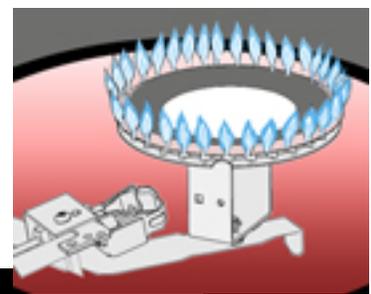


Gas Water Heater Troubleshooting Guidelines



These guidelines should be utilized by a qualified service agent.

Problem	Cause	Solution
WATER LEAKS	Improperly sealed, hot or cold supply connection, relief valve, drain valve, or thermostat threads.	Tighten threaded connections.
	Leakage from other appliances or water lines.	Inspect other appliances near water heater.
	Condensation of flue products.	Refer to CONDENSATE.
LEAKING T&P VALVE	Thermal expansion in closed water system.	Install thermal expansion tank (DO NOT plug T&P valve).
	Improperly seated valve.	Check relief valve for proper operation (DO NOT plug T&P valve).
SMELLY ODORS	High sulfate or mineral content in water supply.	Drain and flush heater thoroughly, then refill.
	Bacteria in water supply.	Chlorinate or aerate water supply.
PILOT WILL NOT LIGHT	Gas control knob not positioned correctly.	Refer to LIGHTING INSTRUCTIONS.
	Main gas supply off.	Turn on main gas Shut-off valve.
	Igniter tip more than 1/8" from pilot hood.	Adjust igniter tip.
	Thermocouple malfunction.	Replace pilot assembly.
	Thermocouple TCO malfunction.	Replace pilot assembly.
	Melted insulation on ignitor wire or shorting of ignitor wire.	Contact a service agency to determine cause.
	High ambient room temperature.	Contact a service agency to determine cause.
	Wire disconnected from spark ignitor.	Reconnect wire connector to spark ignitor.
	Broken electrode or electrical wire.	Replace pilot assembly.
	Piezo Ignitor generator fails to operate or malfunctions.	Replace Piezo Ignitor generator.
BURNER WILL NOT STAY LIT	Thermocouple TCO malfunction.	Replace pilot assembly.
	High ambient room temperature.	Contact a service agency to determine cause.
	Dirty or clogged air intake screen.	Clean and reinstall air intake screen.
	Flame arrestor openings blocked.	Contact a service agency to determine cause.
	Defective Gas Control.	Replace Gas Control.
PILOT OUTAGE	Dirty pilot burner.	Clean pilot assembly.
	Dirty or clogged air intake screen.	Clean and reinstall air intake screen.
	Thermocouple tip is not in contact with pilot flame.	Insert thermocouple correctly.
	Thermocouple malfunction.	Replace pilot assembly.
	Thermocouple TCO malfunction.	Replace pilot assembly.
	Defective Gas Control.	Replace Gas Control.
NOT ENOUGH HOT WATER	Heater not lit or thermostat not on.	Refer to LIGHTING INSTRUCTIONS.
	Thermostat set too low.	Refer to TEMPERATURE REGULATION.
	Heater undersized.	Reduce hot water use.
	Low gas pressure.	Contact your gas supplier.
	Incoming water is unusually cold.	Allow more time for heater to re-heat.
	Leaking hot water pipes or fixtures.	Have plumber check and repair leaks.
	High temperature limit switch activated.	Contact a service agency to determine cause.
WATER TOO HOT	Thermostat set too high.	Refer to TEMPERATURE REGULATION.
WATER HEATER SOUNDS	Condensation dripping on burner.	Refer to CONDENSATE above.
SIZZLING - RUMBLING	Sediment or calcium in bottom of heater tank.	Clean sediment from tank. Refer to DRAINING instructions in Maintenance section of manual.
SOOTING	Improper combustion.	No adjustment available. Contact a service agency to determine cause.
VENT GAS ODORS	Lack of supply air.	Contact a service agency to determine cause.
	Improperly installed vent piping.	
	Downdraft.	
	Poor combustion.	

Gas Water Heater Troubleshooting

Leaking water heater/ leaking TP valve

<http://waterheatertimer.org/Leaking-water-heater.html>

Rumbling

<http://waterheatertimer.org/Clean-sediment-out-of-water-heater.html>

Smelly odors

<http://waterheatertimer.org/Replace-anode-rod.html>

Temperature

<http://waterheatertimer.org/How-to-adjust-water-heater-temperature.html>

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

Costs

<http://waterheatertimer.org/How-much-does-it-cost-to-run-water-heater.html>

Estimated cost for operating Gas water heater (2010)

Size 40-50 gallon	Energy factor	Natural Gas	LP Gas
	.56	\$ 315	\$530
	.60	\$ 300	\$500
	.67	\$ 280	\$475
	.82	\$ 225	\$380

All Costs are energy, so total energy-cost equals cost of water heater, plus installation, plus expected repairs-and-parts, plus water softener-and-filter, plus disposal-recycling cost, divided by years of tank life. These numbers are added to monthly energy cost to measure true energy cost & efficiency of a water heater.

Government/industry efficiency numbers consider only energy cost per gallon of heated water.

