

Free checklist from Deepseal · usedeepseal.com/water-heater-maintenance-checklist · Version: October 2026 · Targets follow the A. O. Smith, Bradford White, Rheem, Rinnai, Navien and Noritz manuals, the Watts and Amtrol instructions, the 2021 International Plumbing Code, IFGC Appendix D and CPSC guidance. The manual and rating plate for the heater in front of you and the local code override every number printed here. Gas, venting and electrical items are for licensed technicians.

Water Heater Maintenance Checklist

Customer · site	[Customer] · [Street, City, State ZIP] · [Phone]	Date · technician	[Date] · [Name]
Heater type	☐ Gas tank, atmospheric ☐ Gas tank, power or direct vent ☐ Electric tank ☐ Heat pump (hybrid) ☐ Gas tankless, non-condensing ☐ Gas tankless, condensing	Fuel	☐ Natural gas ☐ Propane ☐ Electric [] V
Make · model · serial	[Make · model · serial]	Manufactured · age	[Date] · [] years
Size	[] gal · [] Btuh or [] W per element	Location	☐ Garage ☐ Basement ☐ Attic ☐ Closet ☐ Outdoor
Water	Hardness [] gpg or [] mg/L · ☐ Softener ☐ Scale treatment ☐ None	Service history	Last flush or descale [] · last anode check [] · ☐ None on record
This visit counts as	☐ Agreement visit [] of [], plan [] ☐ One-time service ☐ Repair call with maintenance		

How to use this sheet: section A on every heater. Section B for gas tanks, C for electric tanks and the elements in a heat pump water heater, D (flush and anode) for every tank, E for heat pump water heaters. Section F is the tankless page. Section G, findings and sign-off, on every visit. Fill every reading cell; a blank cell reads as "not measured" to the customer, to the warranty reviewer and to the next technician.

A. Every water heater

Task	Reading / target	Result
☐ Service history and age read before anything is drained. A tank with no flush on record, or a tankless unit years past its last descale, gets the risk explained first: an old drain valve may not reseal, and a neglected unit can start leaking after the flush. Customer's decision recorded	Age [] years · last flush or descale []	☐ Proceed, customer agreed ☐ Skip, noted
☐ Static water pressure at a hose bib or the drain valve	[] psi IPC 604.8: pressure-reducing valve required above 80 psi static · A. O. Smith training sheet: PRV at 50 to 60 psi; 60 psi or more in the daytime likely means over 80 at night	☐ OK ☐ PRV adjusted ☐ PRV needed
☐ Thermal expansion: check valve, PRV or backflow preventer on the supply? Expansion tank present on the cold side, downstream of all of them (IPC 607.3). Precharge read with the tank isolated and empty	Precharge [] psi · supply [] psi Amtrol and A. O. Smith: precharge equal to the cold supply pressure	☐ OK ☐ Recharged ☐ Waterlogged, replace ☐ None, needed
☐ Temperature and pressure relief valve (pressure relief valve on tankless): lever lifted, water flows freely, valve	Valve date [] Lift at least once a year (A. O. Smith,	☐ Pass ☐ No flow, replace ☐ Weeps, replace

Task	Reading / target	Result
reseats without weeping. Date stamped on the valve recorded	Bradford White, Rheem, Rinnai, Watts) · removed and inspected by a professional every 2 to 4 years (Watts), at least every 3 years (Amtrol), every 5 years (A. O. Smith web guide)	☐ Due for inspection
☐ Relief valve discharge pipe (IPC 504.6): full size of the valve outlet, no valve or tee, not trapped, flows by gravity, plain unthreaded end 6 in or less above the floor or receptor, visible to the occupants, not connected directly to a drain		☐ OK ☐ Corrected ☐ Quoted
☐ Drain pan where a leak would cause damage (IPC 504.7): at least 1-1/2 in deep, 3/4 in drain to an indirect receptor, floor drain or outdoors; no plastic pan under a gas heater	Pan size: 2 in larger than the heater (A. O. Smith) · 4 in larger than the diameter (Bradford White)	☐ OK ☐ n/a ☐ Recommended
☐ Hot water temperature at the closest tub or sink after the heater has recovered; thermostat setting recorded	Tap [] °F · setting [] CPSC and IFGC Appendix D: 120°F at the tap · CDC: above 120°F at the heater only with thermostatic mixing valves at the fixtures	☐ OK ☐ Lowered ☐ Mixing valve
☐ Earthquake straps high and low where the local code requires them (IFGC Appendix D)		☐ OK ☐ n/a ☐ Added
☐ Area: nothing stored against the heater or vent; no gasoline, solvent or paint in the room; 30 by 30 in level working space at the control side (IPC 502.5); gas burners and igniters in a garage at least 18 in above the floor (Bradford White)		☐ OK ☐ Corrected
☐ Leaks and corrosion: fittings, nipples, valves, element gaskets, tank top and base, rust streaks		☐ None ☐ Found []

B. Gas tank water heaters

Task	Reading / target	Result
☐ Gas leak check at the gas valve inlet, union and connector with soap solution or leak detector fluid, never a flame (Bradford White)		☐ No leaks ☐ Leak at []
☐ Inlet gas pressure with the burner firing	[] in w.c. · plate minimum [] Minimum on the rating plate (Bradford White: 1 in w.c. above manifold) · maximum 14 in w.c. (A. O. Smith, Bradford White) · Rheem low-NOx: 10.5 in w.c. natural gas	☐ In range ☐ Utility called
☐ Main burner and pilot flames through the sight glass; main burner lights smoothly from the pilot	Bradford White: blue, no yellow tips; flame lifting off the ports = too much air; soot = too little air; check at least	☐ OK ☐ Air shutter adjusted ☐ Soot, shut off

Task	Reading / target	Result
	every 6 months · A. O. Smith: soot means off until corrected	
☐ Burner, orifice and combustion chamber cleaned; combustion air openings clear; FVIR inspection covers, sight glass and gaskets intact and in place (IFGC Appendix D)	Bradford White: remove and clean the burner yearly · Rheem: replace the gaskets whenever the inner door comes off	☐ Cleaned ☐ Gaskets replaced
☐ Thermocouple or thermopile	[] mV · status LED [] Bradford White thermocouple, closed circuit: 10 mV or more (White-Rodgers), 13 mV or more (Robertshaw) · two-flash LED = low thermopile voltage (Resideo, SIT controls)	☐ OK ☐ Replaced
☐ Spillage test at the draft hood relief opening after 5 minutes of burner operation, match, candle or smoke (Rheem)		☐ Draws in ☐ Spills, shut off
☐ CO in the vent, air-free, after 5 minutes of main burner operation	[] ppm air-free IFGC Appendix D: water heater 200 ppm air-free maximum	☐ Pass ☐ Over 200, find cause
☐ Vent connector and vent: joints secured with sheet metal screws (A. O. Smith), no rust flakes on the tank top, no separation; chimney or termination clear; vent hood screen clean (Bradford White)	A. O. Smith: vent and burner inspected at least once a year	☐ OK ☐ Issue []
☐ Gas control thermostat taken through a full heating cycle; burner shuts off at set point	Bradford White: check thermostat operation yearly	☐ OK

C. Electric tanks (and heat pump water heater elements)

Task	Reading / target	Result
☐ Power off at the breaker and verified dead before the covers come off		☐ Done
☐ Element resistance, wires disconnected	Upper [] Ω · lower [] Ω Ohms = volts ² ÷ watts, within $\pm 6\%$ (Bradford White): 4,500 W at 240 V = 12.8 Ω	☐ OK ☐ Replace
☐ Element to ground: one probe on each terminal, the other on the element flange	No reading; any reading = grounded element, replace	☐ Pass ☐ Grounded
☐ Volts at the terminal block and amps on a call for heat	[] V · upper [] A · lower [] A Amps = watts ÷ volts: 4,500 W at 240 V = 18.75 A	☐ OK
☐ Upper and lower thermostats set to the same temperature (CPSC); operation and high-limit checked	Upper [] · lower []	☐ OK

Task	Reading / target	Result
☐ Element gaskets dry; terminals tight, no heat discoloration	Bradford White: check the element seals "bi-annually"	☐ OK ☐ Leak

D. Every tank: flush and anode rod

Task	Reading / target	Result
☐ Drain and flush: gas to pilot or off, power off, cold supply closed, hot faucet open, full-flow hose to a drain. Flush until the water runs clear. Refill and purge air from a hot faucet before power or gas is restored (an electric element fired dry fails)	Drained [] gal · water ☐ clear ☐ sediment ☐ milky A. O. Smith manual: drain and flush every 6 months · Bradford White: a gallon monthly · Rheem: a few quarts monthly · A. O. Smith training sheet: 2 to 3 gallons a year, the whole tank if milky	☐ Done ☐ Skipped, see A
☐ Drain valve closes without weeping; washer or valve replaced if not		☐ OK ☐ Replaced
☐ Anode rod pulled (A. O. Smith: 1-1/16 in socket) and measured	Core wire showing [] in · thinnest diameter [] in · ☐ Magnesium ☐ Aluminum ☐ Powered Replace: more than 6 in of core wire at either end (Rheem) · most of the rod under 3/8 in, or about 1/3 of its length showing wire (A. O. Smith) · Inspect: yearly (Rheem, A. O. Smith web guide), every 2 years (Bradford White), by year 3 then yearly (A. O. Smith manual); softened water: yearly	☐ OK ☐ Replaced ☐ Seized, noted
☐ Rotten-egg odor in the hot water noted; anode type discussed (Rheem: aluminum or powered anode)		☐ None ☐ Odor

E. Heat pump water heaters (with A, C and D)

Task	Reading / target	Result
☐ Air filter removed, washed with mild detergent and water, dried, replaced	Rheem and Bradford White: when the filter alert shows · Bradford White: a dirty filter drops the unit to electric-only mode	☐ Cleaned
☐ Condensate pan and drain line clear, water flows; a cup of bleach in the drain access once a year (Rheem)		☐ OK ☐ Cleared
☐ Operating mode and fault code history recorded; intake and discharge air paths unobstructed	Mode [] · codes []	☐ OK

F. Tankless water heaters (with section A)

Task	Reading / target	Result
☐ Error and diagnostic history read before anything is reset (Rinnai shows the last nine codes; LC = scale building up; SS = service reminder)	Codes []	☐ None ☐ Recorded
☐ Isolation (service) valves on the hot and cold lines, with flush ports (Rinnai "strongly recommends" them)		☐ Present ☐ Quoted
☐ Water hardness from a test or the utility report; treatment device present and serviced	[] gpg · [] mg/L Rinnai and Navien: 0 to 4 gpg (0 to 60 mg/L), no flush needed · 4 to 12 gpg (61 to 200 mg/L): Rinnai, flush once a year residential, twice a year commercial; Navien, flush where no treatment device is installed · over 12 gpg (200 mg/L), treatment required	☐ Soft ☐ Hard, treated ☐ Hard, untreated
☐ Descale: pump the solution through the heat exchanger between the service valves, then rinse with fresh water	Solution [] · [] gal · [] min · rinse [] min Rinnai: 4 gal undiluted white vinegar, at least 1 hour at 4 gpm · Navien: at least 45 min · Rheem: no more than 2 gal white vinegar, 45 min · Noritz: 1 gal descaler plus 1 gal water, 1 hour · rinse 5 min (Rinnai, Navien, Rheem), 3 min or more (Noritz)	☐ Done ☐ Not needed, soft water
☐ Inlet water filter (and recirculation inlet filter) removed, rinsed, reinstalled	Rheem: monthly · Noritz: about once a year · Rinnai, Navien: after every flush	☐ Cleaned
☐ Air intake filter or screen cleaned and dried	Navien: every 3 to 4 months (clogged filter = error 110)	☐ Cleaned ☐ n/a
☐ Condensing units: condensate trap cleaned; drain flowing and open to atmosphere (Rinnai); neutralizer media level and outlet pH	Outlet pH [] Navien: condensate pH 3 to 5 untreated · test the neutralizer outlet yearly, replace media below pH 6.0 or the local minimum	☐ OK ☐ Media replaced ☐ n/a
☐ Burner flame through the view port; burner and fan vacuumed if the flame is not right	Rinnai: clear, blue, stable flame covering the burner surface	☐ OK ☐ Cleaned
☐ Inlet gas pressure at full fire with every other gas appliance running	Static [] · full fire [] in w.c. Navien: natural gas 3.5 to 10.5, propane 8.0 to 13 in w.c. · Rinnai: not below 5.0 natural gas, 8.0 propane with all appliances at maximum input	☐ In range ☐ Low, piping or meter
☐ Vent and intake: joints, supports, terminations and screens clear of snow, nests and debris; no corrosion, separated	Navien: inspect annually	☐ OK ☐ Issue []

Task	Reading / target	Result
joints or melting		
☐ Freeze protection: unit on a powered circuit; drain-down kit or a drain plan for power outages (Rinnai)	Rinnai: protected to -22°F indoors and -4°F outdoors, out of the wind, only while powered	☐ OK ☐ Discussed
☐ Set point and outlet temperature; recirculation pump and schedule checked	Set [] °F · outlet [] °F IPC 501.6: tankless water for domestic use not over 140°F · Rheem: 120°F after a flush	☐ OK

G. Findings, recommendations and sign-off

Item	Condition found	Recommended action	Price	Approved
				☐
				☐
				☐

Overall: ☐ Safe to operate ☐ Safe, repairs recommended ☐ Unsafe, shut off and tagged (reason: _____)

Next flush or descale due	[Month, year]	Next anode check due	[Month, year]
Next relief valve inspection due	[Month, year]	Readings entered in the agreement record	☐ Yes
Technician	Name: _____ Signature: _____ Date: _____		
Customer acknowledgement	Name: _____ Signature: _____ Date: _____ Confirms the visit happened, the findings were explained and a copy of this sheet was received.		

Keep this sheet with the equipment record. The pressure, temperature, anode, gas and descaling readings are what the next visit compares against, and Rinnai, Navien, Noritz and Rheem all exclude scale or water-quality damage from the warranty, so the dated record of each flush is the customer's evidence. The plumbing maintenance agreement template and a free visit-tracking sheet are at usedeepsel.com.