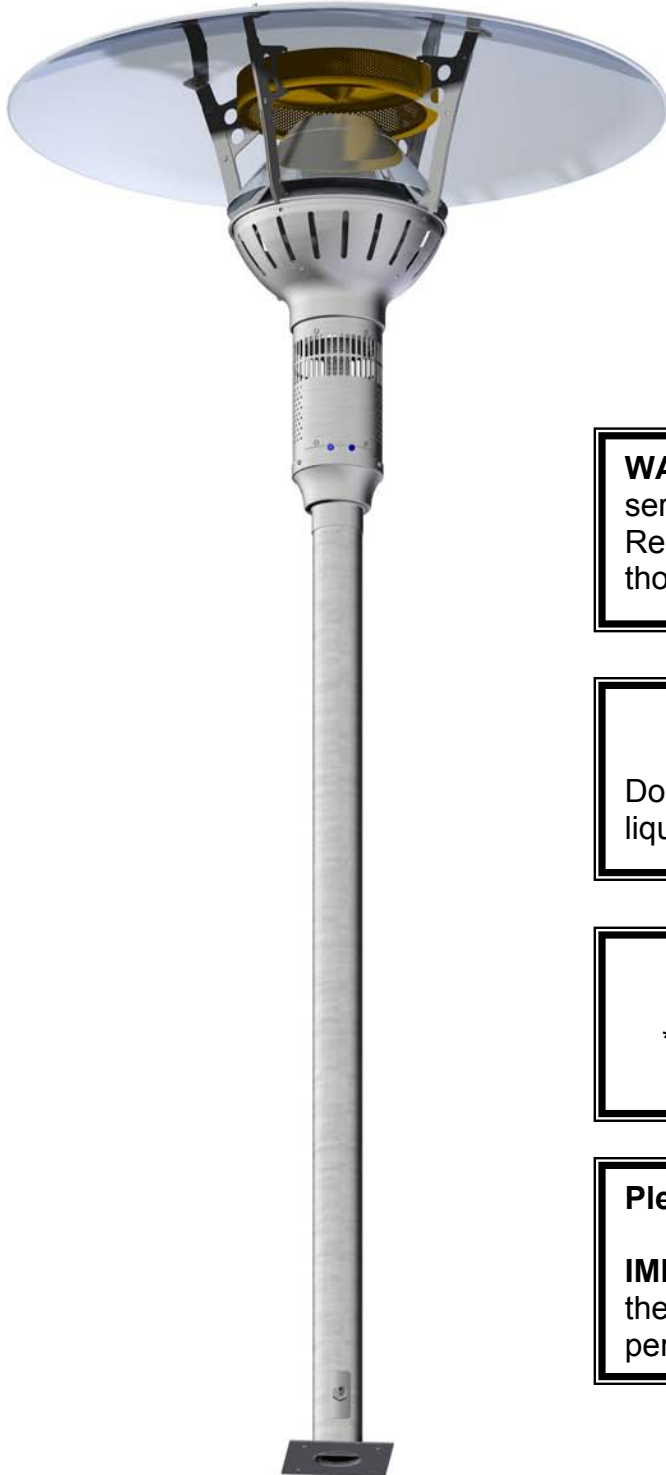




Model No. LHPM

Infrared Outdoor Patio Heater

Manual for Installation, Operation & Maintenance



FOR YOUR SAFETY

If you smell gas:

1. Shut off gas to appliance.
2. Extinguish any open flame.
3. If odor continues, immediately call your gas supplier.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

*FOR OUTDOOR USE ONLY

* The Lynx Patio heater has been approved for indoor use in **non-residential** applications (See page 8 for details)

Please retain these instructions for future reference.

IMPORTANT: The installer must leave these instructions with the owner. Only those who are certified to do so should perform service on these heaters.



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Caution and General Safety

CAUTION: FIRE OR BURN INJURY HAZARD

- At all times maintain clearance to combustible materials as further specified in this manual. Failure to do so can result in serious fire hazard.
- Never operate heaters in atmosphere containing flammable vapours or combustible dusts.
- This heater is equipped with an electronic and automatic ignition device. Do not attempt to light the burner by hand. Failure to comply can result in a serious fire and personal injury hazard.
- Certain materials, when stored under this heater are subjected to radiant heat can soften, distort or otherwise be damaged, special care should be taken of plastic materials
- Appliance surfaces, other than the obvious flame and emitter surfaces, attain elevated temperatures during operation. Do not touch the heater head during operation. Everyone should be alerted to this hazard to avoid burning.
- Children should be strictly supervised when in the area of this heating appliance. Playing or running around the structure should be strictly forbidden.
- Clothing or other flammable materials should not be hung on or near this heater.

What you will receive:

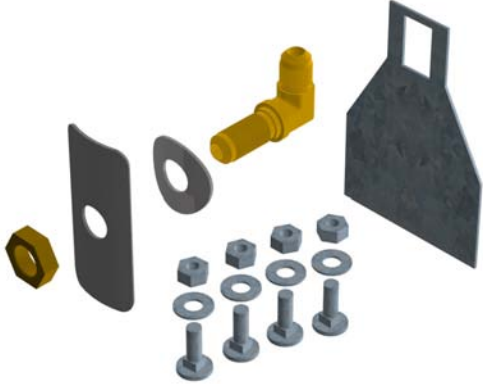


Heater head Assembly



Top Reflector

Pole Assembly

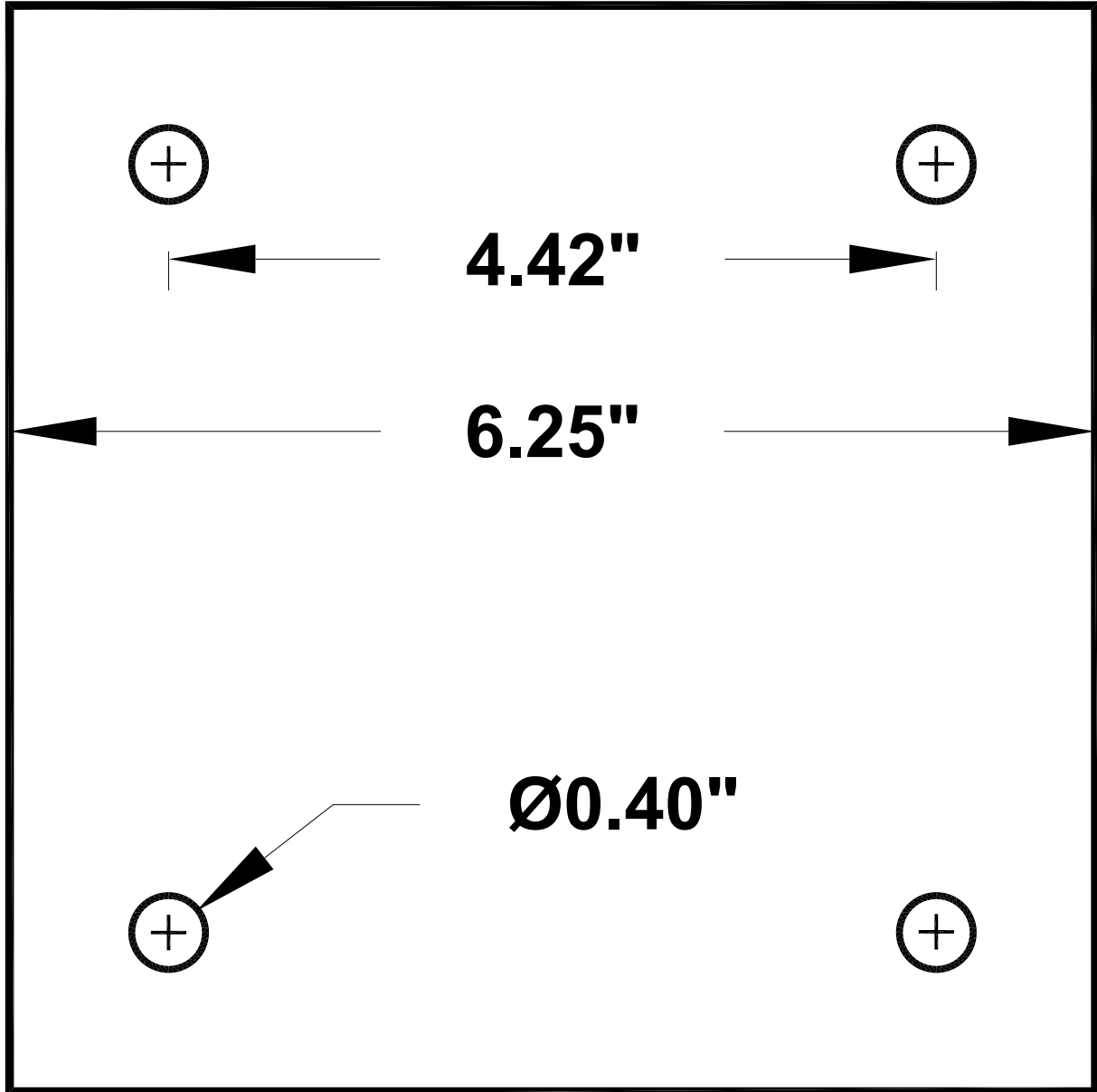


Hardware

Pre-installation Overview

Mounting Plate hole Pattern

(Full size)



What you need to Supply

What you need to Supply:

1. Heater post anchoring hardware.
2. Materials necessary to construct a concrete base for floor mounting.
3. Gas supply line that is installed to the Gas and Electric Supply according to the: National Fuel Gas Code, ANSI Z.223.1 (NFPA 54) in the US and CAN/CGA B149.1 and B149.2 Installation Codes in Canada.
4. Electrical supply rated at 24 Vac with two stage control

Location Planning

Wind protection has an important influence on the body's ability to retain radiant heat. Use natural or newly built wind barriers where possible, such as existing buildings, shrubbery or tree lines and fences

One Lynx Patio heater, at high fire and in windless conditions has a comfort radius of about twelve feet (24 ft. circle).

A series of heaters providing area heat should be placed about 14-20 feet apart.

WARNING!

This heater is NOT approved for any indoor Residential application. If in doubt of your application consult with your local fire marshal or gas authority having jurisdiction. Indoor spaces include but are not limited to attached garages, solariums, living quarters etc.

A patio that has been almost entirely closed in with a roof and windbreak walls or a tent may be considered an indoor location by some code authorities. The Lynx Patio heater has been approved for indoor use in non residential applications. Venting of the flue gases is accomplished by means of an interlocked fan. Refer to the National Fuel Gas Code, ANSI Z.223.1 (NFPA 54) in the US and CAN/CGA B149.1 and B149.2 Installation Codes in Canada.

1. Location Requirements:

- a. Never locate the heater directly below electrical lines, gas lines or sprinkler systems.

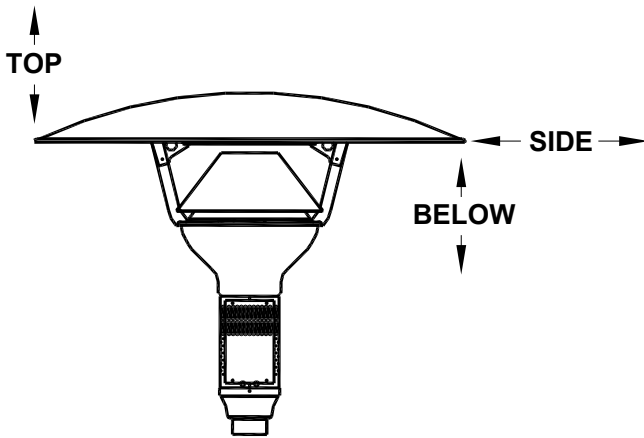
NOTE: Sprinkler head heat fuse link performance may alter with age.

- b. Do not locate heater too close to vinyl or plastic wall coverings. These materials may discolour or soften well before they reach combustible limits.
- c. Always allow room for removal of the top reflector and heater head for maintenance purposes.
- d. The heater aspirates air for combustion. Do not locate heater where there are severe draft conditions or airflow restrictions to the heater head base.

Clearance to Combustible Materials

The following clearance data is based on a maximum limit of 90°F plus ambient temperature. **Note with an ambient temperature of 70°F the surface temperatures at the clearance distances listed below could reach 160°F** Care should be taken with placement of plastic or vinyl in the proximity of the heater as they tend to distort and soften at these temperatures.

CLEARANCE TO COMBUSTIBLES



MODEL NO.	TOP	SIDES	BELOW
LHPM	18"	22"	33"

NOTE: Some materials deteriorate or soften at sustained temperatures below 160°F.
Consult material manufacturer for recommendations

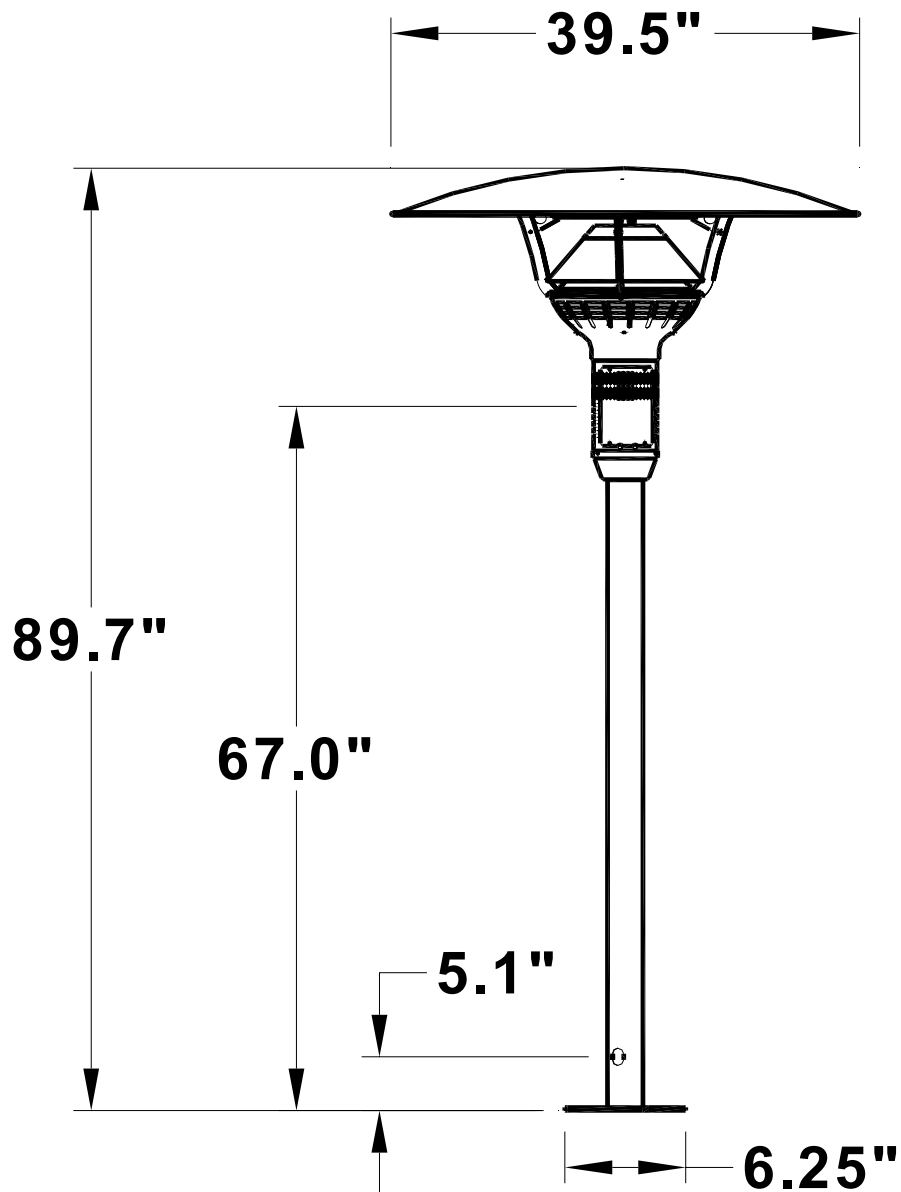
Installation Instructions

Installation must comply with local building codes and/or, for the USA/National Fuel Gas Code, ANZI Z 223.1 (NFPA 54) and for Canada, CAN/CGA B149.1 and B149.2, National Gas and Propane Installation Code (latest editions).

Appliance must be electrically grounded in accordance with local codes or, in their absence; the National Electrical Code, ANSI/NFPA 70 in the USA, CSA C221.1 Canadian Electrical Code in Canada.

Equipment Dimensions

Floor mount model # LHPM



Power/Gas Specifications

High fire rate:		53,000 btuh
Low fire rate:		46,000 btuh
Gas supply pressure:	Minimum	Maximum
Natural Gas:	Minimum 6.5 " W.C.	14" W.C.
Electric Supply:	24 VAC, 0.8A	

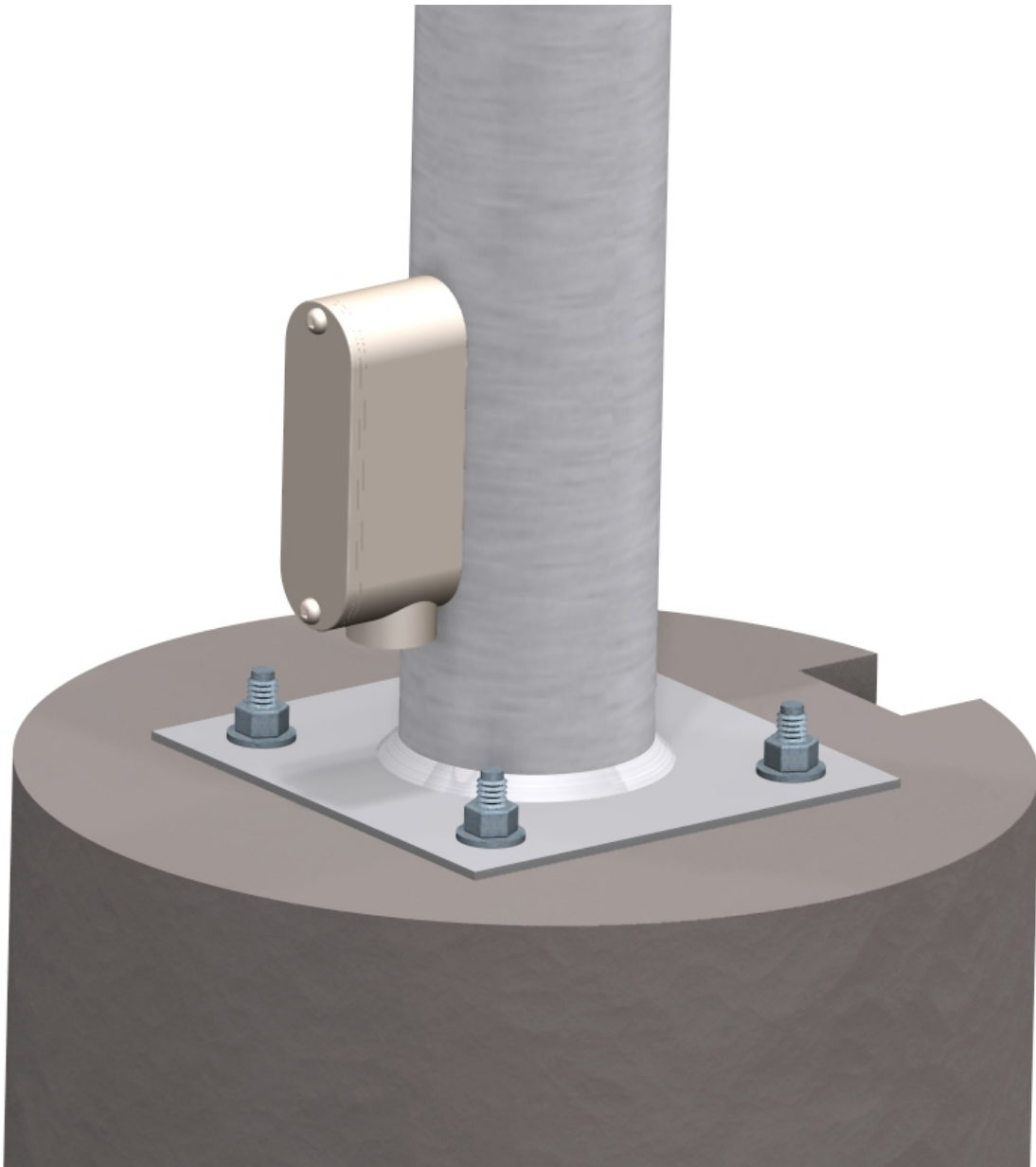
Installation or repair should only be done by personnel qualified for the installation of powered gas appliances.

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

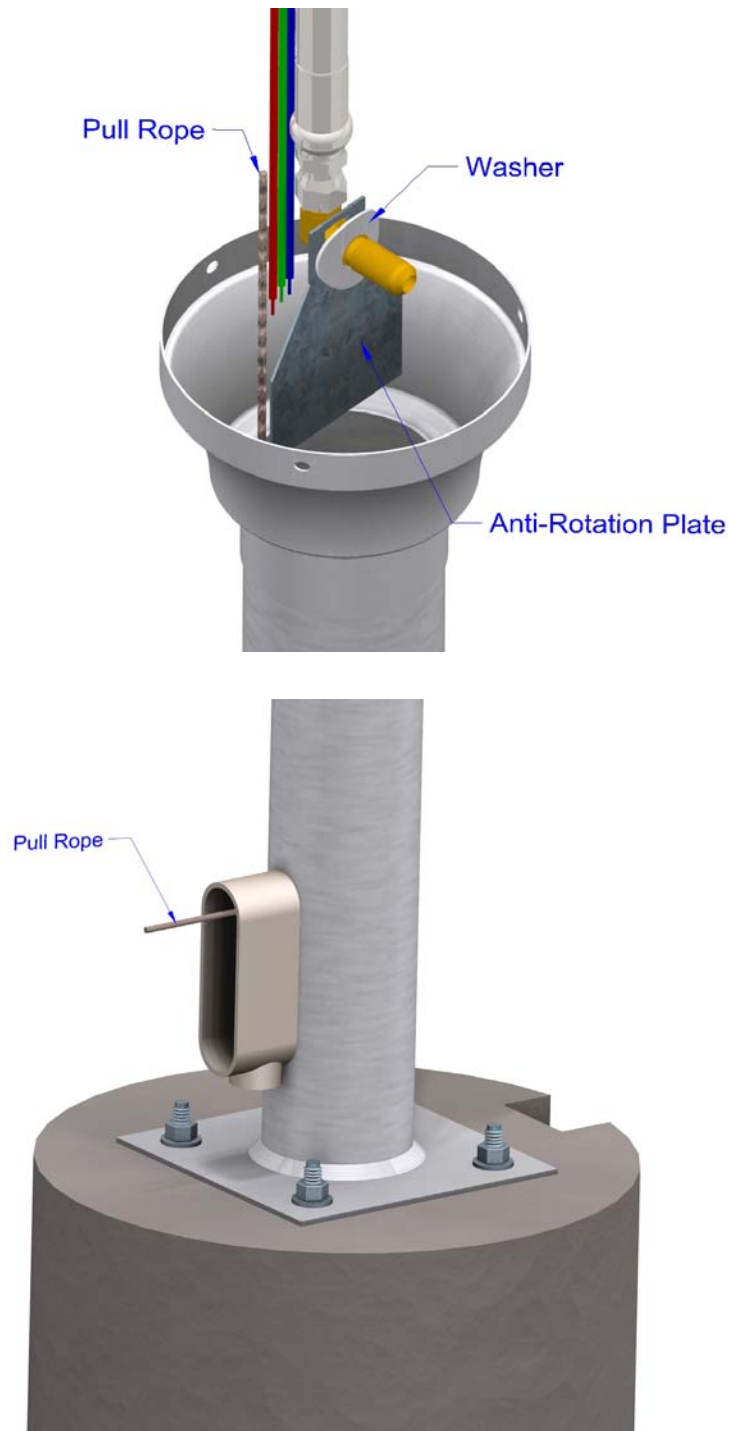
The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than $\frac{1}{2}$ psig (3.5 KPa)

Assembly

- a. Mount pole base onto a concrete floor or cast concrete with a minimum below grade depth of 12" and having a 12" diameter. If forming concrete, cast in place appropriate passage for gas and control wires. Use minimum 3/8" x 5" 90° lag bolts or equivalent to mount heater base to the concrete base. The pole base could also be mounted on wood decks with 3/8" bolts and lock washers on the underside of the deck. Periodically check for tightness when mounted to a wood deck.



- b. Arrange the burner head such that the wires and gas hose are arranged as illustrated. Feed a pull wire through the pole to assist in pulling the three power wires into the pole and through the junction box. Firmly tape the pull wire to the power wires. Lower the assembly into place while pulling the wires. Two people may be necessary for this operation.

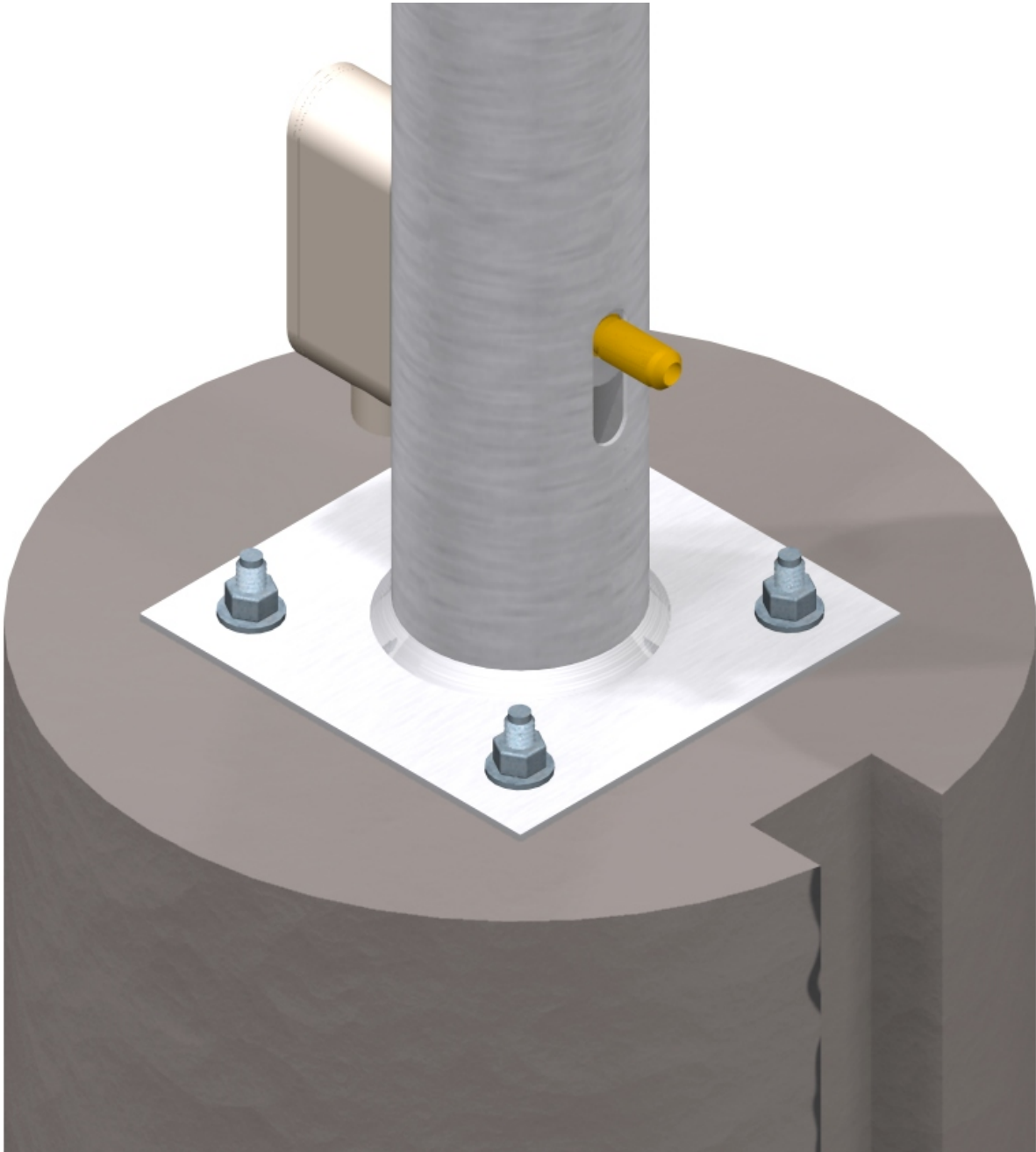


Assembly

- c. Secure burner head to pole with three #8 screws provided.

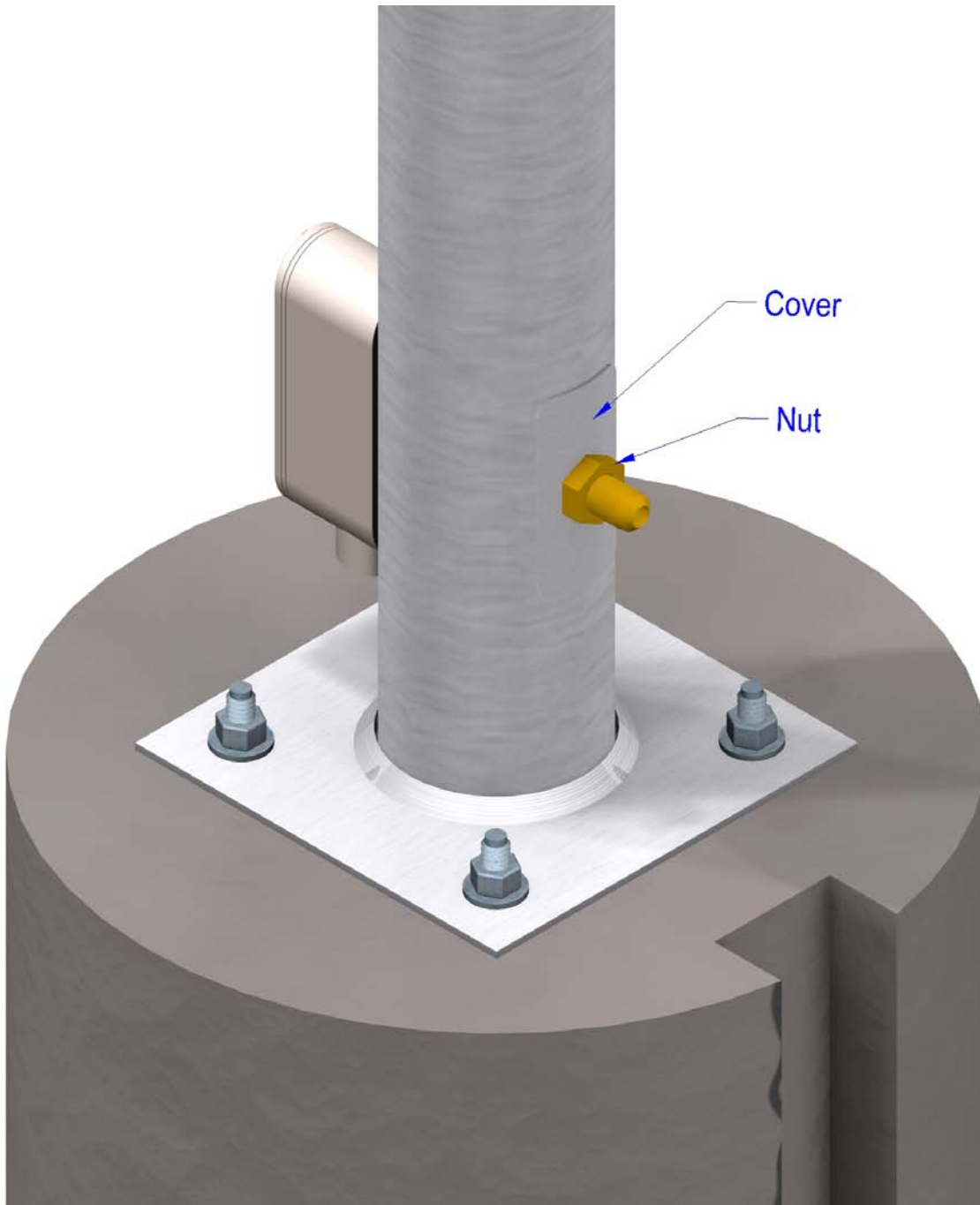


- d. Push the gas connection into the slot buy slightly pushing on the gas line through the electrical box. The gas fitting should be positioned as illustrated below.



Assembly

- e. Place gas connection cover onto the fitting and install the nut to fasten the cover assuring the nut is properly seated. See below.



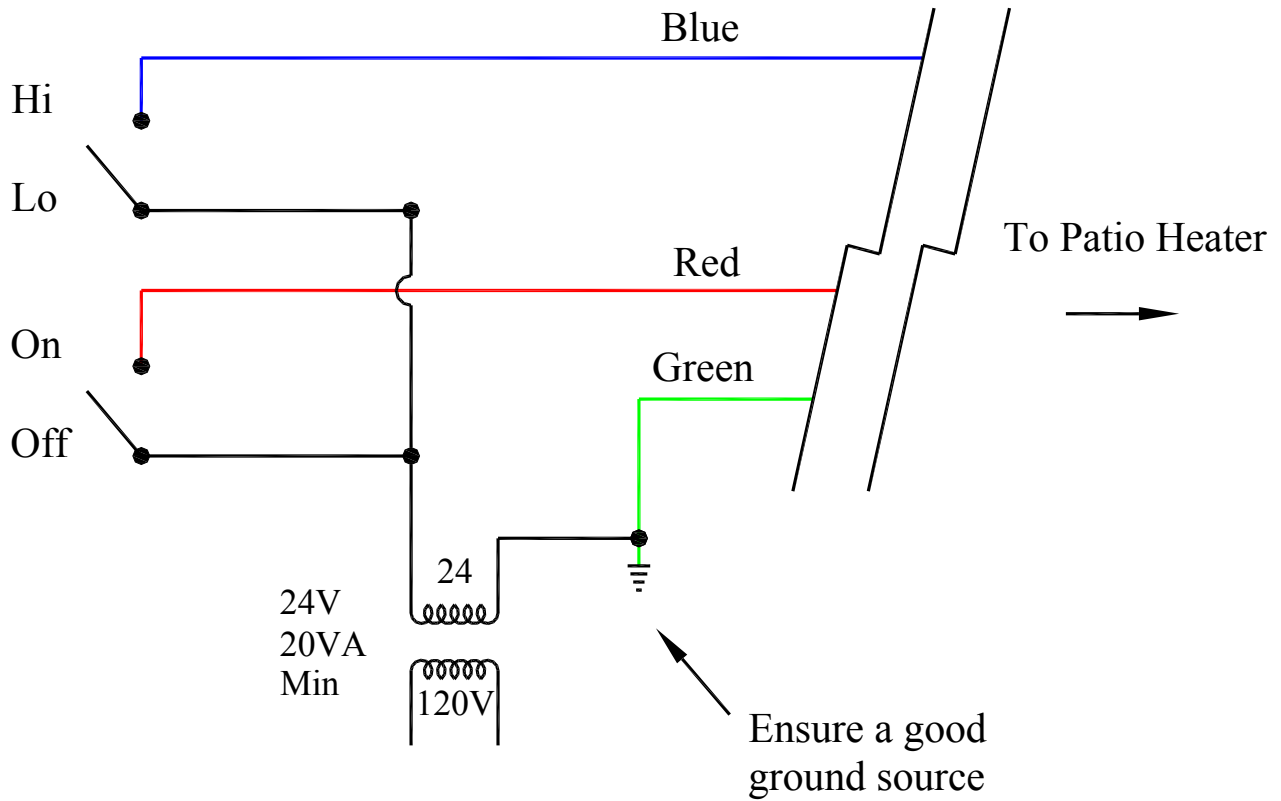
- f. Install reflector using the four carriage bolts, nuts and washer provided.



- g. Connect gas supply and electric power following all local codes. Pressure test all gas connections.

Wiring

This appliance requires a 24 volt AC supply with a minimum 20 VA capacity. Below is a suggested control circuit for operating this appliance. The switching mechanisms may also be Timers



Lighting and Shutdown Instructions

1. Lighting

- a. Open manual gas supply valve (ensure gas supply lines have been purged).
- b. Turn on switch to energize electric supply.
- c. The electronic control module will time begin the ignition period in 3 seconds.
- d. The gas valve will open and ignition spark will commence and continue for 20 sec.
- e. If flame starts and “is detected”, flame will continue until turned off.
- f. If no flame is detected, the gas valve will close after 20 sec. A “wait” period commences and lasts approximately 5 sec. and a second trial for combustion commences. The electronic control will attempt three trials for ignition before locking out for approximately 5 minutes at which time it will automatically try again.

Electronic control of heater can be re-set by de-energizing and re-energizing electric power.

2. Shut Down

- a. Turn off power to electronic control.
- b. For longer periods of shut down, also close manual gas supply valve.

Maintenance and Trouble Shooting

Maintenance

- Before performing any service shut off gas and electric supply.
- Check condition of burner, especially integrity of flame screen.
- Inspect condition of spark and sense electrode. Check for cracks in ceramic insulators or excessive corrosion.
- Inspect condition of high tension lead to spark rod.
- Annually verify hose gas supply in heater post and all connections for gas leaks.

Trouble Shooting

1. No gas supply at burner:

- Ensure manual shut off valve is in proper position
- Ensure there is pressure and flow at inlet to gas valve.
- Ensure gas valve gets 24v power from control module during ON cycle.

2. No spark:

- Ensure control module has 24VAC supply
- Ensure spark electrode assembly is grounded and there are no cracks in ceramic insulator.

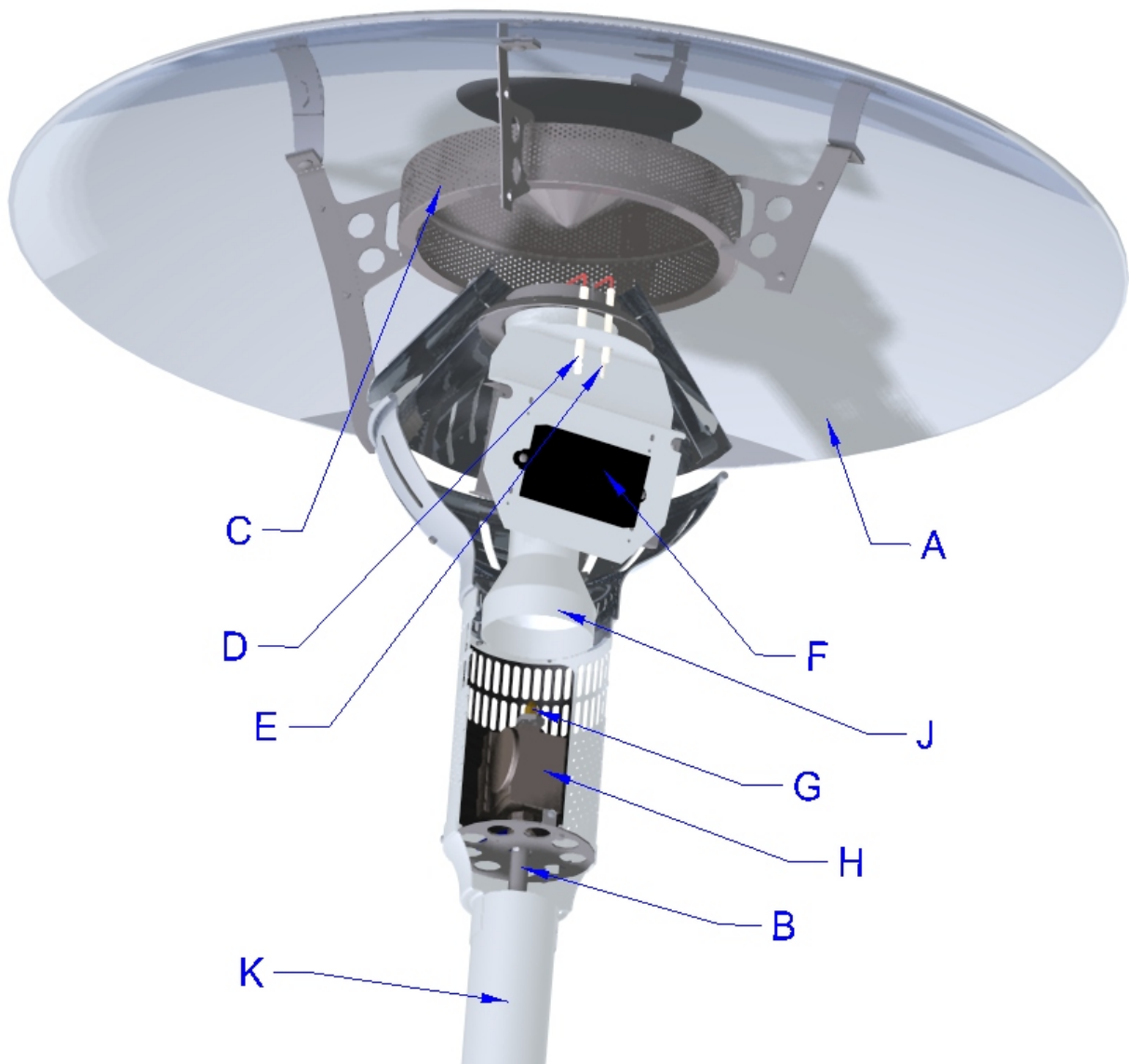
3. Flame lights but will not stay lit:

- Ensure there is no overpowering wind.
- Ensure sense electrode is not corroded, is not grounded or has a cracked insulator. Electrode position is radially across face of burner.

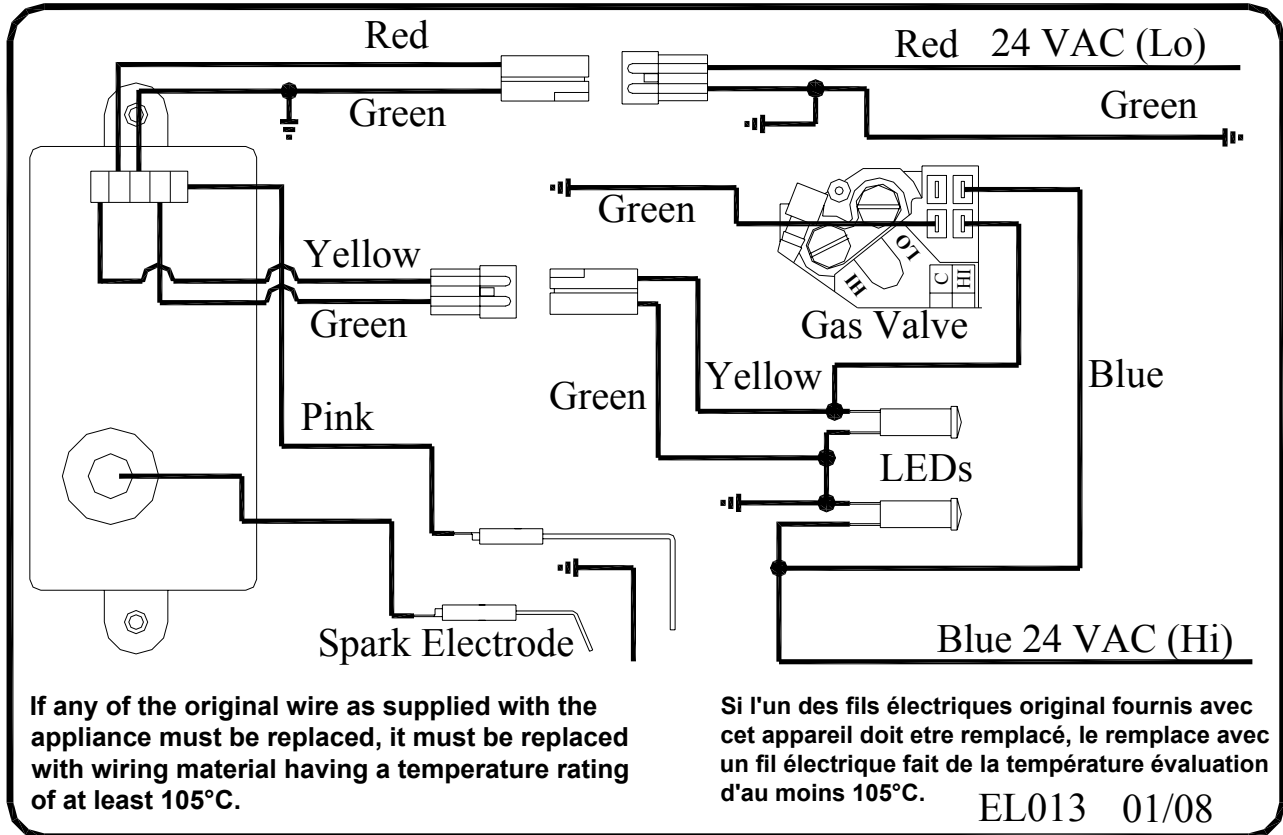
Parts List

Item	Description	Part #
A	Reflector package	ES041
B	Gas Hose Assembly	EG014
C	Emitter	ES011
D	Flame Sensor	EE002
E	Spark Electrode	EE001
F	Electronic Control Module	EE009

Item	Description	Part #
G	Orifice Nat Gas	EG002
H	Gas Valve Assembly	EG007
I	Indicator Light	EE010
J	Burner assembly	EG008
K	Pole Package	ES066
M	Ignition wire	EE005



Internal Wiring



MODEL No. LHMP LYNX PATIO HEATER WARRANTY

The Manufacturer warrants to the original owner that the product will be free of defects in material and workmanship for a period of 5 years from the date of purchase, for everything except the electronic control module, spark electrode, and sense electrodes which have a replacement warranty period of 3 years.

The Manufacturer's obligation under this warranty is limited to repair or replacement; FOB its facility, of the defective part. In the case of replacement parts the warranty period shall be the longer of the original warranty or a period of 12 months from the date of purchase. In no event shall the Manufacturer be liable for incidental expense or consequential damages of any kind.

This warranty does not cover any shipping, installation or other costs incurred in the repair or replacement of the product. No materials will be accepted for return without authorization.

This warranty will not apply if, in the judgement of the Manufacturer, the equipment has been improperly installed, unreasonably used, damaged or modified.

This warranty will not apply to damage to the product when used in corrosive atmospheres. No person is authorised to assume for the Manufacturer any other warranty, obligation or liability.

THE REMEDIES PROVIDED FOR IN THE ABOVE EXPRESS WARRANTIES ARE THE SOLE AND EXCLUSIVE REMEDIES. NO OTHER EXPRESS OR IMPLIED WARRANTIES ARE MADE INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE.