TECHNICAL SERVICE DEPARTMENT
Technical Service Bulletin
1-800-432-8373

Electronic Spark PowerVent Troubleshooting Table

NATURE OF TROUBLE	POSSIBLE CAUSES	SERVICE
No Hot Water	1. Electrical supply turned off 2. Gas supply turned off 3. Pilot not lit 4. Main burner not lit	Check fuse panel and on/off switch Turn on gas supply Check 1 and 2 above. Then see Unable to light pilot and Pilot does not stay lit See Main burner will not stay lit
Not Enough Hot Water	1. Thermostat set too low 2. Burner orifice is clogged 3. Low gas pressure 4. Venting downdraft (or other improper draft) 5. Clogged flue 6. Thermostat out of calibration 7. Defective dip tube 8. Heater is undersized	Adjust thermostat Inspect and clean Check gas supply pressure and manifold pressure Check for proper up draft venting. Check for other drafts that could blow out the pilot light Inspect and clean flue way Conduct partial draw test. Reseat thermostat in bracket Check and replace dip tube Adjust Peak Hour Demand
Unable to light pilot (and I don't hear the spark ignitor) or (but I can hear the spark ignitor)	1. Thermostat or ECO is damaged 2. Transformer does not produce 24V 3. Vacuum safety switch damaged 4. Blower motor does not run 5. Gas supply turned off 6. Ignition control module damaged 7. Gas cock knob dial not positioned correctly 8. Gas control valve damaged 9. Pilot burner orifice clogged 10. Pilot tube pinched or clogged 11. Air in gas line 12. Spark gap to large 13. Spark ignitor damaged	Check for both thermostat and ECO; replace thermostat Check transformer and replace Check vacuum switch and replace; check vacuum from blower motor and repair Check blower motor and replace Turn on gas supply Check ignition module and replace Check lighting instructions. Set control knob Check gas control valve and replace Clean or replace Clean, repair or replace Purge air from gas line Check spark gap and reset to 1/8" Check spark ignitor and replace
Pilot does not stay lit	1. Venting downdraft (or other improper draft) 2. Clogged flue 3. Pilot partially clogged 4. Improper gas pressure 5. Improper ground 6. Spark ignitor is damaged, dirty or has loose connection 7. Poor flame rectification	Check for proper up draft venting. Check for other drafts that could blow out the pilot light Inspect and clean flue way Inspect and clean supply tube and pilot burner Check and adjust supply side Check grounding of pilot burner and main burner Check, repair or replace spark ignitor Check that pilot flame covers the flame rod and is steady and blue
Main burner will not stay	1. Low gas pressure	Check gas supply pressure

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lit	2. Main burner orifice clogged 3. Main burner supply tube clogged or pinched 4. Improper venting 5. Poor flame rectification	Clean or replace Clean, repair or replace Check venting for proper sizing and down drafts Check that pilot flame covers the flame rod and is steady and blue
Scale on burner and pilot assemblies	1. Condensation 2. Contaminated atmosphere	Excessive condensation caused by undersized heater, poor venting or continued use Check for contaminant causing chemicals near the heater
Sooting	1. Combustion air inlets or flueway is restricted 2. Not enough combustion or ventilation air supplied to room 3. Improper gas pressure 4. Burner orifice dirty	Remove obstruction or debris from heater or flueway Improve combustion air or ventilation air supply Check and adjust Inspect and clean
Yellow flame	1. Scale on top of burner 2. Burner orifice dirty 3. Flue way clogged 4. Improper gas pressure 5. Not enough combustion or ventilation air supplied to room	Shut off heater; allow to cool; clean burner plate Inspect and clean Inspect and clean Check and adjust Improve combustion air or ventilation air supply
Burner flame noisy (whistling)	1. Improper gas pressure 2. Burner orifice dirty	Check and adjust Inspect and clean
Burner flame floats	1. Improper gas pressure 2. Wrong orifice 3. Clogged flue	Check and adjust Install correct orifice Inspect and clean flue way
Burner flame too high	1. Improper gas pressure 2. Wrong orifice	Check and adjust Install correct orifice
Water too hot	1. Thermostat setting too high 2. Thermostat out of calibration	Adjust thermostat to lower setting Check and replace thermostat
Slow hot water recovery	1. Burner orifice clogged 2. Excessive drafts 3. Clogged flue 4. Improper gas pressure	Check and clean Locate and eliminate drafts Clean flue chamber Check and adjust
Noisy water heater (rumbling and sizzling)	1. Scale or sediment build up in bottom of tank 2. Baffles loose 3. Condensation on main burner	Clean tank Reset and tighten Inspect for condensation (normal) and tank leaks
Excessive relief valve operation	1. Excessive water pressure 2. Excessive temperature	Install proper pressure reducing valve on cold side. Check for open or closed system. Install expansion tank. Check thermostat; lower setting or replace

Rusty or black water	1. Anode rod dissolved	Check anode rod and replace

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	2. Excessive sediment build-up	Drain tank; replace tank if sediment build up is excessive
Water heater is leaking	1. Cold in or hot out joints 2. T&P valve 3. Inner tank has a pin hole	Check joint and repair Check valve and replace Replace water heater
Smelly water (rotten egg odor)	Bacteria formation inside water tank	Clean tank using chlorine bleach Replace anode rod if deteriorated Add automatic chlorine feeder to cold water inlet side of tank
Milky water	Aerated water	Allow a glass of hot water to set for a few minutes. If the water turns clear, the condition is a natural occurrence. See water chemistry section.