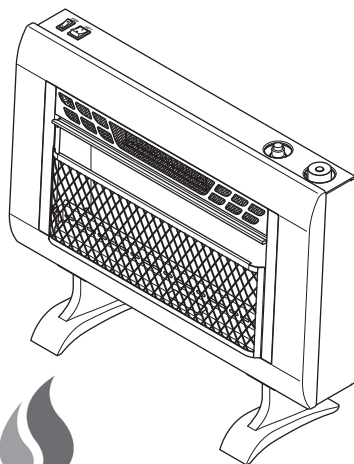




**VENT-FREE GAS WALL  
HEATER  
OWNER'S OPERATION AND  
INSTALLATION MANUAL**

**BLUE FLAME MODEL  
MTF30TBU**



**2 Gas Options™**  
Liquid Propane or Natural Gas

**⚠ 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.

**⚠ WARNING:** This appliance is equipped for Natural and Propane gas. Field conversion is not permitted other than between natural or propane gases.



**Questions, problems, missing parts?** Before returning to your retailer, call our customer service department at 1-866-573-0674, 8:00 am - 4:30 pm CST, Monday through Friday or email [customerservice@usaprocom.com](mailto:customerservice@usaprocom.com)

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## SAVE THIS BOOK

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

**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 8 of this manual.**

**⚠ 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.

**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.

## SAFETY

**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.

Only a qualified installer, service agent, or local gas supplier may install and service this product.

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

**⚠ WARNING:** This appliance can be used with propane or natural gas. It is shipped from the factory adjusted for use with propane.

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.

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

**⚠ WARNING:** Any change to this heater or its controls can be dangerous.

**⚠ WARNING:** Do not use any accessories not approved for use with this heater.

**⚠ WARNING:** Carefully supervise young children when they are in the room with the heater.

**⚠ WARNING:** Make sure grill guard is in place before running heater.

**⚠ WARNING:** Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

**⚠ WARNING:** Heater becomes very hot when running. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Heater will remain hot for a time after shutoff. Allow surfaces to cool before touching.

**⚠ WARNING:** Do not place clothing or other flammable material on or near the appliance. Never place any objects in the heater.

## SAFETY

1. Do not place Propane/LP supply tank(s) inside any structure. Propane/LP supply tank(s) must be placed outdoors.
2. This heater shall not be installed in a bedroom or bathroom.
3. 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 heater if not enough fresh air is available. See *Air for Combustion and Ventilation*, pages 8 through 9. If heater keeps shutting off, see *Troubleshooting*, page 25.
4. Keep all air openings in front and bottom of heater clear and free of debris. This will ensure enough air for proper combustion.
5. If heater shuts off, do not relight until you have provided fresh, outside air. If heater keeps shutting off, have it serviced.
6. Do not run heater:
  - Where flammable liquids or vapors are used or stored.
  - Under dusty conditions.
7. 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.
8. Do not use heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
9. Turn off and unplug heater and let cool before servicing. Only a qualified service person should service and repair heater.
10. Operating heater above elevations of 4,500 feet could cause pilot outage.
11. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.

## SPECIFICATIONS

Model MTF30TBU		
Gas Type	Natural Gas	Propane Gas
Ignition	Electric Piezo Ignitor	Electric Piezo Ignitor
BTU/Hr (available)	Maximum 25,000	Maximum 24,000
	Minimum 16,000	Minimum 20,000
Pressure Regulator Setting	4" W.C.	9" W.C.
Inlet Gas Pressure* (inches of water)	Maximum 10.5"	Maximum 14"
	Minimum 5"	Minimum 11"
Electric Power		
Voltage • 120 VAC, 60 Hz		
Power • 1500 Watts		
Heater Dimensions (HxWxD) • 17.34" × 28" × 6.7"		
Carton Dimensions (HxWxD) • 19.25" × 30" × 7.5"		
Heater Weight • 28.6 lbs		
Shipping Weight • 32.5 lbs		

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## IMPORTANT ELECTRICAL SAFETY INFORMATION

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When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read all instructions before using this heater.
2. This appliance is hot when in use. To avoid burns, do not come in contact with heater. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, and curtains at least 3 feet (1 m) from the front of the heater, and keep them away from the sides and rear.
3. Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
4. Do not operate any heater with a damaged cord or plug or if the heater malfunctions, has been dropped or damaged in any manner. Have heater repaired by a qualified service person.
5. Under no circumstances should this electric heater be modified. Parts having to be removed for servicing must be replaced prior to operating this electric heater again.
6. Do not use outdoors.
7. This heater is not intended for use in bathrooms, laundry areas or similar indoor locations. Never use this appliance near a bathtub or other water container.
8. Do not run cord under carpeting. Do not cover cord with throw rugs, runners or similar coverings. Arrange cord away from traffic areas and where it will not be tripped over.
9. To disconnect heater, turn controls to OFF, then remove plug from outlet.
10. Connect to properly grounded outlets only.
11. When this appliance is installed, it must be electrically grounded in accordance with local codes with the current *CSA C22.1 Canadian* local codes for USA installations. Follow local codes and *National Electrical Code, ANSI/NFPA NO.70* and *Canadian Cord: C 22.2 NO.0*.
12. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause electric shock, fire or damage to the heater.
13. To prevent a possible fire, do not block air intakes or exhaust in any manner. Do not use on soft surfaces, such as a bed, where openings may become blocked.
14. This heater gets hot and contains internal parts that sparks and arcs. Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.
15. Use this heater only as described in this manual. Other uses not recommended by the manufacturer may cause fire, electric shock, or injury.
16. Avoid the use of an extension cord because it may overheat and cause a risk of fire. However if you must use an extension cord, the cord shall be No. 14AWG minimum size and rated not less than 1900 watt. The extension cord must be a three wire cord with grounding type plug and cord connector.
17. This electric heater should not be used as a drying rack for clothing. Also, do not hang Christmas stockings or decorations on or near it.

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## QUALIFIED INSTALLING AGENCY

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Only a qualified agency should install and replace gas piping, gas utilization equipment or accessories, and repair and equipment servicing. 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) Installing, testing, or replacing gas piping or
- b) Connecting, installing, testing, repairing, or servicing equipment; that is experienced in such work; that is familiar with all precautions required; and that has complied with all the requirement of the authority having jurisdiction.

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## PRODUCT FEATURES

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### SAFETY PILOT

This heater has a pilot with an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS/pilot shuts off the heater if there is not enough fresh air.

### THERMOSTATIC CONTROL

The control automatically cycles the burner on and off to maintain a desired room temperature.

### 2 GAS OPTIONS AVAILABLE

Your heater is equipped to operate on either Propane/LP or Natural gas. The heater is shipped from the factory ready for connecting to Propane/LP. The heater can easily be changed to Natural gas by having your qualified installer follow the instructions on page 16 and the markings on the heater.

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## LOCAL CODES

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

\*Available from:

American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018  
National Fire Protection Association, Inc.  
1 Batterymarch Park  
Quincy, MA 02269-9101

This heater is designed for vent-free operation. State and local codes in some areas prohibit the use of vent-free heaters.

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

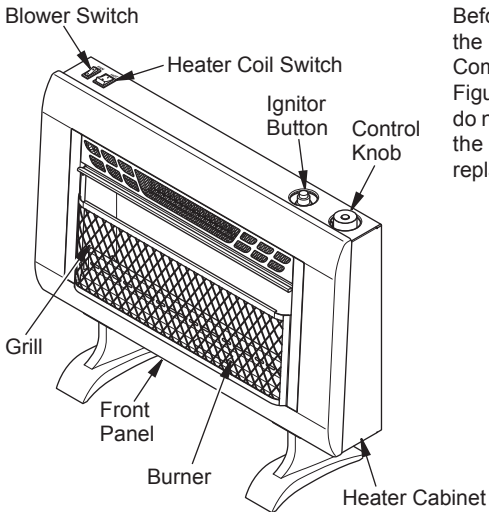
Sellers of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

In the State of Massachusetts the gas cock must be a T-handle type. The State of Massachusetts requires that a flexible appliance connector cannot exceed three feet in length.

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## PREPARING FOR INSTALLATION

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Before beginning assembly or operation of the product, make sure all parts are present. Compare parts with package contents list and Figure 1. If any part is missing or damaged, do not attempt to assemble, install or operate the product. Contact customer service for replacement parts.

**Figure 1 - Vent-Free Gas Heater**

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## UNPACKING

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1. Remove heater from carton.
2. Remove all protective packaging applied to heater for shipping
3. Check heater for any shipping damage. If heater is damaged, promptly inform dealer where you bought heater.

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## WATER VAPOR: A BY-PRODUCT OF UNVENTED ROOM HEATERS

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Water vapor is a by-product of gas combustion. An unvented room heater produces approximately one (1) ounce (30 mL) of water for every 1,000 BTUs (0.3 KWs) of gas input per hour. Unvented room heaters are recommended as supplemental heat (a room) rather than a primary heat source (an entire house). In most supplemental heat applications, the water vapor does not create a problem. In most applications, the water vapor enhances the low humidity atmosphere experienced during cold weather.

The following steps will help ensure that water vapor does not become a problem.

1. Be sure the heater is sized properly for the application, including ample combustion air and circulation air.
2. If high humidity is experienced, a dehumidifier may be used to help lower the water vapor content of the air.
3. Do not use an unvented room heater as the primary heat source.

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## AIR FOR COMBUSTION AND VENTILATION

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

Today's homes are built more energy efficient than ever. New materials, increased insulation and new construction methods help reduce

heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

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

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

### PROVIDING ADEQUATE VENTILATION

The following are excerpts from *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation*.

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space
3. Confined Space

The information on pages 8 through 10 will help you classify your space and provide adequate ventilation.

#### Unusually Tight Construction

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

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm ( $6 \times 10^{-11}$  kg per pa-sec- $m^2$ ) or less with openings gasketed or sealed and
- b. weather stripping has been added on

openable windows and doors and

- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines and at other openings.

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

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

#### Confined and Unconfined Space

The *National Fuel Gas Code, ANSI Z223.1/NFPA 54* defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu/hr (4.8  $m^3$  per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu/hr (4.8  $m^3$  per kw) of the aggregate input rating of all appliances installed

in that space. Rooms communicating directly with the space in which the appliances are installed\*, through openings not furnished with doors, are considered a part of the unconfined space.

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



# AIR FOR COMBUSTION AND VENTILATION

## DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

### Determining if You Have a Confined or Unconfined Space

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

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

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

Length x Width x Height = \_\_\_\_\_ cu. ft. (volume of space)

*Example:* Space size 20 ft. (6.1 m) (length) x 16 ft. (4.88 m) (width) x 8 ft. (2.44 m) (ceiling height) = 2560 cu. ft. (72.49 m<sup>3</sup>) (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Multiply the space volume by 20 to determine the maximum Btu/Hr the space can support.

\_\_\_\_\_ (volume of space) x 20 = (Maximum Btu/Hr the space can support)

*Example:* 2560 cu. ft. (72.49 m<sup>3</sup>) (volume of space) x 20 = 51,200 (maximum Btu/Hr the space can support)

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

Vent-free heater	_____	Btu/Hr
Gas water heater*	_____	Btu/Hr
Gas furnace	_____	Btu/Hr
Vented gas heater	_____	Btu/Hr
Gas fireplace logs	_____	Btu/Hr
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	30,000	Btu/Hr
Vent-free heater	+ 26,000	Btu/Hr
Total	= 56,000	Btu/Hr

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

\_\_\_\_\_ Btu/Hr (maximum can support)

\_\_\_\_\_ Btu/Hr (actual amount used)

*Example:* 51,200 Btu/Hr (maximum the space can support)

56,000 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 10.
- B. Vent room directly to the outdoors. See Ventilation Air From Outdoors, page 10.
- C. Install a lower Btu/Hr heater, if lower Btu/Hr size makes room unconfined. If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

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

# AIR FOR COMBUSTION AND VENTILATION

## VENTILATION AIR

### Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options

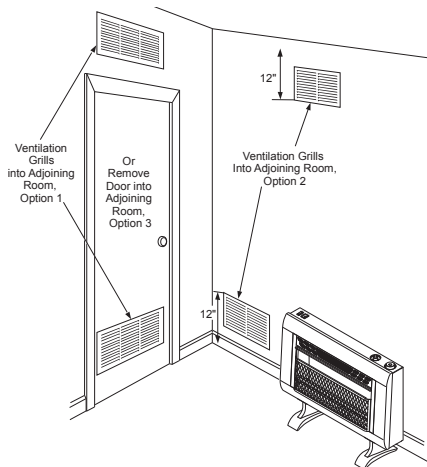
1 and 2, Figure 2). You can also remove door into adjoining room (see option 3, Figure 2). Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

### Ventilation Air From Outdoors

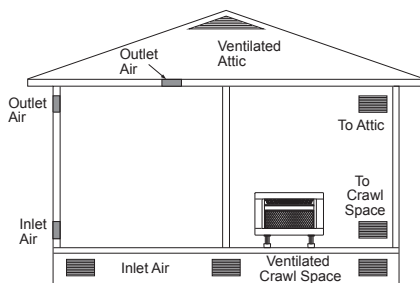
Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National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

*Combustion and Ventilation* for required size of ventilation grills or ducts.

**IMPORTANT:** Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent. Rework worksheet, adding the space of the adjoining unconfined space. The combined spaces must have enough fresh air to supply all appliances in both spaces.



**Figure 2 - Ventilation Air from Inside Building**



**Figure 3 - Ventilation Air from Outdoors**

## INSTALLATION

**NOTICE:** This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

**⚠ WARNING:** 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" from the front, top, or sides of the heater
- in high traffic areas
- in windy or drafty areas

**⚠ CAUTION:** This heater creates warm air currents. These currents move heat to wall surfaces next to heater. Installing heater next to vinyl or cloth wall coverings or operating heater where impurities (such as tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may cause walls to discolor.

**IMPORTANT:** Vent-free heaters add moisture to the air. Although this is beneficial, installing heater in rooms without enough ventilation air may cause mildew to form too much moisture. See *Air for Combustion and Ventilation*, pages 8 through 10.

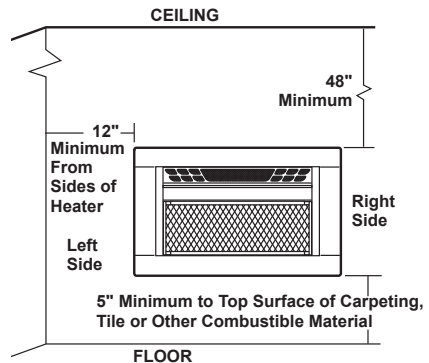
### CHECK GAS TYPE

Be sure your gas supply is right for your heater. Otherwise, call dealer where you bought the heater for proper type heater.

### CLEARANCES TO COMBUSTIBLES

Carefully follow the instructions below. This heater is a freestanding unit designed to be mounted on a wall or set on a base.

**⚠ WARNING:** Maintain the minimum clearances shown in Figure 4. If you can, provide greater clearances from floor, ceiling, and joining wall.



**Figure 4 - Mounting Clearances as Viewed From Front of Heater**

### LOCATING HEATER

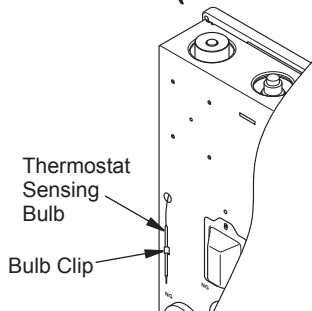
This heater is designed to be mounted on a wall. For convenience and efficiency, install heater:

1. Where there is easy access for operation, inspection, and service.
2. In the coldest part of room.

## INSTALLATION

### INSTALLING THERMOSTAT SENSING BULB (OPTIONAL)

1. Pull out the sensing bulb from the two clips located in the shipping position. There is no need to take out the two bulb clips.
2. Take out the bulb clip from the hardware package and insert it into the square hole. Then insert the sensing bulb into the bulb clip (see Figure 5).



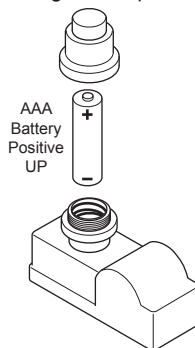
**Figure 5 - Moving Thermostat Sensing Bulb**

### BATTERY INSTRUCTIONS

**⚠ CAUTION: Do not mix old and new batteries. Do not mix alkaline, standard (carbon - zinc), or rechargeable (nickel - cadmium) batteries. Do not dispose of batteries in fire, batteries may explode or leak.**

- Batteries are included.
- Remove batteries when depleted.
- Be sure to observe proper polarity (+/-) when installing or replacing the batteries. Damage due to improper battery installation may void the warranty on the product.
- For long periods of non-operation, remove batteries from all components for safety.

Unscrew ignitor cap and install a AAA battery with the + pointing out. Replace cap.

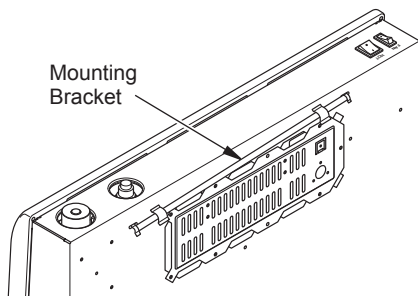


**Figure 6 - Installing Battery in Ignitor**

### FASTENING HEATER TO WALL

#### Mounting Bracket

The mounting bracket is located on back panel of heater (see Figure 7). It has been taped there for shipping. Remove mounting bracket from back panel.



**Figure 7 - Mounting Bracket Location**

#### Methods For Attaching Mounting Bracket To Wall

Use only the last hole on each end of mounting bracket to attach bracket to wall. Attach mounting bracket to a wall only in one of two ways:

1. **Attaching to wall stud:** This method provides the strongest hold. Insert mounting screws through mounting bracket and into wall studs.
2. **Attaching to wall anchor:** This method allows you to attach mounting bracket to hollow walls (wall areas between studs) or to solid walls (concrete or masonry). Decide which method better suits your needs. Either method will provide a secure hold for the mounting bracket.

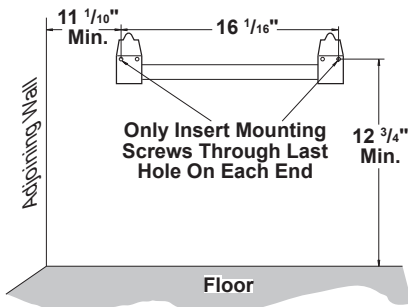
#### Marking Screw Locations

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

## INSTALLATION

**⚠ WARNING: Maintain minimum clearances shown in Figure 4, page 11. If you can, provide greater clearances from floor and joining wall.**

2. Mark screw locations on wall (see Figure 8). *Note: Mark only last hole on each end of mounting bracket. Insert mounting screws through these holes only.*
3. Remove tape and mounting bracket from wall.



**Figure 8 - Mounting Bracket Clearances**

### Attaching Mounting Bracket To Wall

*Note: Wall anchors, mounting screws, and spacers are in hardware package. The hardware package is provided with heater.*

#### Attaching to Wall Stud Method

For attaching mounting bracket to wall studs:

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

#### Attaching to Wall Anchor Method

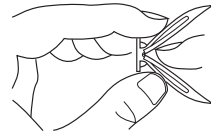
For attaching mounting bracket to hollow walls (wall areas between studs) or solid walls (concrete or masonry):

1. Drill holes at marked locations using 5/16" drill bit. For solid walls (concrete or masonry), drill at least 1" deep.
2. Fold wall anchor as shown in Figure 9.

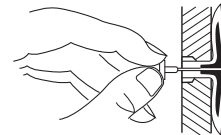
3. Insert wall anchor (wings first) into hole. Tap anchor flush to wall.
4. For thin walls (1/2" or less), insert red key into wall anchor. Push red key to "pop" open anchor wings (see Figure 10).

**IMPORTANT:** Do not hammer anchor key! For thick walls (over 1/2" thick) or solid walls, do not pop open wings.

5. Place mounting bracket onto wall. Line up last hole on each end of bracket with wall anchors.
6. Insert mounting screws through bracket and into wall anchors.
7. Tighten screws until mounting bracket is firmly fastened to wall.



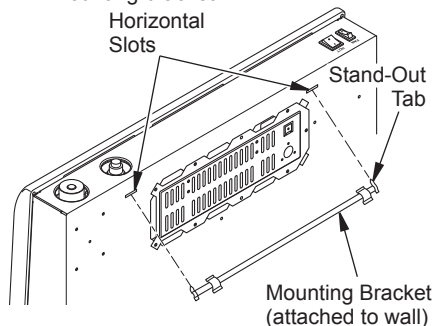
**Figure 9 - Folding Anchor**



**Figure 10 - Popping Open Anchor Wings For Thin Walls**

### Placing Heater On Mounting Bracket

1. Locate two horizontal slots on back panel of heater (see Figure 11).
2. Place heater onto mounting bracket. Slide horizontal slots onto stand-out tabs on mounting bracket.



**Figure 11 - Mounting Heater Onto Mounting Bracket**

## INSTALLATION

### INSTALLING BASE FEET

1. Snap the left and right foot columns together (see Figure 12).
2. Place the column assembly in the center of the base cut out. Fasten column assembly by using two Phillips head self tapping screws (provided) (see Figure 12).
3. Place leg bracket on the top of column assembly and fasten it by using two Phillips head self tapping screws (provided) (see Figure 11).
4. Align four screw holes to the base of the heater and attach it by using Phillips head self tapping screws (provided) (see Figure 13).
5. Position the heater to the desired location. Secure the base feet to the floor by using two Phillips head self tapping screws (provided) (see Figure 14).

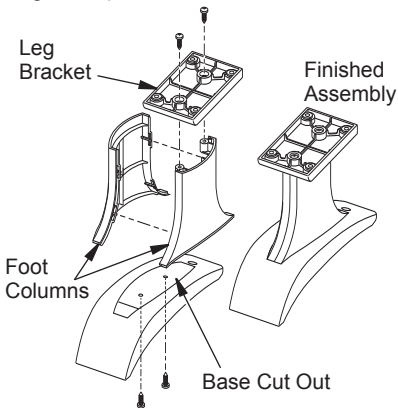


Figure 12 - Assembling Base Feet

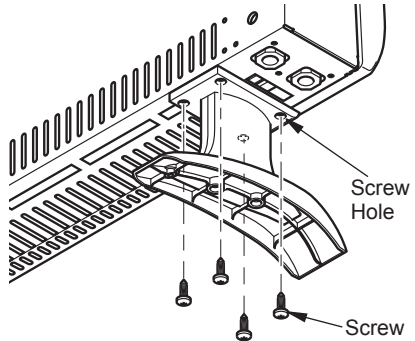


Figure 13 - Attaching Base Feet to Heater

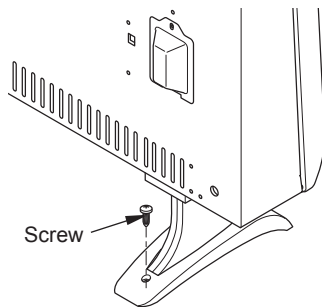


Figure 14 - Securing Heater to Floor

### GAS SELECTION

**This appliance is factory preset for propane/LP gas. No changes are required for connecting to propane/LP. Only a qualified installer or service technician can perform gas selection and connecting to gas supply.**

**⚠ 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.

**⚠ CAUTION:** To avoid gas leakage at the inlet of regulator, a qualified installer or service technician must use supplied hex plug with sealant.

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

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

## INSTALLATION

Change of the selector setting to other than the fuel type 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 this appliance.

### For changing from propane to natural gas supply:

1. Remove top screw from cover plate located on back of heater (see Figure 15). Rotate to expose fuel selection device.
2. For NATURAL GAS, press knob using a flat screwdriver with a blade with thickness of a quarter and turn knob clockwise until the knob locks into the NG position (see Figure 15). Fuel selection device must be locked in the NG position. Do not operate heater between locked positions!
3. Rotate and close cover over fuel selection device and reinstall screw.
4. Remove hex plug (with wrench provided) from natural gas inlet of regulator (see

Figure 15). Install hex plug into LP inlet of regulator. Install gas line into NG inlet of regulator. Use thread sealant to ensure that there are no leaks.

### For changing from natural gas supply to propane supply:

1. Remove top screw from cover plate located on back of heater (see Figure 16). Rotate to expose fuel selection device.
2. For propane gas, press in knob using a flat screwdriver with a blade the thickness of a quarter and turn knob counterclockwise until the knob locks into the LP position (see Figure 16). Fuel selection device must be locked in the LP position. Do not operate heater between locked positions!
3. Rotate and close cover over fuel selection device and reinstall screw.
4. Remove hex plug (with wrench provided) from propane/LP inlet of regulator (see Figure 16). Install hex plug into NG inlet of regulator. Install gas line into propane/LP inlet of regulator. Use thread sealant to assure there are no leaks.

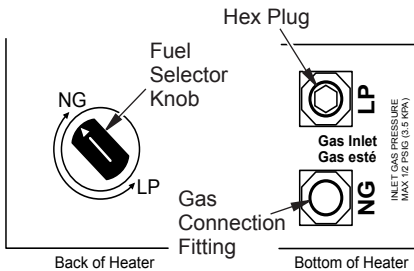


Figure 15 - Settings for Natural Gas Selection

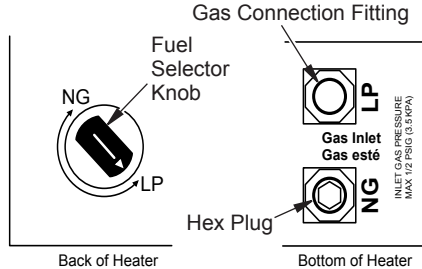


Figure 16 - Settings for Propane/LP Gas Selection

## CONNECTING TO GAS SUPPLY

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

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

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

**⚠ WARNING:** Do not over-tighten gas connections.

## INSTALLATION

**⚠ 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 heater. If pipe is too small, undue loss of pressure will occur.

**⚠ CAUTION:** For natural gas, check your 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:** For propane/LP gas, Never connect heater directly to the gas supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and gas supply. Gas supplier provides external regulator for natural gas. The installer provides the external regulator for propane/LP gas.

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

**⚠ CAUTION:** Use pipe joint sealant that is resistant to gas (Propane/LP or Natural Gas).

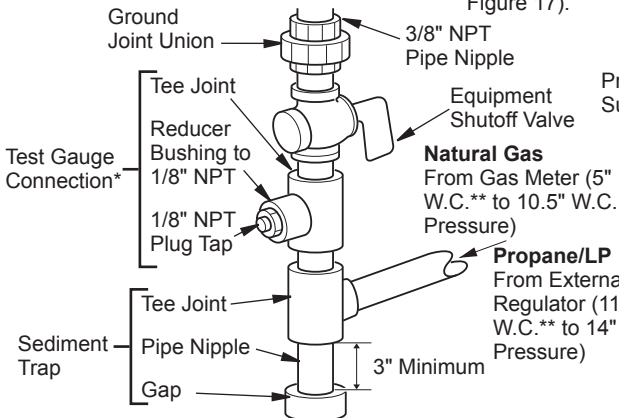
Before installing heater, make sure you have the items listed below:

- piping (check local codes)
- sealant (resistant to natural gas and propane/LP gas)
- equipment shutoff valve\*
- test gauge connection\*
- sediment trap
- tee joint
- pipe wrench
- flexible gas hose (check local codes)

\* 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.

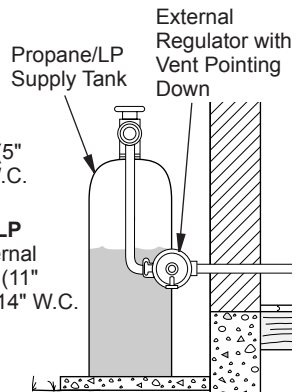
### Typical Inlet Pipe Diameters

Use 3/8" black iron pipe or greater. Installation must include an equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from heater (see Figure 17).



**Figure 17 - Gas Connection**

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



**Figure 18 - External Regulator with Vent Pointing Down**



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## INSTALLATION

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

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

The installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11" and 14" of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install

external regulator with the vent pointing down as shown in Figure 18, page 16. Pointing the vent down protects it from freezing rain or sleet.

Install sediment trap in supply line as shown in Figure 17, page 16. Place sediment trap where it is within reach for cleaning. Place 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.

### CHECKING GAS CONNECTIONS

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

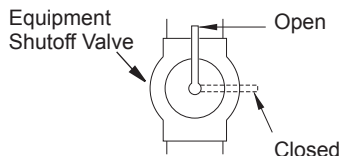
**⚠ WARNING: Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. If bubbles form, there is a leak. Correct all leaks at once.**

#### PRESSURE TESTING GAS SUPPLY PIPING SYSTEM Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect heater with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 PSIG will damage heater regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or opening gas supply valve.
4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. If bubbles form, there may be a leak.
5. Correct all leaks at once.
6. Reconnect heater and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

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

1. Close equipment shutoff valve (see Figure 19).
2. Pressurize supply piping system by either using compressed air or opening gas supply valve.
3. Check all joints from gas supply (see Figure 20 or 21, page 18) to equipment shutoff valve. Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

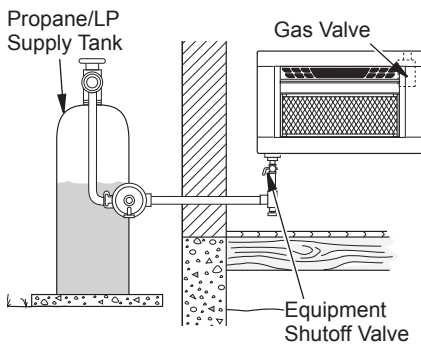


**Figure 19 - Equipment Shutoff Valve**

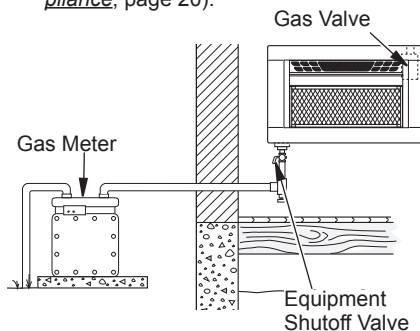
## INSTALLATION

### PRESSURE TESTING HEATER GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 19, page 17).
2. Open gas supply tank valve.
3. Make sure control knob of heater is in the OFF position.
4. Check all joints from equipment shutoff valve to control valve (see Figure 20 or 21). Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light heater (see [Lighting Instructions](#) on page 19). Check all other internal joints for leaks.
7. Turn off heater (see [To Turn Off Gas Appliance](#), page 20).



**Figure 20 - Checking Gas Joints for Propane/LP Gas**



**Figure 21 - Checking Gas Joints for Natural Gas**

## OPERATION

### FOR YOUR SAFETY READ BEFORE LIGHTING

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


- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.  
**WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building.


- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. 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.

## OPERATION

### LIGHTING INSTRUCTIONS

1. STOP! Read the safety information, page 18.
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 air. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, page 18. If you do not 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 22).


*Note: The first time that the heater is operated after connecting the gas supply, the control knob should be pressed for about thirty (30) seconds. This will allow air to bleed from the gas system. If pilot does not stay lit, refer to Troubleshooting, pages 25 through 27. Also contact a qualified service technician or gas supplier for repairs. Until repairs are made, light pilot with match.*

- If control knob does not pop up when released, contact a qualified service technician or gas supplier for repairs.

6. With control knob pressed in, push down and release ignitor button. This will light pilot. The pilot is attached to the front of burner. The pilot can be seen through the grill. If needed, keep pressing ignitor button until pilot lights. *Note: If pilot does not stay lit, refer to Troubleshooting, pages 25 through 27. Also contact a qualified service technician or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see Manual Lighting Procedure, page 20.*

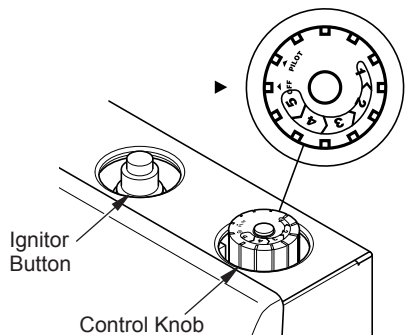
7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. If control knob does not pop up when released, contact a qualified service technician or gas supplier for repairs.

*Note: If pilot goes out, repeat steps 2 through 6. This heater has a safety interlock system. Wait one (1) minute before lighting pilot again.*

8. Turn control knob counterclockwise  to desired heating level. The main burner should light. Set control knob to any heat level between 1 and 5.

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

**⚠ WARNING:** If input gas type is NG, make sure NG pilot burner ignites. If input gas type is LP, make sure LP pilot burner ignites.



**Figure 22 - Control Knob in the OFF Position**

### THERMOSTAT CONTROL OPERATION

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 ex-

ceed 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 comfort level between HIGH (5) and LOW (1).

## OPERATION

### TO TURN OFF GAS TO APPLIANCE

#### Shutting Off Heater

Turn control knob clockwise ↷ to the OFF position.

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

Turn control knob clockwise ↷ to the PILOT position.

### MANUAL LIGHTING PROCEDURE

1. Remove front panel.
2. Follow steps 2 through 5 under Lighting Instructions, page 19.
3. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
4. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Follow step 9 under Lighting Instructions, page 19.
5. Replace front panel.

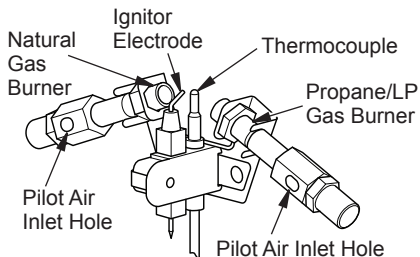


Figure 23 - Pilot Assembly

### SWITCHES OPERATION

#### Heating Coil Switch

When the switch is on **I**, the blower and heating coil turn on at the same time. It makes the room temperature rises rapidly.

#### Blower Switch

When the blower and heating coil switch is on **O**, turn the blower switch to **I** then the blower turns on.

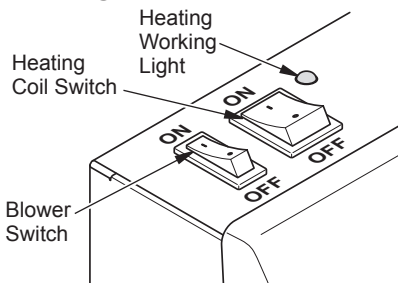


Figure 24 - Switches

## ELECTRICAL CONNECTION

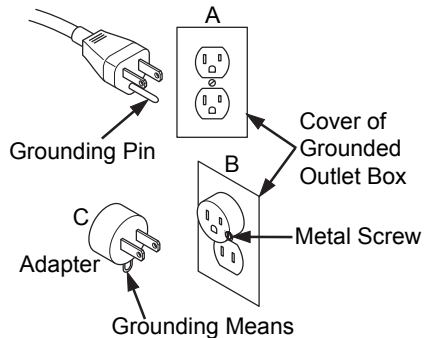
A 15 amp, 120 Volt, 60 Hz circuit with a properly grounded outlet is required. Preferably, the heater will be on a dedicated circuit as other appliances on the same circuit may cause the circuit breaker to trip or the fuse to blow when the heater is in operation. Plan the installation to avoid the use of an extension cord. Extension cords are for temporary use only. If an extension cord must be used, it must be UL/CSA certified, rated at 15A (1900W), 125V maximum with 14 AWG minimum and constructed of two current carrying conductors with ground. A heavy duty extension cord with the shortest length possible for the connection is recommended and must not be longer than 50 ft. (15.2 m). Do not coil or cover the extension cord.

**⚠ Electrical outlet wiring must comply with local building codes and other applicable regulations to reduce the risk of fire, electrical shock and injury to persons.**

**⚠ Do not use this heater if any part of it has been under water. Immediately call a qualified service technician to inspect the fireplace and replace any part of the electrical system which has been under water.**

### GROUNDING INSTRUCTIONS

This heater is for use on 120 volts. The cord has a plug as shown at A in Figure 25. An adapter as shown at C is available for connecting three-blade grounding-type plugs to two-slot receptacles. The green grounding lug extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. The adapter should not be used if a three-slot grounded receptacle is available.



**Figure 25 - Grounded Electrical Outlet**

## ELECTRICAL WIRING DIAGRAM

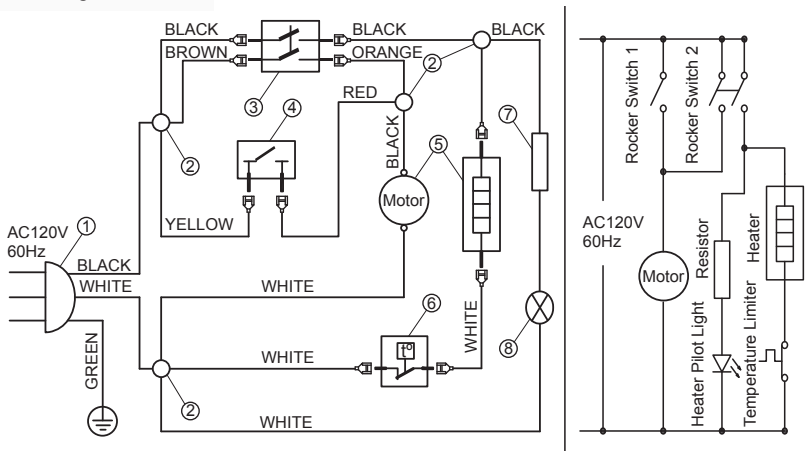
Any electrical re-wiring of this appliance must be done by a qualified electrician. This wiring must be done in accordance with local codes and/or in Canada with the current CSA C22.1 *Canadian Electrical Code*, and for US installations, the *National Electrical Code ANSI/NFPA NO 70*.

**⚠ WARNING: If repairing or replacing any electrical component or wiring, the original wire routing, color coding and securing locations must be followed.**

**⚠ CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.**

Verify proper operation after servicing. If any of the original wire as supplied with the appliance must be replaced, it must be replaced with a wire of at least a 105° C temperature rating.

1. Power Supply Cord
2. Electrical Wire Connector
3. Rocker Switch 1
4. Rocker Switch 2
5. Motor/Heater
6. Temperature Limiter
7. Resistor
8. Heat Pilot Light



**Figure 26 - Wiring Diagram**

## INSPECTING BURNERS

**IMPORTANT:** Owner's should check pilot flame pattern and burner flame pattern often. Incorrect flame patterns indicate the need for cleaning (see Care and Maintenance, page 24) or service.

**⚠ WARNING:** Only a qualified service person should service and repair heater. This includes maintenance requiring replacement or alteration of components.

### PILOT FLAME PATTERN

Figure 27 shows a correct pilot flame pattern. Figure 28 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool, which shuts the heater off. If pilot flame pattern is incorrect, as shown in Figure 28

- turn heater off (see To Turn Off Gas to Appliance, page 20)
- see Troubleshooting pages 25 through 27.

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

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

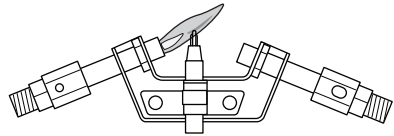


Figure 27 - Correct Pilot Flame Pattern

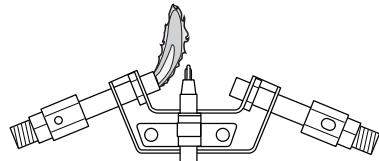


Figure 28 - Incorrect Pilot Flame Pattern

### BURNER FLAME PATTERN

Figure 29 shows a correct burner flame pattern. Figure 30 shows an incorrect burner flame pattern. The incorrect burner flame pattern shows yellow tipping of the flame. It also shows the flame higher than 1/2 the heat shield height.

If burner flame pattern is incorrect as shown in Figure 30:

- turn heater off (see To Turn Off Gas to Appliance, page 20)
- see Troubleshooting pages 25 through 27.

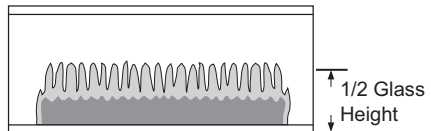


Figure 29 - Correct Burner Flame Pattern

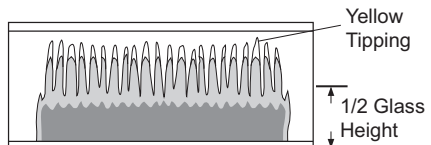


Figure 30 - Incorrect Burner Flame Pattern

## CARE AND MAINTENANCE

**⚠ WARNING:** Turn off heater and let cool before servicing.

**⚠ 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 technician. Heater may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

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

### MAIN BURNER

Periodically inspect all burner flame holes with the heater running. All slotted burner flame holes should be open with yellow flame present. All round burner flame holes should be open with a small blue flame present. Some

burner flame holes may become blocked by debris or rust, with no flame present. If so, turn off the heater and let it cool, and remove blockage or replace burner. Blocked burner flame holes will create soot.

### BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

We recommend that you clean the unit every 2,500 hours of operation or every three months. We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may carry compressed air in a can. You can use a vacuum cleaner in the blow position. If using compressed air in a can, please follow the directions on the can. If you don't follow

directions on the can, you could damage the pilot assembly.

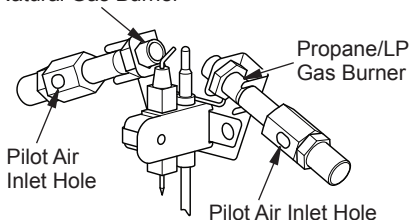
1. Shut off the unit, including the pilot. Allow the unit to cool for at least thirty minutes.
2. Remove four screws securing front panel.
3. Pull front panel forward.
4. Inspect burner and pilot for dust and dirt.
5. Blow air through the ports/slots and holes in the burner.
6. Replace front panel using screws removed.

### ODS/PILOT

Use a vacuum cleaner, pressurized air, or a small, soft bristled brush to clean.

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 31). 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.

Natural Gas Burner



**Figure 31 - Pilot Inlet Air Hole**

### CABINET

#### Air Passageways

Use a vacuum cleaner or pressurized air to clean.

#### Exterior

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



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## CARE AND MAINTENANCE

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### MAINTENANCE OF BLOWER MOTOR

**Always disconnect the appliance from the main power supply and allow it to cool before any servicing operation.**

The motors used on the fan heater and flame blower are pre-lubricated for extended bearing life and require no further lubrication. However, periodic cleaning/vacuuming of the appliance around the air intake and exhaust, as well as the fan heater is recommended. For

heavy or continuous use, periodic cleaning must be done more frequently. If the heater blows alternating cold and warm air, check the fan for free movement and for debris restricting air flow. If the fan does not move freely, the unit must be turned off and the fan replaced immediately in order to prevent further damage to the unit.

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## TROUBLESHOOTING

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**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.



**WARNING: Only a qualified service technician should service and repair heater. Make sure that power is turned off before proceeding. Turn off and let cool before servicing.**



**CAUTION: Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/ pilot unit.**

**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.

*Note: All troubleshooting items are listed in order of operation.*

Problem	Possible Cause	Corrective Action
When ignitor button is pressed in, there is no spark at ODS/pilot.	1. Ignitor electrode is positioned wrong. Ignitor electrode is broken. 2. Ignitor electrode is not connected to ignitor cable. 3. Ignitor cable is pinched or wet. 4. Broken ignitor cable. 5. Bad piezo ignitor. 6. Low battery.	1. Replace electrode. 2. Replace ignitor cable. 3. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry. 4. Replace ignitor cable. 5. Replace piezo ignitor. 6. Replace battery.

## TROUBLESHOOTING

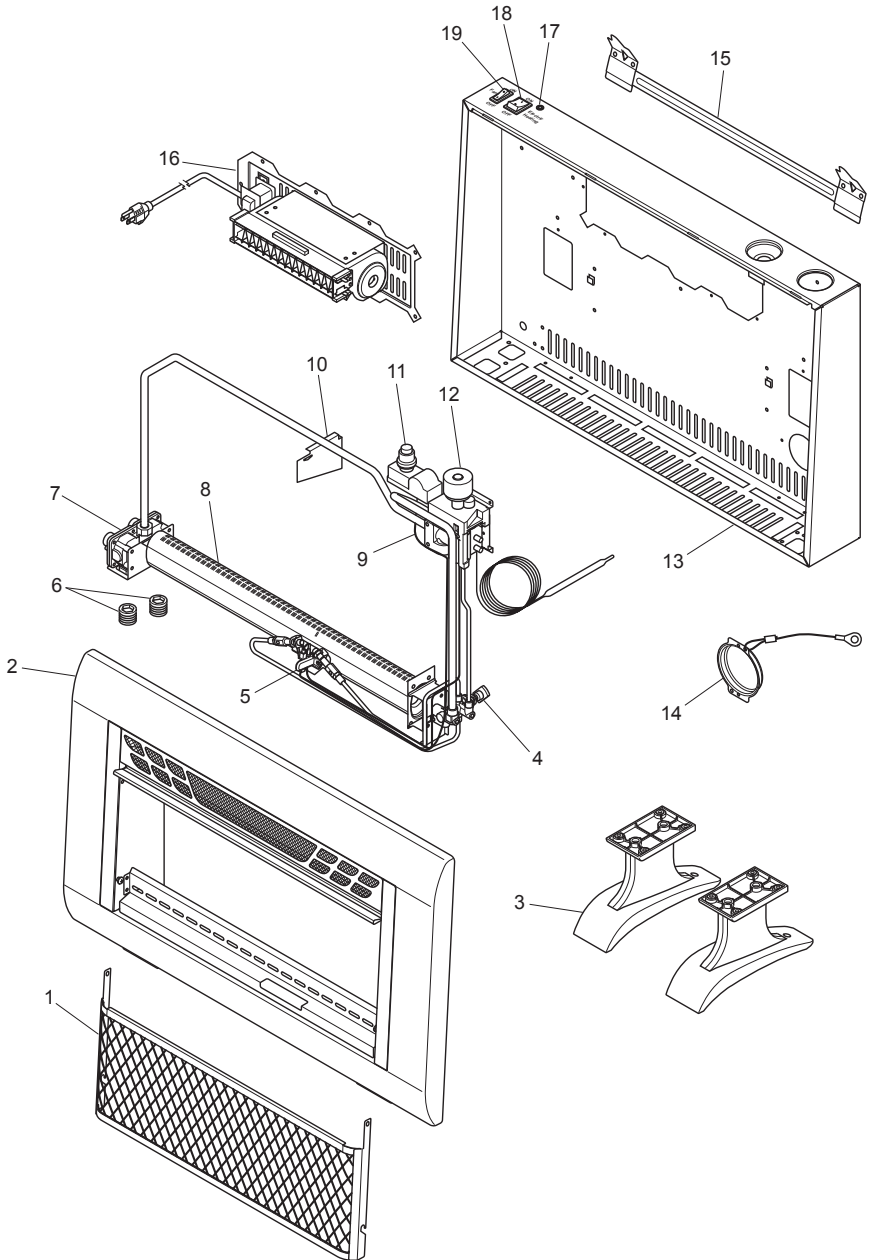
Problem	Possible Cause	Corrective Action
When ignitor button is pressed in there is a spark at ODS/pilot but no ignition.	<ol style="list-style-type: none"> <li>1. Gas supply is turned off or equipment shutoff valve is closed.</li> <li>2. Control knob not fully pressed in while pressing ignitor button.</li> <li>3. Air in gas lines when installed.</li> <li>4. ODS/pilot is clogged.</li> <li>5. Incorrect inlet gas pressure or inlet regulator setting is damaged.</li> <li>6. Control knob not in PILOT position.</li> <li>7. Depleted gas supply (propane).</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on gas supply or open equipment shutoff valve.</li> <li>2. Fully press in control knob while pressing ignitor button.</li> <li>3. Continue holding down control knob. Repeat igniting operation until air is removed.</li> <li>4. Clean ODS/pilot (see <i>Care and Maintenance</i>, page 24) or replace ODS/pilot assembly.</li> <li>5. Check inlet gas pressure or replace inlet gas regulator.</li> <li>6. Turn control knob to PILOT position.</li> <li>7. Contact local propane/LP gas company.</li> </ol>
ODS/pilot lights but flame goes out when control knob is released.	<ol style="list-style-type: none"> <li>1. Control knob is not fully pressed in.</li> <li>2. Control knob is not pressed in long enough.</li> <li>3. Equipment shutoff valve is not fully open.</li> <li>4. Thermocouple connection is loose at control valve.</li> <li>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</li> <li>6. Thermocouple damaged.</li> <li>7. 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. Fully open equipment shutoff valve.</li> <li>4. Hand tighten until snug, and then tighten 1/4 turn more.</li> <li>5. A) Contact local natural or propane/LP gas company  B) Clean ODS/pilot (see <i>Care and Maintenance</i>, page 24) or replace ODS/pilot assembly</li> <li>6. Replace thermocouple.</li> <li>7. Replace control valve.</li> </ol>
Burner(s) does not light after ODS/pilot is lit.	<ol style="list-style-type: none"> <li>1. Burner orifice is clogged.</li> <li>2. Burner orifice diameter is too small.</li> <li>3. Inlet gas pressure is too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice (see <i>Care and Maintenance</i>, page 24) or replace burner orifice.</li> <li>2. Replace burner orifice.</li> <li>3. Contact local gas supplier.</li> </ol>
Delayed ignition of burner(s).	<ol style="list-style-type: none"> <li>1. Manifold pressure is too low.</li> <li>2. Burner orifice is clogged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local gas supplier.</li> <li>2. Clean burner (see <i>Care and Maintenance</i>, page 24) or replace burner orifice.</li> </ol>
Burner backfiring during combustion	<ol style="list-style-type: none"> <li>1. Burner orifice is clogged or damaged.</li> <li>2. Burner is damaged.</li> <li>3. Gas regulator is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice (see <i>Care and Maintenance</i>, page 24) or replace burner orifice.</li> <li>2. Contact customer service.</li> <li>3. Replace gas regulator.</li> </ol>

## TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
High yellow flame during burner combustion	<ol style="list-style-type: none"> <li>1. Not enough air.</li> <li>2. Gas regulator is defective.</li> <li>3. Inlet gas pressure is too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check burner for dirt and debris. If found, clean burner (see <u>Care and Maintenance</u>, page 24).</li> <li>2. Replace gas regulator.</li> <li>3. Contact local gas supplier.</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. (See Warning Statement at top of page 25).</li> </ol>	<ol style="list-style-type: none"> <li>1. Take apart gas tubing and remove foreign matter.</li> <li>2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 17).</li> </ol>
Slight smoke or odor during initial operation.	<ol style="list-style-type: none"> <li>1. Residues from manufacturing process.</li> </ol>	<ol style="list-style-type: none"> <li>1. Problem will stop after a few hours of operation.</li> </ol>
Heater produces a whistling noise when burner is lit.	<ol style="list-style-type: none"> <li>1. Turning control knob to high (5) position when burner is cold.</li> <li>2. Air in gas line.</li> <li>3. Air passageways on heater are blocked.</li> <li>4. Dirty or partially clogged burner orifice.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn control knob to low (1) position and let warm up for a minute.</li> <li>2. Operate burner until air is removed from line. Have gas line checked by local gas supplier.</li> <li>3. Observe minimum installation clearances (Figure 4, page 11).</li> <li>4. Clean burner (see <u>Care and Maintenance</u>, page 24) or replace burner orifice.</li> </ol>
Heater produces a clicking/ticking noise just after burner is lit or shut off.	<ol style="list-style-type: none"> <li>1. Metal is expanding while heating or contracting while cooling.</li> </ol>	<ol style="list-style-type: none"> <li>1. This is common with most heaters. If noise is excessive, contact qualified service technician.</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, the vapors from furniture polish, wax, carpet cleaners, etc., turn into white powder residue.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn heater off when using furniture polish, wax, carpet cleaner or similar products.</li> </ol>
Heater produces unwanted odors.	<ol style="list-style-type: none"> <li>1. Heater is burning vapors from paint, hair spray, glues, etc. See IMPORTANT statement, page 25.</li> <li>2. Gas leak. See Warning Statement at the top of page 25.</li> <li>3. Low fuel supply (propane/LP gas only).</li> </ol>	<ol style="list-style-type: none"> <li>1. Ventilate room. Stop using odor causing products while heater is running.</li> <li>2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 17).</li> <li>3. Refill supply tank (Propane/LP models).</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 gas supplier.</li> <li>3. Clean ODS/pilot (see <u>Care and Maintenance</u>, page 24).</li> </ol>
Gas odor exists even when control knob is in OFF position.	<ol style="list-style-type: none"> <li>1. Gas leak. See Warning Statement at top of page 25.</li> <li>2. Control valve is defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 17).</li> <li>2. Replace control valve.</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 <u>Air for Combustion and Ventilation</u> requirements, page 8.</li> </ol>

## PARTS

### MODEL MTF30TBU



## PARTS

### MODEL MTF30TBU

This list contains replaceable parts for your heater. When ordering replacement parts, follow the instructions listed under Replacement Parts on page 30 of this manual.

ITEM	PART #	DESCRIPTION	QTY
1	UBD30T-130B	Screen Assembly	1
2	UBD30T-120B	Front Panel Assembly	1
3	UBD30T-160B	Base Assembly	2
4	BDF11	Fuel Selection Device	1
5	NDD0308-600-MU30	ODS Pilot	1
6	PF120820	Hex Plug	2
7	RV83FI-4/9	Gas Regulator	1
8	UBD30T-250B	Burner Assembly	1
9	ML073-01	Ignitor Cable	1
10	UBD30T-108	Left Burner Bracket	1
11	PIMSC1-01	Ignitor Assembly	1
12	UBD30T-270B	Thermostat Valve Assembly	1
13	UBD30T-101	Body Panel	1
14	UBD30T-180B	Fuel Selection Device Cover	1
15	MB060-01	Mounting Bracket	1
16	UBD30T-300B-E	Blower/Heater Assembly	1
17	VL075-02	LED	1
18	UBKDC-01	Rocker Switch	1
19	VL067-01	On/Off Switch	1
<b>PART AVAILABLE - NOT SHOWN</b>			
	UBD30T-650B	Hardware Package Assembly	1
	DHQ01-04/DHQ01-11	Screw Cap/Spring Kit	1

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## REPLACEMENT PARTS

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*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 parts, call Customer Service toll free at 1-866-573-0674 for referral information.

When calling Customer Service or your dealer, have ready:

- Your name
- Your address

- Model and serial number of your heater
- How heater was malfunctioning
- Type of gas used (Propane/LP or Natural gas/NG)

- Purchase date

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

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s) call Customer Service toll free at 1-866-573-0674 for referral information.

When calling Customer Service have ready:

- Model number of your heater
- The replacement part number

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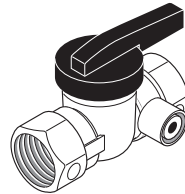
## ACCESSORIES

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Purchase these heater accessories from your local dealer. If they can not supply these accessories, contact ProCom Heating, Inc. at 1-866-573-0674 for information.

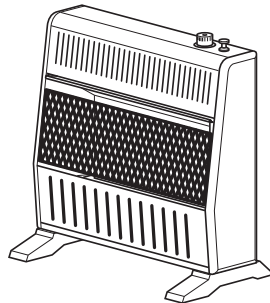
### EQUIPMENT SHUTOFF VALVE

For all models. Equipment shutoff valve with 1/8" NPT tap.



### FLOOR MOUNTING STAND

For locating heater on the floor, away from a wall. Complete installation instructions provided with floor mounting stand.



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## SERVICE HINTS

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### **When Gas Pressure Is Too Low**

- pilot will not stay lit
  - burners will have delayed ignition
  - fireplace will not produce specified heat
  - propane/LP gas supply might be low (propane/LP units only)
- You may feel your gas pressure is too low. If so, contact your local gas supplier.

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## TECHNICAL SERVICE

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You may have further questions about installation, operation, or troubleshooting. If so, contact ProCom Heating, Inc. at 1-866-573-0674.

When calling, please have your model and serial numbers of your heater ready.

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## WARRANTY

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### KEEP THIS WARRANTY

Model \_\_\_\_\_

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

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

Keep receipt for warranty verification.

### REGISTER YOUR PRODUCT AT [WWW.USAPROCOM.COM](http://WWW.USAPROCOM.COM)

**IMPORTANT:** We urge you to register your product within 10 days of date of installation, complete with entire serial number which can be found on the rating plate. Please fill out the warranty information above for your personal records. Retain this manual for future reference.

Always specify model and serial numbers when communicating with customer service.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

### LIMITED WARRANTY

ProCom Heating, Inc. warrants this product to be free from defects in materials and components for ONE (1) year from the date of first purchase, provided that the product has been properly installed by a qualified installer in accordance with all local codes and instructions furnished with the unit, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty, the Bill of Sale or cancelled check must be presented.

### RESPONSIBILITY OF OWNER

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition. Warranty part(s) MUST be obtained through ProCom Heating, Inc. who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

### WHAT IS NOT COVERED

This warranty does not apply to parts that are not in original condition because of normal wear and tear or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT, THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES. INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO TWO (2) YEARS ON ALL COMPONENTS FROM THE DATE OF FIRST PURCHASE. PROCOM HEATING, INC.'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND PROCOM HEATING, INC. SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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

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



ProCom Heating, Inc.  
Bowling Green, KY 42101  
[www.usaprocom.com](http://www.usaprocom.com)  
1-866-573-0674

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