cook food or burn paper or other objects.
13. Never place any objects in the heater or on logs.
14. Do not use appliance if any part has been exposed to or 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.
15. Turn appliance off and let cool before servicing. Only a qualified service person should service and repair appliance.
16. Operating appliance above elevations of 4,500 feet could cause pilot outage.
17. To prevent performance problems, do not use propane/LP fuel tanks of less than 100 lbs. capacity.
18. Provide adequate clearances around air openings.

**⚠ WARNING: Do not attempt to access or change the setting of the fuel selection means.**

**Access or adjustment of the fuel selection means must be performed by a qualified service person connecting this appliance to a specified fuel supply at the time of installation.**

**Change of the selector setting to other than fuel specified at the time of installation could damage this appliance and render it inoperable.**

**The installer shall replace the access cover before completing the installation and operating the appliance.**

## UNPACKING

1. Remove the carton and log wrap.
2. Remove all protective packaging applied to the product for shipment.
3. Check product for any shipping damage. If unit is damaged, call SHMInternational at (800) 229-5647 for replacement parts before returning to dealer.
4. Make sure you were provided:
  - 1 Burner assembly
  - 7 logs (MVFT24NL)
  - 6 logs (BVFM18NL)
  - 1 bag of decorative lava rock

## 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

Model MVFT24NLhas a thermostat sensing bulb and control valve. The thermostat valve will automatically modulate the heat output to maintain a consistent room temperature. This results in greater comfort.

This can also result in lower gas bills.

### UNIVERSAL VENT-FREE HEATER

Simple switching 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.

## LOCAL CODES

Install and use appliance with care. Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code ANSI Z223.1/NFPA 54\*.

\*Available from:

American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018

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

**State of Massachusetts:** The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

Sellers of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

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

## AIR FOR COMBUSTION AND VENTILATION

**⚠ WARNING: This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes.**

**Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.**

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

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

# AIR FOR COMBUSTION AND VENTILATION

*Continued*

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 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 following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space

The information on pages 5 and 6 will help you classify your space and provide adequate ventilation.

### Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

**Unusually tight construction is defined as construction where:**

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm ( $6 \times 10^{-11} \text{ kg per pa-sec-m}^2$ ) or less with openings gasketed or sealed *and*
- b. weather stripping has been added on openable windows and doors *and*
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing electrical and gas lines, and at other openings.

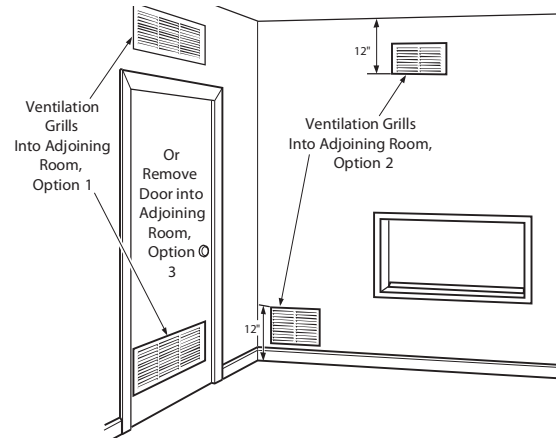
**If your home meets all of the three criteria above, you must provide additional fresh air. See Ventilation Air From Outdoors, page 5.**

**If your home does not meet all of the three criteria above, proceed to Determining Fresh-Air Flow for Appliance Location, page 6.**

# VENTILATION AIR

## Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see Figure 1). You can also remove door into adjoining room (see 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.

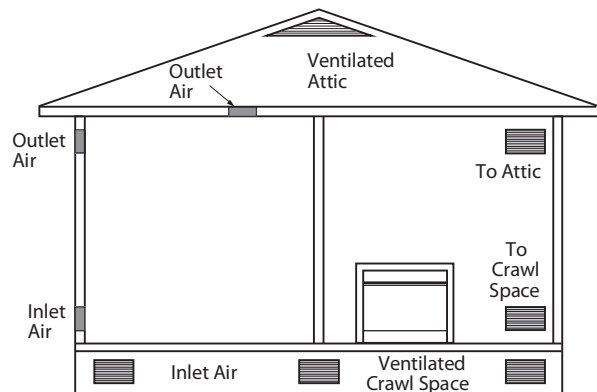


**Figure 1 - Ventilation Air from Inside Building**

## Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the National Fuel Gas Code ANSI Z223.1/NFPA 54, 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**



# AIR FOR COMBUSTION AND VENTILATION

*Continued*

## DETERMINING FRESH - AIR FLOW FOR APPLIANCE 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 appliance 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 22 ft. (length) x 18 ft. (width) x 8 ft. (ceiling height) = 3168 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: 3168 cu. ft. (volume of space) x 20 = 63,360 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free log set \_\_\_\_\_ Btu/Hr

Gas water heater\* \_\_\_\_\_ Btu/Hr

Gas furnace \_\_\_\_\_ Btu/Hr

Vented gas heater \_\_\_\_\_ Btu/Hr

Gas fireplace 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:

Vent-free log set 39,000 Btu/Hr

Gas water heater\* 40,000 Btu/Hr

Total = 79,000 Btu/Hr

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

\_\_\_\_\_ Btu/Hr (max. the space can support)

\_\_\_\_\_ Btu/Hr (actual amt. of Btu/Hr used)

Example: 63,300 Btu/Hr (maximum the space can support)

73,000 Btu/Hr (actual amount of Btu/Hr used)

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

- A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See Ventilation Air from Inside Building, page 5.
- B. Vent room directly to the outdoors. See Ventilation Air from Outdoors, page 5.
- C. Install a lower Btu/Hr appliance, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

**⚠ WARNING: If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/ NFPA 54, the International Fuel Gas Code, or applicable local codes.**

# INSTALLATION

**⚠ WARNING:** Before installing in a solid-fuel-burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes, and loose paint by a qualified chimney cleaner.

**NOTICE:** This appliance is intended for supplemental heating. 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:** A qualified service person must install appliance. Follow all local codes.

**⚠ WARNING:** Never install the appliance

- in a recreational vehicle
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches (91.5 cm) from the front, top, or sides of the appliance
- in a wood-burning stove
- 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. Any heating product with a Btu/Hr rating over 6,000 cannot be used in a bathroom.

**⚠ CAUTION:** This appliance creates warm air currents. These currents move heat to wall surfaces next to appliance. Installing appliance next to vinyl or cloth wall coverings or operating appliance 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 appliance in rooms without enough ventilation air may cause mildew to form from too much moisture. See *Air for Combustion and Ventilation*, page 4.

# CHECK GAS TYPE

Use the correct gas type (natural or propane/LP) for your appliance. If your gas supply is not correct or if you do not know your gas type, do not install appliance. The appliance 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 pages 8 and 9.

**⚠ CAUTION:** Two gas line installations at the same time are prohibited. The access plate to the simple switching means shall not be opened while the heater is in operation.

# INSTALLATION ITEMS NEEDED

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

- external regulator for propane/LP unit only (supplied by installer)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve \*
- test gauge connection \*
- ground joint union
- sediment trap (optional)
- tee joint
- pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes) (not provided)

\* A CSA/AGA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional CSA/AGA design-certified equipment shutoff valve from your dealer.

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 14 inches of water. If you do not reduce incoming gas pressure, heater regulator damage could occur.

# LOG SET PLACEMENT

Place the log set in the center of your fireplace or firebox.

# INSTALLATION

*Continued*


## SELECTING GAS TYPE

This appliance ships from the factory with the gas selection knob set to the LP position for use with propane/LP gas. This appliance is convertible for use with either propane/LP or natural gas.

**⚠ WARNING: Only a qualified installer or service technician can perform gas selection and connecting to gas supply.**

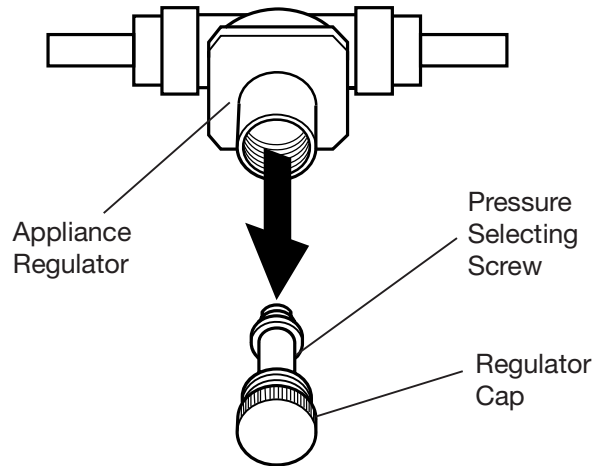
### LP to NG Operation Selection

This appliance can be switched between propane/LP and natural gas. If installing to a natural gas system, the log set must be switched to natural gas use. Follow the steps below to select natural gas.

1. Carefully remove the logs from the burner assembly.
2. Make sure gas is turned off to the unit and disconnect burner assembly from gas line. Remove burner assembly from fireplace or firebox.
3. Locate the regulator cap on the appliance regulator (see Figure 3). Unscrew by hand and remove the cap from the regulator. The pressure selecting screw is attached to the regulator cap. The pressure selecting screw is in the propane/LP position.
4. Unscrew and remove the pressure selecting screw from the regulator cap (see Figure 4).
5. Turn pressure selecting screw over and reinstall it to regulator cap (see Figure 5). This will set the pressure selecting screw to the natural gas position. Make sure the pressure selecting screw is installed tightly to the regulator cap.
6. Replace the regulator cap on the appliance regulator.
7. Remove setscrew from selector valve linkage (see Figure 6).
8. Slightly press selector plate and rotate linkage clockwise  until it stops.
9. Reinstall setscrew.
10. 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.

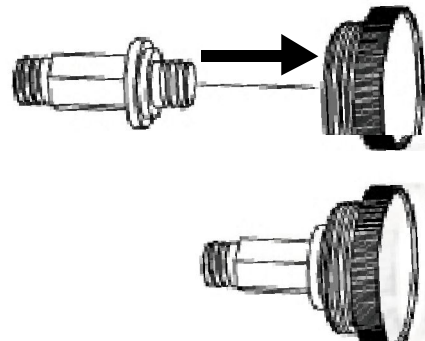
11. Place log set burner assembly inside fireplace or firebox. Connect to gas supply and check for leaks. See *Connecting to Gas Supply*, page 10).
12. Replace logs onto burner assembly. See *Log Placement*, page 12)



**Figure 3 - Gas Selection Valve Knob and Regulator Cap**

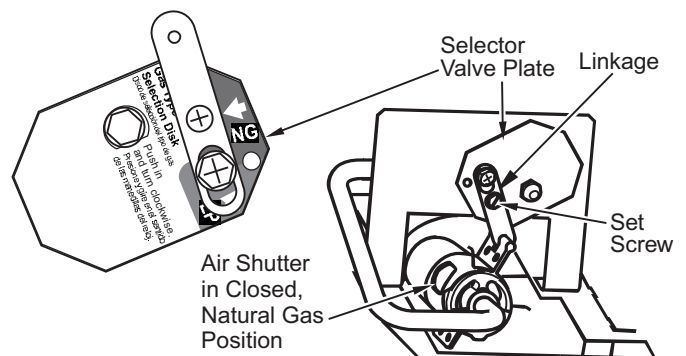


**Figure 4 - Removing Regulator Cap from Pressure Selecting Screw**



**Figure 5 - Turning Pressure Selecting Screw Over and Attaching to Regulator Cap - Natural Gas Position**

### Natural Gas Setting



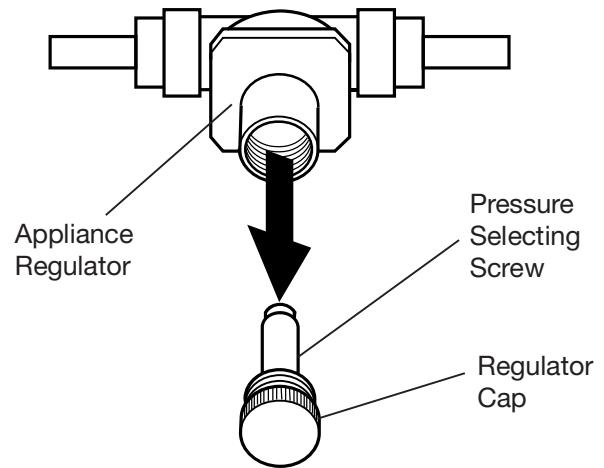
**Figure 6 - Selector Valve Set to Natural Gas Position**



## NG to LP Operation Selection

This appliance can be switched between propane/LP and natural gas. If installing to a propane/LP system, the appliance must be switched to propane/LP use. Follow the steps below to select propane/LP.

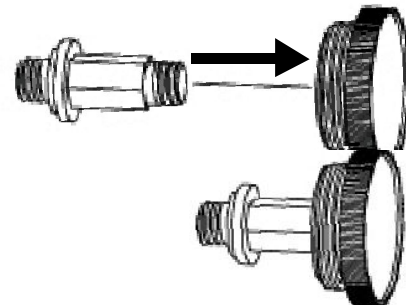
1. Carefully remove the logs from the burner assembly.
2. Make sure gas is turned off to the unit and disconnect burner assembly from gas line. Remove burner assembly from fireplace or firebox.
3. Locate the regulator cap on the appliance regulator (see Figure 7). Unscrew by hand and remove the cap from the regulator. The pressure selecting screw is attached to the regulator cap. The pressure selecting screw is in the natural gas position.
4. Unscrew and remove the pressure selecting screw from the regulator cap (see Figure 8).
5. Turn pressure selecting screw over and reinstall it to regulator cap (see Figure 9). This will set the pressure selecting screw to the propane/LP position. Make sure the pressure selecting screw is installed tightly to the regulator cap.
6. Replace the regulator cap on the appliance regulator.
7. Remove setscrew from selector valve linkage (see Figure 10).
8. Slightly press selector plate and rotate linkage counterclockwise until it stops.
9. Reinstall setscrew.
10. 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.
11. Place log set burner assembly inside fireplace or firebox. Connect to gas supply and check for leaks. See *Connecting to Gas Supply*, page 10).
12. Replace logs onto burner assembly. See *Log Placement*, page 12)



**Figure 7 - Gas Selection Valve Knob and Regulator Cap**

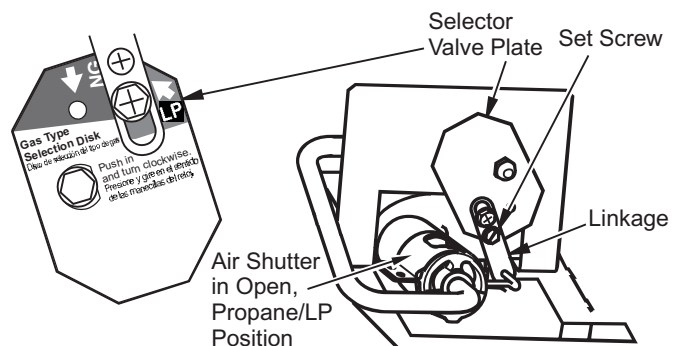


**Figure 8 - Removing Regulator Cap from Pressure Selecting Screw**



**Figure 9 - Turning Pressure Selecting Screw Over and Attaching to Regulator Cap - Propane/LP Position**

## Propane Gas Setting



**Figure 10 - Selector Valve Set to Propane/LP Position**

# INSTALLATION

Continued

## INSTALLATION CLEARANCES

**⚠ WARNING:** Maintain the minimum clearances.

### Mantel Clearances for Installation

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

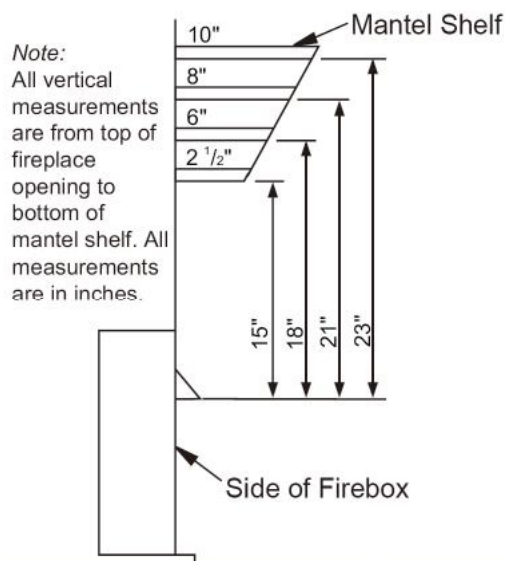


Figure 11 - Minimum Mantel Clearances for Installation

## CONNECTING TO GAS SUPPLY

**⚠ WARNING:** This appliance requires a 3/8" N P T ( National pipe Thread) male fitting to connect to the regulator inlet. This fitting is not provided.

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

**⚠ WARNING:** Never connect natural gas log set 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 10.5" of water. If gas line pressure is higher, heater regulator damage could occur.

**⚠ CAUTION:** Never connect propane/LP log set directly to the propane/LP supply. This appliance requires an external regulator (not supplied). Install the external regulator between the appliance and propane/LP supply.

For propane/LP 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" of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install the external regulator with the vent pointing down as shown in Figure 12. Pointing the vent down protects it from freezing rain or sleet.

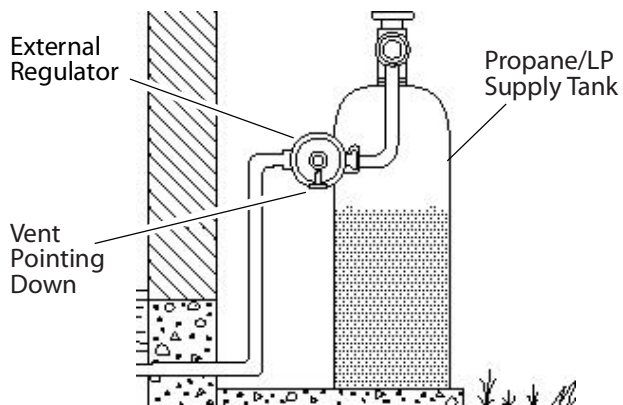


Figure 12 - External Regulator with Vent Pointing Down

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

**⚠ CAUTION: Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.**

We recommend that you install a sediment trap in supply line as shown in Figure 13. Locate sediment trap where it is within reach for cleaning. Install in piping system between fuel supply and appliance. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into appliance gas controls. If sediment trap is not installed or is installed wrong, appliance may not run properly.

## Shutoff Valve

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 appliance.

**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.**

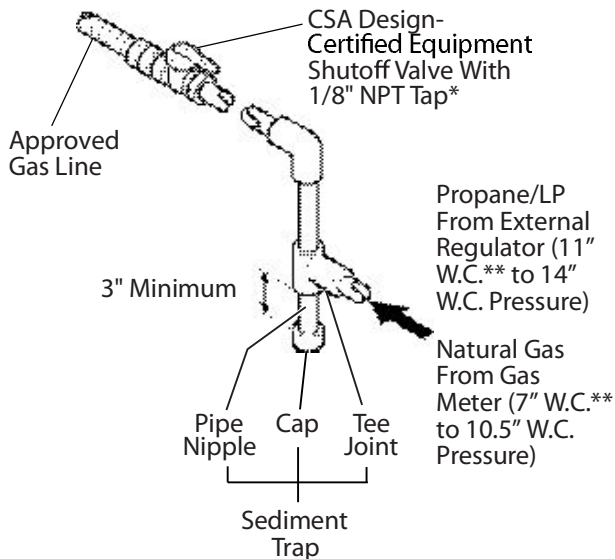
**Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.**

Apply pipe joint sealant lightly to male NPT threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplace valves. Never use sealant on flare threads.

## CHECKING GAS CONNECTIONS

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

**⚠ WARNING: Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.**



**Figure 13 - Gas Connection**

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

\*\* Minimum inlet pressure for purpose of input adjustment.

## Pressure Testing Gas Supply Piping System

### Test Pressures In Excess Of 1/2 PSI (3.5 kPa)

1. Disconnect appliance with its main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psi will damage appliance gas regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter of natural gas or using compressed air.
4. Check all joints of gas supply piping system. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect appliance and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

# INSTALLATION

*Continued*

## Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 14).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter of natural gas or using compressed air.
3. Check all joints from gas meter to equipment shutoff valve for natural gas or propane/LP supply to equipment shutoff valve for propane/LP. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

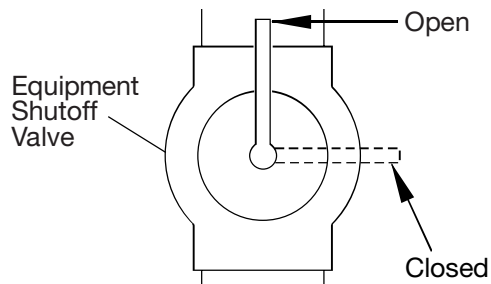


Figure 14 - Equipment Shutoff Valve

## PRESSURE TESTING APPLIANCE GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 14).
2. For natural gas, open main gas valve located on or near gas meter. For propane/LP gas, open propane/LP supply tank valve.
3. Make sure control knob of fireplace is in the OFF position.
4. Check all joints from equipment shutoff valve to gas control valve. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light fireplace (see *Operating Log Set*, page 13). Check all other internal joints for leaks.
7. Turn off fireplace (see *To Turn Off Gas To Log Set*, page 14).

## LOG PLACEMENT

Follow the illustrations below to correctly place logs on appliance.

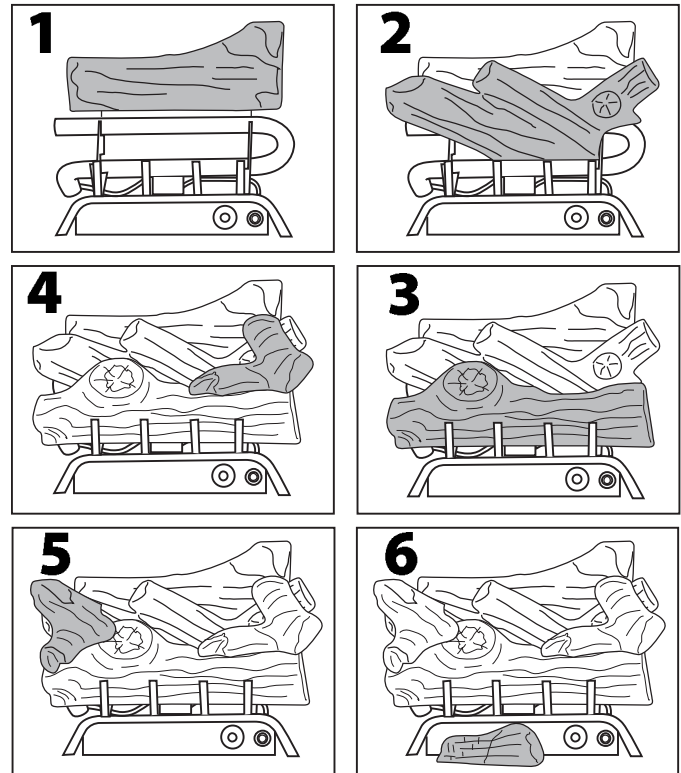


Figure 15 - Benton Oak 18'' Log Placement

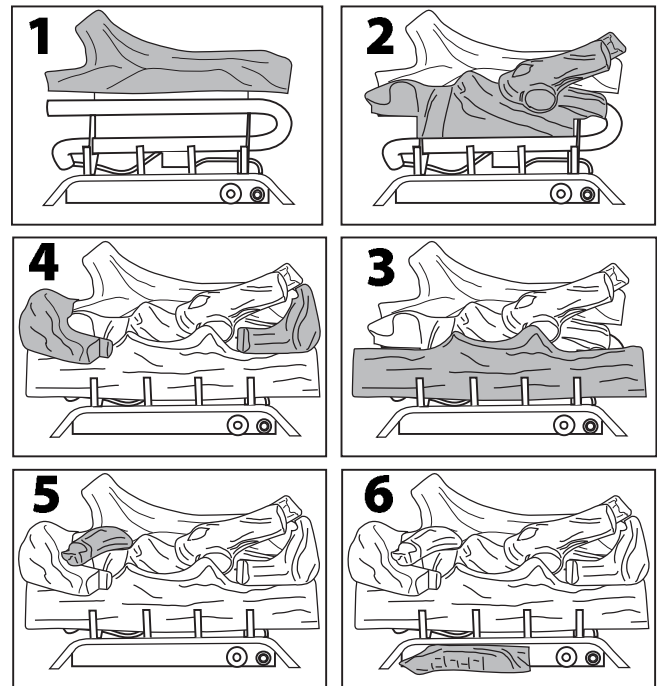


Figure 16 - Melbourne Oak 24'' Log Placement

# OPERATING LOG SET

## FOR YOUR SAFETY READ BEFORE OPERATING



**⚠ WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.  
**WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. 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.



## OPERATING INSTRUCTIONS

**⚠ WARNING:** You must operate this appliance with the fireplace or firebox screen in place. Make sure fireplace or firebox screen is installed before running appliance.

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

1. **STOP!** Read the safety information, starting on page 2.
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, above. 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 17).

**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 the 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*, pages 17 through 20. 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.
  8. Turn control knob counterclockwise  to the desired heating level. The burner should light. Set control knob to any heating level between HI and LO.
  9. To leave pilot lit and shut off burners only, turn control knob clockwise  to the PILOT position.

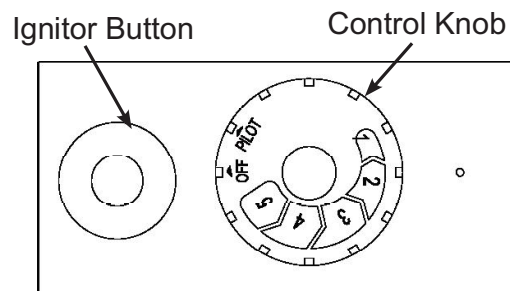


Figure 17 - Control Knob



**⚠ WARNING:** Always operate manual control heaters at the locked positions. Operation between these positions may create a possible health hazard if used in a poorly ventilated room. Read owner's manual for complete instructions.

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

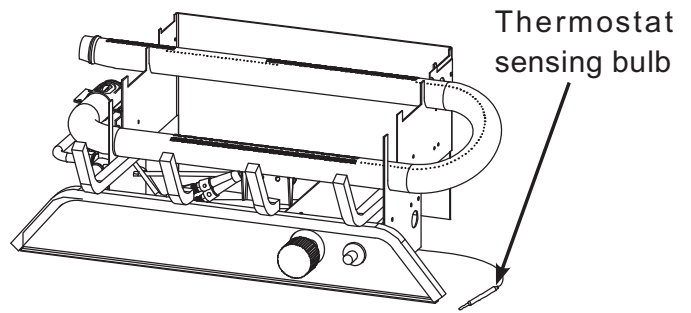



Figure 18 - Thermostat Sensing Bulb

## TO TURN OFF GAS TO LOG SET

### Shutting Off Heater

1. Turn control knob clockwise  to the OFF position.
2. Close equipment shutoff valve.

### Shutting Off Burner Only (pilot stays lit)

Turn control knob clockwise  to the PILOT position.

## THERMOSTAT CONTROL OPERATION

(Model MVFT24NL Only)

The thermostatic control used on this model differs from standard thermostats. Standard thermostats simply turn the burner on and off. 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 temperature of air near the appliance. This may not always agree with room temperature (depending on housing construction, installation location, room size, open air temperatures, etc.). Frequent use of your log set will let you determine your own comfort levels.

## MANUAL CONTROL OPERATION

(Model BVFM18NL Only)

Manually adjust the flame height and heat output by turning the control knob to the desired setting between HI an LO.

## MANUAL LIGHTING PROCEDURES

1. Follow steps 1 through 5 under *Operating Instructions*, page 13.
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.
4. Now follow step 8, under *Operating Instructions*, page 13 to light burner.

## RESETTING TEMPERATURE SWITCH

**NOTICE:** Log set is equipped with a system to turn off log set if not operating on correct gas. If the temperature switch requires resetting, press button (see Figure 19). Do not reset until unit has been checked by a qualified service installer.

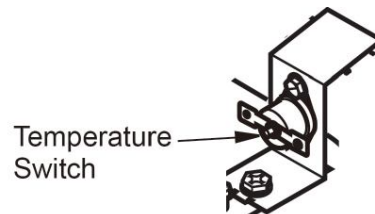


Figure 19 - Temperature Switch

# INSPECTING BURNERS

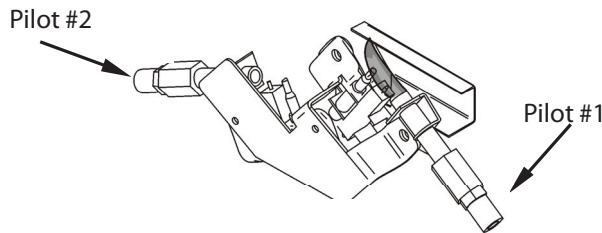
Check pilot flame pattern and burner flame patterns often.

## PILOT FLAME PATTERN

Figure 20 shows the LP/Propane pilot flame pattern. Figure 21 shows Natural Gas pilot flame pattern. Verify the pilot flame pattern is correct for your gas type.

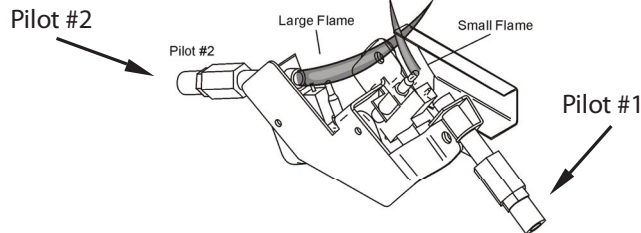
If pilot flame pattern is incorrect, as shown in Figure 22, your log set is set up for use with a different gas type. To correct this, you must

- turn heater off (see *To Turn Off Gas To Log Set*, page 14)
- call a qualified service person to make the selection for use with the gas type supplied to log set location. See *Selecting Gas Type*, pages 8 and 9.



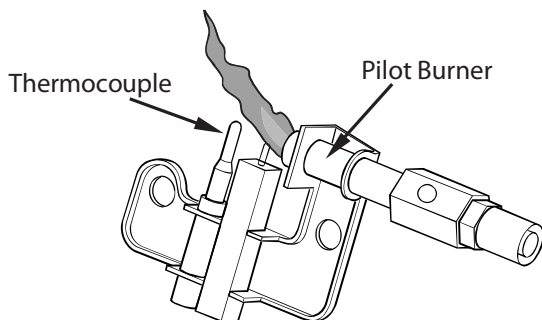
**Figure 20 - Correct Pilot Flame Pattern for LP Gas Selection (Only Pilot #1 Operating)**

**Note: Pilot #1 is attached directly to the burner tube.**



**Figure 21 - Correct Pilot Flame Pattern for Natural Gas Selection (Both pilot #1 and Pilot #2 operating)**

**Note: Pilot #1 will have a much smaller flame than Pilot #2.**



**Figure 22 - Incorrect Pilot Flame Pattern Due To Using Wrong Gas Type: The incorrect pilot flames are not touching the flame sensor. This will cause the flame sensor to cool. When the flame sensor cools, the heater will shut down.**

**Note:** The correct flame on the pilot will have a slight curve, but flame should be blue and have no yellow or orange color. If yellow or orange flame is present, see *Cleaning and Maintenance*, page 16.

## BURNER FLAME PATTERN

**⚠ WARNING: If yellow tipping occurs, your heater could produce increased levels of carbon monoxide.**

**NOTICE: Do not mistake orange flames for yellow tipping. Dirt or other fine particles enter the heater and burn, causing brief patches of orange flame.**

Figure 23 shows correct burner flame pattern. Figures 24 and 25 show incorrect burner flame patterns. The incorrect burner flame patterns shows sporadic, irregular flame tipping. The flame should not be dark or have an orange/reddish tinge.

**Note:** When using the appliance for the first time, the flame will be orange for approximately one hour until the logs cure.

If burner flame pattern is incorrect, as shown in Figure 24

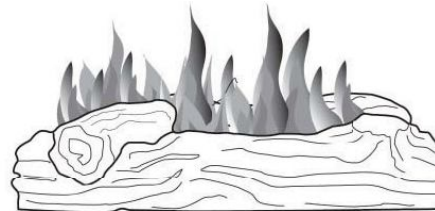
- turn heater off (see *To Turn Off Gas To Log Set*, page 14)
- see *Troubleshooting*, pages 17 through 20

If burner flame pattern is incorrect, as shown in Figure 25 (page 16), your log set is set up for use with a different gas type. To correct this, you must

- turn heater off (see *To Turn Off Gas To Log Set*, page 14)
- call a qualified service person to convert the log set for use with the gas type supplied to log set location. See *Converting Gas Type*, pages 8 and 9.

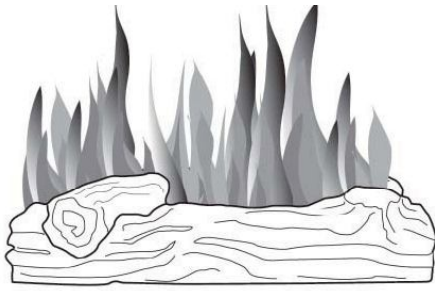


**Figure 23 - Correct Burner Flame Pattern**



**Figure 24 - Incorrect Burner Flame Pattern (Excessive flame height, combined with extremely yellow flames producing soot)**

continued



**Figure 25 - Incorrect Burner Flame Pattern Due To Using Wrong Gas Type**

## CLEANING AND MAINTENANCE

**⚠ WARNING: Turn off appliance and let cool before cleaning.**

**⚠ CAUTION: Keep burner and control compartment clean. See installation and operating instructions accompanying heater. Inspect these areas of fireplace before each use. Have fireplace inspected yearly by a qualified service person. Fireplace may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.**

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

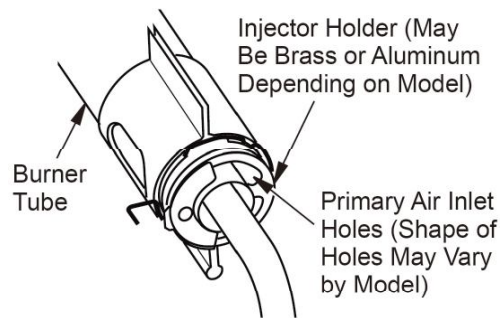
### BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

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. 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.

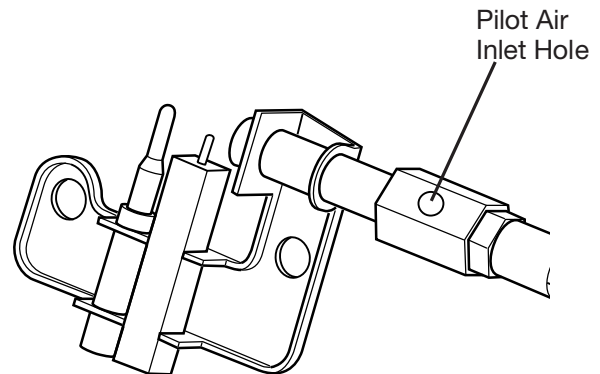
We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may carry compressed air in a can. You can use a vacuum cleaner 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 30 minutes.
2. Inspect burner, pilot, and primary air inlet holes on injector holder for dust and dirt (see Figures 26 and 27).
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 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 two inches from where the pilot flame comes out of the pilot assembly (see Figure 27). 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 26 - Injector Holder On Outlet Burner Tube**



**Figure 27 - Pilot Inlet Air Hole**

### LOG REMOVAL

If you remove logs for cleaning, be sure and follow the instructions under *Log Placement*, page 12 to correctly replace logs. Be sure and replace any broken logs before operating appliance.

# TROUBLESHOOTING

**⚠ WARNING: Turn off log set and let cool before servicing. Only a qualified service person should service and repair appliance.**

**⚠ 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 positioned wrong	1. Replace pilot assembly
	2. Ignitor electrode broken	2. Replace pilot assembly
	3. Ignitor electrode not connected to ignitor 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 in, there is a spark at ODS/Pilot but no ignition	1. Unit is not set for the correct gas type	1. Have a qualified service person follow the instructions in <i>Converting Gas Type</i> , pages 8 and 9 to change gas type.
	1. Gas supply turned off or equipment shutoff valve closed	1. Turn on gas supply or open equipment shutoff valve
	2. Control knob is not in pilot position	2. Turn control knob to pilot position
	3. Control knob not fully pressed in while pressing ignitor button	3. Turn to PILOT position. Fully press in control knob while pressing ignitor button
	4. Air in gas lines when installed	4. Continue holding down control knob. Repeat ignition operation until air is removed
	5. Depleted gas supply (propane/LP gas)	5. Contact local propane/LP gas company
	6. ODS/pilot is clogged	6. Clean ODS/pilot (see <i>Cleaning and Maintenance</i> , page 16)
7. Gas regulator setting is not correct	7. Replace gas regulator	

# TROUBLESHOOTING

*continued*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
<p>ODS/pilot lights but flame goes out when control knob is released</p>	<ol style="list-style-type: none"> <li>1. Control knob not fully pressed in</li> <li>2. Control knob not pressed in long enough</li> <li>3. Temperature switch requires resetting</li> <li>4. Equipment shutoff valve not fully open</li> <li>5. Thermocouple connection loose as control valve</li> <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:               <ol style="list-style-type: none"> <li>A) Low gas supply</li> <li>B) Dirty or partially clogged ODS/pilot</li> </ol> </li> <li>7. Thermocouple damaged</li> <li>8. Control valve damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Press in control knob fully</li> <li>2. After ODS/pilot lights, keep control knob pressed in 30 seconds</li> <li>3. Press reset button on temperature switch</li> <li>4. Fully open equipment shutoff valve</li> <li>5. Hand tighten until snug, then tighten 1/4 turn more</li> <li>6. A) Contact local natural or propane/LP gas company B) Clean ODS/pilot (see <i>Cleaning and Maintenance</i>, page 16)</li> <li>7. Replace pilot assembly</li> <li>8. Replace control valve</li> </ol>
<p>Burner does not light after ODS/pilot is lit</p>	<ol style="list-style-type: none"> <li>1. Burner orifice(s) is clogged</li> <li>2. Inlet gas pressure is too low</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice (see <i>Cleaning and Maintenance</i>, page 16) or replace burner orifice</li> <li>2. Contact local natural or propane/LP gas company</li> </ol>
<p>Delayed ignition of burner</p>	<ol style="list-style-type: none"> <li>1. Manifold pressure is too low</li> <li>2. Burner orifice(s) clogged</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local natural or propane/LP gas company</li> <li>2. Clean burner (see <i>Cleaning and Maintenance</i>, page 16) or replace burner orifice</li> </ol>
<p>Burner backfiring during combustion</p>	<ol style="list-style-type: none"> <li>1. Burner orifice(s) is clogged or damaged</li> <li>2. Damaged burner</li> <li>3. Gas regulator defective</li> <li>4. Inlet gas pressure is too low</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner (see <i>Cleaning and Maintenance</i>, page 16) or replace burner orifice</li> <li>2. Replace damaged burner</li> <li>3. Replace gas regulator</li> <li>4. Contact local natural gas or propane/LP company</li> </ol>



# TROUBLESHOOTING

*continued*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Slight smoke or odor during initial operation	<ol style="list-style-type: none"> <li>1. Residues from manufacturing</li> <li>2. Not enough air</li> <li>3. Gas regulator defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Problem will stop after a few hours of operation</li> <li>2. Check burner for dirt and debris. If found, clean burner (see <i>Cleaning and Maintenance</i>, page 16)</li> <li>3. Replace gas regulator</li> </ol>
Log set produces a whistling noise when burner is lit	<ol style="list-style-type: none"> <li>1. Turning control to “HI” position when burner is cold</li> <li>2. Air in gas line</li> <li>3. Air passageways on heater blocked</li> <li>4. Dirty or partially clogged burner orifice</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn control knob to “LO” position and let warm up for a minute</li> <li>2. Operate burners until air is removed from line. Have gas line checked by local natural or propane/LP gas company</li> <li>3. Observe minimum installation clearances (see page 10)</li> <li>4. Clean burner (see <i>Cleaning and Maintenance</i>, page 16) or replace burner orifice</li> </ol>
White powder residue forming within burner box or on adjacent walls or furniture	<ol style="list-style-type: none"> <li>1. When heated, vapors from furniture polish, wax, carpet cleaners, etc. turn into white powder residue</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn log set off when using furniture polish, wax, cleaners, or similar products</li> </ol>
Log set produces a clicking/ticking noise just after burner is lit or shut off	<ol style="list-style-type: none"> <li>1. Metal expanding while heating or contracting while cooling</li> </ol>	<ol style="list-style-type: none"> <li>1. This is normal with most log sets. If noise is excessive, contact a qualified service person.</li> </ol>
No yellow flame (mostly blue)	<ol style="list-style-type: none"> <li>1. Not enough combustion/ventilation air</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to <i>Air For Combustion and Ventilation</i> requirements, page 4</li> </ol>
Tall, yellow flames (soot may be visible)	<ol style="list-style-type: none"> <li>1. Unit is not set for the correct gas type</li> </ol>	<ol style="list-style-type: none"> <li>1. Have a qualified service person follow the instructions in <i>Converting Gas Type</i>, pages 8 and 9 to change gas type.</li> </ol>
Moisture/condensation noticed on windows	<ol style="list-style-type: none"> <li>1. Not enough combustion/ventilation air</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to <i>Air For Combustion and Ventilation</i> requirements, page 4</li> </ol>

# 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 appliance where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Heater produces unwanted odors	<ol style="list-style-type: none"> <li>1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (see <i>IMPORTANT</i> statement above)</li> <li>2. Low fuel supply (propane/LP gas only)</li> <li>3. Gas leak. <b>See Warning statement at top of page</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Open window and ventilate room. Stop using odor-causing products while heater is running</li> <li>2. Refill supply tank (propane/LP gas only)</li> <li>3. Locate and correct all leaks (see <i>Checking Gas Connections</i>, page 11)</li> </ol>
Heater shuts off in use (ODS operates)	<ol style="list-style-type: none"> <li>1. Not enough fresh air is available</li> <li>2. Low line pressure</li> <li>3. ODS/pilot is partially clogged</li> </ol>	<ol style="list-style-type: none"> <li>1. Open window and/or door for ventilation</li> <li>2. Contact local natural or propane/LP gas company</li> <li>3. Clean ODS/pilot (see <i>Cleaning and Maintenance</i>, page 16)</li> </ol>
Burner shuts off in use, burner flame excessive	<ol style="list-style-type: none"> <li>1. Connected to incorrect gas for gas selection</li> </ol>	<ol style="list-style-type: none"> <li>1. Call qualified service technician to correct</li> </ol>
Gas odor even when control knob is in OFF position	<ol style="list-style-type: none"> <li>1. Gas leak. <b>See Warning statement at top of page</b></li> <li>2. Control valve or gas control defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Locate and correct all leaks (see <i>Checking Gas Connections</i>, page 11)</li> <li>2. Replace control valve or gas control</li> </ol>
Gas odor during combustion	<ol style="list-style-type: none"> <li>1. Foreign matter between control valve and burner</li> <li>2. Gas leak. <b>See Warning statement at top of page</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Contact a qualified service technician to remove foreign matter</li> <li>2. Locate and correct all leaks (see <i>Checking Gas Connections</i>, page 11)</li> </ol>

# SPECIFICATIONS

	<b>BVFM18NL</b>	<b>MVFT24NL</b>
<b>Gas Type</b>	<b>Using Natural Gas</b>	
Input Maximum	31,000 Btu/Hr	39,000 Btu/Hr
Manifold Pressure	4.5 in. W.C.	4.5 in. W.C.
Maximum Inlet Pressure	10.5 in.	10.5 in.
Minimum Inlet Pressure*	7 in.	7 in.
<b>Gas Type</b>	<b>Using Propane/LP Gas</b>	
Input Maximum	36,000 Btu/Hr	39,000 Btu/Hr
Manifold Pressure	10 in. W.C.	10 in. W.C.
Maximum Inlet Pressure	14 in.	14 in.
Minimum Inlet Pressure*	11 in.	11 in.
Ignition	Piezo	Piezo
Dimensions (HxWxD)	18" x 22" x 12"	18" x 28" x 15"

Note: Dimensions listed are outer most points on the heater (includes control knobs and grill)

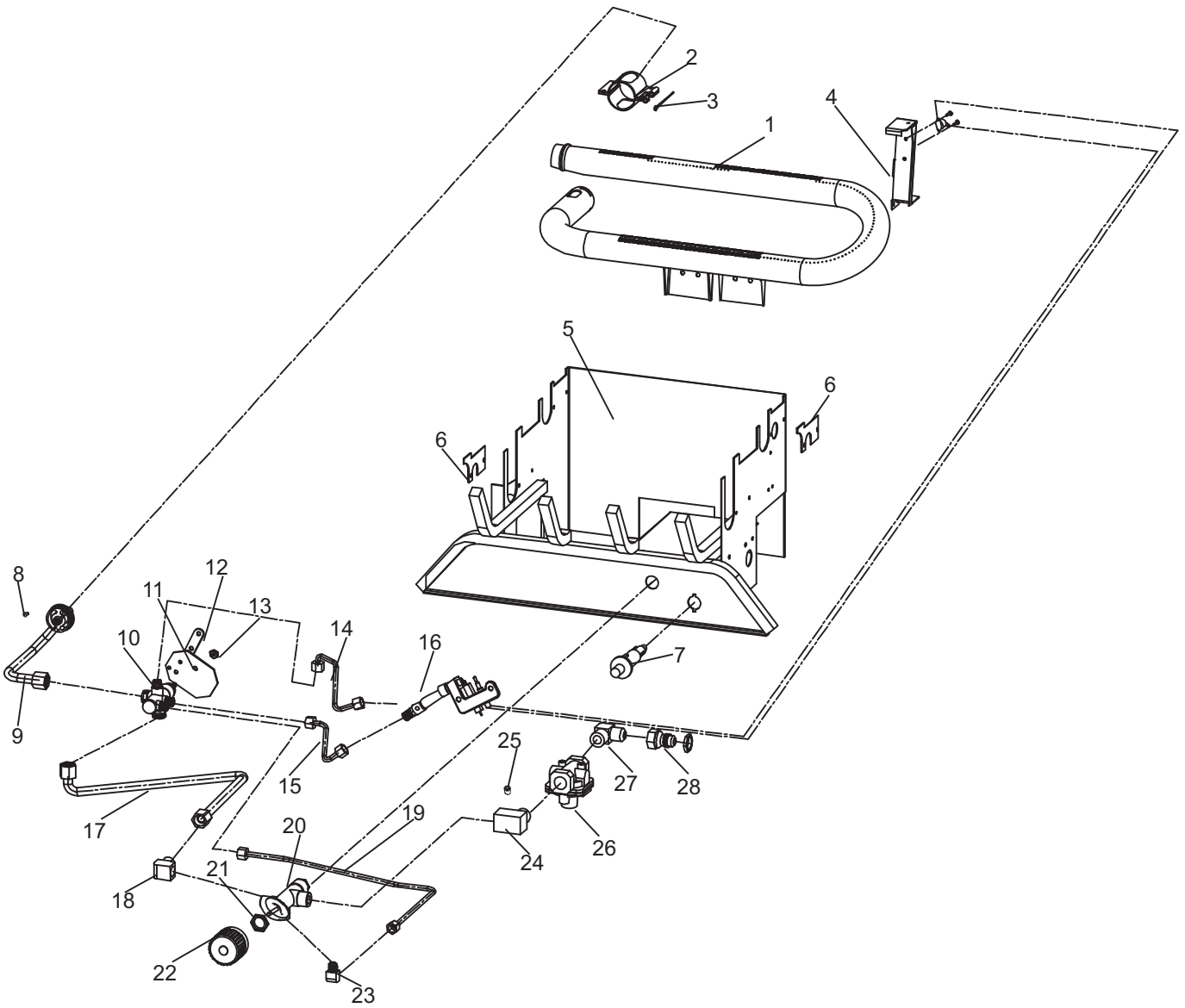
\* For purposes of input adjustment.

# PARTS LIST & ILLUSTRATED PARTS BREAKDOWN

Model: BVFM18NL

Item	Part Description	Part Number	Qty.
1	Dual Burner	FCHD1809005	1
2	Shutter	FCHD1809006	1
3	Cotter Pin	FCHD2609016	1
4	Temperature Switch, 250°F	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	ODS, NG	RCOZZ00XX2A	1
16	ODS, LP	RCOZZ00XX3A	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	Elbow 375MNPT & 625MUNF	FCHD2409014	1
28	Adapter 625 Female UNF x 625 Male Flare	FCHD1809021	1

Model: BVFM18NL





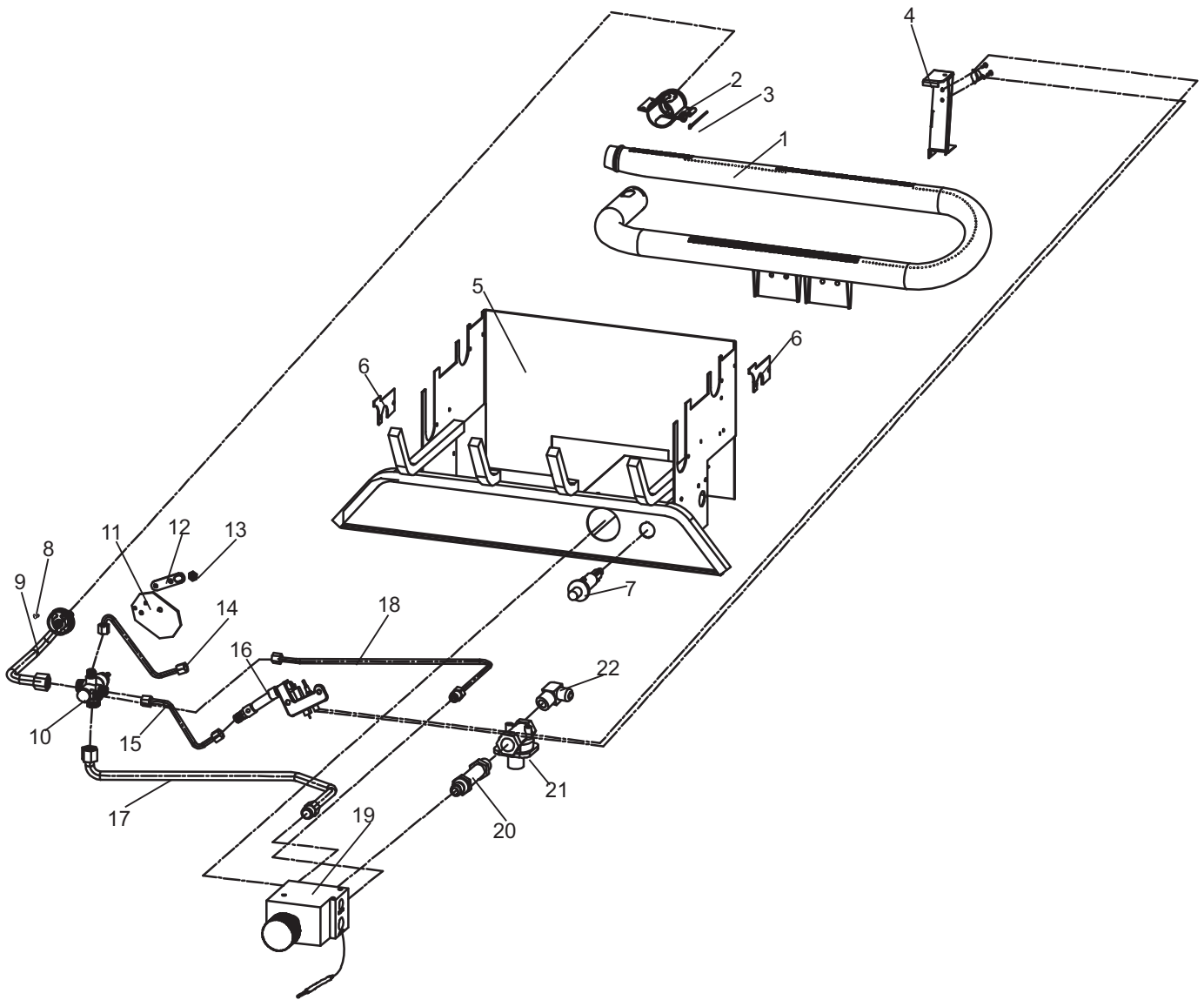
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# PARTS LIST & ILLUSTRATED PARTS BREAKDOWN

Model: MVFT24NL

<b>Item</b>	<b>Part Description</b>	<b>Part Number</b>	<b>Qty.</b>
1	Dual Burner	FCHD2409005	1
2	Shutter	FCHD1809006	1
3	Cotter Pin	FCHD2609016	1
4	Temperature Switch, 230°F	FCSHBF09032	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, NG	FCHD2409010	1
15	ODS Tube, LP	FCHD2409009	1
16	ODS, NG	RCOZZ00XX2A	1
16	ODS, LP	RCOZZ00XX3A	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 & 625 MUNF	FCHD2409014	1

Model: MVFT24NL



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## SERVICE INFORMATION

### 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 SHM International's Technical Service Department at (800) 229-5647.

When calling SHM International, 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 SHM International at (800) 229-5647 for referral information. When calling SHM International, have ready:

- model number of your heater
- the replacement part number

## SERVICE HINTS

When gas pressure is too low:

- pilot will not stay lit
- 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 SHM International's Technical Service Department at (800) 229-5647.

When calling please have your model and serial numbers of your heater ready. You can also visit SHM International's Technical Service web site at [www.sureheat.com](http://www.sureheat.com).

## SERVICE PUBLICATION

You can purchase a service manual from the address listed on the back page of this manual. Send a check for \$5.00 payable to SHM International.

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# NOTES

# WARRANTY INFORMATION

## KEEP THIS WARRANTY

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Always specify model and serial numbers when communicating with the factory.

### LIMITED WARRANTY

SHM International Corp. warrants the components of this appliance to be free from defects in material and workmanship for one (1) year from the date of purchase. SHM International Corp. 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 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 SHM International Corp.
- 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 when 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.sureheat.com](http://www.sureheat.com).

**SHM International Corp., 1861 West Oak Parkway, Marietta, GA 30062**