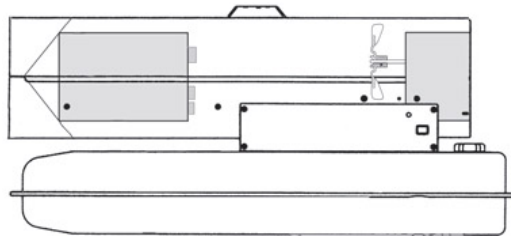


# OVERVIEW OF HEATER DESIGN



**Fuel System :** This heater is equipped with an electric air pump that forces air through the airline connected to the fuel intake and then through a nozzle in the burner head. When the air passes in front of the fuel intake it causes fuel to rise from the tank and into the burner nozzle. This fuel and air mixture is then sprayed into the combustion chamber in a fine mist.

**“Sure Fire Ignition”:** The electronic igniter sends voltage to a specially designed spark plug. The spark plug ignites the fuel and air mixture described above.

**The Air System:** The heavy duty motor turns a fan that forces air into and around the combustion chamber. Here the air is heated and then forced out the front of the heater.

## The Safety System:

**A. Temperature Limit Control:** This heater is equipped with a Temperature Limit Control designed to turn off the heater should the internal temperature rise to an unsafe level. If this device activates and turns your heater off it may require service.

<u>MODELS</u>	<u>Internal Shut-Off Temp. Plus/Minus 10 Degrees</u>	<u>Reset Temperature Plus/Minus 10 Degrees</u>
DFA50/DFA75T/DFA80T	176°F/80°C	122°F/50°C
DFA125C/DFA135C/DFA170CV/DFA180CV	230°F/110°C	194°F/90°C
DFA210CV/DFA220CV	194°F/90°C	140°F/60°C

Once the temperature falls below the reset temperature you will be able to start your heater.

**B. Electrical System Protection:** This heaters electrical system is protected by a fuse mounted to the PCB assembly that protects it and other electrical components from damage. If your heater fails to operate check this fuse first and replace as needed.

**FUSE TYPE:** All Models 125 volt / 8 amps

**C. Flame-Out Sensor:** Utilizes a photocell to monitor the flame in burn chamber during normal operation. It will cause the heater to shut-off should the burner flame extinguish.

**NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!**

This document is for reference purposes and not intended to replace your owner’s manual. It is important to read your owner’s manual in its entirety which has been designed to instruct you as to the proper manner in which to assemble the heater, maintain the heater, store the heater, and most importantly, how to operate the heater in a safe and efficient manner