

15.3) OUTLET GAS PRESSURE CHECK AND ADJUSTMENTS

Gauges that measure pressure in pounds per square inch are not accurate enough to measure or set the manifold pressure. All measurements **MUST BE** made when the heater and all other gas burning equipment that are connected to the gas supply system are operating at maximum capacity. The combination gas valve is factory set and should not need adjustment. If gas pressure adjustment is required, follow the instructions:

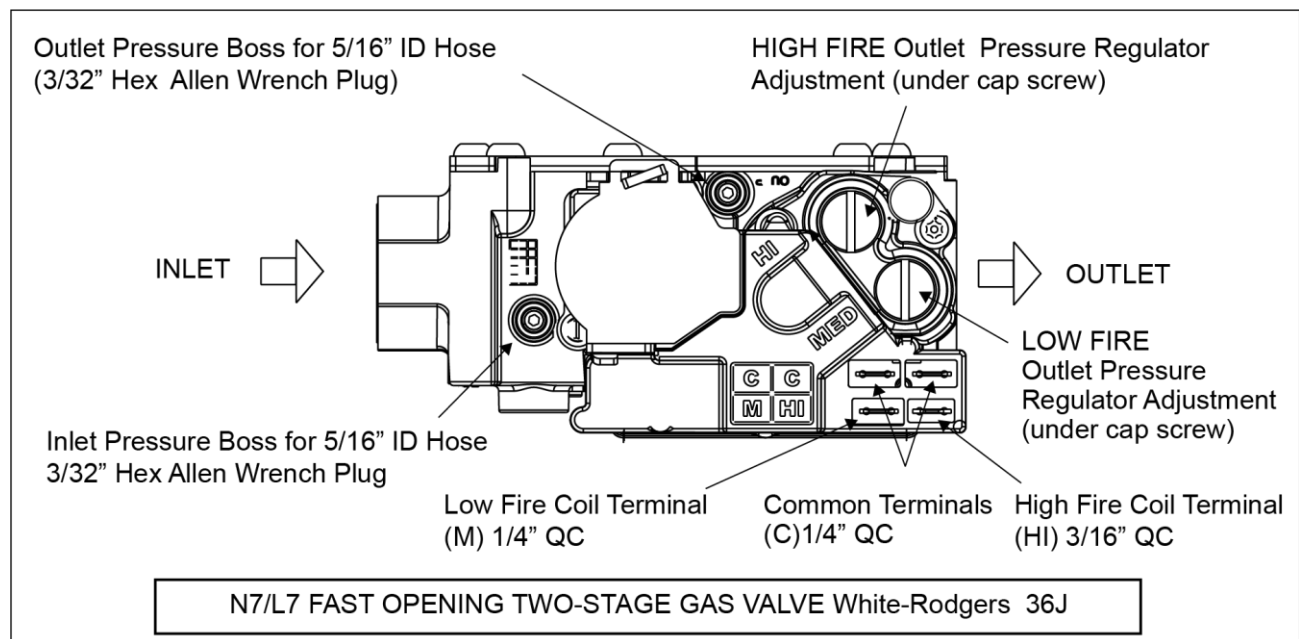
1. Turn off all electrical power to the system to connect manometer hoses.
2. Turn the pressure test screw (3/32" Hex) in the center of the boss **not more than one turn counterclockwise**. Attach a 5/16" hose and manometer over the tapered outlet pressure boss on the valve (see **Figure 1** below). If regulator needs to be adjusted, see instructions below.

TO ADJUST REGULATOR (two stage gas valves):

1. Turn on power and energize main gas valve solenoid. Do not energize the **HI** solenoid.
2. Remove regulator cover screw from the **low** outlet pressure regulator (see **Figure 1** below) and turn screw clockwise ⤵ to increase pressure, or counterclockwise ⤴ to decrease pressure. Replace regulator cover screw and tighten securely.
3. Energize main gas valve solenoid as well as the **HI** terminal.
4. Remove regulator cover screw from the **high** outlet pressure regulator (see **Figure 1** below) and turn screw clockwise ⤵ to increase pressure, or counterclockwise ⤴ to decrease pressure. Replace regulator cover screw and tighten securely.

DO NOT EXCEED THE PRESSURES SHOWN IN THE GAS PRESSURE TABLE.

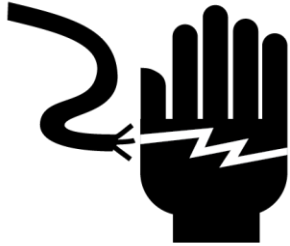
5. After testing pressure and adjusting the regulator, turn off all electrical power to the system, remove manometer hoses, turn outlet test screw (3/32" Hex) clockwise to seal pressure port. Tighten to 7 in-lb minimum. Turn on system power.



GAS PRESSURE TABLE				
GAS TYPE	MANIFOLD PRESSURE		SUPPLY PRESSURE	
	High	Low (2-stage only)	Minimum*	Maximum
Natural Gas	6.0" W.C.	2.8" W.C.	7" W.C.	14" W.C.
Propane Gas	11.0" W.C.	5.0" W.C.	11.5" W.C.	14" W.C.

Minimum permissible gas supply pressure for purpose of input adjustment.

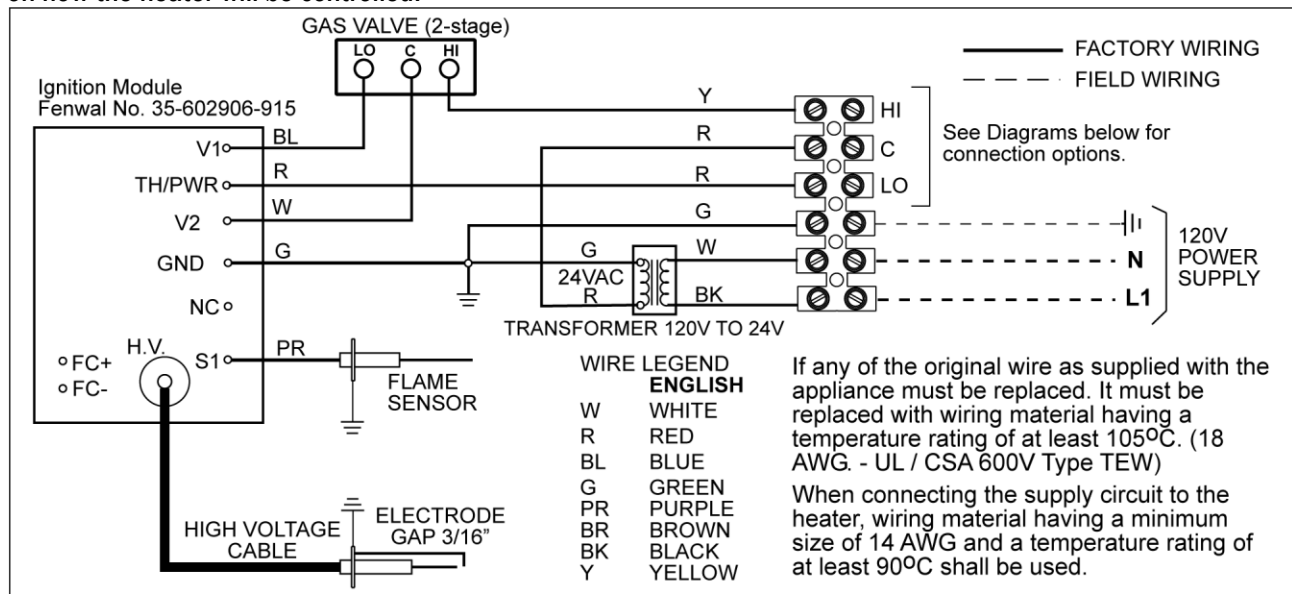
16.0) ELECTRICAL CONNECTIONS

⚠ WARNING	
	ELECTRIC SHOCK HAZARD Disconnect electrical power and gas supply before servicing. This appliance must be connected to a properly grounded electrical source. Failure to do so may result in death or serious injury.

1. All electric wiring shall conform to the latest edition of the National Electrical Code (ANSI/NFPA No. 70), or the code legally authorized in the locality where the installation is made.
2. The unit must be electrically grounded in accordance with the National Electrical Code (ANSI/NFPA No. 70-latest edition).
In Canada, refer to current *Canadian Electrical Code*, Parts I and II, and CAN/CSA-C22.2 No. 3 or CAN/CSA-C22.2 No. 60335-2-102:16.
3. The wiring providing power to the heater shall be connected to a permanently live electrical circuit, one that is not controlled by a light switch.
4. The power supply to the unit should be protected with a fused disconnect switch or circuit breaker. A service switch, as required by local codes, shall be located in the vicinity of the heater (check local codes for allowable distances) and should be identified as Heater Service Switch. All electrical wiring must be located in accordance with the required Clearances to Combustibles below the heater (See section 4).
5. When connecting the supply circuit to the heater, wiring material having a minimum size of 14 AWG and a temperature rating of at least 90°C shall be used.

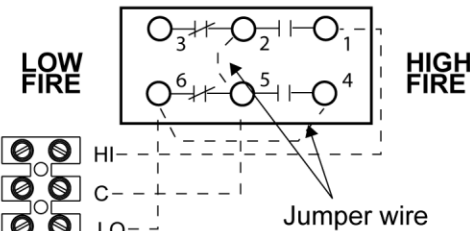
16.1) INTERNAL CONNECTION WIRING DIAGRAM – MODELS N7/L7

The figure below shows the internal wiring diagram of the heater and the optional external connections depending on how the heater will be controlled.



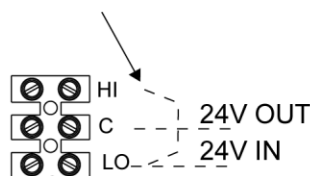
Two Stage Operation With Remote Switch

3 Position DPDT Switch Remote
HIGH - OFF - LOW (field supplied)



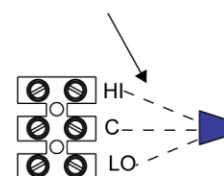
Single Stage Operation With Remote Switch (24V)

Jumper wire to connect LO to HI



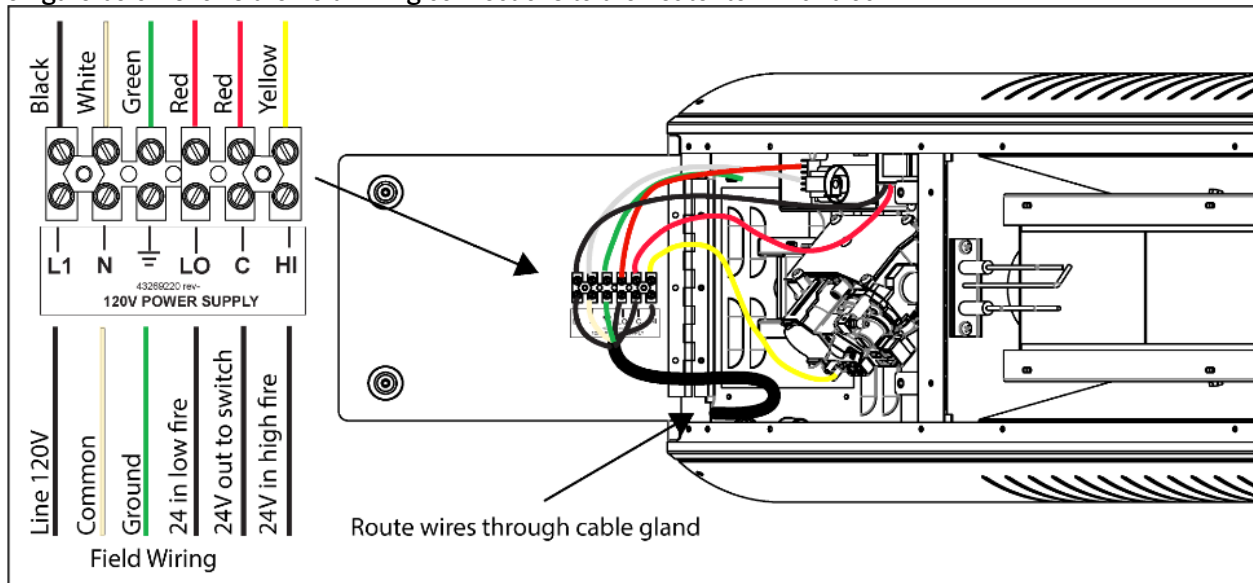
Single Stage Operation With Remote Switch (120V)

Connect all 3 wires together.

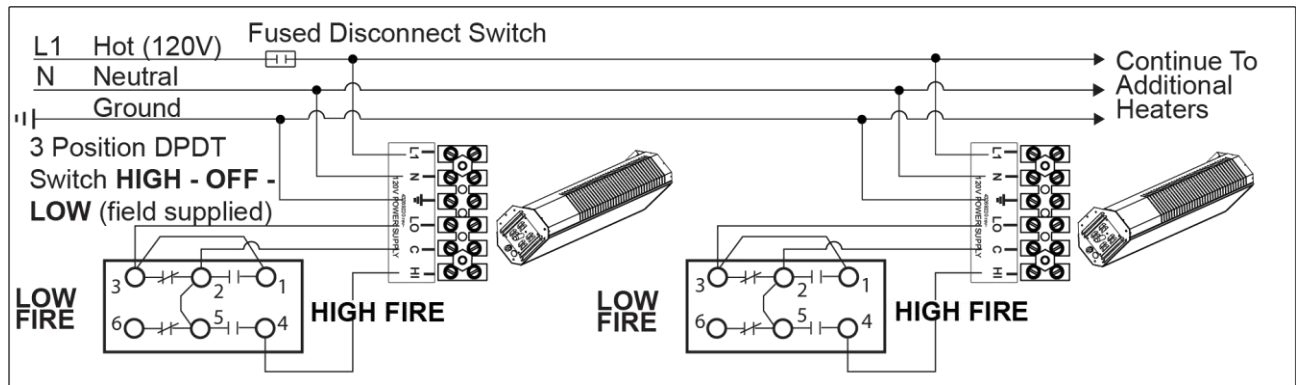


16.2) FIELD CONNECTIONS AND WIRING DIAGRAMS – 2 STAGE 24V – MODELS N7/L7

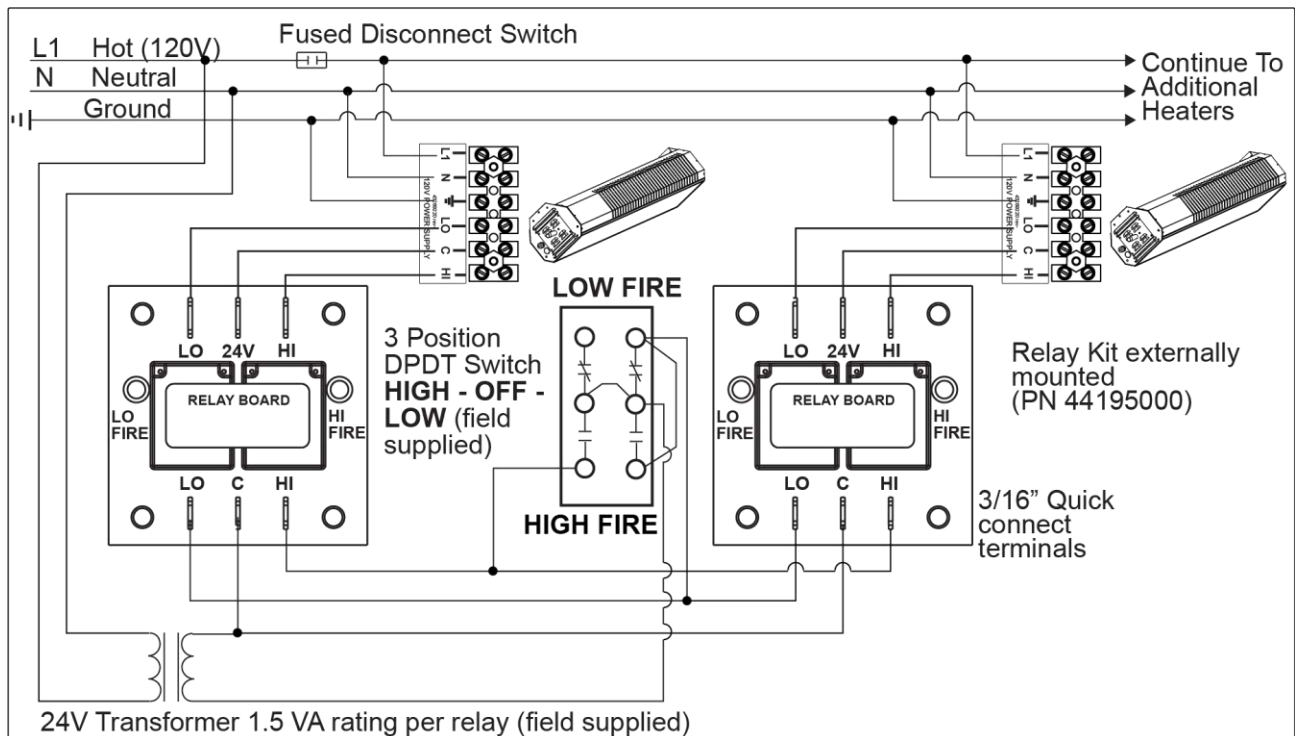
The figure below shows the field wiring connections to the heater terminal block.



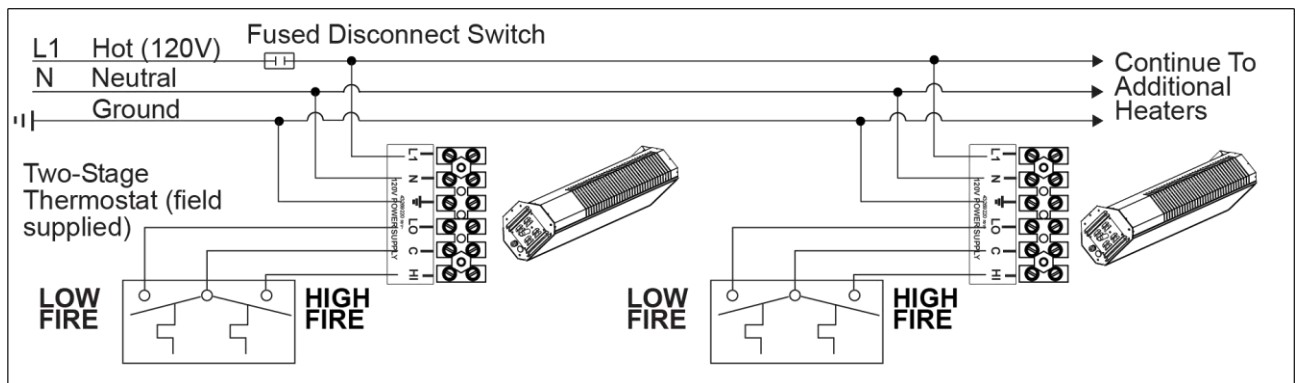
A. LOW VOLTAGE (24V) 3 POSITION SWITCH CONNECTIONS - SINGLE HEATERS



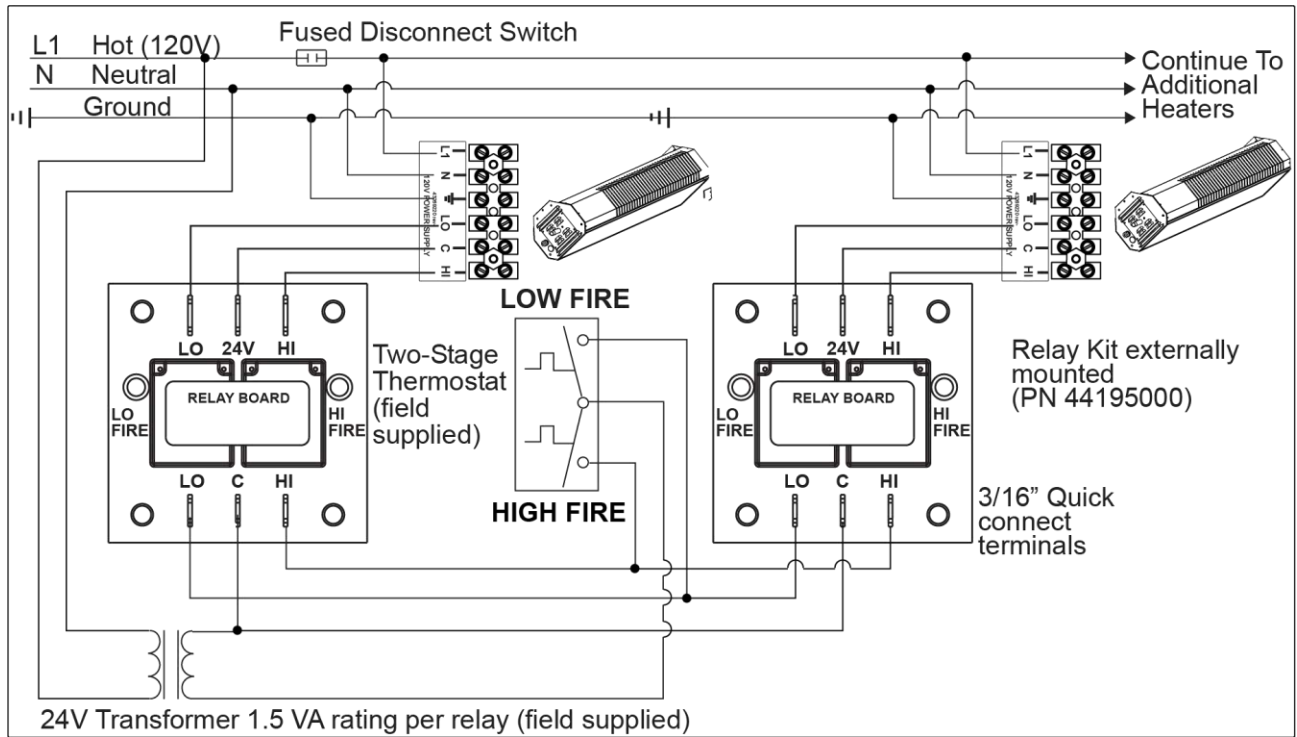
B. LOW VOLTAGE (24V) 3 POSITION SWITCH CONNECTIONS - MULTIPLE HEATERS



C. LOW VOLTAGE (24V) THERMOSTAT CONNECTIONS - SINGLE HEATERS



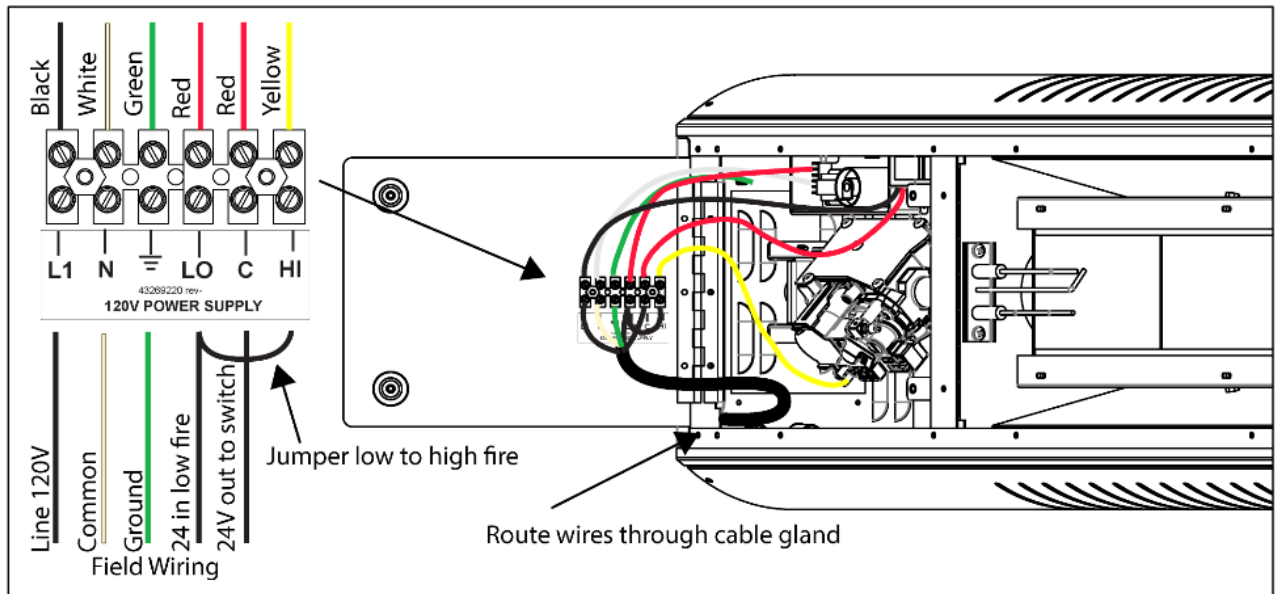
D. LOW VOLTAGE (24V) THERMOSTAT CONNECTIONS - MULTIPLE HEATERS



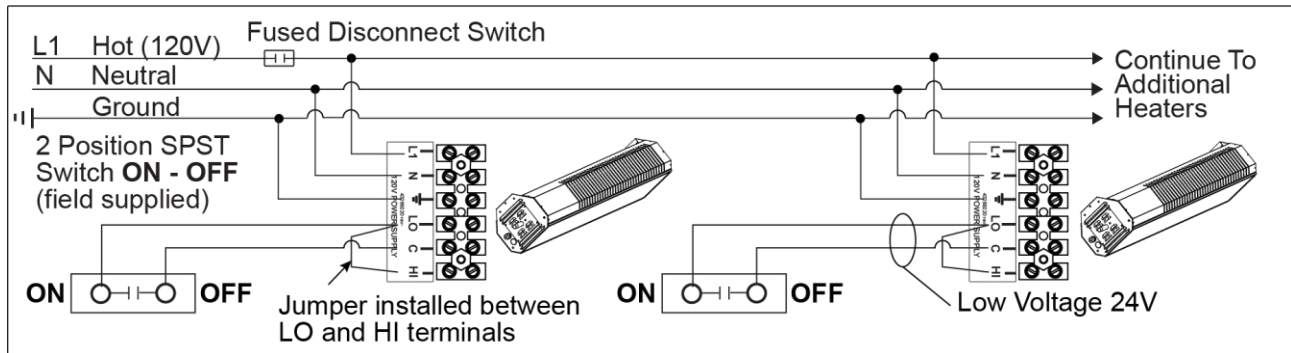
16.3) FIELD CONNECTIONS AND WIRING DIAGRAMS – SINGLE STAGE 24V – MODELS N7/L7

The figure below shows the internal connection to operate the heater turning on and off 24V power to the heater with a permanent live power supply.

Important: To operate the heater as single stage a jumper wire must be installed across the 24V LO and HI terminals as shown below. The heater will not operate with only 24V power to the HI terminal.



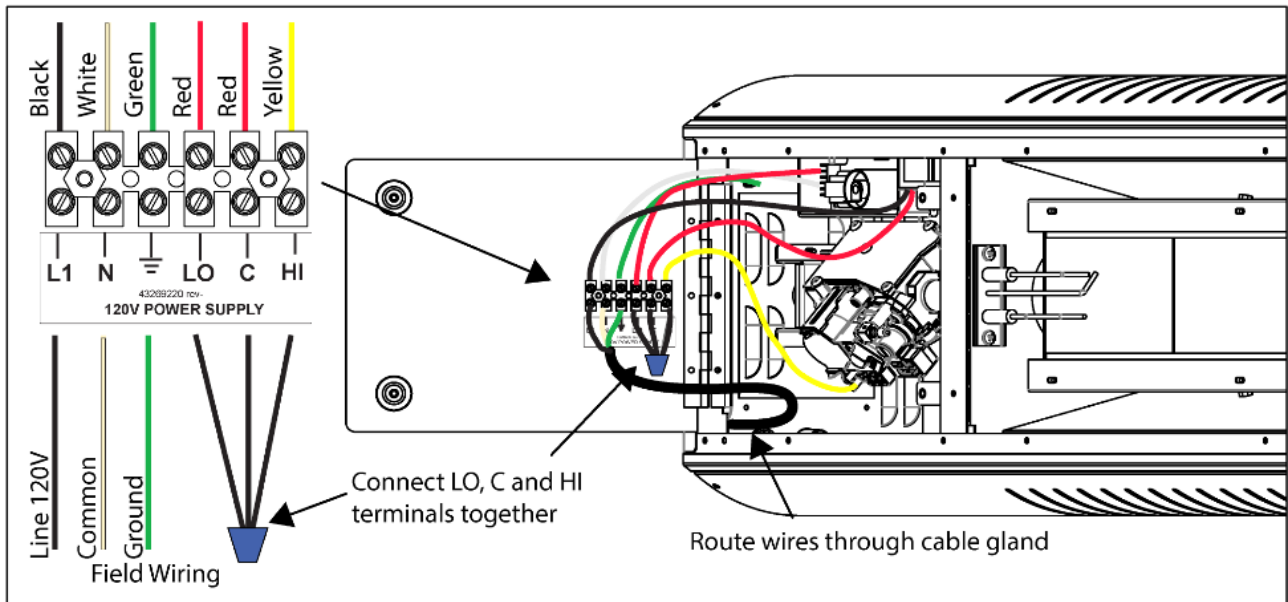
A. LOW VOLTAGE (24V) ON / OFF SWITCH CONNECTION - SINGLE HEATERS



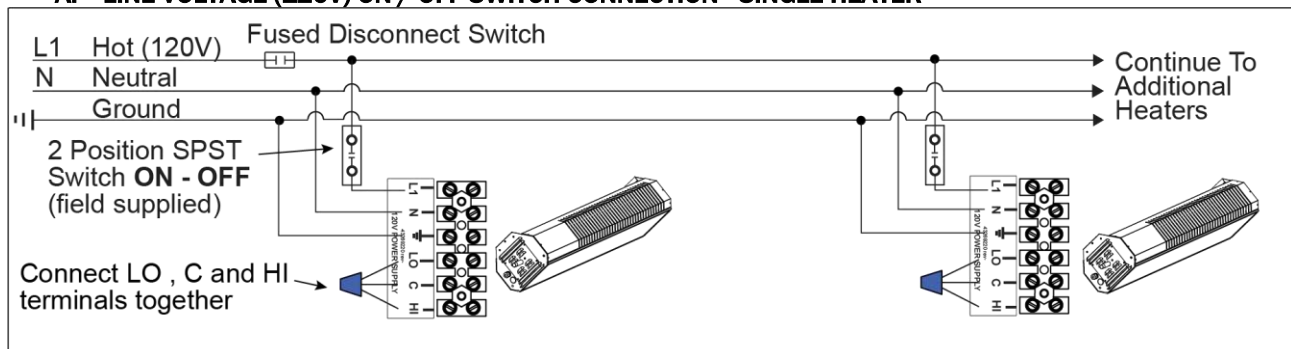
To operate the heater with an individual 24V thermostat use the same connections as above for the switch.

16.4) FIELD CONNECTIONS AND WIRING DIAGRAMS - SINGLE STAGE 120V - MODELS N7/L7

The figure below shows the internal connection to operate the heater turning on and off 120V power to the heater. Important: To operate the heater as single stage with 120V all three wires from the LO, C and HI terminals must be connected together.



A. LINE VOLTAGE (120V) ON / OFF SWITCH CONNECTION - SINGLE HEATER



To operate the heater with an individual 120V thermostat use the same connections as above for the switch.

L1 Hot (120V)
N Neutral
Ground

Fused Disconnect Switch

2 Position SPST Switch ON - OFF (field supplied)

Connect LO , C and HI terminals together

Continue To Additional Heaters

CONNECTION WIRING DIAGRAM
(with remote control)

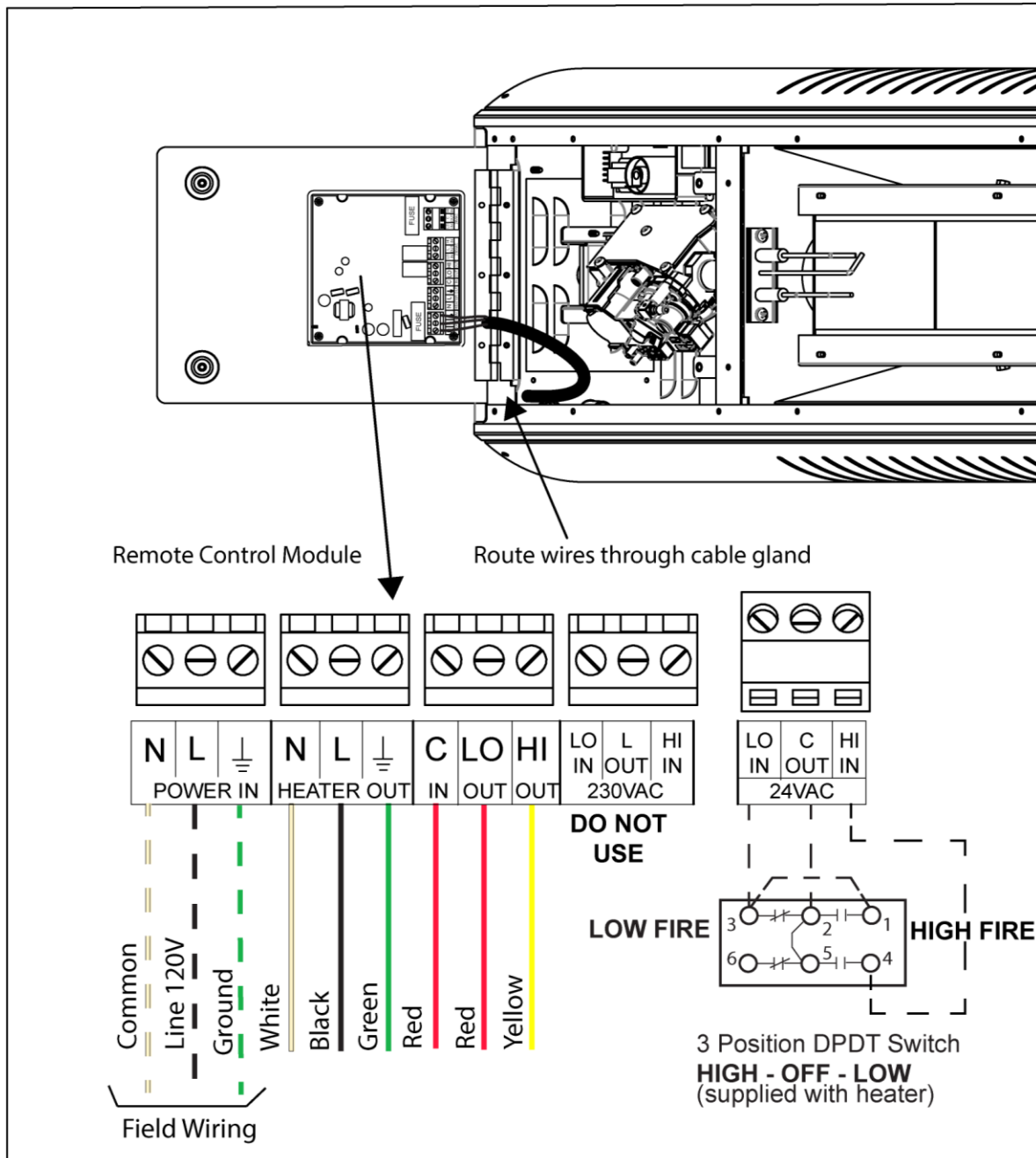
LEGEND

WIRE	LEGEND	ENGLISH
W	WHITE	
R	RED	
BL	BLUE	
G	GREEN	
PR	PURPLE	
BR	BROWN	
BK	BLACK	
Y	YELLOW	

NOTES

- If any of the original wire as supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 105 deg. C (18 AWG - UL/CSA 600V Type TEW).
- When connecting the supply circuit to the heater, wiring material having a minimum size of 14 AWG and a temperature rating of at least 90 deg. C shall be used.

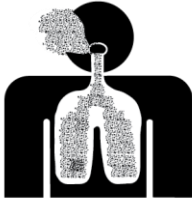
16.6) FIELD CONNECTION AND WIRING DIAGRAM – 2 STAGE 24V MODELS N10/L10 WITH REMOTE



The figure above shows the field wiring connections to the heater remote control module.

The 3-position switch can be located in a separate area from the heater. Maximum control wire length for the 3-position switch is 200 ft (61m). Minimum wire gauge is 18 gauge (1.0 mm²)

17.0) VENTILATION

⚠ WARNING	
	CARBON MONOXIDE HAZARD Heaters installed indoors require a minimum ventilation of 4 CFM per 1,000 Btu/hr of total installed capacity. Failure to do so may result in death, serious injury, property damage or illness from Carbon Monoxide poisoning.

Where unvented infrared heaters are used, natural or mechanical means shall be provided to supply and exhaust at least 4 cfm per 1000 Btu/hr input of installed heaters.

Exhaust openings for removing flue products shall be above the level of the heaters.

This heater requires ventilation in the building to dilute the product of combustion and provide fresh air for efficient combustion. Power ventilation is recommended, and the minimum vent flow required is as follows:

SGL35-N7/L7 and N10/L10 = 140 cfm

SGL50-N7/L7 and N10/L10 = 204 cfm

The General Ventilation Rules outlined in ASHRAE GUIDE AND DATA BOOK should be observed when locating vents. 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. Inlet openings in the building should be well distributed high in the sidewalls and should direct incoming air upward to dilute products of combustion while preventing drafts at lower levels. Inlets are typically 1 to 3 sq. ft. Local codes may require that mechanical exhaust systems be interlocked with thermostats to function simultaneously.

18.0) LIGHTING AND SHUTDOWN INSTRUCTIONS

⚠ WARNING		
		ELECTRIC SHOCK AND FIRE HAZARD Disconnect power to heater before servicing. Do not operate unit if repairs are necessary. Do not operate unit showing any signs of burner malfunction. Call a professional for assistance. Failure to do so may result in death, serious injury or property damage.

⚠ WARNING	
	CUT HAZARD DO NOT operate the heater if the ceramic glass appears to cracked or broken. Failure to do so may result in death, serious injury or property damage.

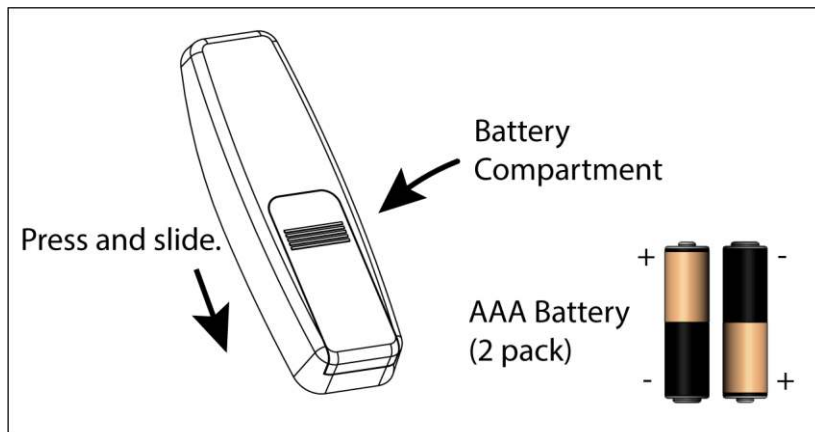
Direct Burner Spark Ignition Modules.

1. Turn on the gas supply to the appliance.
2. Set any time switch or thermostats to demand heat.
3. Switch on the electrical supply to the appliance.
4. Following a 7 seconds pre-purge the burner should ignite after a further 10 seconds.

5. If the burner fails to light, or flame is not detected during the first trial for ignition (a period of 10 seconds) the gas valve is de-energized and the control goes through an inter-purge delay of 15 seconds before another ignition attempt. The control will attempt two additional ignition trials before going into lockout.
6. If 'Lockout' occurs, switch off the electrical supply to the appliance, wait for 5 minutes before switching on the electrical supply to the appliance to repeat the ignition sequence.
7. If the appliance fails to ignite after a second sequence, switch off the electricity supply to the appliance and call the service engineer.
8. If gas failure occurs after successful ignition, the appliance will attempt one re-ignition before going to "Lockout" conditions.
9. To shut down the appliance for short periods of time, switch off the electrical supply to the appliance.
10. To shut down the appliance for longer periods of time switch off the electrical supply to the appliance and turn off the gas supply at the gas isolation valve.
11. If in "Lockout" condition the appliance will automatically attempt to re-ignite after 15 minutes.

18.1) HEATER OPERATION – MODELS N10/L10 WITH REMOTE

1. Remove the battery compartment cover by pressing down and sliding away from the remote.
2. Load both batteries (supplied) with the positive (+) and negative (-) side of the batteries matching the inside of the remote compartment.
3. Replace the cover.

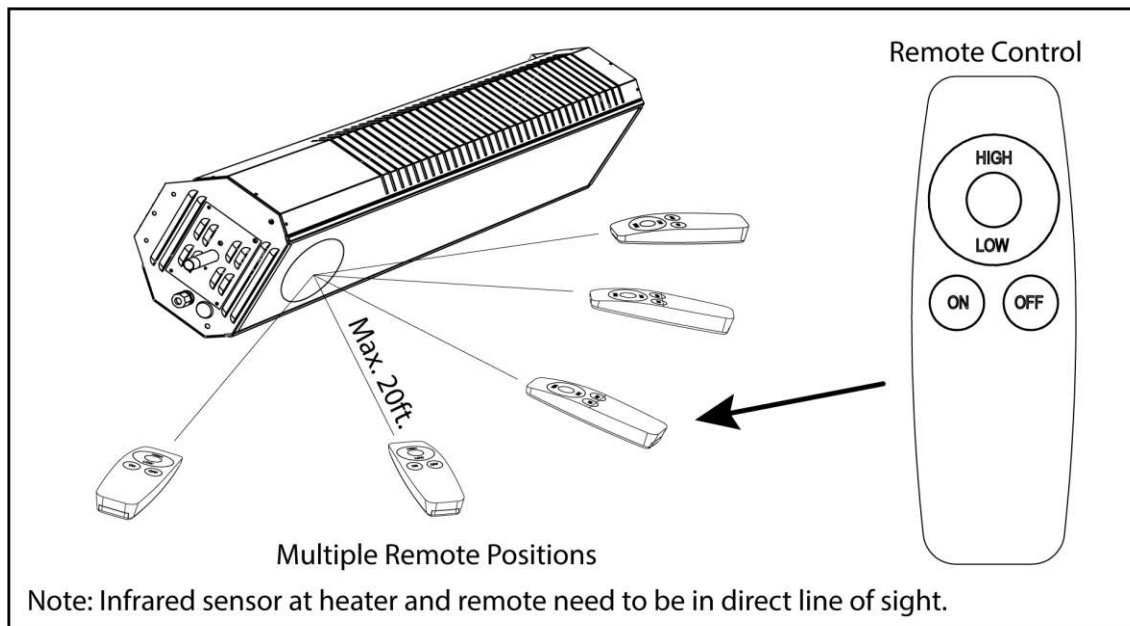


The 3-position switch is intended as a back up to the remote control. The operation of the switch is dominant over the remote control. The remote will only operate the heater when the 3-position switch is in the OFF (center) position. Multiple SGL35 heaters can be controlled individually with the same remote.

An LED with various blinking sequences can be seen through the dark glass. The blinking sequence as indicated below show if the heater is in standby, operated via remote or operated via the 3-position switch.

To operate the heater with the remote control.

1. Make sure the 3-position switch is in the OFF (center) position.
2. Aim the remote toward the control portion of the heater as shown and press **ON**. Note: The maximum distance to operate the remote away from the heater should be approximately 20 ft. Longer distances might not give a good signal to operate the heater.
3. Pressing **LOW** will enable the heater to run on the lowest heat output (Low Fire).
4. Pressing **HIGH** will enable the heater to run on the highest heat output (High Fire).
5. Pressing **OFF** will turn the heater off.



Using the 3-position switch:

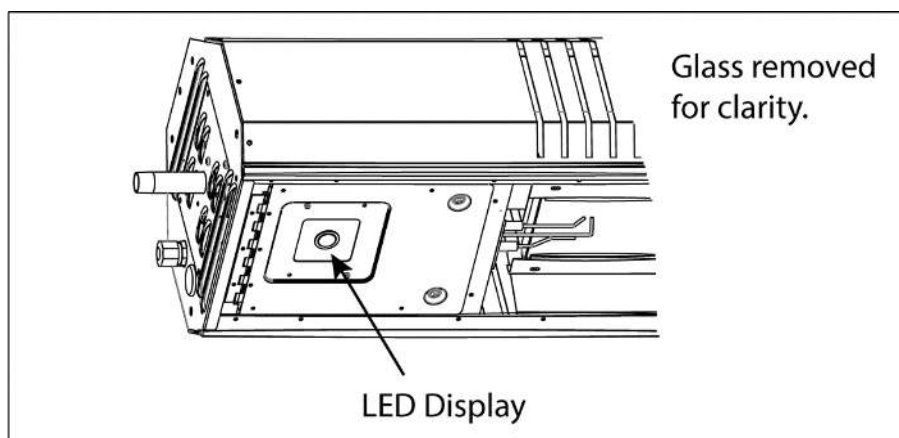
Note: the remote will not operate the heater when the switch is in the high or low fire position.

1. Pushing the switch into the **LOW** will start the heater in Low fire.
2. Pushing the switch into the **HIGH** position will start the heater in High fire.
3. Pushing the switch into the **OFF** position will turn the heater **OFF**.

LED blinking sequence:

The LED is clearly visible behind the glass. It is located on the control side (gas and electrical supply) of the heater. The blinking sequence below identifies the operating mode of the heater.

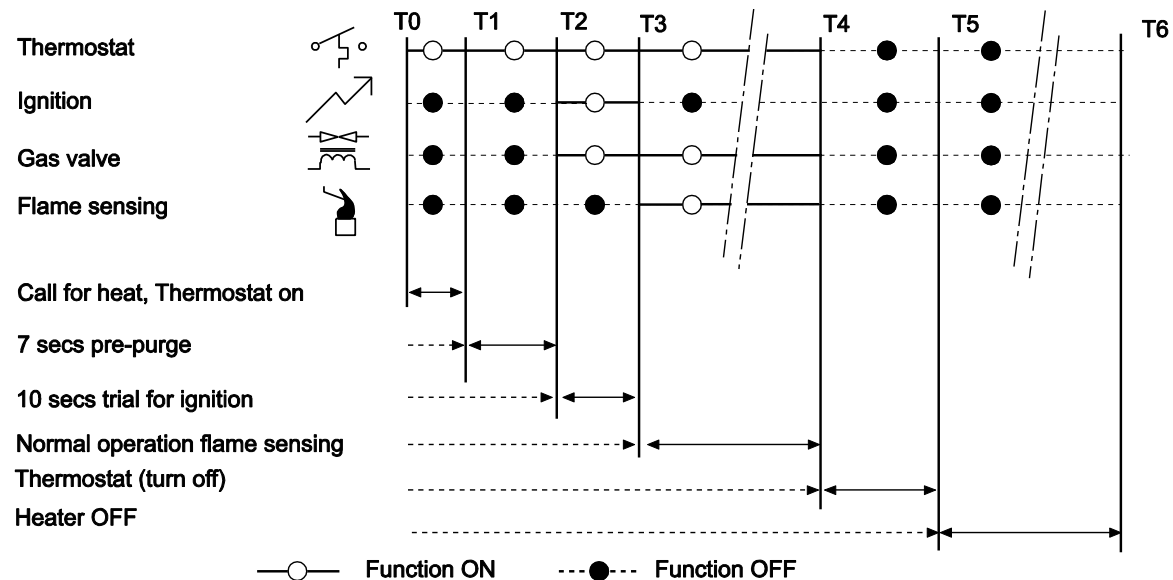
Functions	Operation	LED blinking sequence		
		On time (secs)	Off time (secs)	Repetition
Stand By mode	Heater OFF	0.1	60	Continuous
Using Remote	Heater low Fire	5	5	Continuous
Using remote	Heater High Fire	1	5	Continuous
Using Switch	Heater low Fire	1	1	Continuous
Using Switch	Heater High Fire	5	1	Continuous
Internal board fault	Heater OFF	constant	N/A	N/A



18.2) SEQUENCE OF OPERATION

Normal operation:

The chart below shows the sequence of operation for the normal operating cycle of the heater turned on and off by a remote thermostat.



If the burner fails to light, or flame is not detected during the first trial for ignition (a period of 10 seconds) the gas valve is de-energized and the control goes through an inter-purge delay of 15 seconds before another ignition attempt. The control will attempt two additional ignition trials before going into lockout.

If 'Lockout' occurs, switch off the electrical supply to the appliance, wait for 10 seconds before switching on the electrical supply to the appliance to repeat the ignition sequence.

19.0) SERVICING AND ANNUAL MAINTENANCE

⚠ WARNING		
ELECTRIC SHOCK HAZARD	FIRE AND EXPLOSION HAZARD	BURN HAZARD
Disconnect electric before service. Heater must be connected to a properly grounded electrical source.	Turn off gas supply to heater before service.	Allow heater to cool 30 minutes before service. Glass and heater surfaces will still be hot after operation.
Failure to follow these instructions can result in death, serious injury or property damage.		

 CAUTION	
	<p style="text-align: center;">EQUIPMENT FAILURE HAZARD</p> <p>Do not blow out heating elements with high pressure air.</p> <p>Do not cover panel with hot glass.</p> <p>Failure to do so may result in property damage.</p>

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. Detailed instructions for component removal are given in Section 21.0) Replacing Parts.

After any maintenance and/or replacement of components the heater must be re-commissioned to ensure proper operation. After working on gas carrying components the appliance must be checked for gas leaks and pressure settings verified.

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). Ensure heater mounting angle and heat shield installation position correspond to each other. See also Sections 12.1).
- **If the heater was installed using the outdoor Clearances to Combustibles:** Check that the area has not been closed in making it an indoor installation. If any changes have been made then the clearances and ventilation requirements for Indoor installations apply.
- **Heat Shield:** The Heat Shield must be kept clean, at a minimum blow off the Heat Shield and wipe down with a damp cloth. Ensure Heat Shield is properly attached to heater. See Section 13.0). Review that the heat shield installation location matches the heater mounting angle.
- **Heater ventilation openings:** Make sure no foreign material has collected inside the heater through the ventilation openings. Remove any foreign materials.
- **Venting System:** Ensure heater has adequate ventilation. See also Section 17.0).
- **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 and turn off the gas 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 15.0)
- **Heater:** In order to extend the longevity of the heater it must be suspended level. See also Section 12.0).
- **Electrode condition:** Visually check that the electrode gap is maintained at 5mm (0.199”) 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. See Section 21.2)
- **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.
- **Foreign Objects:** Check and remove any foreign objects that are logged between the heat shield and the heater.
- **Ceramic Glass:** Clean the glass from the inside and outside using a damp cloth. See also Section 21.1) for safe removal of glass. To remove stains on the glass surface use a common household glass cooktop cleaner such as made by “Weiman” or “Cerama Bryte”.
- **Burner Assembly:** The burner assembly is not serviceable. The metal back may be cleaned with a damp cloth, the ceramic and gaskets must not be disturbed.
- **IMPORTANT:** DO NOT DIRECT AN AIR LINE AT THE CERAMIC PLAQUE SURFACE AS IT MAY DAMAGE THE CERAMIC TILES OR DISLODGE THE HIGH TEMPERATURE GASKET MATERIAL FROM AROUND THE TILES.
- **Safety Labels:** Replace safety and all other labels if they are no longer visible. See section 23.0) for replacements.
- **Wall Tag:** Ensure a wall tag has been placed near the heater’s thermostat or in a conspicuous area near the heater. Review the information for accuracy, replace if the information is no longer visible.

- **Heater Outside surfaces:** To clean the heaters brushed stainless steel outside surfaces a stainless steel cleaner such as made by “Brasso” can be used. Note: The “tea colored” surface areas due to heat can be cleaned of contaminants but the “tea color” cannot be removed.

20.0) TROUBLE SHOOTING

⚠ WARNING		
ELECTRIC SHOCK HAZARD	FIRE AND EXPLOSION HAZARD	BURN HAZARD
		
Disconnect electric before service. Heater must be connected to a properly grounded electrical source.	Turn off gas supply to heater before service.	Allow heater to cool 30 minutes before service. Glass and heater surfaces will still be hot after operation.
Failure to follow these instructions can result in death, serious injury or property damage.		

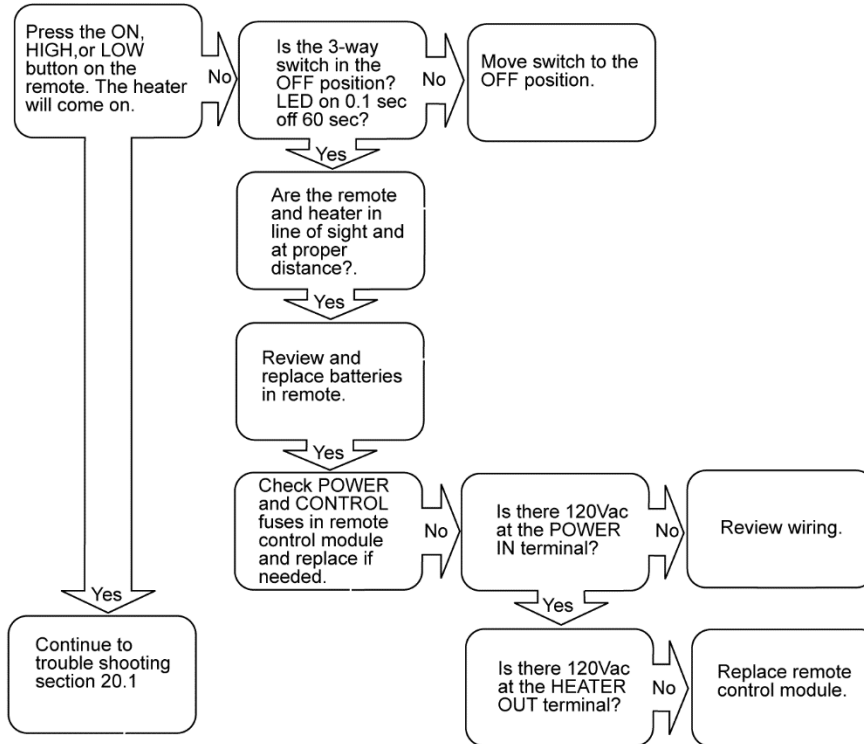
20.1) TROUBLE SHOOTING – MODELS N7/L7



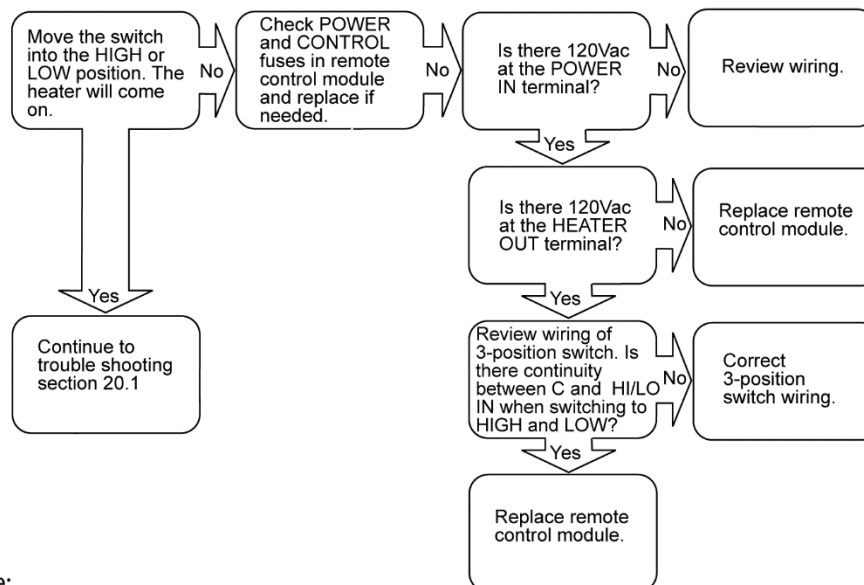
20.2) TROUBLE SHOOTING – MODELS N10/L10 WITH REMOTE

Turn on line voltage to heater.

Using remote:



Using 3-way position switch:



Note:

- When the patio heater is switched on in the LOW fire mode the heater is forced into high fire for 2 minutes to allow the heater to warm up.
- Heater turns off after 2 minute operation, heater LOW fire LED blinking sequence can be seen (activated via remote or 3-position switch). Reverse center terminal LO OUT and HI OUT wires.

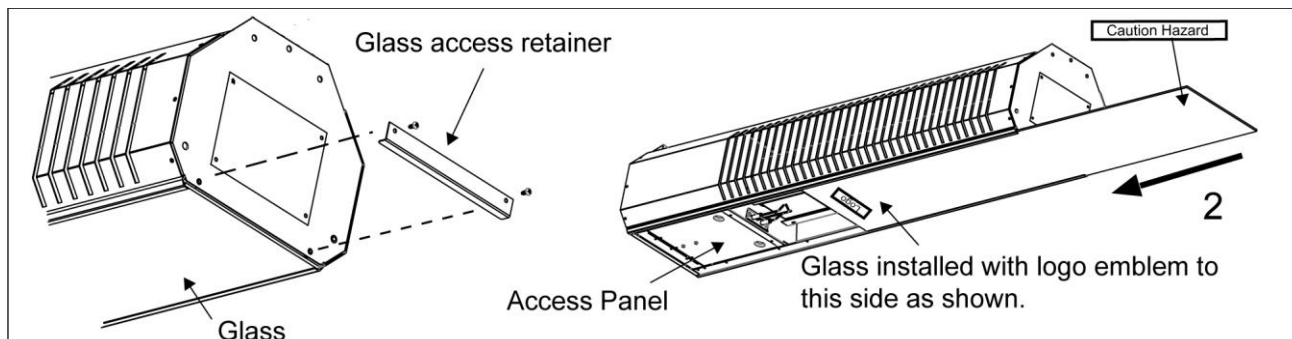
21.0) REPLACING PARTS

⚠ WARNING		
ELECTRIC SHOCK HAZARD	FIRE AND EXPLOSION HAZARD	BURN HAZARD
		
Disconnect electric before service. Heater must be connected to a properly grounded electrical source.	Turn off gas supply to heater before service.	Allow heater to cool 30 minutes before service. Glass and heater surfaces will still be hot after operation.
Failure to follow these instructions can result in death, serious injury or property damage.		

21.1) REMOVAL OF GLASS PANEL

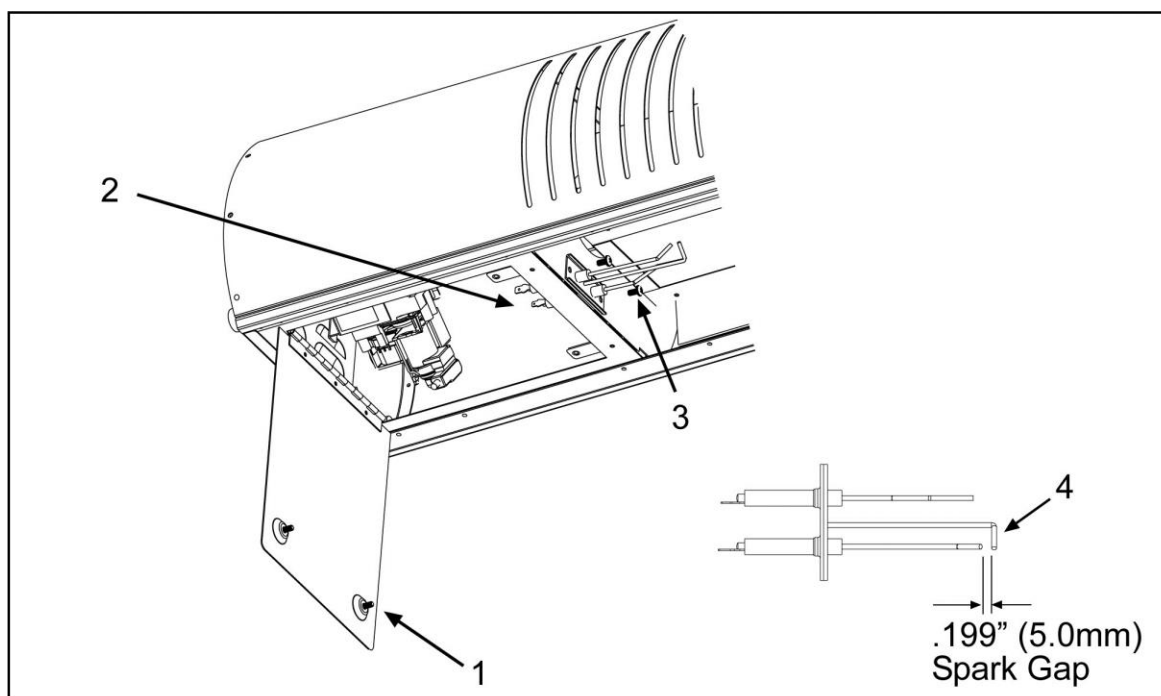
⚠ WARNING	
	BURN HAZARD Hot surfaces! DO NOT remove glass while heater is in operation. Allow heater to cool for at least 10 minutes before touching any surfaces. Failure to do so may result in serious injury.

1. Remove the glass retainer 1.
 2. Carefully slide the glass panel 2 from the retainer rails and away from heater. Access to the gas control valve and ignition module can now be made by loosening the screws from the access panel assembly.
 3. Clean the glass with a glass cleaning solvent. Inspect for any cracks.
 4. Inserting the glass:
 - 4.1. The side of the glass where the logo emblem is attached must be slid in first for the logo emblem's final position to be at the control side of the heater.
 - 4.2. Slide the glass into the "Glass Retainer Rails". The glass must be held parallel to the Glass Retainer Rails during assembly. The glass will slide in easy with ample clearance. Slide the glass until it is positioned under the Glass Retainer at the heaters control enclosure side. At this point the glass will be flush with the heater at the insertion point.
- Note: If the ceramic glass does not slide in easily review position of ceramic glass to glass retainers and adjust if needed. Do not force the ceramic glass into the glass retainers!
5. Reinstall the Glass Access Retainer 1 removed in 1 with the two (2) sheet metal screws.



21.2) REMOVAL OF SPARK ELECTRODE/FLAME SENSOR

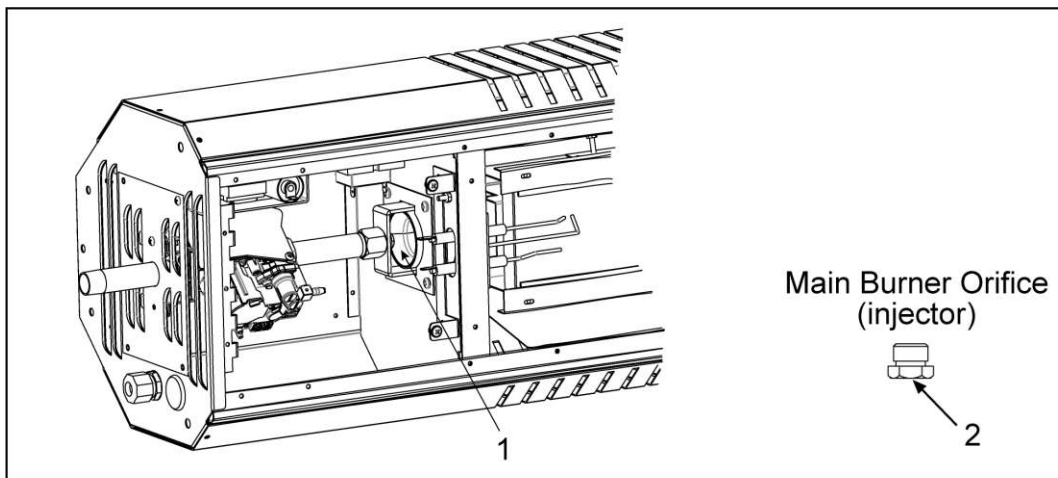
1. Remove the glass panel as shown in Section 21.1). Open the access panel assembly by loosening the screws.
2. Disconnect the ignition cable and flame sensor wires (not shown) from the spark electrode/flame sensor.
3. Remove the screws holding the assembly and slide the spark electrode/flame sensor away from the heater.
4. Inspect the ceramic portion of the electrode/flame sensors for any cracks. Remove any foreign matter from the electrode tips and check that the spark gap is .199" (5mm). If the electrode/flame sensor rods are badly oxidized, replace the electrode/flame sensor in the reverse order. **Note: When installed, the flame sensor rod must have a gap of 1/8" (3mm) to the ceramic surface.**



21.3) REMOVAL OF MAIN BURNER ORIFICE (INJECTOR)

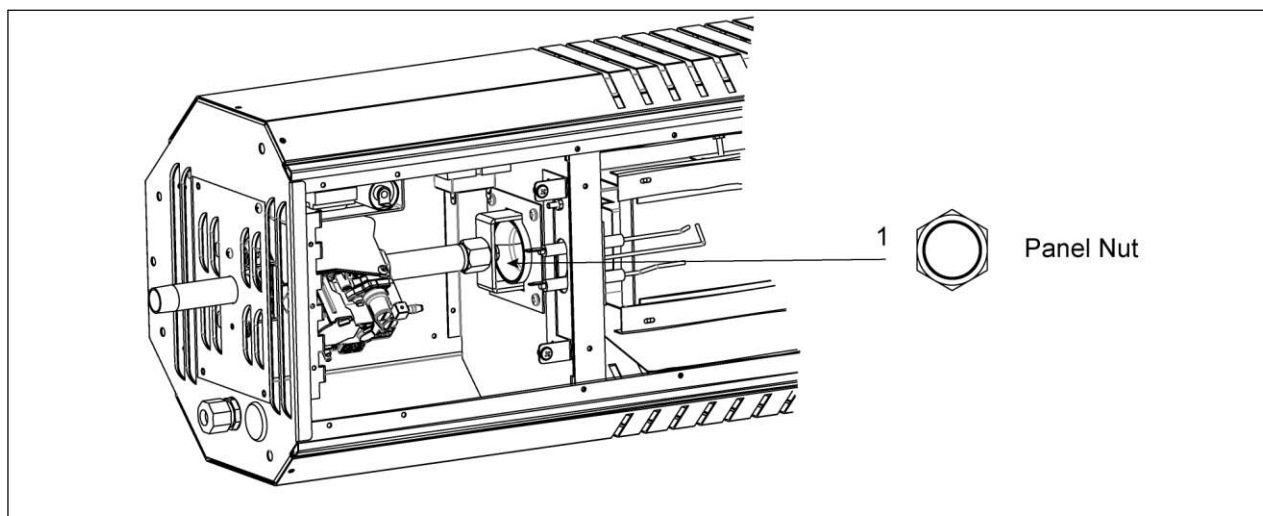
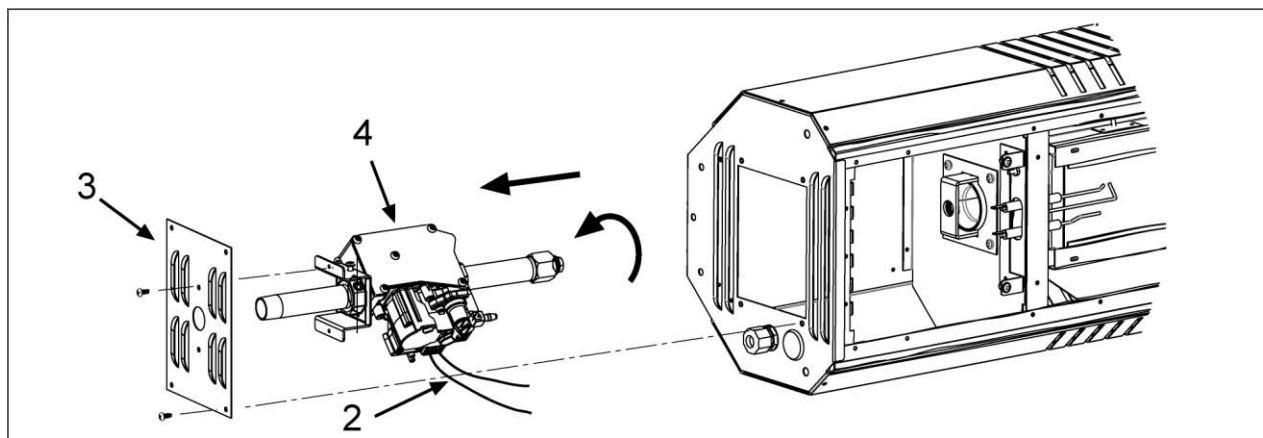
1. Open the access panel assembly as shown in Section 21.2). **Note: This is removed from the illustration for clarity.** Unscrew the main burner orifice from the gas valve manifold using a 1/2" (12.7mm) end wrench.
2. Inspect the orifice and clean as necessary with a soft bristle brush.

DO NOT DAMAGE ORIFICE OPENING BY USE OF SOLID OBJECTS.



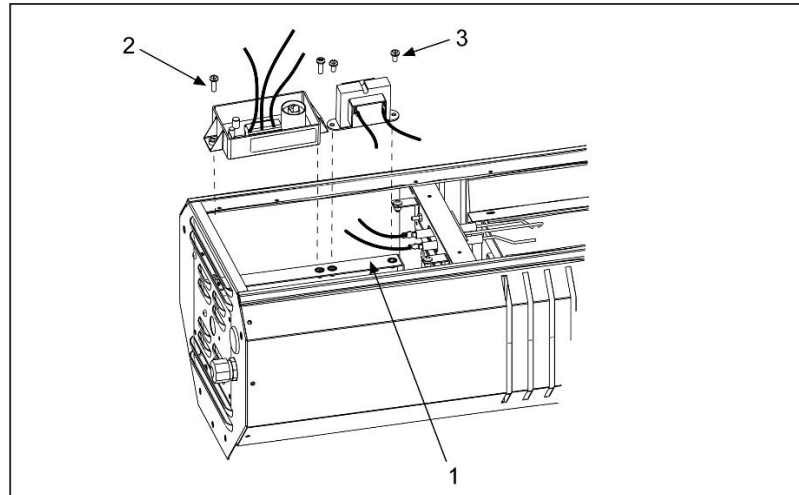
21.4) REMOVAL OF GAS VALVE

1. Open the access panel assembly as shown in Section 21.2). **Note: This is removed from the illustration for clarity.** Loosen the panel nut 1 using a $\frac{3}{4}$ " (19mm) end wrench and remove from the gas valve manifold.
2. Disconnect the wires to the gas valve.
3. Remove the (4) screws from the louvered valve holder plate 3.
4. Rotate the gas valve/ignition control module assembly and slide away from the heater.



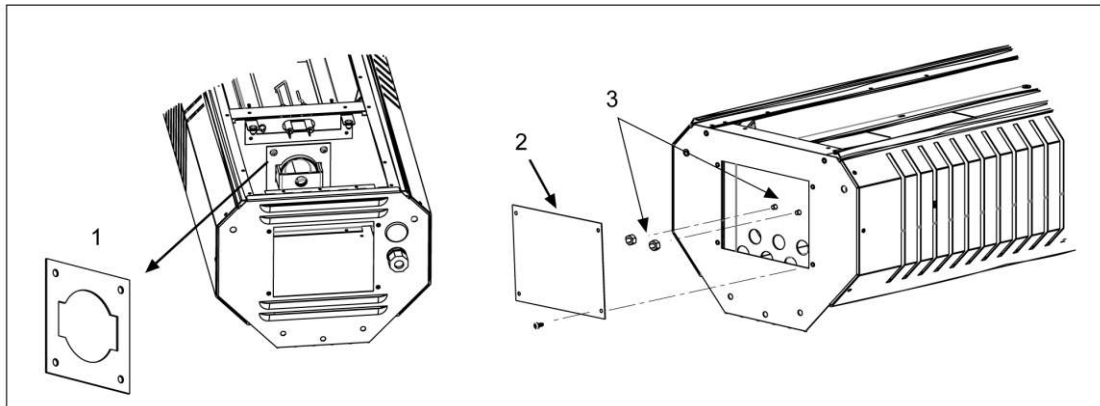
21.5) REMOVAL OF IGNITION CONTROL MODULE AND TRANSFORMER

1. Open the access panel assembly as shown in Section 21.2) **Note: This is removed from the illustration for clarity.** Disconnect the ignition cable from the ignition control module.
2. Disconnect the 5 way Molex electrical wire harness connector (not shown) from the module. Remove the screws 2 holding the ignition control module and remove it from the heater.
3. Disconnect the transformer lead wires. Remove the screws 3 holding the transformer and remove it from the heater.

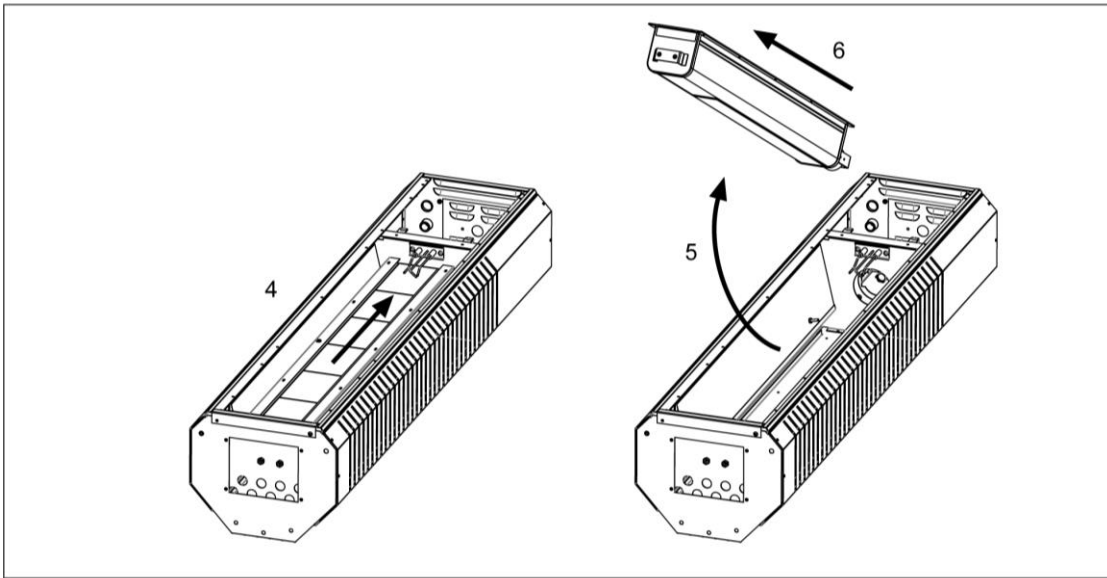


21.6) REMOVAL OF MAIN BURNER/EMITTER ASSEMBLY

- A. Remove the ceramic glass and open the access panel assembly as shown in Section 21.1)
 - B. Remove the gas valve as shown in Section 21.4)
1. Remove the burner access panel 2 from the opposite side of the heater.
 2. Remove the (2) locknuts 3 holding the main burner.



3. Slide the burner slightly toward the front of the heater.
4. Rotate the burner away from the heater.
5. Slide the burner out from the heater. Replace the burner in reverse order.

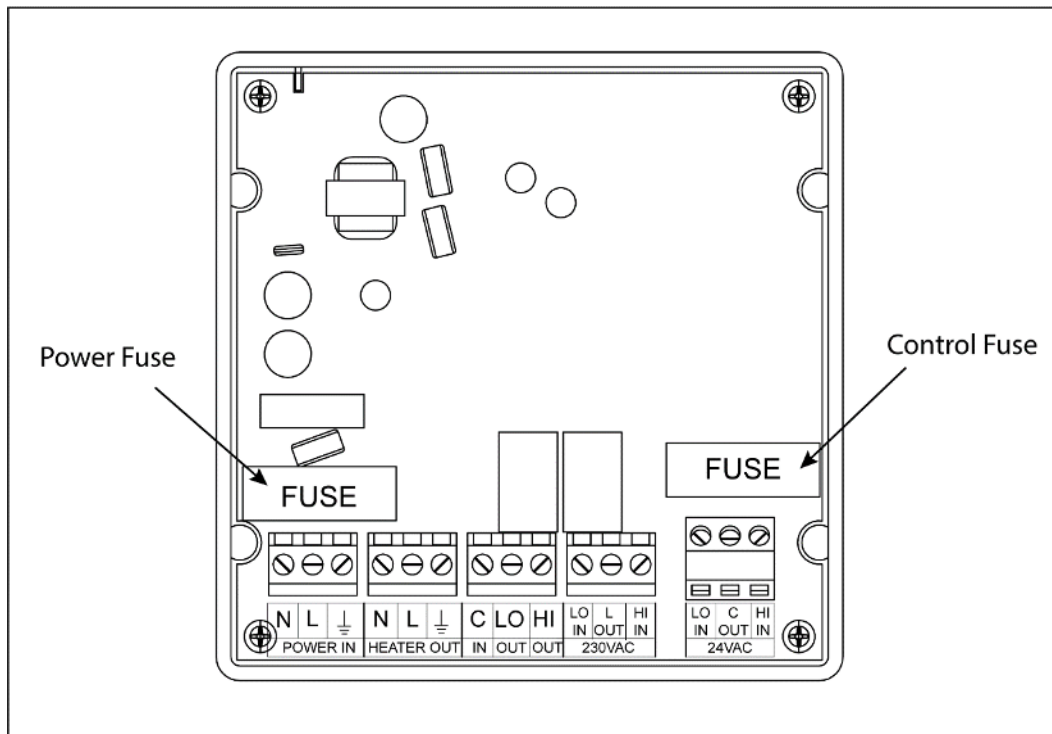


21.7) REPLACING PARTS - MODELS N10/L10 WITH REMOTE

The remote control is not serviceable. If the remote does not operate the heater the batteries may be empty and need to be replaced with part number 30809950 AAA BATTERY 2-PACK.

The 3-position is not serviceable. Review wire connections for proper continuity if needed.

The remote control module is not serviceable. If the heater does not operate the fuse may have blown. Remove fuses, check for continuity and replace with part number 30202060 FUSE, 1 AMP 250V, 125V if open circuit.



22.0) INSTALLATION DATA

Date of
Installation:

Number of
Heaters in System:

Heater Serial Number:

Heater Model: SGL35/50

N=Natural Gas

L=Propane Gas

23.0) REPLACEMENT PARTS GUIDE

Item No.	Part No.	Description	Qty. 35m	Qty. 50m
Main Heater Components				
1	02352000	Screw, Pan Head Thread #8 x 1/2" Type AB SS Black Oxide	52	52
1a	02261030	Ground Screw #8-32 x 3/8" (Green Coated - Type F)	1	1
1b	02132089	Rivet 1/8" x .337" SS (grip range .126 - .187) - not shown -	31	31
1c	02168050	Screw, Pan Head Machine #10-24 x 3/8"	2	2
1d	02336010	O-Ring Retainer	2	2
1e	02168060	Screw, Pan Head Machine #10-24 x 5/8"	2	2
1f	02174120	Screw, Pan Head Machine #6-32 x 3/4"	2	2
1g	02127010	Nut, Hex #6-32	2	2
2	44561156	Access Panel Assembly - with Plate for Terminal - Painted Black	1	-
	44561296	Access Panel Assembly - with Plate for Terminal - Painted Black	-	1
2a	44561170	Label Holder Plate	1	1
3	02201070	Hinge - 6" (152mm)	1	1
4	44555169	Plate - Rear Burner Access - Painted Black	1	1
5	44555159	Plate - Valve Holder - w/Louvers - Painted Black	1	1
6	02353000	Panel Nut - 5/8-27 UNS x 1/8" Thick	1	1
7	30635050	Cord Connector 1/2" Heyco #M4521 (gray) .180-.400	1	1
8	30635049	Nut 1/2" Heyco #8463 (black)	1	1
9	41373980	Kit, Glass Replacement - 4mm x 8.94" x 48" Black	1	-
9a	41373950	Kit, Glass Replacement - 4mm x 10.50" x 48" Black	-	1
10	30701069	Ignition Cable (6" with female flag and spark plug terminals - not shown-	1	-
11	44563120	Manifold Asm. (Gas Valve - Natural Gas @ 6.0" W.C.) aluminized bracket	1	-
11a	44563130	Manifold Asm. (Gas Valve - Propane Gas @ 10.0" W.C.) aluminized bracket	1	-
11b	44563162	Manifold Asm. (Gas Valve - Natural Gas @ 6.0" W.C.) aluminized bracket	-	1
11c	44563172	Manifold Asm. (Gas Valve - Propane Gas @ 10.0" W.C.) aluminized bracket	-	1
12	30739010	Terminal Block - 6 Pole	1	1
13	30279870	Transformer - 120/24V 20VA	1	1
14	30632100	Ignition Module - Fenwal #35-602906-915	1	1

Burner and Frame Components				
1b	02132089	Rivet 1/8" x .337" SS (grip range .126 - .187) - not shown -	10	10
1c	02168050	PHMS #10-24 x 3/8" SS	6	6
15	44555105	Support Plate - Venturi - 316 SS	1	1
16	44570000	Burner Assembly (complete with tile)	1	-
16a	44570250	Burner Assembly (complete with tile)	-	1
17	30295060	Electrode/Flame Sensor - #PSE-GF45 (for marine grade)	1	1
18	02167019	Locknut 1/4-20 KEPS - SS	2	2

Gas Valve Components (manifold assembly)				
19	44146189	Manifold Extension Bracket Asm. (w/#8-32 x 1/2 locking screw)	1	-
19a	44146190	Manifold Extension Bracket Asm.	-	1
20	03333140	Pipe Nipple - 1/2 NPT x 4" Long - Galvanized	1	-
	03333100	Pipe Nipple - 1/2 NPT x 3" Long - Galvanized	-	1
20a	03333141	Pipe Nipple - 1/2 NPT x 4" Long - Black	1	1
21	03259410	Main Burner Orifice (injector) - 7/16-27 No. 41 - NAT Gas	1	-
21a	03259510	Main Burner Orifice (injector) - 7/16-27 No. 51 - Propane Gas	1	-
21b	03259828	Main Burner Orifice (injector) - 7/16-27 2.9mm - NAT Gas	-	1
21c	03624870	Main Burner Orifice (injector) - 7/16-27 1.95mm - Propane Gas	-	1
22	42701500	Orifice Fitting 7/16-27 x 1/2 Female BSPT	1	1
23	44450070	Kit, Wire Harness - not shown -	1	1
24	30755120	Gas Valve - WR #36J - HI/LO (2 stage - Natural Gas)	1	1
24a	30755130	Gas Valve - WR #36J - HI/LO (2 stage - Propane Gas)	1	1

Labels/Manual				
25	43269220	Label, Power Supply and Thermostat Connections	1	1
26	42052080	Label, Wiring Connections - HI/LO (2 stage) - 120V - CSA	1	1
26a	42052110	Label, Wiring Connections - HI/LO (2 stage) - 120V - CSA (with remote)	1	1
27	42849190	Label, Nameplate	1	1
28	43247111	Label, Clearances to Combustibles (indoor installation without heat shield)	1	-
28a	43247113	Label, Clearances to Combustibles (indoor installation without heat shield)	-	1
29	42834000	Label, Voltage Hazard - 120V	1	1
30	43269740	Label, Earth Symbol	1	1
31	42013510	Logo, Raised Emblem - Sunstar	1	1
32	42875000	Label, General Warnings	1	1
33	43269850	Label, Caution "DO NOT COVER PANEL WITH HOT GLASS"	1	1
34	43269800	Label, Hangers/Garages	1	1
35	43269760	Label, "Made IN U.S.A."	1	1
36	44201570	Manual, Installation and Operation Instructions (not shown)	1	1
36a	43344950	Wall Card Warnings (not shown)	1	-
36b	43344900	Wall Card Warnings (not shown)	-	1

Remote Control Components				
37	30809990	Remote 2-Stage	1	1
38	30809950	AAA Battery 2-Pack	1	1
39	30809010	Circuit Board #W401-V2	1	1
40	02341010	Screw, Pan Head Sheet Metal #4 x 3/8"	2	1
41	30202060	Fuse, 1 Amp 250/120V (3/16 o.d. x 3/4" long)	1	1

IMPORTANT:

- Please order by Part Number, not by Item Number.
- Refer to complete Model Number when ordering.
- All replacement parts prices are available when ordering.

MODEL NUMBER SUFFIXES:

N7 = Natural Gas

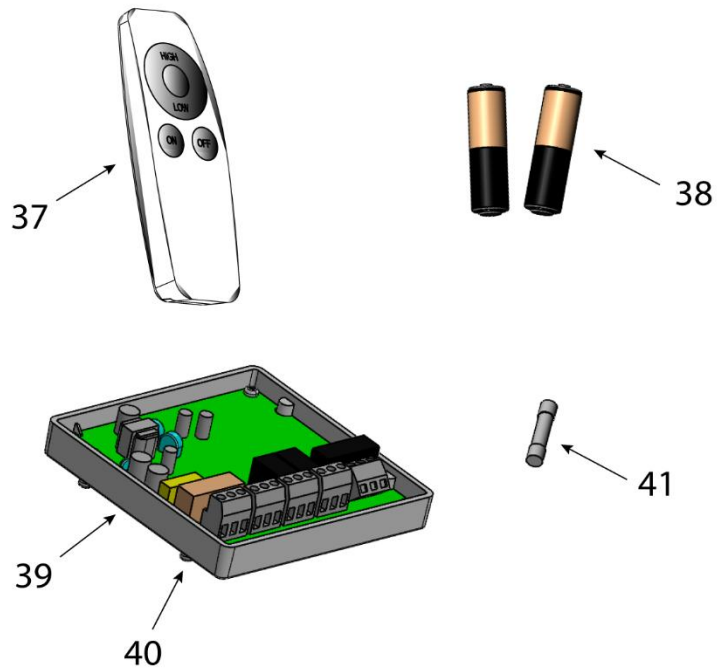
L7 = Propane Gas

N10 = Natural Gas (with remote)

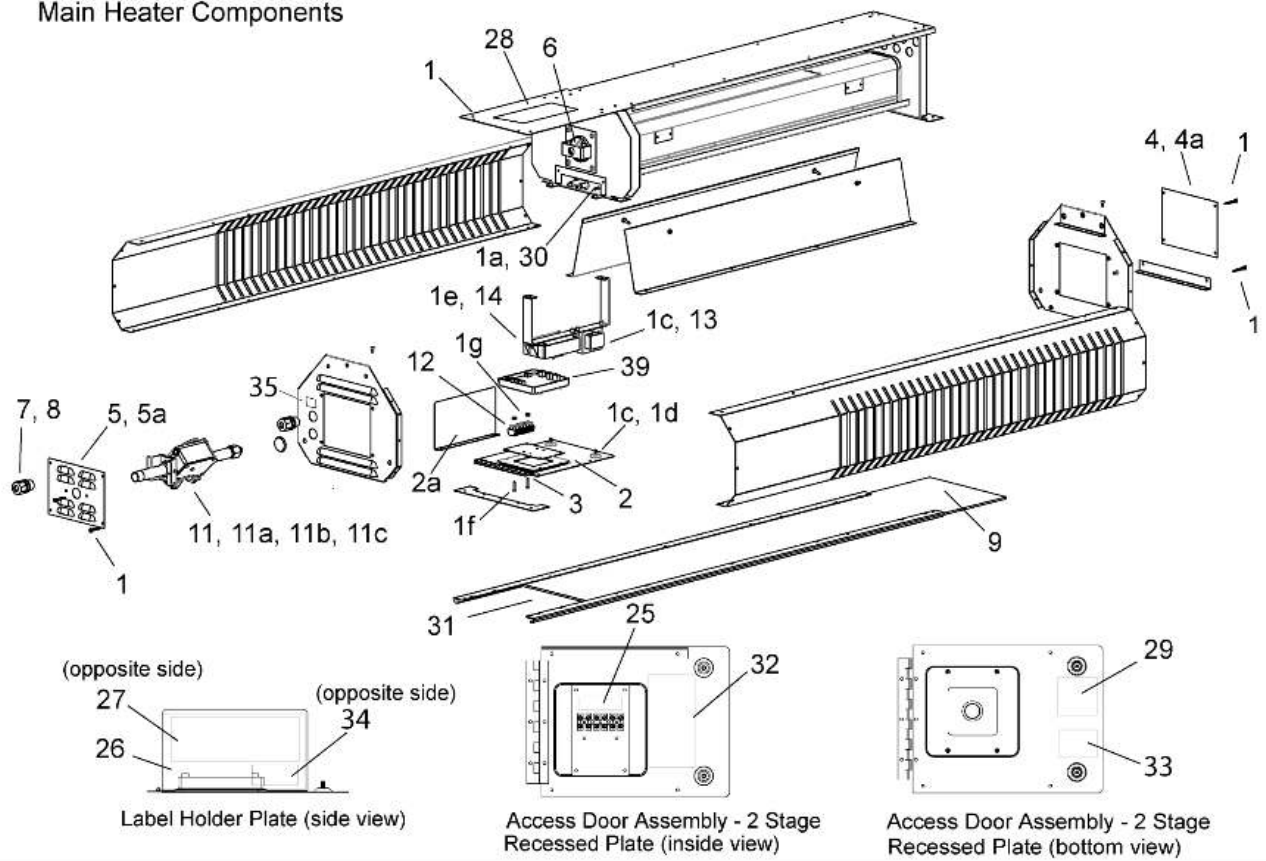
L10 = Propane Gas (with remote)

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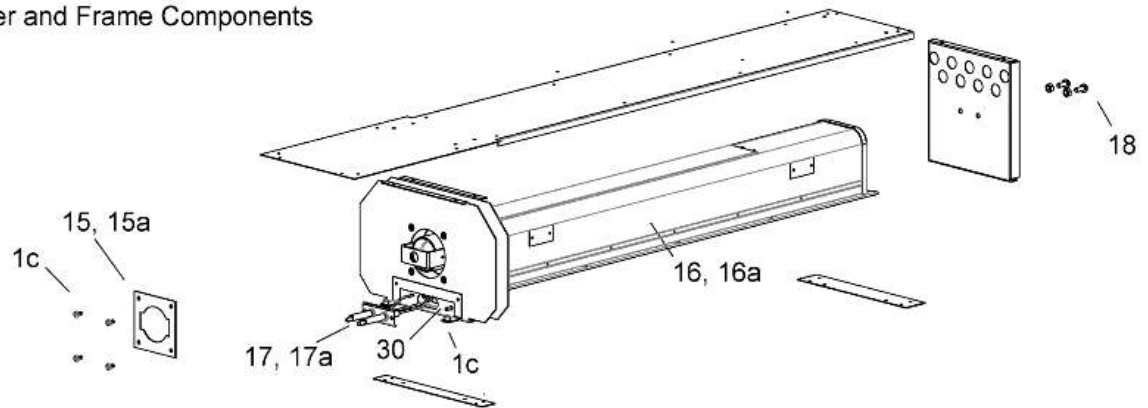
Remote Control Components



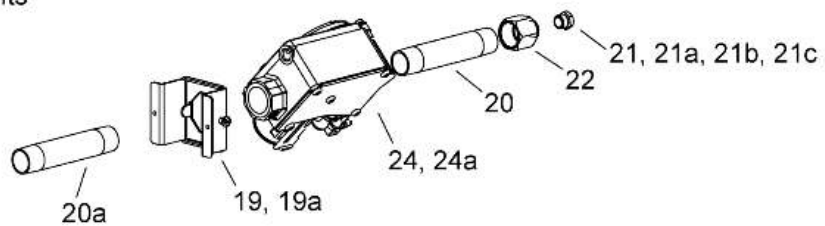
Main Heater Components



Burner and Frame Components



Gas Valve Components





LIMITED WARRANTY: SunStar Heating Products Inc., the manufacturer, warrants to the original owner of any Sunstar infrared gas heater that said heater will be free from defects in material or workmanship under normal use and service. The heater(s) shall be installed, used and maintained strictly in accordance with the manufacturer's instructions. The manufacturer's sole obligation under this warranty shall be limited to furnishing replacement parts, F.O.B. Charlotte, NC, for 12 months from the date of installation, or 18 months from the date of shipment by the manufacturer, whichever period shall expire first. Labor charges for removal of defective parts and the installation of the replacement parts are not included. This warranty applies only within the USA and Canada.

WARNING: Manufacturer's warranty shall not apply: (a) to damage to the heater when used in an atmosphere containing halogenated hydrocarbons or other corrosive chemicals. Some compounds in the air can be ingested into the equipment and can cause an accelerated rate of corrosion of some of the parts of the heating components. The use of such chemical compounds in or near the operating environment of the heater should be avoided where a longer heater life is desirable; (b) to any heater or components which have been repaired or replaced with other than factory parts, modified in any way, misused or damaged, or which have been used contrary to the manufacturer's written instructions. Replacement parts are available through Sunstar representatives or their distributors.

LIMITATION OF WARRANTY: THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. WITHOUT LIMITING THE FOREGOING, THE MANUFACTURER EXPRESSLY EXCLUDES ANY AND ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY OF MERCHANTABILITY FOR ITS PRODUCTS.

If any provision of this warranty is found to be void, unenforceable or unconscionable, then the same is hereby severed and the remainder of this warranty is hereby saved and shall remain in force.

EXCLUSIVE REMEDY: The sole and exclusive remedy under this warranty is the replacement of the defective parts or heaters as hereinabove specified. THE MANUFACTURER DOES HEREBY EXPRESSLY EXCLUDE ANY AND ALL LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER THIS OR ANY OTHER WARRANTY. Without intending to limit the aforesaid exclusion, THE MANUFACTURER DOES HEREBY EXCLUDE ANY LIABILITY UNDER THIS OR ANY OTHER WARRANTY FOR INJURIES AND COMMERCIAL LOSSES TO PROPERTY THAT RESULT FROM THE OPERATION, PROPER OR IMPROPER, OF ITS PRODUCTS.

ADDITIONAL WARRANTY ON BURNER ASSEMBLY: Manufacturer warrants to the original owner of any CSA design certified heater that, if installed, used and maintained strictly in accordance with the printed instructions received with the heater, the manufacturer will at any time during the below listed time periods, furnish at no cost to the original owner, replacement burners which have become inoperative by reason of any defect in our workmanship, materials or construction. The manufacturer's obligation under this warranty shall be limited to furnishing replacements for three years from the date of installation:

The manufacturer will not be responsible for labor charges incurred for removal or installation of burners. Any transportation charges involved in the return or repair are excluded.

ADDITIONAL TERMS: Manufacturer assumes no liability for delay in performing its obligations under the aforesaid warranty. Manufacturer assumes no liability for failure in performing its obligations there under if failure results directly or indirectly from any cause beyond its control, including but not limited to acts of God, acts of Government, floods, fires, shortages of materials, strikes and other labor difficulties or delays or failures of transportation facilities.

THIS FOR ALL OUTDOOR APPLICATIONS AND INDUSTRIAL/COMMERCIAL NON-RESIDENTIAL APPLICATIONS. Installation and service shall be by a Licensed Contractor and in accordance with National and Local Codes.

When presenting warranty claims, proof of date of purchase must be submitted.

No Representative is authorized to assume for the manufacturer any liability except as set forth above.

In case of claim under this warranty, contact:

SunStar Heating Products, Inc.
Post Office Box 36271
Parker Drive (28208)
Charlotte, NC 28236-6271
(704) 372-3486

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



SUNSTAR HEATING PRODUCTS, INC.

Post Office Box 36271 (28236) • **1700 Parker Drive** (28208) • **Charlotte, North Carolina**
Phone (704) 372-3486 – www.sunstarheaters.com – email: info@sunstarheaters.com