

Tankless Water Heater Maintenance Checklist

10-Point Preventive Operations & Descaling Protocol for Lowcountry Homeowners

Why Tankless Care Matters in Charleston: Municipal water carries 3–5 GPG of mineral hardness. Calcium scale builds up on heat exchangers, causing efficiency loss, fault codes (e.g., Rinnai LC or Rheem 1L), and premature failure. Following this 10-point checklist preserves active warranties and protects your unit's 20-year lifespan.

1. Daily Leak & Moisture Visual Inspection

DAILY / WEEKLY

Check gas lines, cold/hot water piping, and isolation valves for active drips, condensation, or corrosion. Keep surrounding flooring dry.
2. Monitor Diagnostic Controller for Fault Codes

WEEKLY

Inspect digital controller for maintenance alerts (e.g., Rinnai LC/11/12/63, Navien E003/E004, Rheem 1L). Clear codes early to prevent shutoffs.
3. Clean Cold Water Inlet Sediment Filter Screen

MONTHLY

Close cold water valve, drain line pressure, remove inlet filter screen, rinse trapped sediment under water, and reinstall to ensure required flow.
4. Inspect and Clean Air Intake Filter & External Vents

MONTHLY

Clear outdoor exhaust/intake vents of debris, lint, or salt buildup. Brush lint from internal intake air filter screen to maintain combustion airflow.
5. Set Thermostat to Optimal 120°F Operating Range

QUARTERLY

Keep thermostat locked at 120°F (or below). Temps above 120°F exponentially accelerate heat exchanger scaling, energy costs, and scald risk.
6. Test Temperature Pressure Relief (TPR) Safety Valve

QUARTERLY

Lift TPR valve lever to verify free discharge through the safety line. Ensure valve reseats fully without dripping to avoid pressure hazards.
7. Verify Pure Sine Wave Battery Backup & GFCI Outlets

QUARTERLY / STORM

Test Pure Sine Wave UPS or LiFePO4 battery backup by disconnecting AC power to ensure auto-ignition during outages. Test wall GFCI buttons.
8. Perform Annual Heat Exchanger Chemical Descaling

ANNUAL PROTOCOL

Isolate unit, connect 1/10 HP pump kit to service ports, and circulate 3–4 gal of food-grade white vinegar or NSF descaler for 45–60 mins.
9. Post-Descaling Fresh Water Flush & System Reset

ANNUAL PROTOCOL

Rinse heat exchanger with potable water for 5 mins post-descaling. Reinstall clean filter screen, open main isolation valves, and reset fault codes.
10. Maintain Service Log & Inspect Scale Inhibitors

ANNUAL / ONGOING

Log flushing dates and solutions used. Inspect inline scale inhibitors or whole-house sediment filters to safeguard manufacturer warranties.

Annual Maintenance & Descaling Service Log

Date	Maintenance Task Performed	Descaling Solution Used	Technician / Owner