

SERVICE MANUAL SUPPLEMENT – QUICK SERVICE GUIDE FOR PV-SERIES, PDV-SERIES, AND RG*F-SERIES PRODUCTS

POWER VENT, POWER DIRECT VENT, & FAN ASSISTED WATER HEATERS - ICON

| Error Code | Definition | Service Action | Possible Parts Needed |
|--|--|--|--|
| No LED | No power to the unit or switch is off | Turn power 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 | 1) Pilot assembly 2) Gas valve |
| Two flashes three second pause | Pressure switch not working - closed position | Inspect pressure switch tubing and ports Bypass pressure switch & temp switch for testing Measure vacuum on pressure switch | 1) Pressure switch 2) Temp switch |
| Three flashes three second pause | Pressure switch or temp switch stuck open | Check vent for blockage Verify blower spinning up to speed Measure vacuum on pressure switch Inspect pressure switch tubing and ports Bypass pressure switch & temp switch for testing | 1) Pressure switch 2) Temp switch 3) Blower assembly 4) Gas valve |
| Four flashes three second pause | High tank temperature | Check temp probe ohms - compare with sensor temp chart | 1) Thermowell 2) Gas valve |
| Five flashes 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, three second pause | Pilot failed to light | Inspect and clean pilot Verify gas flow Check connection at gas valve | 1) Pilot assembly 2) Gas valve |
| Six flashes - two flashes, three second pause | Pressure switch or temp switch opened during operation | Check vent for blockage Measure vacuum on pressure switch Verify blower spinning up to speed Bypass pressure switch & temp switch for testing | 1) Pressure switch 2) Temp switch 3) Blower assembly |
| 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 Gas valve stuck open - replace valve | 1) Pilot assembly 2) Gas valve |
| Seven flashes | Flammable vapor sensor/simulated resistive device fault | Verify resistance is between 3.0 - 48 KOhms Verify no flammable vapors present Check sensor harness | 1) Flammable vapor sensor 2) Harness |
| Eight flashes - one flash, three second pause | Flammable vapor sensor out of spec, possible short | Verify resistance is between 3.0 - 48 KOhms Verify no flammable vapors present Check sensor harness | 1) Flammable vapor sensor 2) Harness 3) Gas valve |
| 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