



## Gas Valve LED Codes

GAS VALVE LED	STATUS/PROBLEM	PROBABLE CAUSE	SOLUTION
Short flash once every four seconds	Normal Operating Condition/ No Fault Condition	Water Temperature setpoint has been achieved	None required
"Heartbeat", alternates bright/dim	Calling For Heat/No Fault Conditions	Water temperature is below setpoint and burner is on	None required
One Flash, three second pause	Control still operating/ Low flame signal	<ul style="list-style-type: none"> <li>Pilot tube restricted or damaged</li> <li>Carbon build-up on pilot's electrode</li> <li>Pilot igniter wire damaged</li> <li>Gas supply problems</li> </ul>	<ul style="list-style-type: none"> <li>Replace Pilot assembly</li> <li>Correct gas supply</li> </ul>
Two Flashes, three second pause.	System in Lockout/Flue Damper Switch closed	<ul style="list-style-type: none"> <li>Flue Damper improperly sealed</li> <li>Flue Damper switch stuck closed</li> <li>Faulty Flue Damper motor</li> <li>Obstruction or debris in damper opening</li> </ul>	<ul style="list-style-type: none"> <li>Inspect Flue Damper wiring and connections</li> <li>Replace Flue Damper Assembly</li> <li>Contact a qualified service technician. See "IF YOU NEED SERVICE" on page 28</li> </ul>
Three Flashes, three second pause	System in Lockout/Flue Damper Switch open	<ul style="list-style-type: none"> <li>Flue Damper improperly installed</li> <li>Flue Damper switch stuck open</li> <li>Faulty Flue Damper switch</li> <li>Incorrect wiring and/or connections</li> <li>Faulty Flue Damper motor</li> <li>Obstruction or debris in damper opening</li> </ul>	<ul style="list-style-type: none"> <li>Inspect wiring and connections</li> <li>Replace Flue Damper Assembly</li> <li>Contact a qualified service technician. See "IF YOU NEED SERVICE" on page 28</li> </ul>
Four Flashes, three second pause	System in Lockout/ Thermal Cutoff Device tripped	<ul style="list-style-type: none"> <li>Thermal well fault in Gas Control (Thermostat)</li> <li>Gas Control (Thermostat) faulty</li> <li>Tank not filled with water</li> </ul>	<ul style="list-style-type: none"> <li>Reset Gas Control (Thermostat) and check for proper cycling of control.</li> <li>Replace Gas Control (Thermostat)</li> <li>Ensure tank is completely filled with water</li> </ul>
Five Flashes, three second pause	System in Lockout/No Flame Sense	Pilot and/or Main Burner valve has failed to open	Replace the Gas Control (Thermostat)
Six-One Flashes, three second pause	System in Lockout/ Unit failed to light	<ul style="list-style-type: none"> <li>Pilot flame unstable</li> <li>Pilot tube restricted or damaged</li> <li>Carbon build-up on pilot's electrode</li> <li>Pilot igniter wire damaged</li> <li>Gas supply problem(s)</li> </ul>	<ul style="list-style-type: none"> <li>Replace Pilot assembly</li> <li>Correct gas supply</li> </ul>
Six-Two Flashes, three second pause	System in Lockout/ Flue Damper Switch opened	<ul style="list-style-type: none"> <li>Improper Flue Damper installation</li> <li>Faulty Flue Damper switch</li> <li>Incorrect wiring and/or connections</li> </ul>	<ul style="list-style-type: none"> <li>Inspect Flue Damper wiring and connections</li> <li>Replace Flue Damper Assembly</li> <li>Contact a qualified service technician. See "IF YOU NEED SERVICE" on page 28</li> </ul>
Six-Three Flashes, three second pause	System in Lockout/ Flame Lost	<ul style="list-style-type: none"> <li>Combustion air supply restricted or blocked</li> <li>Pilot tube restricted or damaged</li> <li>Carbon build-up on pilot's electrode</li> <li>Pilot igniter wire damaged</li> <li>Gas supply problem(s)</li> </ul>	<ul style="list-style-type: none"> <li>Ensure combustion air supply is not blocked or restricted</li> <li>Replace Pilot assembly</li> <li>Correct gas supply</li> </ul>

## Gas Valve LED Codes cont....

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Six-Four Flashes, three second pause	System in Lockout/ Flame sense out of sequence	Gas Control (Thermostat's) valve stuck open	Replace Gas Control (Thermostat)
Seven Flashes, three second pause	System in Lockout/ Presence of Flammable Vapors detected	<ul style="list-style-type: none"> <li>Gasoline or other flammable vapor(s) were detected</li> <li>Faulty Flammable Vapor Sensor</li> <li>Faulty Gas Control (Thermostat)</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that no flammable vapor(s) are present</li> <li>Reset the Gas Control (Thermostat) using "ON/OFF" switch located on the front of the control</li> <li>Replace Flammable Vapor Sensor</li> <li>Replace Gas Control (Thermostat)</li> </ul>
Eight-One Flash, three second pause	System in Lockout/ Flammable Vapor Sensor fault detected	<ul style="list-style-type: none"> <li>Flammable vapor sensor values out of range</li> <li>Improper Flammable Vapor Sensor wiring and/or connection(s)</li> <li>Faulty Flammable Vapor Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Inspect the Flammable Vapor Sensor wiring and connection(s)</li> <li>Replace Flammable Vapor Sensor</li> <li>Replace Gas Control (Thermostat)</li> </ul>
Eight-Two Flashes, three second pause	System in Lockout/ Energy cutoff device fault detected	Thermal well fault in Gas Control (Thermostat)	<ul style="list-style-type: none"> <li>Inspect the wiring connection(s) to the thermal well</li> <li>Replace the thermal well</li> </ul>
Eight-Three Flashes, three second pause	System in Lockout/ Fault in the electronics circuit detected	<ul style="list-style-type: none"> <li>Thermal well fault in Gas Control (Thermostat)</li> <li>Faulty Gas Control (Thermostat)</li> </ul>	<ul style="list-style-type: none"> <li>Replace thermal well</li> <li>Replace Gas Control (Thermostat)</li> </ul>
Eight-Four Flashes, three second pause	System in Lockout/ Fault with the Gas Control (Thermostat)	<ul style="list-style-type: none"> <li>Gas Control (Thermostat) needs to be reset</li> <li>Gas Control (Thermostat) has been damaged</li> </ul>	<ul style="list-style-type: none"> <li>Cycle the power to the Gas Control (Thermostat)</li> <li>Replace the Gas Control (Thermostat)</li> </ul>

**⚠ CAUTION:** Make certain power to water heater is "OFF" before removing protective cover FOR ANY REASON.

**⚠ CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. VERIFY PROPER OPERATION AFTER SERVICING.

**⚠ CAUTION:** For your safety DO NOT attempt repair of gas piping, remote control, burners, vent connectors or other safety devices. Refer repairs to qualified service personnel.

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