

# REMOTE CONTROL RETROFIT INSTRUCTIONS

## For Infrared Radiant Patio Heater

### Models SGL35-N7/L7

#### GENERAL INFORMATION

This kit includes all components required to retrofit an existing 2-stage model SGL35-N7/L7 patio heater for use with a remote control. The model will be designated as SGL35-N10/L10 after the retrofit is made.

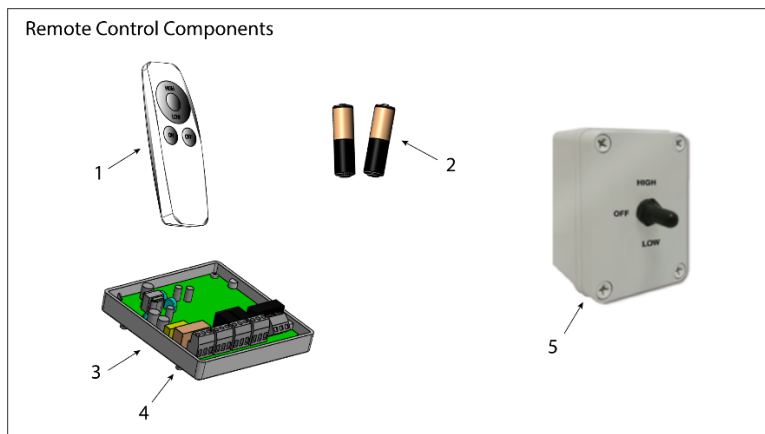
#### **⚠ WARNING**

This retrofit kit is to be installed by an authorized distributor or other qualified agency in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. **Failure to follow instructions could result in serious injury, property damage or death. The qualified agency performing this work assumes responsibility for this retrofit.**

#### KIT COMPONENTS

Kit Part Number 44640010

Number	Part Number	Description	Qty Per
1	30809980	Remote 2-Stage SUNSTAR	1
2	30809950	AAA Battery 2-Pack	1
3	30809010	Circuit Board #W401-V2	1
4	02341010	Screw, Pan Head #4 x 3/8" long	2
5	40147010	3 Position Switch (high/low/off)	1
6	42052110	Wiring Connections Diagram (not shown)	1
7	43149180	Label, Model Designation (not shown)	1
8	44201630	Form, Retrofit Instructions (not shown)	1



## REMOVING THE GLASS PANEL

### ⚠ WARNING



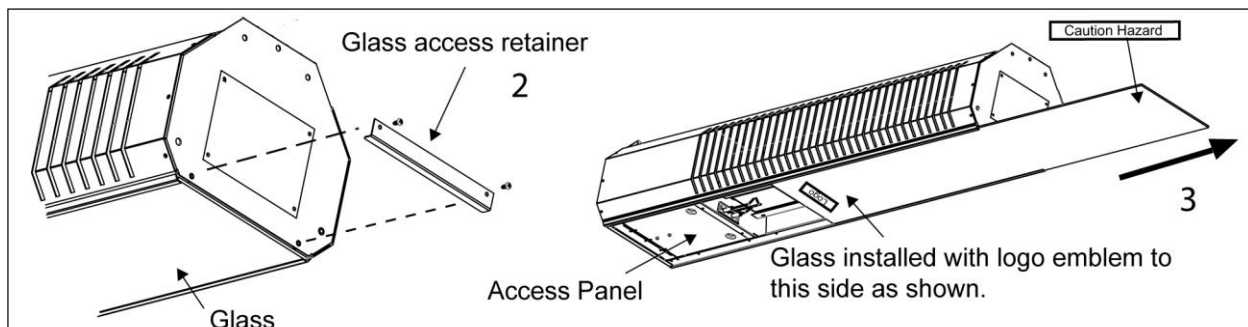
#### BURN HAZARD

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. Shut off the gas and electrical supply to the heater.
2. Remove the glass retainer from the rear of the heater.
3. Carefully slide the glass panel 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.



After the retrofit is made the glass can be reinstalled in the reverse order as follows:

4. Clean the glass with a glass cleaning solvent. Inspect for any cracks.
5. Inserting the glass:

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.

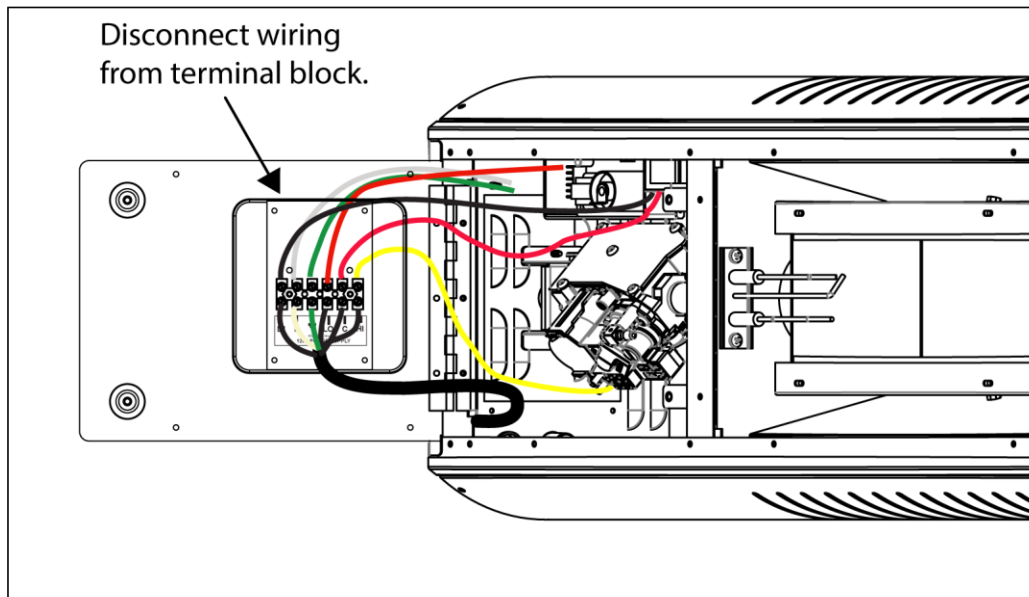
Slide the glass into the "Glass Retainer Rails". The glass must be held parallel to the Glass Retainer Rails during assembly. The glass will slide in easy with ample clearance. Slide the glass until it is positioned under the Glass Retainer at the heaters control enclosure side. At this point the glass 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!

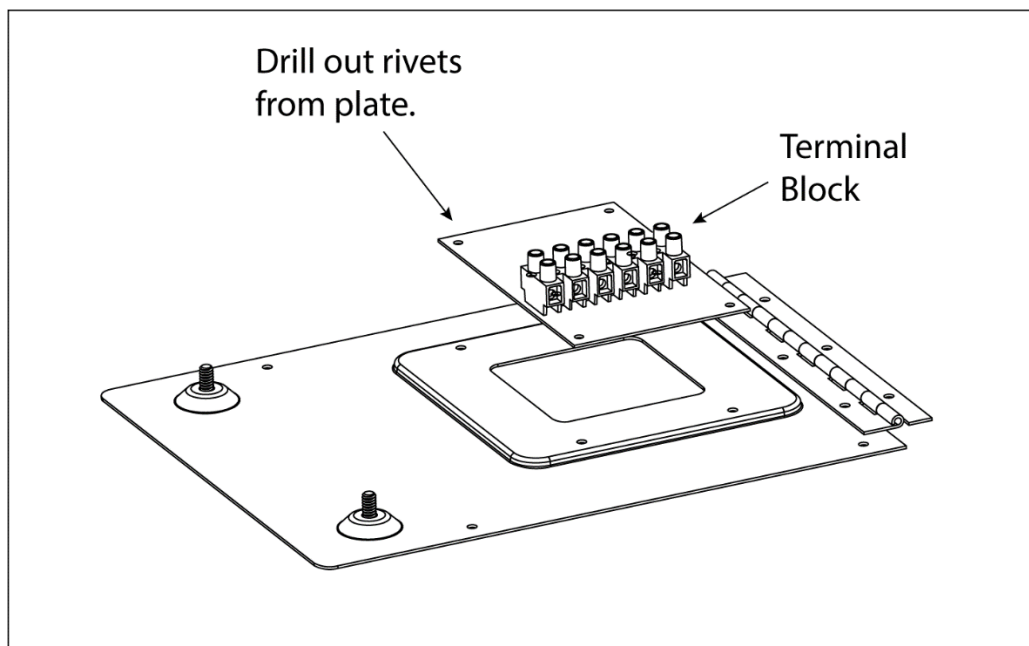
6. Reinstall the Glass Access Retainer removed in 2 with the two (2) sheet metal screws.

## REMOVING THE EXISTING TERMINAL BLOCK

1. Open the access panel of the heater and disconnect the wiring from the existing terminal block.



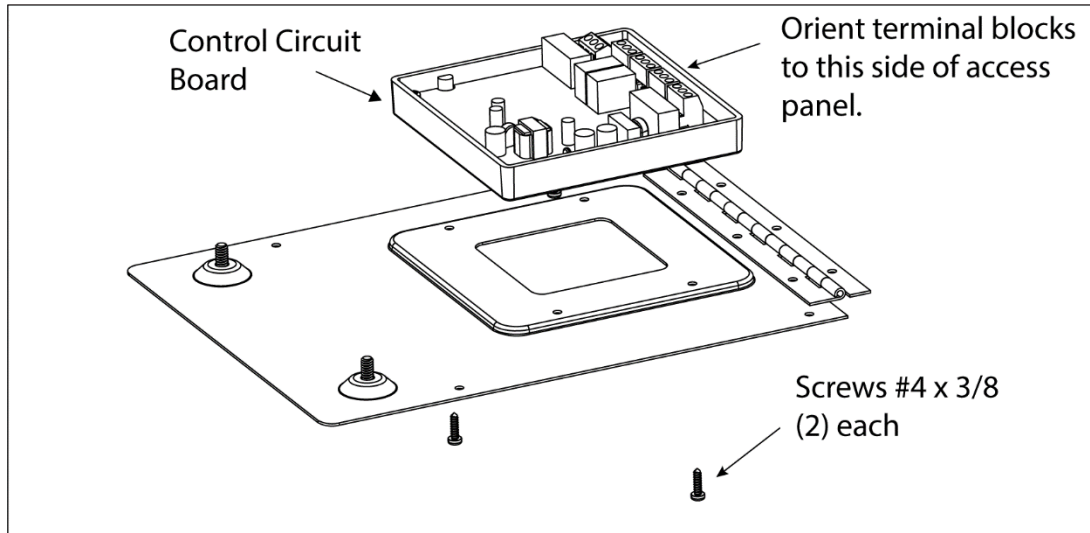
2. Drill out the (4) rivets holding the terminal block mounting plate and remove it.



## INSTALLING THE CONTROL CIRCUIT BOARD

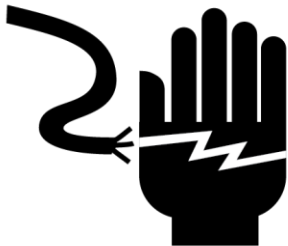
1. Place the new control circuit board supplied in the kit over the embossed portion of the access panel and secure it using the (2) #4 x 3/8" screws provided as shown.

**Note:** Orient the circuit board with the terminal blocks facing the hinge portion of the access panel.



## ELECTRICAL CONNECTIONS

### ⚠ WARNING



#### ELECTRIC SHOCK HAZARD

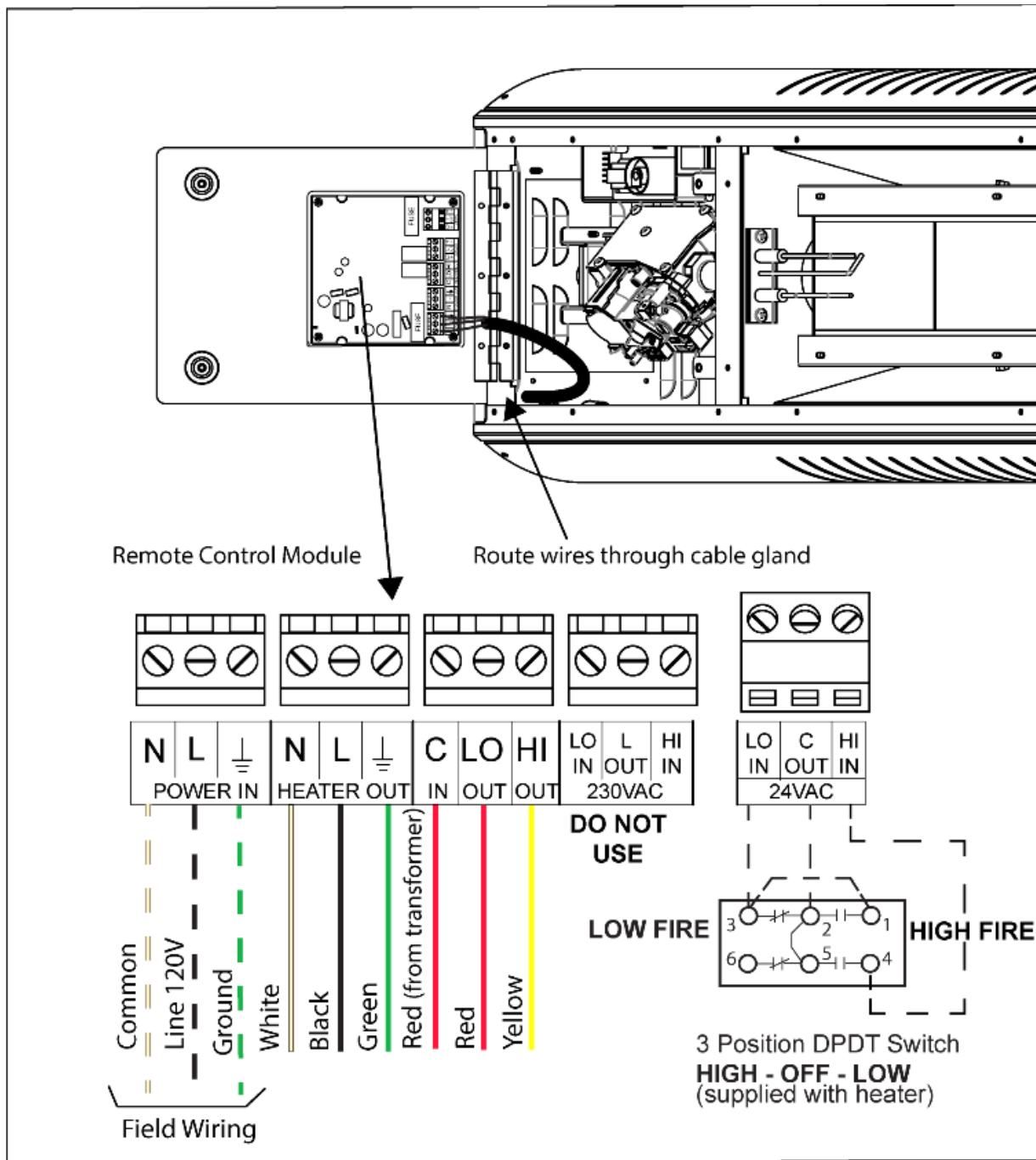
Disconnect electrical power and gas supply before servicing.

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 standard C22.1 Canadian Electrical Code Part 1.
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 of the installation and operation manual supplied with the heater).
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.

**FIELD CONNECTION AND WIRING DIAGRAM – 2 STAGE 24V**

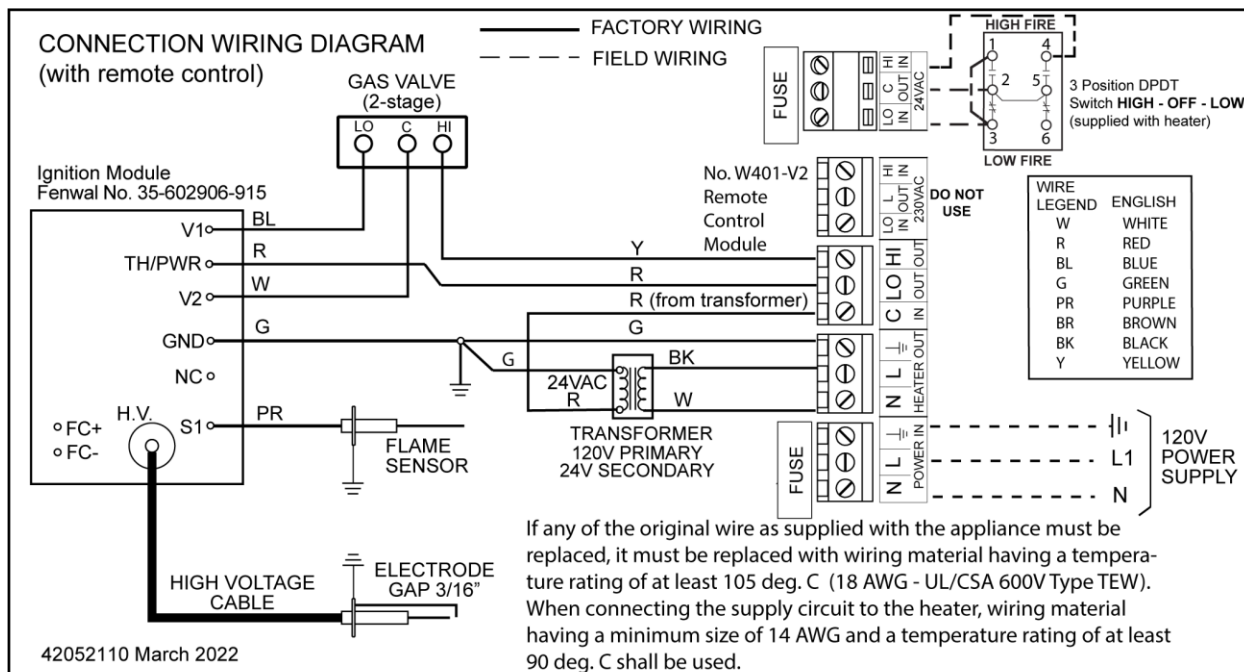


The Figure above shows the field wiring connections to the heater remote control module.

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 mm<sup>2</sup>)

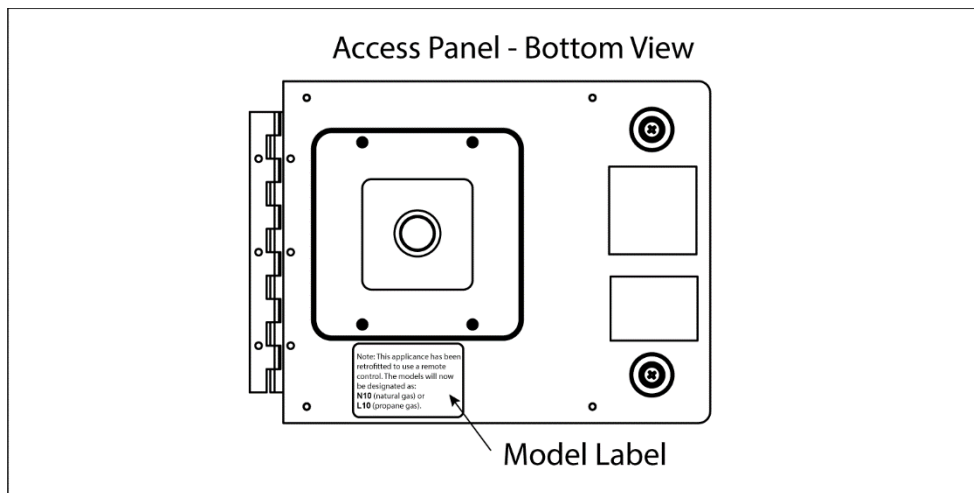
## INTERNAL CONNECTION WIRING DIAGRAM

1. Reconnect the wiring to the terminal blocks of the new circuit board as shown in the following internal connection wiring diagrams.
2. Place the new wiring diagram provided in the kit over the existing diagram located on the heater.



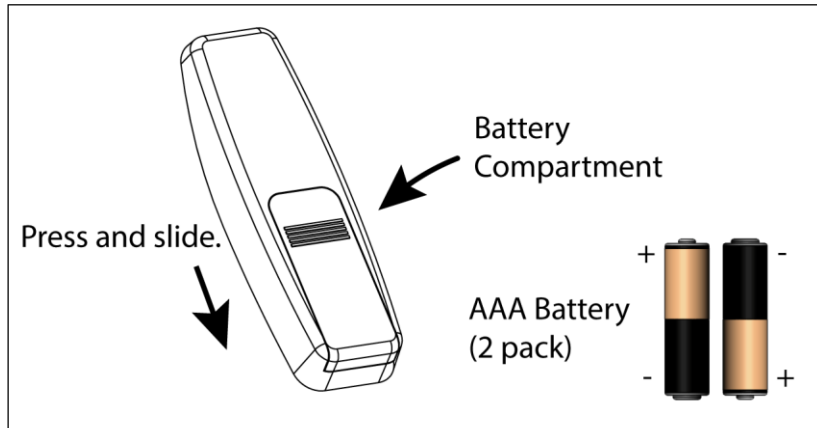
The figure above shows the internal wiring diagram of the heater.

3. Close the access panel and place the model label provided in the kit as shown below.
4. Reinstall the glass panel in the reverse order as described earlier in REMOVING THE GLASS PANEL.



## LOADING THE BATTERIES TO THE 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.



## HEATER OPERATION

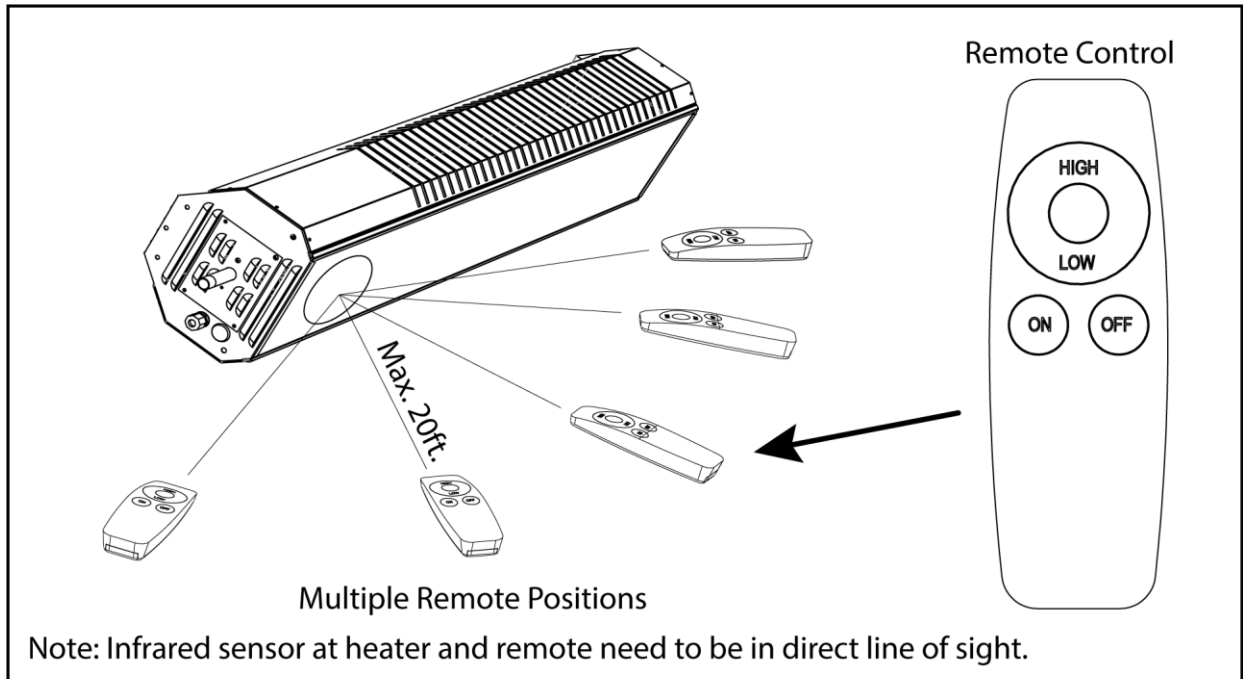
The 3-position switch is intended as a back up to the remote control. The operation of the switch is dominant over the remote control. The remote will only operate the heater when the 3-position switch is in the OFF (center) position.

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.

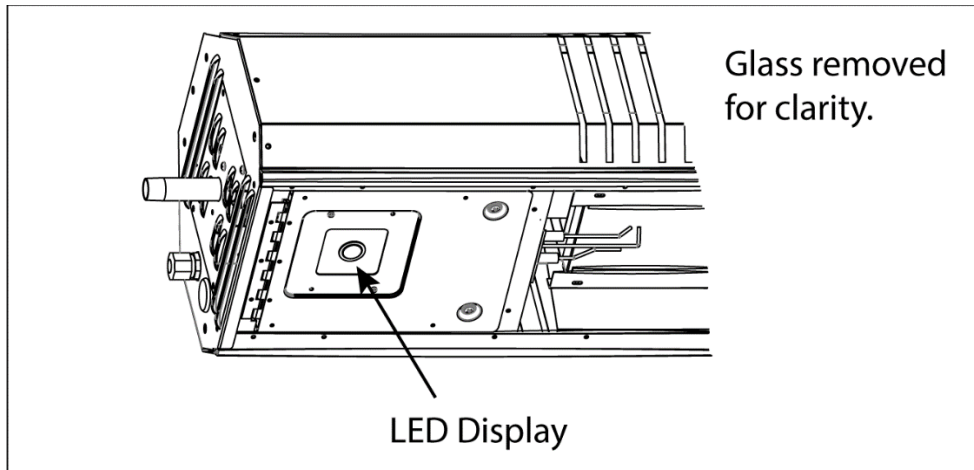
1. Pushing the switch into the **LOW** will start the heater in Low fire.
2. Pushing the switch into the **HIGH** position will start the heater in High fire.
3. Pushing the switch into the **OFF** position will turn the heater **OFF**.

**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



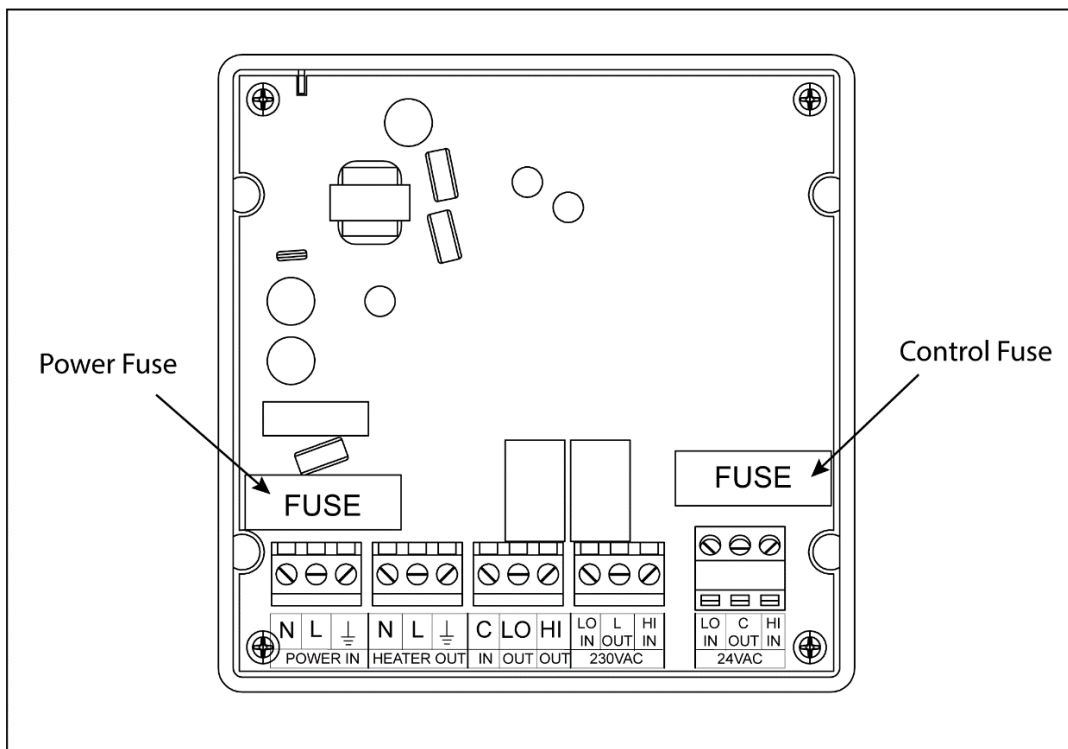


## REPLACING PARTS

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 P/N 30809950 AAA BATTERY 2-PACK.

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

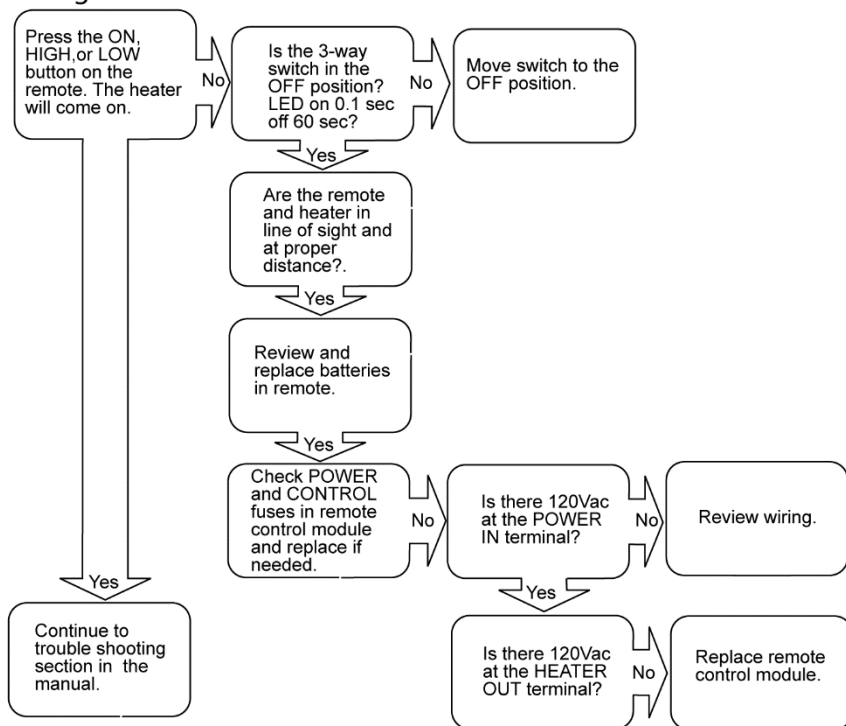
The remote control module is not serviceable. If the heater does not operate the fuse may have blown. Remove fuses, check for continuity and replace with P/N 30202060 FUSE, 1 AMP 250V, 125V if open circuit.



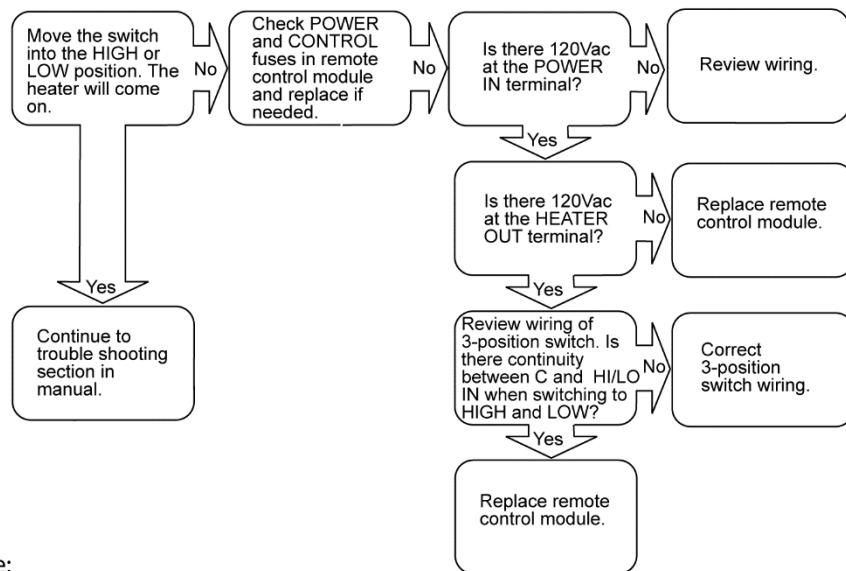
## TROUBLE SHOOTING

Turn on line voltage to heater.

Using remote:



Using 3-way position switch:



Note:

- a) 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.
- b) 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.