

WATER HEATER PREVENTIVE MAINTENANCE CHECKLIST

(Monthly Visual Inspection)

Monthly Visual Inspection

For the Month of, Date

TASK	STATUS
Inspect unit exterior for rust, corrosion, mineral deposits, or moisture stains at base and connections.	
Check all pipe connections, fittings, and valve packing for drips or weeping.	
Verify thermostat setpoint is $\geq 140^{\circ}\text{F}$ (60°C) for commercial storage units (ASHRAE 188). Confirm with a calibrated thermometer — do not rely on the dial alone.	
Check T&P relief valve discharge pipe: verify it terminates to a safe drain and is fully unobstructed. Never cap or plug this pipe.	
Listen during the heating cycle for rumbling, banging, or crackling. Log any unusual sounds and schedule a flush.	
Inspect gas supply line for secure connections, shutoff valve operation, and absence of gas odor. Use an electronic gas detector — never an open flame.	
Check burner flame (gas units): should be blue and steady. Yellow or orange flame indicates incomplete combustion — contact a licensed technician.	
Inspect exhaust flue and venting (gas units) for corrosion, blockages, or disconnected joints. Verify draft is present.	
Check electrical connections and conduit (electric units) for heat damage, discoloration, or moisture intrusion. Verify GFCI protection in wet locations.	
Verify expansion tank air charge with a tire gauge (closed systems). Correct to match system static pressure.	
Measure and record hot water delivery temperature at the nearest fixture. Note any reading below 100°F (handwash sinks) or above 120°F at point of use.	
Additional Task:	

Instructions:

Complete every month for each commercial water heater unit. Note model number, serial number, and location at the top of each log page. Pay close attention to thermostat setpoint — ASHRAE 188 requires commercial facilities (especially hotels, senior living, and healthcare) to store hot water at $\geq 140^{\circ}\text{F}$ to prevent *Legionella pneumophila* growth. Always record actual delivery temperature with a calibrated thermometer, not just the thermostat dial reading.

WATER HEATER PREVENTIVE MAINTENANCE CHECKLIST

(Quarterly Flush & Safety Tests)

Quarterly Flush & Safety Tests

Year.....

TASK	1ST (JAN-MAR)	2ND (APR-JUN)	3RD (JUL-SEP)	4TH (OCT-DEC)
Perform a mini sediment flush: attach a hose to the drain valve, open briefly (30–60 seconds) to discharge 2–3 gallons until water runs clear. Partial flush only — do not fully drain.				
Test the T&P relief valve: lift the lever until water discharges into the drain pipe, then release. Valve must snap shut completely. Replace immediately if it continues to drip. (ASME/UL: activates at ≤150 psi / ≤210°F.)				
Check expansion tank (closed systems): verify air pre-charge with a tire gauge. Shake the tank — heavy or sloshing = waterlogged. A waterlogged tank causes excessive pressure swings.				
Inspect anode rod port (if accessible): note corrosion level on log. Replace if more than 6 inches of core wire is exposed.				
Check recirculation pump (if installed): verify pump is running, no unusual noise, and return loop temperature is ≥122°F (50°C) per ASHRAE 188.				
Inspect pressure-reducing valve (PRV) on supply line: verify setpoint is 50–80 psi and no pressure creep above setpoint.				
Additional Task:				

Instructions:

Perform once every quarter (every 3 months). The T&P relief valve test is the single most critical safety task on this page — ASME and UL standards require T&P valves to activate at or below 150 psi and 210°F. A T&P valve that has never been tested may have corroded shut, creating a serious overpressure hazard. Sediment mini-flushes every quarter significantly extend tank life in hard water areas. If water hardness exceeds 12 gpg (grains per gallon), increase flush frequency to monthly.

WATER HEATER PREVENTIVE MAINTENANCE CHECKLIST

(Annual Maintenance & Professional Service)

Annual Maintenance & Professional Service

Service Date:, Technician:

TASK	STATUS
Perform a full tank drain and sediment flush: shut off fuel/power and cold water supply, drain completely, flush until discharge runs clear.	
Inspect and replace the sacrificial anode rod: remove the hex head plug and inspect. Replace if core wire exceeds 6 inches exposed or rod diameter is under ½ inch.	
Clean the burner assembly (gas units): remove and clean main burner, pilot, and thermocouple. Inspect for soot, corrosion, or blocked ports.	
Inspect and clean heating elements (electric units): drain tank, remove elements, and check for scale coating or pitting. Replace any corroded element.	
Test the T&P relief valve under full professional inspection. Replace if over 5 years old regardless of visual condition.	
Inspect the dip tube: check for cracks or deterioration. A broken dip tube allows cold and hot water to mix, reducing effective capacity and delivery temperature.	
Check pipe insulation on all hot water supply lines: replace missing or damaged sections. Required for ASHRAE 90.1 energy code compliance.	
Inspect and clean the flue and draft diverter (gas units): remove soot, verify no corrosion penetrations, and test draft. Verify combustion efficiency with a combustion analyzer.	
Verify Legionella Water Management Plan (WMP) compliance (senior living, healthcare, hotels): confirm thermal disinfection cycles are documented and water sampling is logged per ASHRAE 188 / CMS.	
Have a licensed plumber or certified technician review, document findings, and sign off on annual maintenance. Retain report for warranty compliance.	
Additional Task:	

Instructions:

Perform once per year by a licensed plumber or certified commercial water heater technician. The anode rod inspection is non-negotiable — once the rod is depleted, the unprotected steel tank typically fails within 1–2 years. Replace the T&P relief valve every 5 years regardless of condition. For facilities subject to ASHRAE 188 (senior living, hotels, healthcare), verify the Legionella Water Management Plan is current and thermal disinfection is documented. Retain the completed annual service report for warranty compliance.

WATER HEATER PREVENTIVE MAINTENANCE CHECKLIST

(Temperature & Pressure Reference Log)

Temperature & Pressure Reference Log

Date: Inspector: Unit ID:

TASK	STATUS	STATUS
Storage tank thermostat setpoint — commercial facilities (ASHRAE 188 Legionella control)	≥ 140°F (60°C)	
Hot water delivery at point of use — general (anti-scald per OSHA / CPSC)	≤ 120°F (49°C)	
Hot water at handwashing sinks (FDA Food Code)	≥ 100°F (38°C)	
Hot water recirculation return loop temperature minimum (ASHRAE 188)	≥ 122°F (50°C)	
Commercial dishwasher wash cycle temperature (FDA Food Code / NSF 3)	≥ 150°F (66°C)	
Commercial dishwasher final rinse temperature at rack (FDA Food Code)	≥ 180°F (82°C)	
T&P relief valve rated activation pressure (ASME/UL standard)	≤ 150 psi	
T&P relief valve rated activation temperature (ASME/UL standard)	≤ 210°F (99°C)	
Cold water supply pressure at heater inlet (typical safe operating range)	50–80 psi	
Expansion tank air pre-charge (match system static pressure)	Per system design	
Additional Task:		

Instructions:

Use this page as a reference and verification record during monthly and quarterly inspections. Record actual measured temperatures with a calibrated thermometer — do not rely solely on thermostat dial readings, which can drift ±10°F or more. Commercial dishwasher final rinse temps must be verified at the rack level per FDA Food Code — booster heaters are typically required. Out-of-range readings must trigger corrective action before the next inspection cycle. ASHRAE 188 Legionella control: storage ≥140°F; recirculation return loop ≥122°F throughout all distribution piping.

WATER HEATER PREVENTIVE MAINTENANCE CHECKLIST

(Documentation & Compliance)

Documentation and Compliance

Date

TASK	STATUS
Maintain a monthly inspection log for each unit: date, inspector name, thermostat reading, T&P valve condition, any leaks or abnormal sounds.	
Record all quarterly flushes and T&P valve tests: date, water condition at flush, valve response, and corrective actions taken.	
File all annual service reports: findings, parts replaced, combustion analysis results (gas units), and technician signature.	
Log all temperature readings at point of use and at the heater outlet. Document corrective actions for any out-of-range readings.	
Maintain Legionella Water Management Plan (WMP) documentation: water sampling logs, thermal disinfection records, and annual WMP review sign-off (ASHRAE 188 / CMS).	
Retain manufacturer warranty documentation and confirm annual inspection requirements are being met.	
Document all water-damage insurance claims with maintenance history attached.	
Keep a parts log: anode rod material and replacement date; element wattage and replacement date; T&P valve rating and replacement date.	
Retain all records for the life of the equipment plus 3 years. Legionella-related records: 5 years minimum.	
<i>Additional Task:</i>	

Instructions:

Water heater maintenance records are critical for three reasons: (1) Warranty compliance – most commercial water heater manufacturers require documented annual maintenance as a condition of coverage; (2) Insurance claims – adjusters routinely reduce or deny claims when facilities cannot produce maintenance history showing the T&P valve, anode rod, and sediment management were regularly serviced; (3) Legionella liability – ASHRAE 188 compliance and CMS requirements for healthcare and senior living facilities require verifiable water management documentation. Retain all records for the life of the equipment.