

No Error Code on Tankless water heater

If no error codes, then following might help: **I: Read install and care manual** that came with unit

Each tankless manual recommends yearly maintenance by trained service technician.

Typical service checks gas pressure, bleeds air out of gas line, checks incoming water flow, unit temperature setting, incoming air flow, venting, clean burner parts and combustion chamber, inspect that vent condensate is not dripping into heat exchanger, proper venting, check electrical connections, etc. Causes for most common problems are usually covered during yearly service.

II: No error code indicates problem could be somewhere in plumbing system.

For example cold water mixing into hot water system, referred to as "cross connection" or 'crossover.'

There are a number of causes for crossover.

<http://waterheatertimer.org/Crossover.html>

- Faulty check valve or clogged valve on re-circulation return line
- Faulty shower cartridge
- Thermostatic mixing valve set too low
- Faulty thermostatic mixing valve
- Faulty anti-scald valve



Turn off water heater when working with fuel, paint, glue, and flammables

Easiest way to confirm crossover is to:

- 1) Shut off cold water entering tankless heater > this means no hot water will flow to faucet
- 2) Open hot water valves around the house, and wait for 10 minutes. No water should flow.
- 3) If water is flowing at hot water fixtures, then one or more faucets or valves has crossover.
- 4) Turn off all faucets except one faucet and put ear against each single handle faucet to locate bad faucet cartridge.

III: Other causes MIGHT include one or more of following:

Bad household circuit breaker, or loose wire or reversed polarity on electrical outlet. Test outlet with circuit analyzer

Tankless fuses. Bad PC control board.

Loose wire connection inside tankless.

Water flow rate too low. (depending on model)

Water filter clogged, or water softener clogged. Clean or change filters.

Crossover at single-handled faucet

If installed, there can be crossover at mixing valve.

Faulty household check valve, including check valve on re-circulation system if re-circ system is installed.

Restriction in household water line, such as sediment clog at elbow, or deteriorated connection between copper and galvanized pipe, clogged aerator, city water problem, waterlogged water well <http://waterheatertimer.org/Low-hot-water-pressure.html>

Unequal pressure in household hot and cold lines, caused by restriction in hot line. When single-handled faucet turns on, the cold water pressure is higher so hot does not flow and tankless will not turn on.

Unit temperature set too high. Tankless will not activate if unit cannot heat to desired temperature.

Unit temperature set too low. Tankless does not sense difference between thermostat setting and incoming water temperature.

Water temperature is set too high so water is very hot coming out of tap, so more cold is added to avoid scalding, but that reduces amount of hot water flow, so tankless turns off because flow rate is too low.

On some tankless, if water is preheated by solar or other indirect source, the burner will not activate. Check manual troubleshoot section to see if tankless unit supports indirect heating source.

High mineral content in water will coat heat exchanger > delime tankless yearly.

Temps over 140 will distill chemicals out of water.

Misaligned temperature sensor

Low gas pressure. Wrong type of gas. Undersized gas line.

Too many faucets on at same time.

Faulty tankless water valve. Water valve stuck.

Fluctuating household water pressure, for example MUD and PUD district with water pressure problems or water well pressure.

Faulty household pressure reducing/regulating valve if installed –or- pressure regulating valve needs to be installed.

Faulty household pressure tank, if installed -or- pressure tank needs to be installed.

Not enough combustion air, improper venting

More troubleshooting resources:

Rheem tankless: <http://waterheatertimer.org/Troubleshoot-Rheem-Tankless-water-heater.html>

You can repair most tankless problems yourself, same day, for \$350, any brand by installing typical tank-type gas water heater purchased at local box store or hardware: <http://waterheatertimer.org/How-to-install-gas-water-heater.html>

Does not apply to tankless that is 'power vented' through sidewall vent pipe. Generally, local box stores do not carry power vent model, instead typical 'atmospheric' or 'direct vent models' are available. These models vent through the roof or chimney vent stack: