# DX2 Series
# Insert Manual

**For complete installation instructions, reference the Tube Heater General Manual that accompanies this insert manual.**

RE-VERBER-RAY

The DX2 Series Infrared Tube Heater is a positive pressure, single-stage radiant heater system. This insert manual is a supplement to the Tube Heater General Manual and provides specific information related to the DX2 Series model. All persons involved with the installation, operation and maintenance of the heater system must read and understand the information in this insert manual and the accompanying Tube Heater General Manual.

## ⚠ WARNING



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

This heater must be installed and serviced by trained gas installation and service personnel only. Failure to comply could result in personal injury, asphyxiation, death, fire or property damage.



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.



**Not for residential use!** Do not use this heater in the home, sleeping quarters, attached garages, etc. Installation of a commercial tube heater system in residential indoor spaces may result in property damage, serious injury, asphyxiation or death.

## For Your Safety

**If you smell gas:**

- Do not try to light any appliance.
- Do not touch any electrical switch.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.
- Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

**Keep these instructions for future reference.**

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Replaces: LIODX2a-Rev.18111-1M-3/09(CDS)

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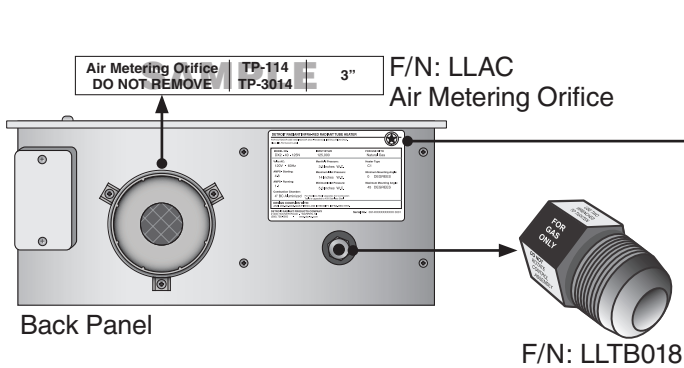
**NOTE:** See page 10 for a list of available models and specifications.

# 1.0 Safety

Read and understand all safety information and warnings in this insert manual and the Tube Heater General Manual before installation, operation and maintenance of the radiant tube heater system.

## Safety Labels and Their Locations

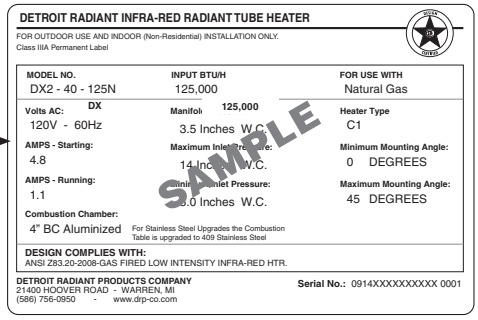
Product safety signs or labels should be replaced by the product user when they no longer are legible. Contact either your local distributor or the product manufacturer for obtaining replacement signs or labels.




F/N: LLAC
Air Metering Orifice

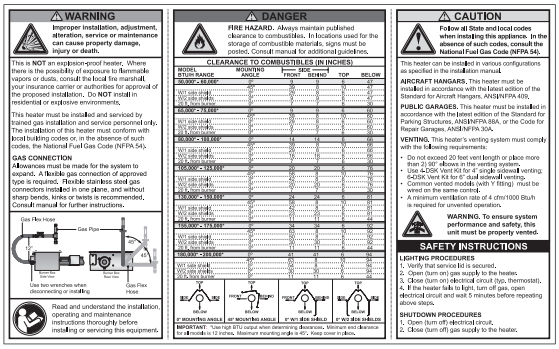
Back Panel

F/N: LLTB018 (Natural Gas)
F/N: LLTB019 (LP Gas)




Rating Plate

Top Panel



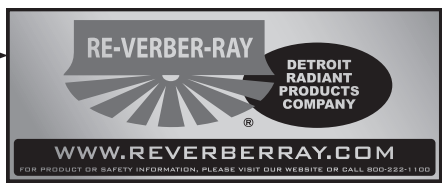

F/N: LLTCL001 Clearance to Combustibles Label.

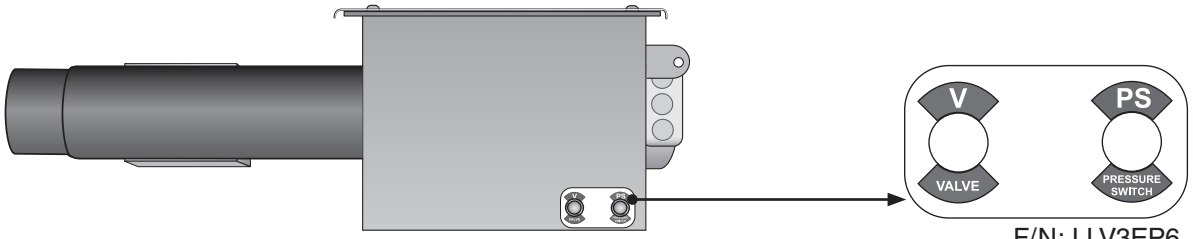



Burner Control Box Component Label (located under the top panel)

Bottom Panel

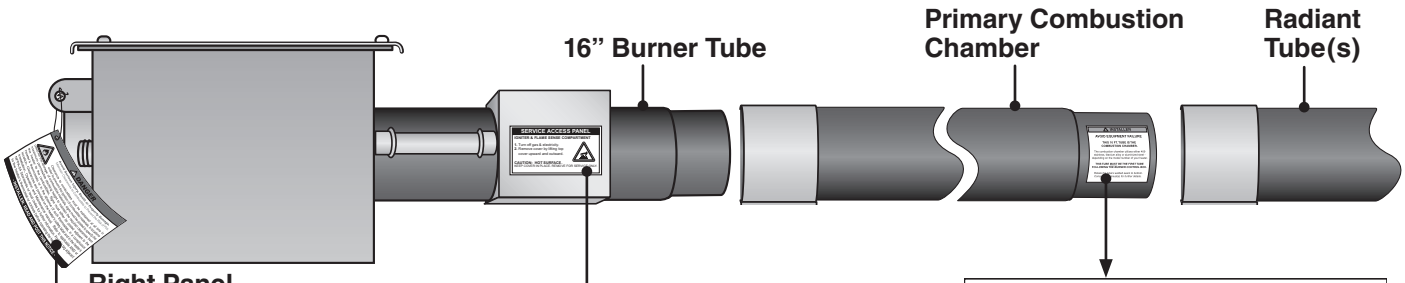
F/N: LLLOGO1






F/N: LLV3EP6

**Left Panel**
(Fan Compartment)




**Right Panel**
(Valve Compartment)

**⚠ DANGER**

**Avoid Serious Injury, Death or Property Damage.**
Maintain Clearances to Combustible to Prevent the Risk of Fire.

Clearance to combustibles must be maintained at all times in order to prevent the ignition of combustible materials. 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's thermostats or in the absence of such thermostats, in a conspicuous location. Clearances are provided on the heater's safety label and in the heater's Installation, Operation and Maintenance manual. Product installation and operation must comply with applicable standards, codes and regulations. Post this tag adjacent to the heater's thermostat or controls before operating the heater.

**- INSTALLER: READ AND POST THIS NOTICE -**

F/N: LL01 - Clearance Safety Tag
(Affix adjacent to heater's thermostat)

**SERVICE ACCESS PANEL**

**IGNITER & FLAME SENSE COMPARTMENT**

1. Turn off gas & electricity.
2. Remove cover by lifting top cover upward and outward.

**CAUTION: HOT SURFACE.**
KEEP COVER IN PLACE. REMOVE FOR SERVICE ONLY.

F/N: LLTB026

**⚠ INSTALLER**

**AVOID EQUIPMENT FAILURE**

**THIS 10 FT. TUBE IS THE COMBUSTION CHAMBER.**

The combustion chamber utilizes either 409 stainless, titanium alloy or aluminized steel - depending on the model number of your heater.

**THIS TUBE MUST BE THE FIRST TUBE FOLLOWING THE BURNER CONTROL BOX.**

Rotate the tube's welded seam to bottom. Consult the manual(s) for further details.

F/N: LLTB004 (orange)

## Clearance to Combustibles

# ⚠ WARNING



Placement of explosive objects, flammable objects, liquids and vapors close to the heater may result in explosion, fire, property damage, serious injury or death. Do not store or use explosive objects, liquids or vapor in the vicinity of the heater.

Clearance to combustibles is defined as the minimum distance that must exist between the tube surface, or reflector, and any combustible items (see Figure 1.1). It also pertains to the distance that must be maintained from moving objects around the tube heater.

When installing the tube heater system, clearances to combustibles for your series tube heater and configuration must be maintained. Refer to Chart 1.1 on the following page to determine the required distances for your model.

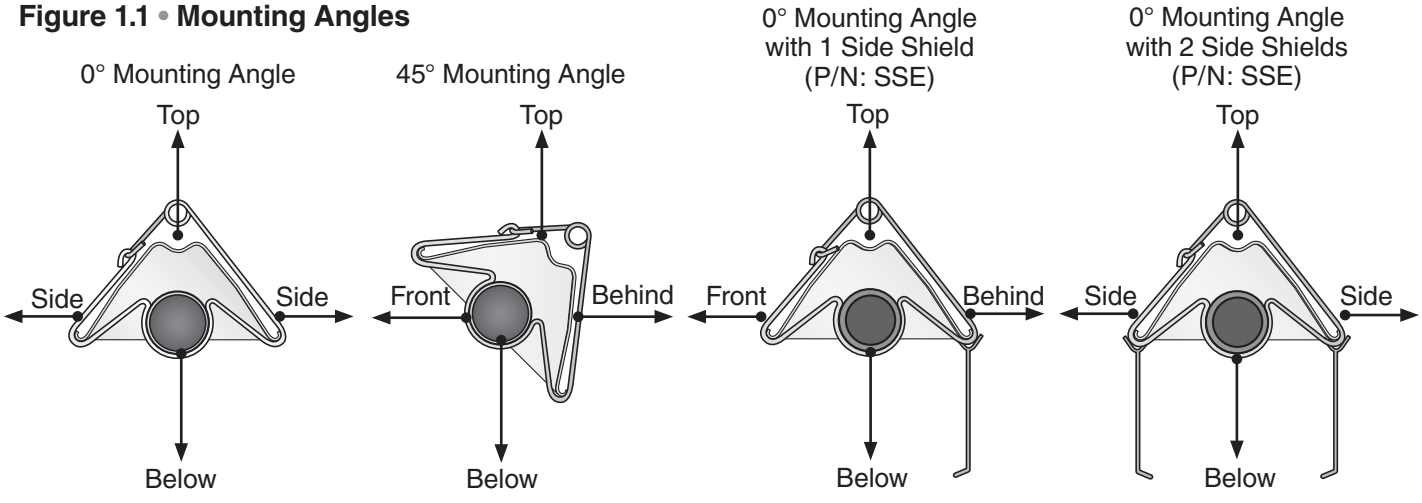
The stated clearance to combustibles represents a surface temperature of 90ºF (32ºC) above room temperature. Building materials with a low heat tolerance (such as plastics, vinyl siding, canvas, tri-ply, etc.) may be subject to degradation at lower temperatures. It is the installer's responsibility to assure that adjacent materials are protected from degradation.

Chart 1.1 • **Clearance to Combustibles in Inches** (see Figure 1.1 for Mounting Angles)

| Model Number | Mounting Angle* | Side | | Top | Below |
|---|---|---|---|---|---|
| | | Front | Behind | | |
| **DX2 (20, 30, 40) - 50, 60 [N, P]** | 0° | 9 | 9 | 6 | 47 |
| | 45° | 39 | 8 | 10 | 47 |
| with 1 side shield | 0° | 29 | 8 | 6 | 47 |
| with 2 side shields | 0° | 9 | 9 | 6 | 47 |
| 20 ft. from burner | 0° | 7 | 7 | 6 | 30 |
| **DX2 (20, 30, 40) - 75 [N, P]** | 0° | 9 | 9 | 6 | 60 |
| | 45° | 39 | 8 | 10 | 60 |
| with 1 side shield | 0° | 29 | 8 | 6 | 60 |
| with 2 side shields | 0° | 9 | 9 | 6 | 60 |
| 20 ft. from burner | 0° | 7 | 7 | 6 | 30 |
| **DX2 (20, 30, 40, 50) - (80, 96, 100) [N, P]** | 0° | 14 | 14 | 6 | 66 |
| | 45° | 39 | 8 | 10 | 66 |
| with 1 side shield | 0° | 29 | 8 | 6 | 66 |
| with 2 side shields | 0° | 16 | 16 | 6 | 66 |
| 20 ft. from burner | 0° | 7 | 7 | 6 | 30 |
| **DX2 (30, 40, 50, 60) - 125 [N, P]** | 0° | 20 | 20 | 6 | 76 |
| | 45° | 58 | 8 | 10 | 76 |
| with 1 side shield | 0° | 42 | 8 | 6 | 76 |
| with 2 side shields | 0° | 20 | 20 | 6 | 76 |
| 20 ft. from burner | 0° | 7 | 7 | 6 | 30 |
| **DX2 (40, 50, 60) - 150 [N, P]** | 0° | 24 | 24 | 6 | 81 |
| | 45° | 58 | 8 | 10 | 81 |
| with 1 side shield | 0° | 42 | 8 | 6 | 81 |
| with 2 side shields | 0° | 23 | 23 | 6 | 81 |
| 20 ft. from burner | 0° | 11 | 11 | 6 | 44 |
| **DX2 (40, 50, 60, 70) - 175 [N, P]** | 0° | 34 | 34 | 6 | 92 |
| | 45° | 63 | 8 | 10 | 92 |
| with 1 side shield | 0° | 50 | 8 | 6 | 92 |
| with 2 side shields | 0° | 30 | 30 | 6 | 92 |
| 20 ft. from burner | 0° | 11 | 11 | 6 | 44 |
| **DX2 (50, 60, 70, 80) - 200 [N, P]** | 0° | 41 | 41 | 6 | 94 |
| | 45° | 63 | 8 | 10 | 94 |
| with 1 side shield | 0° | 54 | 8 | 6 | 94 |
| with 2 side shields | 0° | 30 | 30 | 6 | 94 |
| 20 ft. from burner | 0° | 11 | 11 | 6 | 44 |

***** Heaters mounted on an angle between 0° to 45° must maintain clearances posted for 0° or 45°; whichever is greater.

**Figure 1.1 • Mounting Angles**



# 2.0 Installation

## ⚠ WARNING



Improper installation, adjustment, alteration, service or maintenance can cause property damage, serious injury or death. Read and understand, the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Only trained, qualified gas installation and service personnel may install or service this equipment.

**Not for residential use!** Do not use this heater in the home, sleeping quarters, attached garages, etc. Installation of a commercial tube heater system in residential indoor spaces may result in property damage, serious injury or death.

Instructions for the following are detailed in the Tube Heater General Manual:

- Design considerations
- Hanger suspension and placement
- Tube layout and assembly
- Burner control box suspension
- Reflectors (and accessories)
- Venting and combustion air intake
- Gas requirements
- Baffle assembly

**Note:** Electronic versions of all manuals are available at www.detroitradiant.com

## Gas Requirements

| Type of Gas | Required Manifold Pressure | Minimum Inlet Pressure | Maximum Inlet Pressure |
|---|---|---|---|
| Natural | 3.5 Inches W.C. | 5.0 Inches W.C. | 14.0 Inches W.C. |
| Liquefied Petroleum | 10.0 Inches W.C. | 11.0 Inches W.C. | 14.0 Inches W.C. |

**IMPORTANT:** Consult the Tube Heater General Manual for gas connection requirements.

## Electrical Requirements

## *NOTICE*

The DX2 Series comes standard requiring a 120VAC connection to the thermostat. An optional 24VAC internal relay (24VAO) may be factory installed if the heater is to be controlled via a 24VAC thermostat. A 40VA transformer is necessary when using the 24VAO option.

**NOTE:** A relay transformer may be used in lieu of the factory installed 24VAO option.

- 120VAC - 60 Hz GRD, 3-wire.
- 120VAC thermostat connection.
- Starting current 4.8 amps
- Running current 1.1 amps

# Wiring

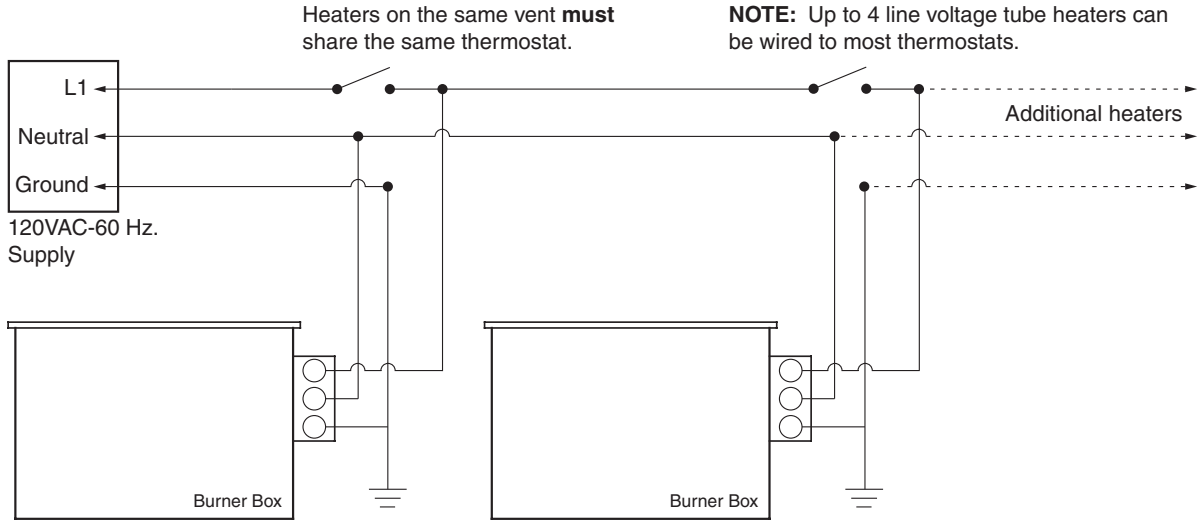
## ⚠ WARNING

**Electric Shock**

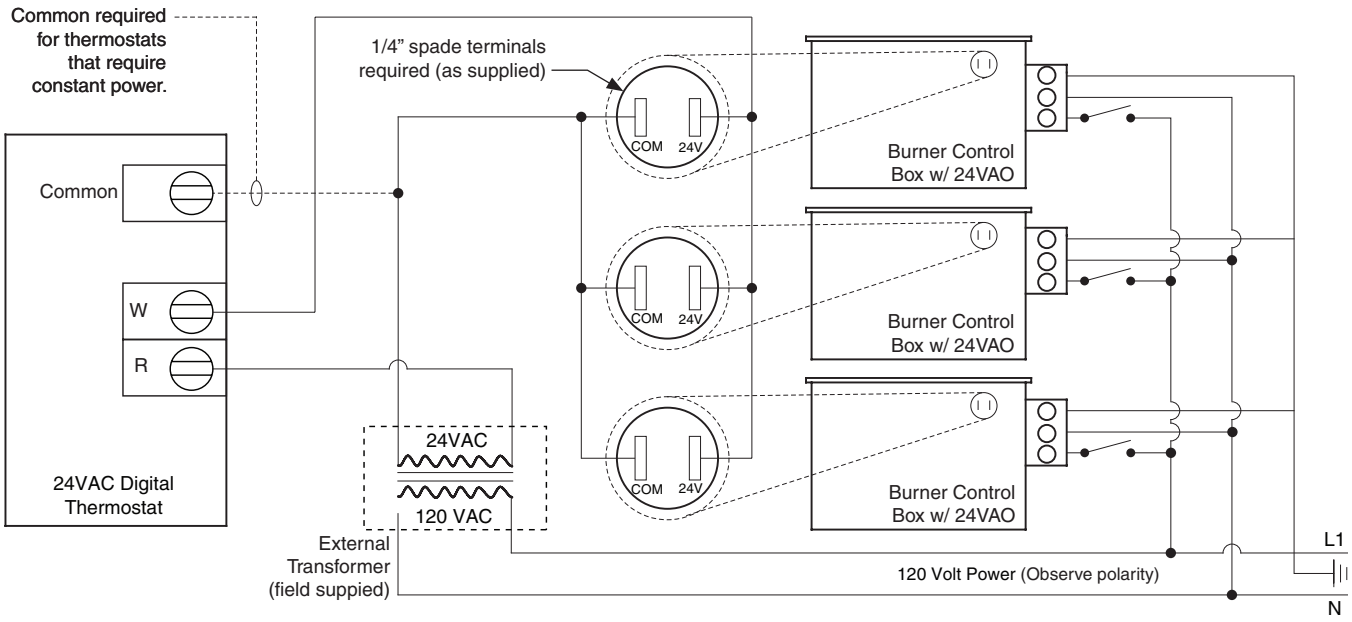
Field wiring to the tube heater must be connected and grounded in accordance with national, state, provincial, local codes and to the guidelines in the Tube Heater General Manual and Series Insert Manual. In the United States refer to the most current revisions to the ANSI/NFPA 70 Standard and in Canada refer to the most current revisions to the CSA C22.1 Part I Standard.

### Figure 2.1 • Field Wiring Diagrams

**A.** 120VAC Single/Multiple Line Voltage Heater(s)




**B.** 24VAO (Internal Relay Option)

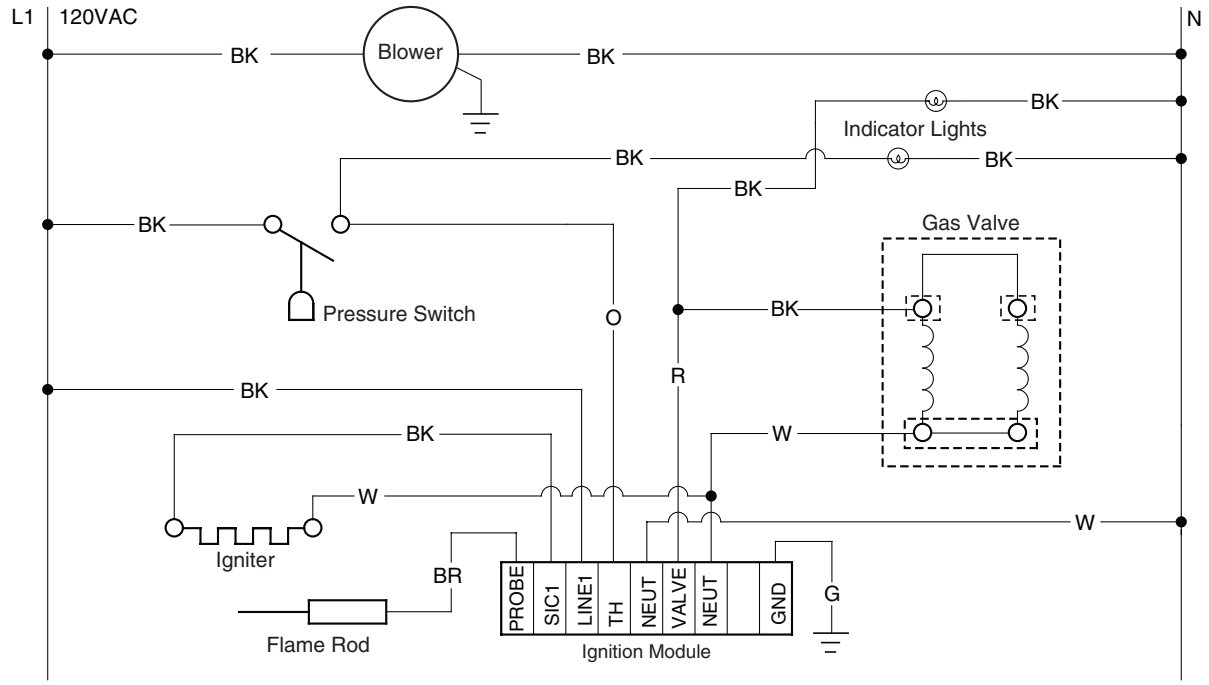


**Before field wiring this appliance -** Check existing wiring; replace if necessary.

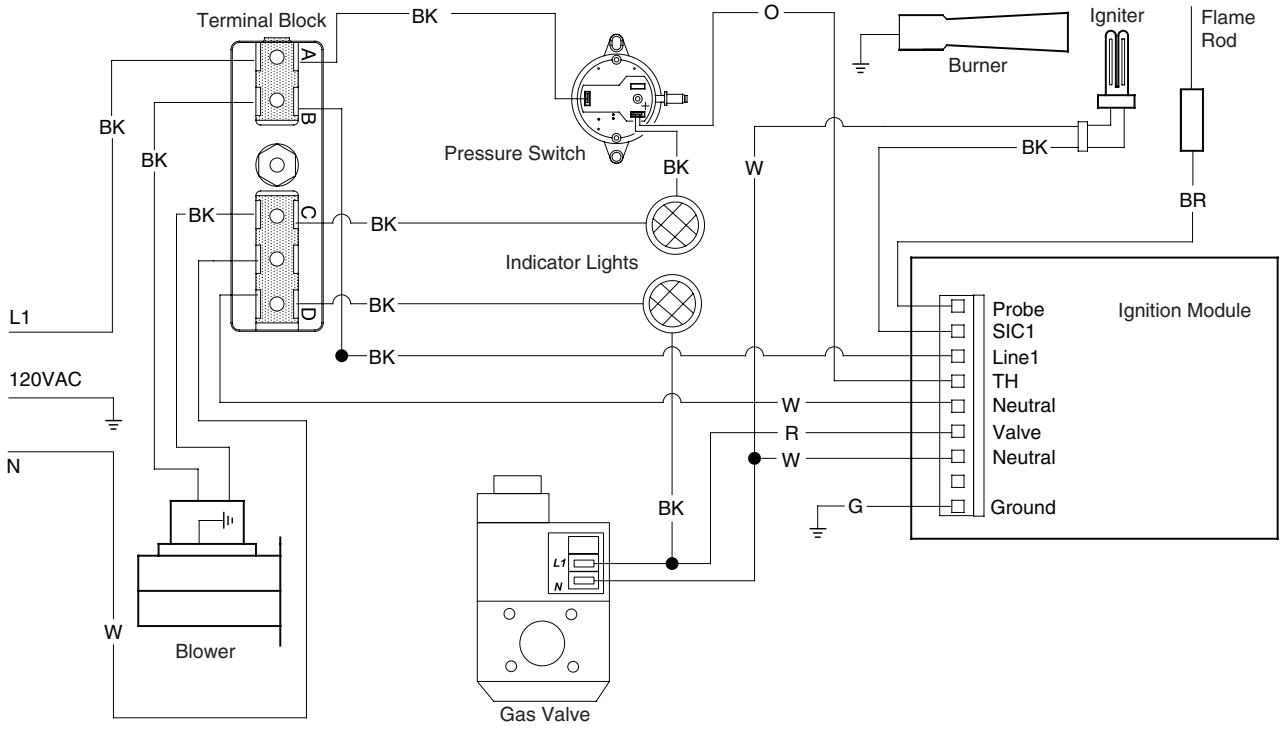
**Note:** If any of the original wire supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 105° C.

### Figure 2.2 • Internal Wiring Diagrams

**A.** Ladder Diagram - TP-351A

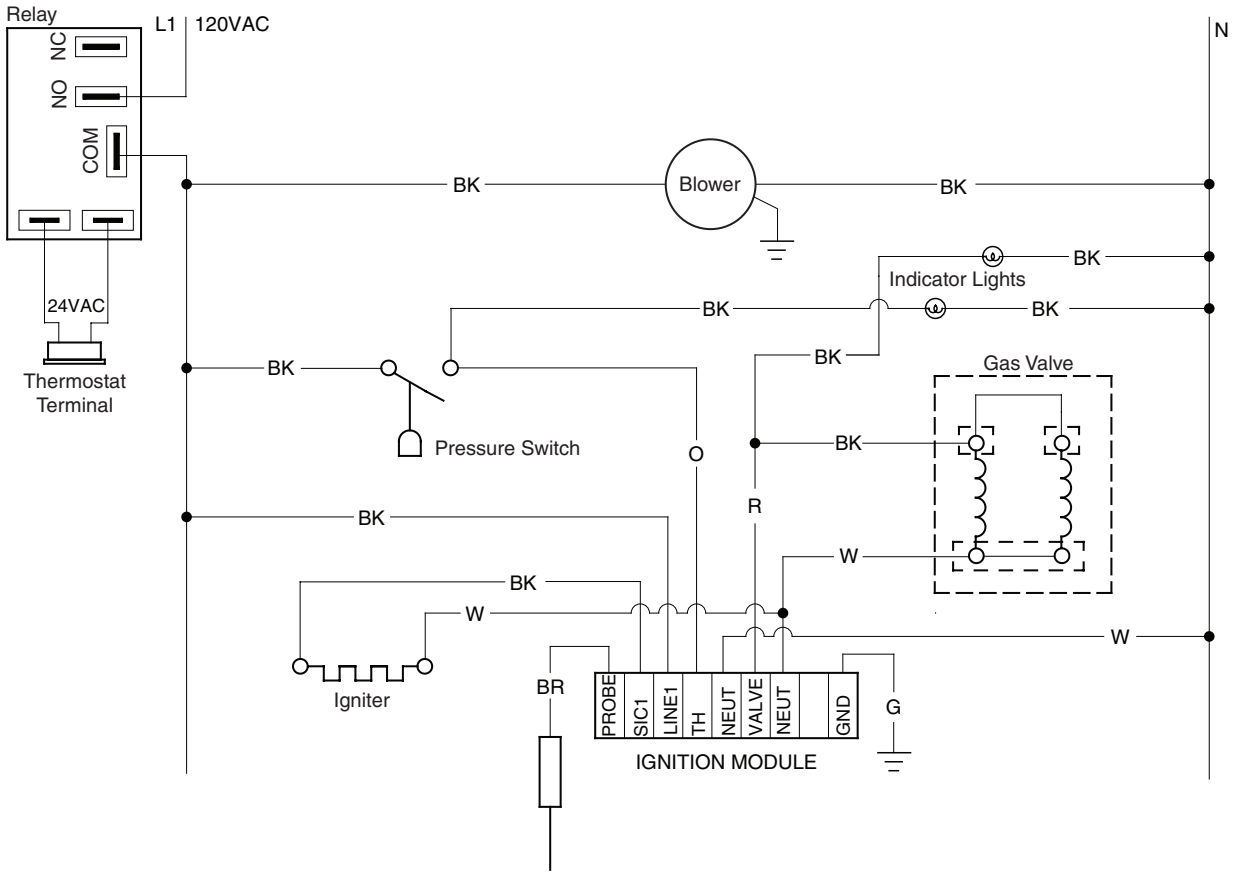



**B.** Block Diagram - TP-351A

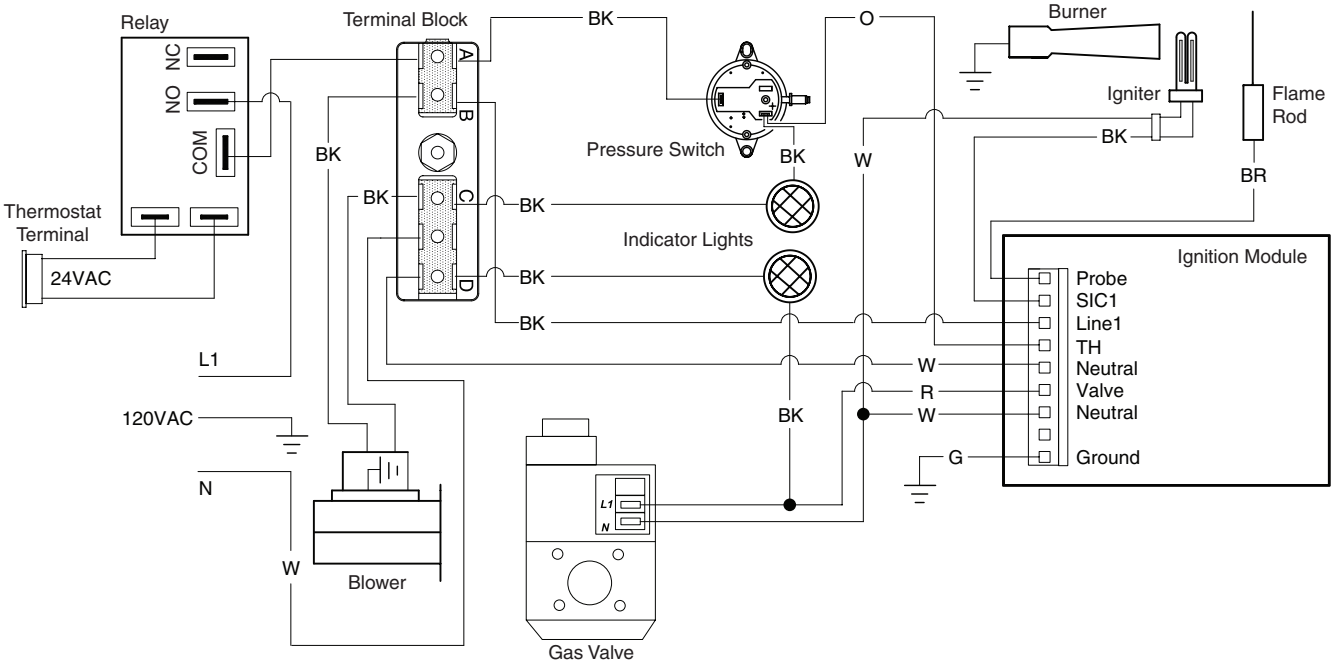


## Figure 2.3 • Alternative Wiring Diagrams

**A.** TP-351A Ladder Diagram - **Internal Relay Option (24VAO)**




**B.** TP-351A Block Diagram - **Internal Relay Option (24VAO)**



# Specifications

## Chart 2.1 • Specifications

| Model Number | Gas Type (Select One) | BTU/H | Straight Length (Dim A) | U-Tube Length (Dim. B) | Weight (lbs.) | Stainless Steel Weight (lbs.) | Recommend Mounting Height | Combustion Chamber (Black Coated) | Radiant Emitter Tube(s) (Black Coated) | Radiant Surface Area (sq. ft.) | 36" Baffle Sections |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DX2-20-50** | N or LP | 50,000 | 21'-8" | 13'-0" | 120 | N/A | 9' to 15' | Alum | Alum | 20.2 | 5 |
| **DX2-20-60** | N or LP | 60,000 | 21'-8" | 13'-0" | 120 | N/A | 10' to 15' | Alum | Alum | 20.2 | 5 |
| **DX2-20-75** | N or LP | 75,000 | 21'-8" | 13'-0" | 120 | 145 | 11' to 18' | Alum | Alum | 20.2 | 5 |
| **DX2-20-80** | N or LP | 80,000 | 21'-8" | 13'-0" | 120 | 145 | 11' to 18' | Alum | Alum | 20.2 | 5 |
| **DX2-20-96** | N or LP | 96,000 | 21'-8" | 13'-0" | 120 | 145 | 12' to 20' | Alum | Alum | 20.2 | 5 |
| **DX2-30-50** | N or LP | 50,000 | 31'-4" | **17'-8" | 160 | N/A | 10' to 15' | Alum | Alum | 30.4 | 4 |
| **DX2-30-60** | N or LP | 65,000 | 31'-4" | **17'-8" | 160 | N/A | 11' to 18' | Alum | Alum | 30.4 | 4 |
| **DX2-30-75** | N or LP | 75,000 | 31'-4" | **17'-8" | 160 | 195 | 12' to 20' | Alum | Alum | 30.4 | 4 |
| **DX2-30-80** | N or LP | 80,000 | 31'-4" | **17'-8" | 160 | 195 | 12' to 20' | Alum | Alum | 30.4 | 5 |
| **DX2-30-100** | N or LP | 100,000 | 31'-4" | **17'-8" | 160 | 195 | 13' to 23' | Alum | Alum | 30.4 | 5 |
| **DX2-30-125** | N or LP | 125,000 | 31'-4" | **17'-8" | 160 | 195 | 14' to 25' | Alum | Alum | 30.4 | 5 |
| **DX2-40-50** | N or LP | 50,000 | 41'-0" | 22'-8" | 190 | N/A | 11' to 18' | Alum | Alum | 40.5 | 2 |
| **DX2-40-60** | N or LP | 60,000 | 41'-0" | 22'-8" | 190 | N/A | 11' to 18' | Alum | Alum | 40.5 | 2 |
| **DX2-40-75** | N or LP | 75,000 | 41'-0" | 22'-8" | 190 | 235 | 12' to 20' | Alum | Alum | 40.5 | 2 |
| **DX2-40-80** | N or LP | 80,000 | 41'-0" | 22'-8" | 190 | 235 | 12' to 20' | Alum | Alum | 40.5 | 5 |
| **DX2-40-100** | N or LP | 100,000 | 41'-0" | 22'-8" | 190 | 235 | 13' to 23' | Alum | Alum | 40.5 | 4 |
| **DX2-40-125** | N or LP | 125,000 | 41'-0" | 22'-8" | 190 | 235 | 14' to 25' | Alum | Alum | 40.5 | 4 |
| **DX2-40-150** | N or LP | 150,000 | 41'-0" | 22'-8" | 190 | 235 | 15' to 27' | Titan | Alum | 40.5 | 4 |
| **DX2-40-175** | N or LP | *175,000 | 41'-0" | 22'-8" | 190 | N/A | 16' to 30' | Titan | Alum | 40.5 | 4 |
| **DX2-50-100** | N or LP | 100,000 | 50'-8" | **27'-4" | 235 | 290 | 15' to 27' | Alum | Alum | 50.6 | 2 |
| **DX2-50-125** | N or LP | 125,000 | 50'-8" | **27'-4" | 235 | 290 | 15' to 27' | Alum | Alum | 50.6 | 4 |
| **DX2-50-150** | N or LP | 150,000 | 50'-8" | **27'-4" | 235 | 290 | 16' to 30' | Titan | Alum | 50.6 | 4 |
| **DX2-50-175** | N or LP | *175,000 | 50'-8" | **27'-4" | 235 | N/A | 17' to 35' | Titan | Alum | 50.6 | 2 |
| **DX2-50-200** | N or LP | *200,000 | 50'-8" | **27'-4" | 235 | N/A | 18' to 40' | Titan | Alum | 50.6 | 2 |
| **DX2-60-125** | N or LP | 125,000 | 60'-4" | 32'-4" | 265 | 330 | 16' to 30' | Alum | Alum | 60.7 | 2 |
| **DX2-60-150** | N or LP | 150,000 | 60'-4" | 32'-4" | 265 | 330 | 17' to 35' | Titan | Alum | 60.7 | 2 |
| **DX2-60-175** | N orLP | *175,000 | 60'-4" | 32'-4" | 265 | N/A | 17' to 35' | Titan | Alum | 60.7 | 2 |
| **DX2-60-200** | N or LP | *200,000 | 60'-4" | 32'-4" | 265 | N/A | 18' to 40' | Titan | Alum | 60.7 | 2 |
| **DX2-70-175** | N or LP | *175,000 | 70'-0" | **37'-2" | 300 | N/A | 19' to 42' | Titan | Alum | 70.9 | 2 |
| **DX2-70-200** | N or LP | *200,000 | 70'-0" | **37'-2" | 300 | N/A | 19' to 42' | Titan | Alum | 70.9 | 2 |
| **DX2-80-200** | N or LP | *200,000 | 79'-8" | 42'-0" | 330 | N/A | 20' to 45' | Titan | Alum | 81.0 | 2 |

* Model requires stainless steel tube clamp (P/N: TP-220) to be located at the seam between the primary combustion chamber and the secondary combustion tube downstream of the burner control box.

** Model requires 5EA-SUB accessory package when installing in a U-shaped configuration (P/N: TF1B).

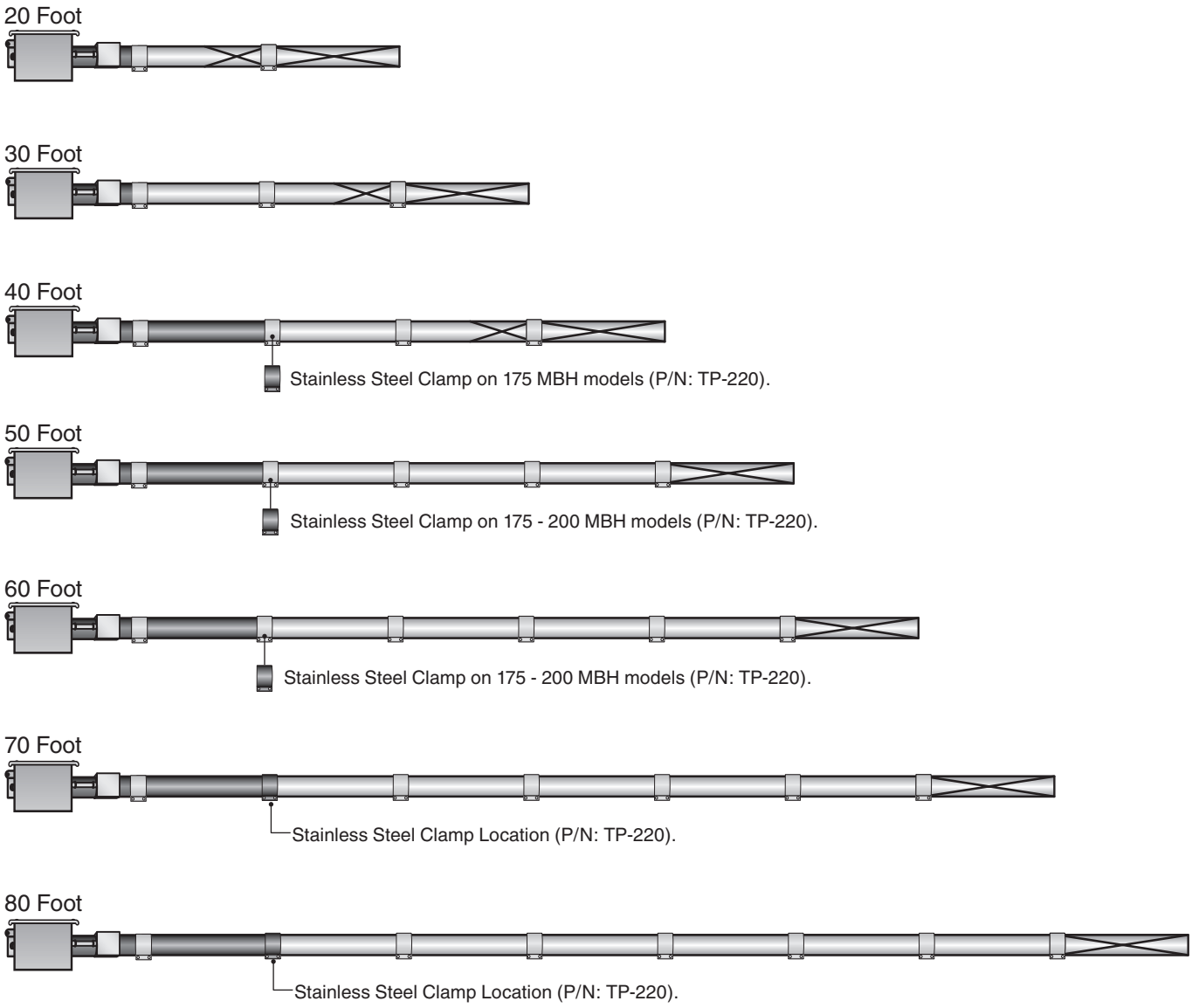
Titan = Coated titanium treated steel.

Alum = Coated aluminized treated steel.

## Tube Installation Sequence

**Figure 2.4 • Tube Installation Sequence**

**Important!** The combustion chamber & radiant tube sections must be installed in the following order.




**Key**

- Burner Control Box with 16” Burner Tube
- Black Coated Combustion Chamber Tube*
- Black Coated Aluminized Combustion Chamber/Radiant Emitter Tube
- Standard Tube Clamp
- Stainless Steel Tube Clamp (P/N: TP-220) *175-200 MBH models only - Located between 1st and 2nd 10 ft. tube sections.*
- **Baffle Location**

*Aluminized steel (50,000 to 125,000 BTU/H models), Titanium stabilized aluminized steel (150,000 to 200,000 models). **NOTE:** Refer to the Tube Heater General Manual, Chart 3.6 (page 23) for secured reflector joints.

# 3.0 Operation

## ⚠ WARNING



This heater must be installed and serviced by trained gas installation and service personnel only.

Do not bypass any safety features or the heater's built in safety mechanisms will be compromised.

**Note:** Reference the Tube Heater General Manual for installation requirements.

## Sequence of Operation

**Starting Circuit:** Upon a call for heat, the fan is energized. Once operational static pressure is achieved, the differential switch will close initiating the ignition sequence. After a 5-second delay, the Glo-bar™ is energized for 45 seconds and the control allows the gas valve to open.

The trial for ignition is 8 seconds. If flame sense is not established within 8.5 seconds, the heater will attempt two (2) additional ignition sequences before proceeding to soft lockout. Soft lockout automatically retries after one (1) hour or the control can be reset by briefly interrupting the power source.

**Running Circuit:** After ignition, the flame rod monitors burner flame. If sense of flame is lost, the control immediately acts to reignite the gas-air mixture (identical to the starting sequence). If flame sense is not established within 8.5 seconds, the heater will attempt two (2) additional ignition sequences before proceeding to soft lockout. The control can be reset by briefly interrupting the power source.

## Thermostat

**NOTE:** Different thermostats operate according to their particular features. Refer to thermostat specifications for details.

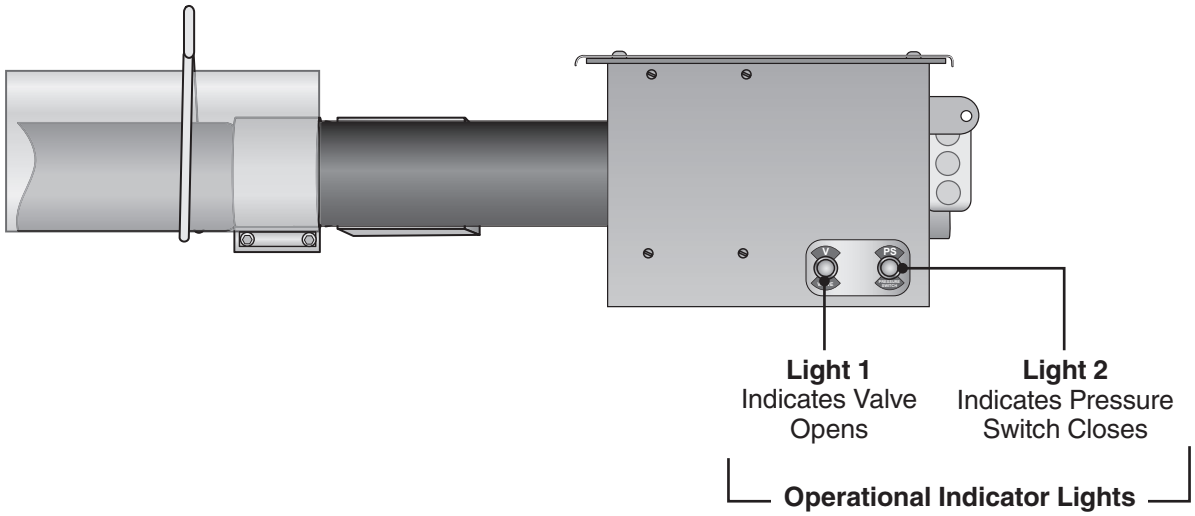
The DX2 Series comes standard requiring a 120VAC connection to the thermostat. An optional 24VAC internal relay (24VAO) may be factory installed if the heater is to be controlled via a 24VAC thermostat. A 40VA transformer is necessary when using the 24VAO option (Figure 2.1B).

**NOTE:** A relay transformer may be used in lieu of the factory installed 24VAO option.

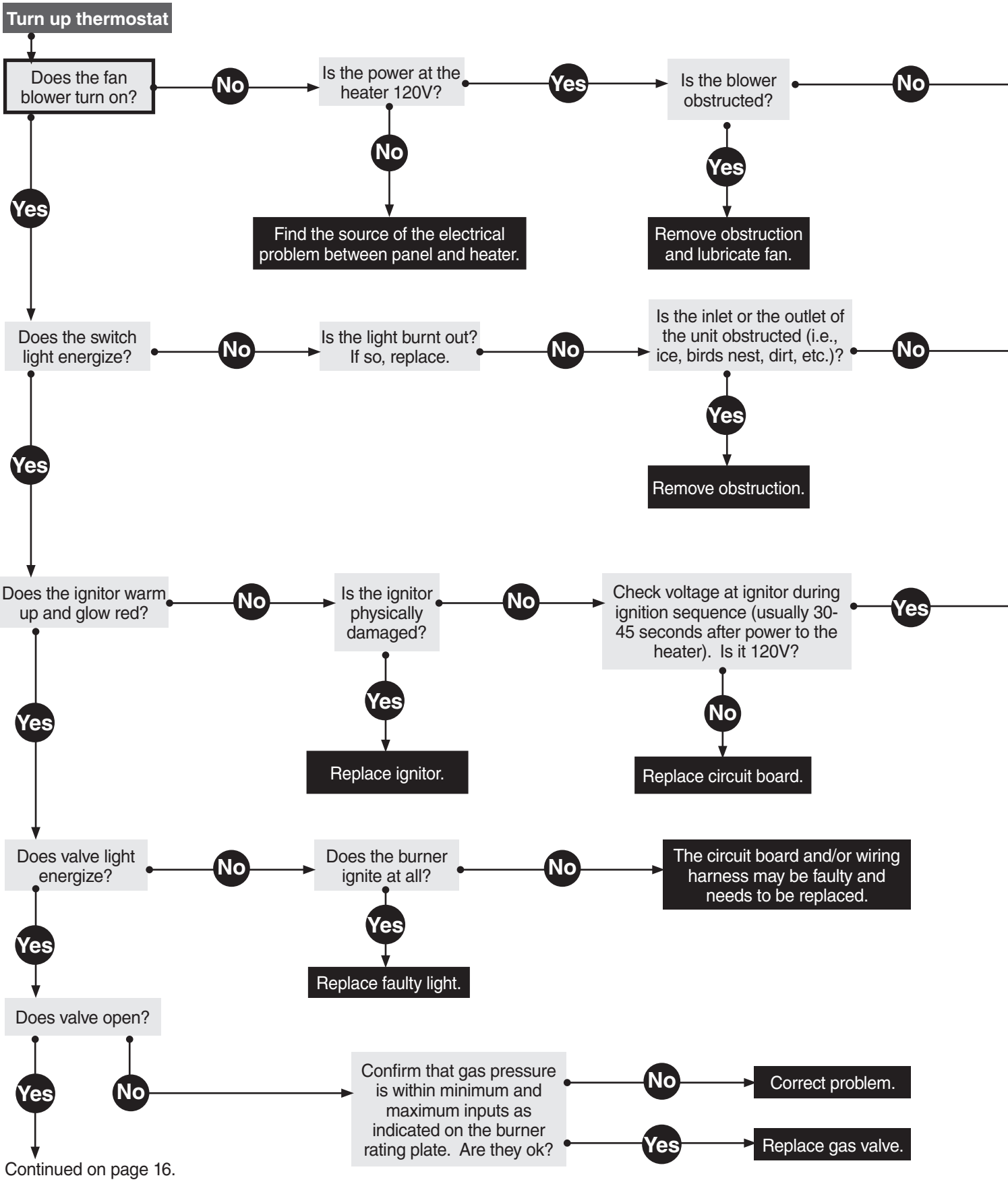
## Operational Indicator Lights

The externally located operational indicator lights are provided to assist in troubleshooting of the heater. Refer to the following pages for additional troubleshooting.

**Figure 3.1 • Operational Indicator Lights**

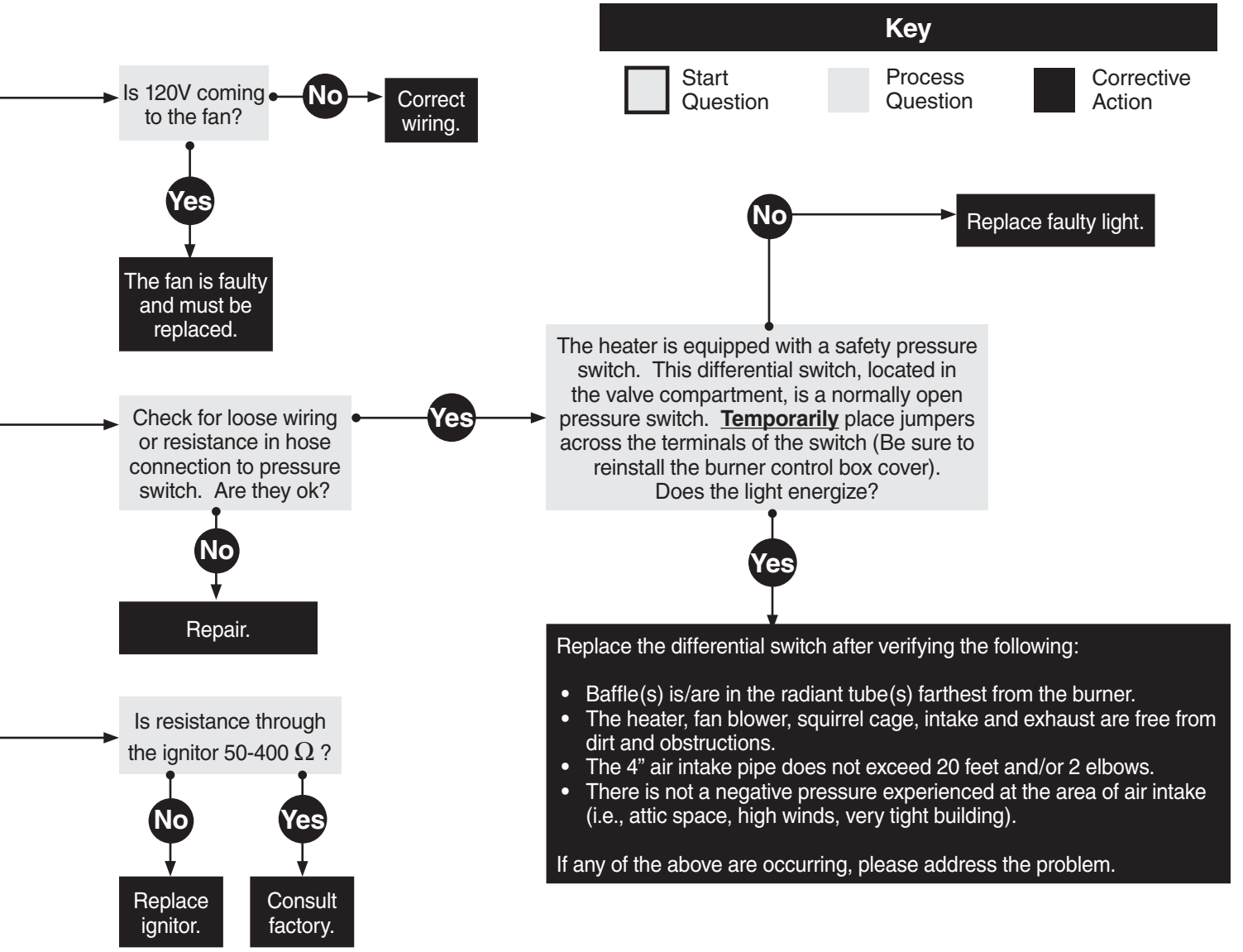


# 4.0 Troubleshooting Guide

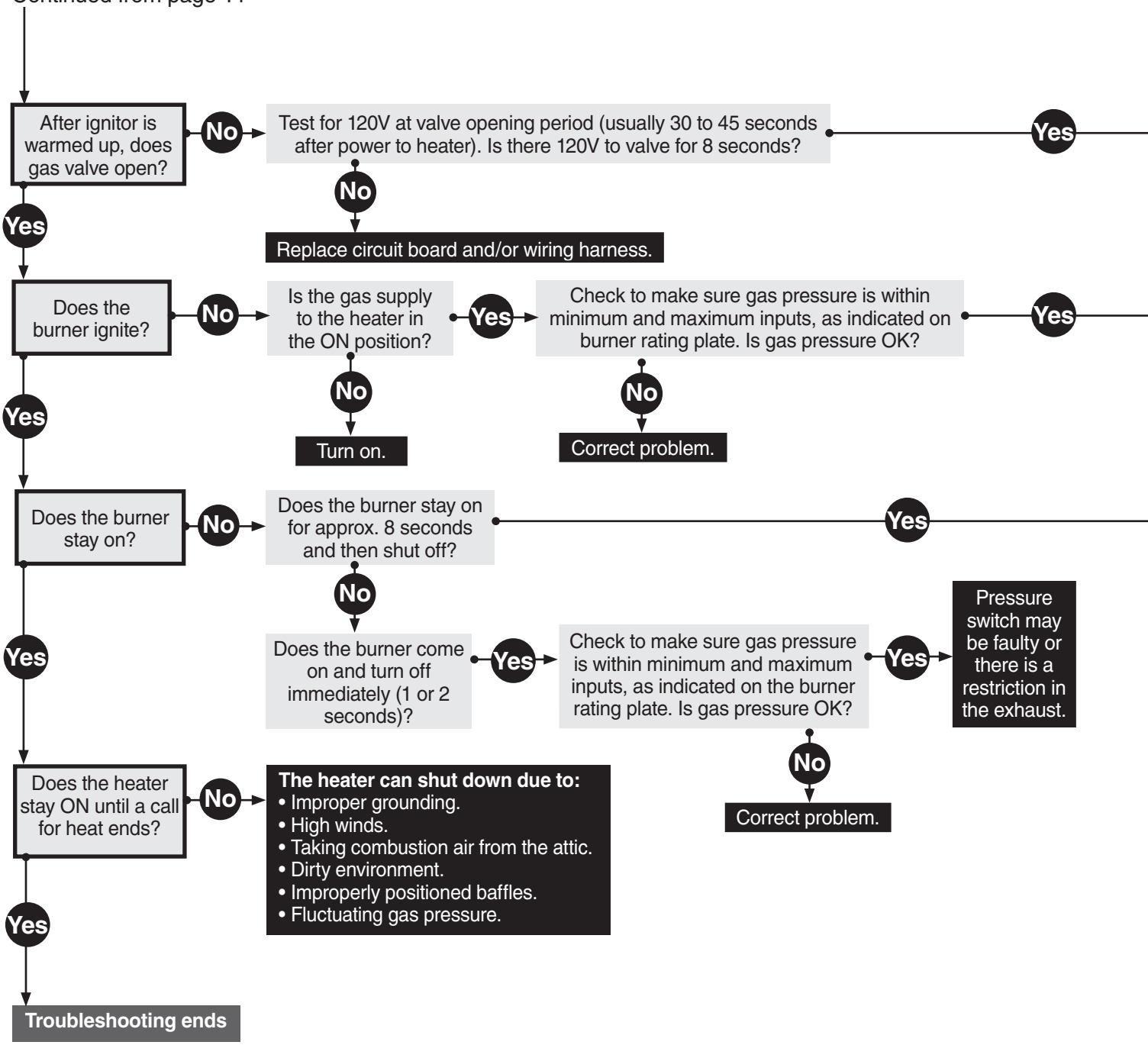


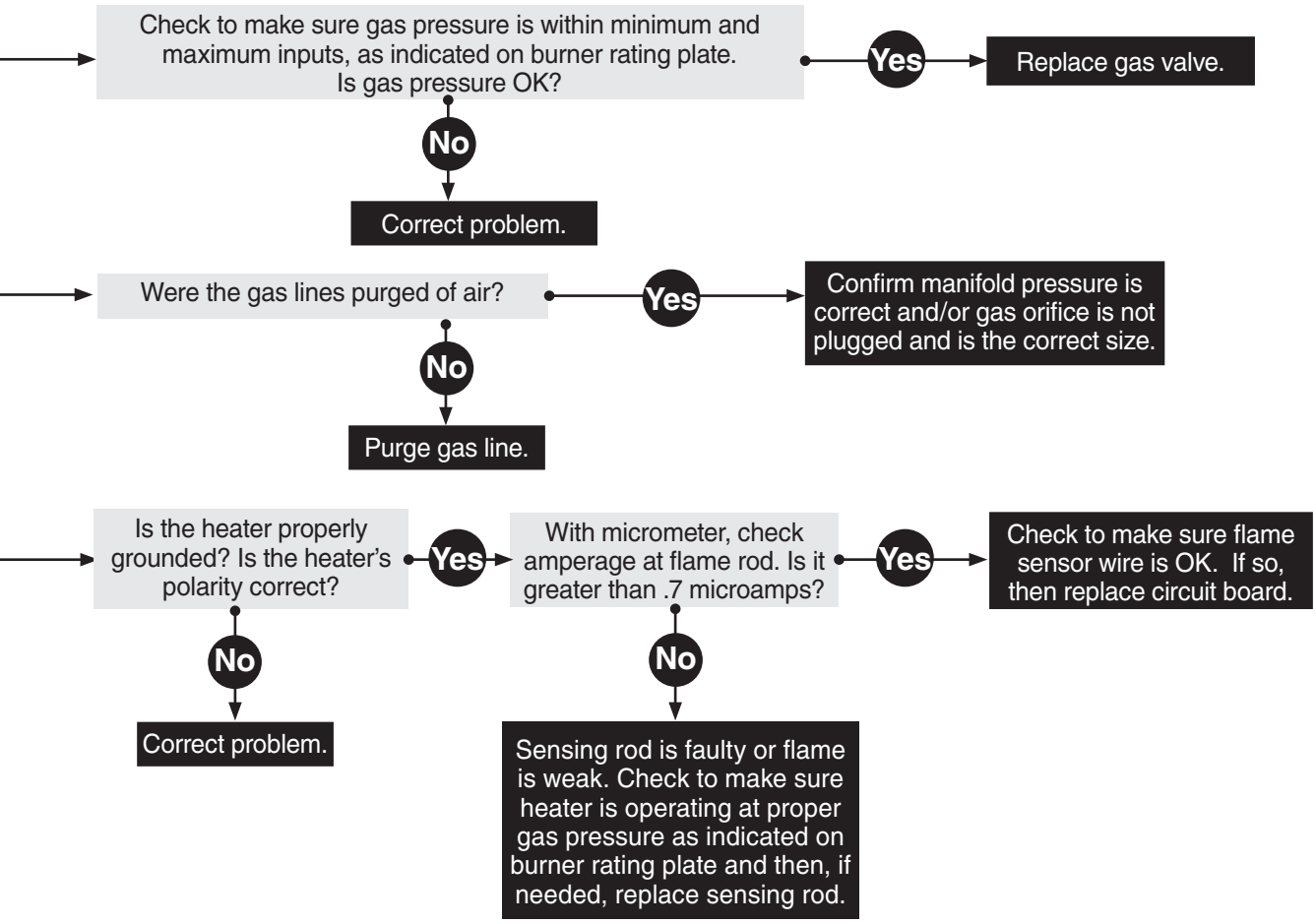

Continued on page 16.

**NOTICE** Bypassing any switch is intended for testing purposes only. Do not leave switch bypassed during normal operation or the heater's built-in safety mechanisms will be compromised.



Continued from page 14




Check to make sure gas pressure is within minimum and maximum inputs, as indicated on burner rating plate. Is gas pressure OK?
Yes
Replace gas valve.
No
Correct problem.
Were the gas lines purged of air?
Yes
Confirm manifold pressure is correct and/or gas orifice is not plugged and is the correct size.
No
Purge gas line.
Is the heater properly grounded? Is the heater's polarity correct?
Yes
With micrometer, check amperage at flame rod. Is it greater than .7 microamps?
Yes
Check to make sure flame sensor wire is OK. If so, then replace circuit board.
No
Correct problem.
No
Sensing rod is faulty or flame is weak. Check to make sure heater is operating at proper gas pressure as indicated on burner rating plate and then, if needed, replace sensing rod.

# 5.0 Parts

**Figure 5.1 • Burner Assembly Components**

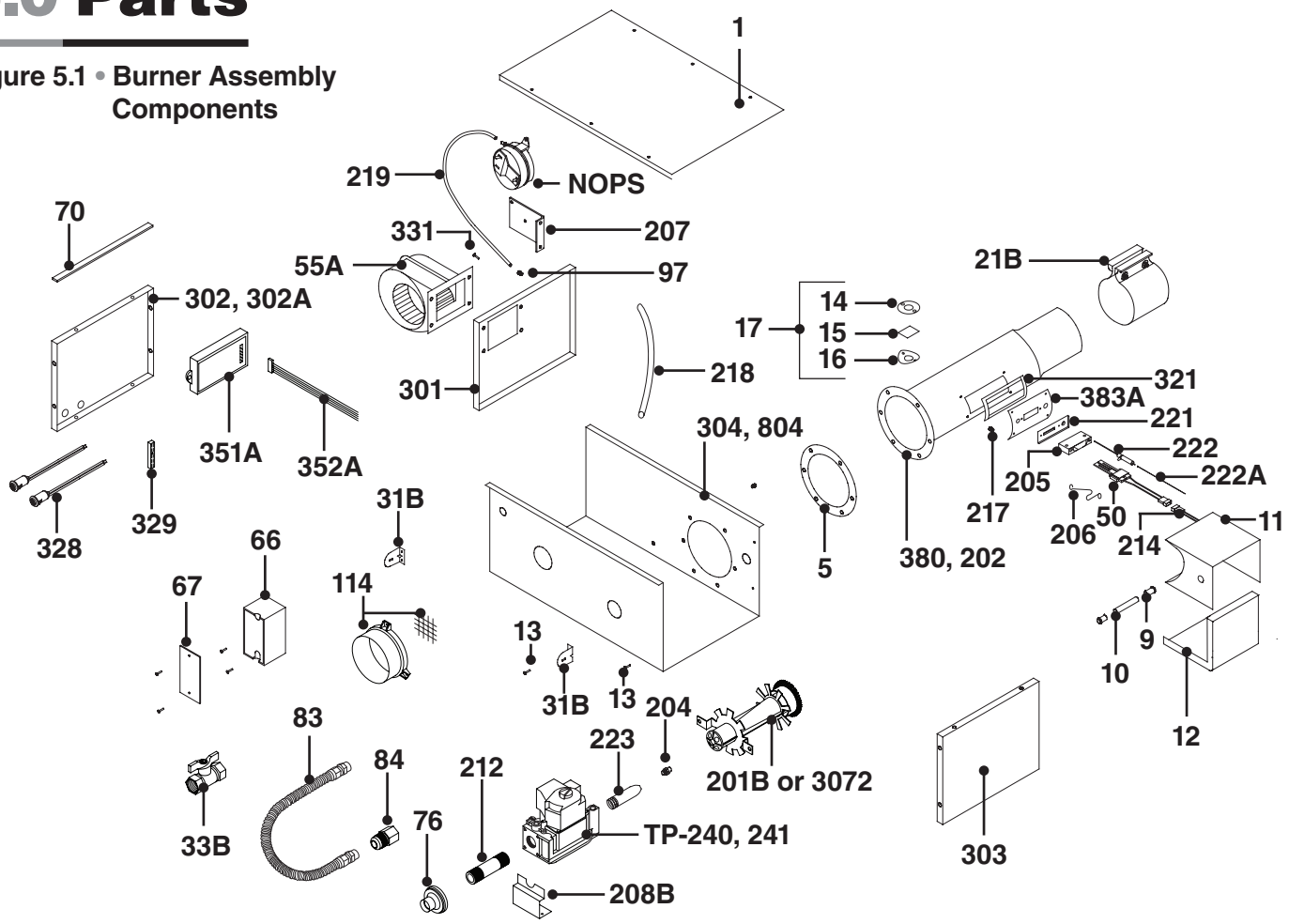
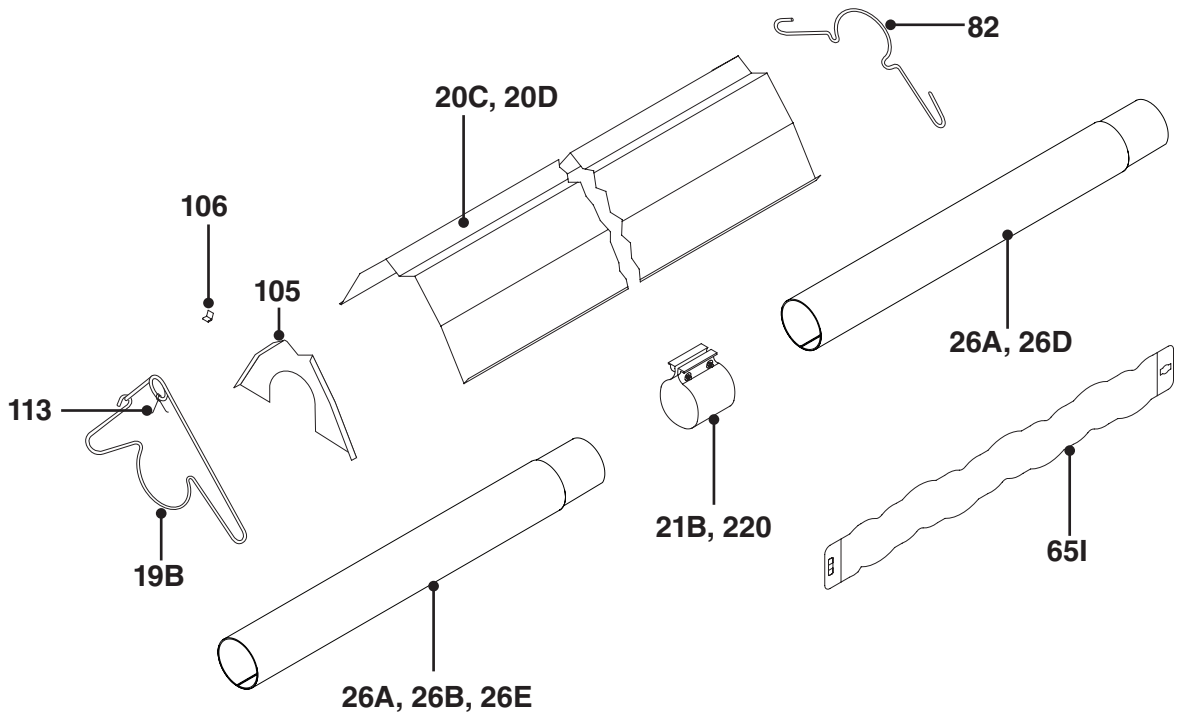



**Chart 5.1 • Parts List**

| Part No. | Description | Part No. | Description |
|---|---|---|---|
| TP-1 | Control Box Cover | TP-31B | Control Box Mounting Bracket |
| TP-5 | Flange Gasket | TP-33B | 1/2” Shut-Off Ball Valve / Inlet Tap |
| TP-9 | Conduit Coupling | TP-50 | Glo-Bar™ Ignitor |
| TP-10 | Conduit 4” x 1/2” | TP-55A | Fan Blower |
| TP-11 | Glo-Bar™ Ignitor Box | TP-65I | 36” Interlocking Turbulator Baffle |
| TP-12 | Glo-Bar™ Ignitor Box Cover | TP-66 | 2” x 4” Outlet Box |
| TP-13 | 8 x 1/2” Self-Drilling Screw | TP-67 | 2” x 4” Outlet Box Cover |
| TP-14 | Sight Glass Gasket | TP-70 | Control Box Cover Gasket (per foot**) |
| TP-15 | Sight Glass | TP-76 | Rubber Grommet |
| TP-16 | Sight Glass Washer | TP-82 | Reflector Center Support (RCS) |
| TP-17 | Sight Glass Kit | TP-83 | 24” Stainless Steel Flexible Gas Connector |
| TP-19B | 4” Wire Hanger with Tension Spring | TP-84 | 1/2” Female / Male Flare Fitting |
| TP-20C | 120” Aluminum Reflector | TP-97 | 1/4” x 1/4” Brass Int./Ext. Atmos. Barb Fitting |
| TP-20D | 120” Stainless Steel Reflector* | TP-105 | Aluminum Reflector End Cap |
| TP-21B | 4” Standard Tube Clamp | TP-106 | Reflector End Cap Clips (8 pcs.) |
| TP-26A | 10 ft. Coated-ALUM Combustion/Radiant Tube | TP-113 | Reflector Tension Spring |
| TP-26B | 10 ft. Coated-AL-TI Combustion Tube | TP-114 | Plastic Air Orifice with Screen (consult factory) |
| TP-26D | 10 ft. 304 Stainless Steel Radiant Tube* | TP-201B | Burner (Tan) - consult factory |
| TP-26E | 10 ft. 409 Stainless Steel Combustion Tube* | TP-202 | 16” Burner Tube with Flange (fittings included) |

*Stainless steel upgrades available. ** 6 feet total required to cover outer edges of the burner control box.

**Figure 5.2 • Tube & Reflector Components**



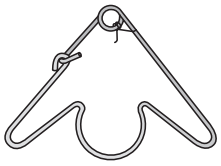

| Part No. | Description | Part No. | Description |
|---|---|---|---|
| TP-204 | Gas Orifice (consult factory) | TP-302 | End Panel, Left |
| TP-205 | Glo-Bar™ Holder | TP-302A | End Panel, Left with 24VAO Option. |
| TP-206 | Glo-Bar™ Holder Spring Clip | TP-303 | End Panel, Right |
| TP-207 | Pressure Switch Mounting Bracket | TP-304 | Burner Control Box Outer Shell w/ PC-36 |
| TP-208B | Gas Valve Mounting Bracket | TP-321 | Ignition Plate Gasket |
| TP-212 | 1/2” x 3” Pipe Nipple | TP-328 | 120V Amber Operational Indicator Light |
| TP-214 | Glo-Bar™ Wiring Harness | TP-329 | 1/4” Neutral Terminal Block |
| TP-217 | Pressure Switch Barb | TP-331 | Green Self Tap Ground Screw |
| TP-218 | Differential Switch Vinyl Sensing Tube (exhaust) | TP-351A | Potted Circuit Board |
| TP-219 | Differential Vinyl Sensing Tube (burner) | TP-352A | Circuit Board Wiring Harness for TP-351A |
| TP-220 | Stainless Steel Tube Clamp (175 & 200 MBH)* | TP-380 | 16” Burner Tube with Flange (no fittings) |
| TP-221 | Glo-Bar™ Holder Gasket | TP-383A | Glo-Bar™ Ignitor Plate |
| TP-222 | Flame Rod | TP-804 | Burner Control Box Outer Shell |
| TP-222A | Flame Rod Wire | TP-NOPS | Normally Open Pressure Switch; select below: |
| TP-223 | Gas Manifold | TP-264B | Differential Pressure Switch, 65 to 100 MBH |
| TP-240 | VR4205M-1324 Gas Valve Assembly - Nat. Gas | TP-264E | Differential Pressure Switch, 125 & 150 MBH |
| TP-241 | VR4205M-1357 Gas Valve Assembly - LP Gas | TP-264D | Differential Pressure Switch, 175 MBH |
| TP-244 | Plastic Gas Valve Vent | TP-264F | Differential Pressure Switch, 200 MBH |
| TP-301 | Center Divider Panel | TP-3072 | Burner (Green) - consult factory |

## Kit Contents Check List

Chart 5.2 • **Kit Contents for DX2 Series -** Reference the length column for your model.

**DX2 Series Kit Contents**

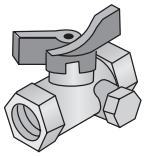
**TP-19B** 4" Hanger with Reflector Tension Spring



**TP-82** 4" Reflector Center Support (RCS)



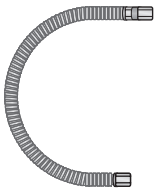
**TP-33B** 1/2" Shut-Off Valve (Ball Valve & Inlet Tap)



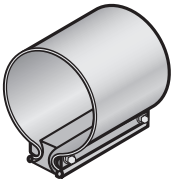
**TP-106** Reflector End Cap Clips



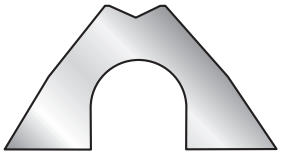
**TP-83** 24" Stainless Steel Flexible Gas Connector



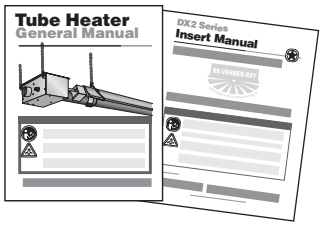
**TP-21B** 4" Tube Clamp



**TP-105** Reflector End Cap



Tube Heater General Manual and DX2 Series Insert Manual F/N: LIOGTa & LIODX2a




| Part No. | Description | 20 Ft. | 30 ft. | 40 ft. | 50 ft. | 60 ft. | 70 ft. | 80 ft. |
|---|---|---|---|---|---|---|---|---|
| TP-19B | 4" Hanger w/ Tension Spring | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| TP-21B | 4" Tube Clamp | 2 | 3 | 4* | 5* | 6* | 7* | 8* |
| TP-33B | 1/2" Shut-Off Valve w/ Inlet Tap | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TP-82 | 4" Reflector Center Support | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| TP-83 | 24" S.S. Flexible Gas Connector | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TP-105 | Reflector End Cap | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| TP-106 | Reflector End Cap Clips | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| LIOGTa | General Tube Heater Manual | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LIODX2a | DX2 Series Insert Manual | 1 | 1 | 1 | 1 | **1** | **1** | **1** |
| Additional kit contents as supplied when heater is configured with Add-On Options (if applicable) | | | | | | | | |
| TP-25 | 1/4" Female Spade Terminal (24VAO) | 2 | 2 | 2 | 2 | **2** | **2** | **2** |
| Filled By: | | | | | | | | |

*__NOTE__: One 4" stainless steel tube clamp (P/N: TP-220) is provided for each 175,000 - 200,000 BTU model. Place as shown on page 11.

## Approvals

- CSA.
- Indoor approval.
- Outdoor approval with OD-Kit.
- Commercial approval.

## Limited Warranty

- 1 year - Burner box components.
- 5 years - Combustion and radiant tubes.
- 10 years - Stainless steel burner.
- See page 36 of the General Tube Heater Manual for terms and conditions.

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