



POWER EQUIPMENT

NEVER LEAVE HEATER UNATTENDED WHILE BURNING OR WHILE CONNECTED TO A POWER SOURCE

Troubleshooting Guide

Problem	Possible Cause	Solution
Heater Ignites, but main PCB shuts off after a short period of time. Lamp flickers and LED display shows "E1".	<ol style="list-style-type: none"> 1. Incorrect pump pressure. 2. Dirty input, output or lint filter. 3. Dirty fuel filter. 4. Nozzle is dirty. 5. Photocell lens is dirty. 6. Photocell not installed properly. 7. Photocell is defective. 8. Improper electrical connection between main PCB and photocell. 	<ol style="list-style-type: none"> 1. Adjust pump pressure. 2. Clean / replace air or lint filter. 3. Clean / replace fuel filter. 4. Clean / replace Nozzle. 5. Clean / replace photocell. 6. Adjust photocell position 7. Replace photocell 8. Check wiring connections (see wiring diagrams on page 11).
Heater will not operate or motor runs for a short time. Lamp flickers and LED display shows "E1".	<ol style="list-style-type: none"> 1. No paraffin in the fuel tank. 2. Incorrect pump pressure. 3. Corroded spark plug or incorrect plug gap. 4. Dirty fuel filter. 5. Dirty nozzle. 6. Moisture in fuel tank. 7. Improper electrical connection between transformer and circuit board. 8. Ignitor wire not connected to spark plug. 9. Defective ignitor. 	<ol style="list-style-type: none"> 1. Fill tank with fresh paraffin. 2. Adjust pump pressure. 3. Clean / replace spark plug. 4. Clean / replace fuel filter. 5. Clean / replace nozzle. 6. Rinse fuel tank with clean, fresh paraffin. 7. Inspect all electrical connections. (See wiring diagrams on page 11.) 8. Re-attach ignitor wire to spark plug. 9. Replace ignitor.
Fan does not operate when heater is plugged in and power switch is in the "ON" position. The lamp is flickering or and LED display shows "E1" or "E2".	<ol style="list-style-type: none"> 1. Thermostat is set too low (does not apply to HK45 model). 2. Broken electrical connection between main PCB and motor. 	<ol style="list-style-type: none"> 1. Rotate thermostat to a higher setting 2. Inspect all electrical connections (see wiring diagrams on page 11).
Lamp is flickering and 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 diagrams on page 11).
Poor combustion and / or excess soot production.	<ol style="list-style-type: none"> 1. Dirty input, output or lint filter. 2. Dirty fuel filter. 3. Poor quality of fuel. 4. PSI is too high or too low. 	<ol style="list-style-type: none"> 1. Clean / replace air or lint filter. 2. Clean / replace fuel filter. 3. Flush fuel tank and refuel heater. 4. Use proper pressure.
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 is blown. 4. Improper electrical connection between temperature limit sensor and circuit board. 	<ol style="list-style-type: none"> 1. Push power switch to "OFF" and allow heater to cool for 10 minutes. Restart heater. 2. Check power cords for proper connection and test the power supply. 3. Check / replace the fuse. 4. Inspect all electrical connections (see wiring diagrams on page 11).