



### www.megamaster.co.za

Manufactured in China · Distributed by Mega Group · PO Box 15, Woodlands, 0027, South Africa · Tel: +27(0)12 802 1515

**WARNING:** This appliance is equipped for Propane gas. Field conversion is not permitted.

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 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 and ventilation air must be provided. Refer to Air For Combustion and Ventilation section on page 7 of this manual.

#### **INSTALLER:** Leave this manual with the appliance.

#### **CONSUMER: Retain this manual for future reference.**

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

This appliance is not convertible for use with other gases.

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WARNING: Read the Installation & Operating Instructions before using this appliance. IMPORTANT: Read all instructions and warnings carefully before starting installation. Failure to follow these instructions may result in possible injury to persons or a fire hazard and will void the warranty.

### PRODUCT SPECIFICATIONS

MAX BTU	20,000
Fuel Type	Propane
Ignition	Electronic Push Button
Manifold Pressure	10 in. W.C.
Inlet Gas Pressure	
Maximum	14 in.W.C.
*Minimum(*For purposes of input adjustment)	11 in. W.C.
Dimensions(in.) (HxWxD)	24.02in.x20.94in.x10.51in.

### IMPORTANT SAFETY INFORMATION

**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.

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

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

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

WARNING: Heater becomes very hot when operating. Children and adults should be alerted to the hazard of high surface temperatures and should stay away to avoid burns or clothing ignition Heater will remain hot for a time after shutoff. Allow surfaces to cool before touching.

WARNING: Make sure any panel, safety screen or guard removed for servicing an appliance must be replaced prior to operating the heater

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

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

**WARNING:** Due to high temperatures, locate this appliance out of traffic and away from furniture and draperies.

This appliance is intended for supplemental heating.

**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 immediately! Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease, people who are anemic, those under the influence of alcohol, and those living in high altitudes.

**PROPANE/LP GAS:** Propane/LP gases are odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists. Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to operating this heater safely.

### **WARNING:**

If the heater is being installed in a residential garage, it must be secured firmly to the wall, a minimum of 18 in. (457mm) above the floor. The heater must be located so that it is protected against any possibility of damage by a moving vehicle, etc.

Raising the heater will reduce BUT NOT eliminate the possibility of lighting the vapor of any flammable liquids which may be improperly stored or accidentally spilled. If the smell of gasoline is present, do not operate this heater until the area has been properly ventilated.

SAFETY INFORMATION

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

### Wash hands after handling.

- 1. Do not place Propane/LP supply tank(s) inside any structure. Place Propane/LP supply tank(s) outdoors.
- 2. The unit cannot be installed in a bedroom. The unit is not approved for bathroom use.
- 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 7 through 9. If heater keeps shutting off, see Troubleshooting, pages 24 through 26.
- 4. Keep all air openings in front, top and bottom of heater free of objects and debris to ensure adequate 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 and pilot 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. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.

11. **WARNING:** Do not allow fans to blow directly into the heater. Avoid any drafts that alter burner flame patterns.

- 12. **WARNING:** Do not operate heater if the tempered glass panel is not secured, broken, or missing. Only replace the tempered glass panel with parts and/or components provided by **Megamaster.**
- 13. SAVE THESE INSTRUCTIONS.

#### **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 and cuts off main burner gas in the event of flame out.

#### LEG KIT

2 support legs and 4 support leg screws are included for floor mounting the heater. See page 11. **NOTE:** This is an optional accessory and is not required for operation of the heater.

#### ELECTRONIC PUSH BUTTON IGNITION SYSTEM

This heater is equipped with an electronic push button ignition system. This system requires one AAA battery (provided).

#### THERMOSTAT HEAT CONTROL

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

#### The installation must be made by a licensed plumber or gas fitter.

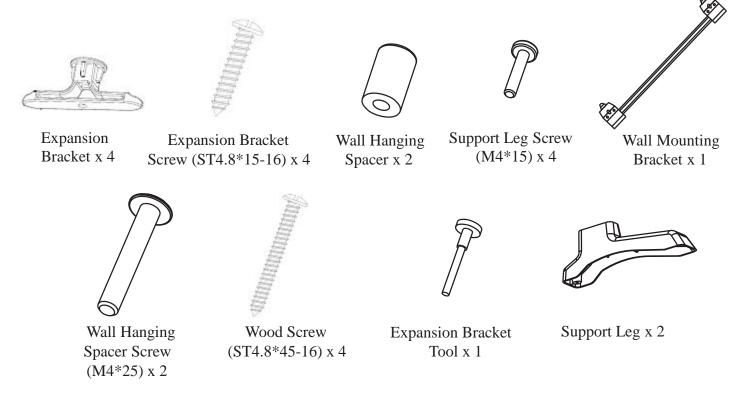
#### PREPARING FOR INSTALLATION

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

#### UNPACKING

- 1. Remove heater from carton.
- 2. Remove all protective packaging applied to heater for shipping
- 3. Verify all contents are present.
- NOTE: Support Leg Screw (M4\*15), Wood Screw (ST4.8\*45-16),

Expansion Bracket Screw(ST4.8\*15-16), and Expansion Bracket come with (2) extra each.



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

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

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 (.3 Kw) of gas input per hour. An unvented room heater is intended as a supplemental heater rather than a primary heat source. 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 the proper size for the application, including adequate combustion air and circulation air.
- 2. If there is high humidity, 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.

### AIR FOR COMBUSTION AND VENTILATION

**CAUTION:** This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided.

#### PRODUCING ADEQUATE 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 7 through 9 will help you classify your space and provide adequate ventilation.

#### **Confined and Unconfined Space**

A confined space as a space whose volume is less than 50 cu. ft. per 1,000 BTU/hr (4.8 m<sup>3</sup> per kw) of the aggregate input rating of all appliances installed in that space and an unconfining space as a space whose volume is not less than 50 cu. ft. per 1,000 BTU/hr (4.8 m<sup>3</sup> per kw) of the aggregate input rating of all appliances installed in that space. Rooms connecting directly with the space in which the appliances are installed\*, through openings not furnished with doors, are considered a part of the unconfined space.

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

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

#### **Unusually Tight Construction**

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

Unusually tight construction is defined as construction where:

- a) walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6x10-11kg per pa-sec-m2) or less with openings gasketed or sealed and
- b) weather stripping has been added on windows that can be opened and on 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 9). If your home does not meet all of the three criteria above, proceed to "Determining Fresh-Air Flow For Heater Location".

### **DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION**

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

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

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  $\times$  Width  $\times$  Height = cu. ft. (volume of space) Example: Space size 20 ft. (length)  $\times$  16 ft.(width)  $\times$  8 ft. (ceiling height) = 2560 cu. ft. (volume of space)

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

2. Divide the space volume by 50 cu. ft. to determine the maximum BTU/hr the space can support.

(volume of space)  $\div$  50 cu. ft.= (Maximum BTU/hr the space can support)

Example: 2560 cu. ft. (volume of space)  $\div$  50 cu. ft. = 51.2 or 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 Example:

Gas heater logs \_\_\_\_\_\_BTU/hr Gas water heater 30,000 BTU/hr Other gas appliances\*+ \_\_\_\_BTU/hr Vent-free heater + 26,000 BTU/hr

Total = \_\_\_\_BTU/hr Total = 56,000 BTU/hr

\*Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

4. Compare the maximum BTU/hr the space can support with the actual amount of BTU/hr used.

\_\_\_\_\_BTU/hr (maximum the space can support)

\_\_\_\_\_BTU/hr (actual amount of BTU/hr used).

Example : 51,200 BTU/hr (maximum the space can support) 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 9.

b) Vent room directly to the outdoors. See "Ventilation Air From Outdoors", page 9.

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.

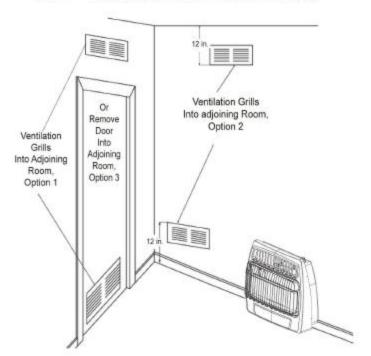
#### Ventilation Air From Inside Building

This fresh air would come from adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12 in. of the wall connecting the two spaces (see options 1 and 2, Fig. 1). You can also remove door into adjoining room (see option 3, Fig. 1). 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 duct. You must provide two permanent openings: one within 12 in. of the ceiling and one within 12 in. of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. 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.





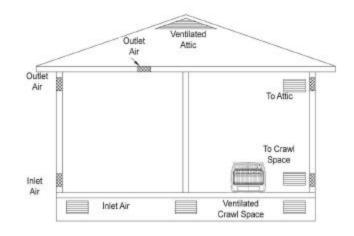


Fig. 1 - Ventilation Air from Inside Building

**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.

**WARNING:** A qualified technician must install heater. Follow all local codes.

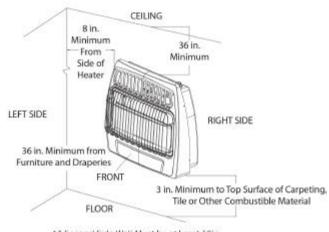
**WARNING:** Maintain the minimum clearances. If possible, provide greater clearances from the floor, ceiling, and adjoining wall than required.

▲ 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, candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may cause walls to discolor.

#### **CLEARANCES TO COMBUSTIBLES**

Carefully follow the instructions below. This heater can be mounted on the wall or on the floor using the support legs .

**WARNING**: Maintain the minimum clearances shown in (See Fig. 3). If you can, provide greater clearances from floor, ceiling, and joining wall.



**Fig. 3** - Mounting clearances as viewed from front of heater (inches)

\*A Second Side Wall Must be at Least 18in. Away from the Other Side of the Heater.

#### MINIMUM **COMBUSTIBLES CLEARANCE** то \*LEFT RIGHT ΤΟΡ **BOTTOMFRONTRear** 8 in.36 in. 3 in. 36 in. Spacer 0 in. to clearance is from top of heater to ceiling, wood shelf or other combustible material Top heater to surface of carpet, tile or other combustible material. from bottom of Bottom clearance is

\*A second side wall must be at least 18 in. away from the other side of the heater. Always maintain a minimum of 36 in. clearance from furniture and draperies. \*For the installation in residential garages please refer to the bottom of page 3.

#### LOCATING HEATER

This heater is designed to be mounted on a wall or on a floor(using the Support legs)

For convenience and efficiency, install heater:

- 1. Where there is easy access for operation, inspection, and service.
- 2. In the coldest part of room.3. A minimum of 3' away from furniture and draperies.

#### **FLOOR MOUNTING**

#### (Cannot be done in bedroom or bathroom) (Cannot be used for garage and ice-house heaters) **NOTE:** This is an optional accessory and is not required for operation of the heater.

Before installing Support Legs to heater base, please make sure you have the following items:

- (2) Support Legs
- (4) Support Leg Screws (M4\*15)
- 1. Set down a blanket onto the table where the heater will be placed for leg installation to prevent scratching of the table and/or the heater.
- 2. Set back of heater on table with the bottom of heater extending outside the table edge.
- 3. Fasten Support Legs to heater using Support Leg Screws (Fig.4)

**Note:** If the heater is to be installed directly on carpeting, tile or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance.

3. Once positioned, secure heater to the floor using Support Leg Screws (M4\*15) and mounting holes found on heater Support Legs (See Fig. 5).

#### WALL MOUNTING

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

#### **Mounting Bracket**

The mounting bracket is located separately from the unit, but packed inside the same box.

Fig. 4 – Attaching Support Legs

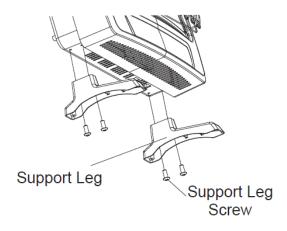


Fig. 5 – Securing Support Legs



#### 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 wood screws (ST.8\*45-16) through mounting bracket and into wall studs.
- 2. Attaching to expansion bracket: 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.
- Mark screw locations on wall (See Fig. 6). *Note*: Mark only last hole on each end of mounting bracket. Insert (2) wood screws (ST.8\*45-16) total through these holes only.
- 3. Remove tape and mounting bracket from wall.

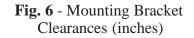
#### **Attaching Mounting Bracket To Wall**

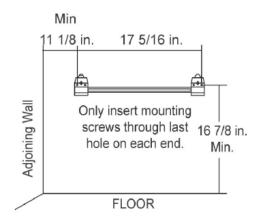
**Note**: Expansion bracket, wood screws (ST.8\*45-16), and wall hanging spacers are in hardware package. The hardware package is provided with heater.

#### **Attaching to Wall Stud Method**

For attaching mounting bracket to wall studs:

- 1. Drill holes at marked locations using 9/64-inch drill bit.
- 2. Place mounting bracket onto wall. Line up last hole on each end of bracket with holes drilled in wall.
- 3. Insert wood screws (ST.8\*45-16) through bracket and into wall studs.
- 4. Tighten wood screws (ST.8\*45-16) until mounting bracket is firmly fastened to wall studs.
- 5. Check that the bracket is secure before mounting heater!





#### **Attaching to Expansion Bracket 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-inch drill bit. For solid walls (concrete or masonry), drill at least 1 inch deep.
- 2. Fold wall expansion bracket as shown in (See Fig. 7).
- 3. Insert wall expansion bracket (wings first) into hole. Tap expansion bracket flush to wall.
- 4. For thin walls (1/2 inch or less), insert expansion bracket tool into expansion bracket. Push expansion bracket tool to "pop" open expansion bracket wings (See Fig. 8).

**IMPORTANT**: Do not hammer expansion bracket tool! For thick walls (over 1/2 inch 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 expansion bracket.
- 6. Insert expansion bracket screws (ST4.8\*15-16) through wall mounting bracket and into expansion brackets.
- 7. Tighten expansion bracket screws (ST4.8\*15-16) until mounting bracket is firmly fastened to wall.
- 8. Check that the bracket is secure before mounting heater!

# Attaching Wall Hanging Spacers to Heater

**WARNING:** Failure to properly install the wall hanging spacers may result in property damage, personal injury or even death.

1. Locate spacer mounting holes on the lower right/left sections of the heater back panel.

2. Secure (2) wall hanging spacers to heater back panel using (2) wall hanging spacer screws (M4\*25) (See Fig. 9a).

#### **Placing Heater On Mounting Bracket**

- 1. Locate two horizontal slots on back panel of heater.
- 2. Place heater onto mounting bracket. Slide horizontal slots onto stand-out tabs on mounting bracket. Be sure spacers rest evenly against wall (See Fig. 9b).

**Fig. 7** - Folding the Expansion Bracket

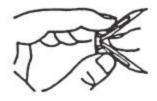
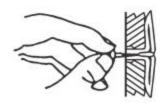


Fig. 8 - Popping Open Anchor Wing For Thin Walls



**Fig. 9a** - Attaching Wall Hanging Spacers to Heater

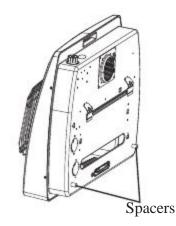
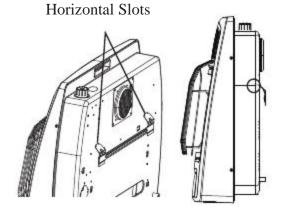


Fig. 9b - Mounting Heater Onto Mounting Bracket



#### CONNECTING TO GAS SUPPLY

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

**WARNING:** Do not overtighten gas connections.

- **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-in. diameter or greater to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.
- **CAUTION:** Check your gas line pressure before connecting heater to gas line. Gas line pressure must be a minimum 11" WC for LP with a max pressure of 14"WC. If gas line pressure is higher, heater regulator damage could occur.
- **CAUTION**: Never connect heater directly to an LP supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and gas supply.
- **CAUTION**: Avoid damage to regulator. Hold gas regulator with wrench when connecting into gas piping and/or fittings.

**A** CAUTION: Use pipe joint sealant that is resistant to gas (Propane).

#### **Typical Inlet Pipe Diameters**

Use 3/8-inch black iron pipe or greater. Installation must include an equipment shutoff valve, union, and plugged 1/8-inch NPT tap.

Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from heater (see Fig. 10).

**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.

Install sediment trap in supply line as shown



(See Fig. 10). 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 immediately.

**WARNING:** Never use an open flame to check for a leak. Apply a 50/50 mixture of liquid soap and water to all joints. If bubbles form, there may be a leak. Correct all leaks immediately.

#### Pressure Testing Gas Supply Piping System Test Pressures In Excess Of 1/2 PSIG (3.5kPa)

The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $\frac{1}{2}$  psi (3.5 kPa).

# Pressure Testing Gas Supply Equal To or less than 1/2 PSIG ( 3.5kPa )

The appliance must be isolated from the gas supply piping system by closing its equipment shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than

<sup>1</sup>/<sub>2</sub> psi (3.5 kPa).

#### Leak Testing Heater Gas Internal Connections

- 1. Open equipment shutoff valve (See Fig. 11).
- 2. Make sure control knob of heater is in the OFF position.
- 3. Open gas supply tank valve (LP systems).
- 4. Check all joints from equipment shutoff valve to control valve. Apply 50/50 mixture of liquid soap and water to gas joints. If bubbles form, there may be a leak.
- 5. Light heater (see Operation, page 19). Check all other internal joints for leaks.
- 6. Turn off heater (see "To Turn Off Gas to Appliance," page 20).

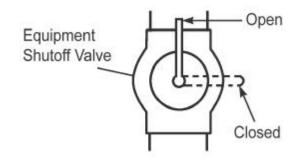
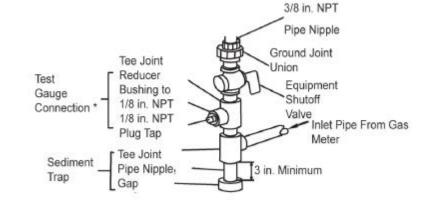


Fig. 11 - Equipment Shut -off Valve



#### CONNECTING GAS CYLINDER

The propane gas supply cylinder to be used must be constructed and marked in accordance with the Specifications for LP Gas Cylinders.

Use only XX-pound cylinders (height: 18.11 inches, tank diameter: 9.84 inches, foot diameter: 8.03 inches) equipped with a cylinder connection device compatible with the connection for outdoor cooking appliances.

The cylinder must include a collar to protect the cylinder valve. The gas cylinder should not be dropped or handled roughly!

If the appliance is not in use, the gas cylinder must be disconnected. Storage of an appliance indoors is permissible ONLY if the cylinder is disconnected and removed from the appliance. Cylinders must be stored outdoors out of the reach of children and must not be stored in a building, garage or any other enclosed area. Your cylinder must never be stored where temperatures can reach over  $125^{\circ}$  F.

Place dust cap on cylinder valve outlet whenever the cylinder is not in use. Only install the type of dust cap on the cylinder valve outlet that is provided with the cylinder valve. Other types of caps or plugs may result in leakage of propane.

Before connection, be sure that there is no debris caught in the outlet of the gas cylinder, outlet of the regulator valve or in the outlet of the burner and burner ports. Connect regulator valve and hand-tighten firmly. Keep the propane cylinder valve closed and disconnect the propane cylinder from the regulator valve when the heater is not in use.

DO NOT obstruct the flow of combustion air and ventilation air to the heater. The propane cylinder must be arranged for vapor withdrawal and equipped with a listed overfilling prevention device. Please use the proper cylinder orientation to provide vapor withdrawal. NOTE: The cylinder must be fully upright for the cylinder to have vapor withdrawal only.



## **ACAUTION**

- a. Do not store a spare LP-gas cylinder under or near this appliance.
- b. Never fill the cylinder beyond 80 percent full.
- c. If the information in (a) and (b) is not followed exactly, a fire causing death or serious injury may occur.

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

**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 Gas).

**WARNING:** Do not overtighten gas connections.

#### **CONNECTING THE LP TANK**

- 1. The knob on the LP tank must be closed. Make sure that the knob is turned *clockwise* to a full stop. The cylinder supply system must be arranged for vapor withdrawal.
- 2. Check that the control knob on the control unit is turned off.
- 3. Remove the protective cap from the LP tank valve and coupling nut.
- 4. Hold the regulator in one hand and insert the nipple into the valve outlet. Be sure the nipple is centered in the valve outlet. The coupling nut connects to the large outside threads on the valve outlet. Use care do not cross thread the connection. (Fig. 12).
- 5. Hand-tighten the coupling nut clockwise until it comes to a full stop. Firmly tighten by hand only. Do not use tools.

**To Disconnect**: Fully close the tank valve by turning

g 🦳 clockwise.

Turn the coupling nut *c*ounterclockwise until the regulator assembly detaches.

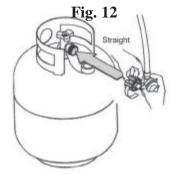
Gas must be turned off at the supply cylinder when the heater is not in use.

**CAUTION:** When the LP-gas supply cylinder is not disconnected from the heater, the heater and the cylinder must be stored outdoors, in a well ventilated space, out of the reach of children, and must not be stored in a building, garage or any other enclosed area.

# **AWARNING**

In the connection process, make sure:

- the regulator inlet connector mates with the cylinder valve outlet properly, safely and firmly, and;
- the LP gas hose does not come in contact or remain in contact with the firebox.



#### **CHECKING FOR LEAKS**

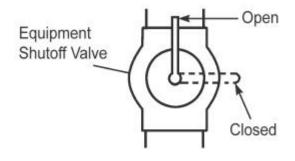
After all connections are made, check all connections and fittings on the LP gas tank valve, gas hose and regulator for leaks with a water and soap solution.

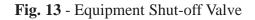
To prevent fire or explosion while testing for a leak:

- Always perform leak test prior to lighting the heater.
- Do not smoke while testing for a leak.
- Always perform leak tests outdoors in a well-ventilated area.
- Do not use any source of flame while testing for leaks.
- Do not use the heater until any and all leaks are corrected.
- If you are unable to correct a leak, disconnect the propane supply and call a gas appliance service dealer.

#### PERFORM LEAK TEST

- Prepare leak test solution by50/50 ratio of liquid dish soap and water . Total solution require is disapproximately 2-30unces(70-90ml).Put leak test solution in a spray bottle.
- Ensure all control knobs are in the OFF position.
- Connect the gas hose to the gas supply.
- Open the LP gas tank valve.
- Spray leak test solution on all gas carrying connections and fittings. Presence of bubbles at areas of applied test solution indicates a gas leak. If leaks are detected or you smell or hear gas, shut off the gas supply valve immediately (See Fig. 13) and repair or replace the defective part. Do not use the heater until all leaks are corrected.





# **ACAUTION**

**Only use the regulator and hose assembly provided!** If a replacement is necessary, please call our customer service center. Do not use replacement parts that are not intended for this heater.

Inspect the hose before each use of the heater. If it is evident there is excessive abrasion or wear, or the hose is cut, it must be replaced prior to the heater being put into operation. The replacement hose assembly shall be that specified by the manufacturer.

## WARNING

# ALL INSTRUCTIONS AND SAFEGUARDS ON THIS PAGE MUST BE FOLLOWED TO PREVENT FIRE, DAMAGE AND/OR INJURY.

NEVER Bring a Refillable Propane Cylinder Indoors.AFire or Explosion can Occur Causing

Property Damage, Serious Injury or Death.

#### 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 using the Ignitor. 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 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.
- 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. Forced or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control, which has been under water.

#### LIGHTING INSTRUCTIONS

#### THERMOSTAT GAS CONTROL

1. STOP! Read the safety information on the previous page.

2. Turn control knob clockwise  $\frown$  to "OFF" position. (See Fig. 14)

3. Wait (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.

4. Turn knob counterclockwise *for the "PILOT"* position. (See Fig. 15) Depress control knob.

5. With control knob depressed, push down the on the ignitor button until the pilot lights. The pilot is visible centered below the main burner, behind the glass panel. (See Fig. 16)

6. Keep control depressed for (30) seconds after pilot lights. Release control knob.

**Note:** If pilot goes out repeat steps 3 through 7. Wait (1) minute before attempting to light pilot again. If after several tries the pilot still goes out, turn the gas control knob clockwise to the "OFF" position and call your service technician or gas supplier. If the control knob does not pop up when released, stop and immediately and call your service technician or gas supplier.

7. Turn control knob counterclockwise **real** to desired setting.



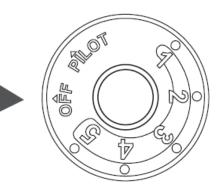
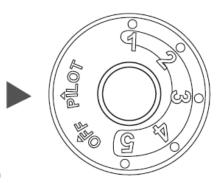
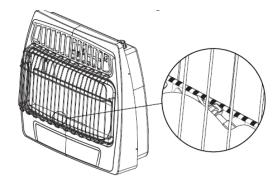


Fig. 15







#### TO TURN OFF GAS TO APPLIANCE

- 1. Turn off all electric power to the appliance if service is to be performed.
- 2. Push in gas control knob slightly and turn clockwise  $\frown$  to "OFF" or " $\bigcirc$ " position. DO NOT FORCE.

#### **OPERATION**

#### THERMOSTATIC CONTROL OPERATION.

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 comfort level between "HIGH" (5) and "LOW"(1) (See Fig. 17).

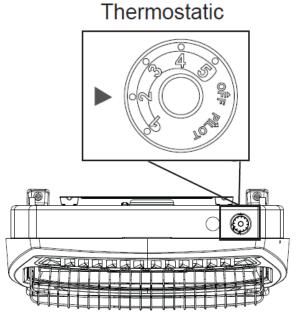


Fig. 17 - Control Knob Position

#### **INSPECTING BURNERS**

Check pilot flame pattern daily when in use and at least yearly by a qualified service agency.

#### PILOT FLAME PATTERN

Fig. 18 shows a correct pilot flame pattern. Fig. 19 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:

- turn heater off (see "To Turn Off Gas to Appliance" on page 20)
- see Troubleshooting pages 24 through 26.

Fig. 18 - Correct Pilot Flame Pattern

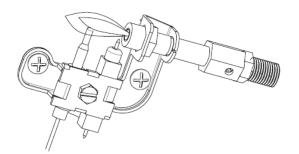
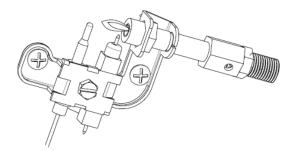


Fig. 19 - Incorrect Pilot Flame Pattern



#### **OPERATION**

#### **BURNER FLAME PATTERN**

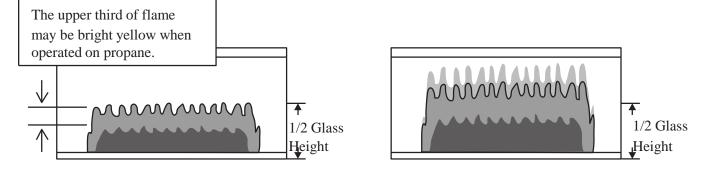
Fig. 20 shows a correct burner flame pattern. Fig. 21 shows an incorrect burner flame pattern with lifting, and excessive flame height.

If burner flame is incorrect:

- turn heater off (see "To Turn Off Gas to Appliance", page 20).
- see Troubleshooting, pages 24 through 26.

**Fig. 20** - Correct/Normal Flame Pattern with short flames with Control Knob Set to High Flame (5)

**Fig. 21** - Incorrect/Abnormal Flame Pattern with tall flames with Control Knob Set to High Flame (5)



**NOTE**: Ambient flame burners produce both a blue and yellow flame. An excessively high yellow colored flame may be caused by airborne dust, dander, pet hair, etc. Additionally, an excess amount of Mercaptane in the fuel can result in an orange or yellow colored flame.

#### CARE AND MAINTENANCE

**NOTE:** Before servicing you will need to remove the front panel of the heater. There are 4 Philips head screws, 2 on the left side and 2 on the right, securing the front panel to the heater (See Fig. 22). Always allow the unit to cool for at least thirty minutes before attempting to remove the front panel.

Fig. 22- Front Panel Removal

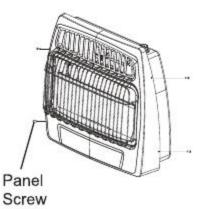


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WARNING: Turn off heater and let cool before servicing.

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



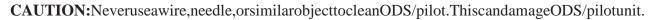
**WARNING:** Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and properly damage.

#### **CLEANING ODS/PILOT AND BURNER**

Use a vacuum cleaner, pressurized air, or a small, soft bristled brush to clean burner ports, orifice and primary burner. Look into burner opening and ensure that it is clean.

#### CLEANING BURNER PILOT AIR INLET HOLE

We recommend that you clean the unit every three months or after 2,500 hours of operation. 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. 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 4 screws 2 screws on each side of the front panel.
- 3. Pull front panel forward.
- 4. Blow air through the ports/slots and holes in the burner. Also clean the pilot assembly. 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 Fig. 18 & 19 on page 21). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if air is not available.
- 5. Replace front panel when completed, using the screws removed.

#### **CLEANING GLASS**

Use mild soap and water. Avoid using abrasive cleaners which can scratch the glass. The tempered glass installed on this product contains a "Low E" coating on the interior surface. If the glass is removed, you must ensure the "Low E" coated side is installed on the interior side, facing the burner assembly.

#### CLEANING CABINET AIR PASSAGEWAYS

Use a vacuum cleaner or pressurized air to clean.

#### **CLEANING EXTERIOR**

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

#### TROUBLESHOOTING

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- WARNING: If you smell gas:
  - Shut off gas supply.
  - Do not try to light any appliance.
  - Do not use any phone in your building.

• Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

• If you cannot reach your gas supplier, call the fire department.

**IMPORTANT:** Operating heater where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors.

**WARNING:** Turn off and let cool before servicing. Only a qualified service person should service and repair heater.

PROBLEM	POSSIBLE CAUSE	<b>CORRECTIVE ACTIONS</b>
When ignitor button is pressed in, there is no spark at ODS/ pilot.	<ol> <li>Ignitor electrode is positioned wrong.</li> <li>Ignitor electrode is broken.</li> <li>Ignitor electrode is not connected to ignitor cable.</li> <li>Ignitor cable is pinched or wet.</li> <li>Damaged ignitor cable.</li> <li>Bad ignition module.</li> </ol>	<ol> <li>Replace ODS.</li> <li>Replace ODS.</li> <li>Replace ignitor cable</li> <li>Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry.</li> <li>Replace ignitor cable.</li> <li>Replace ignition module.</li> </ol>
Unit shuts off after running a few minutes.	<ol> <li>Gas supply is turned off or equipment shutoff valve is closed.</li> <li>Control knob not fully pressed in while pressing ignitor button.</li> <li>Air in gas lines when installed.</li> <li>ODS / pilot is clogged.</li> <li>Control knob not in PILOT position.</li> <li>Depleted gas supply (propane)</li> </ol>	<ol> <li>Turn on gas supply or open equipment shutoff valve.</li> <li>Fully press in control knob while pressing ignitor button.</li> <li>Continue holding down control knob. Repeat igniting operation until air is removed.</li> <li>Clean ODS/pilot (see Care and Maintenance, page 23) or replace ODS/pilot assembly.</li> <li>Turn control knob to PILOT position.</li> <li>Contact local propane/LP gas company.</li> </ol>

### TROUBLESHOOTING

ODS/pilotlights But flame goes out When control knob is released.	<ol> <li>Control knob is not fully pressed in.</li> <li>Control knob is not pressed In long enough.</li> <li>Equipment shut off valve is not fully open.</li> <li>Thermocouple connectionist loose.</li> <li>Thermocouple damaged.</li> <li>Control valve damaged.</li> <li>Inlet gas pressure is too high.</li> </ol>	<ol> <li>Press in control knob fully.</li> <li>After ODS/pilot lights, keep control Knob pressed in30-60seconds.</li> <li>Fully open equipment shut off valve.</li> <li>Hand tighten until snug, and then tighten ¼turnmore.</li> <li>Replace thermocouple.</li> <li>Contact customer service.</li> <li>Contact your gas supplier to check and adjust the inlet pressure.</li> </ol>		
Burner(s) does not Light after ODS/pilot1.Thermo stat setting too low. 2.Burner orifice is clogged. 3.Burner orifice diameter is too small. 4.Inlet gas pressure is too low.		<ul> <li>1.Turn thermostat knob to a higher setting.</li> <li>2.Clean burner orifice(see Care and Maintenance,page23) or contact customer service.</li> <li>3.Contact customer service.</li> <li>4.Contact your gas supplier.</li> </ul>		
Delayed ignition of burner(s).	<ol> <li>Manifold pressure is too low.</li> <li>Burner orifice is clogged.</li> </ol>	<ul><li>1.Contact your gas supplier.</li><li>2.Clean burner (see Care and Maintenance,page23) or contact customer service.</li></ul>		
Burner back firing during combustion.1.Burner orifice is clogged or damaged.2.Burner is damaged. 3.Gas regulator is damaged.		<ol> <li>Clean burner orifice(see Care and Maintenance,page23 or contact customer service.</li> <li>Contact dealer or customer service.</li> <li>Replace gas regulator.</li> </ol>		
High yellow flame during burner combustion1.Not enough air. 2.Gas regulator is defective.		<ul> <li>1.Check burner for dirt and debris . If found , clean</li> <li>burner (see Care and Maintenance, page23).</li> <li>2.Replace gas regulator.</li> </ul>		
Gas odor during combustion.1.Foreign matter between Control valve and burner. 2.Gas leak.(SeeWarning Statement at top of page 23).		<ul><li>1.Take apart gas tubing and remove foreign matter.</li><li>2.Locate and correct all leaks(see "Checking Gas Connections,"page15).</li></ul>		
Heater produce sac licking/ticking noise Just after burner slit or shutoff.		1. This is common with most heaters. If noise is excessive , contact qualified service technician.		

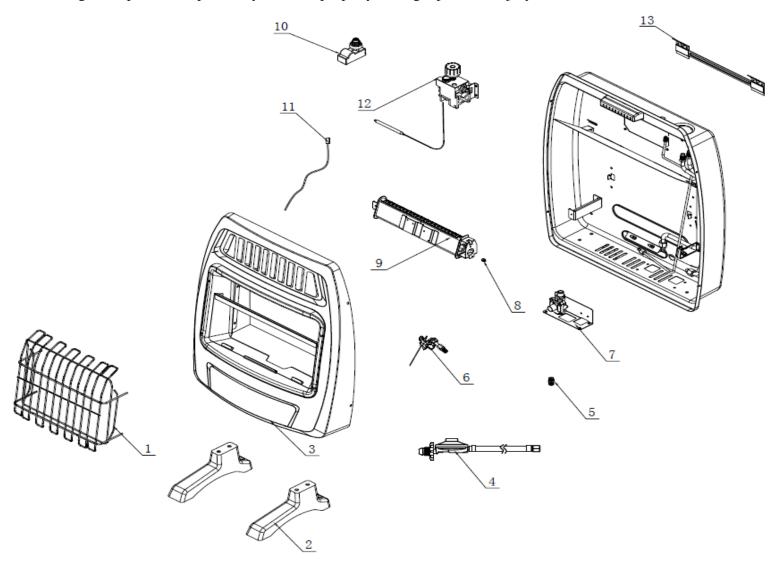
### TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION		
White powder resi- due forming within burner box or on adjacent walls or furniture.	1. When heated, the vapors from furniture polish, wax, carpet cleaners, etc., turn into white powder residue.	1. Turn heater off when using furniture polish, wax, carpet cleaner or similar products.		
Heater produces unwanted odors.	<ol> <li>Heater is burning vapors from paint, hair spray, glues, etc. See IMPORTANT state- ment, page 23.</li> <li>Gas leak. See Warning Statement, page 23.</li> <li>Low fuel supply.</li> </ol>	<ol> <li>Ventilate room. Stop using odor causing products while heater is running.</li> <li>Locate and correct all leaks (see "Checking Gas Connections," page 15).</li> <li>Refill supply tank (Propane).</li> </ol>		
Heater shuts off in use (ODS oper- ates).1. Not enough fresh air is available.2. Low line pressure. 3. ODS/pilot is partially clogged.		<ol> <li>Open window and/or door for ventilation.</li> <li>Contact local gas supplier.</li> <li>Clean ODS/pilot (see Care and Maintenance, page 23).</li> </ol>		
Gas odor exists even when control Knob is in OFF position	<ol> <li>Gas leak. See Warning Statement at top of page 23. defective.</li> </ol>	1. Locate and correct all leaks (see "Checking Gas Connections", page 15).		
Moisture/conden- sation noticed on windows.		1. Refer to "Air for Combustion and Ventilation" requirements, page 7.		
Slight smoke or odor during initial operation1. Residues from manufacturing process.		1. Problem will stop after a few hours of operation.		
Heater produces a whistling noise when burner is lit.	<ol> <li>1.Turning control knob to high (5) position when burner is cold.</li> <li>2. Air in gas line.</li> </ol>	<ol> <li>Turn control knob to low (1) position and let warm up for a minute.</li> <li>Operate burner until air is removed from line. Have gas line checked by local propane/LP gas company.</li> </ol>		
	<ol> <li>Air passageways on heater are blocked.</li> <li>Dirty or partially clogged burner orifice.</li> </ol>	<ul> <li>3. Observe minimum installation clearances (Fig. 3, page 10)</li> <li>4. Cleanburner(seeCareandMaintenance, page23)or contact customer service.</li> </ul>		

#### **REPLACEMENT PARTS LIST**

For replacement parts, call our customer service department at 0860 300 999.

**WARNING:** Only use genuine replacement parts from Megamaster. Using any parts other than the original replacement parts may result in property damage, personal injury or even death.



No.	Part(Description)	QTY	No.	Part(Description)	QTY
1	Front Grille	1	8	Replacement Orifice(LP)	1
2	Support Leg	2	9	Burner Assembly	1
3	Front Panel Assembly	1	10	Ignitor Module	1
4	Hose and regulator	1	11	ODS Connector Wire	1
5	Adapter	1	12	Thermostatic Valve	1
6	ODS-(LP)Propane Pilot	1	13	Wall Mounting Bracket	1
7	LP Regulator Assembly	1	14	*Hardware Pack	1

\*Item not shown in exploded parts diagram