

## 4.2 GENERAL TROUBLE SHOOTING

### GENERAL TROUBLESHOOTING CHART FOR 2-STAGE SERIES EQUIPPED WITH MICRO 60U24 CONTROL

| SYMPTOM                                    | POSSIBLE CAUSE  | CORRECTIVE ACTION   |
|--|---|---|
| Thermostat closed.<br>- NO LED FLASH CODE  | <ol style="list-style-type: none"> <li>1. Blown fuse.</li> <li>2. Faulty thermostat.</li> <li>3. Disconnected wire.</li> <li>4. No 24 volt signal.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Replace.</li> <li>2. Replace.</li> <li>3. Repair.</li> <li>4. Interrupt 120 volt supply, LED will flash once if 24 volt is present.</li> </ol>  |
| Thermostat closed.<br>- LED CODE STEADY ON | <ol style="list-style-type: none"> <li>1. Internal fault in circuit control module.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Replace.</li> </ol>   |
| Thermostat closed.<br>- LED CODE 1 FLASH   | <ol style="list-style-type: none"> <li>1. Faulty glo-bar.</li> <li>2. Faulty flame sensor.</li> <li>3. Gas valve not opening.</li> <li>4. Gas orifice plugged.</li> <li>5. Restriction in main burner.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Replace.</li> <li>2. Replace.</li> <li>3. Replace.</li> <li>4. Remove, clean and reinstall.</li> <li>5. Remove, clean and reinstall.</li> </ol>   |
| Thermostat closed.<br>- LED CODE 2 FLASHES | <ol style="list-style-type: none"> <li>1. Burner pressure switch fault.</li> <li>2. Burner switch bypassed.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Replace.</li> <li>2. Remove jumper wires.</li> </ol>  |
| Thermostat closed.<br>- LED CODE 4 FLASHES | <ol style="list-style-type: none"> <li>1. Wire disconnected on valve.</li> <li>2. Gas valve fault.</li> <li>3. Flame rod fault.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Reconnect.</li> <li>2. Replace.</li> <li>3. Replace.</li> </ol>   |
| Heater Operating<br>- TUBE BOWING          | <ol style="list-style-type: none"> <li>1. Insufficient combustion air.</li> <li>2. Overfired.</li> <li>3. Ensure exchangers have room to expand.</li> <li>4. Heater not supported properly.</li> <li>5. Reflectors not positioned properly.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Check intake duct for blockage and sizing.</li> <li>2. Check gas pressure.</li> <li>3. Re-install vent connection.</li> <li>4. Re-position hangers or chains.</li> <li>5. Re-position.</li> </ol> |
| Heater Operating<br>- VENT CONDENSING      | <ol style="list-style-type: none"> <li>1. Stack length too long.</li> <li>2. Light gauge flue pipe used.</li> <li>3. Uninsulated vent pipe running through cold space.</li> <li>4. Negative pressure in building.</li> <li>5. Common vented heaters installed with individual thermostats.</li> </ol> | <ol style="list-style-type: none"> <li>1. Shorten stack.</li> <li>2. Minimum 26 Ga. Required.</li> <li>3. Insulate vent.</li> <li>4. Install combustion air intake.</li> <li>5. Install one thermostat.</li> </ol>                          |
| Odor or fumes in space.                    | <ol style="list-style-type: none"> <li>1. Vaporized solvents decomposing when contacting radiant tubes.</li> <li>2. Lift trucks.</li> <li>3. Loose tube connections.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Install exhaust fan at ceiling.</li> <li>2. Install exhaust fan and repair.</li> <li>3. Tighten to 50-60 lb.-ft.</li> </ol>   |