

Free checklist from Deepseal · usedeepseal.com/furnace-maintenance-checklist · Version: September 2026 · Built on ANSI/ACCA 4 QM furnace tasks plus manufacturer service literature. Targets are typical field values; the rating plate and the manufacturer's instructions always win. For trained technicians.

Furnace Maintenance Checklist · Fall Heating Visit

Customer		Date	
Service address		Technician	
Make / model / serial		Age (years)	
Fuel and type	☐ Natural gas ☐ Propane ☐ Electric ☐ Oil · ☐ 80% ☐ 90%+ condensing	Stages	☐ Single ☐ Two ☐ Modulating
Ignition / filter size	☐ Hot surface ☐ Spark ☐ Standing pilot · Filter(s): _____	Agreement	☐ Yes, tier: _____ ☐ No
This visit counts as	☐ Heating visit, 2 of 2 ☐ Heating visit, 1 of 2 ☐ One-time tune-up		

1. Before touching anything

✓	Task	Target / what to look for	Reading / result
☐	Ambient CO in the living space, furnace running	0 ppm. 1 to 9: find the source. 35+: stop and ventilate. 100+: evacuate, call 911	_____ ppm
☐	Combustibles and stored items clear of cabinet and vent	Clearances per rating plate; 24" front service clearance	☐ OK ☐ Corrected
☐	Gas leak check: unions, drip leg, valve, flex connector	Chloride-free soap solution or electronic detector. Never a flame	☐ No leaks ☐ Leak found
☐	Watch the sequence of operation on a call for heat	Inducer, pressure switch closes, igniter warm-up, gas valve, flame proved, blower after delay	☐ Normal ☐ Fault: _____

2. Combustion side (gas furnaces)

✓	Task	Target / what to look for	Reading / result
☐	Heat exchanger: mirror or borescope, flame watch at blower start, then combustion analysis	No cracks, rust-through or bulges. Flame must not move when the blower starts. CO stays stable with the blower running	☐ Pass ☐ Suspect ☐ Condemn
☐	Burners and crossovers cleaned and aligned; flame check	Stable, quiet, blue, straight off the burner. Orange tips from dust are fine; yellow is not. No impingement	☐ OK ☐ Cleaned ☐ Issue
☐	Hot surface igniter: visual, then cold resistance	No cracks or white spots. Silicon carbide commonly 40 to 90 Ω ; silicon nitride far lower, about 11 to 17 Ω on common models. OL = replace. Compare to OEM	_____ Ω ☐ SiC ☐ SiN
☐	Flame sensor cleaned (fine steel wool or abrasive pad, wiped), burner ground checked	0.5 to 10 μ A DC depending on furnace; 2 to 6 μ A common. Under about 1 μ A: check rod, ground and wiring first	_____ μ A
☐	Inlet gas pressure, furnace running	Per rating plate. Natural gas typically 4.5 to 10.0" w.c.; propane about 11 to 13" w.c.	_____ " w.c.
☐	Manifold pressure, each stage	Per rating plate. Natural gas 3.2 to 3.8" w.c., set	High _____ Low _____

✓	Task	Target / what to look for	Reading / result
		3.5; propane 9.7 to 10.3" w.c., set 10.0	
☐	Inducer: amps, bearings, wheel, collector box	Amps within nameplate; no water, rust or debris in the housing	_____ A ☐ OK
☐	Pressure switch: tubing pulled and blown clear, port clear	Open with inducer off, closed with inducer on; no water or kinks in the tubing	☐ OK Set _____ " w.c.
☐	Limit switch and flame rollout switches	Continuity, no jumpers, mounted tight. Rollouts are often manual reset; note the type	☐ OK ☐ Replaced
☐	Combustion analysis after 10 minutes of run, each stage	80% induced draft, natural gas: O2 7 to 9%, CO2 6.5 to 8%, stack 325 to 400 °F, draft -0.02 to -0.04" w.c. CO air-free under 100 ppm; 100 to 400 repair; over 400 shut it down	O2 _____ % CO2 _____ % Stack _____ °F Draft _____ CO af _____ ppm
☐	Venting and combustion air	Connector rises toward the vent, joints tight, no rust streaks or condensate marks, termination clear, clearance to combustibles. Louvers and intake unobstructed	☐ OK ☐ Issue

3. Condensing furnaces (90%+), add these

✓	Task	Target / what to look for	Reading / result
☐	Condensate trap removed and flushed	Water flows from every port; hot water clears sludge. The trap is mandatory	☐ Cleaned
☐	Drain line, condensate pump, float switch, neutralizer	Sloped, no double trap, vented after the trap; pump moves water, float shuts the furnace off. Condensate is acidic (pH about 3 to 5); replace spent media	☐ OK ☐ Issue ☐ Media replaced
☐	PVC intake and exhaust	Joints sound, slope back to the furnace about 1/4" per foot, terminations clear and spaced	☐ OK ☐ Issue

4. Air side and electrical (all furnaces)

✓	Task	Target / what to look for	Reading / result
☐	Filter: size, fit, condition, airflow arrow	Replace if loaded. Record the size on the customer's record so the truck carries it next time	Size _____ ☐ Replaced
☐	Blower wheel and housing cleaned; motor amps; capacitor	Amps at or under nameplate FLA; capacitor within 6% of rated µF, no bulging	_____ A of _____ FLA · _____ µF of _____
☐	Temperature rise, high fire, after 15 to 20 minutes	Within the rating plate range (for example 35 to 65 °F). Supply probe a few feet downstream, out of sight of the heat exchanger	Ret _____ Sup _____ Rise _____ °F · Plate _____ to _____
☐	Total external static pressure	Most furnaces are rated 0.5" w.c. Return between filter and blower, supply between furnace and coil	Ret _____ + Sup _____ = _____ " w.c.
☐	Line and low voltage; connections; wire routing; board	Within nameplate; 24 V control; tight, no heat discoloration, no rubbing	_____ V / _____ V ☐ OK
☐	Thermostat, blower door switch, panels, humidifier if fitted	Full heat cycle on and off; door switch kills power; doors tight; pad, solenoid and drain	☐ OK ☐ Pad replaced

5. Electric furnace or heat strips

✓	Task	Target / what to look for	Reading / result
☐	Amps per stage against the kW rating	About $\text{kW} \times 1,000 \div \text{volts}$. A 5 kW strip pulls about 20 A at 240 V; 10 kW about 40 A	S1 ____ S2 ____ S3 ____ A
☐	Sequencer or contactor staging; thermal limits; lugs; blower interlock; temperature rise	Stages close in order; limits read low ohms, never OL; lugs tight, breaker matches MCA; strips cannot run without the blower	☐ OK ☐ Issue · Rise ____ °F

6. Oil furnaces

✓	Task	Target / what to look for	Reading / result
☐	Oil filter and nozzle replaced; strainer cleaned; electrodes gapped; cad cell timed	Nozzle size, angle and pattern per burner spec. Burner shuts off within 45 seconds with the cad cell blocked	Nozzle ____ · ____ s
☐	Pump pressure, smoke test, combustion analysis	Pump commonly 100 to 150 psi per spec. Smoke near zero. Overfire draft about -0.02" w.c. Stack over 450 °F on a clean unit suggests oversizing	____ psi · Smoke ____ · Draft ____ · O2 ____ % · CO ____ ppm · Stack ____ °F

7. Findings, recommendations and sign-off

Item	Condition found	Recommended action	Price after discount	OK?
				☐
				☐
				☐

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

Technician signature		Customer acknowledgement	
Next visit due		Service sticker applied	☐ Yes
Readings entered in the agreement record	☐ Yes	Filter size on record	☐ Yes

File this sheet with the customer's maintenance agreement record. Next year's tech compares against these readings, and the completed visit is what the customer paid for. Free companions: the HVAC maintenance agreement template and the agreement tracking spreadsheet at usedeepsel.com.