

DX2 Series Insert Manual



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



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.

INSTALLER: Present this manual to the end user.

Keep these instructions in a clean and dry place for future reference.

Model#: _____ Serial #: _____
(located on rating label)

LIODX2a-Rev. 18111
Print: 1M -08/16_r4-01/18 (CDS)
Replaces: LIODX2a-5c-07/15 (CDS)

Contents

1.0 Safety	3
Safety Labels and Their Locations	3
Clearances to Combustibles	4
2.0 Installation	6
Gas Requirements	6
Electrical Requirements	6
Wiring	7
Specifications	10
Tube Installation Sequence	11
3.0 Operation	12
Sequence of Operation	12
Thermostat	12
Operational Indicator Lights	13
4.0 Troubleshooting Guide	14
5.0 Parts	18
Components	18
Parts List	18
Kit Contents Check List	20
Approvals	20
Limited Warranty	20

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

1.0 Safety

⚠ WARNING



Read and understand all safety information and warnings in this 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.

Back Panel

Air Metering Orifice
DO NOT REMOVE

TP-114
TP-3014

3"

F/N: LLAC
Air Metering Orifice

Top Panel

Bottom Panel

Rating Plate

MODEL NO.	INPUT BTU/H	FOR USE WITH
DX2 - 40 - 125N	125,000	NAT GAS

DESIGN COMPLIES WITH:	Min. Inlet Pressure	W.C.P.
ANSI Z83.20-2009 GAS FIRED LOW INTENSITY INFRARED HTR	3.5in.	W.C.P.
	14.0in.	W.C.P.

VOLTS AC	60Hz	120V
AMPS - Starting	4.8	
AMPS - Running	1.1	
Heater Type:	C1	

Min. Inlet Pressure for Purpose of Input Adjustment	Min. Mounting Angle	Max. Mounting Angle	Combustion Chamber
5.0in.	0 DEGREES	45 DEGREES	4" BC Aluminized

DETROIT RADIANT PRODUCTS CO.
21462 HOOVER ROAD, WARREN, MI 48090
586.756.0950 www.drp-co.com

Serial No. 0603DTR12345 0001

Top Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Top Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

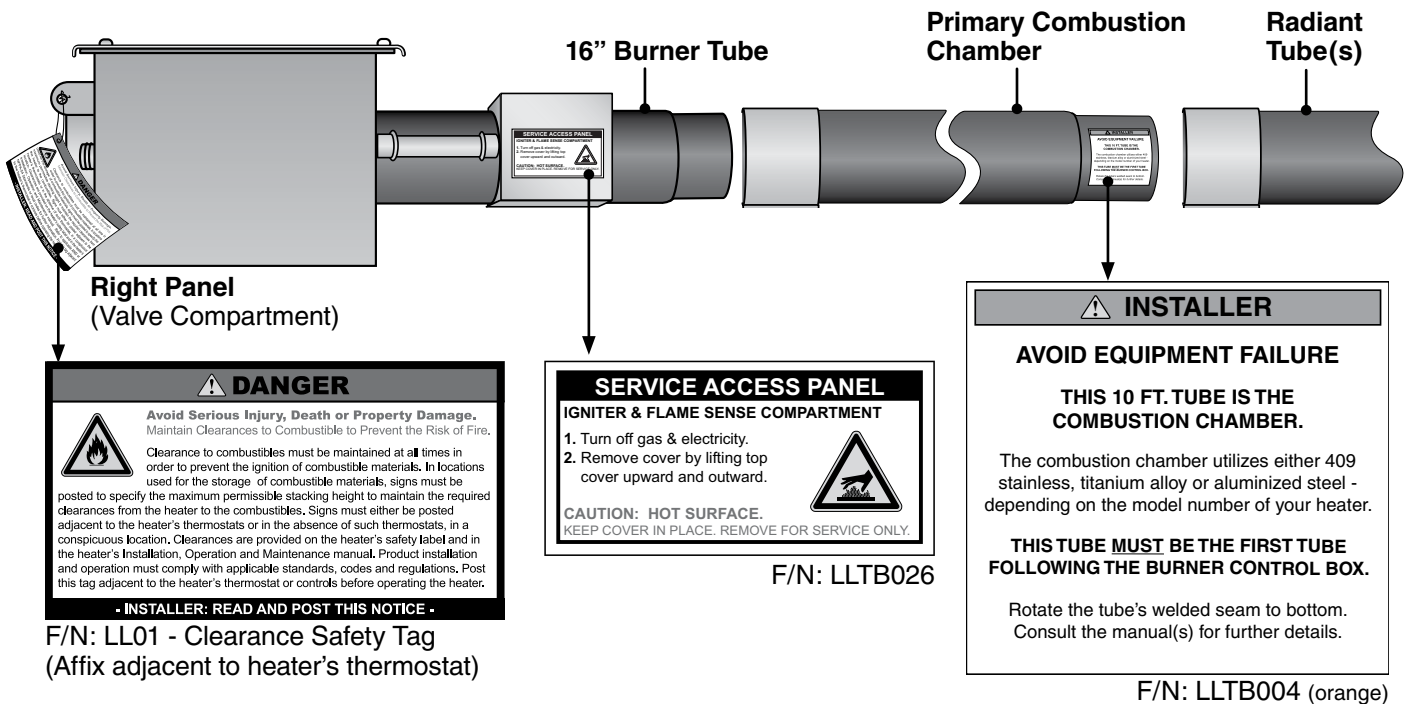
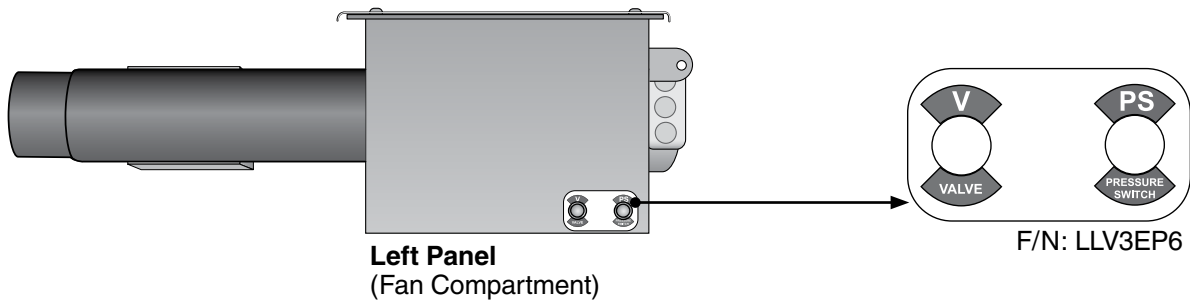
F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.

Bottom Panel

F/N: LLTCL001 Clearances to Combustibles Label.



Clearances 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 vapors 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.

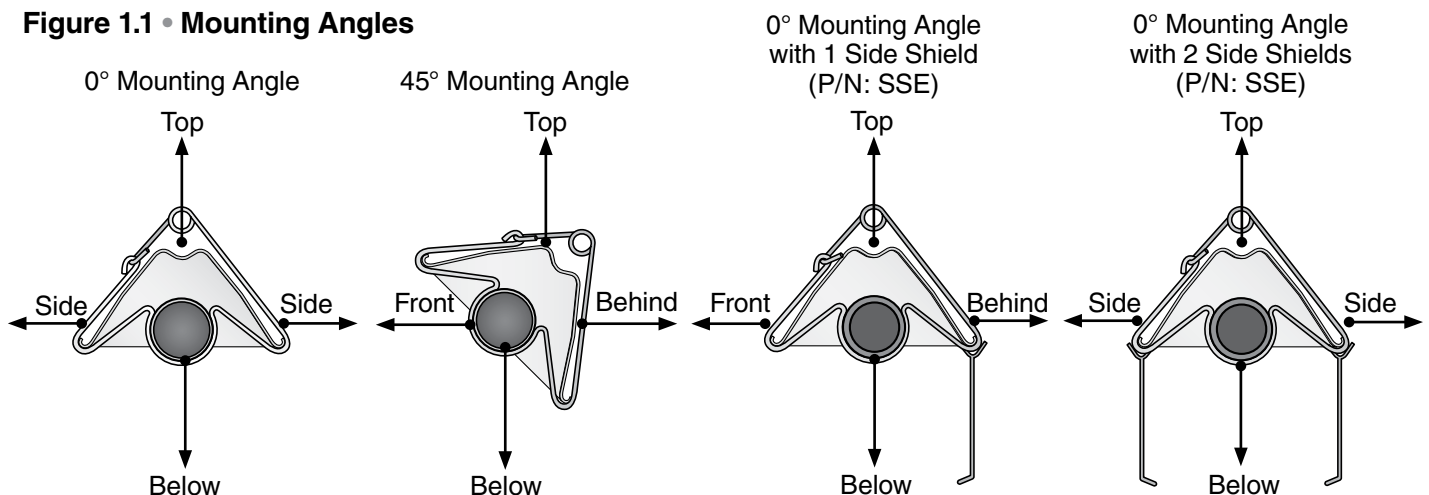
The stated clearances to combustibles represent a surface temperature of 90°F (50°C) above room temperature. Building materials with a low heat tolerance (such as plastics, vinyl siding, canvas, tri-ply, etc.) may be subject to degradation at lower temperatures. It is the installer's responsibility to assure that adjacent materials are protected from degradation.

Chart 1.1 • Clearances 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, 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° and 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.
Propane	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 120 VAC connection to the thermostat. An optional 24 VAC internal relay (24VAO) may be factory installed if the heater is to be controlled via a 24 VAC thermostat. A 40 VA transformer is necessary when using the 24VAO option.

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

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

Wiring

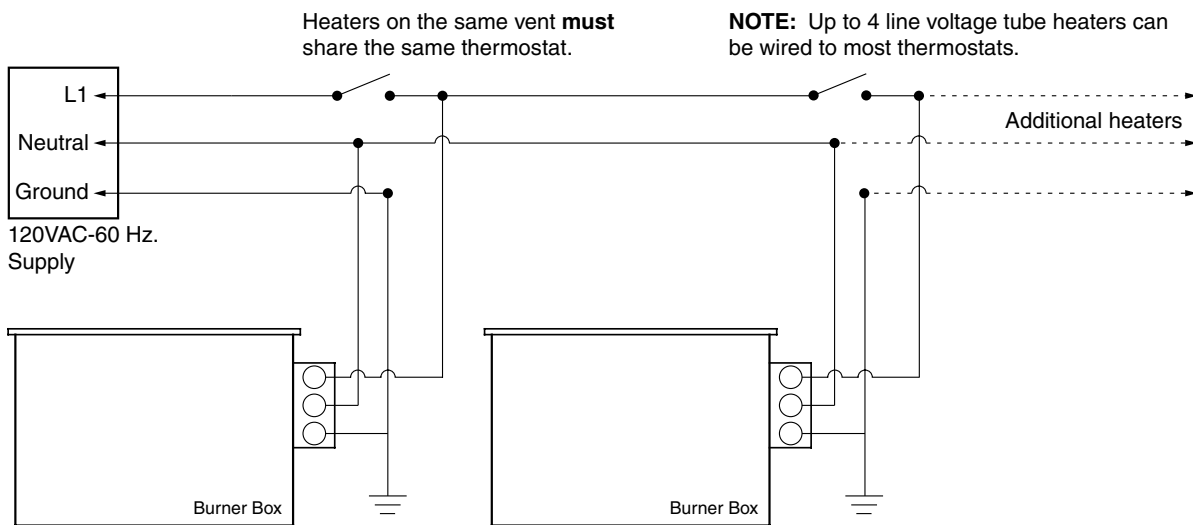

WARNING



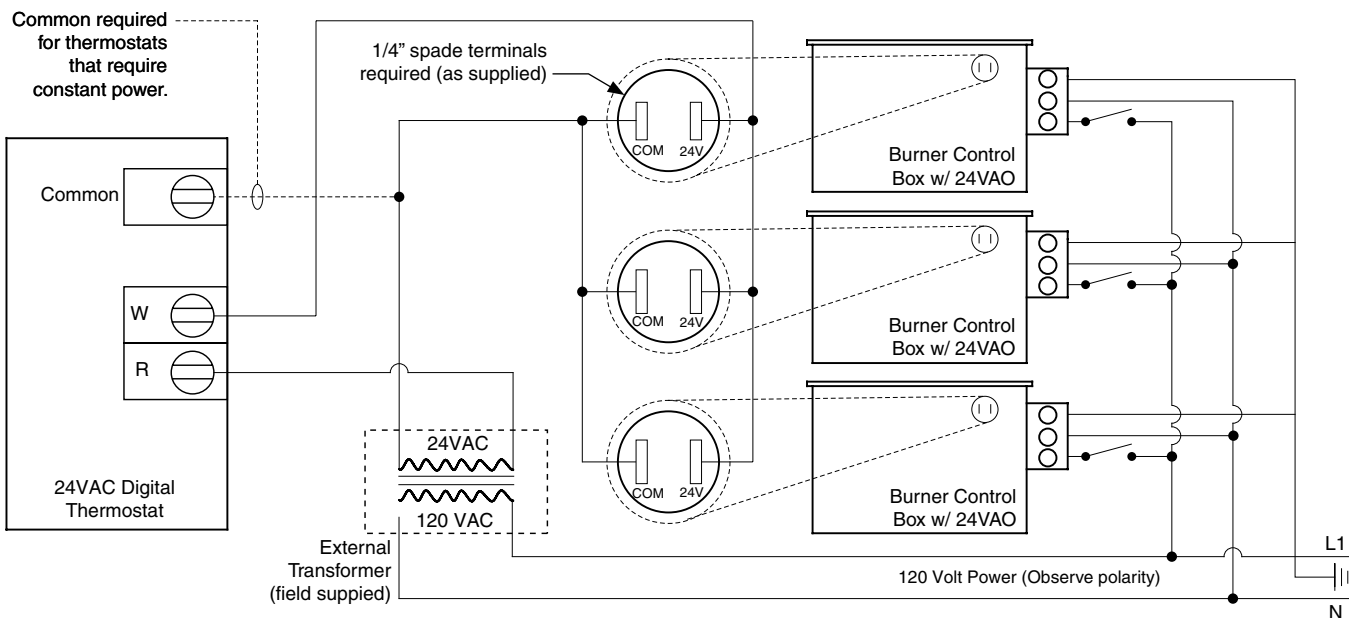
Electric Shock
 Field wiring to the tube heater must be connected and grounded in accordance with national, state, provincial, and local codes, and to the guidelines in the Tube Heater General Manual and Series Insert Manual. In the United States refer to the most current revisions to the ANSI/NFPA 70 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. 120 VAC Single/Multiple Line Voltage Heater(s)



B. 24VAO Add-On (Internal Relay Option)

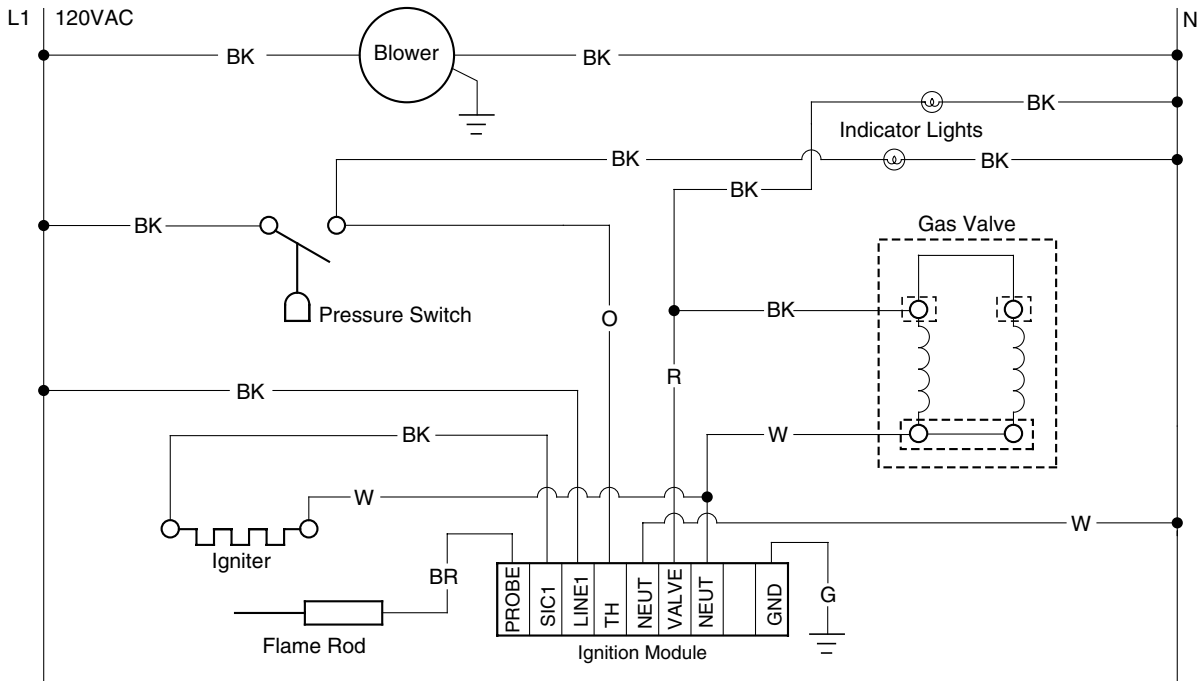


Before field wiring this appliance - Check existing wiring; replace if necessary.

Note: If any of the original wire supplied with the appliance must be replaced, it must be replaced with wiring material having a rating of at least 600 V, 105° C.

Figure 2.2 • Internal Wiring Diagrams

A. Ladder Diagram - TP-351A



B. Block Diagram - TP-351A

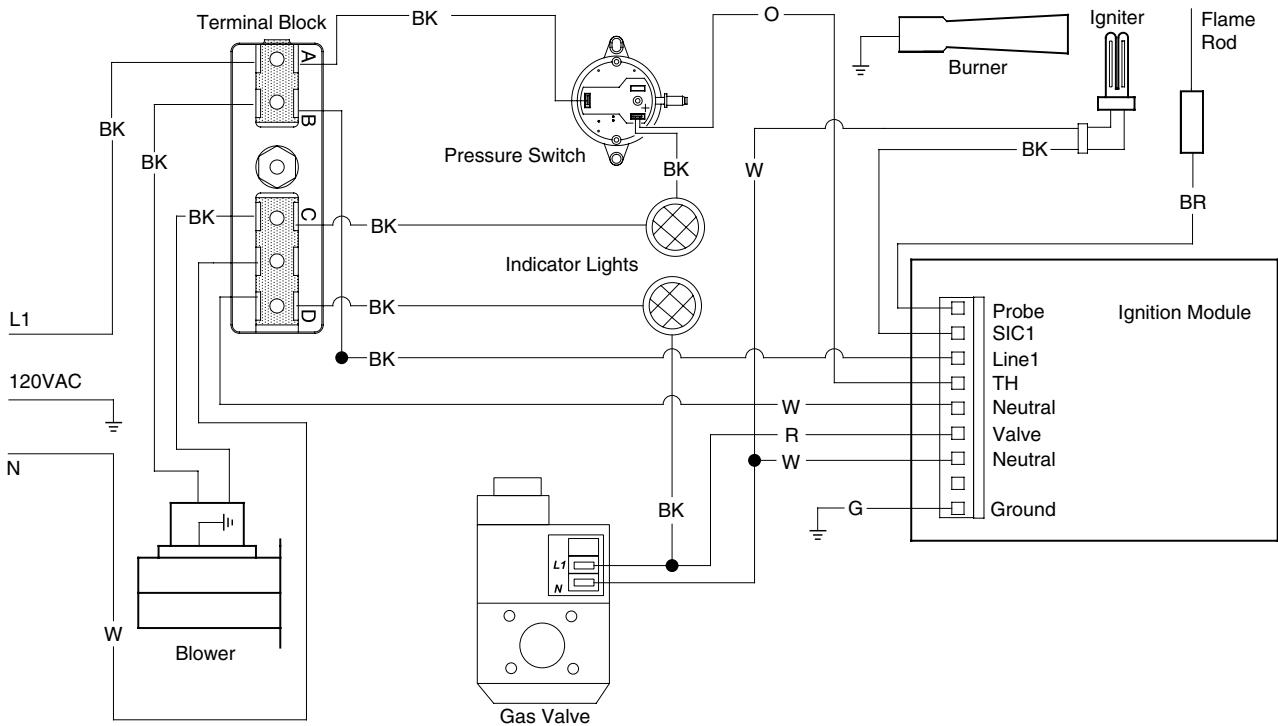
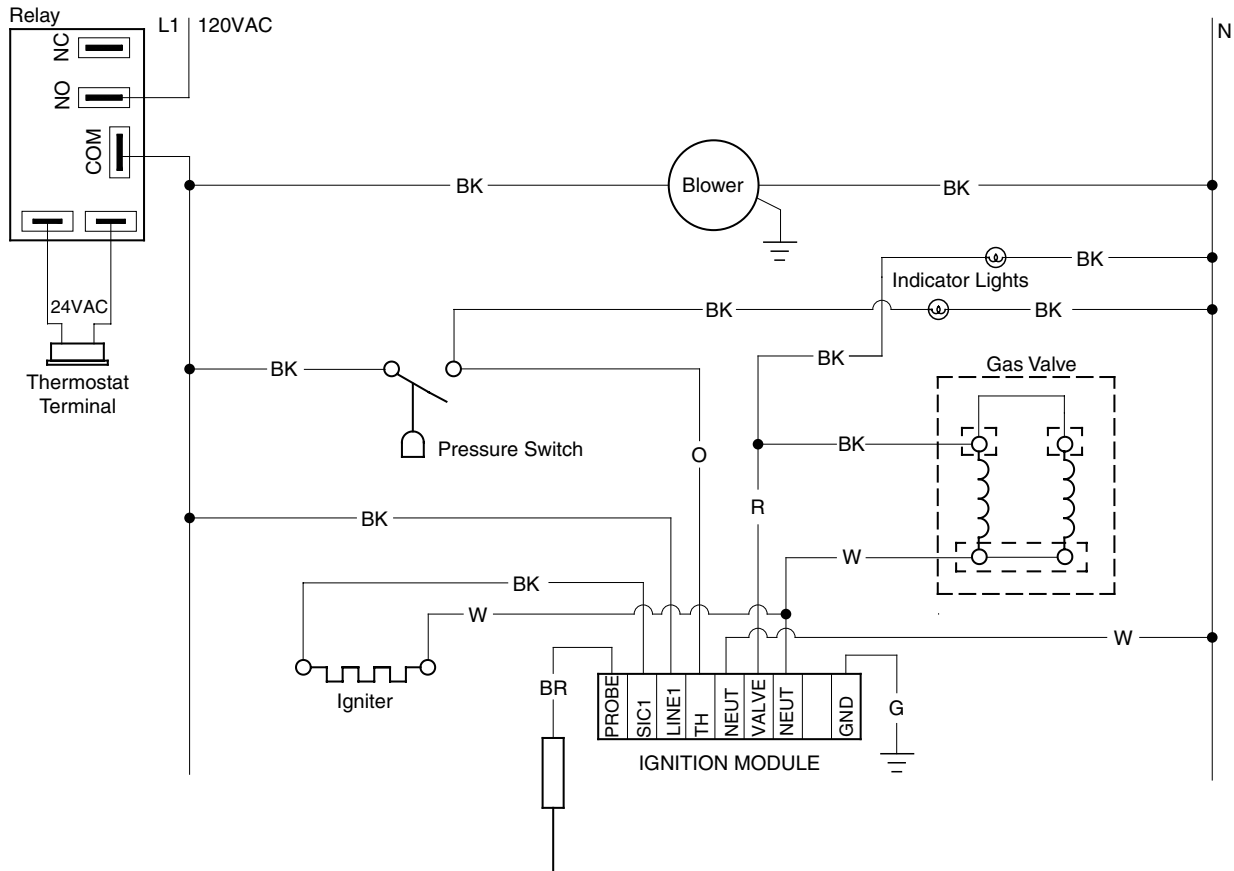
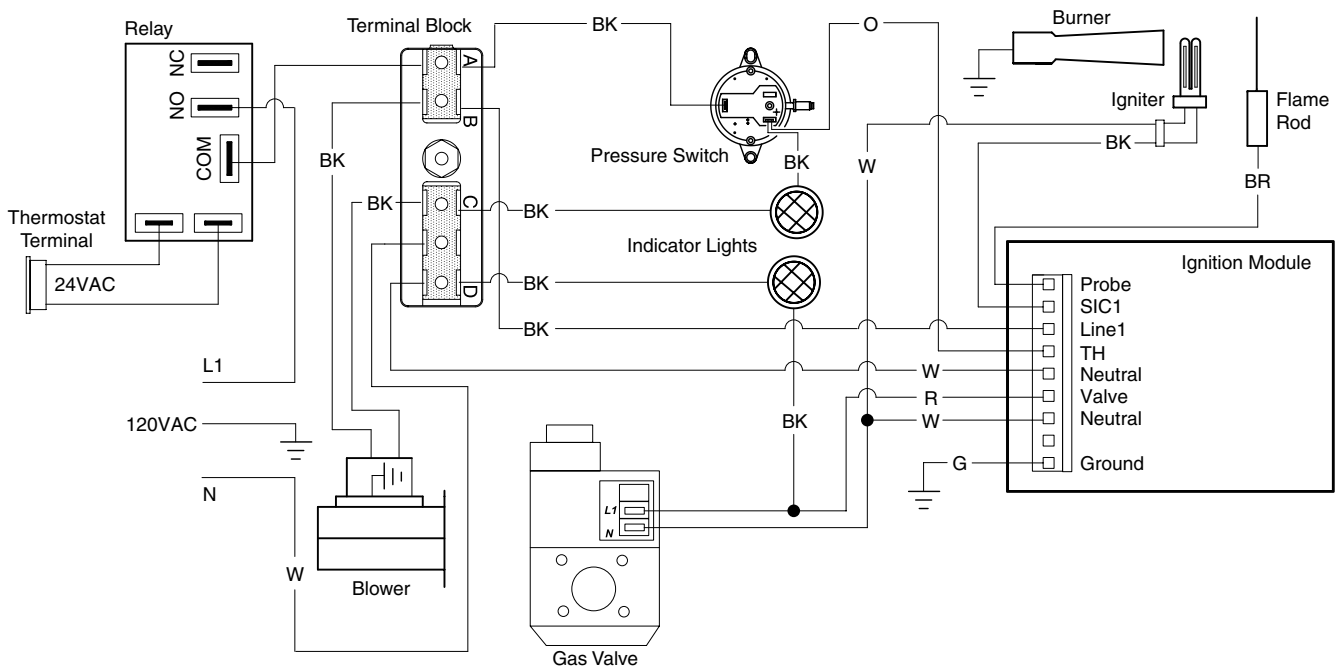


Figure 2.3 • Alternative Wiring Diagrams

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 P	50,000	21'-8"	13'-0"	120	N/A	9' to 15'	Alum	Alum	20.2	5
DX2-20-60	N or P	60,000	21'-8"	13'-0"	120	N/A	10' to 15'	Alum	Alum	20.2	5
DX2-20-75	N or P	75,000	21'-8"	13'-0"	120	145	11' to 18'	Alum	Alum	20.2	5
DX2-20-80	N or P	80,000	21'-8"	13'-0"	120	145	11' to 18'	Alum	Alum	20.2	5
DX2-30-50	N or P	50,000	31'-4"	**17'-8"	160	N/A	10' to 15'	Alum	Alum	30.4	4
DX2-30-60	N or P	65,000	31'-4"	**17'-8"	160	N/A	11' to 18'	Alum	Alum	30.4	4
DX2-30-75	N or P	75,000	31'-4"	**17'-8"	160	195	12' to 20'	Alum	Alum	30.4	4
DX2-30-80	N or P	80,000	31'-4"	**17'-8"	160	195	12' to 20'	Alum	Alum	30.4	5
DX2-30-100	N or P	100,000	31'-4"	**17'-8"	160	195	13' to 23'	Alum	Alum	30.4	5
DX2-30-125	N or P	125,000	31'-4"	**17'-8"	160	195	14' to 25'	Alum	Alum	30.4	5
DX2-40-50	N or P	50,000	41'-0"	22'-8"	190	N/A	11' to 18'	Alum	Alum	40.5	2
DX2-40-60	N or P	60,000	41'-0"	22'-8"	190	N/A	11' to 18'	Alum	Alum	40.5	2
DX2-40-75	N or P	75,000	41'-0"	22'-8"	190	235	12' to 20'	Alum	Alum	40.5	2
DX2-40-80	N or P	80,000	41'-0"	22'-8"	190	235	12' to 20'	Alum	Alum	40.5	5
DX2-40-100	N or P	100,000	41'-0"	22'-8"	190	235	13' to 23'	Alum	Alum	40.5	4
DX2-40-125	N or P	125,000	41'-0"	22'-8"	190	235	14' to 25'	Alum	Alum	40.5	4
DX2-40-150	N or P	150,000	41'-0"	22'-8"	190	235	15' to 27'	Titan	Alum	40.5	4
DX2-40-175	N or P	*175,000	41'-0"	22'-8"	190	N/A	16' to 30'	Titan	Alum	40.5	4
DX2-50-100	N or P	100,000	50'-8"	**27'-4"	235	290	15' to 27'	Alum	Alum	50.6	2
DX2-50-125	N or P	125,000	50'-8"	**27'-4"	235	290	15' to 27'	Alum	Alum	50.6	4
DX2-50-150	N or P	150,000	50'-8"	**27'-4"	235	290	16' to 30'	Titan	Alum	50.6	4
DX2-50-175	N or P	*175,000	50'-8"	**27'-4"	235	N/A	17' to 35'	Titan	Alum	50.6	2
DX2-50-200	N or P	*200,000	50'-8"	**27'-4"	235	N/A	18' to 40'	Titan	Alum	50.6	2
DX2-60-125	N or P	125,000	60'-4"	32'-4"	265	330	16' to 30'	Alum	Alum	60.7	2
DX2-60-150	N or P	150,000	60'-4"	32'-4"	265	330	17' to 35'	Titan	Alum	60.7	2
DX2-60-175	N or P	*175,000	60'-4"	32'-4"	265	N/A	17' to 35'	Titan	Alum	60.7	2
DX2-60-200	N or P	*200,000	60'-4"	32'-4"	265	N/A	18' to 40'	Titan	Alum	60.7	2
DX2-70-175	N or P	*175,000	70'-0"	**37'-2"	300	N/A	19' to 42'	Titan	Alum	70.9	2
DX2-70-200	N or P	*200,000	70'-0"	**37'-2"	300	N/A	19' to 42'	Titan	Alum	70.9	2
DX2-80-200	N or P	*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 aluminumized treated steel.

Tube Installation Sequence

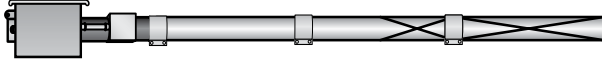
Figure 2.4 • Tube Installation Sequence

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

20 Foot



30 Foot



40 Foot



Stainless Steel Clamp on 150 - 175 MBH models (P/N: TP-220).

50 Foot



Stainless Steel Clamp on 150 - 200 MBH models (P/N: TP-220).

60 Foot



Stainless Steel Clamp on 150 - 200 MBH models (P/N: TP-220).

70 Foot



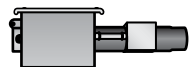
Stainless Steel Clamp Location (P/N: TP-220).

80 Foot



Stainless Steel Clamp Location (P/N: TP-220).

Key



Burner Control Box with
16" Burner Tube



Standard Tube Clamp



Black Coated Combustion
Chamber Tube*



Stainless Steel Tube
Clamp (P/N: TP-220)
*150-200 MBH models only - Located
between 1st and 2nd 10 ft. tube sections.*



Black Coated Aluminized Combustion
Chamber/Radiant Emitter Tube



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.

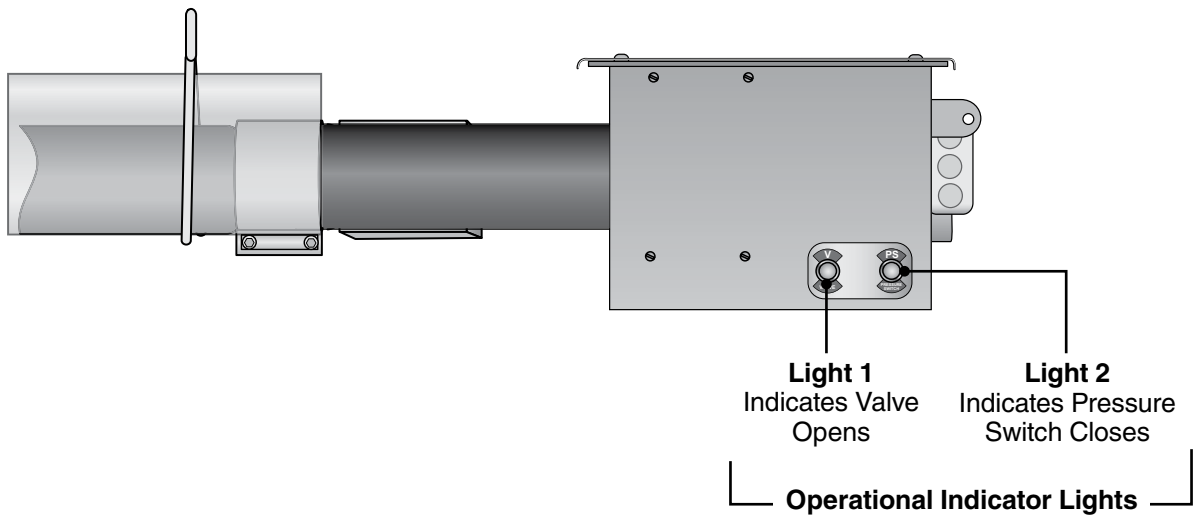
The DX2 series comes standard requiring a 120 VAC connection to the thermostat. An optional 24 VAC internal relay (24VAO) may be factory installed if the heater is to be controlled via a 24 VAC thermostat. A 40 VA transformer is necessary when using the 24VAO option (Figure 2.1B).

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

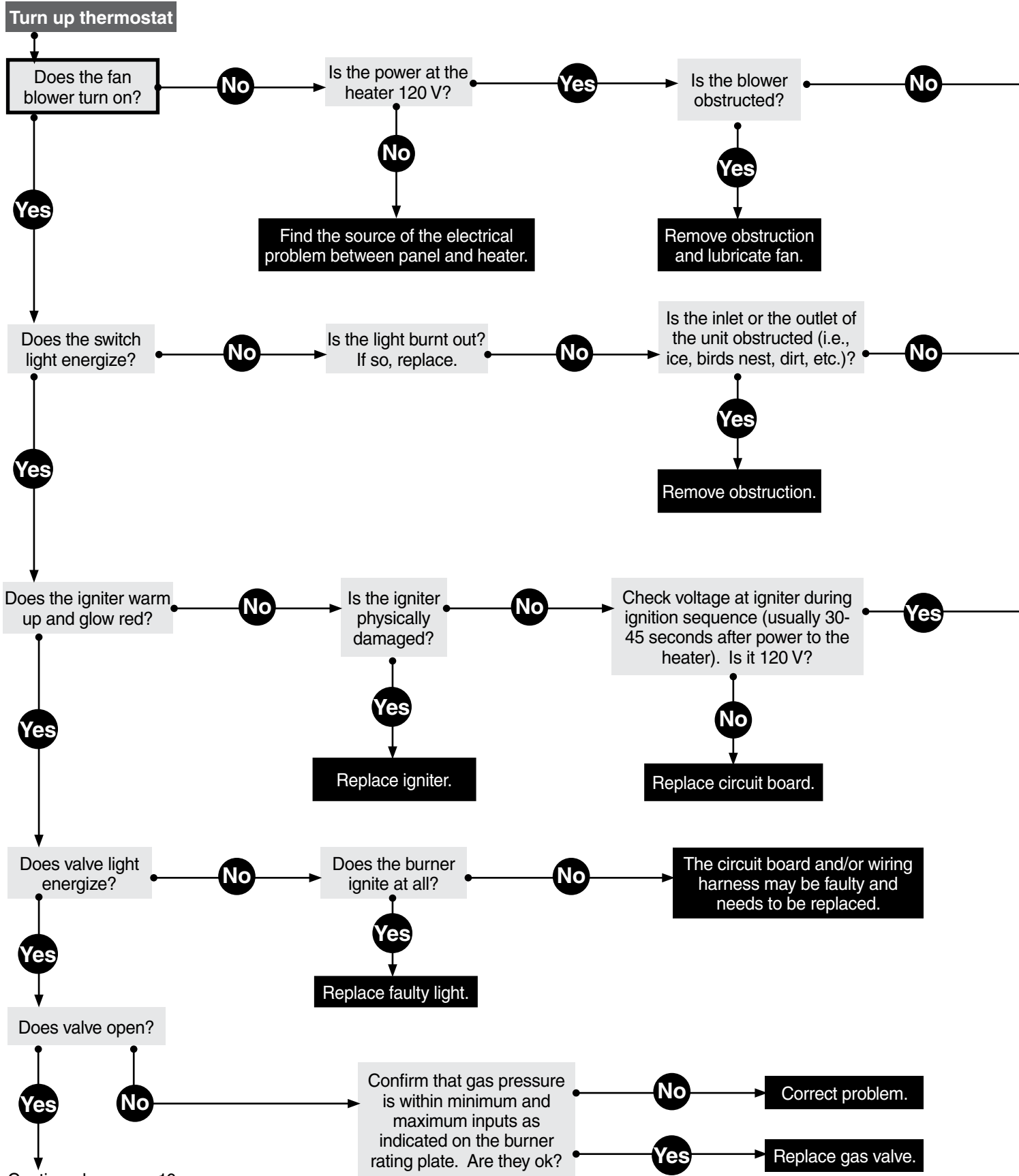
Operational Indicator Lights

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.

Key



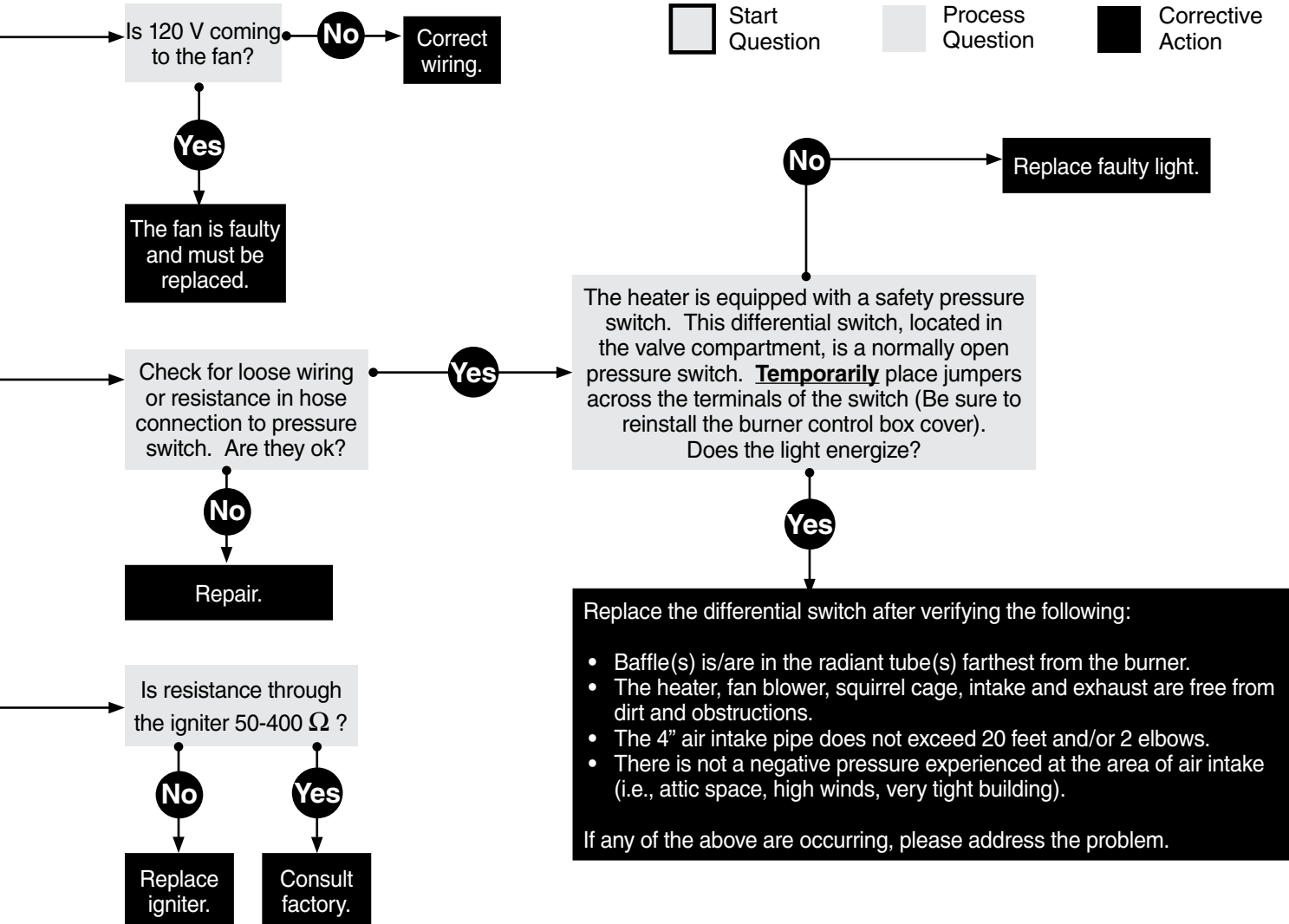
Start Question



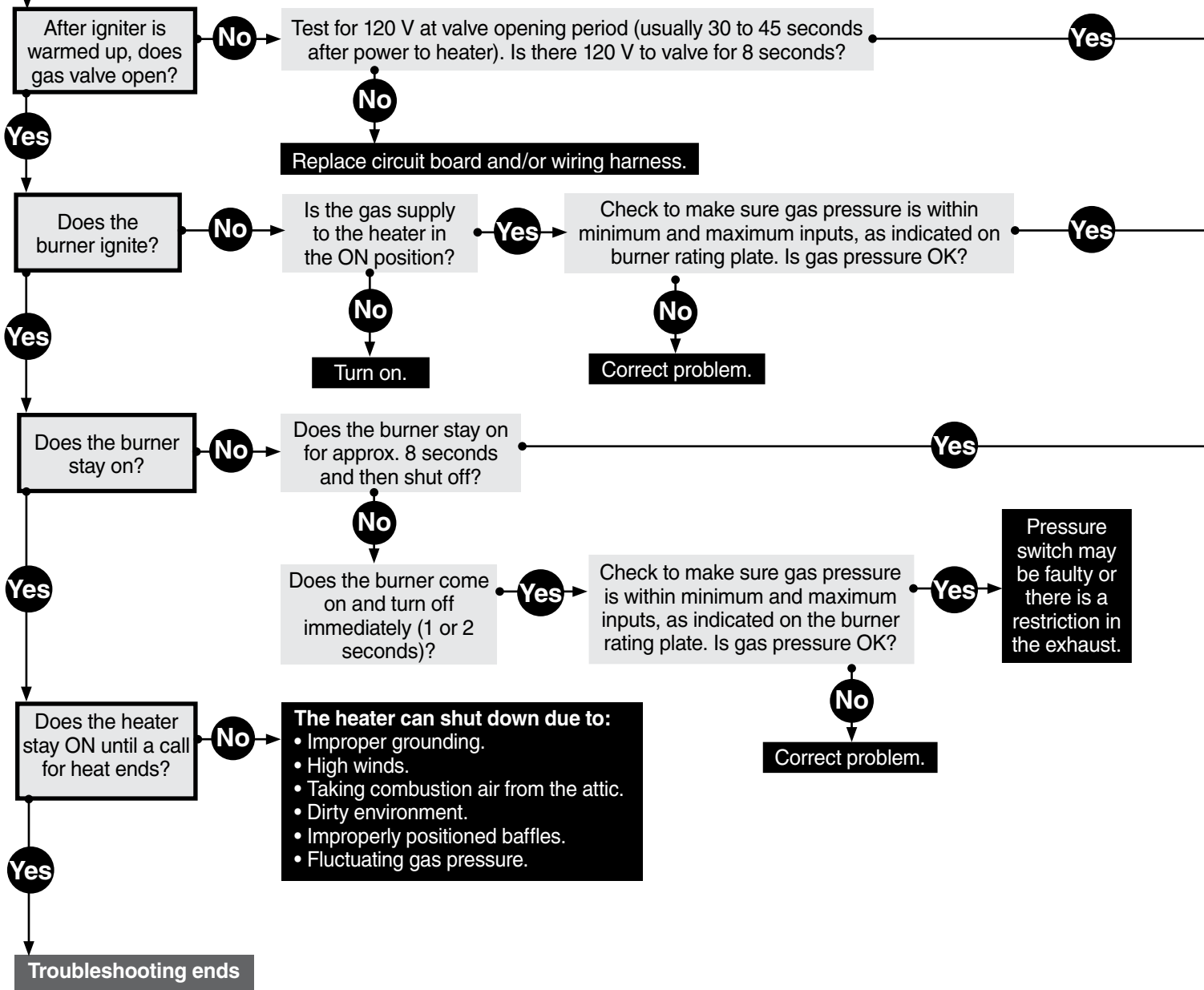
Process Question

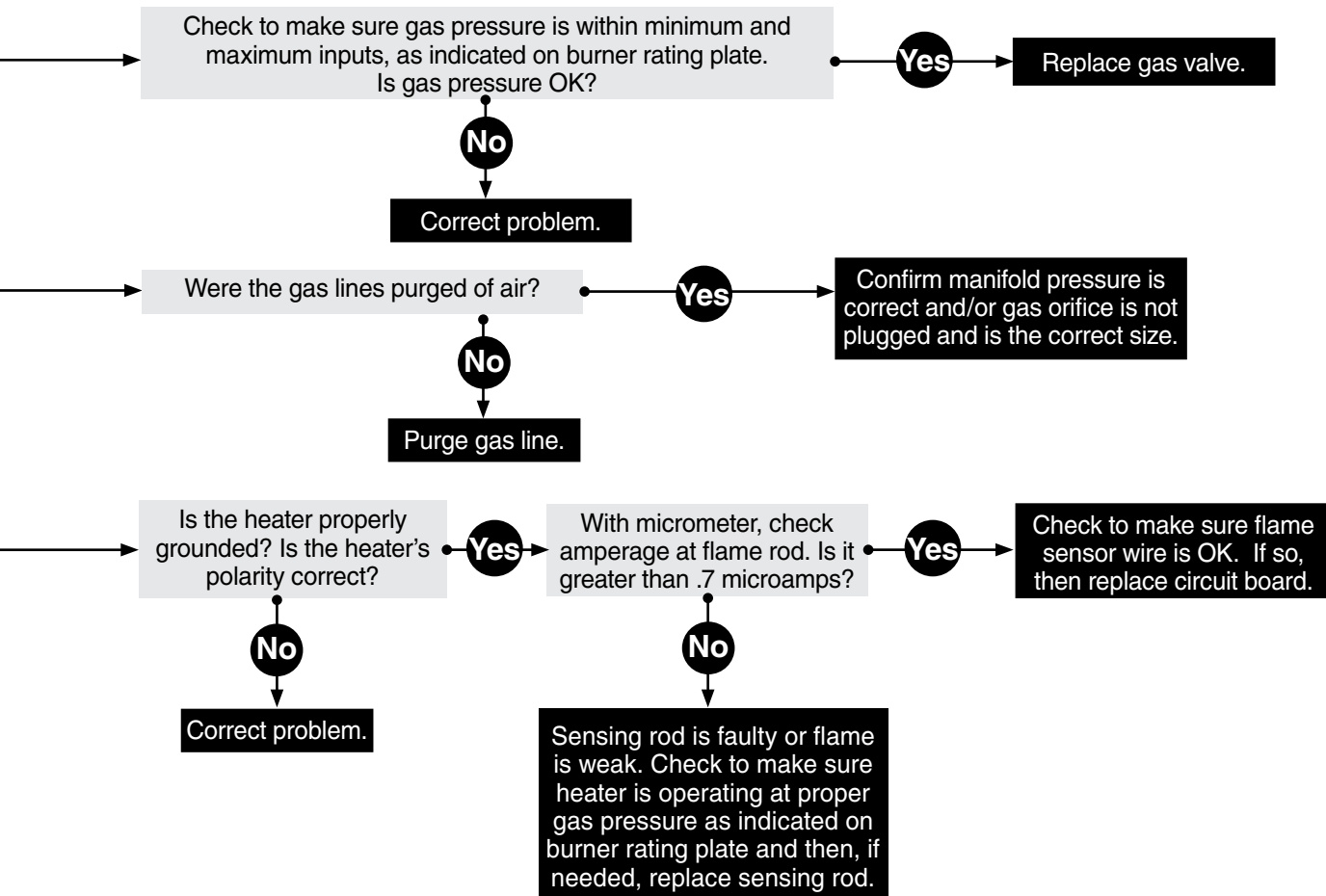


Corrective Action



Continued from page 14





5.0 Parts

Figure 5.1 • Burner Assembly Components

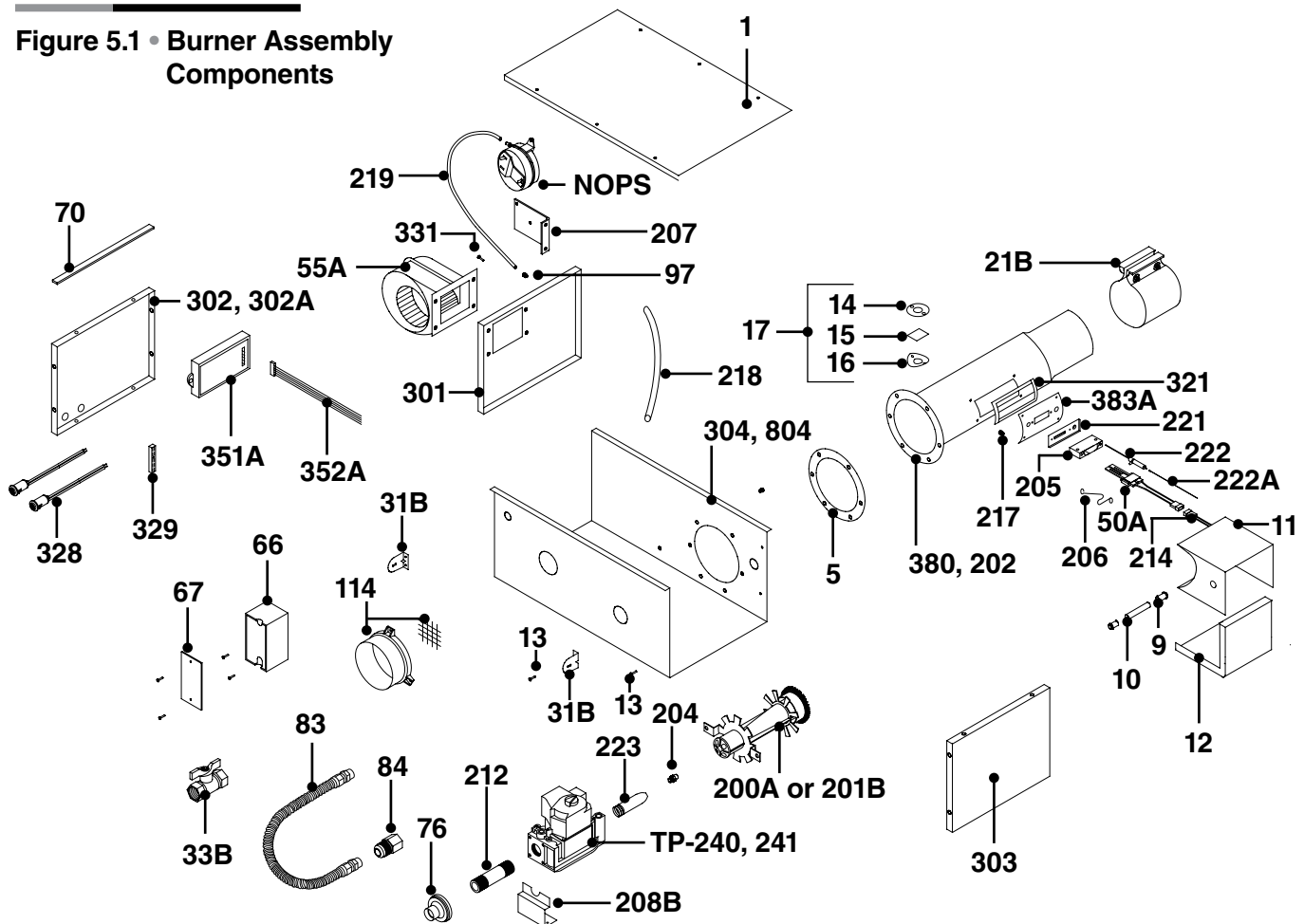
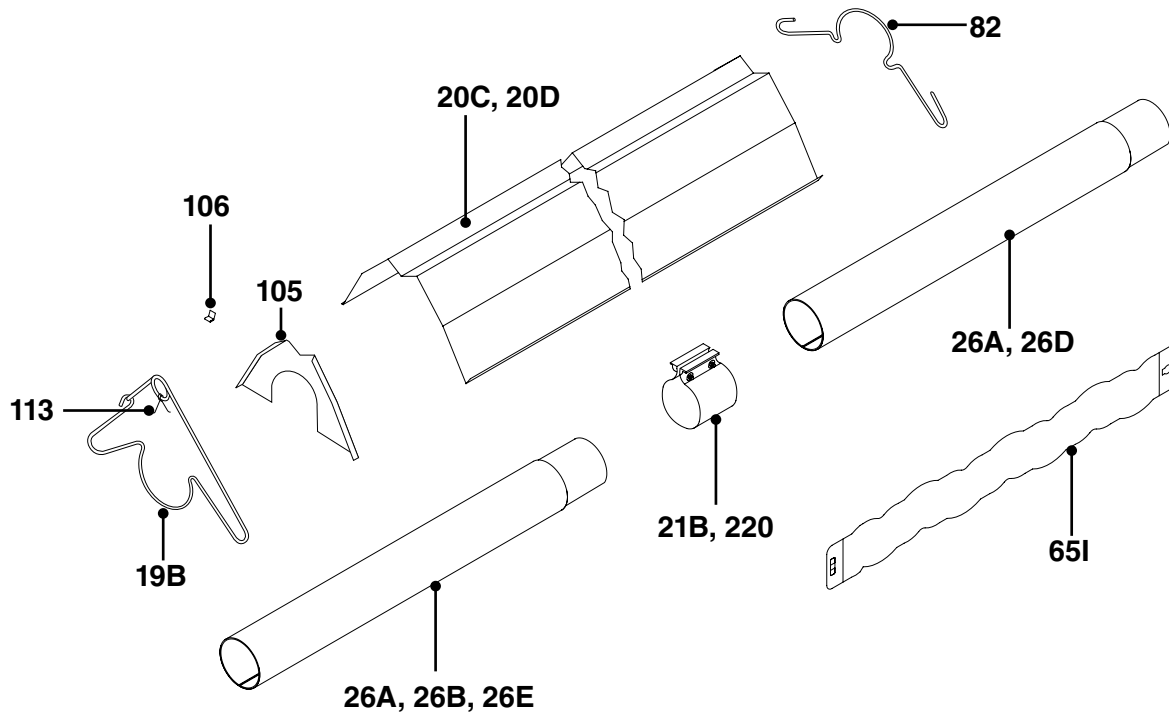


Chart 5.1 • Parts List

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-50A	Glo-Bar™ Igniter
TP-10	Conduit 4" x 1/2"	TP-55A	Fan Blower
TP-11	Glo-Bar™ Igniter Box	TP-65I	36" Interlocking Turbulator Baffle
TP-12	Glo-Bar™ Igniter 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-200A	Burner (Blue) - consult factory
TP-26E	10 ft. 409 Stainless Steel Combustion Tube*	TP-201B	Burner (Tan) - consult factory

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

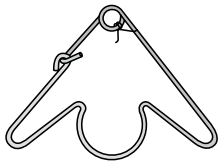

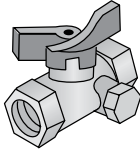

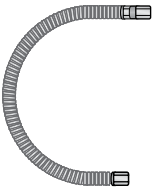
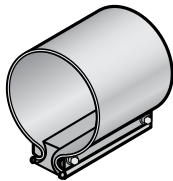
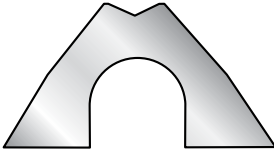
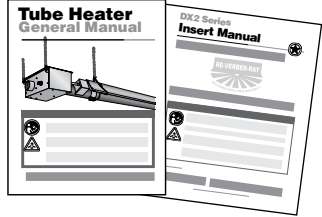
Figure 5.2 • Tube and Reflector Components



Part No.	Description	Part No.	Description
TP-202	16" Burner Tube with Flange (fittings included)	TP-301	Center Divider Panel
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	120 V 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 (150-200 MBH)*	TP-380	16" Burner Tube with Flange (no fittings)
TP-221	Glo-Bar™ Holder Gasket	TP-383A	Glo-Bar™ Igniter 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 to 150 MBH
TP-241	VR4205M-1357 Gas Valve Assembly - Prop. Gas	TP-264D	Differential Pressure Switch, 175 MBH
TP-244	Plastic Gas Valve Vent	TP-264F	Differential Pressure Switch, 200 MBH

Kit Contents Check List

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

DX2 Series Kit Contents								
<p>TP-19B 4" Hanger with Reflector Tension Spring</p> 	<p>TP-82 4" Reflector Center Support (RCS)</p> 	<p>TP-33B 1/2" Shut-Off Valve (Ball Valve & Inlet Tap)</p> 	<p>TP-106 Reflector End Cap Clips</p> 					
<p>TP-83 24" Stainless Steel Flexible Gas Connector</p> 	<p>TP-21B 4" Tube Clamp</p> 	<p>TP-105 Reflector End Cap</p> 	<p>Tube Heater General Manual and DX2 Series Insert Manual F/N: LIOGTa & LIODX2a</p> 					
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 150,000 - 200,000 BTU model. Place as shown on page 11.

Approvals

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

Limited Warranty

- 3 years - 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.



© 2018 Detroit Radiant Products Co.
21400 Hoover Road • Warren, MI 48089
Phone: (586) 756-0950 Fax: (586) 756-2626
www.detroitradiant.com • sales@drp-co.com

