Heat Pump Maintenance Checklist

One sheet per outdoor unit. Use the cooling block in spring and the heating block in fall. Tick ☐ as you go, write every reading down, and give the customer a copy.

Customer	[Name] · [Phone] · [Email]
Service address	[Street Address, City, State ZIP]
Date / technician	[Date] · [Technician] · Time in [__:__] · Time out [__:__]
Visit	☐ Spring (cooling) ☐ Fall (heating) ☐ Both modes checked today · Agreement visit: ☐ 1 of 2 ☐ 2 of 2 ☐ Not on a plan
Outdoor unit	Make [____] Model [____] Serial [____] · Year [____] · ☐ Single stage ☐ Two stage ☐ Inverter / variable speed ☐ Cold-climate rated
Indoor unit	☐ Air handler ☐ Ductless head(s), count [__] · Make [____] Model [____] Serial [____]
Filter size(s)	[__ x __ x __] · Qty [__] · ☐ Replaced today ☐ Washable, cleaned · Date written on filter ☐
Refrigerant	Type ☐ R-410A ☐ R-454B ☐ R-32 ☐ R-22 ☐ Other [____] · Factory charge [____] oz · Line set length [____] ft
Auxiliary heat	☐ Electric strips [____] kW, [__] stages ☐ Gas furnace (dual fuel) ☐ None · Thermostat make/model [____]
Conditions at visit	Outdoor dry bulb [____] °F · Indoor dry bulb [____] °F · Indoor wet bulb [____] °F · Weather ☐ Dry ☐ Rain ☐ Snow on ground

1. Before you touch the equipment (every visit)

✓	Task	Reading / note
☐	Ask what the system has been doing: cold air in winter, ice on the outdoor unit, high bills, noise, short cycling.	
☐	Thermostat set up as a heat pump; reversing valve terminal matches the unit (most units energize in cooling on O).	☐ O ☐ B
☐	Auxiliary heat lockout and compressor lockout recorded. Utility programs want aux lockout at 35 °F or lower.	Aux lockout [____] °F · Compressor lockout [____] °F or ☐ none
☐	Return air and supply registers open and unblocked; filter rack sealed.	
☐	Breaker and fuse sizes match the nameplate for the outdoor unit and the heat kit.	ODU [____] A · Heat kit [____] A

2. Outdoor unit (every visit)

✓	Task	Reading / target
☐	Power off at the disconnect; confirm with a meter before opening the panel.	
☐	Coil washed from the inside out; fins straight; no cottonwood, grass or dryer lint.	☐ Clean ☐ Cleaned today ☐ Needs chemical clean
☐	Clearance: 2 ft to shrubs and fences on all sides, open above. Winter: unit sits above the snow line, no ice under the base.	Clearance [____] in · Riser height [____] in
☐	Base pan drain ports open so defrost water leaves the pan instead of freezing in it.	
☐	Unit level and mounted solid; no rubbing lines; line set insulation intact.	
☐	Fan blade, motor mount and guard: no cracks, no wobble; motor amps under nameplate.	Fan FLA [____] · Actual [____] A
☐	Contactor: no pitting, no chatter; all lugs tight, no heat discoloration.	
☐	Run capacitor measured under load or with a meter, within 6% of the rating.	Rated [____] µF · Actual [____] µF
☐	Line voltage at the contactor, both legs.	[____] V (nameplate range [____])
☐	Compressor running amps versus RLA; inverter units: read from the board or app.	RLA [____] · Actual [____] A
☐	Crankcase heater: warm shell with the compressor off, or ohms across the leads (no OL).	☐ Warm ☐ [____] Ω ☐ None fitted
☐	Oil at brazed joints, service valves and Schrader cores; caps on and tight.	☐ Dry ☐ Oil at [_____]

✓	Task	Reading / target
☐	Defrost board: no burnt spots; sensor or thermostat clipped tight to the coil tube where the manual says.	

3. Indoor unit (every visit)

✓	Task	Reading / target
☐	Filter replaced or washed; size and date written on it.	
☐	Indoor coil inspected with a light and mirror; cleaned if you can see dirt on the fins.	☐ Clean ☐ Cleaned today ☐ Quote pull-and-clean
☐	Blower wheel and housing clean; motor amps under nameplate; ECM motor reports no faults.	Blower FLA [____] · Actual [____] A
☐	Blower capacitor (PSC motors) within 6% of rating.	Rated [____] · Actual [____] µF
☐	Drain pan flushed, trap primed, line cleared, pan treatment added; float switch tested by lifting it.	☐ Float switch trips
☐	Total external static pressure: return plus supply, filter in place.	Return [____] · Supply [____] · TESP [____] in wc (target 0.5 or less)
☐	Heat kit lugs and sequencer terminals tight; no browned wire insulation.	
☐	Ductwork: visible disconnects, crushed flex, missing insulation, return leaks in attic or crawl.	

4. Cooling-mode readings (spring visit, or any day above about 65 °F)

Run the system 10 to 15 minutes in cooling first. Use the manufacturer's charging chart. If the outdoor temperature is under 65 °F, note it and do the heating block instead of forcing a charge check.

Reading	Measured	Target
Outdoor dry bulb / indoor dry bulb / indoor wet bulb	[____] / [____] / [____] °F	Needed to read the chart
Suction pressure and suction line temperature	[____] psig · [____] °F	Per chart for these conditions
Superheat (fixed orifice) or subcooling (TXV / EEV)	SH [____] °F · SC [____] °F	Chart or nameplate; TXV subcool ±3 °F
Liquid pressure and liquid line temperature	[____] psig · [____] °F	Per chart
Supply air and return air dry bulb; temperature split	[____] / [____] · ΔT [____] °F	Delta T chart for the indoor wet bulb, ±3 °F
Reversing valve: cool call shifts the valve (click, pressures move)	☐ Shifts	Suction-to-suction line difference 3 to 5 °F or less
Compressor amps / condenser fan amps / blower amps	[____] / [____] / [____] A	Under nameplate
Condensate flowing at the drain termination	☐ Yes	

5. Heating-mode readings (fall visit)

Run the system 10 to 15 minutes in heating. Below 65 °F outdoors, treat the manufacturer's heat-mode chart as a guideline only. If the charge is in doubt, the accurate fix is recover, evacuate and weigh in the nameplate charge plus the line-set allowance.

Check	Measured	Target
Reversing valve shifts to heat; discharge gas goes to the indoor coil	☐ Shifts	Line-to-line difference across the valve 3 to 5 °F or less
Suction pressure / liquid pressure in heat	[____] / [____] psig	Manufacturer heat-mode chart for outdoor and indoor DB
Discharge line temperature over outdoor ambient	[____] °F over	About 100 to 110 °F over ambient on a healthy charge
Supply air temperature at the nearest register	[____] °F	Varies with outdoor temp; record it and compare with last visit
Forced defrost: use the board's test pins or speed-up tap	☐ Initiated	Valve shifts to cooling, outdoor fan stops, 24 V on O to C and on W2 to C, aux heat energizes
Defrost terminates and fan restarts	[____] min	Ends on coil temperature or the time limit (about 10 min max on most boards)
Defrost sensor or thermostat	[____] Ω at [____] °F	Resistance matches the manufacturer's table for that temperature
Aux heat stage 1 amps / stage 2 amps / stage 3 amps	[____] / [____] / [____] A	About 20 A per 5 kW at 240 V (kW × 1000 ÷ volts)
Sequencer staging: strips come on in order, blower runs before strips	☐ Staged ☐ Interlock OK	Never strips without blower

Check	Measured	Target
Emergency heat from the thermostat: compressor off, strips on	☐ Works	
Aux heat drops out when the heat pump alone holds setpoint	☐ Yes	Aux only on second stage call or during defrost
Condensate from the outdoor coil drains and does not pool under the unit	☐ Yes	
Crankcase heater energized with compressor off	☐ Yes ☐ No heater	

6. Inverter, cold-climate and ductless units

✓	Task	Reading / note
☐	Manufacturer test run or diagnostic mode used for the mode check; error-code history read and cleared.	Codes [_____]
☐	No gauges on the ports unless capacity is short after coils and filters are clean. Charge is by weight on these systems.	☐ Not opened ☐ Opened, reason [_____]
☐	Communicating controls: indoor and outdoor units see each other; firmware or dip switches per the manual.	
☐	Ductless head: filters washed, blower wheel pulled or bibbed and cleaned, coil cleaned, drain pan and line flushed.	Heads done [__] of [__]
☐	Condensate pump (if fitted): reservoir cleaned, float tested, discharge line clear.	
☐	Line hide and wall sleeve sealed; line set insulation intact where it enters the house.	
☐	Outdoor unit on a wall bracket or riser above the local snow depth, drain path clear beneath it.	Height [____] in

7. Findings and recommendations

Item	What I found	Recommendation	Price after plan discount

Overall condition: ☐ Good ☐ Monitor ☐ Repair recommended ☐ Replacement conversation · Refrigerant added: [____] oz of [____] (reason: [_____])

8. Sign-off

Technician	Signature [_____] · Date [____]
Customer	I received a copy of this checklist and the recommendations above. Signature [_____] · Date [____]
For the office	Visit logged against agreement ☐ · Plan tier [____] · Next visit due [____] · Filter size confirmed in customer record ☐ · Nameplate photo attached ☐

Targets on this sheet come from ACCA Standard 4 (residential maintenance), HVAC School, Trane, Bryant, ENERGY STAR and BPA's PTCS reference. The manufacturer's charging chart and service manual win any disagreement. Sources and the reasoning behind each line: usedeepsel.com/heat-pump-maintenance-checklist