

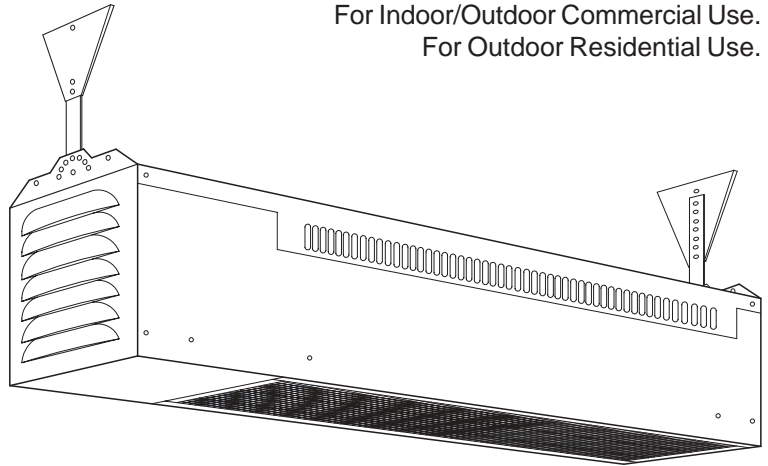
▲ WARNING: This heater must be installed and serviced by trained gas installation and service personnel only! Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Protect yourself and others by observing all safety information. Retain instructions for future reference.

Patio-Pal®

PH Series

Gas-Fired High Intensity Infra-Red Patio Heater

For Indoor/Outdoor Commercial Use.
For Outdoor Residential Use.



▲ WARNING!

This heater may be used only in outdoor residential applications or indoor / outdoor commercial (or industrial) applications. Always observe ventilation requirements as noted on page 7. This heater is not approved for use in indoor residential applications (any indoor area attached to living quarters).

▲ WARNING!

NOT FOR INDOOR RESIDENTIAL USE

This heater is **NOT** approved for use in any **INDOOR** residential application. This includes (but is not limited to) attached garages, solariums, living quarters, etc. Consult the local fire marshal and/or insurance provider if unsure of your application.

▲ WARNING!

In locations used for the storage of combustible materials, signs must be posted to specify the maximum permissible stacking height to maintain the required clearances from the heater to the combustibles. Signs must either be posted adjacent to the heater thermostats or in the absence of such thermostats in a conspicuous location.

▲ WARNING!

This is **NOT** an explosion proof heater. Where there is the possibility of exposure to flammable vapors, consult the local fire marshal, the fire insurance carrier and other authorities for approval of the proposed installation.

▲ WARNING!

- Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children should be carefully supervised when they are in the area of the heater.
- Clothing or other flammable materials should not be hung from the heater, or placed on or near the heater.
- Any guard or other protective device removed for servicing the heater must be replaced prior to operating the heater .
- Installation and repair should be done by a qualified service person. The heater should be inspected before use and at least annually by a qualified service person.
- More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the heater be kept clean.

FOR YOUR SAFETY

If you smell gas:

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

FOR YOUR SAFETY

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

Printed in U.S.A.

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www.reverberray.com
Form # LIOPH-1M-1/06 (DRP)

Replaces Form#LIOPH-1M-12/05



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Cautions

CAUTION!

The following information should be reviewed before installing this heater:

- Check the CSA rating label on the heater to verify model number. Check and maintain the attached minimum clearance to combustibles label and the proper gas to be used. Check all labels on the heater to verify proper mounting.
- The installation of this heater must conform with local building codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-1999 (NFPA 54-current edition).
- The installation of this heater in public garages must conform with the Standard for Parking Structures, ANSI / NFPA 88A-current edition: or the Standard for Repair Garages, ANSI / NFPA 88B-current edition, and must be at least 8 ft. above the floor while maintaining all clearances to combustibles.
- The installation of this heater in aircraft hangars must conform to the Standard for Aircraft Hangars, ANSI / NFPA 409-current edition. The heater must be installed at least 10 ft. above the upper wing surfaces and engine enclosures of the highest aircraft which might be stored in the hangar. In areas adjoining the aircraft storage area, the heaters must be installed at least 8 ft. above the floor. The heaters must be located in areas where they will not be subject to contact by aircraft, cranes, moveable scaffolding or other objects.
- For installations above 2,000 feet (610 m), the appliance shall be derated 4 percent for each 1,000 feet (305 m) of elevation above sea level.
- If an external electrical source is utilized, the heater must be electrically grounded in accordance with the National Electrical Code, ANSI / NFPA70-current edition.
- Under no circumstance is either the gas supply line or the electrical supply line to the heater to provide any assistance in the suspension of the heater.
- The weight of the heater must be entirely suspended from a permanent part of the building structure having adequate load characteristics.
- Neither the gas supply line, electrical supply line nor sprinkler heads shall be located in or near the path of the flue products from the heater.
- This heater cannot be used in a building with an uninsulated roof or condensation problems could result.
- When installed indoors (Commercial/Industrial Applications Only), natural or mechanical means shall be provided to supply and exhaust at least 4.0(Nat.) or 4.5(LP) C.F.M. per 1000 BTU/H of the heater's rated input.
- Signs should be posted in storage areas to specify maximum stacking height allowed in order to maintain clearance to combustibles. Clearance safety limit plaques (PLQ), available from Detroit Radiant Products are recommended for this purpose.

Patio-Pal® Gas-Fired Infra-Red Patio Heater

Clearance to Combustibles

⚠ WARNING!

Failure to comply with the stated clearance to combustibles could result in personal injury, death and/or property damage.

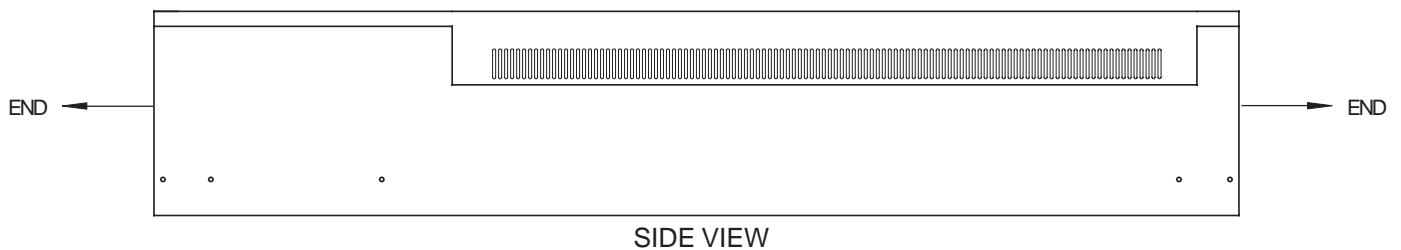
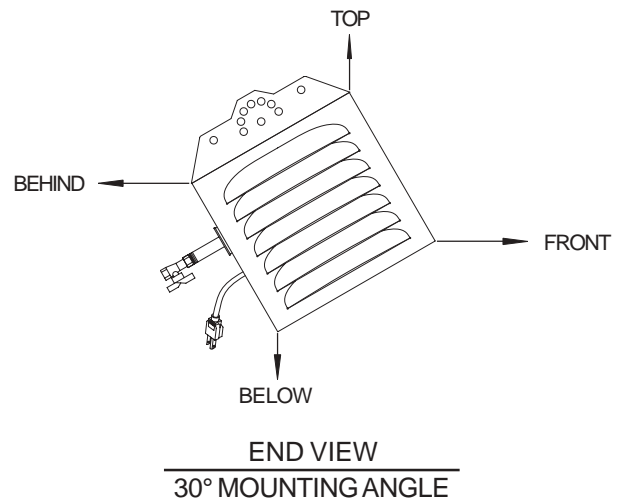
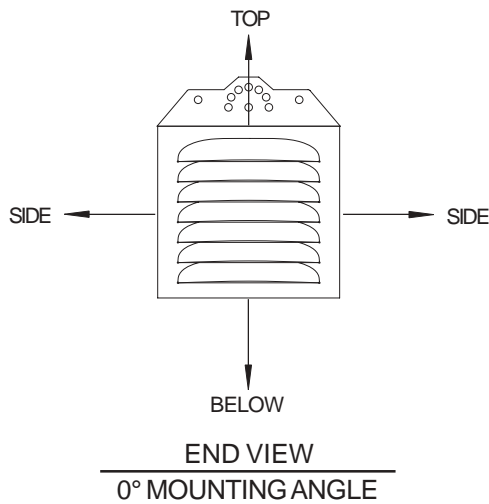
⚠ WARNING!

This heater should be installed so that the minimum clearance to combustibles, as marked on the heater, will be maintained. If vehicle lifts are present, ensure that these clearances will be maintained from the highest raised vehicle.

Patio-Pal® Clearance To Combustibles							
MODEL NO.	MOUNTING ANGLE	END(S)	SIDE(S)	BELOW	TOP	BEHIND	FRONT
PH 28 28,000 [N,P]	0°	22	14	46	13	N/A	N/A
	30°	22	N/A	46	17	8	46
PH 31 31,000 [N,P]	0°	22	14	46	13	N/A	N/A
	30°	22	N/A	46	17	8	46
PH 34 34,000 [N,P]	0°	22	14	46	13	N/A	N/A
	30°	22	N/A	46	17	8	46

Figure 1.1 CLEARANCE-TO-COMBUSTIBLES CHART

NOTE: If the heater is mounted beneath a non-combustible surface a 8 in. minimum top clearance must be maintained from the top of the heater to prevent overheating the controls.



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Design

1.1 DESIGN

When positioning heater, keep in mind the clearance to combustibles with materials such as, lights, sprinkler heads, overhead doors, storage areas with stacked materials, gas and electrical lines, parked vehicles, cranes, etc. Refer to **Figure 1.1** on page 3 for minimum clearance to verify that a safe installation condition exists. PH Series heaters should never be installed in a recessed ceiling or inside a soffit.

IMPORTANT: In locations used for the storage of combustible materials, signs shall be posted to specify the maximum permissible stacking height to maintain required clearances from the heater to the combustibles. Also note that fire sprinkler heads must be located at an appropriate distance from the heater and that this distance may exceed the published clearance to combustibles. Certain applications will require the use of high temperature sprinkler heads or the relocation of the heaters. Potentially flammable substances, such as Propylene Glycol or antifreeze solutions, should not be used in conjunction with our heaters. For further information consult NFPA 13.

Always observe applicable State and local codes.

NOTE: The effective infrared surface temperature of a person or object may be diminished with wind above 5 mph. The use of adequate wind barrier(s) may be required.



PATIO-PAL® SPOT HEATER LOCATION CHART			
MODEL & INPUT	APPROX. DIMENSIONS OF AREA COVERED	APPROX. SQ. FT. COVERED	RECOMMENDED MOUNTING HEIGHT ("A" DIMENSION)
PH-28 28,000 BTU/H	7' X 7'	49 SQ. FT.	8'-0" to 8'-6"
PH-31 31,000 BTU/H	8' X 8'	64 SQ. FT.	8'-0" to 9'-0"
PH-34 34,000 BTU/H	9' X 9'	81 SQ. FT.	8'-6" to 10'-0"

Figure 1.2

Patio-Pal® Gas-Fired Infra-Red Patio Heater

Mounting & Dimensional Data

2.1 HEATER MOUNTING

Figures 2.1 and 2.2 illustrate the more commonly used methods for heater mounting. Figure 2.1 shows the fastest and most economical method. Some local codes or application conditions (where heater movement or vibration is a possibility and a flex connector is used) stipulate that the heaters must be rigidly mounted (Figure 2.2).

- Heater must be level from side to side and the **units must be mounted at a 0° to 30° angle from horizontal**. Gas and electrical lines must not be located above the path of exhaust.
- When installing heater on an angle (0-30°) place the gas & electric inlet side down (Figure 2.2)

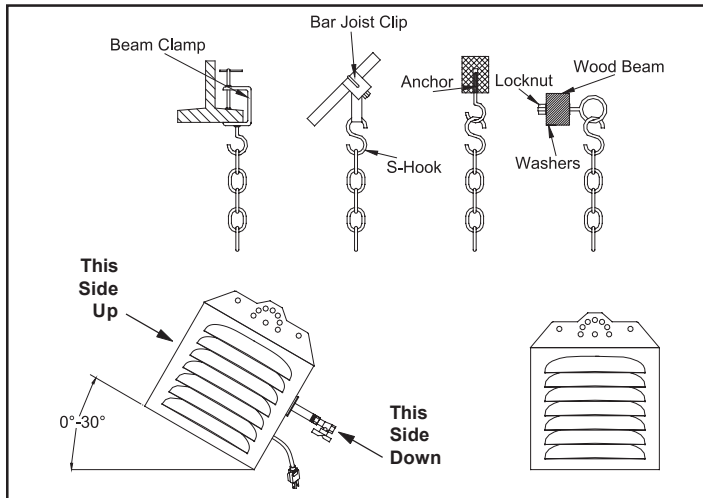


Figure 2.1 TYPICAL HEATER MOUNTING

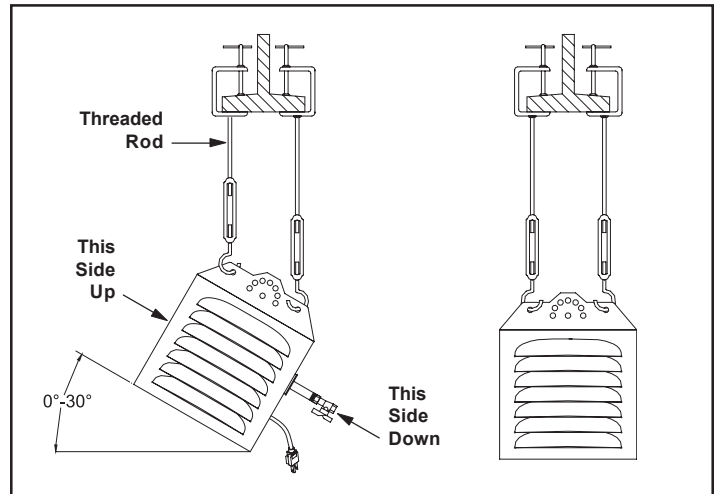
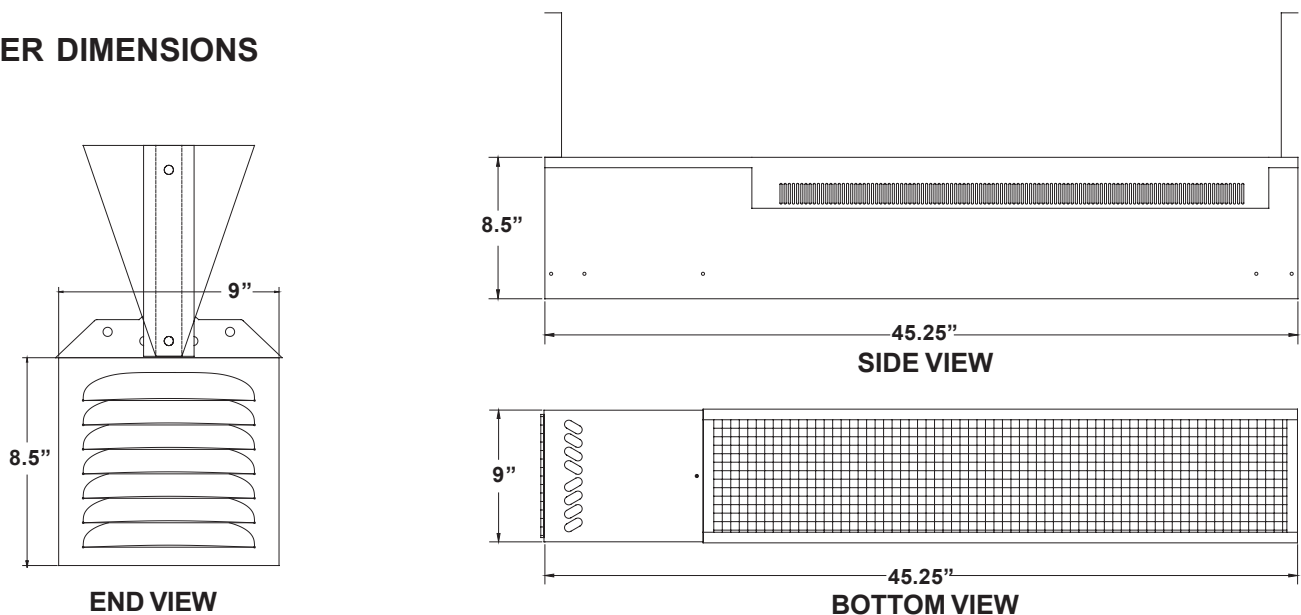


Figure 2.2 RIGID HEATER MOUNTING

HEATER DIMENSIONS



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Gas Supply & Connections

3.1 GAS SUPPLY

CAUTION!

CORRECT INLET PRESSURES ARE VITAL FOR EFFICIENT OPERATION OF HEATER. REFER TO AGA/CGA RATING PLATE AND, IF NECESSARY, CONSULT GAS COMPANY.

If all or a portion of the gas supply line consists of used pipe, it must be cleaned and then inspected to determine its equivalency to new pipe. Test all main supply lines according to local codes. (Isolate heater gas valve and supplied gas cock during test.)

Excessive torque on the manifold may misalign the orifice(s). Always use two wrenches when tightening mating pipe connections.

WARNING!

Never use a match or any other flame to test for gas leaks. Use a soap and water solution to check for leaks.

If any portion of the gas supply line is located in an area that could cause an abnormal amount of condensate to occur in the pipe, a sediment trap should be installed.

NOTE: For high pressure gas above 14 in. W.C.P. (Water Column), a high pressure regulator and gas cock must be used. If compressed air is used to detect leaks in the gas supply line, disconnect and cap shutoff cock to avoid damage to regulator and gas valve.

A sediment trap in the gas line will decrease the possibility of any loose scale or dirt in the supply line entering the heater's control system and causing a malfunction. Provide a 1/8 in. (3.2mm) NPT, plugged tapping accessible for test gauge connection immediately up stream of gas connection to heater. Consult gas company for the proper pipe sizing. The gas supply line must be of sufficient size to provide the required capacity and inlet pressure to the heater.

NOTE: Manifold pressure should be checked at the tap on the gas valve. Readings will be above atmospheric pressure (during operation). Use only a pipe joint compound that is resistant to liquified petroleum gasses.

The following guidelines **must** be observed to ensure proper system performance and safety:

MANIFOLD PRESSURE CHART			
	Required Manifold Pressure (WCP)	Minimum Inlet Pressure (WCP)	Maximum Inlet Pressure (WCP)
Natural Gas	5.0 in.	6.0 in.	14.0 in.
Liquified Petroleum Gas	10.0 in.	11.0 in.	14.0 in.

Figure 3.1

Allowance for Expansion

- Allowances must be made for the system to expand. The use of a stainless steel, flexible gas connector is recommended. If, however, local codes require rigid piping to the heater, a swing joint can be used.

Gas Line Connection

- The gas outlet shall be in the same room as the appliance and the connector must not be concealed within or run through any wall, floor or partition.
- The connector shall be of adequate length.
- The final assembly shall be tested for leaks. **CAUTION:** Matches, candles, open flame or other sources of ignition shall not be used for this purpose. Leak test solutions may cause corrosion-water rinse after test.
- Contact with foreign objects or substances should be avoided.
- The connector should not be kinked, twisted or torqued.
- Connectors are for use only on piping systems having fuel gas pressures not in excess of 1/2 pound per square inch or 14.0 in. W.C.P.
- Bending, flexing and vibration to the gas connections should be avoided.
- The appliance and it's 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 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 1/2 psig (3.5 kPa).

CAUTION!

CONNECTOR NUTS MUST NOT BE CONNECTED DIRECTLY TO PIPE THREADS. THIS CONNECTOR MUST BE INSTALLED WITH ADAPTORS PROVIDED. DO NOT REUSE.

Patio-Pal® Gas-Fired Infra-Red Patio Heater

Ventilation & Field Wiring

4.1 Ventilation

It is required that the upper levels of the space to be heated are properly ventilated to supply combustion air to the heaters and to sufficiently dilute the products of combustion. This also prevents excessive humidity buildup. With heaters mounted overhead and a properly designed ventilation system, products of combustion and excessive drafts will never be present at occupancy levels.

For proper ventilation, **a positive air displacement of 4.0 CFM per 1000 BTU/H** of natural gas consumed must be provided. If propane is used, **a positive air displacement of 4.5 CFM per 1000 BTU/H** of propane gas consumed must be provided. Many large industrial buildings have sufficient air movement to satisfy these dilution requirements. This air displacement may be accomplished by either gravity or mechanical means. Provisions must be made to provide sufficient fresh air intake area and exhaust air outlet area.

Mechanical exhausters are preferred and typically mounted at high points of the building on areas of the roof where stagnant air can accumulate under the deck. For a flat roof, considerations of prevailing winds, high and low pressure areas, and distribution of air movement must be taken into consideration when locating exhausters.

Best air distribution is accomplished by using a number of small exhausters versus one large exhauster. Provide a minimum of **one square inch of net free inlet area per 1000 BTU/H** for combustion air supply. Inlet opening in the building should be well distributed high in the sidewalls and should direct incoming air upward to dilute products of combustion while preventing drafts at lower levels. Inlets are typically 1 to 3 sq. ft.

Local codes may require that mechanical exhaust systems be interlocked with heaters to enable both to function simultaneously.

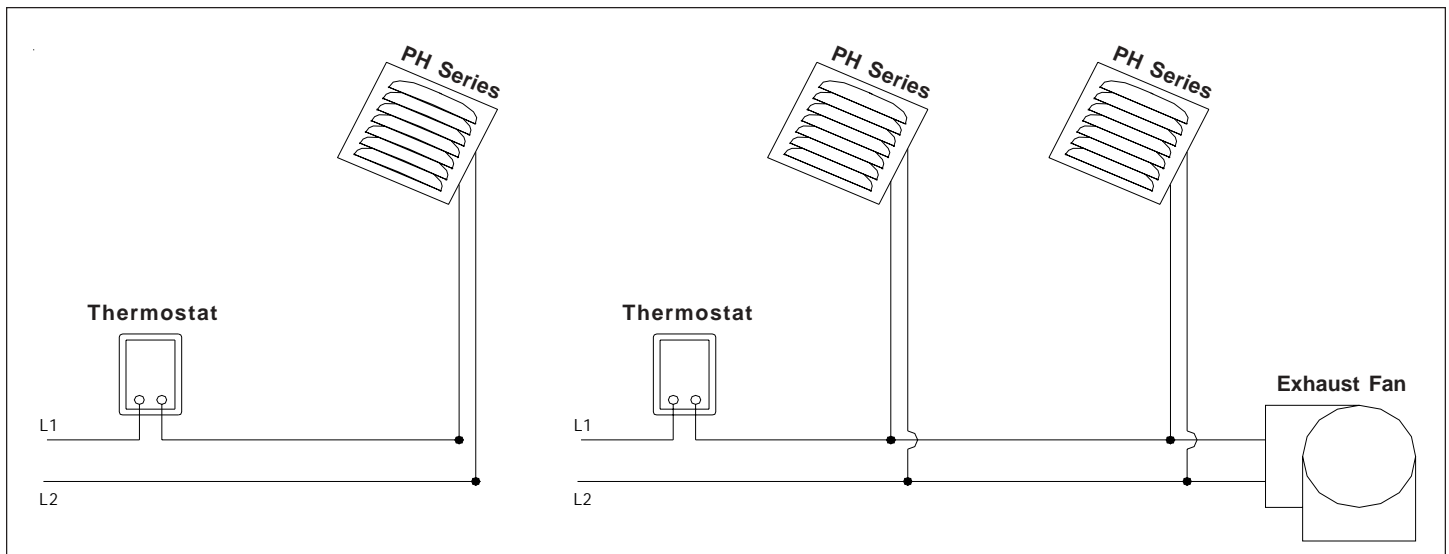


Figure 4.1 TYPICAL FIELD WIRING

Patio-Pal® Gas-Fired Infra-Red Patio Heater

Operation & Wiring Diagrams

5.1 Operation

- **Starting Circuit** (see internal wiring diagrams)

When voltage is applied to L1 and L2, a circuit is completed from L1 via the blower motor to L2. The blower fan is mounted in the control box and rated to supply sufficient air for combustion.

Air pressure generated by the blower will cause the normally open pressure switch to close. Another circuit is completed from L1 to the spark ignition module and back to L2. After a seven (7) second pre-purge, the spark electrode and gas valve are energized simultaneously. The trial for ignition is fifteen seconds.

- **Running Circuit**

After ignition, the flame rod monitors the flame. As long as a flame is present, the valve is held open. If the flame is lost, the control acts to close the valve within one second, and a new trial sequence identical to that at start-up is initiated. If proof of flame is not established within the 15 second trial for ignition, the unit will retry two additional times before entering lockout mode. If lockout occurs, the control can be reset by briefly interrupting the power source.

Internal Wiring Diagrams

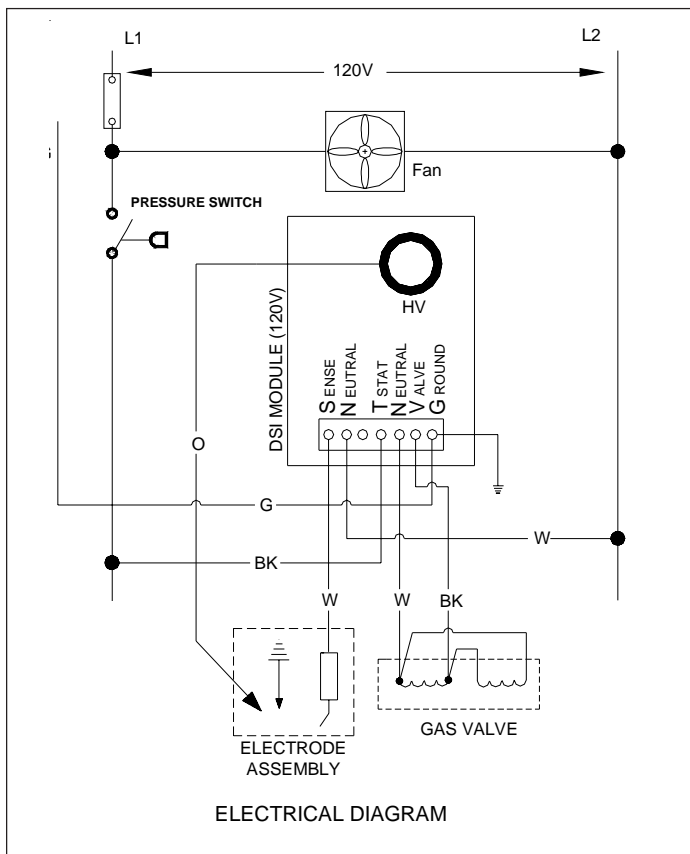


Figure 5.1 PH SERIES 120V

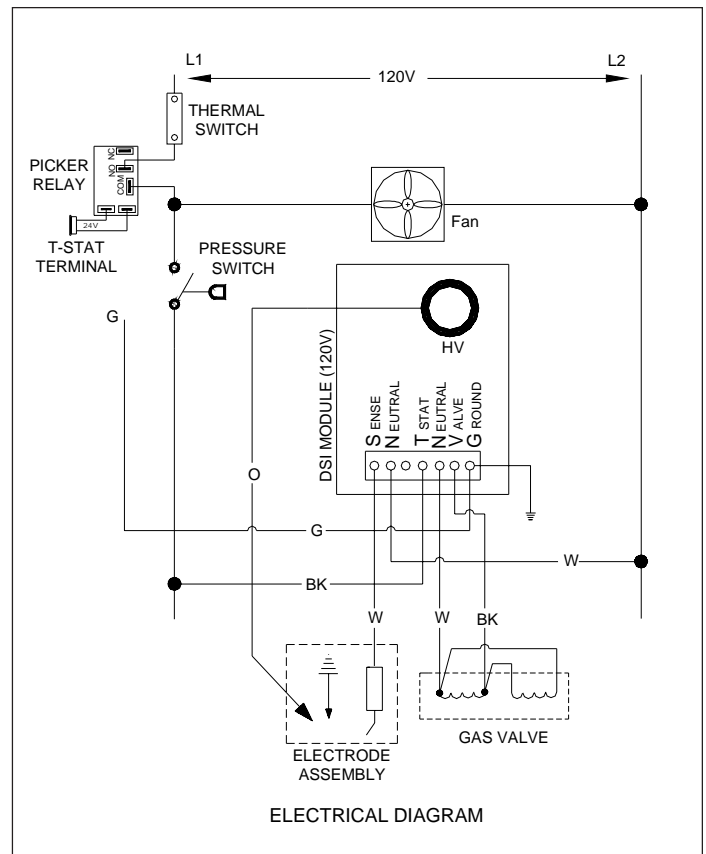


Figure 5.2 PH SERIES 120V WITH 24V CONTROL

Patio-Pal® Gas-Fired Infra-Red Patio Heater

Maintenance & Troubleshooting

6.1 MAINTENANCE

WARNING!

Disconnect all power sources related to the installation before servicing any component.

Use protective glasses when cleaning the heater. If the control assembly is not completely disconnected from the manifold, the high air pressure will cause the controls to become defective.

It is recommended that the following become a standard yearly procedure to obtain maximum operating efficiency and trouble free operation.

During long periods of non-usage, remove or cover heater with a polyethylene bag and shut off gas supply. If further service to the heater is desired, contact your representative or the factory.

Main Burner

1. Use an air hose to blow any accumulated dust and/or dirt off the heater. **Air hose pressure should not exceed 30 psig.**
2. Pass the air hose over the entire exposed area of the ceramic. **A distance of 2' to 4'** from the unit is recommended.
3. Place the air hose outlet into each venturi tube and allow the air to flow for approximately one minute.

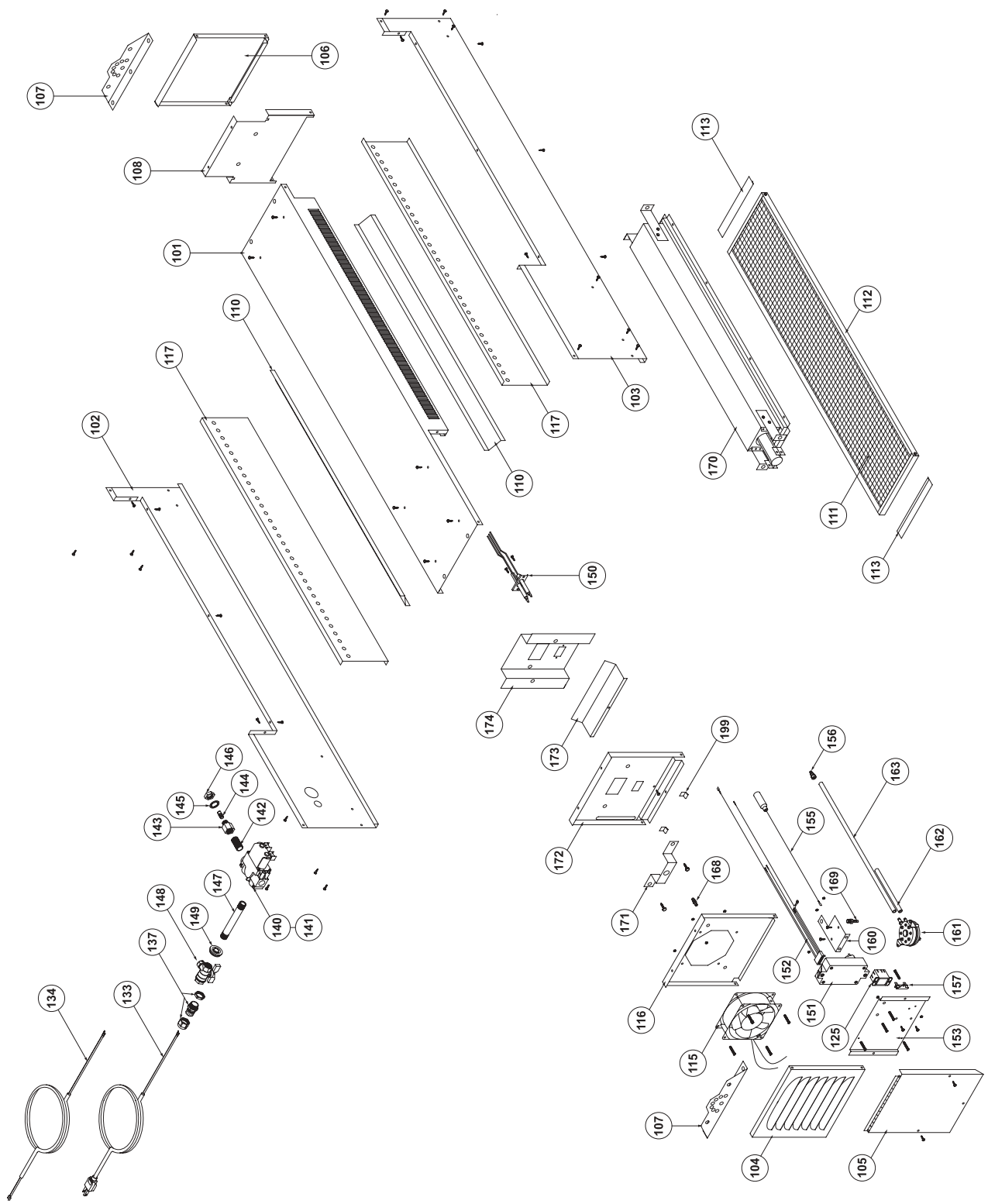
7.1 TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Burning of gas-air mixture inside plenum (flashback).	<ol style="list-style-type: none"> 1. Heater mounted at incorrect angle. 2. Excessive drafts. 3. Gas leaking at orifice, spud, pilot tube. 4. Separation of ceramic grids. 5. Ceramic grids cracked. 	<ol style="list-style-type: none"> 1. Mounting angle 0°-30°. 2. Relocate or shield from draft. 3. Check with leak detector solution. 4. Replace burner. 5. Replace burner.
Delayed ignition.	<ol style="list-style-type: none"> 1. Electrode out of specification. 2. Low gas pressure. 3. Partially blocked orifice. 4. Improper orifice size. 5. Incorrect gas. 	<ol style="list-style-type: none"> 1. See Ignition System insert. 2. See Section 3.1, Gas Supply. 3. Clean or replace. 4. Consult dealer. 5. See unit nameplate.
Low ceramic surface temperature, excessive rollout or soot on rods.	<ol style="list-style-type: none"> 1. Dirty or plugged burner ceramics. 2. Partially blocked orifice. 3. Low inlet gas pressure. 4. High or Low manifold gas pressure. 5. Foreign matter in venturi tube. 6. Excessive dark spots on burner. 7. Gas supply piping too small. 8. Incorrect gas. 	<ol style="list-style-type: none"> 1. See periodic maintenance instructions. 2. Remove and clean. 3. See Section 3.1, Gas Supply. 4. Adjust main valve regulator as specified. 5. See periodic maintenance instructions. 6. See periodic maintenance instructions. 7. Increase inlet pressure or replace undersized piping. 8. See unit nameplate.
Control system overheating.	<ol style="list-style-type: none"> 1. Heater not mounted correctly. 2. Heater mounted too close to ceiling. 	<ol style="list-style-type: none"> 1. Mounting angle 0°-30°. Level heater left to right. 2. Observe clearance to combustibles
Gas odor.	<ol style="list-style-type: none"> 1. Loose pipe connection. 	<ol style="list-style-type: none"> 1. Check all connections. Tighten as necessary.
Heater cycles repeatedly.	<ol style="list-style-type: none"> 1. Heater located in drafty area. 2. Low gas pressure. 3. Thermostat located in drafty area. 5. Defective flame electrode or circuit board. 	<ol style="list-style-type: none"> 1. Relocate or shield from draft. 2. See Section 3.1, Gas Supply. 3. Relocate thermostat. 5. Replace.
No spark; no ignition.	<ol style="list-style-type: none"> 1. Lack of 120V or 24V incoming voltage. 2. Open high voltage wire. 3. Improper electrode gap. 4. Loose or open wire connection. 5. Pressure switch not satisfied. 6. Poor or no equipment ground. 7. Unit in "safety lockout" mode. 8. Defective "Gaslighter" control. 	<ol style="list-style-type: none"> 1. Check power supply. 2. Isolate and ohm for resistance, replace if 0. 3. See Ignition System specifications. 4. Check all wires, tighten or replace. 5. Verify fan operation. Remove obstructions. 6. Check all connections, provide positive earth ground. 7. Interrupt power source, repeat trial for ignition. 8. Replace.
Heater lights, and "locks out" after approximately 10 seconds.	<ol style="list-style-type: none"> 1. Poor or no equipment ground. 2. Polarity is reversed. 3. Low gas pressure. 4. Electrode not sensing. 5. Heater mounted at incorrect angle. 6. Defective "Gaslighter" control. 	<ol style="list-style-type: none"> 1. Check all connections, provide positive earth ground. 2. 120V to black, neutral to white. 3. See Section 3.1, Gas Supply. 4. Relocate or replace if defective. 5. Mounting angle 0°-30°. 6. Replace.
Spark is present. No main gas operation. Unit "locks out".	<ol style="list-style-type: none"> 1. Gas valve in "OFF" position. 2. Defective gas valve. 3. Defective "Gaslighter" control. 	<ol style="list-style-type: none"> 1. Turn to "ON" position. 2. Isolate and check for resistance. Replace if 0. 3. Replace.
Heater will not shut off.	<ol style="list-style-type: none"> 1. Defective thermostat or wiring. 2. Gas valve stuck open. 3. High gas pressure. 	<ol style="list-style-type: none"> 1. Replace or repair. 2. Replace. 3. See Section 3.1, Gas Supply.



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Parts Breakdown



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Parts List

Patio-Pal® PARTS LIST

PART#	DESCRIPTION	PART#	DESCRIPTION
PH-101	TOP PANEL	PH-147	3/8" INCOMING PIPE NIPPLE
PH-102	LEFT FRAME SIDE PANEL (GAS & ELECTRIC)	PH-148	3/8" GAS COCK
PH-103	RIGHT FRAME SIDE PANEL	PH-149	RUBBER INLET GROMMET
PH-104	CONTROL END PANEL W/ LOUVERS	PH-150	IGNITOR ELECTRODE
PH-105	CONTROL BOX COVER W/HINGE	PH-151	CIRCUIT BOARD (MARK 10DX-117)
PH-106	END PANEL	PH-152	100-900 HARNESS (DRWH-120)
PH-107	HANGING BRACKETS	PH-153	CONTROLS MOUNTING PANEL
PH-108	BURNER END MOUNTING PANEL	PH-155	ORANGE WIRE W/BOOT
PH-110	RAIN GUARD	PH-156	ORANGE CONNECTOR (WIRE NUT)
PH-111	EGG CRATE	PH-157	THERMAL FUSE
PH-112	EGG CRATE FRAME	PH-160	PRESSURE SWITCH MOUNTING BRACKET
PH-113	EGG CRATE HOLD DOWN	PH-161	PRESSURE SWITCH (TP-264B)
PH-115	FAN	PH-162	SHORT HOSE
PH-116	FAN MOUNTING PANEL	PH-163	LONG HOSE
PH-117	AIR DISTRIBUTION CHANNEL	PH-168	BRASS FITTING
PH-125	PICKER RELAY	PH-169	"THREADED" BARB FITTING
PH-133	120 VOLT CORD	PH-170	INTERNAL BURNER ASSEMBLY W/ HOLDDOWNS & FOOTINGS
PH-134	24 VOLT CORD	PH-171	VALVE MOUNTING BRACKET
PH-137	STRAIN RELIEF	PH-172	VALVE MOUNTING PANEL
PH-140	GAS VALVE - NATURAL GAS	PH-173	CONTROLS FLASHSHIELD
PH-141	GAS VALVE - PROPANE	PH-174	BURNER & ELECTRODE MOUNTING PANEL
PH-142	CLOSE PIPE NIPPLE	PH-196	3/8" SCREWS
PH-143	3/8" REDUCER FITTING	PH-197	3/8" BOLTS
PH-144	GAS ORIFICE	PH-198	3/8" NUTS
PH-145	LOCK WASHER	PH-199	"TENSION" CLIPS
PH-146	NUT		



Patio-Pal® Gas-Fired Infra-Red Patio Heater

Limited Warranty

Limited Warranty

One-Year Limited Warranty. Patio Heaters covered in this manual, are warranted by Detroit Radiant Products Company to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Detroit Radiant Products Company designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Detroit Radiant Products Company's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

Additional Limited Warranty. In addition to the above mentioned one-year warranty, Detroit Radiant Products Company warrants the original purchaser an additional two-year extension on the ceramic burner. This extension excludes electrical/purchased components.

Limitation of Liability. To the extent allowable under applicable law, Detroit Radiant Products Company's liability for consequential and incidental damages is expressly disclaimed. Detroit Radiant Products Company's liability in all events is limited to and shall not exceed the purchase price paid.

Warranty Disclaimer. Detroit Radiant Products Company has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Detroit Radiant Products Company.

Product Suitability. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Detroit Radiant Products Company attempts to assure that its products comply with as many codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products: e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you: (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequently the above limitation may not apply to you: and (c) by law, during the period of this limited warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

Prompt Disposition. Detroit Radiant Products Company will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Detroit Radiant Products Company at address below, giving dealer's name, address, date and number of dealer's invoice, and describe the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Registration. Register on-line at www.reverberray.com/warranty.

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