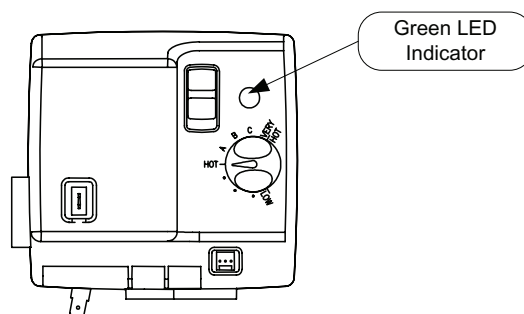


<http://waterheatertimer.org/How-to-troubleshoot-gas-water-heater.html>

**Observe green LED indicator on Electronic gas control. Error flash codes are displayed with a three second pause before repeating. Check and repair the system as noted in the troubleshooting table below.**



<b><u>LED Status</u></b>	<b><u>Control Status</u></b>	<b><u>Probable Cause</u></b>	<b><u>Service Procedure</u></b>
None, control LED not on or flashing	No electrical power	Control power switch in "OFF" position. Supply voltage interrupted.	Turn power on
Short flash, once every four seconds	Stand-by mode, Waiting for call for heat (no fault).	Temperature demand is satisfied	Normal operation. Adjust thermostat to temp level
"Heartbeat", alternates bright/dim	Thermostat calling for heat (no fault).	Tank temperature below set point of thermostat.	Normal operation. Adjust thermostat to temp level
Short flash once every 3 second	Weak pilot signal on last call for heat.	<ol style="list-style-type: none"> <li>1. Unstable pilot.</li> <li>2. Pilot tube block or restricted.</li> <li>3. Oxidation build up on pilot electrode.</li> <li>4. Wire damage to pilot assembly or bad connection at gas valve.</li> </ol>	<ol style="list-style-type: none"> <li>1. Page 15</li> <li>2-4. Page 17</li> </ol>
Two flash, three second pause	Pressure switch not working-closed position.	<ol style="list-style-type: none"> <li>1. Pressure switch tubing kinked or blocked.</li> <li>2. Blocked pressure tap on switch or blower.</li> <li>3. Faulty pressure switch.</li> </ol>	Page 18
Three flash, three second pause	Pressure switch or blower temp. switch not working -open position.	<ol style="list-style-type: none"> <li>1. Vent blockage or improper vent configuration.</li> <li>2. Pressure switch tubing kinked or blocked.</li> <li>3. Faulty pressure switch.</li> <li>4. Blower not spinning up to speed.</li> <li>5. Blower temp or exhaust temp too high</li> <li>6. Faulty blower temperature switch.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check vent or vent tables.</li> <li>2 &amp; 3 Page 18</li> <li>4. Page 20</li> <li>5 &amp; 6 Page 22</li> </ol>
Four flash, three second pause	Excessive tank temperature. System must be reset.	<ol style="list-style-type: none"> <li>1. Thermal well sensor out of calibration.</li> <li>2. Faulty gas control.</li> <li>3. Plumbing leak</li> </ol>	<ol style="list-style-type: none"> <li>1. Page 24</li> <li>2. Replace gas control, page 24</li> </ol>
Five flash, three second pause	Undesired-false pilot flame present.	<ol style="list-style-type: none"> <li>1. Pilot valve stuck in open position.</li> </ol>	Replace gas control, page 24

<u>LED Status</u>	<u>Control Status</u>	<u>Probable Cause</u>	<u>Service Procedure</u>
Six-one flash, three second pause	Failed to light pilot. System auto resets.	<ol style="list-style-type: none"> <li>1. Unstable pilot.</li> <li>2. Pilot tube blocked or restricted.</li> <li>3. Oxidation build up on pilot electrode.</li> <li>4. Wire damage to pilot assembly or bad connection at gas valve.</li> </ol>	<ol style="list-style-type: none"> <li>1. Page 15</li> <li>2-4. Page 17</li> </ol>
Six-two flash, three second pause	Pressure switch or blower temp switch opened during burner operation. System auto resets.	<ol style="list-style-type: none"> <li>1. Vent blockage or improper vent configuration.</li> <li>2. Pressure switch tubing kinked or blocked.</li> <li>3. Faulty pressure switch.</li> <li>4. Vent termination being affected by wind</li> <li>5. Blower not spinning up to speed.</li> <li>6. Blower temp or exhaust temp too high</li> <li>7. Faulty blower temperature switch.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check vent or vent tables.</li> <li>2 &amp; 3 Page 18</li> <li>4. Refer to venting section of installation manual</li> <li>5. Page 20</li> <li>6 &amp; 7 Page 22</li> </ol>
Six-three flash, three second pause	Pilot flame extinguished. System auto resets.	<ol style="list-style-type: none"> <li>1. Unstable pilot.</li> <li>2. Pilot tube blocked or restricted.</li> <li>3. Oxidation build up on pilot electrode.</li> <li>4. Wire damage to pilot assembly or bad connection at gas valve.</li> <li>5. Insufficient combustion air.</li> <li>6. Gas pressure is out of specification.</li> </ol>	<ol style="list-style-type: none"> <li>1. Page 15</li> <li>2-4. Page 17</li> <li>5. Refer to installation manual</li> </ol>
Six-four flash, three second pause	Undesired-false pilot flame sensed. System auto resets.	Pilot valve stuck in open position.	Replace gas control, page 26
Seven flash, three second pause	Simulated Resistive Device Harness out of specification.	Simulated resistive device out of specification.	Page 28
Eight-one flash, three second pause	Simulated Resistive Device Harness specification check.	Simulated resistive device out of specification.	Page 28
Eight-two flash, three second pause	Thermal well sensor damaged or unplugged	<ol style="list-style-type: none"> <li>1. Damage to thermal well wire.</li> <li>2. Thermal well sensor resistance out of range.</li> </ol>	Page 24
Eight-three flash, three second pause	Gas valve electronics fault detected	<ol style="list-style-type: none"> <li>1. Control needs to be reset.</li> <li>2. Control is wet or physically damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Interrupt power supply</li> <li>2. Replace gas control, page 26</li> </ol>
Eight-four flash, three second pause	Gas valve fault detected.	<ol style="list-style-type: none"> <li>1. Control needs to be reset.</li> <li>2. Control is wet or physically damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Interrupt power supply</li> <li>2. Replace gas control, page 26</li> </ol>