

SERVICE MANUAL SUPPLEMENT – QUICK SERVICE GUIDE FOR D-SERIES AND RG*D-SERIES PRODUCTS

DAMPER EQUIPPED ATMOSPHERIC WATER HEATERS - ICON

Error Code	Definition	Service Action	Possible Parts Needed
No LED	No power to the unit or switch is off	Turn heater on Verify 120 volts present at outlet	None
One short flash every four seconds	Standby mode / unit up to temp.	None	None
Bright / dim alternating LED	Thermostat calling for heat	None	None
Short flash once every second	Weak pilot signal on last call for heat	Inspect and clean pilot assembly Check continuity on flame sensor / spark wire	1) Pilot assembly 2) Gas valve
Two flashes and three second pause	Damper not in proper position or malfunctioning: Damper stuck in open position	Check damper / vent for blockage Verify voltage to damper	1) Damper 2) Gas valve
Three flashes and three second pause	Damper not in proper position or malfunctioning: Damper stuck closed / not reaching full open position	Check damper / vent for blockage Verify voltage to damper Bypass damper for testing	1) Damper 2) Gas valve
Four flashes and three second pause	High tank temperature	Check temp probe ohms - compare with sensor temp chart	1) Thermowell 2) Gas valve
Five flashes and three second pause	False pilot flame sensed / pilot valve stuck open	Check for flame sensor short to ground Gas valve stuck open - replace valve	1) Pilot assembly 2) Gas valve
Six flashes - one flash and three second pause	Pilot failed to light	Inspect and clean pilot, check connection at gas valve Verify gas flow	1) Pilot assembly 2) Gas valve
Six Flashes - two flashes and three second pause	Damper moved from full open position during run cycle (System auto resets after (5) minutes)	Check damper / vent for blockage Verify voltage to damper Bypass damper for testing	1) Damper 2) Gas valve
Six Flashes - three flashes, three second pause	Pilot flame extinguished	Inspect and clean pilot, check connection at gas valve	1) Pilot assembly 2) Gas valve
Six Flashes - four flashes, three second pause	False pilot flame sensed / pilot valve stuck open	Check for flame sensor short to ground Verify gas valve stuck open - replace valve	1) Pilot assembly 2) Gas valve
Seven flashes	Flammable vapor sensor out of specification Resettable thermal limit in open position	Verify vapor sensor resistance is between 3.0 - 48 KOhms Check continuity on temp limit / clean intake screen Verify no flammable vapors present Check sensor and limit harness	1) Flammable vapor sensor 2) Resettable thermal limit 3) Harness
Eight flashes - one flash, three second pause	Flammable vapor sensor out of spec, possible short	Verify vapor sensor resistance is between 3.0 - 48 KOhms Verify no flammable vapors present Check sensor and limit harness	1) Flammable vapor sensor 2) Resettable thermal limit 3) Harness
Eight flashes-two flashes, three second pause	Thermowell sensor damaged or unplugged	Check temp probe ohms-compare with sensor temp chart	1) Gas valve
Eight flashes - three flashes, three second pause	Gas valve electronics fault	Reset gas valve; if problem persists replace gas valve	1) Gas valve
Eight flashes - four flashes, three second pause	Gas valve fault detected	Reset gas valve; if problem persists replace gas valve	1) Gas valve

NOTE: Check all wire connections
Check gas inlet and manifold gas pressure
Check for grounding connections