



- ⚠ DANGER:** If you smell gas:
1. Shut off gas to appliance.
 2. Extinguish any open flame.
 3. If odour 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 vapours and liquids in the vicinity of this or any other appliance. An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

* **⚠ FOR OUTDOOR USE ONLY:** The evenGLO® heater has been approved for indoor use in non-residential applications. (See page 8 for details) for natural gas units ONLY!

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

Please retain these instructions for future reference.



563 Barton Street
Stoney Creek ON L8E 5S1 Canada
www.irenergy.ca



Table Of Contents

CAUTION AND GENERAL SAFETY	3
PRE-INSTALLATION OVERVIEW	4-8
WHAT YOU WILL RECEIVE	4,5,6
MOUNTING PLATE HOLE PATTERN.....	7
WHAT YOU NEED TO SUPPLY	8
LOCATION PLANNING	9
GENERAL LOCATION LAYOUTS	9
SAFETY REQUIREMENTS	9
SPECIFICATIONS / DETAILS	10-15
EQUIPMENT DIMENSIONS.....	10.11.12
Portable models # GA301 & GA301 - T	10
Floor mount models # GA301- H.....	11
Hanging model # GA301- M & GA301 - MP	12
CLEARANCE TO COMBUSTIBLES.....	14
INSTALLATION / CODE REQUIREMENTS	15
POWER & GAS SPECIFICATIONS.....	16
ASSEMBLY & INSTALLATION INSTRUCTIONS.....	16-36
PORTABLE.....	16-20
FLOOR MOUNT.....	21-26
CEILING MOUNT	27-34
HEATER POSITION	35
SECURE HEATER.....	36
LIGHTING & SHUTDOWN INSTRUCTIONS.....	37-38
LIGHTING.....	37
SHUT DOWN	37,38
MAINTENANCE & TROUBLESHOOTING	39-43
MODELS GA301, GA301-T & GA301-H	39
MODELS GA301-M & GA301-MP	40,41,42,43
PARTS LIST.....	44-47
MODELS GA301-H	44
MODELS GA301-U, GA301-T	45
MODELS GA301-M & GA301-MP	46,47
WIRING DIAGRAMS	48-50
WARRANTY	51

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.

Pre-installation Overview

What You Will Receive:

➤ evenGLO GA301 Models U & T:

Heater Head with Gas Hose and Hardware



Top Reflector with Hardware



Fixed Mounting Pole with Hardware



Pre-installation Overview

What You Will Receive:

➤ evenGLO GA301 Model MP:

Bottom Base with Top Cover, Wheel Kit and Hardware



Heater Head with Hose and Hardware

Top Reflector with Hardware



Fixed Mounting Pole with Detachable Pole Neck and Hardware



Pre-installation Overview

What You Will Receive – CONTINUED:

➤ evenGLO GA301 Model MP: Hose Kits

DESCRIPTION	PART #	
	<i>EG065 – 12' HOSE KIT</i>	<i>EG066 – 15' HOSE KIT</i>
**NG REGULATOR	✓	✓
QD SOCKET – 1/2" – NG	✓	✓
REGULATOR MOUNTING BRACKET w/ 1/2" CLOSE NIPPLE	✓	✓
1/2" X 12' NG SUPPLY HOSE	✓	
1/2" X 15' NG SUPPLY HOSE		✓

**** NG Regulator will be secured in position on the Mounting Bracket w/ Nipple attached.**



1/2" QD Socket
NG Regulator w/Mounting Plate



NG Supply Hose



and 1/2" Close Nipple

Pre-installation Overview

Hardware Kits

MODEL GA301-MP:

EH001: Top Reflector to Support Arms (*Blue Tape*)

- ✓ EH027: 1/4"-20 x 1/2" S.S Carriage Bolt (x4), CH143: 1/4" S.S Flat Washer (x4), EH028 1/4"-20 S.S Acorn Nut (x4)

EH084: Housing Top Cover to Base Housing (*Yellow Tape*)

- ✓ EH042: 8-32 x 3/8" 18-8 S.S Button Socket Cap Screw (x4), EH062: 3/32" Allen Key (x1)

EH085: Heater Head to Pole Neck (*Green Tape*)

- ✓ EH041: #10 – 24 S.S Button Socket Cap Screw (x4), EH080: #10 S.S Internal Lock Washer (x4), EH063: 1/8" Allen Key (x1)

EH086: Pole Flange to Bottom Base (*Black Tape*)

- ✓ EH057: 3/8" – 16 S.S Nylon Insert Lock Nut (x4), EH056: 3/8" S.S Flat Washer 0.875" OD (x4)

EH087: Pole Neck to Pole (*Orange Tape*)

- ✓ EH070: 5/16" – 18 X 1/2" 18 – 8 S.S Button Socket Cap Screw (x4), EH081: 5/16" S.S Internal Lock Washer (x4) EH072: 5/16" – 18 Brass Nylon Insert Lock Nut (x4), EH088: 5/16" Allen Key (x1)

MODEL GA301-M:

EH001: Top Reflector to Support Arms (*Blue Tape*)

- ✓ EH027: 1/4"-20 x 1/2" S.S Carriage Bolt (x4), CH143: 1/4" S.S Flat Washer (x4), EH028 1/4"-20 S.S Acorn Nut (x4)

EH021: Pole Package

MODEL GA301-U, GA301-T:

EH001: Top Reflector to Support Arms (*Blue Tape*)

- ✓ EH027: 1/4"-20 x 1/2" S.S Carriage Bolt (x4), CH143: 1/4" S.S Flat Washer (x4), EH028 1/4"-20 S.S Acorn Nut (x4)

EH021: Pole Package

MODEL GA301-H

EH001: Top Reflector to Support Arms (*Blue Tape*)

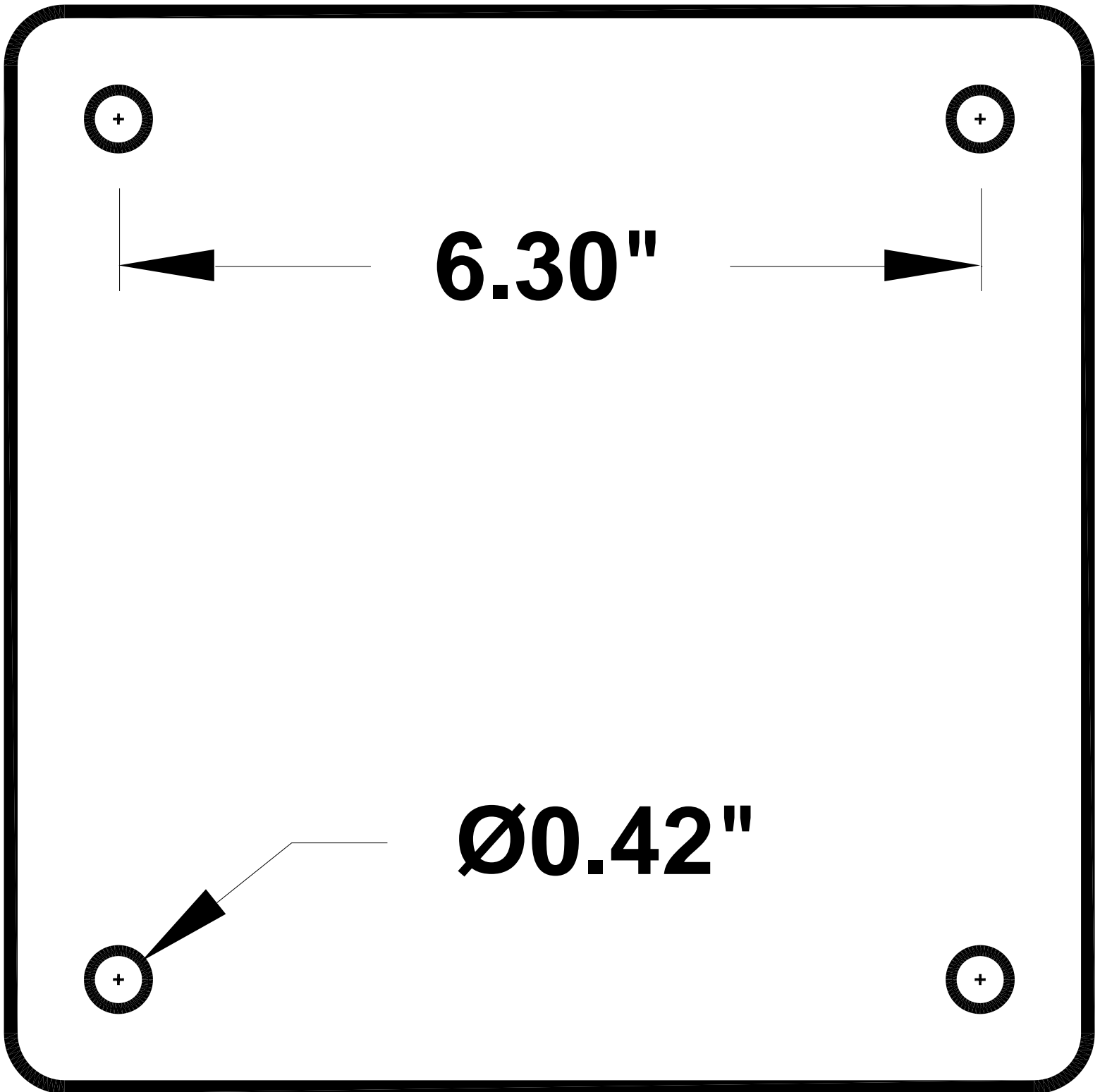
- ✓ EH027: 1/4"-20 x 1/2" S.S Carriage Bolt (x4), CH143: 1/4" S.S Flat Washer (x4), EH028 1/4"-20 S.S Acorn Nut (x4)

EH022: Hanging Package

Pre-installation Overview

Mounting Plate Hole Pattern

(Full size)



Pre-installation Overview

What You Need to Supply

1. Heater anchoring hardware for either the moveable base, flange base mount or the hanging model.
2. Materials necessary to construct a concrete base for floor mounted model for GA301-U & GA301-T only.
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 Natural Gas and Propane Installation Code, CSA B149.1 or Propane Storage and Handling Code, B149.2 in Canada.
4. Electrical supply rated at 24 VAC with two stage control for GA301-U, GA301-H & GA301-T only.

Location Planning

General Location Layouts

One Even-GLO 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**.

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. A clear plastic six-foot fence is used in some commercial restaurants to give an open look while giving good wind protection.

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 Even-GLO heater has been approved for indoor use in non-residential applications (Natural Gas Models ONLY). 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.

Safety Requirements

1. Never locate the heater directly below electrical lines, gas lines or sprinkler systems.
2. Do not locate heater too close to vinyl or plastic wall coverings. These

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

materials may discolour or soften well before they reach combustible limits.

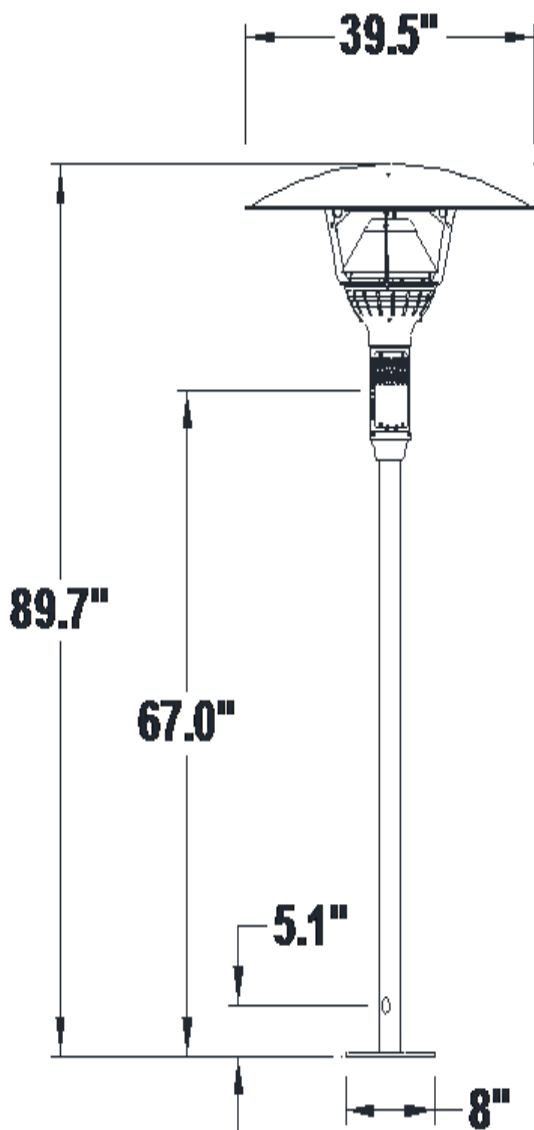
3. The heater requires a minimum clearance from combustible materials. See the Clearance to Combustible Materials section for specific requirements.
4. Always allow room for removal of the top reflector and heater head for maintenance purposes.
5. The heater aspirates air for combustion. Do not locate heater where there are severe draft conditions or airflow restrictions to the heater head base.

Specifications / Details

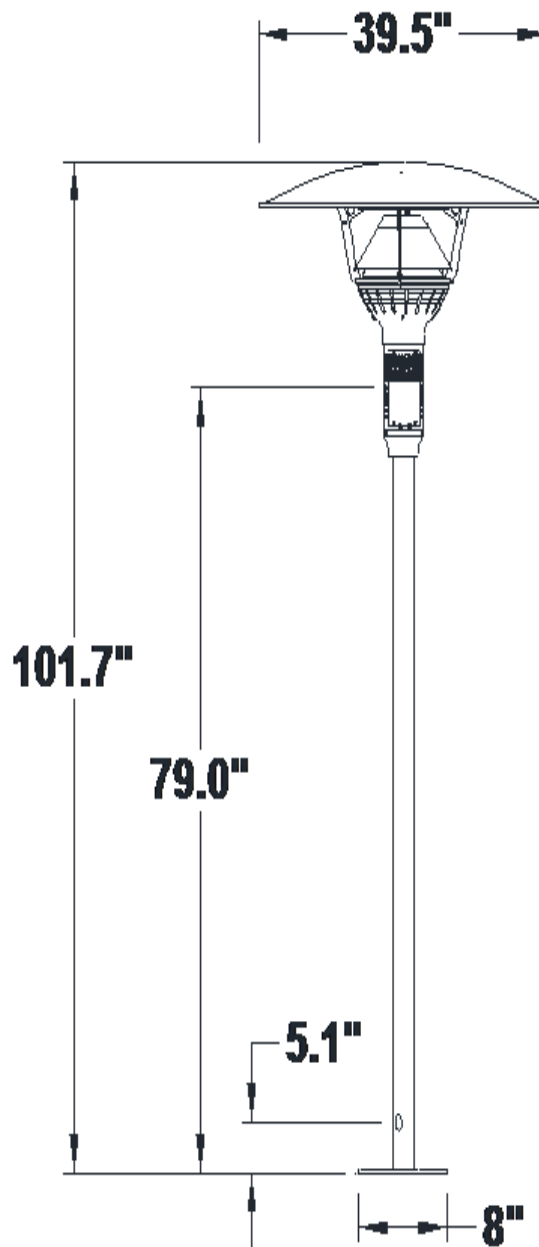
Equipment Dimensions

Floor mount models

Model GA301

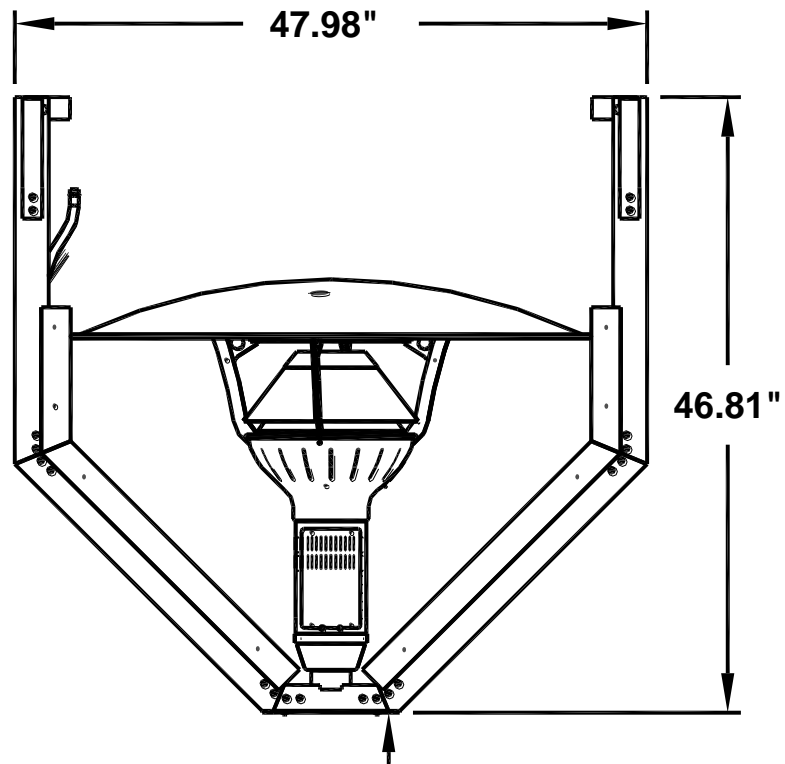
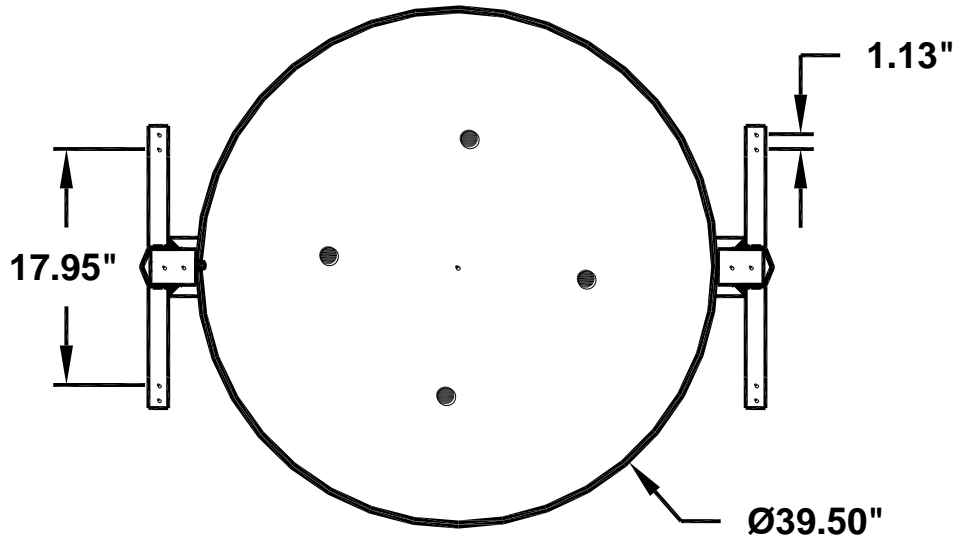


Model GA301-T



Specifications / Details

Hanging model GA301- H



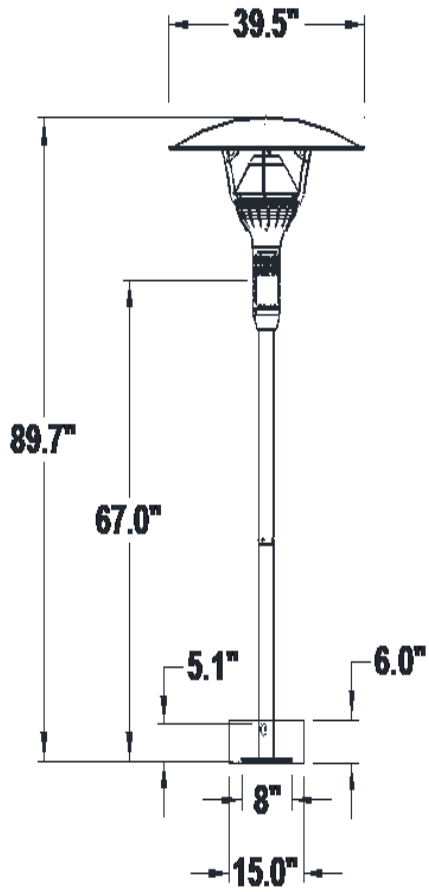
6 Feet Minimum Clearance Below



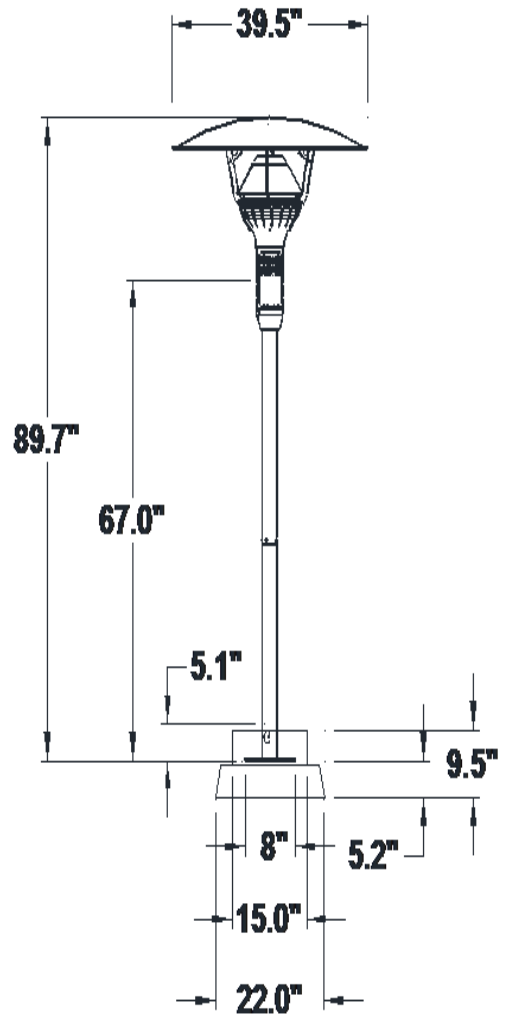
Specifications / Details

Portable model GA301- M & GA301- MP

Model GA301- M



Model GA301- MP



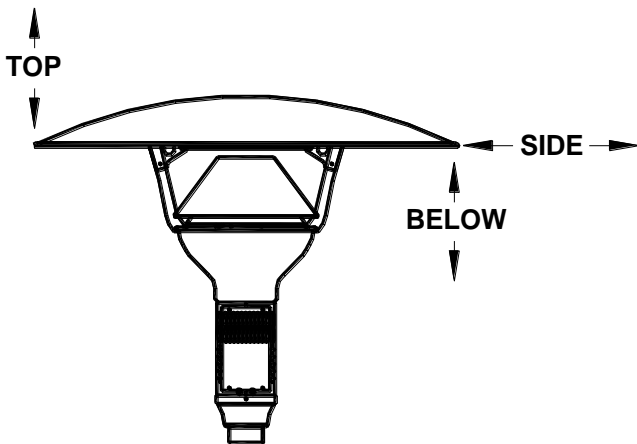
Clearance to Combustibles

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.

The **INSTALLER** is responsible to ensure that building materials with a low heat tolerance which may degrade at higher temperatures are protected to prevent degradation.

CLEARANCE TO COMBUSTIBLES



MODEL NO.	TOP	SIDES	BELOW
GA 301	18"	22"	33"
GA 301 H	18"	22"	33"
GA 301 T	18"	22"	33"

MODEL NO.	TOP	SIDES	BELOW
GA301-M	18"	22"	33"
GA301-MP	18"	22"	33"

Specifications / Details

Installation / Code Requirements

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 C22.1 Canadian Electrical Code in Canada.

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

Portable Models (GA301M & GA301MP)

Secure Wheels to Bottom Base

- a) Flip Over Base



- b) Line-up holes and press Carriage Bolt through Wheel Bracket and Bottom Base. Place Lock Washer over threads of Carriage Bolt and hand tighten Nut.



- c) Tighten Nut with Wrench while making sure Carriage Bolt is properly secured and not spinning.



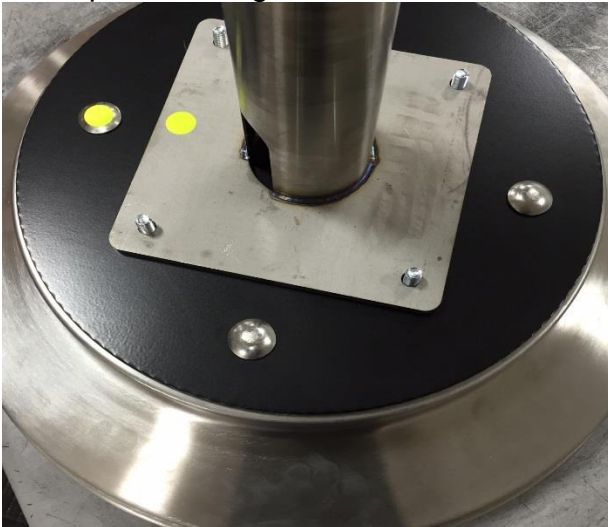
Portable Models (GA301M & GA301MP)

Secure Pole and Regulator Bracket to Bottom Base

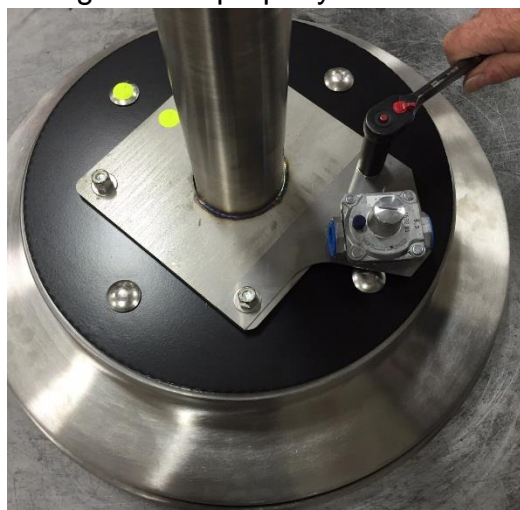
- a) Flip Base right side up, remove Bottom Housing Assembly and place Pole on the 4 threads of the Elevator Bolts.



- b) Line up Pole Flange indication dot with the Bottom Base indication dot.



- c) Position the Regulator Bracket relative to the indication dots, as shown. Tighten Nut with a 9/16 Socket while making sure Carriage Bolt is properly secured.



Portable Models (GA301M & GA301MP)

Secure Pole Neck to Pole

- a) Slide Bottom Housing Assembly down Pole



- b) Place Pole Neck in Pole, Line-up the 4 holes, place Button Socket Cap Screws into holes and place Internal S.S Lock Washer over threads inside Pole and hand tighten Nylon Insert Brass Nuts



- c) Tighten Nut with Wrench while making sure Button Socket Cap Screw is properly secured and not spinning.



Portable Models (GA301M & GA301MP)

Secure Heater Head to Pole Neck

- a) Place Heater Head on Pole Neck and line-up the holes.



- b) Hand tighten the 4 Button Socket Cap Screw into weld nuts on Heater Head. Tighten with Allan Key provided



Portable Models (GA301M & GA301MP)

Secure Top Reflector to Heater Head

- a) Peel plastic off 39" Top Reflector



- b) Place Top Reflector onto Heater Head and line-up 4 holes to 4 Arms of Heater Head. Place S.S Carriage Bolt through Arm and Top Reflector.



- c) Place S.S Flat Washer over threads of S.S Carriage Bolt and tighten S.S Acorn Nut



Floor Mount Models (GA301-U & GA301-T)

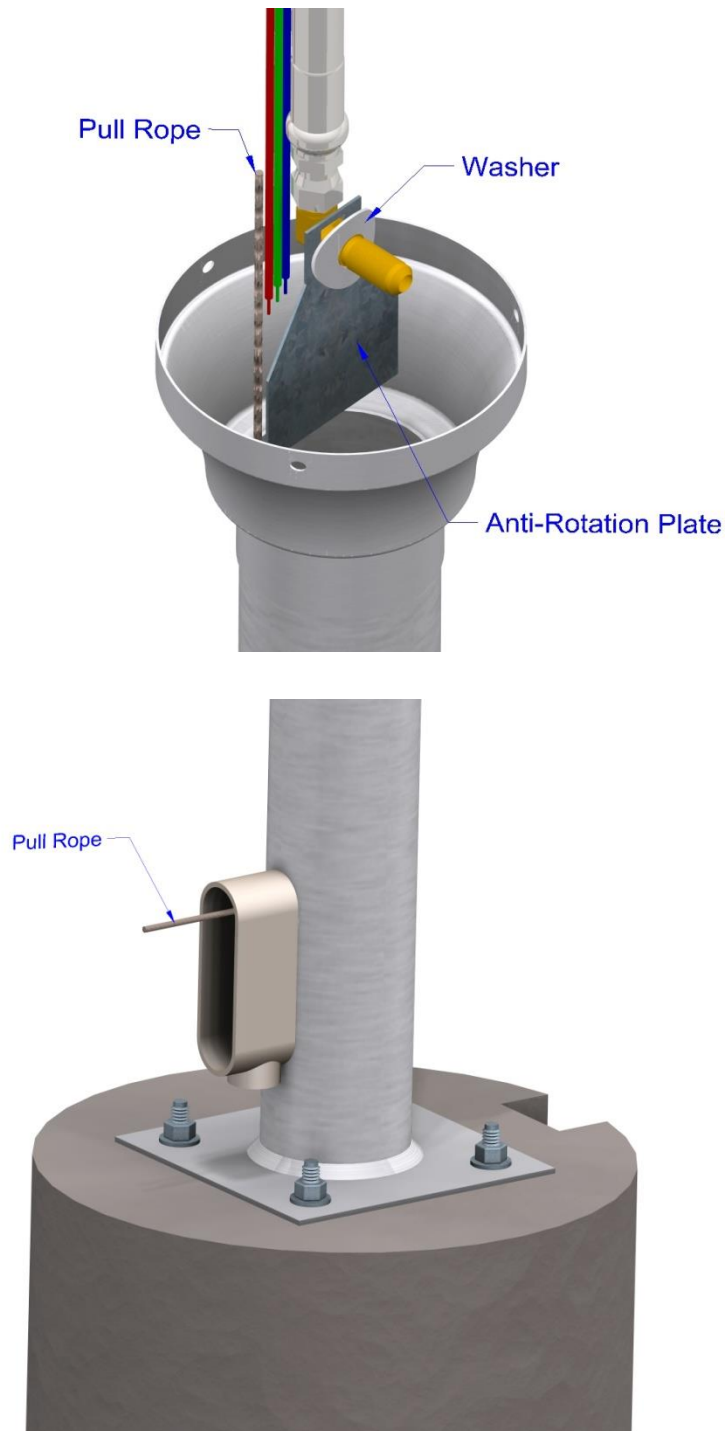
Floor Mount

- 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.



Floor Mount Models (GA301-U & GA301-T)

- 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.



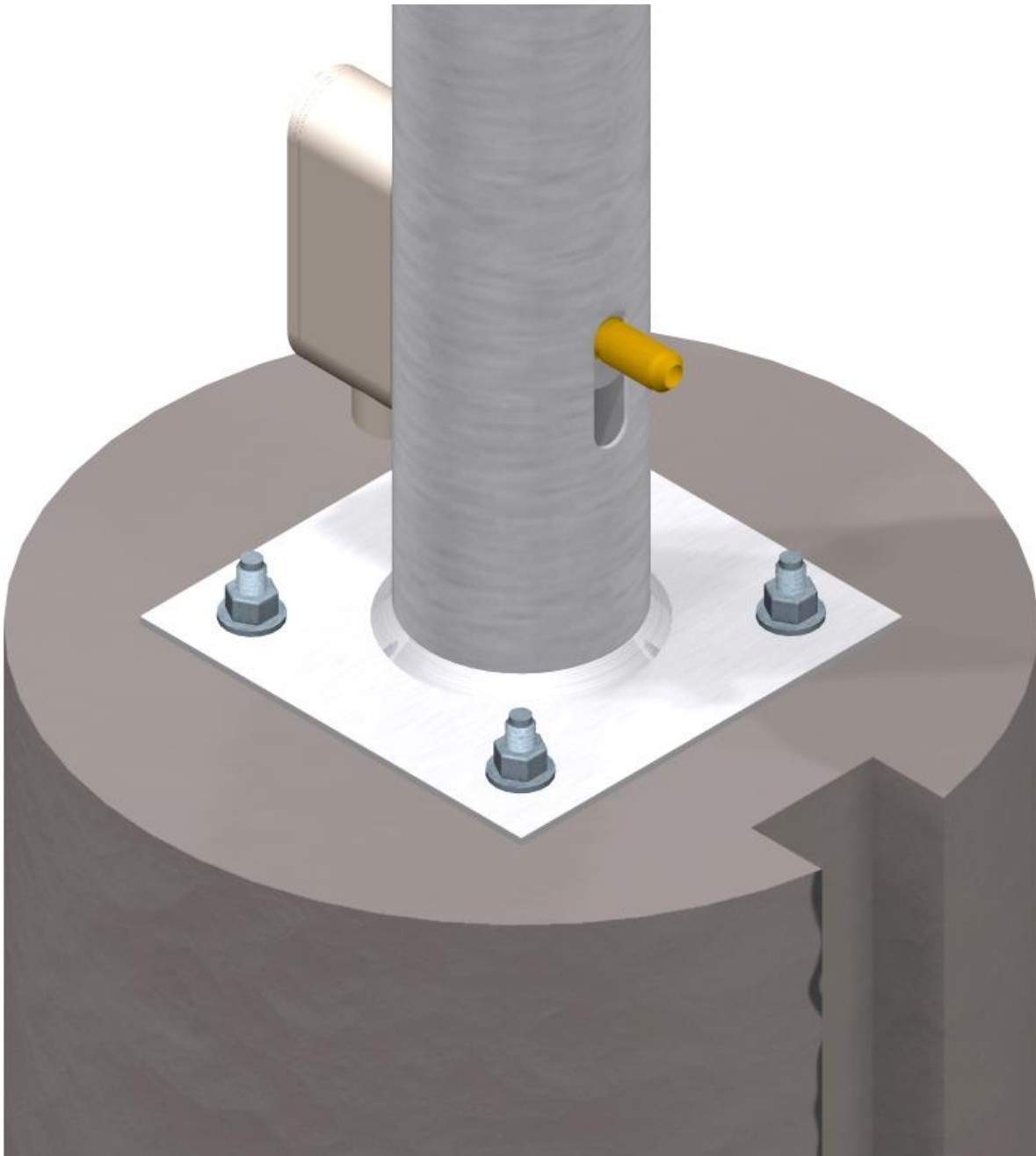
Floor Mount Models (GA301-U & GA301-T)

- c. Secure burner head to pole with three #10 screws provided.



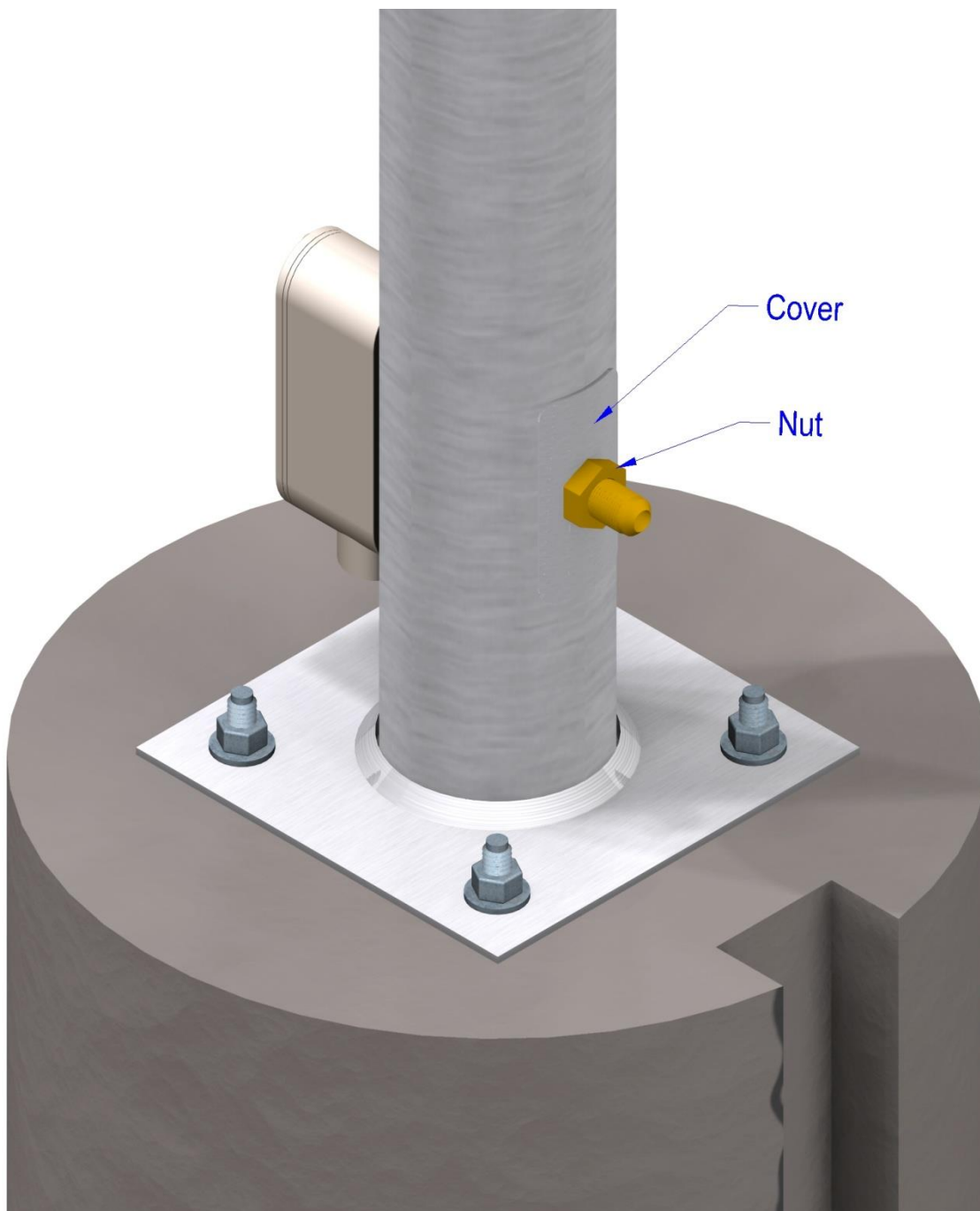
Floor Mount Models (GA301-U & GA301-T)

- 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.



Floor Mount Models (GA301-U & GA301-T)

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



Floor Mount Models (GA301-U & GA301-T)

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



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

Hangng Model GA301H

Ceiling Mount



A. Disconnect gas hose from reducing coupling.

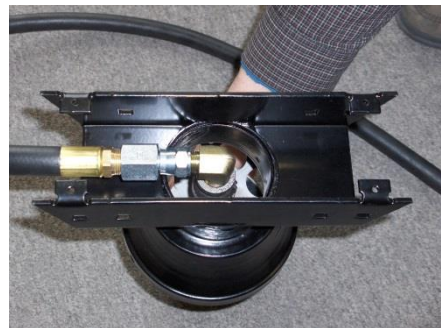


B. Connect Flared Elbow to reducing coupling and align elbow to point at a right angle to heater door opening.

C. After inserting heater assembly into frame base, connect the Swivel Fitting on the opposite end of the gas hose to the Flared Elbow.



The picture to the right shows how it should look like.



Note: All gas connections must be done according to local and national codes. Also, all new connections must be leak tested.

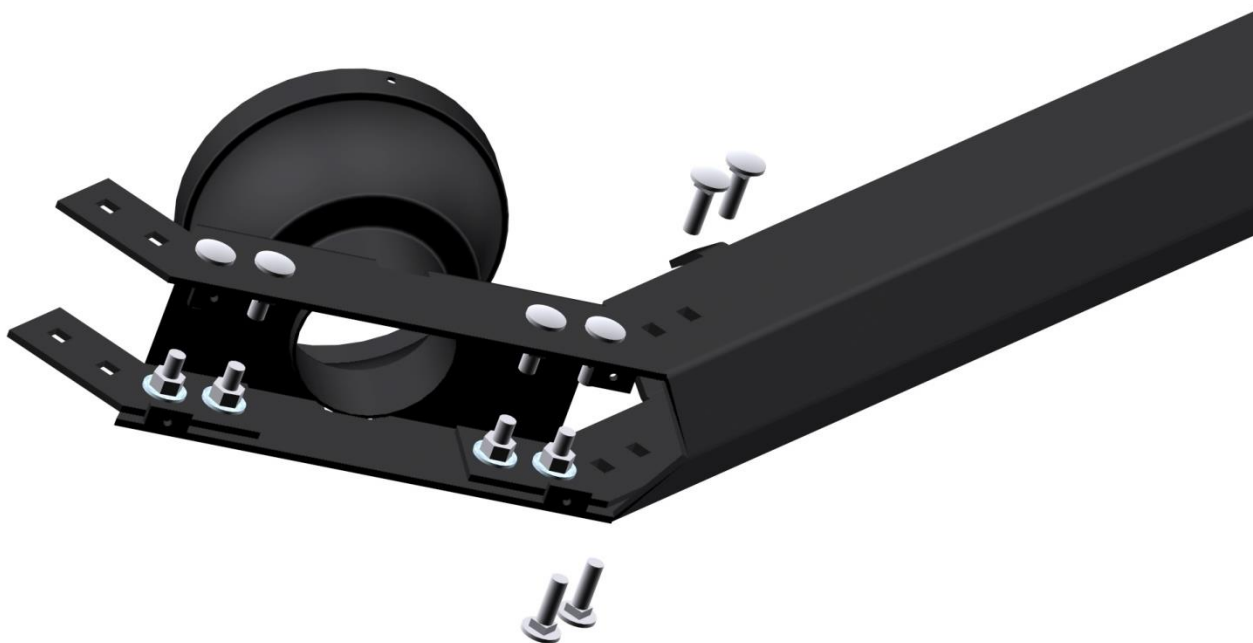
Hanginɡ Model GA301H

1. Assemble 4 gusset plates to the base as illustrated. Use 5/16" carriage bolts with washers and nuts.



Hangng Model GA301H

2. Assemble angular arms to the base.

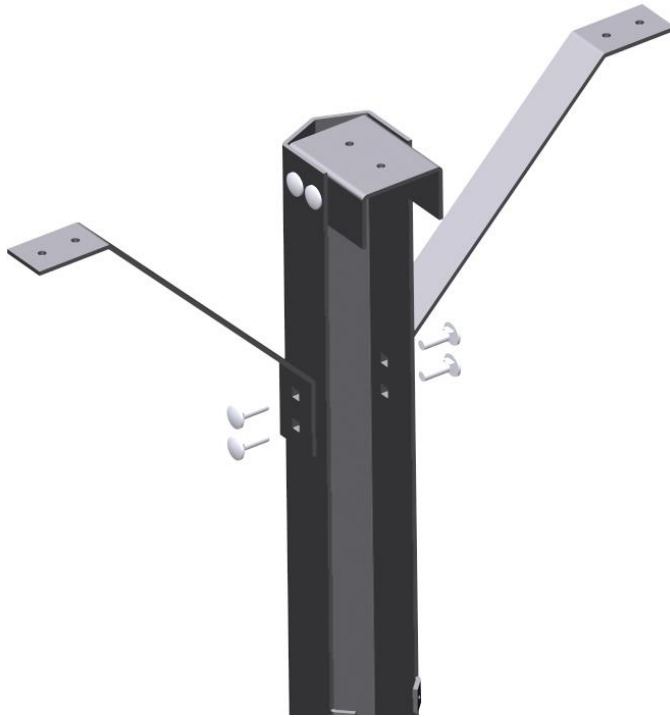


3. Assemble vertical arm to angular arm using two gusset plates and 5/16" carriage bolts with nuts and washers. Repeat this for the other side.



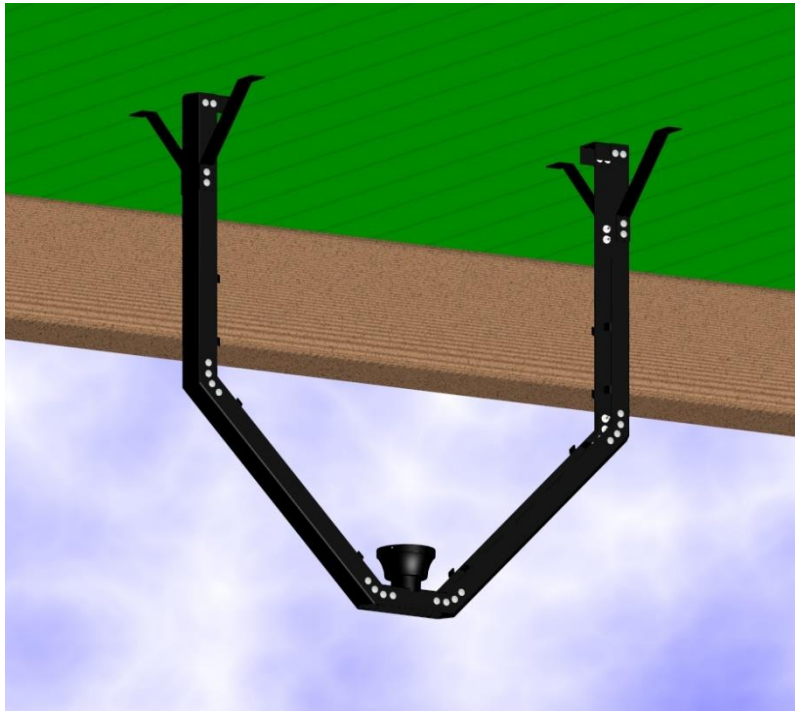
Hanginɡ Model GA301H

4. Install mounting brackets on both sides with supplies hardware.
5. Mount the heater base assembly to the ceiling in the desired location keeping



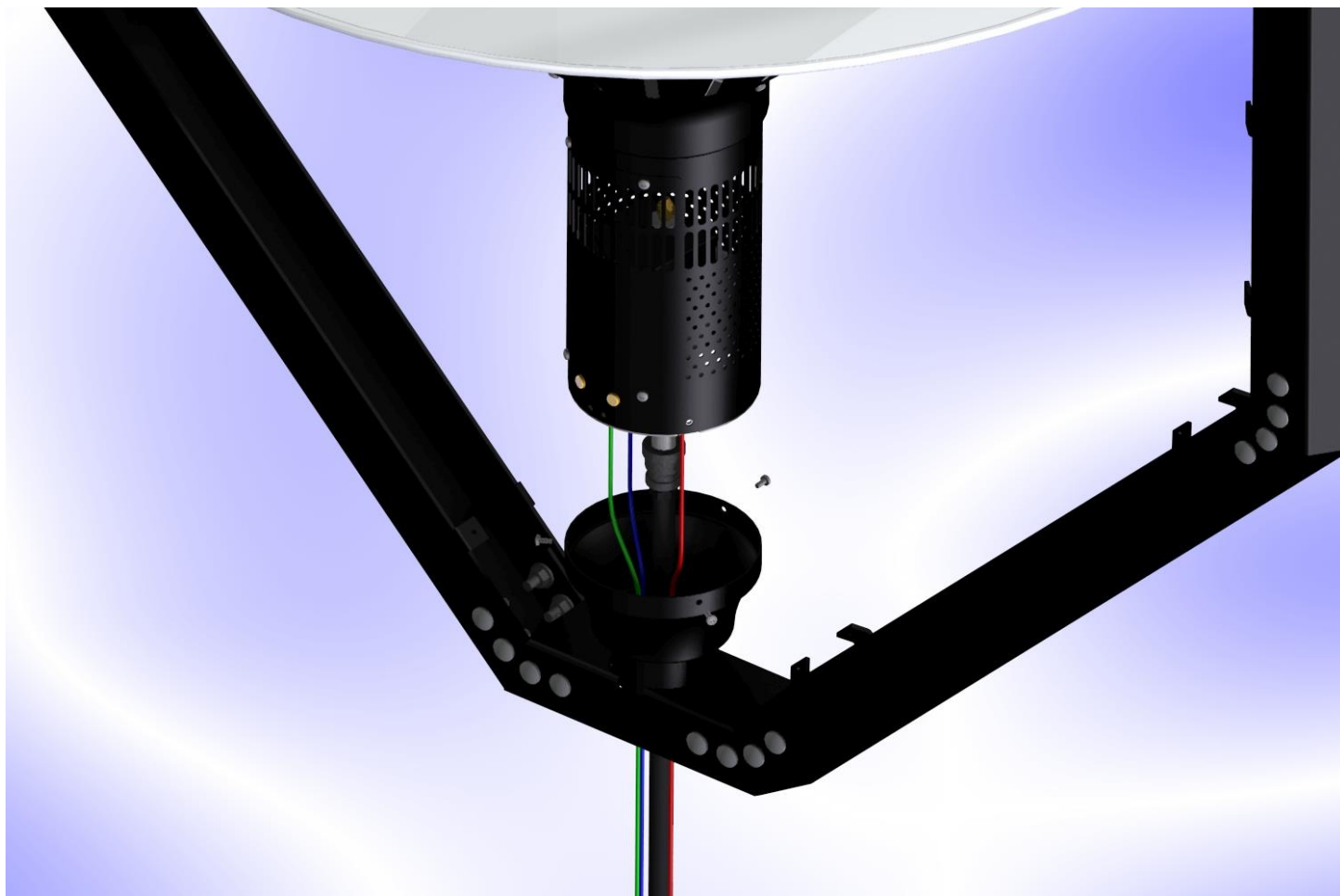
in mind clearance to combustibles. Use minimum 6 #14 x1.5" wood screws.

Caution: To prevent possible head injury provide pedestrian protection if lowest point of the heater is less than 7 feet in height. The heater must have a minimum clearance of 6 Feet below.



Hanginɡ Model GA301H

6. Install heater assembly into the base assembly allowing the gas line and wires through the bottom. Use three #8-32 type F to secure heater head to the base.



Hanging Model GA301H

7. Feed the gas line and control wires through either side of the assembly.

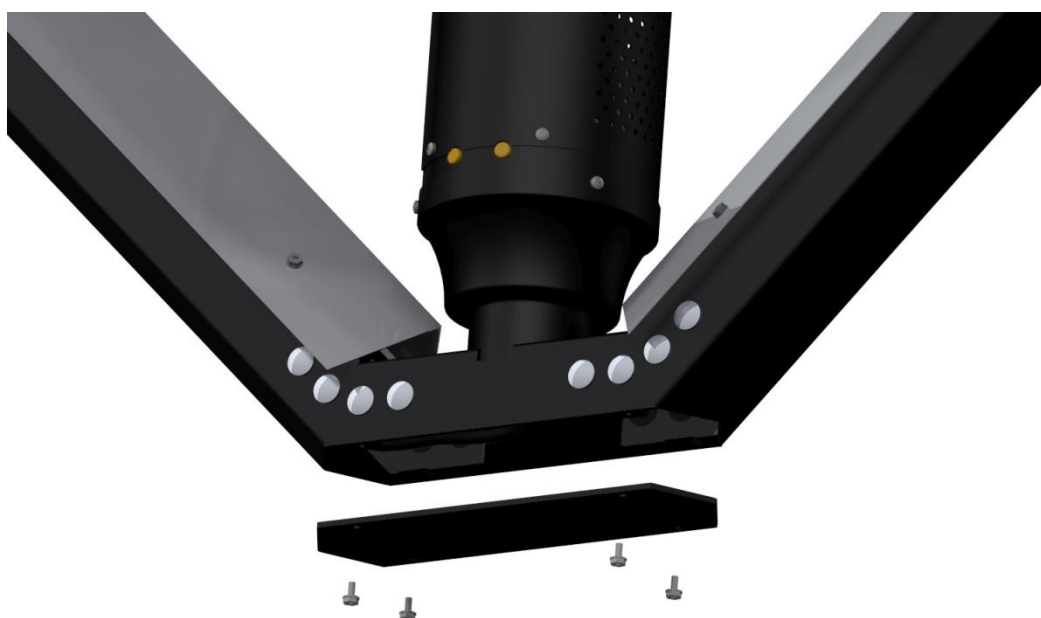


Hangin Model GA301H

8. Install the heat shields as illustrated using the #8-32 type F screws supplied.



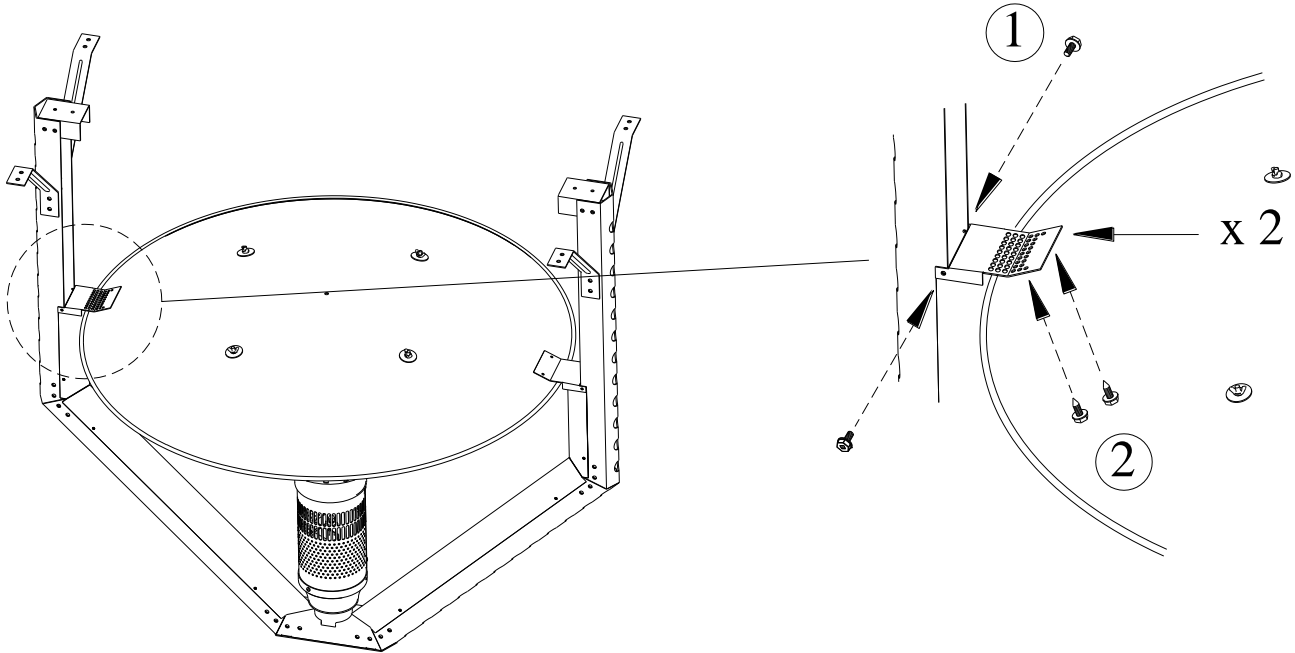
9. Install the bottom cover to complete the assemble using 4 #8-32 type F screws.



Hangng Model GA301H

10. Installation of reflector support brackets.

1. After putting on heat shields, screw reflector brackets to frame upright.
2. Secure reflector by screwing the reflector to the reflector support brackets.



Position / Move the Heater

1. Ensure Wheels are properly connected to the Bottom Base.
2. **Move the Heater by handling ONLY the Pole.** It may take two people to manoeuvre the Heater safely depending on the size / strength of the person(s).
3. Tip the Heater backwards at an angle to / overtop of the wheels until Base no longer touches the ground. Wheel Heater to the desired new location and return Base to ground. Ensure Heater is on level ground and stable in new location.
4. If the Heater is going to be operated at the new location, the **“Start-Up Procedure”** must be completed.

Installation Instructions (Models GA301-M, GA301-MP)

Secure the Heater

1. Ensure that the Hold-Down Brackets are properly installed.
2. The type of Foundation Fastener required depends on the type of Floor / Ground that the Heater is located on. Prepare the Floor / Ground as detailed in Table A at all three bracket locations. (Ensure that alignment with the connecting hole(s) of the Base Bracket is maintained.)



Table A: Methods for Securing Heater to Floor / Ground

Floor / Ground Type	Foundation Fastener Type & Size	Mounting Method Summary	Floor / Ground Preparation
Concrete	Concrete Anchor Ø5/16" x 2 1/2"	Place Anchors into pilot holes aligned with Base Brackets - tap / hammer lightly, screw fastener into anchor	Drill 3 - Pilot Holes Pilot hole drill size: Concrete = 9/16"
Wood Deck	Wood Screw #10 x 1 1/2"	Secure using Wood Screws in pilot holes aligned with Base Brackets	Drill 3 - Pilot Holes Pilot hole drill size: Hardwood = 7/64" Softwood = 3/32"

➤ **Lighting instructions for models GA301, GA301-H & GA301-T:**

1. Open manual gas supply valve (ensure gas supply lines have been purged).
2. Turn on switch to energize electric supply.
3. The electronic control module will time out 45 sec.
4. The gas valve will open and ignition spark will commence and continue for 15 sec.
5. If flame starts and “is detected”, flame will continue until turned off.
6. If flow does not start, the gas valve will close after 15 sec. A “wait” period commences and lasts about 30 sec. and a second trial for combustion commences. The electronic control will attempt three trials for ignition before locking out for about one hour at which time it will automatically try again.

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

➤ **Shut Down instructions for models GA301, GA301-H & GA301-T:**

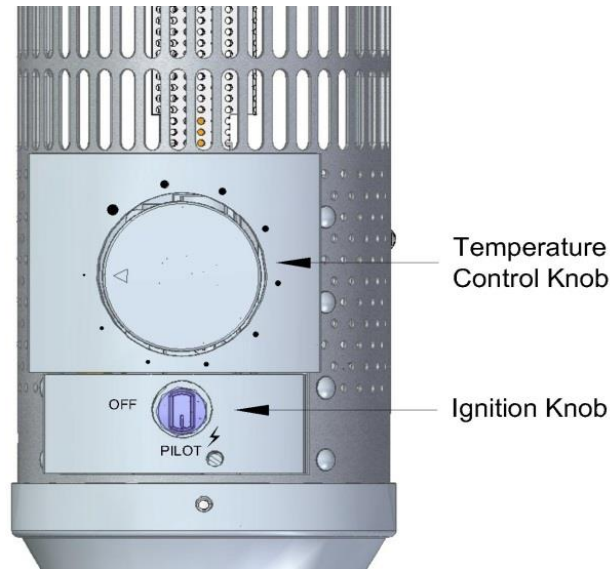
1. Turn off power to electronic control.
2. For longer periods of shut down, also close manual gas supply valve.

➤ **Lighting instructions for models GA301-M & GA301-MP:**

1. Open manual gas supply valve (ensure gas supply lines have been purged).
2. Push and turn the ignition knob counter-clockwise from the OFF **position to the PILOT position lightning symbol**. To start the gas flow and sparking, push the knob inwards. **Keep pressing until the pilot is lit and stays lit (for approximately 30-45 seconds to heat up the thermocouple) and then release the pressure from the knob.** If you have warmed up the thermocouple enough, when you release the pressure from the ignition knob the main burner will automatically light. If it does not, try igniting the pilot again but waiting a longer interval before releasing knob.
3. **Note: When using the heater with a fresh fuel supply, pilot may take some time to light because the line needs to purge all of the air out in the line first.**
4. Adjust the heat output by rotating the Temperature Control Knob counter-clockwise to increase output, clockwise to lower the output.

Lighting & Shutdown Instructions

Lighting Instructions for Models GA301-M & GA301-MP



Caution:

Heater will produce smoke the first time it is lit. This is normal. Make sure NOT to light the heater in an enclosed area.

Lighting Instructions for Models GA301-U, GA301-T, & GA301-H

1. Open manual gas supply valve (ensure gas supply lines have been purged).
2. Turn on switch to energize electric supply.
3. The electronic control module will time begin the ignition period in 3 seconds.
4. The gas valve will open and ignition spark will commence and continue for 20 sec.
5. If flame starts and "is detected", flame will continue until turned off.
6. 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.

Lighting & Shutdown Instructions

Shut down instructions for models GA301-M & GA301-MP

1. Turn the ignition knob clockwise into the OFF position to turn off the gas flow and extinguish the burner flame.
2. For longer periods of shutdown, also turn off manual gas supply valve.

Shut Down Instructions for Models GA301-U, GA301-T & GA301-H

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



WARNING:

Improper Lighting, Shutting Down can cause injury, death or property damage. Read the Lighting and Shutting Down instructions thoroughly before operating or servicing this

Maintenance & Troubleshooting Instructions

➤ Maintenance instructions for models GA301, GA301-H & GA301-T:

- 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.

➤ Troubleshooting instructions for models GA301, GA301-H & GA301-T:

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.

No Spark

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

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.

Maintenance & Troubleshooting Instructions

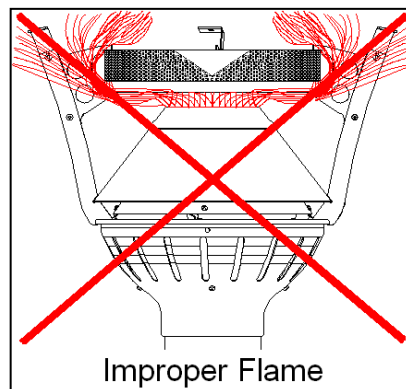
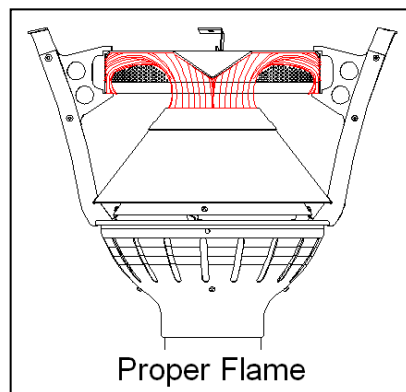
➤ Maintenance instructions for models GA301-M & GA301-MP:

Maintenance

- * **Follow Caution and General Safety rules at all times before / during use.**
- * **Before performing ANY service to the heater, shut off the gas supply,** disconnect the regulator from the LP-Gas Cylinder and remove the battery from the ignitor module.
- * **If any maintenance issues are found place the heater OUT OF SERVICE until it has been repaired by a certified service person.** Use only manufacturer recommended replacement parts.

Daily Inspections:

3. Keep the appliance area clean and free from combustible materials, gasoline and other flammable vapors and liquids.
4. The visible portion of the Gas Hose must be visually inspected before each use. If there is evidence of excessive abrasion or wear, or if the hose is damaged the hose assembly must be replaced prior to the appliance being put into operation.
5. Keep the ventilation opening(s) free and clear from debris and cobwebs.
6. Visually check the Burner flame pattern during use. A **“Proper Flame”** should resemble image on right.
7. If at any time flames extend beyond the emitter surface (see image to the right below **“Improper Flame”**) or black soot is found on the inside of the reflector **TURN OFF** the heater immediately and place **OUT OF SERVICE** until repairs are made.
8. Clean the appliance, if necessary, with non-combustible and non-corrosive cleaning agents. Ensure control compartment (ignition module), burners & circulating air passageways are kept clean of dust, insects, cobwebs and other debris.



Annual Inspections:

1. Inspect and Leak Test entire Gas Hose Assembly for damage, excessive abrasion, wear and leaks:
 - a. Ensure burner is cool to touch and supported while disassembling.
 - b. Disassemble the Burner from the Pole by removing the four (4) screws in the Pole Neck.

Maintenance & Troubleshooting Instructions

- c. Remove the Gas Hose Assembly from the Pole to inspect and Leak Test **the entire hose and all connections.** Repair / replace as required.
2. Check condition of the Burner, especially the integrity of the flame screen.
3. Inspect condition of spark and sense electrode. Check for cracks in ceramic insulators or excessive corrosion.
4. Inspect condition of high tension lead to spark rod

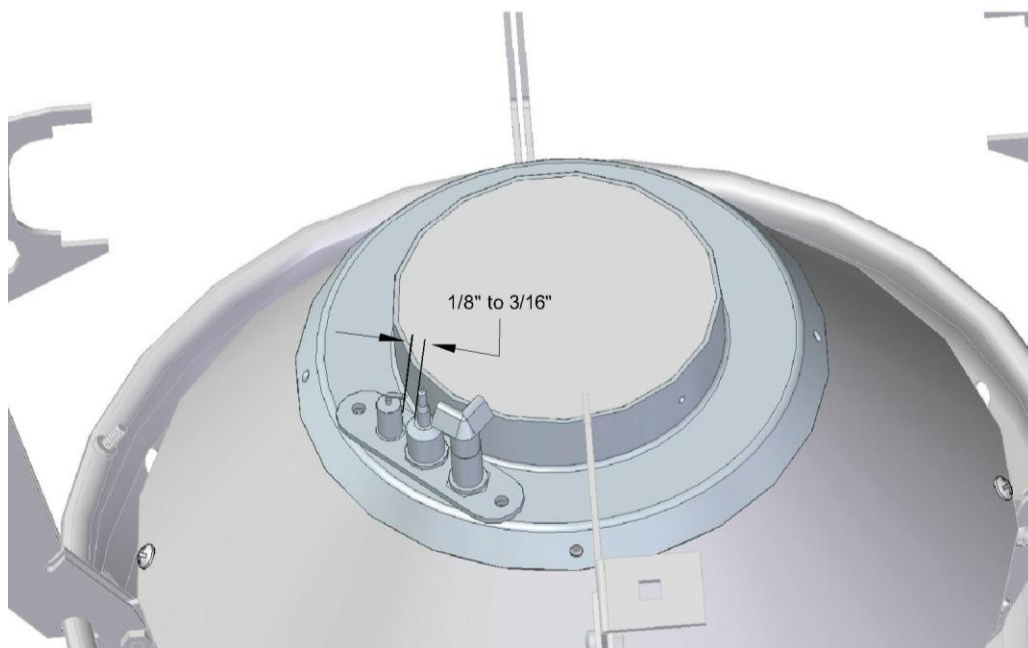
➤ Troubleshooting instructions for models GA301-M & GA301-MP:

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.

2. No spark:

- Ensure battery in ignition module is operating.
- Ensure spark electrode assembly is grounded and there are no cracks in ceramic insulator.
- Ensure the gap (spark gap) between Pilot and Spark Ignitor electrode is 1/8" – 3/16" (3mm – 4.5mm) as per picture below.



Maintenance & Troubleshooting Instructions

3. Flame lights but will not stay lit:

- Be sure to hold knob in for one minute or longer to allow sensor to get hot.
- Ensure there is no overpowering wind.
- Ensure sense electrode is not corroded, is not grounded or has a cracked insulator.

➤ **Replacement Parts:**

- Use only manufacturer recommended replacement parts.
- For a complete list of replacement parts contact your dealer.

➤ **Care and Cleaning of Stainless Steel Patio Heater:**

Stainless steel is protected from corrosion by a thin layer of chromium oxide. This happens when oxygen from the atmosphere (air) combines with the chromium in the stainless steel to form this layer of chromium oxide. This passive film or layer protects the stainless steel from further corrosion.

Stainless steel is easily cleaned by many different methods.

➤ **General Rules for Cleaning Stainless Steel:**

1. Handle stainless steel with clean gloves or cloths to guard against stains of finger marks.
2. Avoid the use of oily rags or greasy cloths when wiping the surface.
3. Do routine cleaning of exposed surfaces.
4. Where possible, after cleaning, rinse thoroughly with water.
5. Cleaning with detergents containing Chloride must be AVOIDED.
6. Rubbing or wiping should be done in the directions of the polish lines, NOT across them.
7. Do Not use solvents in closed spaces or while the heater is running or smoking.

➤ **Methods to clean Surface Contamination:**

Dirt:

Dirt and soil can consist of accumulated dust and a variety of contaminates that come from many sources, ranging from the wind to everyday use. Some may be easily removed, while others may require specific cleaners.

- Frequently, warm water with or without a gentle detergent is sufficient.
- Next in order, mild non-scratching abrasive powders such as typical household cleaners. These can be used with warm water, bristle brushes, sponges or clean cloths. DO NOT USE ordinary carbon steel brushes or steel wool.

Maintenance & Troubleshooting Instructions

- Next in order, for more aggressive cleaning, a small amount of vinegar can be added to the scouring powder.

Cleaning should always be followed by rinsing with CLEAN HOT WATER and drying with clean towels.

Fingerprints and Stains:

Fingerprints and mild stains resulting from normal use are the most common surface contaminants. These do not affect the corrosion resistance, and are easy to remove.

- Can be removed using a Glass Cleaner.
- Or gentle rubbing with a paste of Soda Ash (sodium carbonate) and water applied with a soft cloth.

Cleaning should always be followed by rinsing with CLEAN HOT WATER and drying with clean towels.

Oil and Grease:

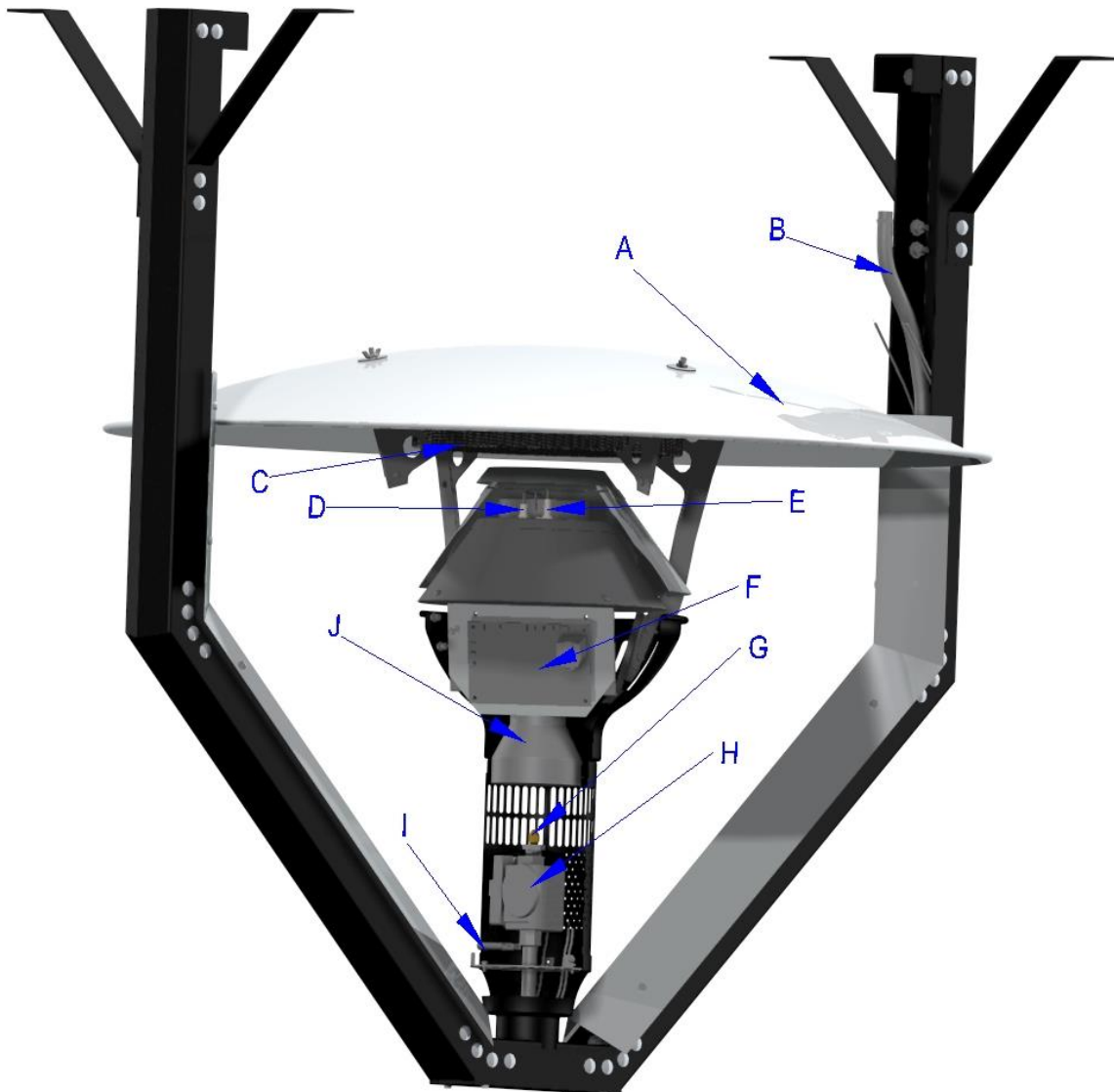
Oil and grease may carry grit, dust and sand which produce surface soiling, so periodic removal is necessary.

- Can be removed using soap or detergent and water or a combination of detergent and water plus a solvent. Non-halogenated solvents, such as Acetone, Methyl Alcohol, and Ethyl Alcohol work well. The preferred solvent is one that does not contain Chlorine.

Cleaning should always be followed by rinsing with CLEAN HOT WATER and drying with clean towels.

Parts List

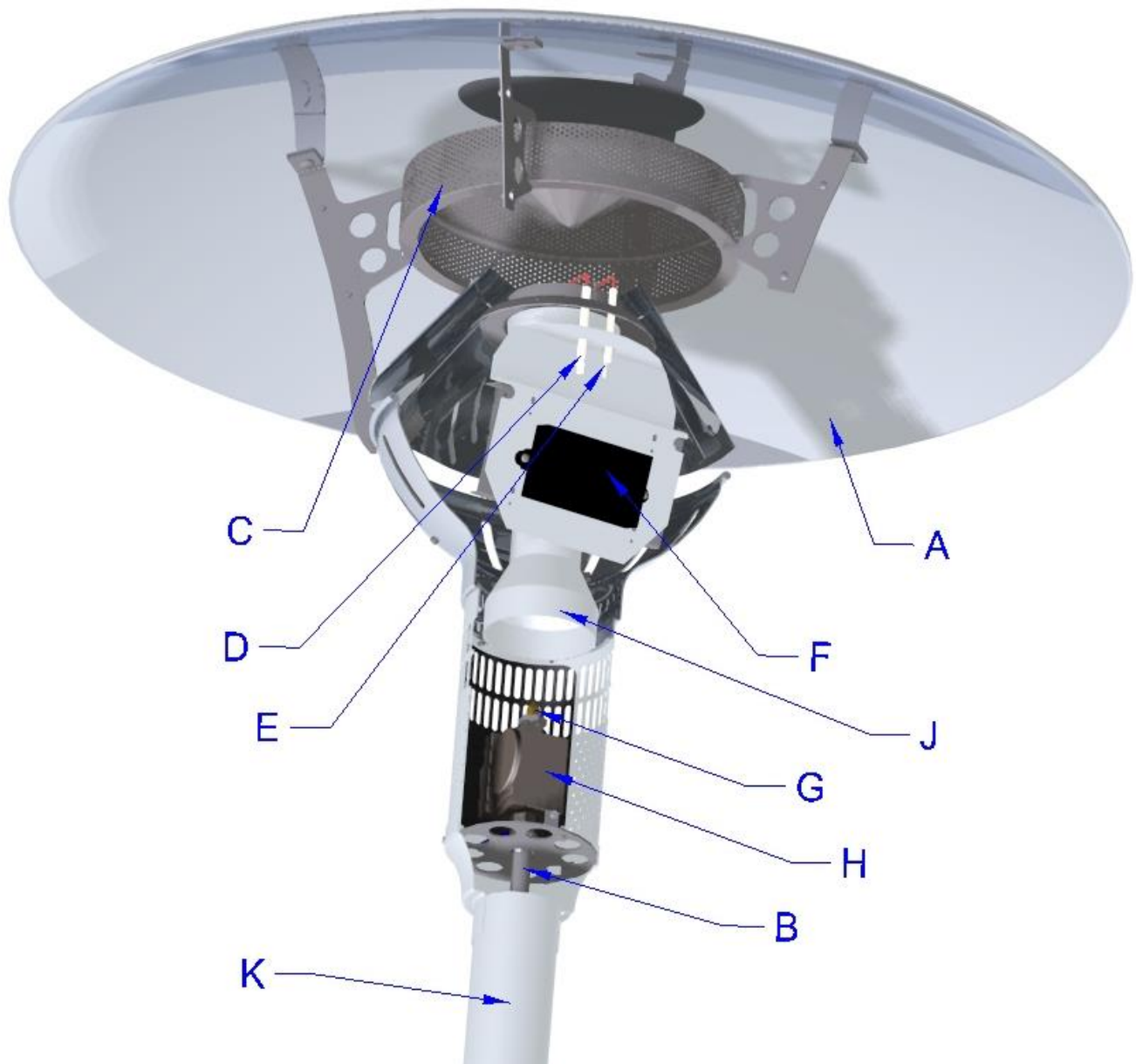
Item	Description	Part #
A	Reflector package	ES041
B	Gas Hose Assembly	EG004
C	Emitter	ES011
D	Flame Sensor	EE002
E	Spark Electrode	EE001
F	Electronic Control Module	EE009
G	Orifice - NAT Gas Orifice - LP Gas	EG002 EG022
H	Gas Valve - NAT Gas Gas Valve - LP Gas	EG001 EG023
I	Indicator Light	EE004
J	Burner assembly	EG008
M	Ignition wire (not shown)	EE005



Parts List

Item	Description	Part #
A	Reflector package	ES041
B	Gas Hose Assembly 63"	EG014
	Gas Hose Assembly 75"	EG027
C	Emitter	ES011
D	Flame Sensor	EE002
E	Spark Electrode	EE001
F	Electronic Control Module	EE009

Item	Description	Part #
G	Orifice (NAT)	EG002
	Orifice (LPG)	EG022
H	Gas Valve (NAT)	EG001
	Gas Valve (LPG)	EG023
I	Indicator Light (not shown)	EE010
J	Burner assembly	EG008
K	Pole Package Black 63"	ES114
	Pole Package Black 75"	ES131
	Pole Package S/S 63"	ES081
	Pole Package S/S 75"	ES132
M	Ignition wire (not shown)	EE005



Parts List

Model GA301-M & GA301-MP

Item	Description	Part No.	Qty	Item	Description	Part No.	Qty
1	Pole Neck	ES170*	1	2	Housing Top Cover	ES171*	1
3	Pole Assembly	ES171*	1	4	Emitter	ES011	1
5	Knob	EH016	1	8	Burner Housing Assembly	ES185*	1
7	Wheel Assembly	EH029	1	10	Main Housing	ES161*	1
9	Arm Assembly w/Shield Support	ES119	4	12	Tip Switch	EE034	1
11	Main Base	ES168*	1	14	Gas Valve	EG036	1
13	Electronic Igniter	EE028	1	16	Pilot Burner	EE032	1
15	Current Interrupter	EG038	1	18	Breakaway Pilot Nut	KG015	2
17	Thermocouple	EE038	1	20	Regulator & Hose Assembly		1
19	Pilot Tube S/S	EG042	1				

IR Energy reserves the right to make improvements to its product line without notice. Every part is replaceable; if the part is not listed, above please contact your IR Energy Rep for part information.

NOTE:

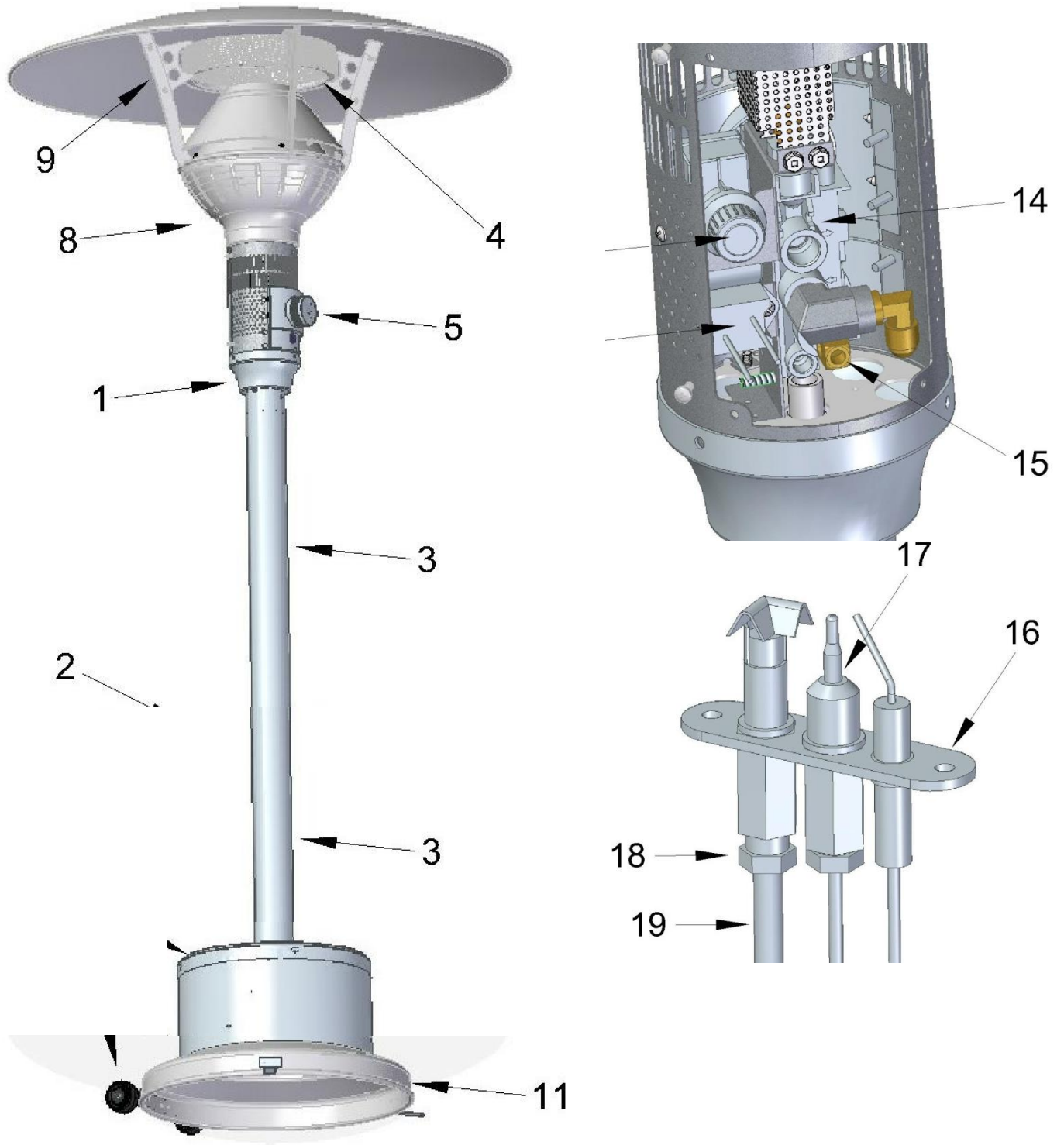
For parts with “*” suffix add S, B, or BR to the end of the part numbers for desired finish.

“S” = Stainless Steel

“B” = Black

“BR” = Bronze

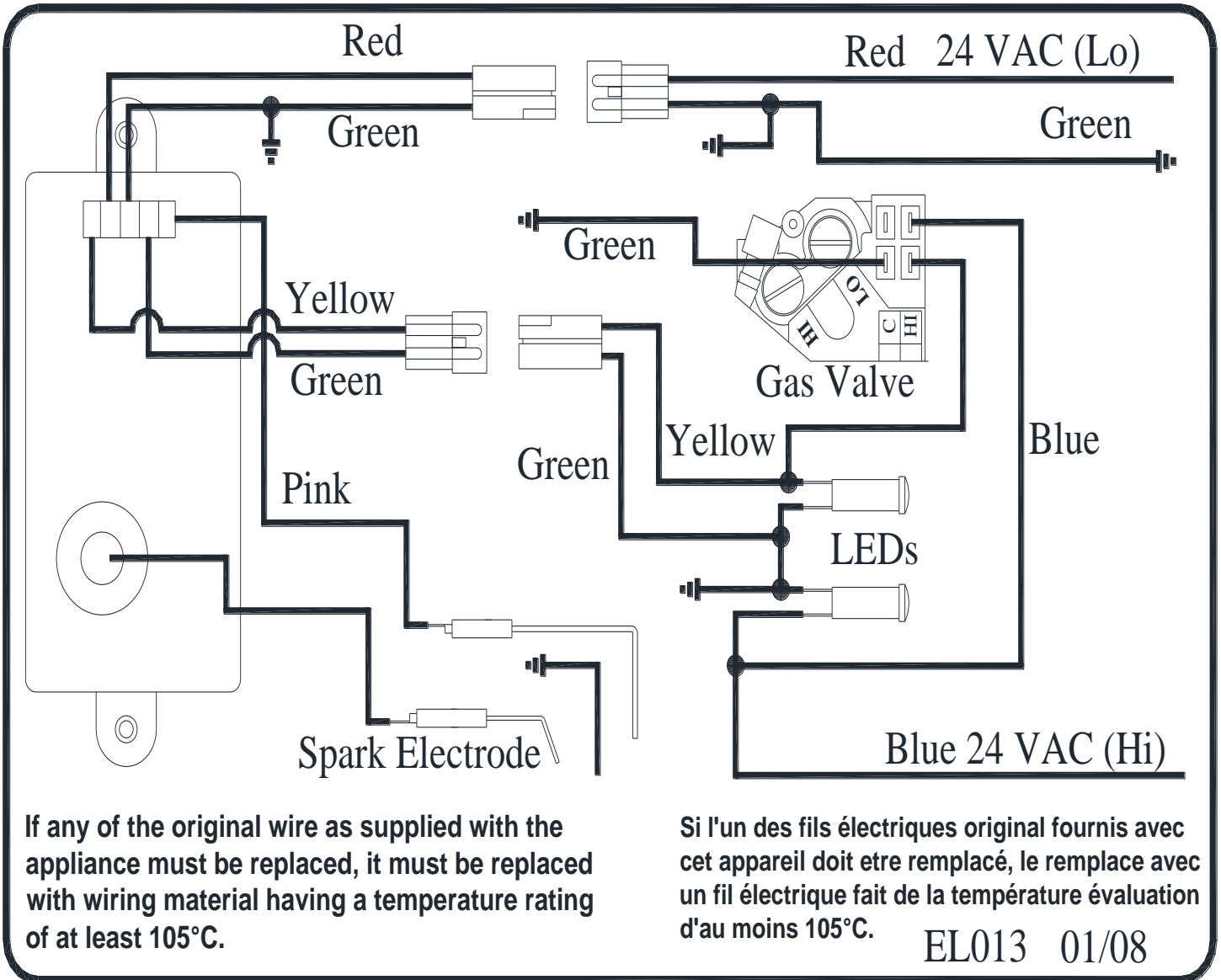
Parts List



Wiring Diagrams

Internal Wiring

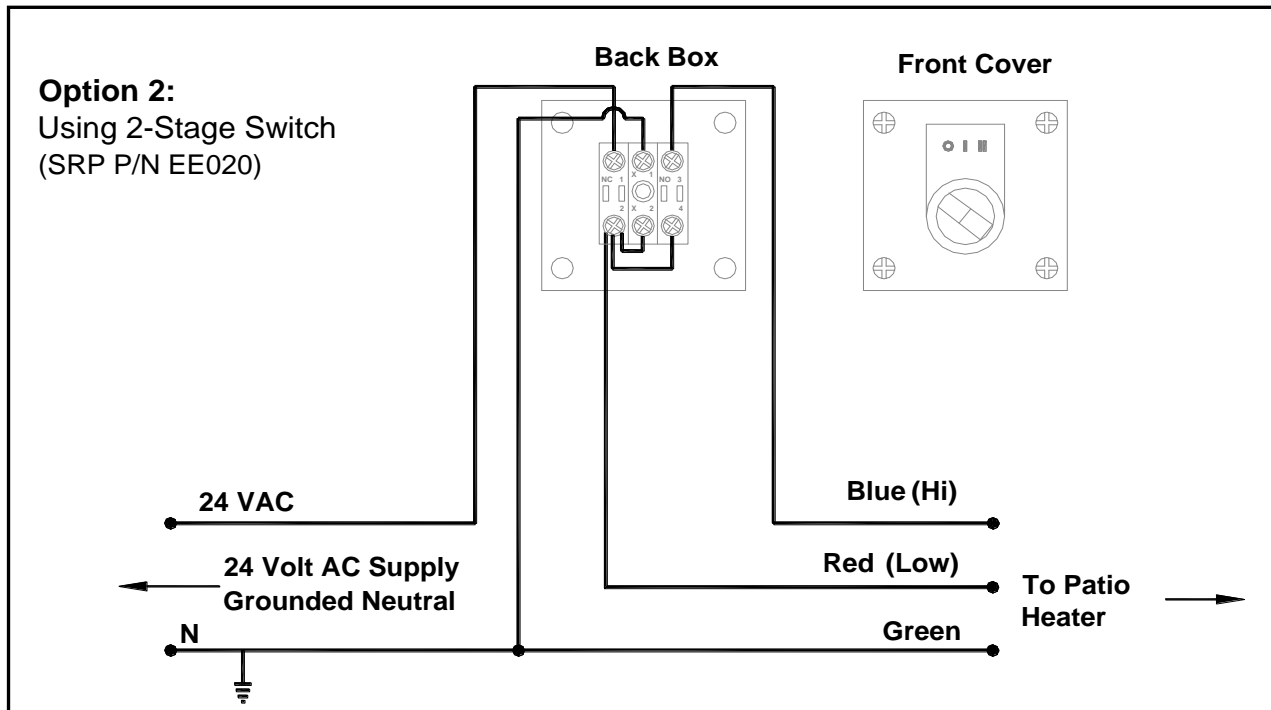
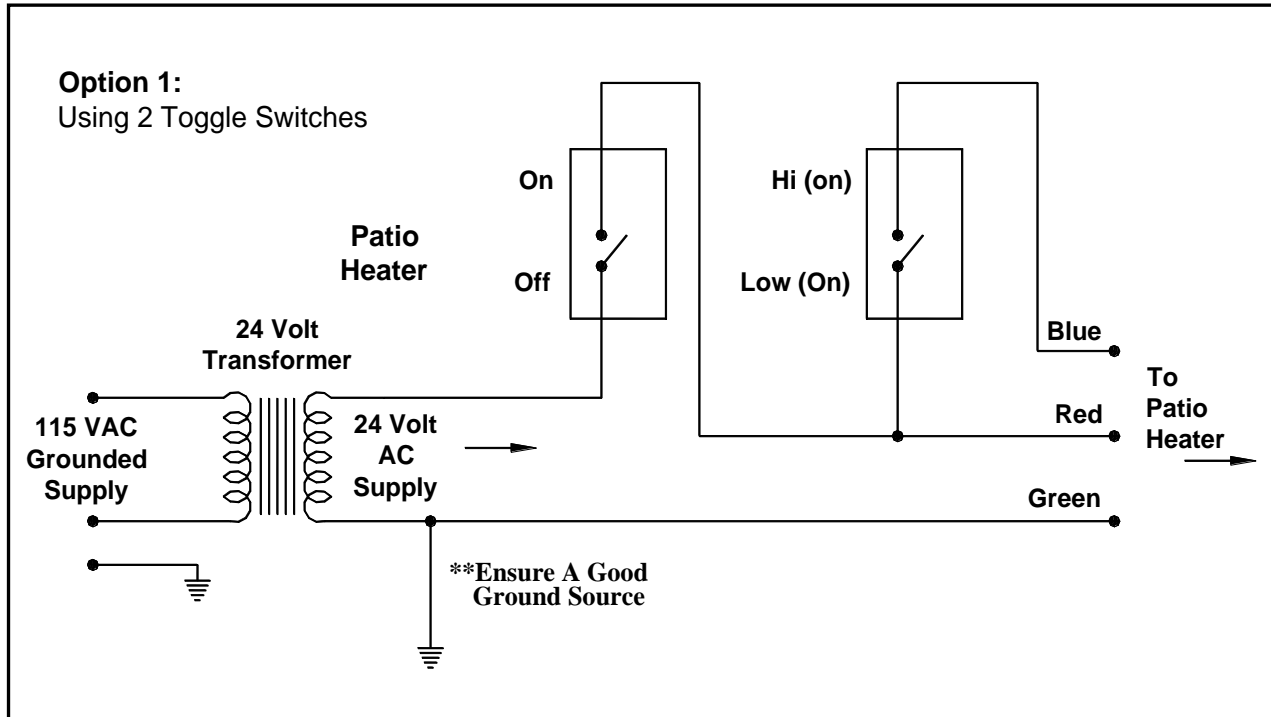
GA301, GA301-T, GA301-H



Wiring Diagrams

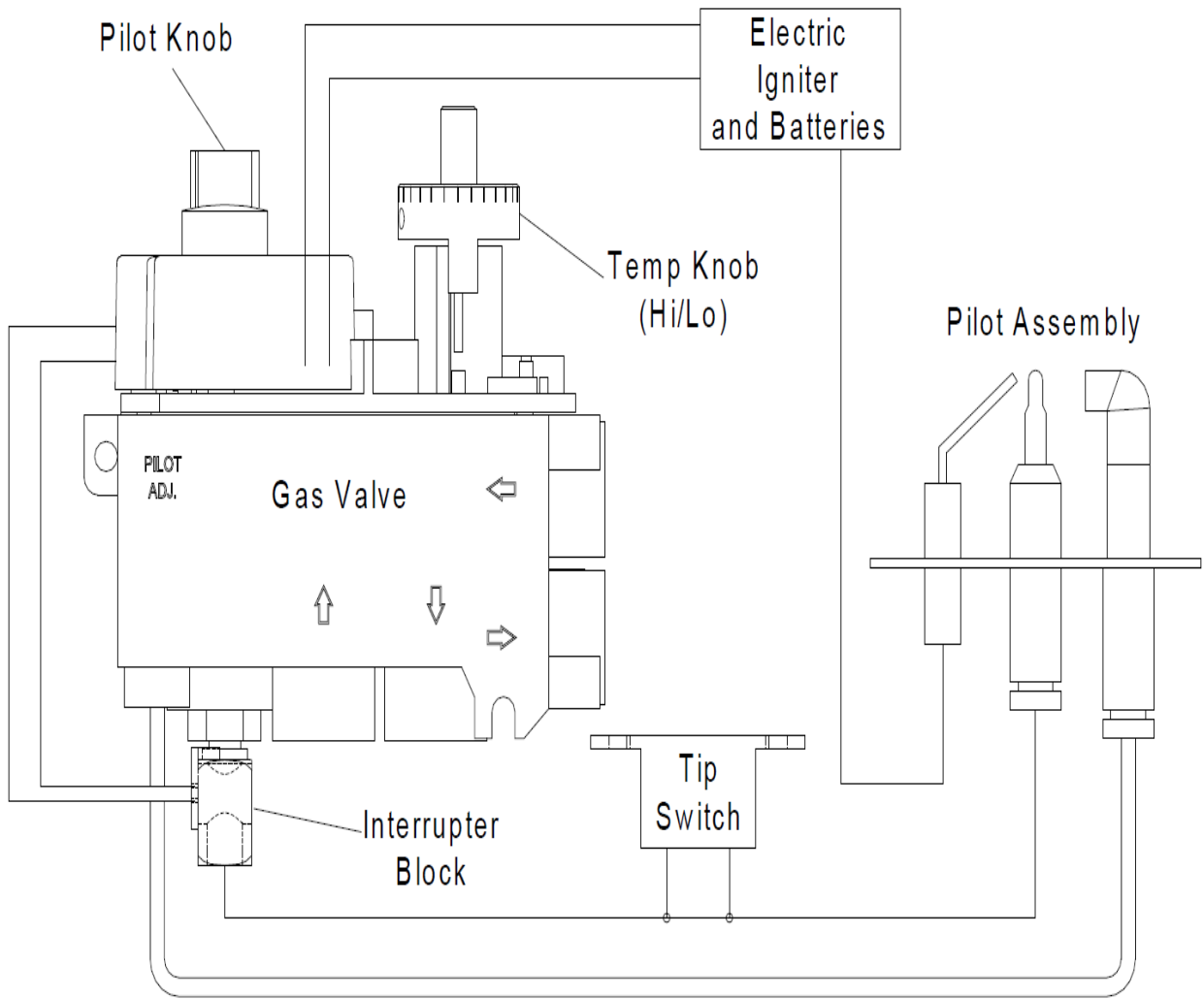
External Wiring Options

GA301, GA301-T, GA301-H



Internal Wiring

GA301-M, GA301-MP



Warranty

SERIES GA301, GA301-T, GA301-H, GA301-M AND GA301-MP EVEN-GLO PATIO HEATER WARRANTY

THE MANUFACTURER WARRANTS TO THE ORIGINAL OWNER THAT THE EMITTER OF THE PRODUCT WILL BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 3 YEARS FROM THE DATE OF PURCHASE. ALL OTHER PARTS OF THE PRODUCT WILL HAVE A WARRANTY PERIOD OF 1 YEAR.

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.

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.