

Troubleshooting Guide

Problem	Possible Cause	Solution
Heater fires, but shuts down after a short period of time. LED display shows "E1".	<ol style="list-style-type: none"> 1. Dirty Fuel Filter. 2. Nozzle Dirty. 3. Photocell Dirty. 4. Photocell not installed properly. 5. Photocell Defective . 6. Improper electrical connection between Circuit Board and Photocell. 7. Cooling Fan is obstructed 	<ol style="list-style-type: none"> 1. Clean/replace Fuel Filter. 2. Clean/replace Nozzle 3. Clean/replace Photocell . 4. Adjust Photocell position. 5. Replace Photocell. 6. Check wiring connections (See Wiring Diagrams, Page 14). 7. Check to be sure cooling fan is not obstructed.
Heater will not operate, or motor runs for short time. LED display shows "E1".	<ol style="list-style-type: none"> 1. No kerosene/ diesel in fuel tank. 2. Corroded Spark Plug or incorrect plug gap. 3. Dirty Fuel Filter. 4. Dirty Nozzle. 5. Moisture in Fuel/Fuel Tank. 6. Improper electrical connection between Transformer and Circuit Board. 7. Transformer Wires not connected to Spark Plug. 8. Defective Transformer. 	<ol style="list-style-type: none"> 1. Fill tank with fresh kerosene/ diesel. 2. Clean/replace Spark Plug. 3. Clean/replace Fuel Filter. 4. Clean/replace Nozzle. 5. Rinse out fuel tank with clean fresh paraffin/ diesel. 6. Inspect all electrical connections. (See Wiring Diagrams, Page 14). 7. Re-attach Transformer wires to Spark Plug. 8. Replace Transformer.
Fan does not operate when heater is plugged in and Operating Switch is in the "ON" position. LED display shows "E1" or "E2".	<ol style="list-style-type: none"> 1. Broken electrical connection between Circuit Board and motor. 2. Not enough amps available to power heater. 	<ol style="list-style-type: none"> 1. Inspect all electrical connections on Wiring Diagrams (Page 14). 2. Use a new extension cord or try another electrical socket.
LED display shows "E3"	<ol style="list-style-type: none"> 1. Thermostat switch has failed. 	<ol style="list-style-type: none"> 1. Replace thermostat switch (see wiring diagram on page 14)
Heater makes grinding noise.	<ol style="list-style-type: none"> 1. Air in fuel pump. 	<ol style="list-style-type: none"> 1. Sound will stop after 3 seconds. If grinding sound continues, add fuel to tank.
Heater does not turn on and the lamp is not lit.	<ol style="list-style-type: none"> 1. Temperature limit sensor has overheated. 2. No electrical power. 3. Fuse break down. 4. Improper electrical connection between Temperature Limit Sensor and Circuit Board. 	<ol style="list-style-type: none"> 1. Push Operating Switch to "OFF" and allow heater to cool for 5 minutes. Push Operating Switch back to "ON". 2. Check power cord and extension cord to insure of proper connection. Test power supply. 3. Check/replace Fuse. 4. Inspect all electrical connections. (See Wiring Diagrams, Page 14).
Poor combustion and / or soot production.	<ol style="list-style-type: none"> 1. Pump Pressure. 2. Poor fuel quality. 	<ol style="list-style-type: none"> 1. Be sure pump pressure is adjusted correctly. 2. Be sure kerosene/ diesel is not old or contaminated.

Wiring Diagrams

HK070-R

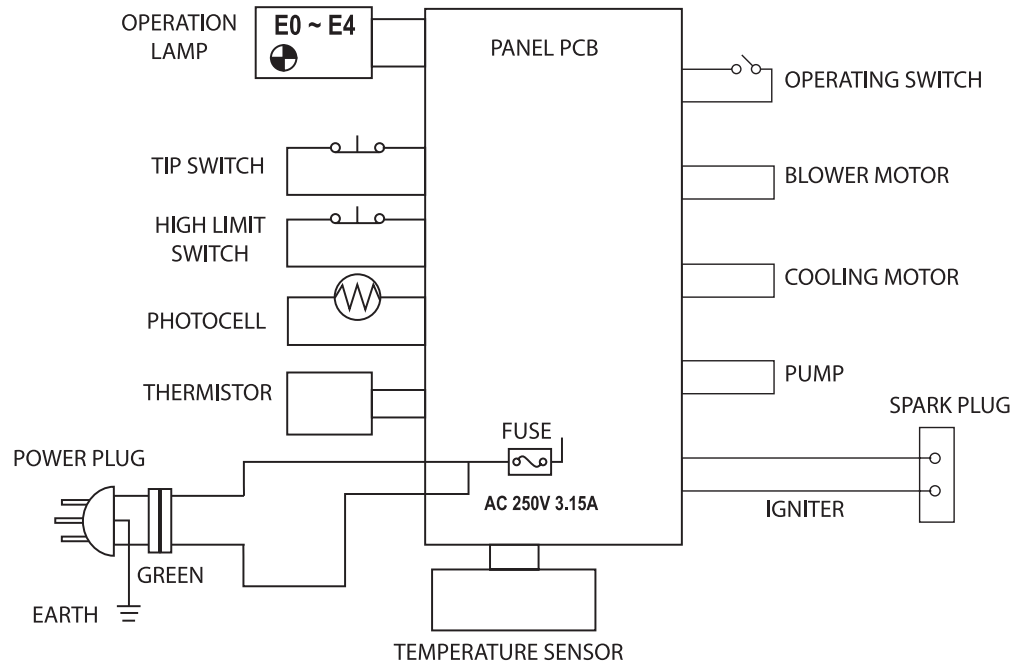


Figure 23

HK125-RW

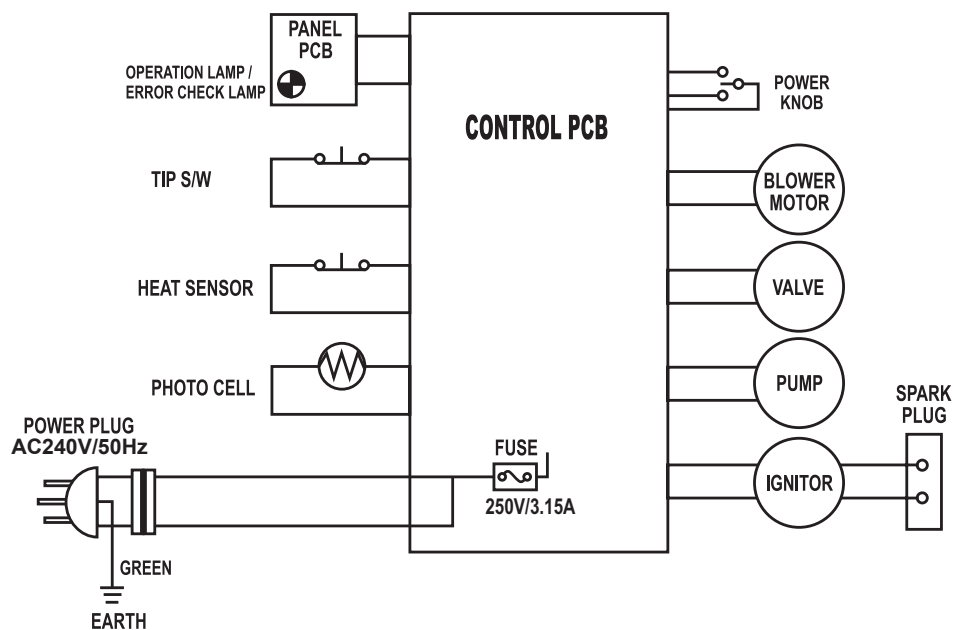


Figure 24