



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 for the GEN3 Personal and 500XL have a different resistance and are slightly shorter than the elements used in the large versions of the GEN3 and XL models.

SPECIFICATIONS

- **Current:** 7 – 7.5 Amps
- **Airflow:** 400+ FPM
- **Power:** 900 Watts
- **Heating Elements (Bulbs):** $5.5\Omega \pm 5\%$ ($5.2\Omega - 5.8\Omega$)
- **Heat Rise:** 100° (over ambient temperature)

NO POWER

- Test/replace the heating elements.
- Test/replace the high limit switch.
- If the heater turns on then immediately off, test the heater with a new circuit board.
- Inspect the wiring, cables and their connections including the AC cord and its ground.

LIMITED HEAT / NO HEAT / FAN NO HEAT

- Test the resistance of the heating elements. They should measure $5.5\Omega \pm 5\%$ ($5.2\Omega - 5.8\Omega$).
- Replace a heating element if the glass or the ceramic ends are cracked, broken, overly discolored, the quartz element appears to be damaged or if the wire insulation is excessively whitened (more than 1/4") near the bulb.
- 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 clean and spinning freely, properly aligned and not binding.
- Visually inspect the fan for built up dust and dirt. Clean it with a soft-bristled brush and vacuum.
- Inspect the fan bearing and oil it if needed. (Bearing is opposite the motor)
- Test/replace the high limit switch.

LOUD FAN

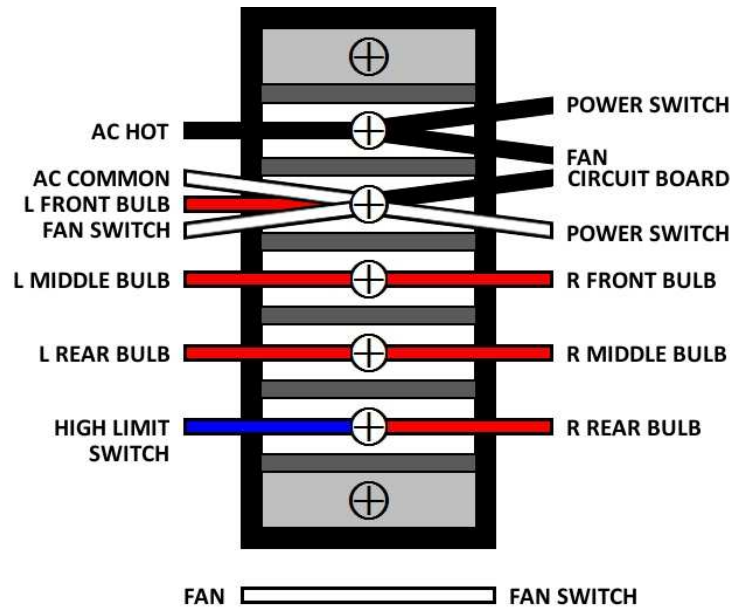
- Visually inspect the fan to make sure the cage and motor are properly mounted, aligned and spinning freely.
- Inspect the fan bearing and oil it if needed.
- Inspect the fan bushing. Make sure it fits tightly in the blower fan and on the motor shaft.
- If the fan continues to make noise, it may be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

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

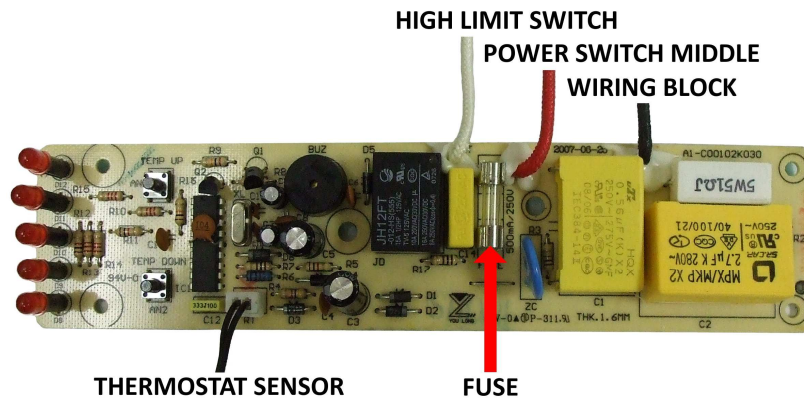
(FIGURE A) AIRFLOW TESTING



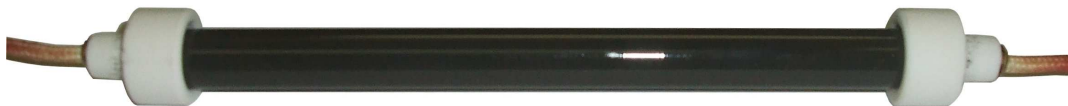
(FIGURE B) WIRING BLOCK



(FIGURE C) CIRCUIT BOARD



(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.