



IMPORTANT

- Always perform initial inspections including visual, current and airflow (Figure A) tests before servicing a heater.
- Check the AC cord, wires and plugs, for cut, pinched or exposed wires, secure connection and proper location.
- NEVER touch the glass portion of a heating element. Always visually inspect the elements and perform a resistance test.
- The heating elements are wired in 3 parallel circuits and are suggested to be replaced in pairs for this reason. (FIGURE B)

SPECIFICATIONS

- **Current:** 12.5 – 14 amps in “HIGH” mode
- **Airflow:** 640+ FPM
- **Power:** 1500 Watts
- **Heating Elements (Bulbs):** 14Ω +/- 5%
- **Heat Rise:** 140° (over ambient temperature)

NO POWER

- Check (in order)
 1. Power transformer
 2. Front control board (and fuse)
 3. Heat sensor (high limit switch)
- If the heater turns on then immediately off, inspect the thermostat sensor, its wires and connection.
- Inspect the wiring and cables and their connections including the AC cord and its ground.

LIMITED HEAT / NO HEAT / FAN NO HEAT

- Visually inspect the heating elements and their connections. Turn on the heater and look for non-working elements.
- Test the resistance of the heating elements. They should measure 14Ω +/- 5% (13.3Ω – 14.7Ω).
- Replace a heating element if the glass or the ceramic ends are cracked or broken, overly discolored, if the quartz element appears to be damaged or if the wire insulation is excessively whitened (more than 1/4”) near the bulb. (FIGURE F)
- Test the unit with a new thermostat sensor.
- Remove the leads to the high limit switch and perform a continuity test. If any resistance, replace.
- Test the unit with a new circuit board.

OVERHEATING / HEAT NO FAN

- Check the fan to make sure the fan is spinning freely, properly aligned and not binding.
- Visually inspect the fan for built up dust and dirt. Clean it with a firm-bristled brush and vacuum.
- Inspect the fan bearing and oil it if needed.
- Test/replace the fan sensor.
- Test/replace the high limit switch.

LOUD FAN

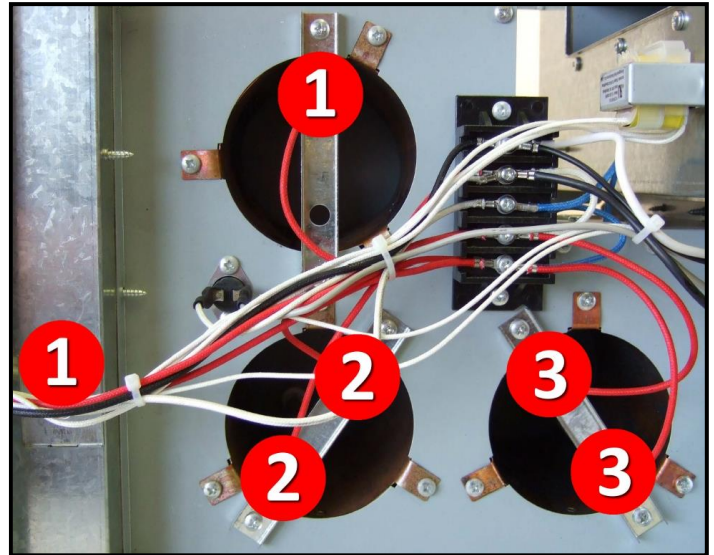
- Visually inspect the fan to make sure the cage and motor are properly mounted, aligned and spinning freely.
- Inspect the fan bearing and oil it if needed.
- Inspect the fan bushing. Make sure it fits tightly in the blower fan and on the motor shaft.
- If the fan continues to make noise, it may be bent or out of balance and need replaced.

****DISCLAIMER: WIRE COLORS, CONNECTORS, PARTS AND THEIR LOCATIONS ARE SUBJECT TO CHANGE****

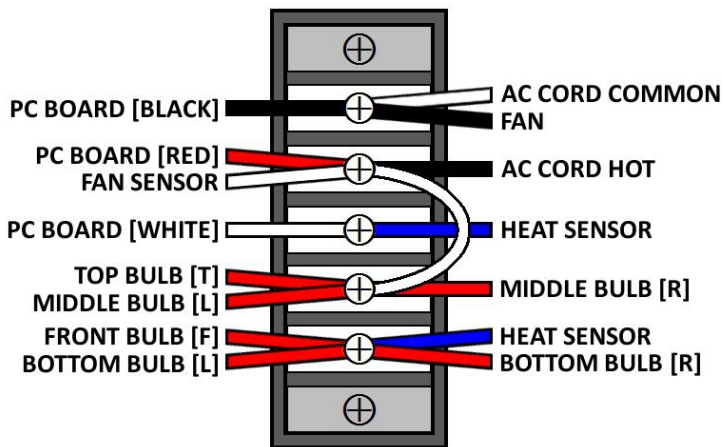
(FIGURE A) AIRFLOW TESTING



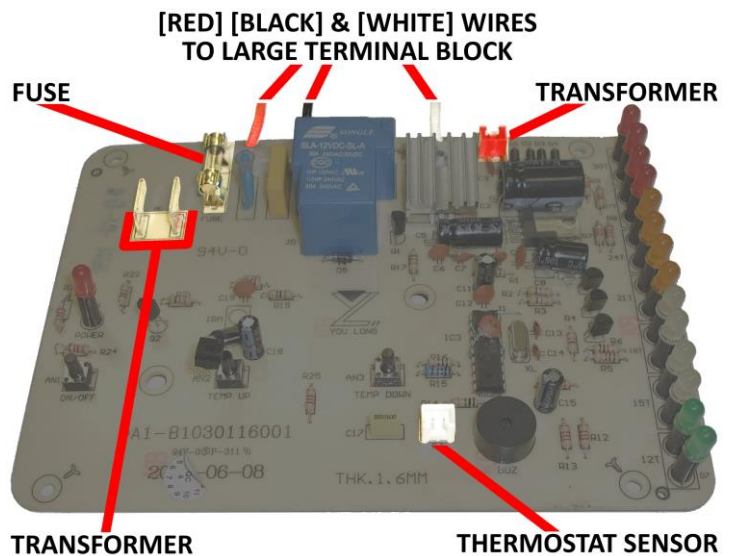
(FIGURE B) BULB PAIRING – Bulbs are wired in 3 series of pairs and should be replaced in pairs accordingly.



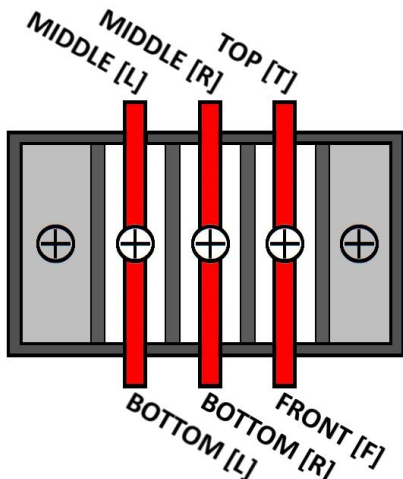
(Figure C) LARGE WIRING BLOCK



(FIGURE D) FRONT CIRCUIT BOARD



(FIGURE E) SMALL WIRING BLOCK



(FIGURE F) EXAMPLE HEATING ELEMENT



This is a heating element that may have failed. Notice the whitening of the wires where they enter the ceramic end caps. It is recommended that bulbs with this extent (approximately 1/4") of whitening (and the corresponding paired bulb) should be replaced even if they test okay as their life expectancy could be diminished.