



TROUBLESHOOTING GUIDE

Residential Direct Vent Gas-Fired Water Heaters (Meet The FVIR Technology Standards)

CONDITION	CAUSE	REMEDY
The burner will not ignite.	No gas.	Check with gas utility company.
	Dirt in gas line.	Notify utility. Install drip leg in gas line.
	Pilot line clogged.	Clean. Check for source of trouble and correct.
	Main burner line clogged.	Clean. Check for source of trouble and correct.
	Defective thermocouple.	Replace with new thermocouple.
	Defective gas control valve.	Replace with new gas control valve.
	Gas control valve set too low.	Turn temperature dial to desired temperature.
The burner flame floats and lifts off ports.	High gas pressure.	Check with gas utility company.
	Orifice too large.	Replace with correct orifice.
	Flue clogged.	Clean. Check for source of trouble and correct.
The burner flame is yellow and lazy.	Insufficient secondary air.	Check that the vent-air intake terminal is not blocked.
	Flue clogged.	Clean. Check for source of trouble and correct.
	Main burner line clogged.	Clean. Check for source of trouble and correct.
The burner flame is too high.	Insufficient secondary air.	Check that the vent-air intake terminal is not blocked.
	Orifice too large.	Replace with correct orifice.
	Defective gas control valve.	Replace with new gas control valve.
The flame burns at the orifice.	Low gas pressure.	Check with gas utility company.
	Defective gas control valve.	Replace with new gas control valve.
The pilot will not light or remain lit.	No gas.	Check with gas utility company.
	Dirt in gas line.	Notify utility. Install dirt leg in gas line.
	Pilot line clogged.	Clean. Check for source of trouble and correct.
	Loose thermocouple connection.	Tighten with fingers then take 1/4 turn with wrench.
	Defective thermocouple.	Replace with new thermocouple.
	Gas control valve E.C.O. has tripped.	Replace with new gas control valve.
	Defective igniter.	Replace igniter assembly.
High operating costs.	Gas control valve set too high.	Turn temperature dial to desired temperature.
	Sediment or lime in tank.	Drain. Check to see if water treatment is necessary.
	Water heater is undersized.	Install size of water heater that meets demand.
	Wrong piping connections.	Correct piping, dip tube must be in cold inlet.
	Leaking faucets.	Repair faucets.
	Gas leaks.	Check with gas utility company. Repair at once.
	Wasted hot water.	Advise consumer.
	Long runs or exposed piping.	Insulate piping.
	Hot water piping on outside wall.	Insulate piping.
Insufficient hot water.	Low gas pressure.	Check with gas utility company.
	Wrong piping connections.	Correct piping, dip tube must be in cold inlet.
	Sediment or lime in tank.	Drain. Check to see if water treatment is necessary.
	Water heater is undersized.	Install the size of water heater that meets the demand.
	Gas control valve set too low.	Turn temperature knob to desired temperature.
	Leaking faucets.	Repair faucets.
	Wasted hot water.	Advise consumer.
	Long runs or exposed piping.	Insulate piping.
	Hot water piping on outside wall.	Insulate piping.

In accordance with our company policy of on-going product improvement, Giant Factories Inc. reserves the right to make changes without prior notice.

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CONDITION	CAUSE	REMEDY
Slow hot water recovery.	Insufficient secondary air.	Check that the vent-air intake terminal is not blocked.
	Low gas pressure.	Check with gas utility company.
	Gas control valve set too low.	Turn temperature dial to desired temperature.
	Improper calibration.	Replace gas control valve.
	Flue clogged.	Clean. Check for source of trouble and correct.
	Water heater is undersized.	Install size of water heater that meets demand.
	Wrong piping connection.	Correct piping, dip tube must be in cold inlet.
	Wasted hot water.	Advise consumer.
Leaking water.	Poorly sealed, hot or cold water connections, gas control valve threads, relief valve, or drain valve.	Tighten threaded connections.
	Leakage from plumbing system or other appliances.	Inspect plumbing system and other appliances.
	Condensation.	Refer to Condensation in the installation manual.
Water drips from the relief valve.	Heater stacking.	Lower gas control valve setting.
	Excessive water pressure.	Install a pressure-reducing valve.
	Thermal expansion in a closed water system.	Install an expansion tank.
	Improperly seated valve.	Check if relief valve works properly and replace, if necessary.
The gas control valve fails to shut off.	Defective gas control valve.	Replace with new gas control valve.
	Improper calibration.	Replace gas control valve.
Condensation.	Water heater filled for the first time.	Let water heater warm up. Problem should go away. If it persists, check all plumbing connections for leaks.
	Heavy draws of hot water with very cold refill water.	Let water heater warm up. Problem should go away. If it persists, check all plumbing connections for leaks.
	Water heater is undersized.	Install size of water heater that meets demand.
Combustion.	Insufficient secondary air.	Check that the vent-air intake terminal is not blocked.
	Flue clogged.	Clean. Check for source of trouble and correct.
Smoking and carbon formation (sooting).	Insufficient secondary air.	Check that the vent-air intake terminal is not blocked.
	Low gas pressure.	Check with gas utility company.
	Burner flame yellow and lazy.	Refer to The burner flame is yellow and lazy in the installation manual.
	Flue clogged.	Clean. Check for source of trouble and correct.
	Defective gas control valve.	Replace with new gas control valve.
The pilot flame is too small.	Low gas pressure.	Check with utility.
	Pilot line or orifice clogged.	Clean. Check for source of trouble and correct.
Smelly water.	High sulfate or mineral content in water.	Change magnesium anode to an aluminum anode and bleach tank.

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