

The Original Outdoor Patio Heater

Manufactured by

INFRARED DYNAMICS, INC.

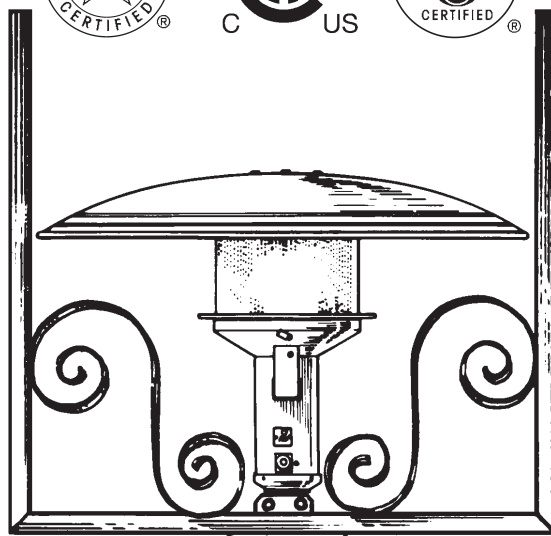
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GAS-FIRED INFRARED PATIO HEATERS
For Indoor or Outdoor Operation



MODEL PSA 265

MODEL A242

MODEL A244

MODEL A244V

MODEL PSA 265V

WARNING!!!

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

PROP. 65 WARNING!!!

If not installed, operated and maintained in accordance with manufacturer's instructions, this product could expose you to substances in the fuel or from combustion which can cause death or serious illness, and which are known to the State of California to cause cancer, birth defects or reproductive harm.

Retain these instructions for future reference.

Important: The installer or seller must leave these instructions with the consumer. Only those persons knowledgeable about gas appliances should perform installation and service of these heaters.



The Original Outdoor Patio Heater

THE SUN GLO STORY

The original Sun Glo heater was designed in 1961 by Edwin J. Cowan, a leading U.S. infrared heating appliance engineer. A unique demand existed in California for decorative, yet practical, gas fired heaters. Mr. Cowan developed the circular radiant heater primarily for use in restaurants, hotels and country clubs.

Since that time the basic design has been modified for a wide variety of uses. The Sun Glo heater is now a welcome feature at popular resorts and hotels, fine restaurants and cafes, swimming pool and spa areas, and ski lodges.

The permanent, PSA265 post mounted heater is fired with natural gas. The A244 ceiling suspended model is supplied complete with an attractive sculpted steel frame, and it is available with automatic off/on control for effortless operation. The portable propane A270 model is the heater of choice for the rental industry, and it is easily stored away when not in use. The A270 is now available with a direct spark ignition.

The quiet radiant warmth of these 40,000 and 50,000 BTU/HR patio heaters has been enjoyed throughout North America, Europe, Japan, Australia and New Zealand for over thirty years. When people want the very best, they choose Sun Glo heaters.

WHERE TO USE PATIO HEATERS

Sun Glo heaters are also used for frost protection, for warehouse, garage and shop heating. On a rental basis for outdoor weddings, banquets and other social events, Sun Glo portable propane patio heaters add a whole new dimension in comfort.

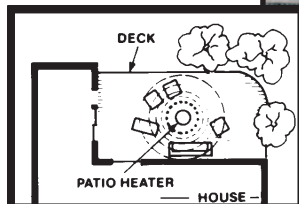
WHO WILL BE INTERESTED IN SUN GLO HEATERS?

For NEW construction locations...contractors, architects and landscape specialists find this new decorative heating appliance a welcome addition to their projects.

For application to existing restaurants and hotels with partially covered, or outdoor facilities our various Sun Glo heater designs provide practical warmth at low cost, while creating a convivial atmosphere in extended seating areas.

GAS-FIRED INFRARED RADIANT PATIO HEATERS

For Permanent or Semi-Fixed Application



EFFECTIVE RANGE (COVERAGE):

The comforting warmth from a single Sun Glo Patio Radiant Heater will cover a 12' to 20' circle. The Sun Glo is a "comfort heater," and the coverage is the area in which people will receive a comforting amount of warmth. Some persons require more warmth or less warmth than others to be comfortable and will either turn the heater up or down, or move closer or farther away as they desire.

WHERE TO LOCATE PATIO HEATERS:

Sun Glo Heaters naturally attract people to their infrared warm glow. Locate heaters where people can readily gather, sit or stand comfortably, and where furnishings can easily be moved to best accommodate the warmth.

Some examples:

- Outdoor restaurant patios and waiting areas.
- Swimming pool decks and lounging areas around hotel pools.
- Suspend heaters above or around spas and hot tubs.
- Seating areas around concessions and commercial sales outlets.
- Sporting events, social events, media events.

GENERAL RULES FOR LOCATING HEATERS:

A Sun Glo Patio Heater can operate effectively to maintain a comfort level even in completely exposed areas, although a weather protected area is desirable. Weather and wind protection allows the surrounding air to be warmed and used to enhance the direct radiant warming effects. When adding heaters to existing construction, due consideration should be given to locating the heaters as near as possible to a gas supply line. For elevations above 2000 feet consult your sales representative or the factory for specific instructions. Always locate Sun Glo Patio Heaters so specified clearances to combustible materials are maintained.

Clearance from top of reflector - 18"
Clearance from sides of reflector - 24"



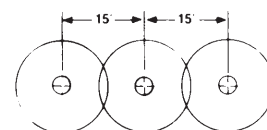
WHEN MULTIPLE HEATERS ARE USED:

When more than one heater is used in an area, it is generally preferable to locate them close together. Multiple heaters located on 8' to 12' centers give overlapping heat patterns. This means more total heat reaches peoples in-between units, and will provide comfort in weather even cooler than possible with a single heater.

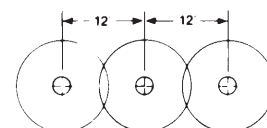
HOW MANY HEATERS TO USE:

Restaurants, and cafes generally use groups of heaters in their outdoor patio dining areas. The numbers may range from one to twenty-five units, or the number required to cover the desired seating areas. The circle of warmth generated by a single heater is sufficient for most spa areas and that intimate patio. Large pool and recreational areas benefit from extended use when several heaters are placed where people naturally gather.

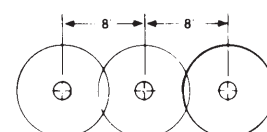
SUGGESTED SPACING WHEN MULTIPLE HEATERS ARE USED:



Spacing for — WELL PROTECTED AREAS and mild climatic conditions.



Spacing for — SEMI-EXPOSED AREAS with average weather conditions.



Spacing for — COMPLETELY EXPOSED AREAS with severe weather conditions.

Installation, Operation and Maintenance Instructions for Sunglo Gas-fired Infra-red Radiant Heaters...

INSTALLATION

Prior to installing your Sunglo gas-fired infrared radiant heater, the following must be reviewed. Compliance with the following should yield satisfactory heater operation and minimize installation costs.

1. The installation must conform with local codes or authority having jurisdiction. In the absence of local codes, installation in the United States must conform to ANSI Z223.1-1984 entitled "National Fuel Gas Code." In Canada, the installation must conform with local building codes or, in the absence of local codes, with the National Standards of Canada CAN/CGA-B 149.1&2-M86.
2. The gas inlet supply and normal operating manifold pressure for each heater are as follows. For gas supply line pressures in excess of ½ PSIG, consult with your representative or the factory.

Gas Inlet Pressure	Nat. Gas	Canada (only) Propane Gas
Maximum Pressure	½ PSIG	150 PSIG*
Minimum Pressure	6" W.C.	4 PSIG*
Manifold Pressure	5" W.C.	11" W.C.

*Tank pressure before regulator.

3. Do not locate either the gas or electrical supply line directly over the top of the heater, as overheating of electrical supply line or gas control may occur.
4. The heater must be installed in a location such that it is readily accessible for servicing and have no restriction of air flow to the air inlet of the heater's casing.

A244 & A244V Only

5. Heaters to be installed in Aircraft hangars must be installed in accordance with American National Standards for Aircraft Hangars, ANSI/NFPA No. 409-1985.

A244 & A244V Only

6. Heaters to be installed in Public Garages must be installed in accordance with NFPA No. 88A-1985 Standards for Parking Structures.

ELECTRICAL (PSA265V & A244V Only)

1. Provide only a 24 volt NEC Class 2 transformer to the heater. A step down transformer approved as having at least a 20VA rating must be utilized for each connected heater.
2. Control wire used to electrically connect one or more heaters together must have both adequate capacity and insulation temperature ratings for the total connected load. Use at least 18 ga. wire up to 50 ft. from heater to

transformer or wall switch. Use 16 ga. over 50 ft. distance.

3. If any of the original wire as supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 105 degrees Centigrade.
4. Each heater must be electrically grounded in accordance with the National Electrical Code, ANSI/NFPA 70-1984 in the United States, or in Canada, The CSA Canadian Electrical Code, C22.1-1986, Part I, when an external electrical source is utilized.

GAS PIPING

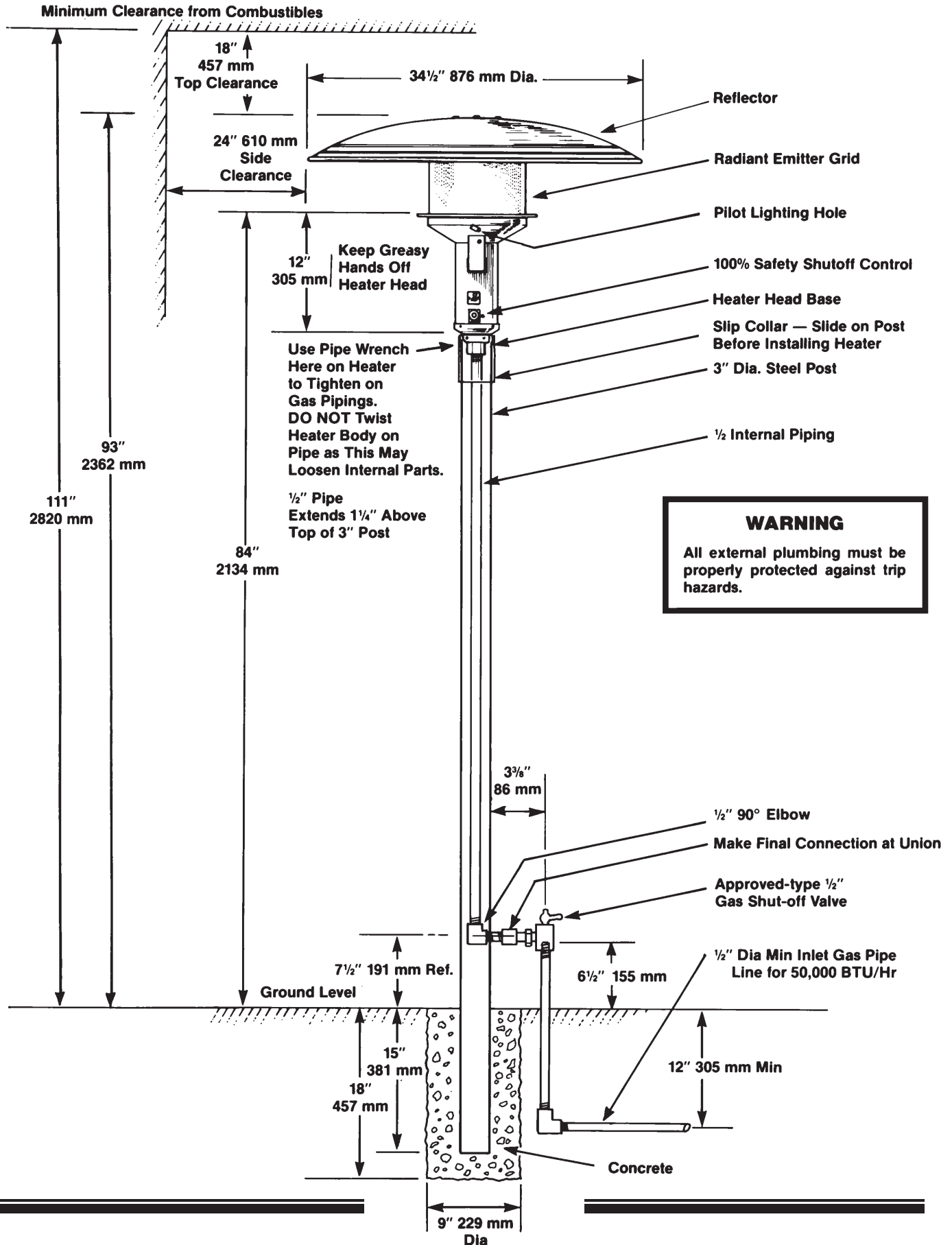
1. A minimum pipe size of ½" is required for inlet piping. A ½" lever handled shut-off gas cock should be installed within 6 feet of the appliance for servicing the unit.
2. Check with local and state plumbing and heating codes regarding sizing of the gas lines.
3. All gas pipe connections to the heater(s) must be sealed with a gas pipe compound resistant to liquefied petroleum gases.
4. Installation of a drip leg in the gas supply line going to each heater is required to minimize the possibility of any loose scale or dirt within the gas supply line from entering the heater's control system.
5. When checking for gas leaks, do not use an open flame. Use a soap and water solution and check for bubbles indicating gas leakage.
6. Gas supply pressures must not exceed ½ PSI (14" W.C.) to prevent control damage and gas leakage.
7. Installation of ⅛" N.P.T. plugged tapping, accessible for test gauge connections, is required upstream of the gas supply connection to the heater.

VENTILATION

1. It is recommended that a minimum building ventilation rate of four (4) CFM per 1000 BTUH of installed heater input be provided. This rate of ventilation may be obtained through either gravity or mechanical ventilation of the building.
2. In conjunction with building ventilation system, adequate fresh air into the building must be provided through fresh air inlets and/or building crackage.
3. It is recommended that the local authorities be contacted to assure the ventilating system and heater installation are in compliance with any applicable local and/or state codes.

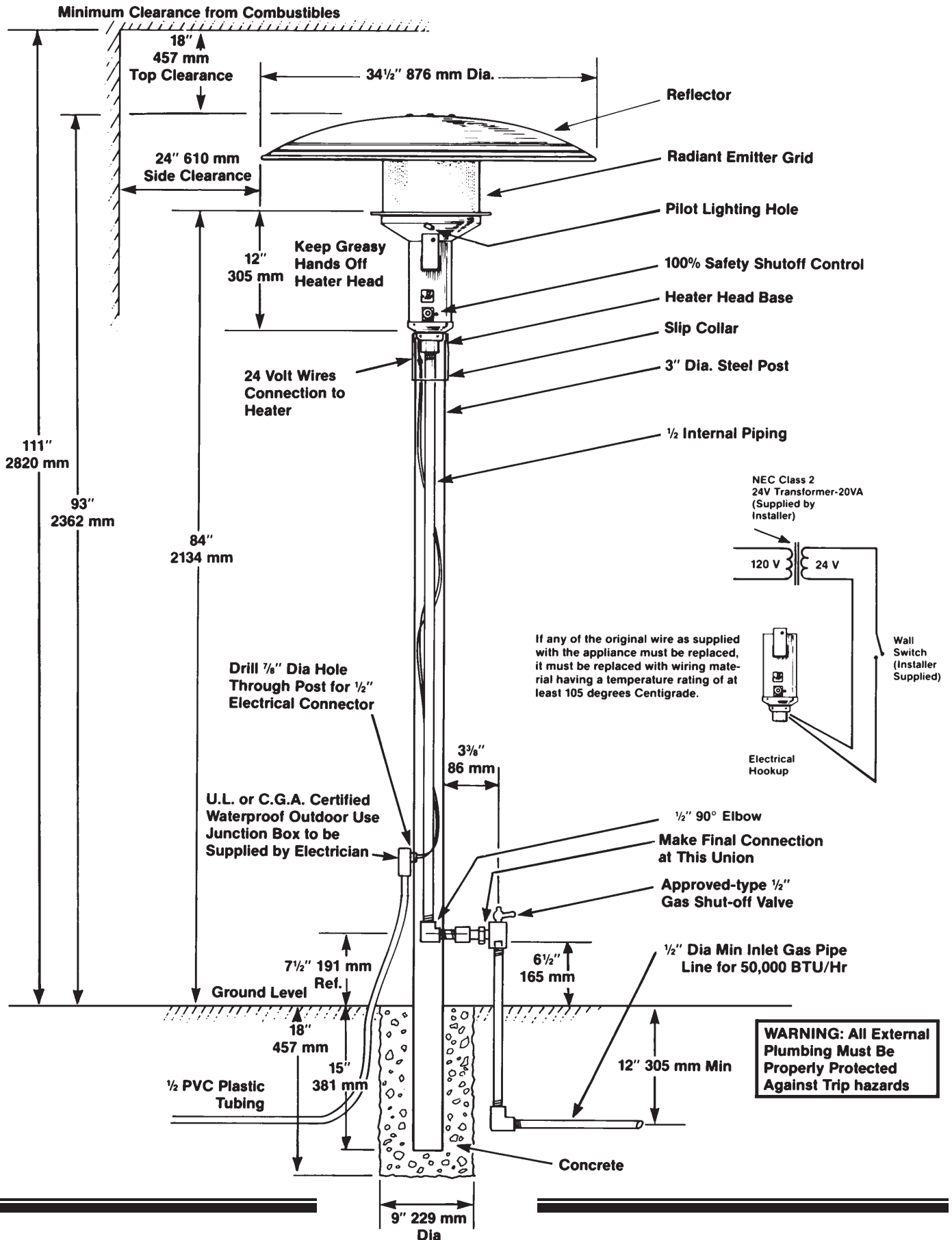
The Original Outdoor Patio Heater

MODEL PSA 265 GAS-FIRED INFRARED HEATER For Indoor or Outdoor Operation



The Original Outdoor Patio Heater

MODEL PSA 265V **GAS-FIRED INFRARED HEATER** **For Indoor or Outdoor Operation**



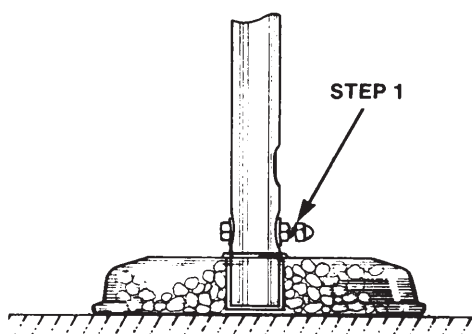
The Original Outdoor Patio Heater

MODEL A242 **GAS-FIRED INFRARED HEATER** **For Indoor or Outdoor Operation**

Installation Instructions

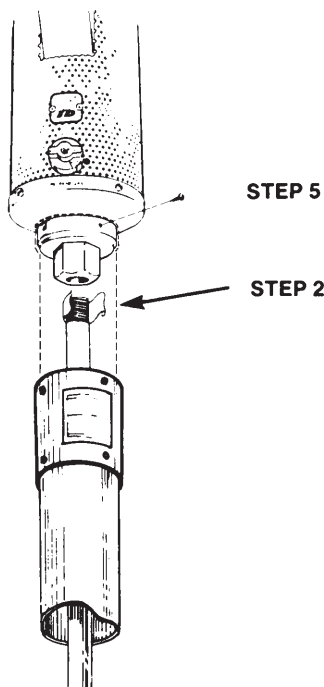
Step 1.

- Insert 3" dia. post squarely into base socket.
- Tighten nut on bolt to secure post until 1/2" of thread is exposed. Slight indent of post should occur. Install cap nut.



Step 2.

- Thread 62" long internal pipe nipple into base of heater head as shown below. If teflon tape is not provided, gas pipe joint compound must be used at this joint.

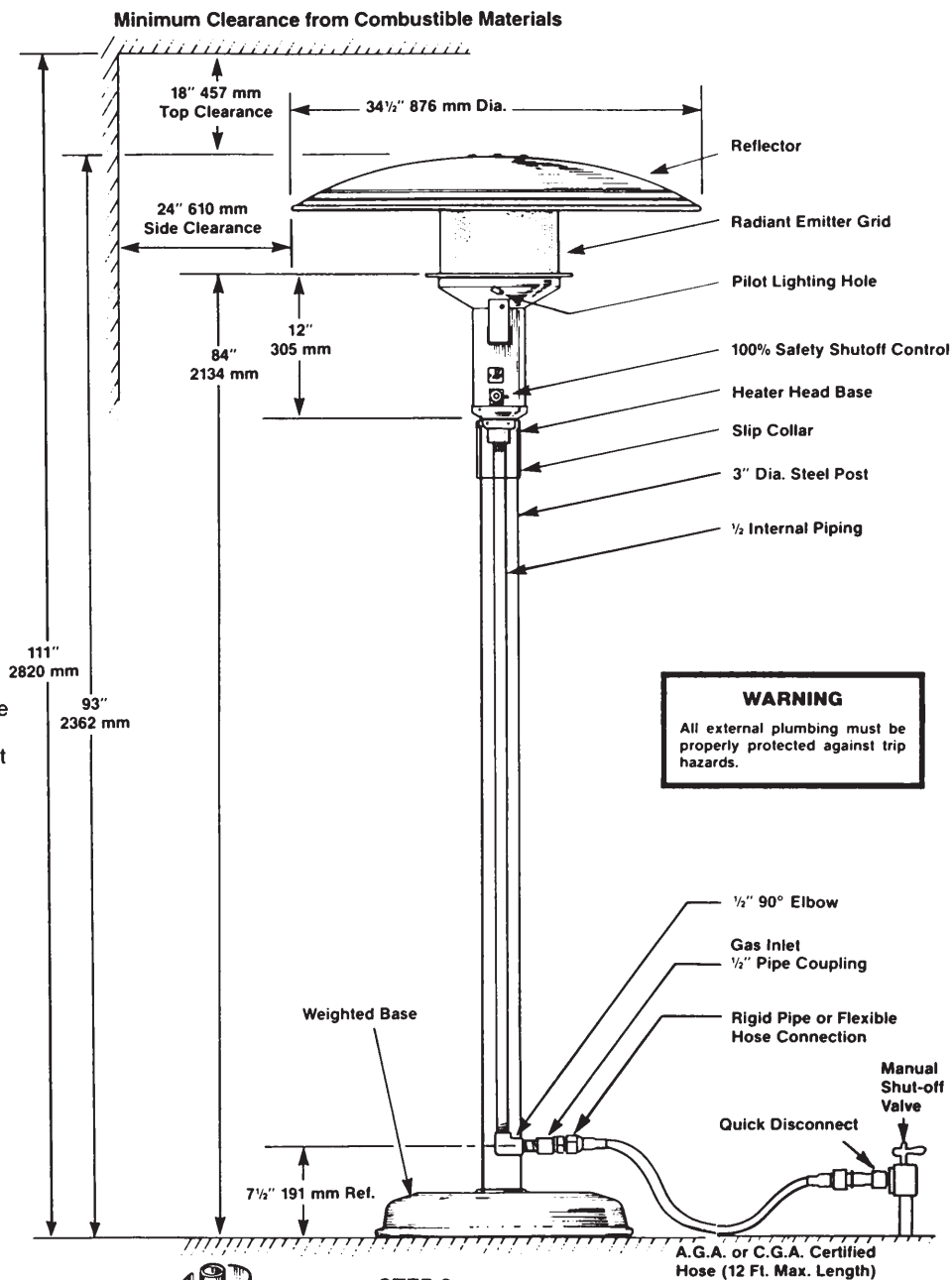
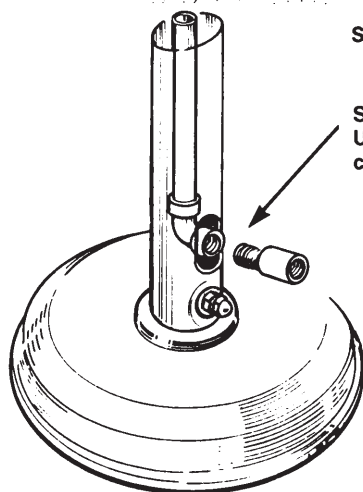


Step 3.

- Slide assembled gas pipe and heater head into post.
- Turn heater head so pipe elbow fitting lines up with hole at the bottom of the post.

Step 4.

- Screw 1/2 nipple into elbow using gas pipe joint compound as shown below.



STEP 3

STEP 4 Use pipe joint compound

Step 5.

- Secure heater slip collar with four (4) screws provided.
- Attach reflector to top of heater with stainless steel nuts provided.

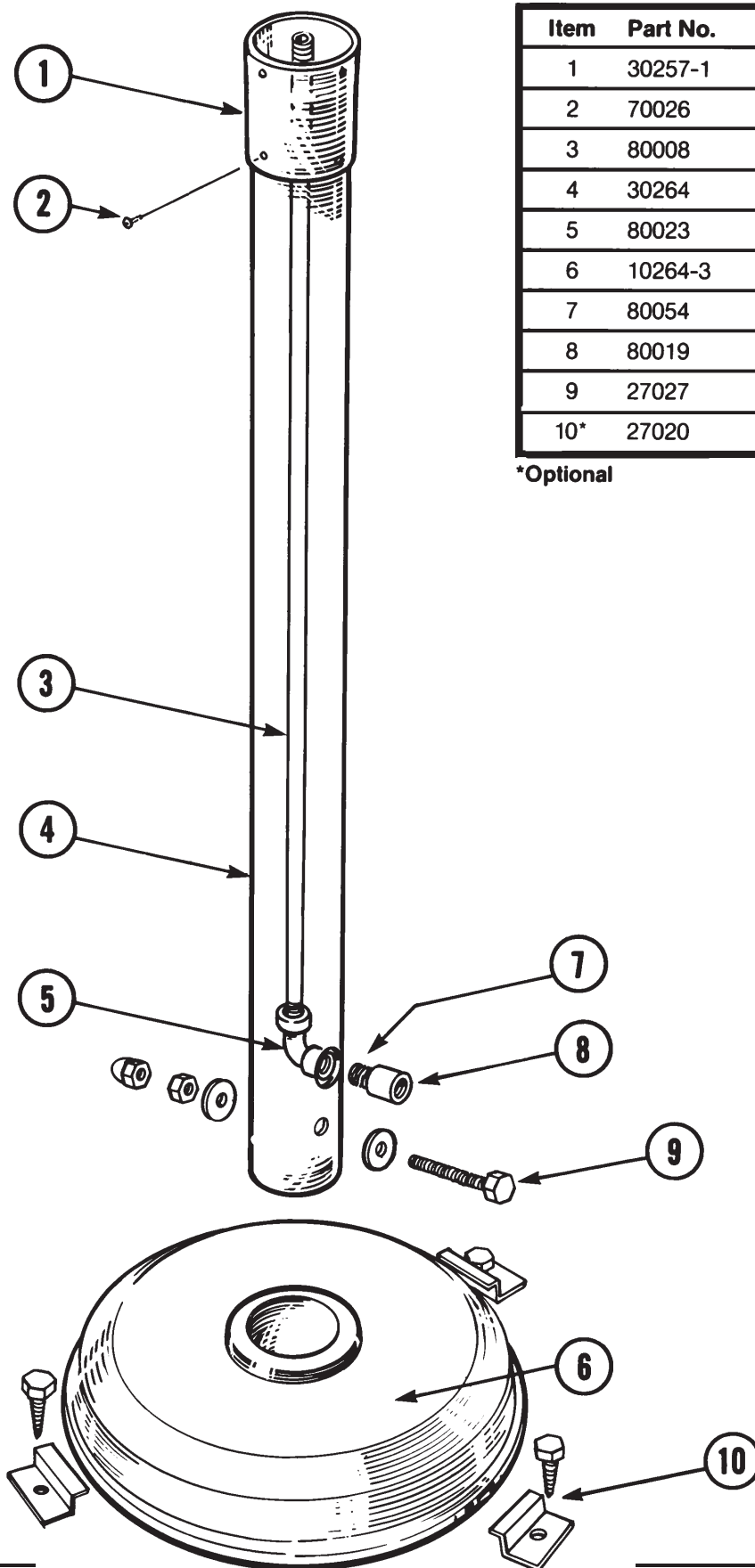
NOTE: To bolt base to deck, Order #27020, A242 Floor Clamp Kit.



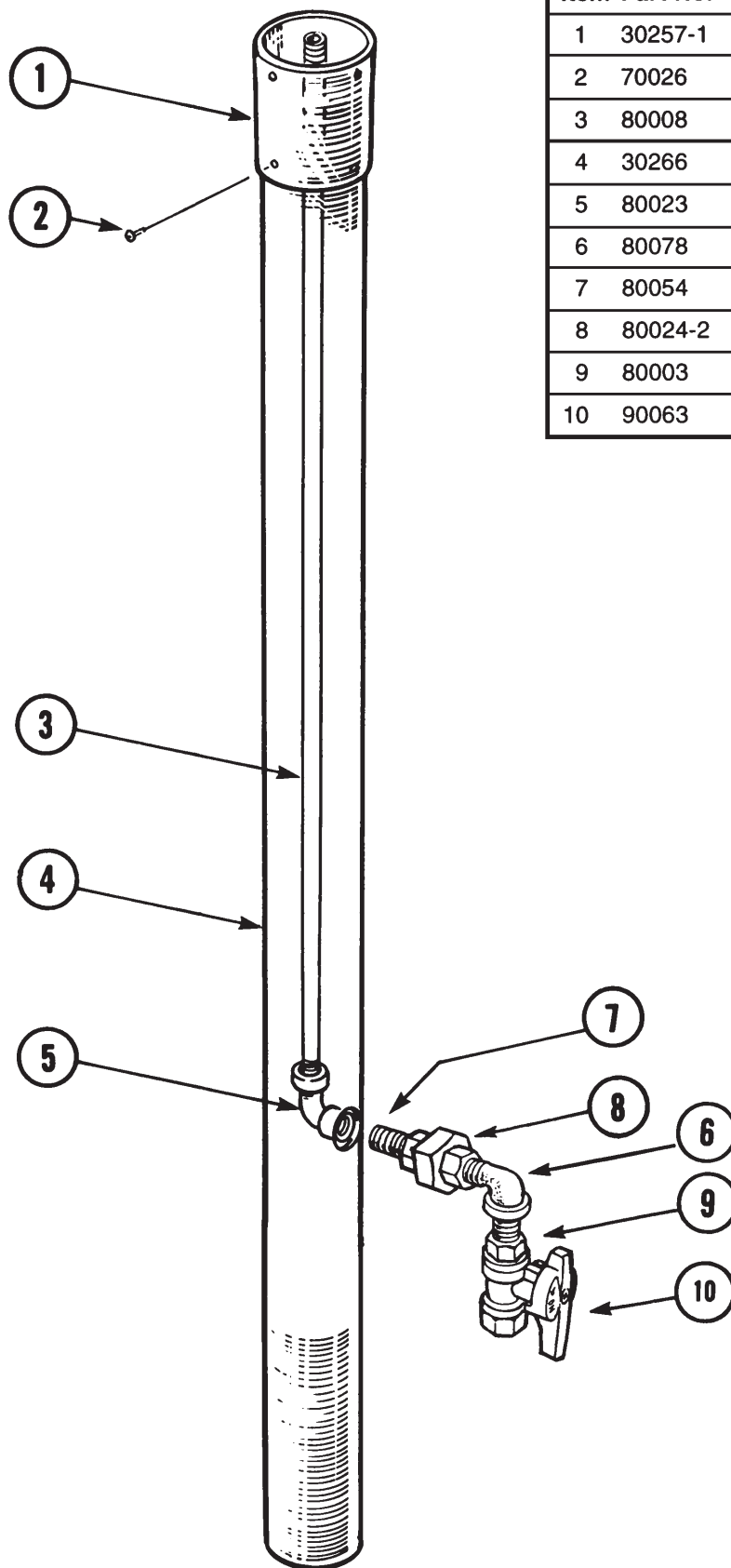
MODEL A242 Replacement Parts List

Item	Part No.	Description
1	30257-1	Collar, PH Black Slip
2	70026	Screw, #8 x 3/8 SWHSM, ZN
3	80008	Pipe, 1/2 x 62 1/4" Blk
4	30264	Post, A242-68 1/2" L
5	80023	Elbow, 1/2"
6	10264-3	Assy, A242 Base
7	80054	Nipple, 1/2 x 1 1/2
8	80019	Coupling, 1/2
9	27027	PKG, A242 Post Bolt
10*	27020	PKG, A242 Floor Clamp

*Optional



**MODEL PSA265
Replacement Parts List**

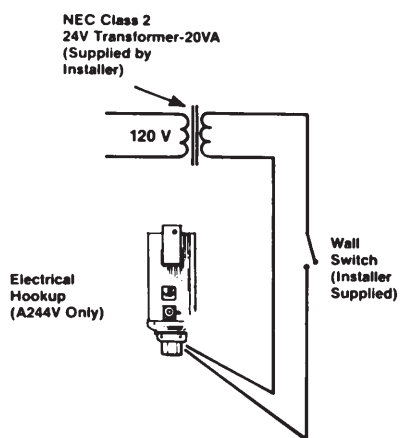
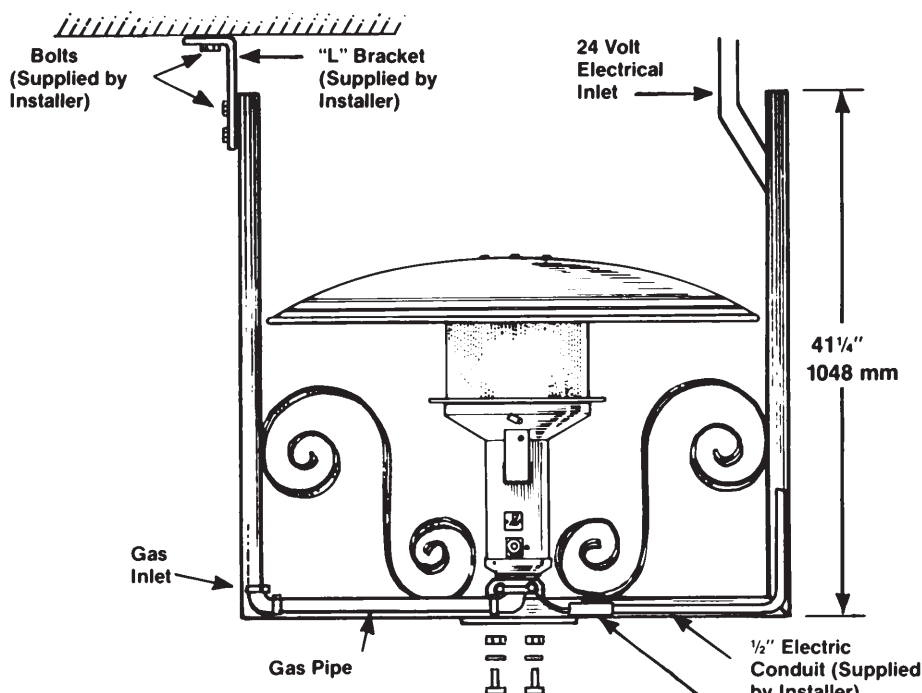


Item	Part No.	Description
1	30257-1	Collar, PH Black Slip
2	70026	Screw, #8 x 3/8 SWHSMS
3	80008	Pipe, 1/2 x 62 1/4" Blk
4	30266	Post, A265 Blk-84" L
5	80023	Elbow, 1/2 Blk
6	80078	Elbow, 1/2 Street Blk
7	80054	Nipple, 1/2 x 1 1/2 Blk
8	80024-2	Union, 1/2 Blk
9	80003	Nipple, 1/2 x Close
10	90063	Valve, Jomar T205 1/2"

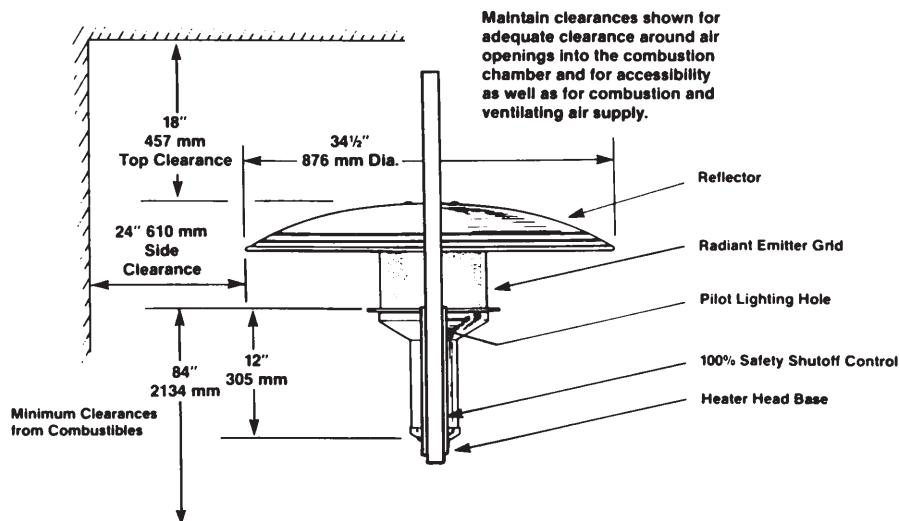
The Original Outdoor Patio Heater

MODEL A244 AND A244V GAS-FIRED INFRARED HEATER For Indoor or Outdoor Operation

Installation Instructions



If any of the original wire as supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 105 degrees Centigrade.



1. **Hanging Frame Mounting:** Before attaching the heater to the "U" shaped hanging frame, mount the frame in position to the overhead building structure. Use 3/8 inch diameter or larger bolts on each side leg. Position the frame to facilitate the connection of gas supply piping, and on models equipped with an electrical valve, the electrical supply wiring.

2. **Gas Supply Piping:** The piping provided with the heater is assembled to nestle in the channel of the hanging frame. Connect an additional length of 1/2 inch pipe long enough to clear the top of the frame.

Screw the heater onto the 1/2 NPT x 1 inch long nipple at the outlet end of the piping. The heater should be turned to allow the control handle to face in the desired direction.

Note: A 1/8 inch NPT plugged tapping, accessible for test gauge connection, must be installed immediately upstream of the gas supply connection to the heater. Use a suitable pipe thread sealant on all gas connections.

3. **Heater Mounting:** Set the heater (less reflector) with the piping assembly attached into the suspended hanging frame. The piping will nestle in the hanging bracket channel. Install and tighten the two (2) 3/8 inch bolts supplied with the frame and firmly secure the base of the heater in place.

Electrical Supply: On the A244V 24 volt model, the electrical inlet is provided on the right side of the heater opposite the gas inlet piping. The electrician should supply a connection box as shown adjacent to the heater electrical inlet and run 1/2" rigid waterproof conduit up to the right just inside the frame channel.

WARNING: The minimum fire hazard clearance marked on the heater must be maintained from vehicles parked below the heater.

The electrical input required to the heater is 0.550 Amps at 24V (rated at 8 Watts). A 40VA transformer will service up to three (3) heaters.

A NEC Class 2, 24 volt transformer (20 VA rating) circuit must be supplied to the heater. The transformer is to be installed in the junction box or in accordance with local codes, but in no case closer than three (3) feet to the reflector.

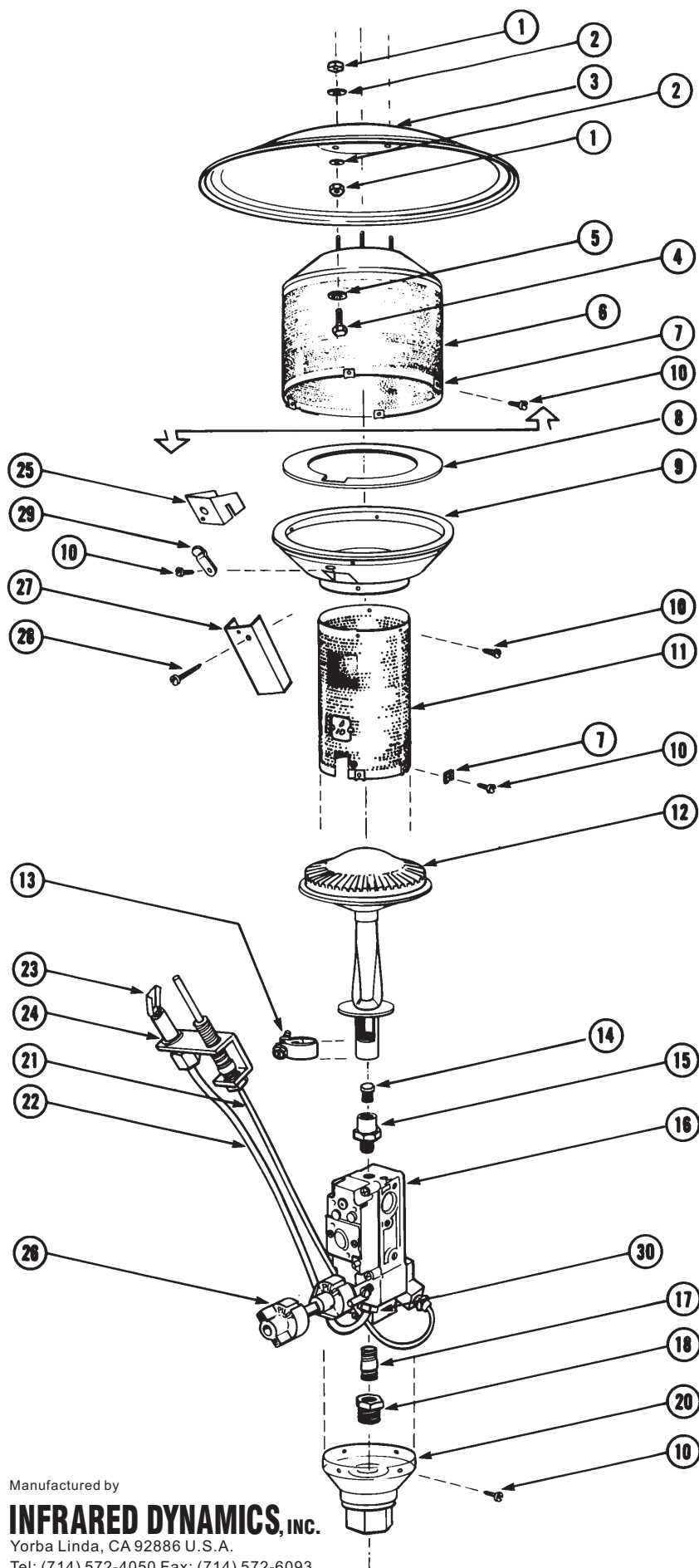
4. **Piping Hook-up:** Connect the additional gas supply piping. Leak test all piping joints with a soap-water solution. Do **NOT** use a match to test for gas leaks.

5. **Reflector Mounting:** Attach the reflector by means of the three (3) stainless steel wing-nuts at the top of the heater.

6. **Heater Start-up:** Follow the lighting and operating instructions on the rating plate attached to the hanging frame.



Replacement Parts List



Item	Part No.	Description
1	70017	Nut, 1/4-20 Hex SS
2	70024	Washer, 1/4 SAE SS
3	10261	Reflector, PH
4	70006	Bolt, 1/4 x 3/4 Hex SS
5	70033	Washer, 1/4 Inter SS
6	27006	Assy, PH Emitter Grid
7	70025-2	Clip, Stainless Steel
8	30225	Shield, PH heat
9	30202	Pan, PH Head
10	70005	Screw, #8 x 1/2 SP SS
11	30204-1	Cylinder, PH Perf (7000)
12	27007	Assy, PH Burner Pltd
13	70030	Clamp, 1"
14	35001-31	Orifice, #31 DS (Nat)
	35001-49	Orifice, #49 DS (Propane)
15	35012	Adapter, Orifice 3/8
16	90002-3	Control, 7000 MRLC Nat
	90003-3	Control, 7000 ERLC Nat-24V
	90004-3	Control, 7000 MLC-Propane
17	80005-1	Nipple, 3/8 x 1 1/2 Blk
18	80025	Reducing Bushing, 3/8 x 1/2
20	27018-1	Assy, PH H Base
	27018-2	Assy, 24V PH Head Base
21	90031	Thermocouple T46518
22	80031	Tubing, AL-1/4 x 14L
23	90021	Pilot, Natural #27919
	90022	Pilot, Propane #27920
24	90015	Natural Pilot Orifice
	90016	Propane Pilot Orifice
25	30258	PH Pilot Shield
26	27025	Assy, 7000 Handle
27	30213	Channel, PH Pilot
28	70020	Screw, #10 x 1 1/4 SS
29	30299	Cover, PH Pilot Hole
30	80026	Tubing Fastener-1/4"

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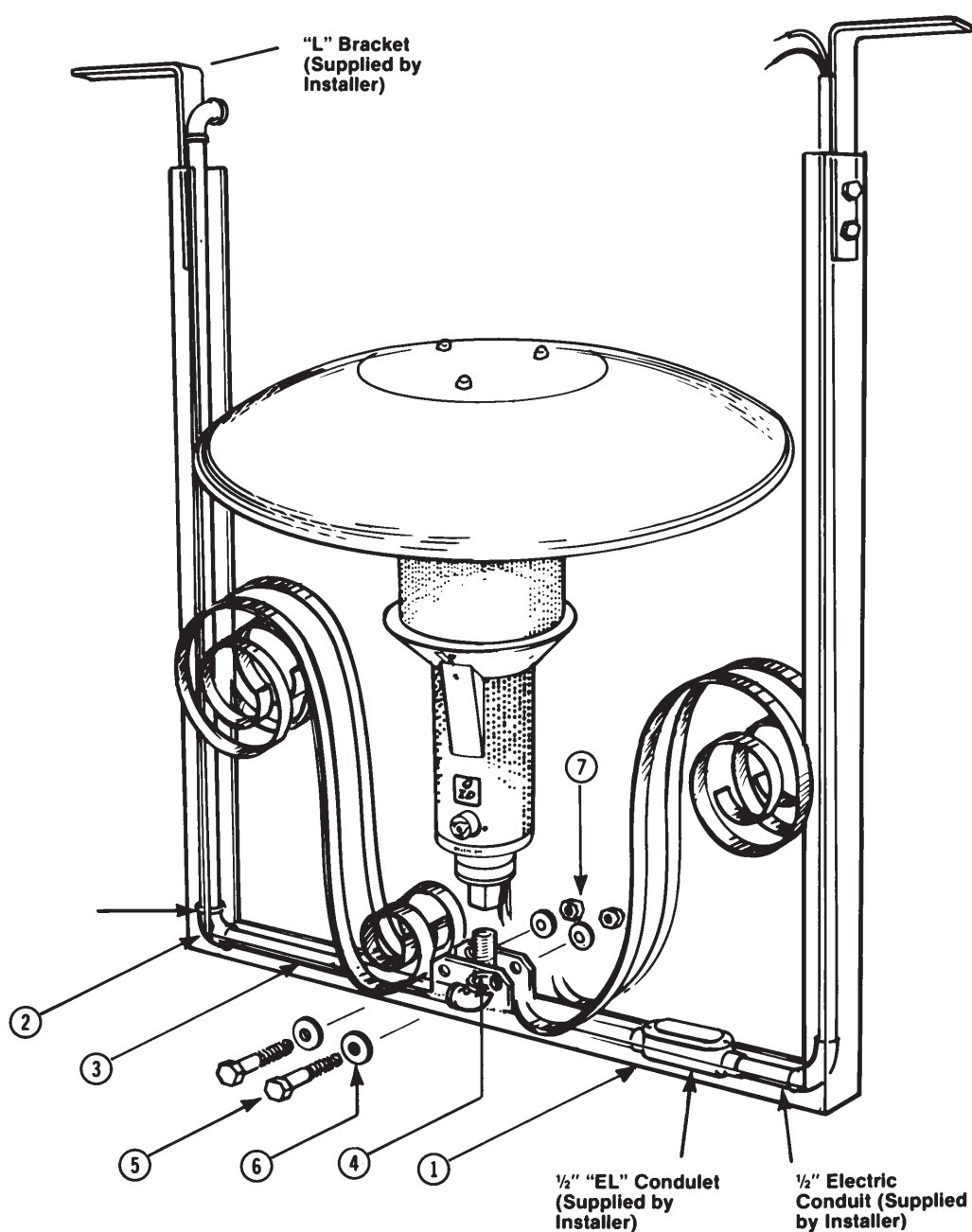
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Models A244 & A244V Parts

Item	Part No.	Description
1	35031	Frame, PH Hanging
2	80023	Elbow, ½
3	80036	Nipple, ½ x 16½
4	80003	Nipple, ½ x Close
5	70036	Bolt, ¾ x 2½—Hex
6	70055	Washer, ¾ SAE Zn
7	70059	Nut, ¾—16 Hex-Zn



TEST FIRING HEATER

Test fire heater, following the lighting instructions on heater post. Leak test all gas connections with soapy water. Soap bubbles indicate gas leakage. Do **NOT** use a match to test for gas leaks.

WARNING: White smoke may appear around the emitter grid during the first minute of the initial firing.

TROUBLE SHOOTING

Problem	Possible Causes
Pilot won't light	<ul style="list-style-type: none">• Air in gas line• Low gas pressure• Gas line turned "Off"• Blockage in gas line
Pilot won't stay lit	<ul style="list-style-type: none">• Bad thermocouple• Corrosion of thermocouple contact• Bad Valve• Wind exceeding 10 mph
Main burner won't light	<ul style="list-style-type: none">• No power (if 24 volt control)• Low gas pressure• Blockage in orifice• Manual valve not in "On" position

Limited Warranty and Service

Heaters carry a 90-day commercial or one-year residential factory warranty. All heaters are stamped with the date of manufacture. In most cases, your dealer or sales representative will handle the warranty procedure for you. If there is no sales representative available, the heater head and regulator may be returned to the factory for repair. Warranty is limited to repair of heaters at the factory or replacement parts. Any work or repair of this heater must be performed by qualified service personnel. Infrared Dynamics will not be liable for any other expense to the customer, except as stated above.

To Light Pilot

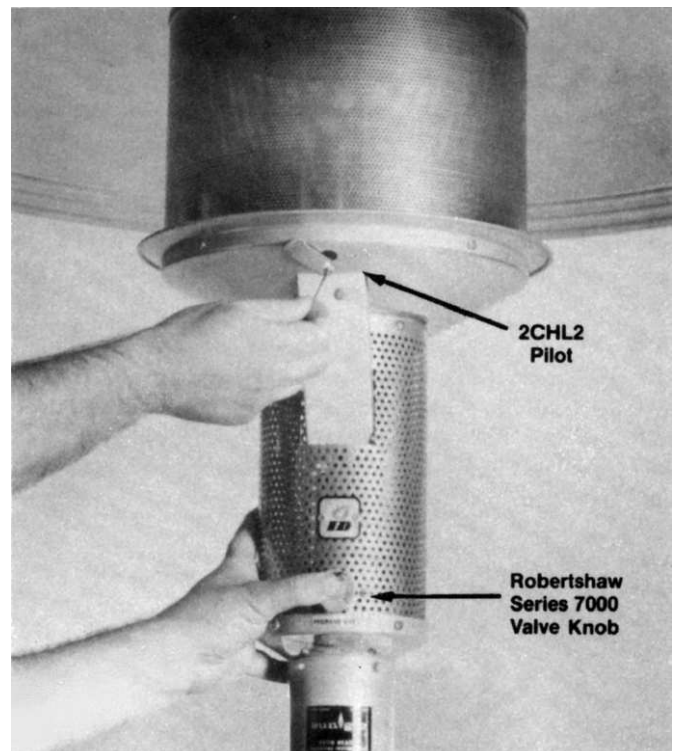
Rotate control knob to "Pilot" position. Firmly depress knob for 30 seconds while lighting pilot through $\frac{1}{2}$ " dia. lighting hole above control. Pilot should remain lit.

To Turn Heater On

Turn control knob to "On" position. If 24 volt control, turn switch "On."

To Turn Heater and Pilot "Off"

If 24 volt control, turn switch "Off." Turn knob to "Pilot" position. Depress slightly and turn to "Off" position. Wait 5 minutes after complete shutoff of heater before relighting pilot.



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