SINGLE HEATER VENTING (HORIZONTAL THROUGH SIDEWALL)

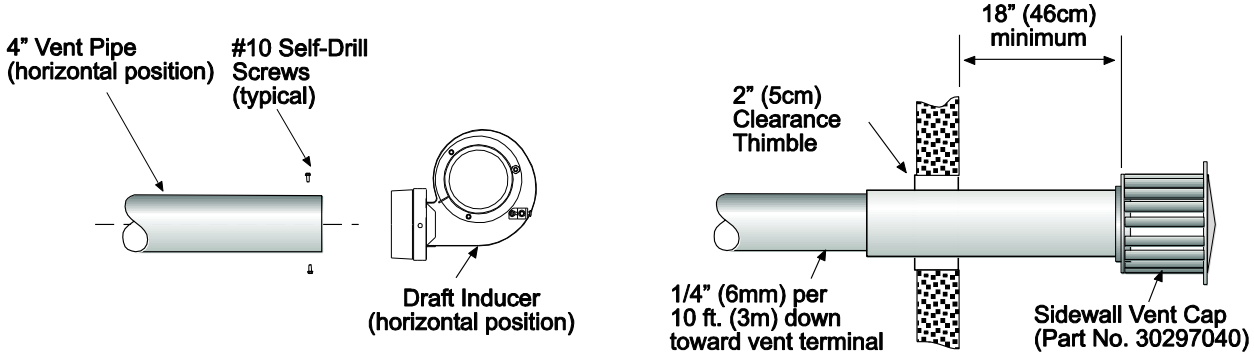
This heater, when horizontally vented, must be installed with the approved venting system. When venting the heater horizontally through a combustible outside sidewall, the same requirements listed previously for venting **Vertical Through The Roof** apply except as follows:

1. For horizontal venting, the vent lengths may be as follows:
   - Minimum Equivalent Length = 5 ft. of pipe
   - Maximum Equivalent Length = 75 ft. of pipe

   Use the following correction factors to obtain the equivalent length:
   - Subtract 15 ft. if the run is horizontal.
   - Subtract 10 ft. for an approved vent cap.
   - Subtract 10 ft. for each elbow beyond 15 ft. from the heater.
   - Subtract 15 ft. for each elbow within 15 ft. of the heater.

NOTE: To minimize problems associated with condensation in long horizontal runs, vent pipe can be insulated.

2. The horizontal venting system approved with this heater consists of the following components: one 4" Vent Cap (Part #30297040), one 4" x 36" 'B' Vent Section (Part #30496360), and one 4" Wall Thimble (Part #30500040). Please specify the appropriate number of 24-inch sections of single-wall vent pipe and elbows when ordering: Vent Pipe (Part #30497240), 90° Elbows (Part #30498040), and 45° Elbows (Part #30499040).
3. Avoid locating elbows in the first 5 feet of vent pipe whenever possible. Limit the quantity of 90° elbows to two (2). When vent pipe is in a horizontal run, it must fall 1/4 inch per 10 foot down towards the vent terminal. The heater must be installed level.
4. A minimum clearance of 18 inches must be maintained between the outside wall and vent cap (18" clearance will provide stability under high wind conditions).
5. The horizontal venting system shall not terminate:
   - Less than 4 ft. (1.2m) below, 4 ft. (1.2m) horizontally from or 1 ft. (30cm) above any door, operable window or gravity air inlet into any building. The bottom of the vent terminal shall be located at least 7 ft. (2.1m) above grade or above snow accumulation level as determined by local codes.
   - Less than 3 ft. (0.9m) from a combustion air inlet.
   - Less than 3 ft. (0.9m) from any other building opening or any gas service regulator.
   - Less than 7 ft. (2.1m) above public walkways.
   - Directly over areas where condensate or vapor could create a nuisance or hazard or be harmful to the operation of gas utility meters, regulators, relief valves, or other equipment. Building materials should be protected from flue gases and condensate.
   - Less than 12" (0.30m) when directly below a combustible overhang.
6. In regions of the country where prevailing winds are consistently higher than 40 mph, it may be necessary to terminate the vent system above the roof level.



MULTIPLE HEATER VENTING (CONNECTIONS INTO A COMMON VENT OR MANIFOLD)

Requirements for venting of multiple heaters are the same as described for **SINGLE HEATER VENTING** except as follows:

1. The common vent size and total vent height is normally determined by the number of heaters per common vent, length of horizontal connector runs, and connector rise. Connector lengths should be as short as possible and have a minimum 1/4 inch per foot rise. Without regard to connector rise and total vent height due to many possible venting configurations, the following should be observed:
   - Common vent pipe & vent connector diameter should be no less than that shown in the following Vent Sizing Table.

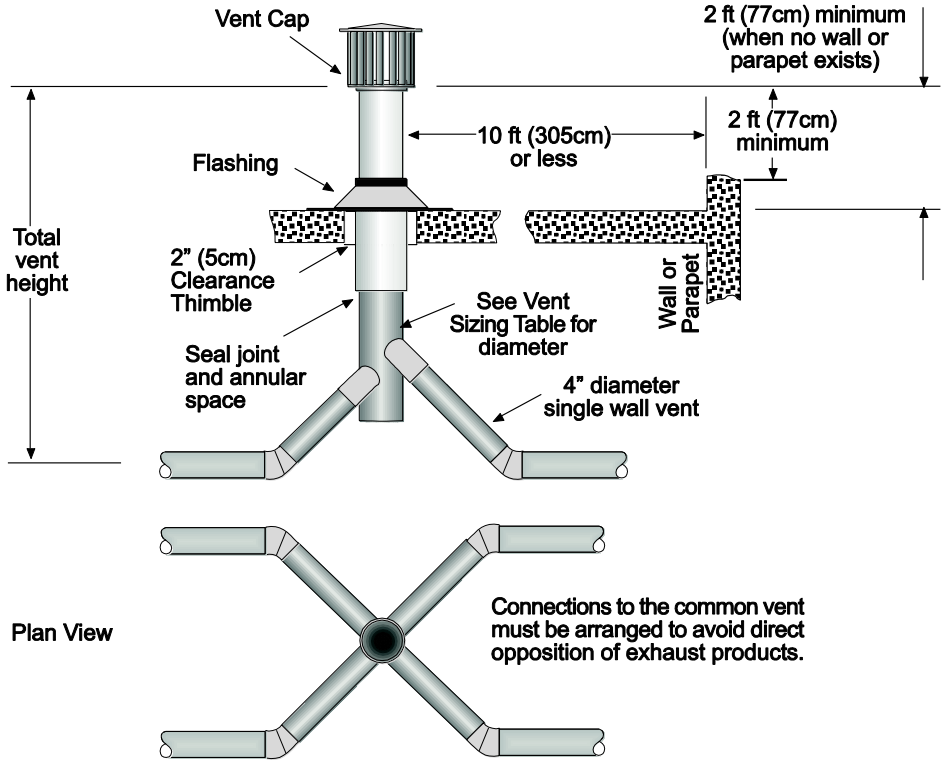
- A Y-connector must be used to the common vent.

2. Material for connectors and Y-connectors should be constructed of galvanized sheet metal or other approved noncombustible corrosion resistant material as allowed by state or local codes. All common vent pipe should be insulated flue pipe or double-wall, Type B vent.
3. Avoid unnecessary bends. Limit to two (2) 90° elbows.
4. The entire length of vent connector shall be readily accessible for inspection, cleaning and replacement.
5. Groups of heaters with a common vent must be controlled by a common thermostat.

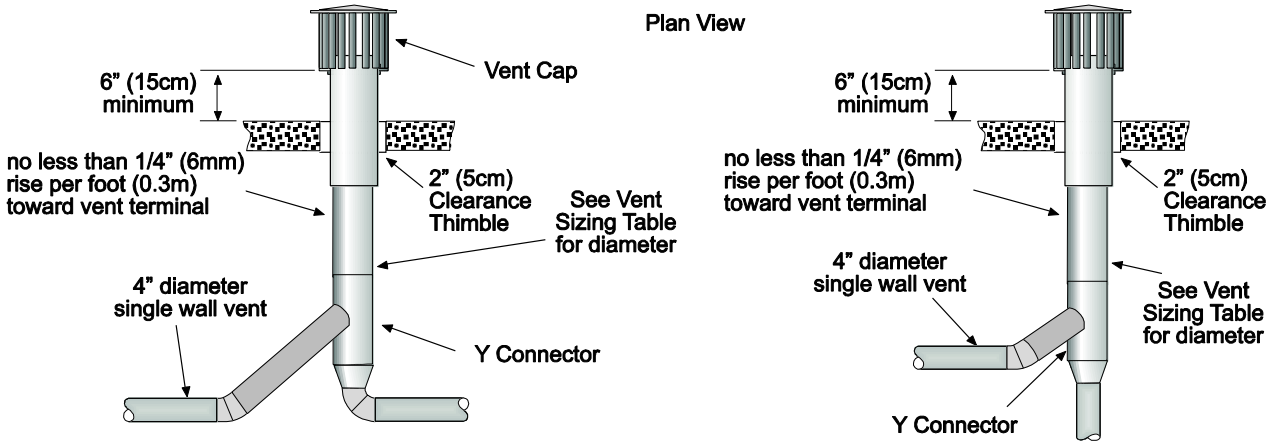
⚠ WARNING

If any heater connected to a common vent system for multiple heaters is found inoperative, the heater should be disconnected from the vent system and its entrance into the vent system capped.

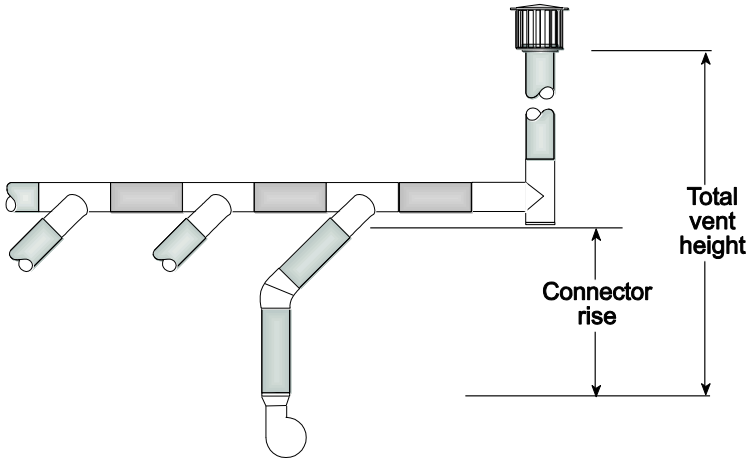
Multiple Heater Vertical Venting Arrangement



Multiple Heater Horizontal Venting Arrangement



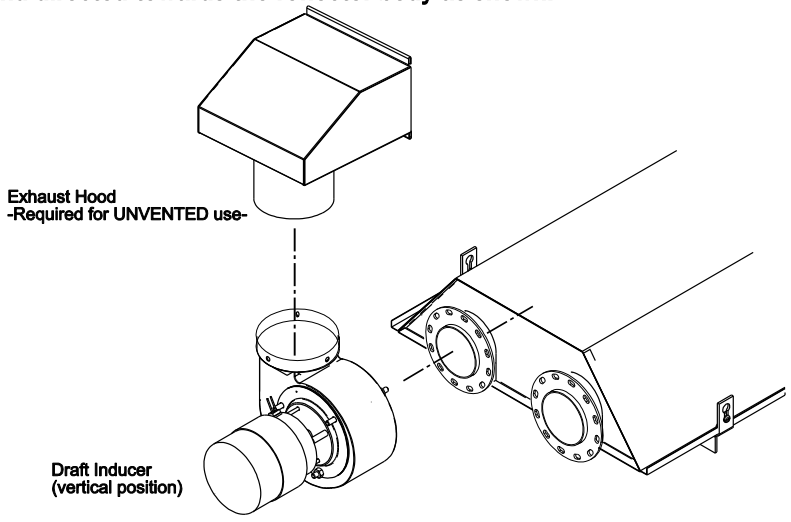
Multiple Heater Venting (Connections into a Manifold)



VENT SIZING TABLE — Multiple Heater Venting					
	Number of Heaters				
	1	2	3	4	5
SIR 25	4”	4”	4”	5”	5”
SIR 35	4”	4”	5”	5”	6”
SIR 45	4”	4”	5”	5”	6”
	COMMON VENT DIAMETER (If a size is not available use the next larger size.)				

THE ABOVE ILLUSTRATIONS AND TABLE OF VENT SIZES FOR COMMON VENTING OF MULTIPLE HEATERS ARE IN ACCORDANCE WITH THE NATIONAL FUEL GAS CODE ANSI Z223.1-LATEST EDITION, NFPA 54-LATEST EDITION, EQUIPMENT VOLUME OF 1988 ASHRAE HANDBOOK, CURRENT CAN/CGA-B149.1/2-M86 INSTALLATION CODE, AND AGA PUBLICATION NO. 10M5.85 2.5-2 ON FUNDAMENTALS OF GAS APPLIANCE VENTING AND VENTILATION-REVISED BUT ARE NOT A PART OF THE CSA CERTIFICATION.

B. **INDIRECT VENTING (UNVENTED HEATERS) — COMMERCIAL AND INDUSTRIAL INSTALLATIONS ONLY —** This heater requires ventilation in the building to dilute the products of combustion and provide fresh air for efficient combustion. Where unvented heaters are used, gravity or mechanical means shall be provided to supply and exhaust at least 4 CFM per 1,000 Btu/hr input of installed heaters. Exhaust vents must be located at the highest point above and in the vicinity of the heaters, and the inlet vents must be located below the level of the heaters. An exhaust hood (Part #42924000) must be placed on the outlet collar of the draft inducer or on the existing 4” starting collar when used unvented and **must be mounted only in an upright position and directed towards the reflector body as shown.**



15.0) AIR FOR COMBUSTION

If indoor combustion air is to be supplied for a tightly enclosed area, one square inch of free area opening shall be provided below the heater for each 1,000 Btu/hr per hour of heater input. When outside air is used, the opening below the heater shall be one square inch of free area for each 4,000 Btu/hr of heater input. In contaminated atmospheres or high humidity areas, optional outside air for combustion is recommended. Adequate clearances around the perforated fresh air plate must be maintained at all times. In larger open areas of buildings, infiltration normally is adequate to provide air for combustion.

15.1) DIRECT OUTSIDE AIR FOR COMBUSTION

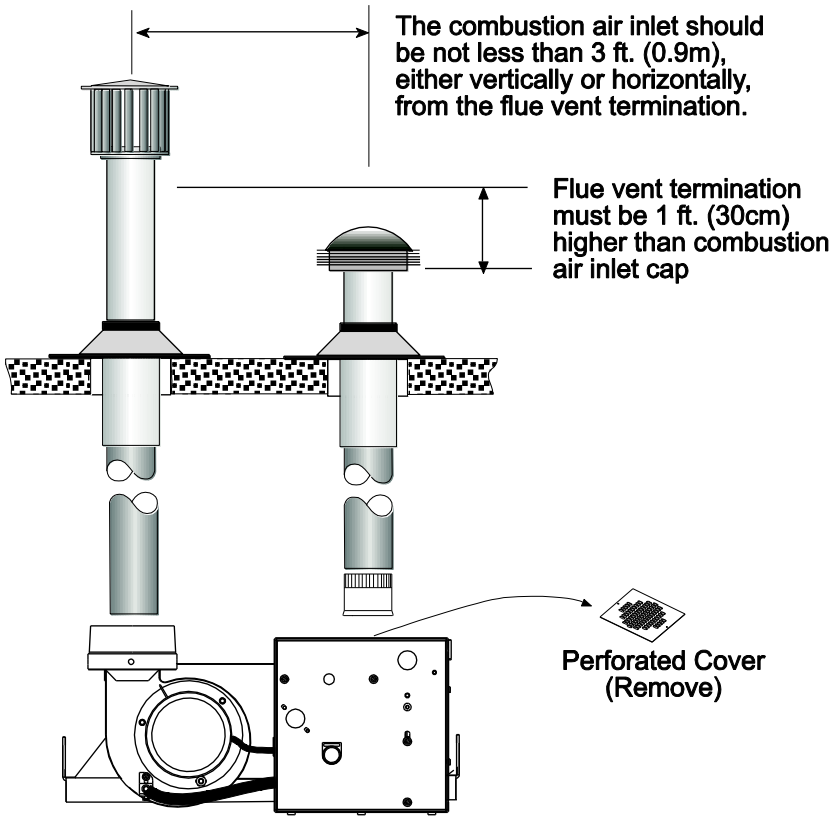
Outside combustion air should be supplied directly to the heater when the building is subject to negative pressure, or when contaminants or high humidity are present in the building air. These contaminants include paints, solvents, corrosive vapors or any other foreign particles that may cause damage to the heater or result in poor combustion.

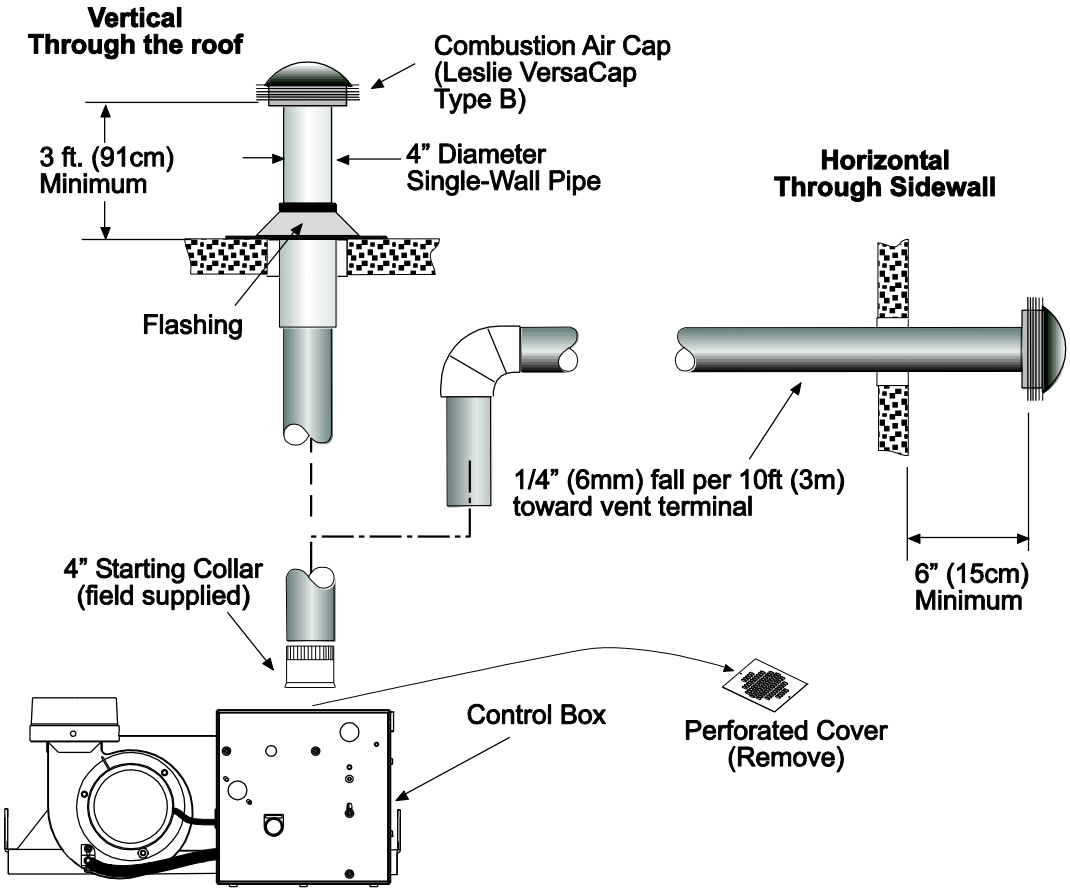
Outside combustion air can be brought directly to the heater by a 4" diameter duct less than 50 ft. long or equivalent (see table in Section 14.0) based on selected model and heat exchanger lengths). This is attached to the 4" diameter starting collar. The starting collar is fitted to the top of the control box cabinet **after first removing and discarding the perforated cover**. An approved vent cap must be placed directly on the end of the outside combustion air inlet pipe. The combustion air inlet should be not less than 3 ft. (0.9m), either vertically or horizontally, from the flue vent termination. The air intake terminal must be located not less than 1 ft. (30cm) above grade. It is good installation practice to supply combustion air from the same pressure zone as the vent outlet. Avoid bringing combustion air to the heater from an attic space. There is no guarantee that adequate combustion air will be supplied.

In colder climates, where necessary, insulate the outside combustion air duct. Avoid locating the outside combustion air duct directly above the control box. Provide a capped cleanout T as necessary. In high humidity applications, the control box should be sealed with silicone sealer.

⚠ WARNING **All vent terminations and Combustion Air Intake Terminations must be at least 6" higher than anticipated snow depth.**

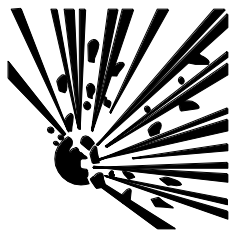
In **multiple heater applications**, the combustion air intake may be ducted individually or common ducted in the same configuration as shown for venting in Section 14.0). For combustion air intake duct sizing, please refer to the **Vent Sizing Table** and use the diameter indicated, based on the number of heaters per duct.


The combustion air inlet should be not less than 3 ft. (0.9m), either vertically or horizontally, from the flue vent termination.
Flue vent termination must be 1 ft. (30cm) higher than combustion air inlet cap
Perforated Cover (Remove)


Vertical
Through the roof
Combustion Air Cap (Leslie VersaCap Type B)
3 ft. (91cm) Minimum
4" Diameter Single-Wall Pipe
Flashing
Horizontal
Through Sidewall
1/4" (6mm) fall per 10ft (3m) toward vent terminal
6" (15cm) Minimum
4" Starting Collar (field supplied)
Control Box
Perforated Cover (Remove)

16.0) LIGHTING AND SHUTDOWN INSTRUCTIONS

⚠ WARNING



FIRE AND EXPLOSION HAZARD

Never operate the heater with the access panel open or removed.

The access panel must be closed tightly during operation.

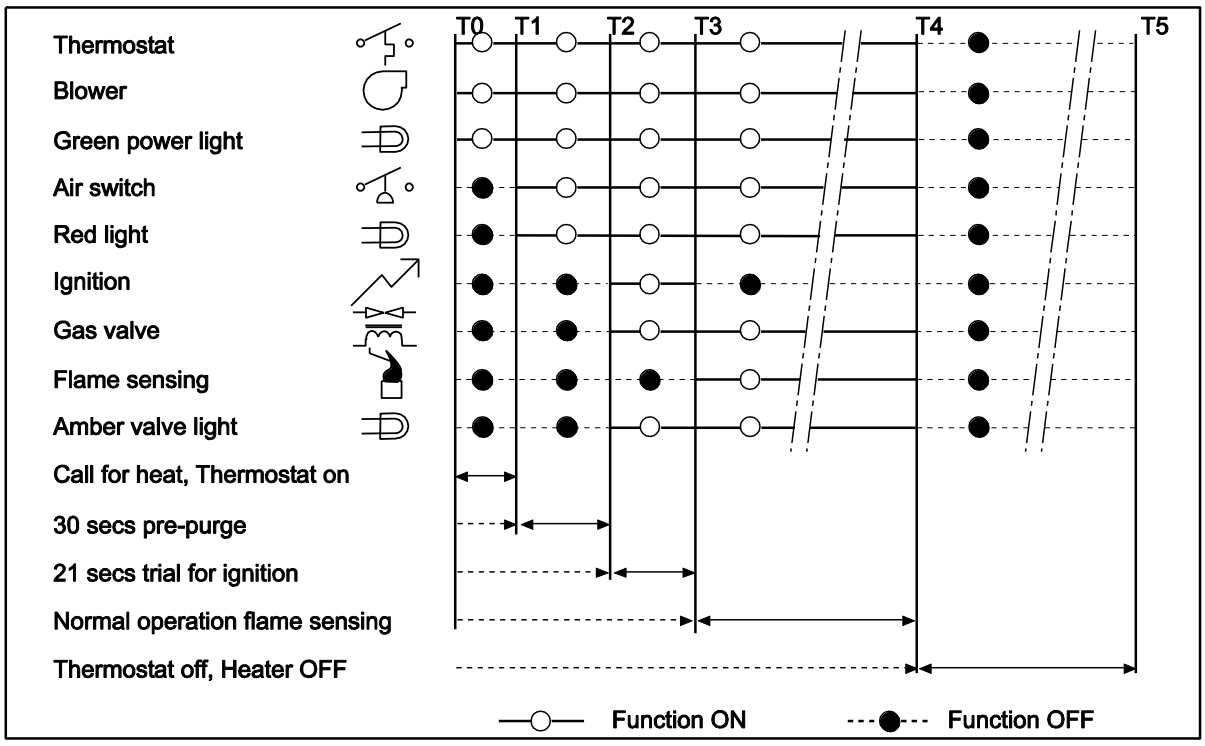
Failure to do so may result in death, serious injury or property damage.

1. Turn on the gas and electrical supply.
2. Set the thermostat to call for heat. The blower motor will energize.
3. Ignition should occur after the 30-second air pre-purge.
4. If ignition fails, the unit will spark for approximately 21 seconds and go into safety lockout. Turn the thermostat (power) off for 60 seconds to take the system out of lockout.
5. If the heater does not light, manually reset the thermostat or shut off power completely for 5 minutes before attempting to relight.
6. To permanently shut down the heater, turn off the gas and electrical supply.

NOTE: The lighting and shutdown instructions are also shown on the permanent nameplate label attached to the heater control box.

17.0) SEQUENCE OF OPERATION – SINGLE STAGE (N5/L5)

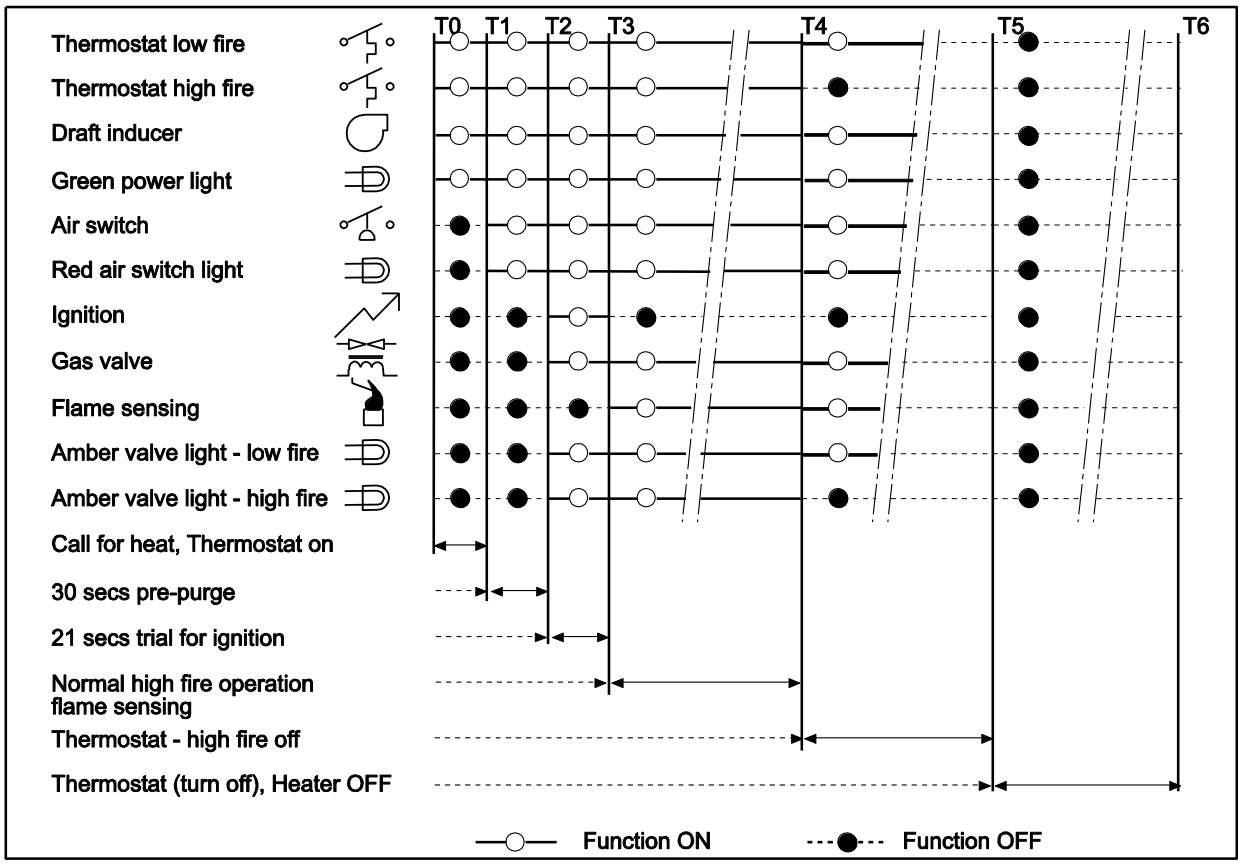
The chart below shows the sequence of operation for the normal operating cycle.



If the flame is not sensed during sequence T3 then the burner will automatically begin ignition sequence T2. If the flame is not re-established the heater will go to lockout.

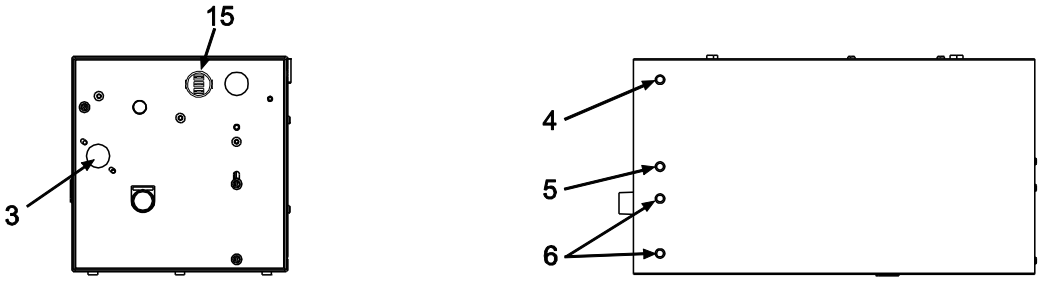
17.1) SEQUENCE OF OPERATION – TWO STAGE (N7/L7)

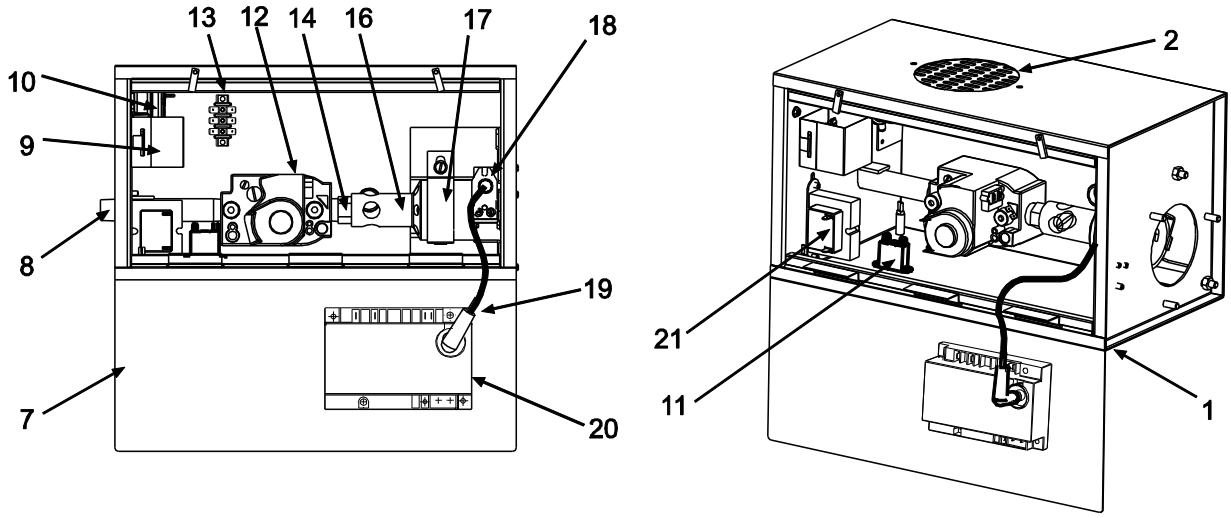
The chart below shows the sequence of operation for the normal operating cycle for a **two** stage heater **(N7/L7).**



.If the flame is not sensed during sequence T3 or T4, then the burner will automatically begin ignition as in sequence T2. If the flame is not re-established the heater will go to lockout.

18.0) CONTROL COMPONENT LOCATION



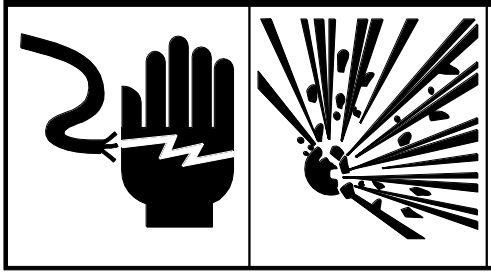


1	Cabinet Assembly	12	Gas Valve
2	Air Inlet Plate	13	3-Pole Terminal Block - 2 stage only
3	Sight Glass	14	Orifice
4	Monitoring Light, Green	15	Thermostat Connection Block - 2 stage only
5	Monitoring Light, Red	16	Main Burner
6	Monitoring Light, Amber (2) - 2 stage only	17	Burner Clamp
7	Access Panel	18	Spark Electrode
8	Restrainter Nipple, 5” Long	19	Ignition Cable
9	Terminal Block and Shield	20	Ignition Module
10	Air Switch	21	Transformer (120/24 VAC)
11	Relay - 2 stage only		

NOTE: Access panel only opens to 90°.

19.0) CLEANING AND ANNUAL MAINTENANCE

⚠WARNING



ELECTRIC SHOCK & EXPLOSION HAZARD

Disconnect electrical power and gas supply before servicing.

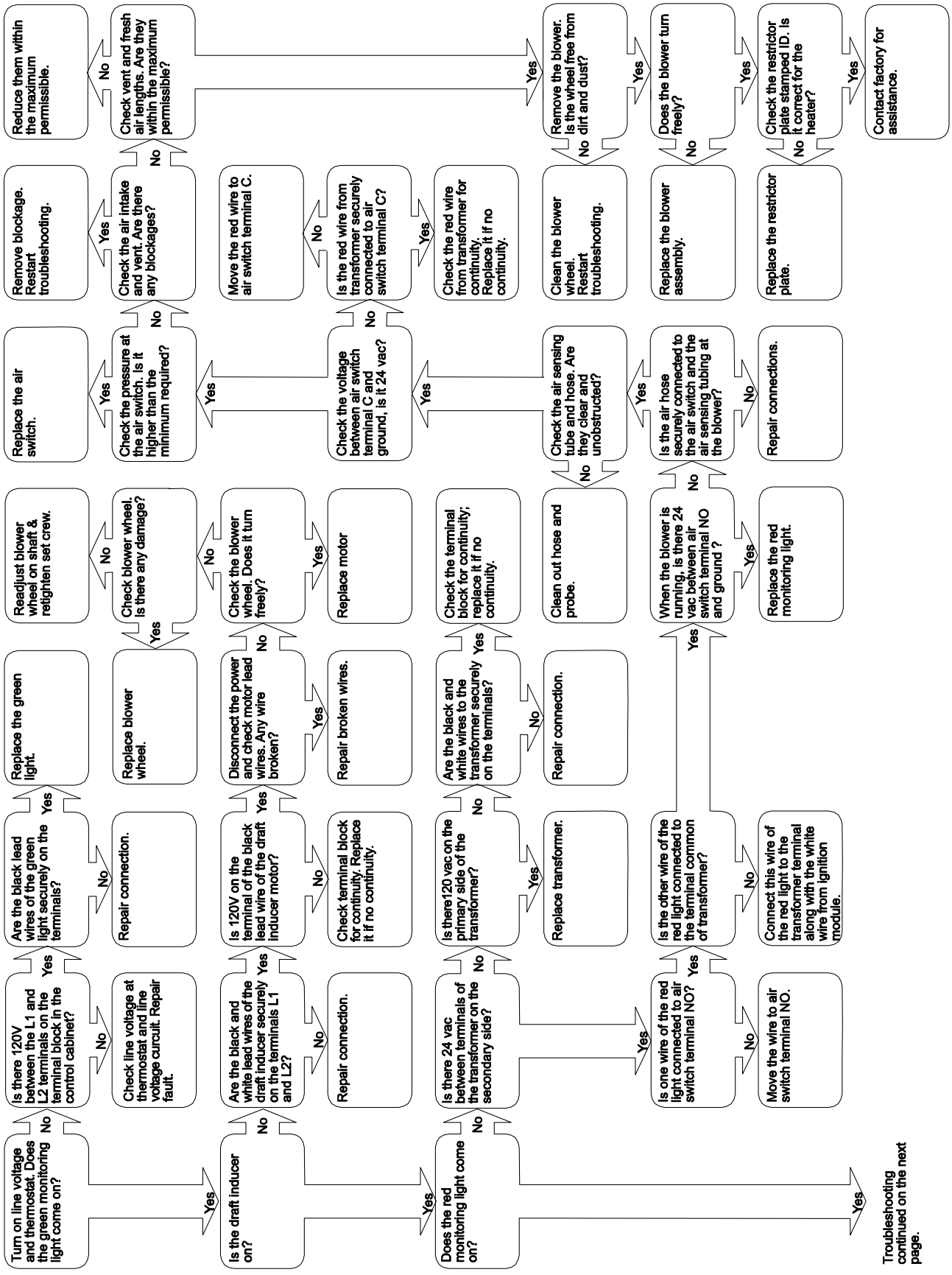
Failure to do so may result in death or serious injury.

This heater must be cleaned and serviced annually by a qualified contractor before the start of each heating season and at any time excessive accumulation of dust and dirt is observed. Maximum heating efficiency and clean combustion will be maintained by keeping the heater clean. To clean the heater, turn off all electrical and gas supply to the heater.

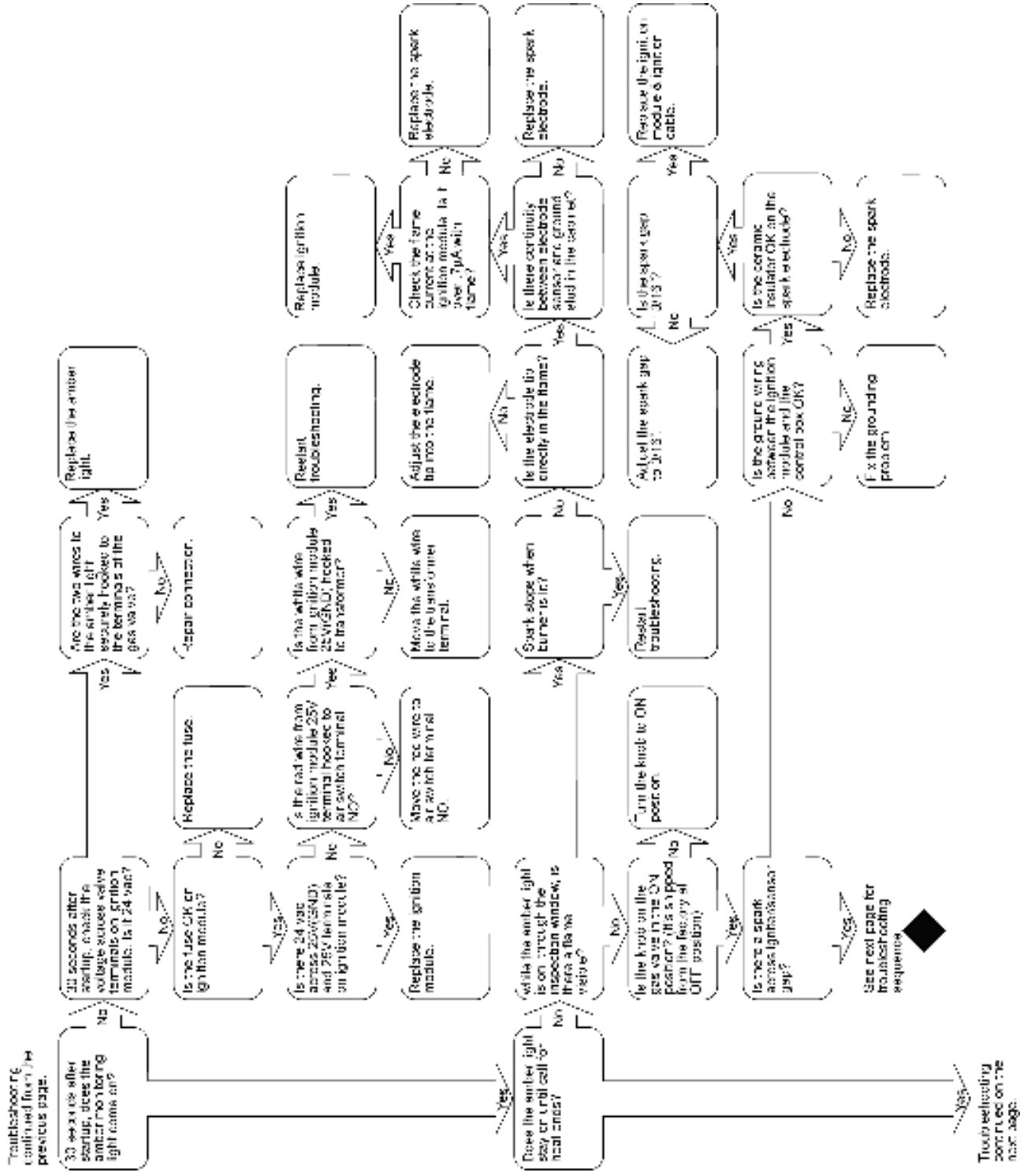
The contractor shall check the following during periodic maintenance.

- **Clearances to combustibles:** Check that clearances are being maintained. Make sure there are no flammable objects, liquids or vapors near the heater. See also Section 4.0).
- **Reflectors:** Reflectors should be kept clean, at a minimum blow off the reflectors. (Dirty reflectors may reduce heat output).
- **Heat exchanger tubes:** Inspect the heat exchanger tubes to make sure they are not cracked, sagging or showing signs of fatigue.
- **Combustion air intake:** Disconnect combustion air intake from the control box and inspect internally using a flashlight to make sure no foreign material has collected in the tubes and that there is no obstruction around the air intake openings. Clean any foreign materials. Inspect any joints to make sure they are completely sealed. See also Section 15.0).
- **Venting System:** Disconnect vent pipe and inspect internally using a flashlight to make sure no foreign material has collected in the pipes. Check the external vent cap and make sure that there is no obstruction around the exhaust openings. Clean any foreign materials. Inspect any joints to make sure they are completely sealed. See also Section 14.0).
- **Gas lines:** Make sure that the gas lines are not leaking. Check the gas connection to the heater for any signs of damage, fatigue or corrosion. If there are any signs of damage to the gas connection or leaks found in the gas piping, immediately stop using the heater until the gas pipe and connections have been repaired or replaced. Check that the gas lines are not bearing the weight of the heater. See also Section 11.0).
- **Control Box:** In order to extend the longevity of the heater, the heat exchanger tube and the burner must be level. Check that the control box is level. Clean the access panel, and the inside of the control box.
- **Blower wheel and housing:** Check that the blower wheel spins freely, blow out any dust or dirt with compressed air. A dirty wheel can reduce the volume of air pulled and can result in premature tube failure.
- **Electrode condition:** Visually check that the electrode gap is maintained at 3/16" and that the tips of the flame sensor and spark electrode are free from deposits. Clean off any deposits. Check that the electrode ceramic is free from cracks**. CAUTION: The ceramic portion of the electrode is very fragile so any cleaning or adjustments must be done with care.** See Section 21.1).
- **Suspension system:** Check that the suspension system is holding the heater level. Make sure that the heater is hanging securely, look for any evidence where the heater may have been hit accidentally and tighten any loose hanging points. Check that S hooks are closed. Check that there is no evidence of wear on the chain at the connection to the heater and at the ceiling.
- **Main Burner and Orifice:** Check the Main burner and orifice; remove any dirt or debris including spider webs. See Section 21.1).

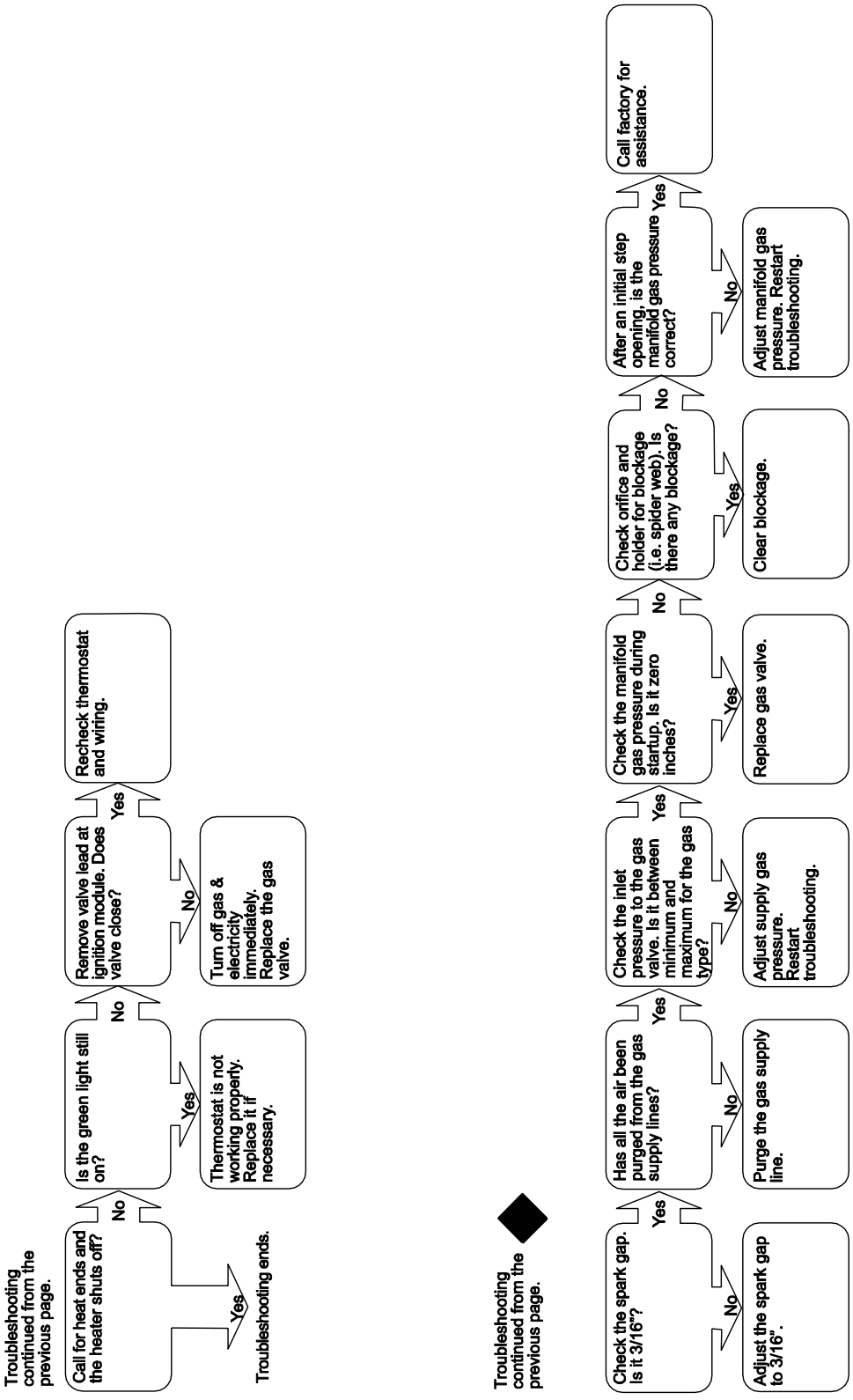
20.0) TROUBLESHOOTING GUIDE – SINGLE STAGE (N5/L5)



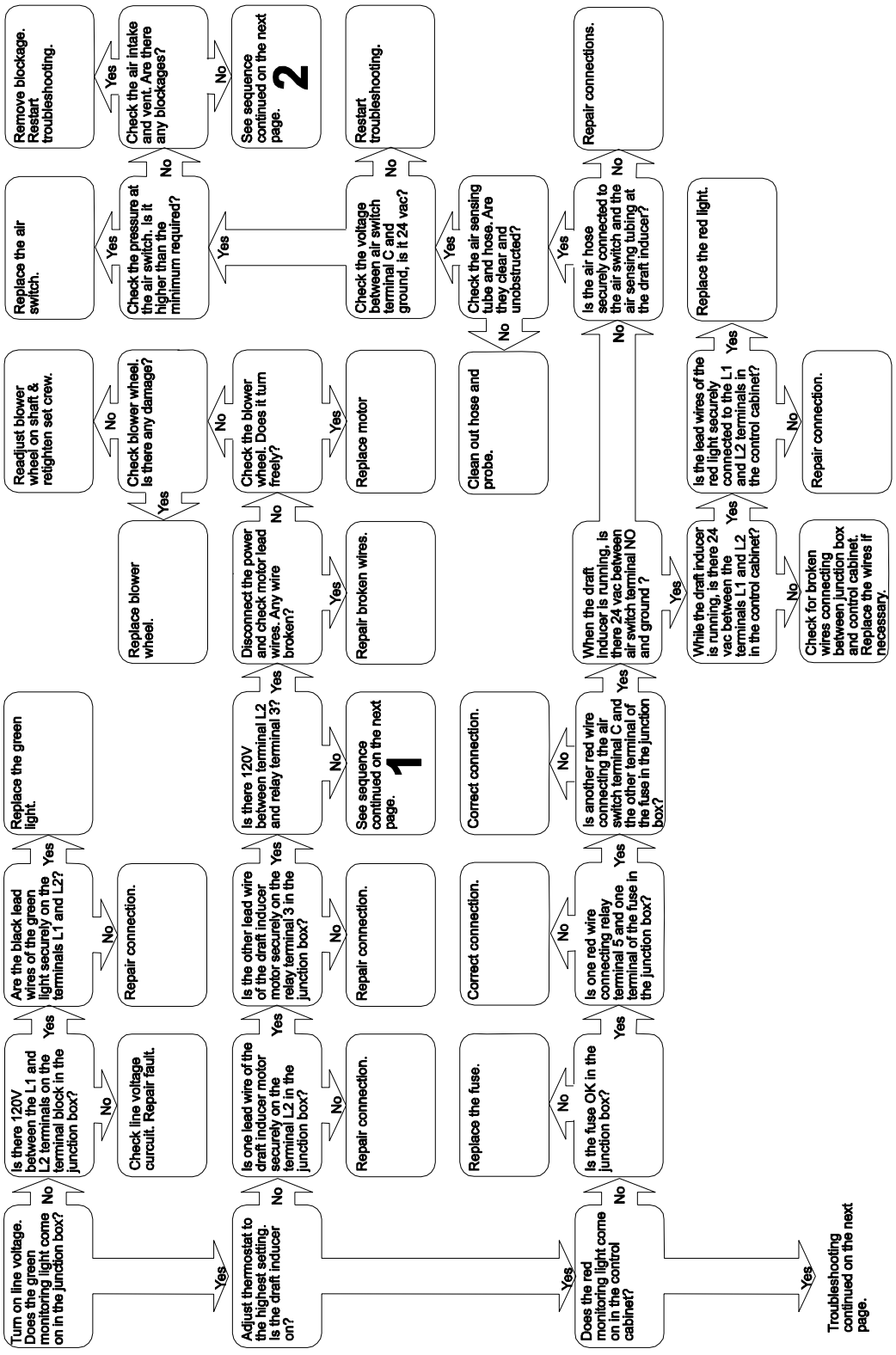
TROUBLESHOOTING GUIDE – SINGLE STAGE (CONTINUED)



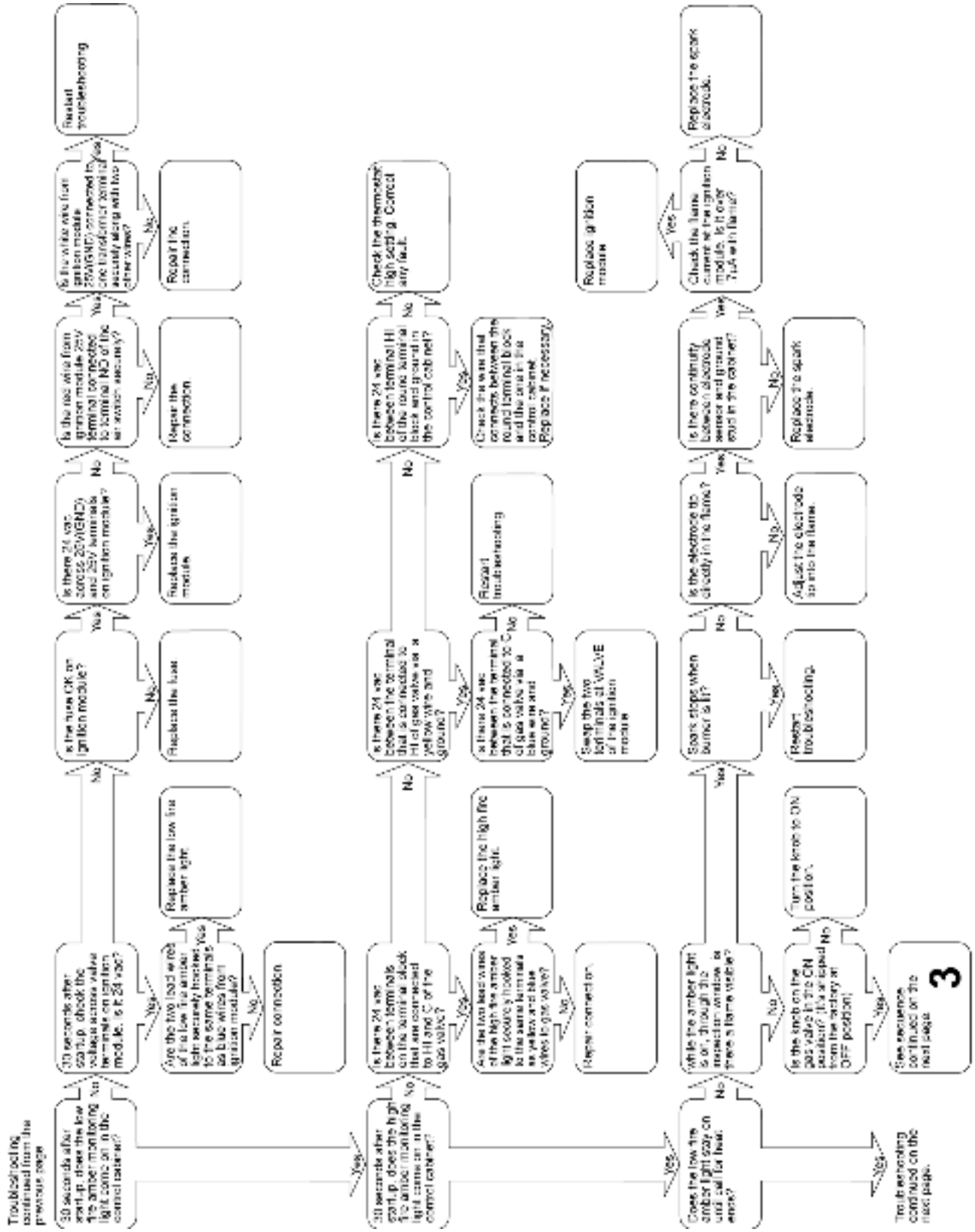
TROUBLESHOOTING GUIDE – SINGLE STAGE (CONTINUED)



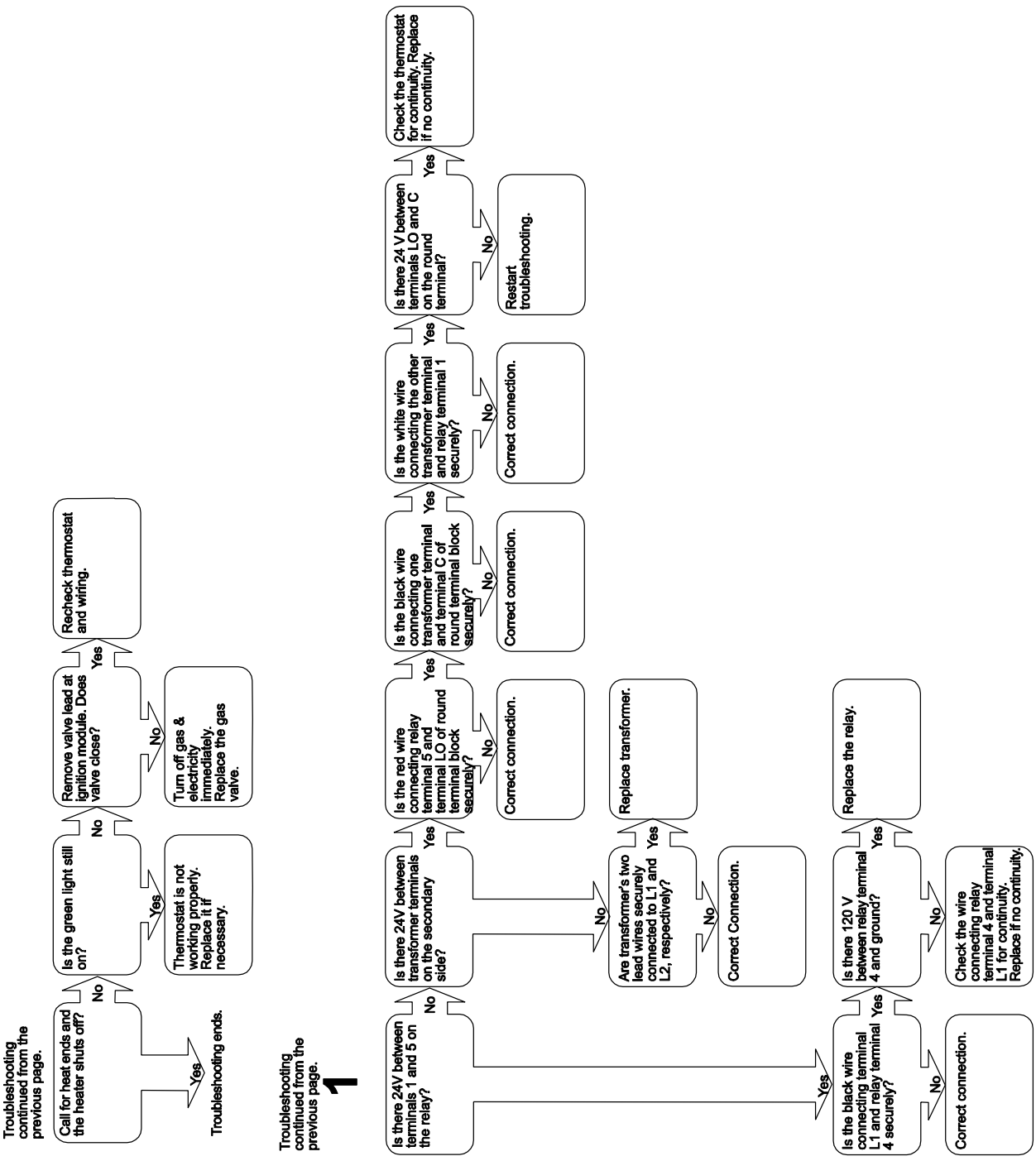
20.1) TROUBLESHOOTING GUIDE – TWO STAGE (N7/L7)



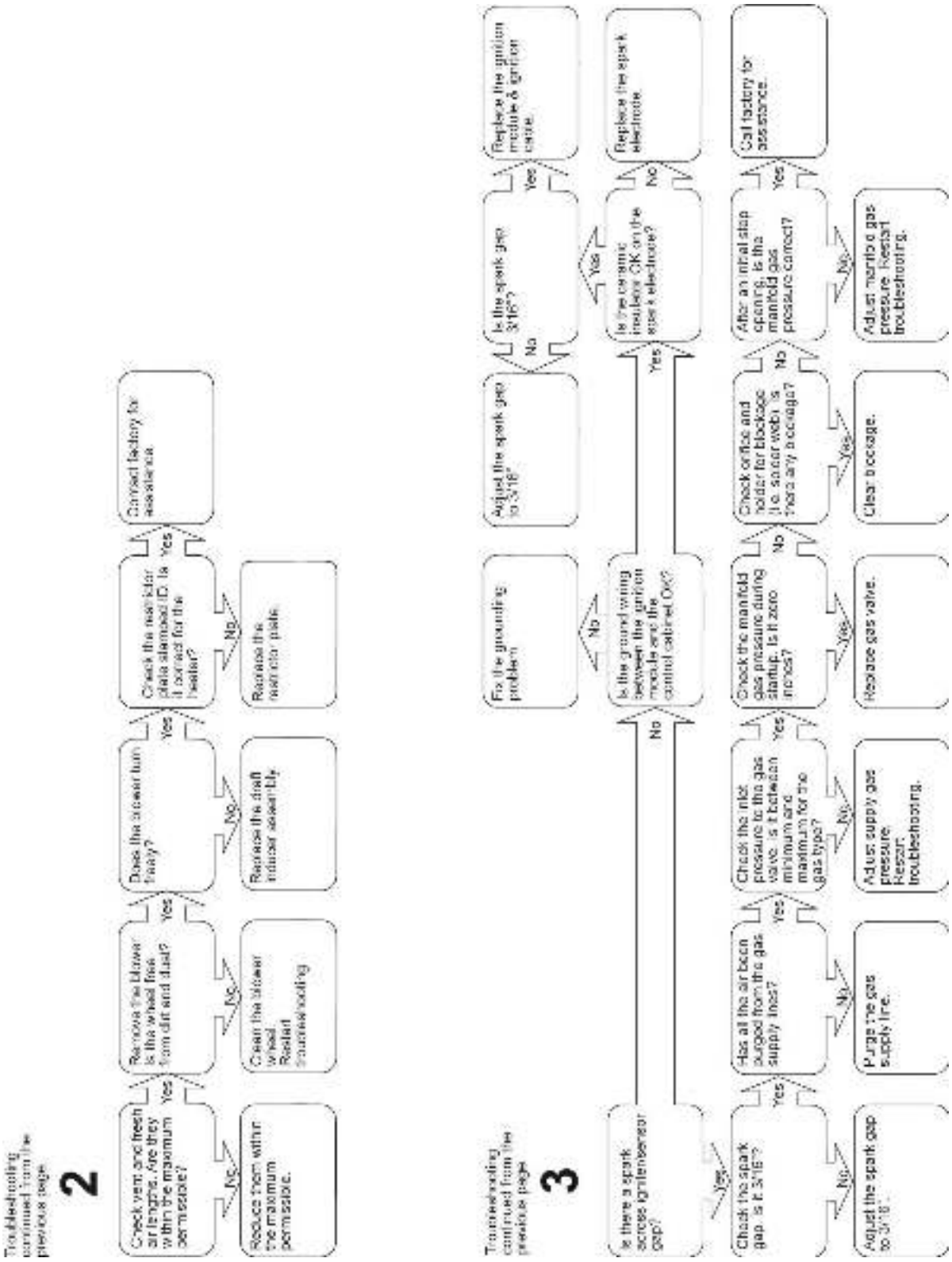
TROUBLESHOOTING GUIDE – TWO STAGE (CONTINUED)



TROUBLESHOOTING GUIDE – TWO STAGE (CONTINUED)

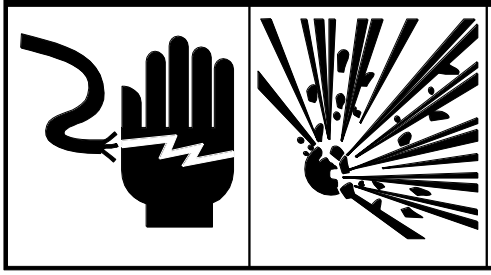


TROUBLESHOOTING GUIDE – TWO STAGE (CONTINUED)



21.0) REPLACING PARTS

⚠WARNING



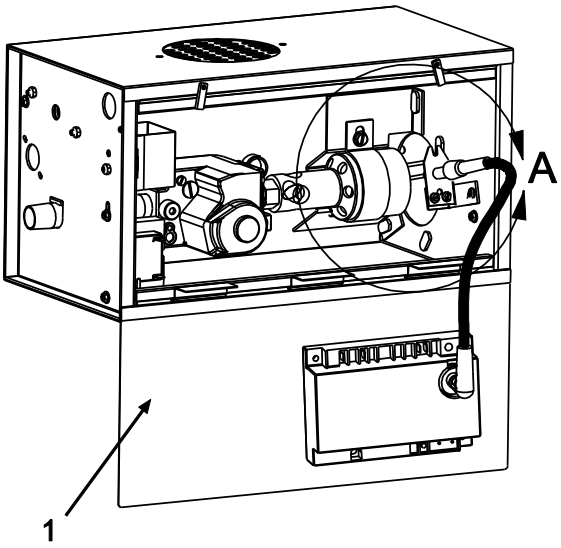
ELECTRIC SHOCK & EXPLOSION HAZARD

Disconnect electrical power and gas supply before servicing.

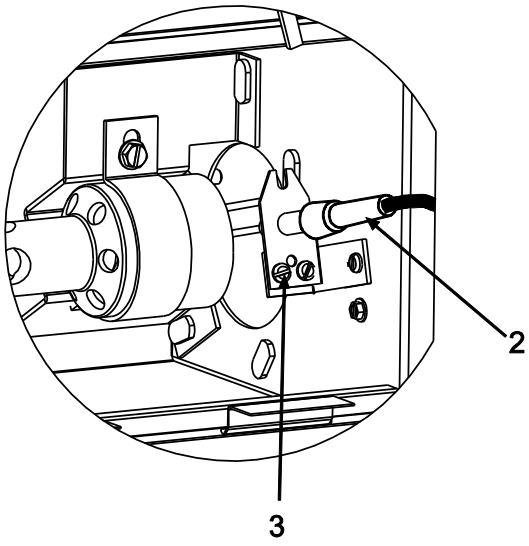
Failure to do so may result in death or serious injury.

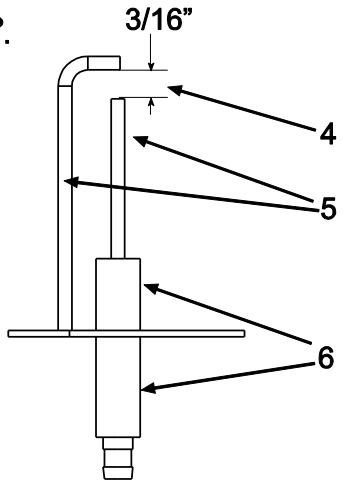
Only use genuine Space-Ray replacement parts. Parts are available from the factory for replacement by a licensed person. Refer to the Replacement Parts Guide in Section 23.0) for all replacement parts.

21.1) REMOVAL OF SPARK ELECTRODE



Access panel only opens to 90°.

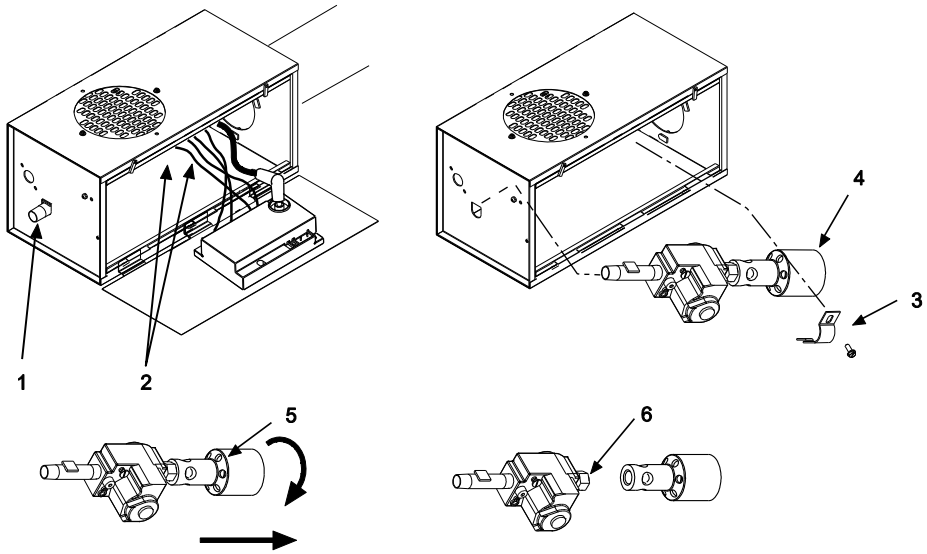




1. Disconnect electrical supply and open access panel.
2. Pull out the ignition cable hooked to spark electrode.
3. Remove two mounting screws.
4. Take out the spark electrode. Check that the spark gap is 3/16”.
5. Check spark electrode. Spark electrode should be clean and free from debris.
6. Check ceramic on the spark electrode. It should be free from cracks.

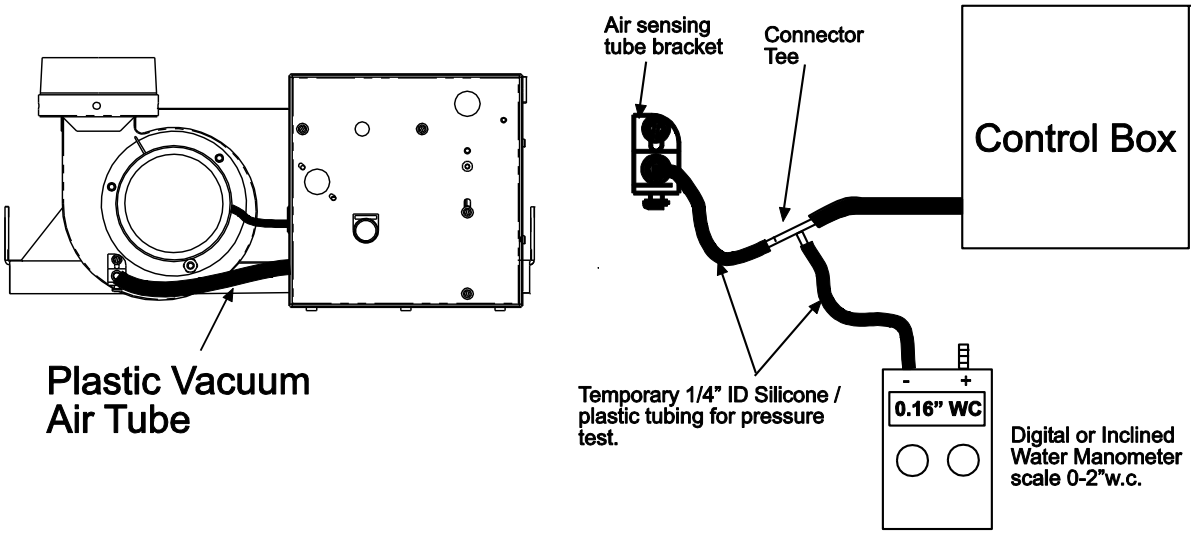
21.2) REMOVING MAIN BURNER AND GAS VALVE

The main burner can be inspected without removing the burner housing from the heat exchanger tube.



1. Disconnect electrical supply and gas connection at the restrainer nipple.
2. Open the access panel and disconnect the wires from gas valve.
3. Remove the burner clamp and screws.
4. Remove the burner and gas valve assembly from the cabinet.
5. Unscrew the burner from the manifold.
6. Check the orifice. If the gas valve is to be replaced, the pipe joint compounds must be resistant to the action of liquefied petroleum gases.

21.3) AIR SWITCH PRESSURE CHECK



1. Open hinged access panel.
2. Add tubing to connect the air switch with the connector tee and the existing tubing.
3. Connect plastic tubing of a digital or inclined water manometer with a 0-2" scale onto the connector tees.
4. Turn heater on and wait until blower motor is activated.
5. Observe air pressure from manometer. This should be higher than the set point 0.16" w.c. for correct operation.

All pressures are with the heater in operation for at least 15 minutes.

21.4) IGNITION SYSTEM CHECKS

TO CHECK IGNITION CABLE.

a. Make sure that the ignition cable does not touch any metal surface.

b. Make sure that connections to the stud terminal and the igniter/sensor are clean and tight.

c. Make sure that the ignition cable provides good electrical continuity.

TO CHECK IGNITION SYSTEM GROUNDING.

(Nuisance shutdowns are often caused by a poor or erratic ground.) A common ground is required for the module, igniter, flame sensor and main burner.

a. Check for good metal-to-metal contact between the igniter bracket and the main burner.

b. Check the ground lead from the GND (BURNER) terminal on the module to the igniter bracket. Make sure connections are clean and tight. If the wire is damaged or deteriorated, replace it.

c. Replace igniter/sensor with factory replacement part if insulator is cracked.

TO CHECK SPARK IGNITION CIRCUIT.

▲**WARNING:** The ignition circuit generates a 20,000 Volt open circuit and electrical shock can result.

a. Check ignition cable.

b. Check external fuse located inside the control box.

c. Verify power (24V) at module input terminals and output terminal to gas valve.

d. Replace spark module if fuse and power are OK.

IGNITION MODULE DIAGNOSTICS (Fenwal #35-6087J1-034 module only)

The **LED** located on the ignition module will flash **ON** for ¼ second, then **OFF** for ¼ second during a fault condition. The pause between fault codes is 3 seconds.

LED Indication	Error Mode
Steady On	Internal Control Fault
2 Flashes	Flame Sense Fault
3 Flashes	Ignition Lockout

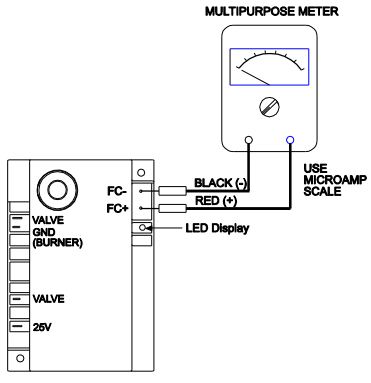
TO CHECK FLAME SENSOR CIRCUIT (Fenwal #35-6087J1-034 module only)

The flame current is the current that passes through the flame from the sensor to the ground. The minimum flame current necessary to keep the system from lockout is **0.7** micro-amps.

a. To measure the flame current, connect an analog DC micro-ammeter to the **FC-** and **FC+** terminals per diagram. The meter should read **0.7** micro-amps or higher when the burner is running full on.

b. If the meter reads below **zero**, the meter leads are reversed. Disconnect power and reconnect the meter leads for proper polarity.

c. Remove micro-ammeter. Return system to normal operation.



Ignition Module - Alternate
(Fenwal #35-6087J1-034)

21.5) MOTOR AND BLOWER WHEEL CHECK

If draft inducer motor fails to run:

a. Check power supply to junction box.

b. Check for loose or broken motor lead wire.

c. Check to see that blower wheel turns freely and is not rubbing housing. Blower wheel may have worked loose from shaft and jammed against housing.

d. Check for blower wheel damage; replace if necessary. If no damage, readjust blower wheel on shaft & retighten set screw.

e. If all above does not correct, replace motor.

22.0) INSTALLATION DATA

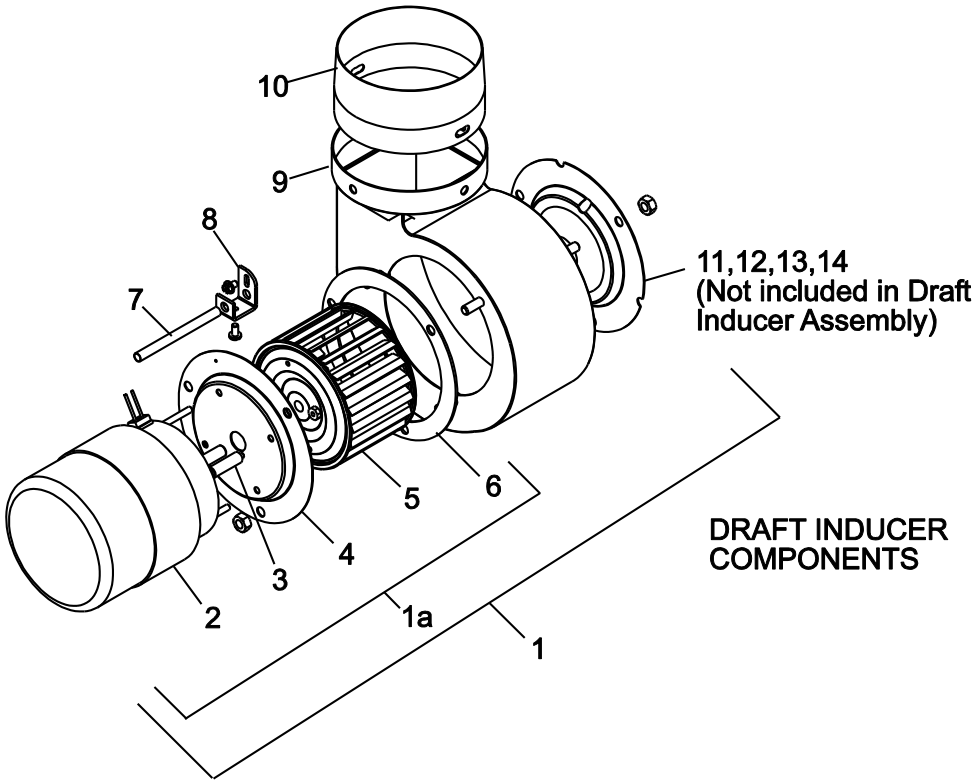
Date of Installation: _____ # of Heaters in System: _____

Serial No. _____

Model: **SIR** _____ N = Natural Gas
L = Propane Gas

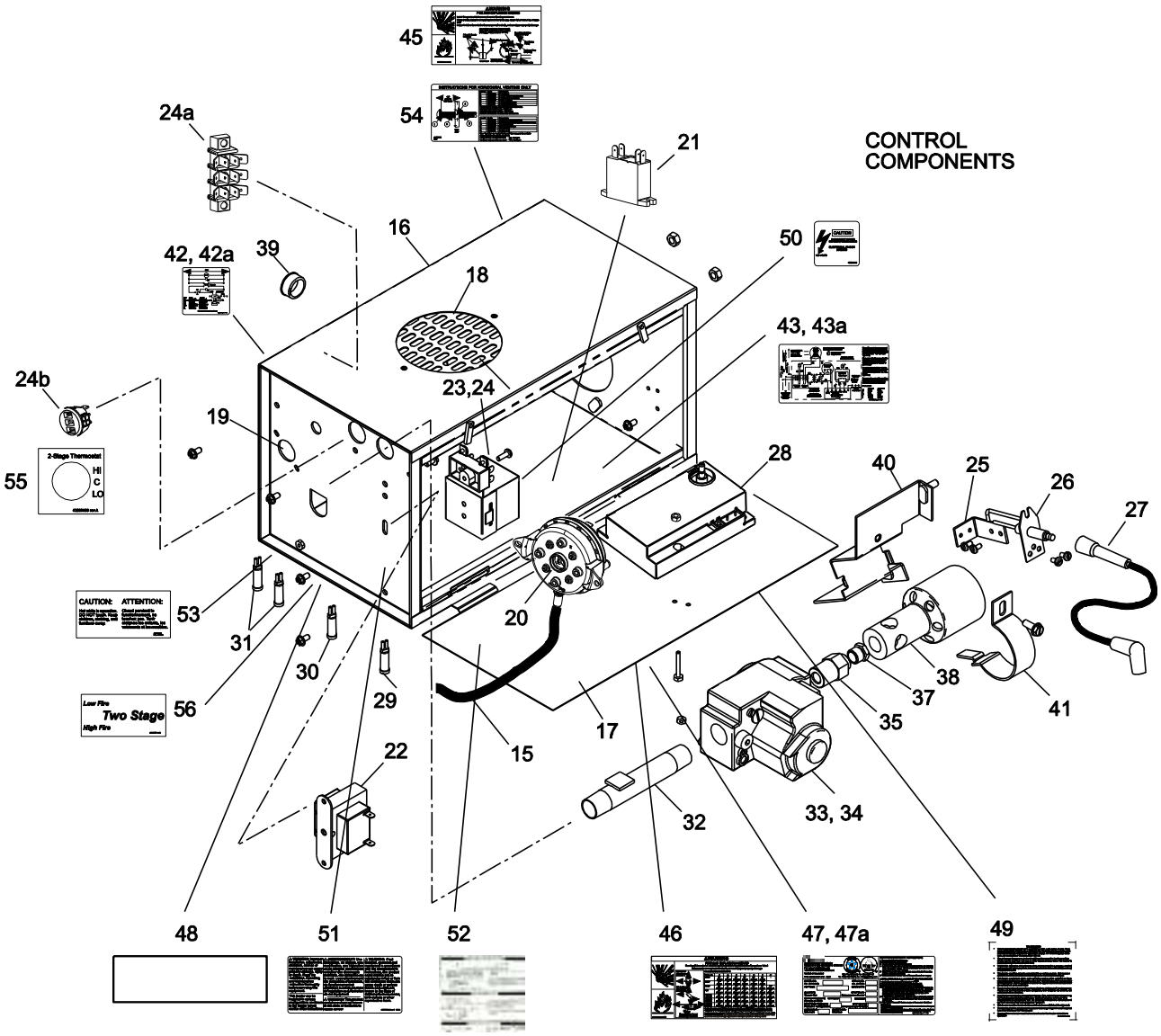
23.0) REPLACEMENT PARTS GUIDE

DRAFT INDUCER COMPONENTS			
Item No.	**Part No.**	**Description**	**Qty.**
1	42737990	Kit. Draft Inducer Replacement	1
1a	42928000	Kit, Motor Replacement	1
2	03721000	Motor	1
3	30347000	Motor Spacer (4 per motor)	4
4	42740000	Motor Plate	1
5	03723000	Blower Wheel	1
6	43221000	Draft Inducer Gasket	1
7	42744000	Sensing Tube, Draft Inducer	1
8	42742000	Sensing Tube Bracket	1
9	42739000	Blower Housing Sub-Assembly	1
10	40504020	4” O.D. Flue Pipe Starting Collar	1
11	42741120	Restrictor Plate, 7/8” I.D. (25,000 Btu/hr)	1
12	42741041	Restrictor Plate, 1” I.D. (35,000 Btu/hr)	1
13	42741031	Restrictor Plate, 1-1/8” I.D. (45,000 Btu/hr)	1
14	n/a		



CONTROL COMPONENTS			
Item No.	**Part No.**	**Description**	**Qty.**
15	03988150	Plastic Vacuum Air Tube, 15" long	1
16	42750000	Cabinet Assembly	1
17	42751000	Access Panel	1
18	42752000	Air Inlet Plate (Perforated)	1
19	42447000	Sight Glass	1
20	42837040	Kit, Air Switch, set @ 0.11" W.C., #NS2-0307-00	1
21	30383000	Relay, 24V SPST-NO (2-stage controls)	1
22	30279980	Transformer, AT120B1051	1
23	42709000	Terminal Block Shield	1
24	30281000	Terminal Block, EK-204	1
24a	30743000	Terminal Block, EL-3008 (2-stage controls)	1
24b	30738030	Thermostat Connection Block – 3 Pole (2-stage controls)	1
25	42759000	Electrode Bracket	1
26	30295000	Electrode PSE-GF1 (Igniter/Sensor)	1
27	30314070	Ignition Cable, 7" long	1
28	44010010	Kit, Spark Module – Fenwal #35-6087J1-034	1
29	42398040	Monitoring Light, Green	1
30	42398060	Monitoring Light, Red	1
31	42398050	Monitoring Light, Amber (2 each for 2-stage controls)	1
32	42757000	Restrainer Nipple, 5" long	1
33	44010250	Kit, Gas Valve – WR #36J23-203B1 Single Stage (natural gas)	1
33a	44010260	Kit, Gas Valve – WR #36J23-204B1 Single Stage (propane gas)	1
34	44010310	Kit, Gas Valve – WR #36J58-201B1 Two Stage (natural gas)	1
34a	44010320	Kit, Gas Valve – WR #36J58-202B1 Two Stage (propane gas)	1
35	42701000	Orifice Fitting – ½" NPT x 7/16-27	1
37	03259**XXX**	Orifice for SIR25,35,45 **(State Model & Gas Type for Size)**	1
38	42700000	Main Burner	1
39	30148000	Universal Bushing, 7/8"	1
40	42755000	Burner Bracket Sub-Assembly	1
41	42753000	Burner Clamp	1

Labels / Manual			
Item No.	**Part No.**	**Description**	**Qty.**
42	42785000	Label, Wire Diagram – Ladder (1-stage controls)	1
42a	42785030	Label, Wire Diagram – Ladder (2-stage controls)	1
43	42706000	Label, Wire Diagram – Connections (1-stage controls)	1
43a	42706020	Label, Wire Diagram – Connections (2-stage controls)	1
44	43471010	Installation and Operation Instructions (not shown)	1
45	43344050	Label, Gas Connector Warning	1
46	43470000	Label, Clearance to Combustibles	1
47	42848040	Label, Nameplate (1-stage controls)	1
47a	42848049	Label, Nameplate (2-stage controls)	1
48	42013010	Label, "SunStar" Logo	1
49	43470030	Label, Warning (residential)	1
50	42834000	Label, 120V Caution	1
51	42875000	Label, Warning	1
52	43470040	Label, Operating Instructions	1
53	43470050	Label, Caution/Attention	1
54	43470060	Label, Horizontal Venting	1
55	43269060	Label, 24V Thermostat Connection – (2-stage controls)	1
56	43269070	Label, Low/High Fire (2-stage controls)	1


CONTROL
COMPONENTS
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2-Stage Thermostat
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CAUTION:
ATTENTION:
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Low Fire
Two Stage
High Fire
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33, 34
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47, 47a
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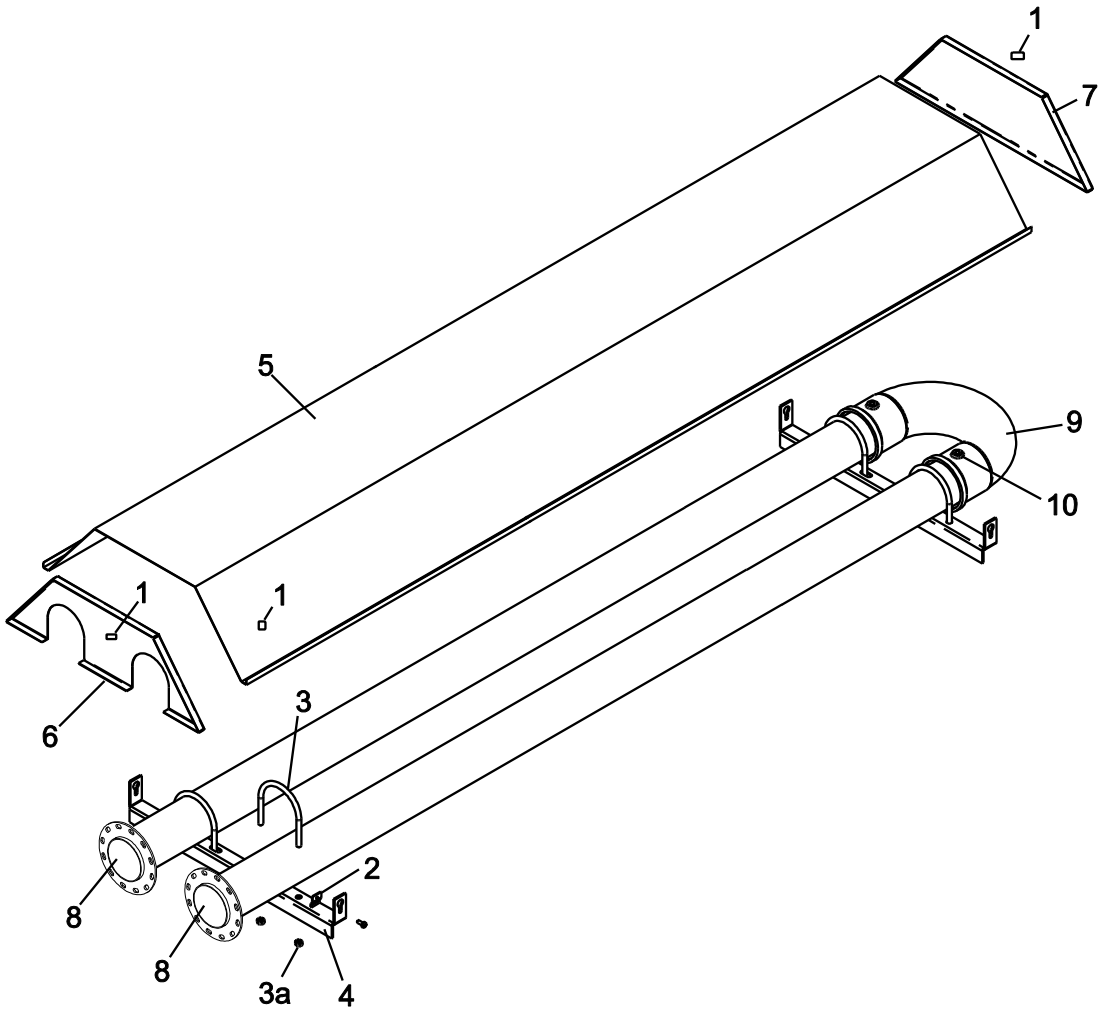
BODY COMPONENTS		
Item No.	Part No.	Description
1	02266010	Reflector Speed Clip
2	42769011	Reflector Clamp with screw (4 per heater)
3	42770000	“U” Bolt Clamp, 3” OD Tube (6 per heater)
3a	02127110	“U” Bolt Hex Nut, 5/16-18 (2 per “U” Bolt)
4	42773000	Tube Support/Hanger Bracket, 18-1/2” (2 per heater)
5	42763080	Reflector, 8’ long (1 per heater)
6	42762010	Reflector, control end
7	42761010	Reflector, foot end
8	44028132	7-1/2’ Tube Replacement Kit, 3” OD, ALC w/one 12-radial hole flange
9	42764000	U Bend, 3” OD x 3-3/4” centerline radius
10	02254040	Set Screw, 5/16-24 x 1/2” (2 per heater)



Note:
1) Screws, Nuts and Washers are standard hardware items and can be purchased at any local hardware store.
2) Please order by PART NUMBER – not by Item Number.
3) Replacement Part Prices are available when ordering.
4) Please refer to complete Model Number when ordering.

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24.0) WARNINGS CARD

Copies of this card may be ordered at no charge under part no. 43344980 for installation near the heater.

Attach this information card adjacent to the thermostat which controls the SunStar heater(s).

SunStar
Infrared Gas Heaters

Read the Installation and Operating Instructions thoroughly before installation, operation or service.

INSTALLER: Write the clearance distance for the highest BTU model in the building in the blank spaces below using permanent ink. The clearances to combustible materials are based on each individual heater model number. Locate the heater model number on the nameplate affixed to the heater. The clearances to combustibles distances can be located adjacent to the nameplate or in the Installation & Operating (I & O) Instructions.I & O's can also be located on www.sunstarheaters.com.

⚠ WARNING

FIRE HAZARD

Combustible material must be located outside the clearance distance listed from heater.

Some objects will catch fire or explode when placed close to heater.

Failure to follow these instructions can result in death, injury or property damage.

Maintain Clearances to Combustibles 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.

Maintain the following clearances: _____ to the side, _____ above and _____below the heater from combustible materials.

IF YOU SMELL GAS: **FOR YOUR SAFETY**

! **DO NOT** try to light any appliance.
! **DO NOT** touch any electrical switch; **DO NOT** use any telephone in your building.
! **IMMEDIATELY** call your gas supplier from a neighbor's telephone. Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.

Installation Code and Annual Inspections:
Installation and Service of SunStar equipment must be performed by a qualified contractor and conform with all requirements set forth in the SunStar Installation and Operating Instructions and any National and Local codes pertaining to the installation, service and operation of the equipment. Annual inspection is recommended prior to the heating season to ensure proper operation of the heating equipment.

SUNSTAR HEATING PRODUCTS, INC.
Post Office Box 36221 (28236) * 1703 Parker Drive (28208) * Charlotte, North Carolina
Phone (704) 372-3480 * Fax (704) 332-5843 www.sunstarheaters.com * email: info@sunstarheaters.com

43344980
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Scan warranty QR code on the right to register your product.